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NC DENR
Division of Waste Management - Solid Waste

# Environmental Monitoring Reporting Form

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

## Instructions:

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

## Solid Waste Monitoring Data Submittal Information

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

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

RECEIVED MAY - 9 2011 DENR SOLID WASTE SECTION

**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 | October 19-20, 2010 |

**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) Background sampling completed
☐ 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

C. Tyrus Clayton Jr. — 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: 2011.04.29 15:33:20 -04'00' — 4/20/11 — Affix NC Licensed/ Professional Geologist Seal

Signature — Date

PO Box 578, 46 West Washington St, Coats NC 27521

Facility Representative Address

C-2570

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

Revised 6/2009

Clayton Engineering
Civil & Environmental

April 20, 2011

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: OCTOBER 2010**
**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 October 2010 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 will be considered by Harnett County for the assessment of the Harnett County's Corrective Action Plan (CAP) for the groundwater contamination plume, downgradient of the existing landfill in accordance with North Carolina Solid Waste Management Rules *15A N.C.A.C. 13B, .1635, .1636, and .1637,* and *15A N.C.A.C. 13B .0547.*

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. T. CLAYTON, SR., P.E., INC.**

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

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

/attachments

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Phone: 910-897-7070 - Fax: 910-897-6767
Offices located in Coats and New Bern, North Carolina
License No. C-2570 - dba C. T. Clayton, Sr., P. E., Inc. - www.ctclayton.com

# STATISTICAL ANALYSIS/EVALUATION
# OCTOBER 2010
# 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**

Submitted on behalf of:
**Harnett County General Services**
**P.O. Box 940**
**Lillington, NC 27546**

**April 20, 2011**

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## EXECUTIVE SUMMARY

The October 2010 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.* Figures 1, 2A and 2B show the facility layout and various groundwater monitoring wells and piezometers locations, respectively.

Previously, 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. A new surface water sampling point, SWPT4, was added as of the April 2010 monitoring event, also associated with the C&D landfill.

Data from the October 2010 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, MW6B, 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. The casing for MW4 has been extended to account for flooding in the area. Monitoring well MW6 has also been replaced with MW6B, installed adjacent to the previous location. Due to the proximity of the replacement well to the original location, background monitoring is not planned for MW6B. 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) were 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. Four of these wells (MW11 - MW14) were incorporated into the statistical analysis of Set 1 as Subset 1N after their background sampling was completed in October 2008. Because MW15 had not been sampled in October 2007 with MW11 - MW14, April 2009 was its fourth sampling event, so MW15 has been incorporated as of April 2009.

Within 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.

As part of the groundwater monitoring plan associated with the SWS-approved CAP (as of November 18, 2009) Harnett County has installed (5) new monitoring wells, MW-53 and MW-56 through MW-59, downgradient of the apparent western boundary of the contamination plume as shown in Figure 2A. Once these wells undergo four (4) background sampling events beginning with October 2010, they will be added to Set 1 monitoring wells. Six new piezometers, PZ54 - PZ59 were also installed in this area.

MW9 was not sampled as it did not produce sufficient groundwater for purging and sample collection. The replacement of MW9 will be considered if this problem persists.

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. SWPT4 has been added as of the April 2010 sampling event and will be included in the statistical analysis of Set 3 once four background sampling events have been completed.

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 2.15 feet below the average groundwater level based on all sampling events, for each respective well.

As of October 2008, the groundwater elevation map (Figure 1) was updated with average contours based on data collected from January 2007 to May 2008, including data from MW11 - MW15. Table 1, Static Water Elevations, has been updated with data for MW6B, MW53, MW56-MW59, and the new casing elevation for MW4. In addition, Table 2, Groundwater Velocity Data, was updated to incorporate values for MW11 - MW15. Hydraulic conductivity testing for wells installed after MW11 - MW15 has not yet been conducted; therefore, newer wells are not included in the table which will be updated upon completion of these tests.

This report complies with the revised 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) were incorporated as of the October 2007 sampling event. The 15A NCAC 13B groundwater protection standards (GPS) are considered for those constituents that lack a 15A NCAC 02L.0202 North Carolina Groundwater Standards (NCGS).

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 GPS, 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.

The NCGS and the GPS have been amended as of November 30, 2010. This report incorporates the latest revisions. Historical data have been comprehensively re-evaluated taking into consideration the revised NCGS or GPS. Historic **detections** were compared to the latest revisions, particularly for cobalt and vanadium GPS, with exceedances highlighted in the data set tables and listed in this text. However, historic ***estimated*** concentrations which were **below previous GPS,** but **may exceed GPS of the latest revisions,** were not reconsidered.

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, MW10, and MW15 in Set 1 have statistically significant levels of one or more organics over background levels when compared with the background wells. The October 2010 results show that there were a similar number organics detected in concentrations greater than NCGS or GPS when compared to the number of organics detected above NCGS or GPS in April 2010. The October 2010 NCGS or GPS exceedances for organics include: benzene, 1,4-dichlorobenzene, 1,1-dichloroethane, tetrachloroethylene, trichloroethylene, and vinyl chloride in MW6B; benzene, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, trichloroethylene, and vinyl chloride in MW7B; benzene, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, trichloroethylene, and vinyl chloride in MW8; benzene and vinyl chloride in MW10; 1,1-dichloroethane, methylene chloride, tetrachloroethylene, and vinyl chloride in MW53; and benzene and vinyl chloride in MW57.

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 (PIA) calculated based on background concentrations, the result is not considered SSIOBL.

Using this PIA methodology, the following were not SSIOBL: beryllium for MW2, MW3, MW4, and MW12; barium for MW5, MW7B, and MW23B; cobalt for MW7B; and lead for MW7B. The PIA indicated the following as SSIOBL: barium for MW6B.

Cobalt and mercury in MW6B, mercury in MW7B, and barium in MW9 also show statistically significant levels through the TOP. However, cobalt was not detected during MW6B's background sampling, mercury was not included in either well's background sampling, and barium was not detected in MW9'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 in Set 1, representing a greater number of inorganics exceeding NCGS or GPS compared to the April 2010 results, primarily due to NCGS changes: cobalt in MW2 - MW8, MW15, MW53, and MW57 - MW59; lead in MW7B; and vanadium in all wells sampled in the set (MW9 was not sampled and vanadium is not sampled in MW23B). With the exception of cobalt in MW6B and lead in MW7B, inorganic exceedances were estimated concentration values. Cobalt and vanadium detections appear to be background, as these inorganics were not SSIOBL for any well, except for cobalt at MW6B.

In Set 2, no organics or inorganics are statistically significant. PIA methodology is now applied to barium at MW35. No organics were detected in October 2010, consistent with the results from recent sampling events. For inorganics, only barium was detected in Set 2. No constituents exceeded the NCGS for Set 2.

In Set 3, only cadmium and zinc were detected, representing an increase in detections compared to the last event. Estimated values of cobalt and vanadium were also reported. Toluene at SWPT3 continues to be statistically significant for Set 3, although it has not been detected since October 2008. The following inorganics exceeded NCGS or GPS during this sampling event, representing an increase compared to the last event: cobalt in SWPT2 and SWPT3, and vanadium at each SWPT (estimated results).

Details of the statistical procedures employed are discussed in Section III of this report, entitled Methodology. The results of the October 2010 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 has begun the implementation of corrective action program according to

North Carolina Solid Waste Management Rules *15A N.C.A.C. 13 B, .1637,* as per SWS review and approval. A Corrective Action Plan, dated December 2008, with revisions in February 2009 and October 2009, has been approved by the Solid Waste Section (SWS). A leachate management system was approved per the SWS review letter dated November 17, 2009. Groundwater extraction and phytoremediation were approved per the SWS review letter dated November 18, 2009.

- 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 will be considered by Harnett County for the assessment of CAP for the groundwater contamination plume, downgradient of the existing landfill implemented by Harnett County in accordance with North Carolina Solid Waste Management Rules *15A N.C.A.C. 13B, .1635, .1636, and .1637,* and *15A N.C.A.C. 13B .0547.*

- 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, and it now qualifies for the TOP. The prevalence of benzene detections will be observed in future sampling events. Tetrachloroethylene also qualifies for the TOP.

- Three of the organics mentioned in the previous paragraph, 1,1-dichloroethane, methylene chloride and trichloroethylene, have been consistently considered as statistically significant in the semi-annual assessments. Historically, only methylene chloride had been consistently detected in average concentrations that are about one order of magnitude greater than NCGS. Therefore, methylene chloride was considered the key organic constituent in the groundwater contamination plume, downgradient of the MSWLF. With the 2010 revisions to the NCGS, the average concentrations compared to NCGS for 1,1-dichloroethane are now very similar to the ratio for methylene chloride, so going forward **both 1,1-dichloroethane and methylene chloride** are now considered as a key constituents in the CAP assessment.

- 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. Vinyl chloride detections continued in October 2010. 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 had required 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 (MW6B, MW7, MW8, MW9, and MW10) are 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 April 2011.

- 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 April 2011.

- 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 April 2011. SWPT4 will continue to be sampled, and it will be included in the statistical analysis for Set 3 once four (4) background events are completed.

- Background sampling of new wells MW11 - MW14 has been be completed as of October 2008. These wells have been incorporated into the statistical analysis of Set 1 as a Subset 1N. Background sampling at MW15 has also been completed and this well has been incorporated into the statistical analysis (as part of Subset 1N with MW11-MW14) as of October 2009.

- As planned, six (6) new monitoring wells MW6B, MW53 and MW56 through MW59, were installed and developed. Five (5) of these wells, MW53 and MW56 through MW59, will undergo four (4) background sampling events which started in October 2010, and then they will be added to Set 1 monitoring wells.

- The proposed rule changes to 15A NCAC 13B .0101, .0563, .1604, .1626, .1632 - .1635, and .1637 will be reviewed and incorporated as necessary when finalized.

- Beginning in April 2011, tetrahydrofuran will be included in the analysis for all wells of Set 1 and all SWPTs of Set 3, per the SWS Memorandum dated June 25, 2010.

- As per current SWS reporting requirements this submittal includes:
    - (i) Environmental Monitoring Reporting Form (hardcopy)
    - (ii) Summary Table 4B with the parameters that exceed 2L NCGS or 13B GPS in October 2010
    - (iii) A hard copy 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 October 2010 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. Figure 1 shows the downgradient area of the MSWLF with approximate contamination plume boundaries as updated in the CAP of October 2009. 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. The table has been updated with data for MW6B, MW53, MW56-MW59, and the new casing elevation for MW4. Generally, groundwater levels during the October 2010 sampling event were approximately 2.15 feet below the average groundwater level based on all sampling events, for each respective well.

Table 2 shows estimated groundwater velocity data, previously calculated based on groundwater levels recorded in the October 1995 sampling event and updated to include average data from January 2007 to May 2008 for wells MW11 - MW15. Hydraulic conductivity testing for wells installed after MW11 - MW15 has not been conducted yet; therefore, these newer wells are not included in the table. This table also incorporates an 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, MW6B, MW7B, MW8, MW9, MW10, MW11, MW12, MW13, MW14, MW15, 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, October 2010 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 background 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, MW6B, MW7B, MW8, MW9, MW10, MW11, MW12, MW13, MW14, MW15, 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 after it reached 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 October 2010 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 had been added to this list due to its NCGS revision from 700 to 70 ug/l in 2006. Vinyl chloride had been added 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. The Figure shows that methylene chloride, 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.

Historically, methylene chloride had been detected most consistently with the highest ANR values, with a maximum of 31. Previously, methylene chloride was also the only SSIOBL organic constituent that had consistently been detected in the plume area in concentrations that exceed NCGS by about one order of magnitude. However, the NCGS for 1,1-dichloroethane was revised from 70 ug/l to 6 ug/l in 2010. As a result, the ANR values for 1,1-dichloroethane are now very similar to the ANR values for methylene chloride. With the NCGS revisions, it appears that 1,1-dichloroethane and methylene chloride can be considered the key organic constituents 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, barium exceeded NCGS in one sampling event with a concentration of 1.68 mg/l in January 1995. Cadmium exceeded NCGS in one sampling event with a concentration of 0.004 mg/l in January 1995. Chromium exceeded NCGS in four sampling events with concentrations of 0.018, 0.011, 0.013, and 0.02 in January and March 1995, April 1997, and April 1998. Cobalt exceeded 13B GPS in one sampling event with a concentration of 0.016 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. Vanadium exceeded 13B GPS in three sampling events with concentrations of 0.02 and 0.083 mg/l in October 1994 and January 1995, respectively, and an *estimated* result of 0.9 ug/l in October 2010. 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 ten 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, 0.002, and 0.001 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, and October 2009, 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 three sampling event with concentrations of 0.055, 0.011, and 0.032 mg/l in September 1995, April 1996, and April 1997. 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 ten events with concentrations of 0.021, 0.015, 0.021, 0.21, 0.044, 0.124, 0.06, 0.04, 0.08, and 0.1 mg/l in October and November 1994, September 1995, April 1996, April and October 1997, October 1998, and March and October 1999, respectively. Cobalt exceeded 13B GPS in two events with concentrations of 0.007 and 0.02 mg/l in January and September 1995, respectively. 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 in ten events with concentrations of 0.045, 0.026, 0.032, 0.08, 0.41, 0.087, 0.235, 0.11, 0.04, 0.13 mg/l in October and November 1994, January, March, and September 1995, April 1996, April and October 1997, October 1998, and March 1999, respectively. Vanadium also exceeded 13B GPS in seven events with *estimated* results of 6.6, 20.7, 19.9, 6.2, 6.5, 4.3, and 1.5 ug/l in October 2007, April 2008, October 2008, April and October 2009, and April and October 2010. There have been no detected organics in MW31. No constituents 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, 0.014, and 0.013 mg/l, in October and November 1994, January, March, and September 1995, April 1996, April and October 1997, October 1998, October 1999, April 2008, and October 2008, respectively.

*vanadium*: Vanadium was detected for ten sampling events for MW31 with concentrations of 0.045, 0.026, 0.032, 0.08, 041, 0.087, 0.235, 0.11, 0.04, and 0.13 mg/l, in October and November 1994, January, March, and September 1995, April 1996, April and October 1997, October 1998, and March 1999, 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, arsenic exceeded NCGS in one event, with a concentration of 0.033 in September 1995. Barium exceeded NCGS in one event, with a concentration of 0.82 in September 1995. Cadmium exceeded NCGS in two events, with concentrations of 0.003 and 0.004 mg/l in March and September 1995, respectively. Chromium exceeded NCGS in four events, with concentrations of 0.033, 0.02, 0.02, and 0.017 mg/l in November 1994, March and September 1995, and April 1997, respectively. Cobalt exceeded 13B GPS in three events with concentrations of 0.009, 0.01, and 0.07 mg/l in November 1994 and March and

September 1995, respectively, and with an *estimated* result of 1.3 ug/l in October 2010. 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. Vanadium exceeded the 13B GPS with concentrations of 0.24, 0.022, 0.07, 0.05 mg/l in October 1994 and January, March and September 1995, and with *estimated* results of 3.6 and 0.9 ug/l in October 2008 and October 2010, 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 metal in MW2 in October 2010:

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

*zinc:* Zinc resulted as not SSIOBL for MW2 using the Prediction Interval Analysis.

**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. Chromium exceeded NCGS in one event, with a concentration of 0.014 in April 2002. Cobalt exceeded 13B GPS with concentrations of 0.005 and 0.012 mg/l in November 1994 and January 1995 and with an *estimated* result of 2.6 ug/l in October 2010. Vanadium exceeded the 13B GPS with concentrations of 0.009 and 0.07 mg/l in October 1994 and March 1995 and with *estimated* results of 4.3 and 1.1 ug/l in October 2008 and October 2010, 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 MW3 in October 2010:

*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:** The casing for MW4 has been extended as of the October 2010 sampling event to account for flooding in the area of the well. MW4 has had a history of detections of the inorganics barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, vanadium, and zinc. Beryllium exceeded the 13B GPS with a result of 6.0 ug/l in October 2008. Chromium exceeded NCGS in three events, with concentrations of 0.024, 0.011, and 0.03 in November 1994, October 1996 and October 1999, respectively. Cadmium has exceeded NCGS in one event with a concentration of 0.004 mg/l in March 1995. Cobalt exceeded 13B GPS with concentrations of 0.011 and 0.01 mg/l in November 1994 and October 1999 and

with an *estimated* result of 1.5 ug/l in October 2010. Lead has exceeded NCGS in two events: 0.018 mg/l in both November 1994 and October 1996. Vanadium exceeded the 13B GPS with concentrations of 0.034 and 0.05 mg/l in November 1994 and October 1999 and with an *estimated* result of 0.7 ug/l in October 2010, respectively. Carbon disulfide and diethylphthalate have been the only detected organics for MW4, however no organics were detected in this latest sampling. Beryllium was the only constituent detected during this latest sampling event.

The following results were obtained for the detected metals in MW4 in October 2010:

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

**MW5:** Compliance well MW5 had shown above the detection limit inorganic concentrations for barium, cadmium, chromium, copper, lead, nickel, vanadium, and zinc. Of these, arsenic exceeded NCGS in one sampling event with a concentration of 0.02 mg/l in April 2000. Cobalt exceeded the 13B GPS with an *estimated* result of 4.7 ug/l in October 2010. Vanadium exceeded the 13B GPS with a concentration of 0.006 mg/l in October 1994 and *estimated* results of 4.0 and 0.8 ug/l in October 2008 and October 2010. 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. Only barium was detected during this latest sampling event.

The following results were obtained for the detected metal in MW5 in October 2010:

*barium:* Barium resulted as not SSIOBL for MW5 using the Prediction Interval Analysis.

**MW6:** Compliance well MW6B has replaced compliance well MW6 as of the October 2010 sampling event. Due to the proximity of the replacement well to the original location, background monitoring is not planned for MW6B and data from MW6B will be compared to historic detections at MW6. Compliance well MW6 and/or MW6B previously had inorganic detections for arsenic, barium, cadmium, chromium, cobalt, copper, lead, mercury, nickel, vanadium, and zinc.

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.

Chromium has exceeded NCGS in four sampling events with concentrations of 0.033, 0.02, 0.012, and 0.017 mg/l in November 1994, April 1996, April 1997, and April 2002, respectively.

Cobalt exceeded 13B GPS in 22 events with concentrations of 0.011, 0.009, 0.01, 0.01, 0.011, 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, 0.027, 0.02, 0.022, 0.034, and 0.029 mg/l in April and October 1997, March 1999, April 2000, April and October 2001, April 2002, April 2003, October 2003, April and October 2004, April and October 2005, April and October 2006, May and October 2007, April and October 2008, April and October 2009, and April and October 2010, respectively.

Lead has exceeded NCGS in five sampling events with concentrations of 0.019, 0.033, 0.037, 0.019, and 0.019 mg/l in November 1994, January and September 1995, April 1996, and April 2010, respectively.

Mercury exceeded NCGS in two sampling events with a concentration of 0.002 mg/l in October 1999.

Vanadium exceeded 13B GPS with concentrations of 0.008, 0.074, 0.026, and 0.055 mg/l in October and November 1994, January 1995, and April 1996, and with *estimated* results of 7.3, 5.5, 5.6, 24.3, and 6.9 ug/l in October 2007, October 2008, April 2009, and April and October 2010, respectively.

Zinc exceeded NCGS in one sampling event with a concentration of 91.5 mg/l in October 2004.

Barium, cobalt, and mercury were the detected inorganic constituents during this latest sampling event at MW6B.

Detected organics for MW6/MW6B include acetone, benzene, bis(2-ethylhexyl)phthalate, carbon disulfide, carbon tetrachloride 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 nine sampling events with concentrations of 2.7, 3.4, 9.5, 6.1, 4.2, 4.9, 2.4, 3.3, and 5.7 ug/l in March and October 1999, April 2001, October 2007, April and October 2008, April 2009, and April and October 2010, respectively.

Carbon tetrachloride exceeded NCGS in October 2009 with a concentration of 2.9 ug/L.

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, 7.7, 7.4 and 7 ug/l in April 2001, October 2005, October 2007, April 2008, and October 2010, respectively.

1,1-dichloroethane has exceeded NCGS in 24 sampling events with concentrations of 78.9, 51.7, 105, 87.1, 67, 66, 61, 80, 134, 160, 30.1, 88, 64, 41, 37, 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, 8.4, and 6.3 ug/l in October and November 1994, January, March, and September 1995, February, April and October 1996, April and October 1997, 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 and October 2005, April and October 2006, May and October 2007, April and October 2008, and October 2010, 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 three sampling events with *estimated* results of 0.6, 0.4, and 0.6 ug/l in October 2007, April 2008, and October 2010, respectively.

Methylene chloride has exceeded NCGS in 14 sampling events with concentrations of 66, 109, 47, 37, 34.8, 28.2, 12.8, 64.5, 20.1, 12.9, 8.8, 33, 9.0, and 6.3 ug/l in October 2000, April and October 2001, April and October 2002, October 2003, April 2004, October 2005, April and October 2006, May and October 2007, October 2008, and October 2009, respectively.

Tetrachloroethylene has exceeded NCGS in 16 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, 4.5, 3.8, 1.8, 5.3, 4.9, and 4.7 ug/l in October 1994, January and March 1995, October 1999, April 2001, October 2005, April and October 2006, May and October 2007, April and October 2008, April and October 2009, and April and October 2010, respectively.

Trichloroethylene has exceeded NCGS in 23 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, 5.9, 4.9, 4.7, 4.8, and 6.1 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, April and October 2008, October 2009, and April and October 2010, respectively.

Vinyl chloride has exceeded NCGS in 10 sampling events with concentrations of 22, 11.2, 8, 7.2, 6.3, 10.8, 2.6, 5.0, 6.2, and 5.2 ug/l in April 2001, April 2006, May and October 2007, April and October 2008, April and October 2009, and April 2010, respectively.

Bis(2-ethylhexyl)phthalate has exceeded NCGS in one sampling event with a concentration of 6.8 ug/l in July 1996.

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

The following results were obtained for the detected metals in MW6B in October 2010:

*barium:* Barium resulted as SSIOBL for MW6B using the Prediction Interval Analysis.

*cobalt:* Cobalt resulted as SSIOBL for MW6B using the Test of Proportions.

*mercury:* Mercury resulted as SSIOBL for MW6B using the Test of Proportions.

The following results were obtained for the detected organics in MW6B in October 2010:

| | |
|---|---|
| *benzene:* | Benzene resulted as SSIOBL for MW6 using the Test of Proportions. |
| *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 Test of Proportions. |
| *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. |
| *xylenes:* | Xylenes resulted as SSIOBL for MW6 using the Test of Proportions. |

**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.

Arsenic exceeded NCGS in three sampling events with concentrations of 0.033, 0.032, and 0.279 mg/l in September 1995, April 1997, and October 1997, respectively.

Barium exceeded NCGS in two sampling events with concentrations of 0.892 and 0.9 mg/l in October 1994 and March 1999, respectively.

Cadmium exceeded NCGS in two sampling events with concentrations of 0.004 in both September 1995 and April 1997.

Chromium exceeded NCGS in ten sampling events with concentrations of 0.03, 0.04, 0.09, 0.02, 0.021, 0.071, 0.011, 0.09, 0.014, and 0.013 mg/l in October 1994, March and September 1995, April and October 1996, April and October 1997, March 1999, October 2000, and April 2002, respectively.

Cobalt exceeded 13B GPS in 27 sampling events with concentrations of 0.146, 0.013, 0.04, 0.012, 0.018, 0.011, 0.07, 0.02, 0.019, 0.020, 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, 0.036, 0.024, 0.029, 0.021 mg/l in October 1994, March and September 1995, April 1996, April and October 1997, March and October 1999, October 2000, April and October 2001, October 2002, April and October 2003, April and October 2004, April and October 2005, April and October 2006, May and October 2007, April and October 2008, April and October 2009, and April 2010, respectively, and with an estimated result of 9.6 ug/l in October 2010.

Lead exceeded NCGS in 23 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, 0.031, 0.019, 0.061, 0.023, and 0.017 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, October 2007, October 2008, October 2009, and April and October 2010, 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 *estimated* results of 0.5, 0.4, 2.8, 1.1, and 0.8 ug/l in October 2007, April 2008, October 2008, October 2009, and April 2010, respectively.

Vanadium exceeded 13B GPS with concentrations of 0.197, 0.06, 0.23, 0.064, 0.054, 0.169, and 0.21 mg/l in October 1994, March and September 1995, April and October 1996, April 1997, and March 1999, respectively, and with *estimated* results of 14.2, 10.7, and 1.5 ug/l in October 2007, October 2009, and October 2010, respectively.

Barium, cadmium, lead, and mercury were the detected metals at MW7B during this latest sampling event.

Detected organics have included benzene, chlorobenzene, chloroethane, 1,4-dichlorobenzene, cis-1,2-dichloroethene, 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.

Benzene has exceeded NCGS in nine sampling events with concentrations of 1.1, 4.7, 4.1, 4.2, 5.8, 4.6, 9.4, 9.5, and 7.3 ug/l in March 1999, May 2007, October 2007, April and October 2008, April and October 2009, and April and October 2010 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 32 sampling events with concentrations of 262, 69.7, 52.4, 100, 92, 77, 100, 56, 30, 99.5, 110, 210, 170, 90, 176, 230, 87.1, 220, 141, 137, 113, 147, 22.5, 176, 174, 153, 129, 15.1, 114, 110, 136, and 140 ug/l in October and November 1994, March and September 1995, February, April and October 1996, April and October 1997, 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 and October 2005, April and October 2006, May and October 2007, October 2008 and April and October 2009, and April and October 2010, respectively.

1,2-dichloroethane has exceeded NCGS in two sampling events with a concentration of 8.7 ug/l in April 2003 and an *estimated* concentration of 0.4 ug/L in October 2008.

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 20 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, 45.5, 69, 80.9, 45.3, 79.9, and 60.8 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, May and October 2007, October 2008, April and October 2009, and April and October 2010, respectively.

Tetrachloroethylene exceeded NCGS in eight sampling events with concentrations of 9.0, 3.7, 3.2, 3.7, 3.3, 7.3, 4.9, and 4.7 ug/l in October 2005, October 2007, April and October 2008, April and October 2009, and April and October 2010, respectively.

Trichloroethylene exceeded NCGS in 22 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, 9.1, 8.8, 7.8, 10.9, 10.2, and 9.8 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, April and October 2008, April and October 2009, and April and October 2010, respectively.

Vinyl chloride has exceeded NCGS in eight sampling events with concentrations of 5, 5, 3.9, 8.2, 4.3, 6.4, 6.4, and 5.8 ug/l in May and October 2007, April and October 2008, April and October 2009, and April and October 2010, respectively.

Bis(2-ethylhexyl)phthalate exceeded NCGS in one sampling event with a concentration of 24 ug/l in September 1995.

1,1,2,2-tetrachloroethane exceeded 13B GPS with an *estimated* result of 1.0 ug/l in October 2008.

During this latest sampling event, benzene, chlorobenzene, 1,4-dichlorobenzene, cis-1,2-dichloroethene, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, trichloroethylene, and vinyl chloride were detected at MW7B.

The following results were obtained for the detected inorganics in MW7/7B in October 2010:

*barium:* Barium resulted as not SSIOBL for MW7/7B using the Prediction Interval Analysis.

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

*lead:* Lead resulted as not SSIOBL for MW7/7B using the Prediction Interval Analysis.

*mercury:* Mercury resulted as SSIOBL for MW7/7B using the Test of Proportions.

The following results were obtained for the detected organics in MW7/7B October 2010:

*benzene*: Benzene resulted as SSIOBL for MW7/7B using the Test of Proportions.

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

*1,4-dichlorobenzene:* 1,4-dichlorobenzene resulted as not SSIOBL for MW7/7B using the Qualitative Test.

*cis-1,2-dichloroethene:* cis-1,2-Dichloroethene as SSIOBL for MW7/7B using the Test of Proportions.

*1,1-dichloroethane:* 1,1-dichloroethane resulted as SSIOBL for MW7/7B using the Test of Proportions.

*methylene chloride:* Methylene chloride resulted as SSIOBL for MW7/7B using the Test of Proportions.

*tetrachloroethylene:* Tetrachloroethylene resulted as SSIOBL for MW7/7B using the Test of Proportions.

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

*vinyl chloride:* Vinyl chloride resulted as 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.

Arsenic exceeded NCGS in one sampling event with a concentration of 0.015 mg/l in April 1997.

Cadmium exceeded NCGS in two sampling events with a concentration of 0.002 mg/l in both November 1994 and April 1997.

Chromium exceeded NCGS in three sampling events with concentrations of 0.013, 0.111, and 0.022 mg/l in November 1994, April 1997, and October 2001.

Cobalt exceeded GPS in one sampling event with an *estimated* result of 1.3 ug/l in October 2010.

Lead exceeded NCGS in one sampling event with a concentration of 0.073 mg/l in April 1997.

Vanadium exceeded GPS with concentrations of 0.045, 0.41, and 0.063 mg/l in November 1994, April 1997, and October 2001, and an *estimated* result of 2.1 ug/l in October 2010.

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.

Mercury 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, vinyl chloride, and xylenes.

Benzene exceeded NCGS in nine sampling events, with concentrations of 2.1, 1.6, 2.6, 2.5, 2.9, 2.6, 25.2, 5.6, and 5.7 ug/l in October 1997, March 1999, October 2007, April and October 2008, April and October 2009, and April and October 2010, 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 29 sampling events with concentrations of 6.4, 11, 7.8, 45, 47, 10.2, 39, 37, 59, 92, 44, 135, 80, 76.8, 71.5, 59.2, 42.7, 31, 38.9, 59, 58.6, 63, 49.1, 54.3, 61.8, 32, 38, 38, and 44.6 ug/l in September 1995, February and April 1996, April and October 1997, April and October 1998, March and October 1999, April and October 2000, April 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, October 2008, April and October 2009, and April and October 2010, respectively.

1,2-dichloroethane exceeded NCGS in one sampling event, with an *estimated* concentration of 0.8 ug/l in October 2009.

1,1-dichloroethene exceeded NCGS in one sampling event, with a concentration of 81 ug/l in October 2001.

Methylene chloride exceeded NCGS in 26 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, 31, 48, 32.5, 32.3, 31.4, and 45 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, April and October 2008, April and October 2009, and April and October 2010, respectively.

Tetrachloroethylene exceeded NCGS in nine sampling events, with concentrations of 5.2, 5, 6.5, 5.5, 4.7, 5.7, 5.2, 5, and 4.2 ug/l in October 2006, May and October 2007, April and October 2008, April and October 2009, and April and October 2010, respectively.

Trichloroethylene exceeded NCGS in 10 sampling events, with concentrations of 6.8, 5.3, 4, 4.4, 4.8, 4.8, 41.1, 4.1, 4.3, and 4.6 ug/l in April and October 2001, May and October 2007, April and October 2008, April and October 2009, and April and October 2010, respectively.

Vinyl chloride exceeded NCGS with *estimated* results of 0.9 and 0.8 ug/l in October 2007 and October 2009, and results of 1.0, 1.5, 1.3, 1.6, and 1.5 ug/L in April and October 2008, April 2009, and April and October 2010, respectively.

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

The following result was obtained for the detected inorganic in MW8 in October 2010:

*mercury:* Mercury resulted as not SSIOBL for MW8 using the Test of Proportions.

The following results were obtained for the detected organics in MW8 in October 2010:

*benzene:* Benzene resulted as SSIOBL for MW8 using the Test of Proportions.

*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 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 Test of Proportions.

*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 four sampling events with concentrations of 0.038, 0.015,

0.082, and 0.017 mg/l in October 2001, April and October 2002, and April 2010, respectively. Mercury exceeded NCGS in two sampling events with concentrations of 0.005 and 0.0015 mg/l in October 2007 and October 2008. Vanadium exceeded 13B GPS with concentrations of 0.078, 0.189, and 0.039 mg/l in October 2001, October 2002, and April 2010, respectively, and with *estimated results* of 6.1 and 3.7 ug/l in April and October 2009.

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.

Benzene exceeded NCGS in 15 sampling events, with concentrations of 8.6, 11, 7.8, 8.2, 8.1, 6.4, 5.6, 5.2, 5, 5.4, 11.5, 8, 8.1, 7.2, and 8.7 ug/l in April and October 2001, April and October 2002, April and October 2003, April and October 2006, May and October 2007, April and October 2008, April and October 2009, and April 2010, 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 one sampling event, with a concentration of 6.6 ug/l in April 2008.

1,1-dichloroethane exceeded NCGS in 16 sampling events, with concentrations of 126, 219, 170, 202, 135, 122, 75.2, 81.9, 110, 103, 87, 74.7, 58.1, 68.1, 43.3, and 34.3 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, May and October 2007, October 2008, and April and October 2009, 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 17 sampling events, with concentrations of 195, 231, 272, 197, 166, 127, 67.9, 56.7, 75.7, 122, 96.4, 64.2, 49.6, 64.6, 53.2, 42.2, and 37.7 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, May and October 2007, October 2008, April and October 2009, and April 2010, respectively.

Tetrachloroethylene exceeded NCGS in nine sampling events, with concentrations of 5.3, 5.3, 5.1, 2.9, 4.4, 2.4, 1.4, 1.0, and 1.2 ug/l in October 2001, October 2002, April 2003, October 2007, April and October 2008, April and October 2009, and April 2010, 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, 5.9, and 4.2 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 and October 2008, respectively.

Vinyl chloride exceeded NCGS in seven sampling events, with concentrations of 9.1, 5.9, 6.5, 8.7, 6.4, 6.3, and 7.9 ug/l in May and October 2007, April and October 2008, April and October 2009, and April 2010, respectively.

MW9 was not sampled as it did not produce sufficient groundwater for purging and sample collection.

**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. Arsenic exceeded NCGS in one sampling event with a concentration of 0.016 in April 2009. Chromium exceeded NCGS in four sampling events with concentrations of 0.014, 0.013, 0.118, and 0.012 mg/l in April 2001, April and October 2002, and October 2005. Vanadium exceeded 13B GPS with concentrations of 0.013, 0.05, 0.006, 0.04, and 0.246 mg/l in October and November 1994, January and March 1995, and October 2002, respectively, and with *estimated* results of 12.2, 3.7, 5.2, 5.2, and 5.8 ug/l in October 2007, April 2008, and April and October 2009, and October 2010, respectively. Barium, copper, and mercury were the inorganics detected during this latest sampling event.

The following results were obtained for the detected inorganics in MW10 in October 2010:

*barium:* Barium resulted as not SSIOBL for MW10 using the Test of Proportions.

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

*mercury:* Mercury resulted as not SSIOBL for MW10 using the Test of Proportions.

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, toluene, trichloroethylene, vinyl chloride, and xylenes.

Acetone exceeded NCGS in one sampling event, with a concentration of 2,340 ug/l in April 2009 (apparent anomaly).

Benzene exceeded NCGS in 10 sampling events, with concentrations of 6.9, 7.3, 6.2, 4.6, 2.0, 4.5, 3.9, 7.0, 5.0, 6.7, and 1.2 ug/l in April and October 2001, April 2002, May and October 2007, April and October 2008, April and October 2009, and April and October 2010, respectively.

1,1-dichloroethane exceeded NCGS in 16 sampling events, with concentrations of 266, 109, 59.3, 42.6, 69.1, 606, 53.3, 34.9, 25.2, 19.1, 9.4, 10.9, 9.2, 7.5, 7.7, and 6.2 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, May and October 2007, April and October 2008, and April 2010, respectively.

Methylene chloride exceeded NCGS in 14 sampling events, with concentrations of 120, 310, 132, 59.3, 19.7, 48.7, 48, 67.7, 51.6, 27.1, 14.4, 10, 7.7, and 15.4 ug/l in April and

October 2001, April and October 2002, April and October 2003, April and October 2004, April 2005, April 2006, April and October 2009, and April 2010, respectively.

Tetrachloroethylene exceeded NCGS in seven sampling events, with concentrations of 12, 11, 13, 6.8, 7.1, 7.3, and1.1 ug/l in April and October 2001, April and October 2002, April and October 2003, and April 2010, 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 eight sampling events, with concentrations of 10, 1.4, 2, 3.3, 3.9, 2.0, 3.9, and 1.0 ug/l in April 2001, October 2007, April and October 2008, April and October 2009, and April and October 2010, respectively.

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

The following results were obtained for the detected organics in MW10 in October 2010:

| | |
|---|---|
| *benzene*: | Benzene resulted as SSIOBL for MW10 using the Test of Proportions. |
| *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. |
| *vinyl chloride*: | Vinyl chloride resulted as not SSIOBL for MW10 using the Qualitative Test. |

**MW11:** Compliance well MW11 was installed in 2006 and was sampled for the first time in May 2007. The data are now included in the statistical analysis. Detected metals in MW11 include zinc. Vanadium exceeded 13B GPS with *estimated* concentrations of 6.2, 6.1, 4.5, and 3.5 ug/l in October 2008, April and October 2009, and October 2010, respectively. No organics have been detected in MW11. No inorganics were detected during this latest sampling event.

**MW12:** Compliance well MW12 was installed in 2006 and was sampled for the first time in May 2007. The data are now included in the statistical analysis. Detected metals in MW12 include beryllium and zinc. Vanadium exceeded 13B GPS with *estimated* concentrations of 6.4, 8.0, 4.4, and 1.6 ug/l in October 2007, April and October 2009, and October 2010, respectively. No other inorganics have exceeded NCGS or 13B GPS. No organics have been detected in MW12. Beryllium was detected during this latest sampling event.

The following results was obtained for the detected inorganic in MW12 in October 2010:

*beryllium:* Beryllium resulted as not SSIOBL for MW12 using the Prediction Interval Analysis.

**MW13:** Compliance well MW13 was installed in 2006 and was sampled for the first time in May 2007. The data are now included in the statistical analysis. Detected metals in MW13 include zinc. Vanadium exceeded 13B GPS with an *estimated* result of 1.6 ug/l in October 2010. No organics have been detected in MW13. No inorganics were detected during this latest sampling event.

**MW14:** Compliance well MW14 was installed in 2006 and was sampled for the first time in May 2007. The data are now included in the statistical analysis. Detected metals in MW14 include zinc. Vanadium exceeded 13B GPS with *estimated* concentrations of 5.9 and 4.6 ug/l in April 2009 and October 2010, respectively. No other inorganics have exceeded NCGS or 13B GPS. Chloromethane is the only organic to have been detected in MW14. No constituents were detected during this sampling event.

**MW15:** Compliance well MW15 was installed in 2006 and was sampled for the first time in May 2007. The data are now included in the statistical analysis. Detected metals in MW15 include barium and beryllium. Cobalt exceeded GPS with an *estimated* result of 1.5 ug/l in October 2010. Vanadium exceeded GPS with an *estimated* result of 2.1 ug/l in October 2010. Acetone and toluene are the only organics detected in MW15. Barium and beryllium were the detected inorganics at MW15 during this event.

The following results was obtained for the detected inorganics in MW15 in October 2010:

*barium:* Barium resulted as not SSIOBL for MW15 using the Test of Proportions.

*beryllium:* Beryllium resulted as not SSIOBL for MW15 using the Test of Proportions.

Acetone and toluene were the detected organics at MW15 during this event.

*acetone:* Acetone resulted as not SSIOBL for MW15 using the Qualitative Test.

*toluene:* Toluene resulted as SSIOBL for MW15 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 has shown above the detection limit inorganic concentrations for barium, beryllium, cadmium, chromium, copper, lead, selenium, silver, zinc, and mercury. Of these, arsenic exceeded NCGS in two sampling events with concentrations of 0.064 and 0.015 in October 1997 and October 1999, respectively. Chromium exceeded NCGS in five sampling events with concentrations of 0.025, 0.012, 0.0105, 0.025, and 0.104 in November 1994, March 1995, February 1996, March 1999, and October 1999, respectively. 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. Silver exceeded NCGS in one sampling event with a concentration of 0.105 in January 1995.

Vanadium exceeded GPS with concentrations of 0.013, 0.05, 0.006, and 0.04 mg/l in October and November 1994 and January and March 1995, respectively. (Vanadium is no longer sampled at MW23B.) Mercury also exceeded NCGS in one sampling event with a concentration of 0.0017 mg/l in March 1999. No organics have been detected in MW23B. No inorganics were detected during this latest sampling event.

**MW53:** Compliance well MW53, associated with corrective action was installed in June 2010 and was sampled for the first time in October 2010. It will be included in the statistical analysis for Set 1 once four background events have been completed.

Copper has been the only detected metal in MW53. Cobalt exceeded GPS with an *estimated* result of 2.9 ug/l in October 2010. Vanadium exceeded GPS with an *estimated* result of 5.3 ug/l in October 2010. Detected organics at MW53 have included 1,4-dichlorobenzene, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, trichloroethylene, and vinyl chloride.

1,1-dichloroethane exceeded NCGS in one event with a concentration of 15.6 ug/l in October 2010.

Methylene chloride exceeded NCGS in one event with a concentration of 14.2 ug/l in October 2010.

Tetrachloroethylene exceeded NCGS in one event with a concentration of 1.2 ug/l in October 2010.

Vinyl chloride exceeded NCGS in one event with a concentration of 1.3 ug/l in October 2010.

**MW56:** Compliance well MW56, associated with corrective action was installed in June 2010 and was sampled for the first time in October 2010. It will be included in the statistical analysis for Set 1 once four background events have been completed.

Zinc has been the only detected metal in MW56. Cobalt exceeded GPS with an *estimated* result of 2.1 ug/l in October 2010. Vanadium exceeded GPS with an *estimated* result of 2.3 ug/l in October 2010. No organics have been detected at MW56.

**MW57:** Compliance well MW57, associated with corrective action was installed in June 2010 and was sampled for the first time in October 2010. It will be included in the statistical analysis for Set 1 once four background events have been completed.

Barium has been the only detected metal in MW57. Cobalt exceeded GPS with an *estimated* result of 3.3 ug/l in October 2010. Vanadium exceeded GPS with an *estimated* result of 3.7 ug/l in October 2010. Detected organics at MW57 have included benzene, cis-1,2-dichloroethene, trichloroethylene, and vinyl chloride.

Benzene exceeded NCGS in one event with a concentration of 2.0 ug/l in October 2010.

Vinyl chloride exceeded NCGS in one event with a concentration of 1.2 ug/l in October 2010.

**MW58:** Compliance well MW58, associated with corrective action was installed in June 2010 and was sampled for the first time in October 2010. It will be included in the statistical analysis for Set 1 once four background events have been completed.

No inorganics have been detected at MW58. Cobalt exceeded GPS with an *estimated* result of 1.1 ug/l in October 2010. Vanadium exceeded GPS with an *estimated* result of 4.5 ug/l in October 2010. No organics have been detected at MW58.

**MW59:** Compliance well MW59, associated with corrective action was installed in June 2010 and was sampled for the first time in October 2010. It will be included in the statistical analysis for Set 1 once four background events have been completed.

Barium, copper, and zinc have been the only detected metals in MW59. Cobalt exceeded GPS with an *estimated* result of 5.2 ug/l in October 2010. Vanadium exceeded GPS with an *estimated* result of 11.4 ug/l in October 2010. Benzene has been the only detected organic at MW59. It did not exceed NCGS in 2010.

**DATA SET 2**

In October 2010, 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. Chromium exceeded NCGS in three sampling events with concentrations of 0.019, 0.062, and 0.019 ug/l in April 1997, March 1999, and October 1999, respectively. Cobalt exceeded the current GPS with a concentration of 0.011 mg/l in October 1996. 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. Although no longer included in the sampling, vanadium exceeded the current GPS with concentrations of 0.005 and 0.012 mg/l in October and November 1994. 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, arsenic exceeded NCGS in one sampling event with a concentration of 0.015 mg/l in November 1994. Cadmium exceeded NCGS in two sampling events with concentrations of 0.004 and 0.025 mg/l in November 1994 and October 1998. Chromium exceeded NCGS in seven sampling events with concentrations of 0.133, 0.015, 0.022, 0.038, 0.041, 0.094, and 0.012 mg/l in November 1994, January and March 1995, March and October 1999, April 2003, and October 2003, respectively. Cobalt exceeded GPS with concentrations of 0.039, 0.013, and 0.009 mg/l in November 1994 and January and March 1995, respectively. Lead exceeded NCGS in nine sampling events with concentrations of 0.09, 0.02, 0.064, 0.033,

0.063, 0.029, 0.021, 0.024, 0.023 mg/l in November 1994, March 1995, March and October 1999, April 2003, April 2005, April 2006, April 2008, and October 2009, respectively. Vanadium exceeded GPS with concentrations of 0.005, 0.41, 0.045, and 0.09 mg/l in October and November 1994 and January and March 1995, respectively. The only detected organic constituent for MW32 was MEK (2-butanone) with a concentration of 471 ug/l in January 1995. No constituents were detected during the latest sampling event.

**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. Chromium exceeded NCGS in three events with concentrations of 0.012, 0.014, and 0.012 mg/l in November 1994, January 1995, and October 1998, respectively. Cobalt exceeded GPS with concentrations of 0.006 and 0.006 mg/l in 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. Vanadium exceeded GPS with concentrations of 0.008, 0.02, and 0.02 mg/l in October and November 1994 and January 1995, respectively. 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. Chromium exceeded NCGS in three events with concentrations of 0.017, 0.031, and 0.012 in October 1998 and March and October 1999, respectively. Lead exceeded NCGS in four events with concentrations of 0.02, 0.025, 0.02, and 0.06 mg/l in October 1998, March and October 1999, and April 2010, respectively. No constituents were detected in MW34 during the latest sampling event.

**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 three sampling events with concentrations of 0.0681, 0.021, and 0.016 mg/l in April 1997, October 1997, and October 1998, respectively. Barium has exceeded NCGS in three sampling events with concentrations of 2.06, 0.877, and 0.848 mg/l in April 1997, October 1997, and March 1999, respectively. 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 four sampling events with concentrations of 0.0119, 0.208, 0.148, and 0.035 mg/l in April and October 1997, March 1999, and October 1999, respectively. 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 October 2010:

*barium:* Barium resulted as not SSIOBL for MW35 using the Prediction Interval Analysis.

## 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. Arsenic exceeded NCGS in four sampling events with concentrations of 0.013, 0.047, 0.021, and 0.011 mg/l in September 1995, October 2008, and April and October 2009, respectively. Chromium exceeded NCGS in one sampling event with a concentration of 0.011 in April 1999. Cobalt exceeded current GPS with concentrations of 0.01, 0.031, 0.037 mg/l in October 1999, October 2008, April 2009, respectively. Lead exceeded NCGS with a concentration of 0.029 mg/l in April 2009. Vanadium exceeded 13B GPS with concentrations of 40 and 39 ug/l in October 2008 and April 2009, respectively, and with *estimated* concentrations of 18.8 and 2.7 ug/l in October 2009 and October 2010, respectively. The only organics detected at SWPT1 were toluene in October 1999 and chloromethane in October 2008. No constituents were detected at SWPT1 during this sampling event.

The following summarizes the detection history at SWPT1:

*arsenic:* Arsenic was detected in five sampling events for SWPT1 with concentrations of 0.007, 0.013, 0.047, 0.021, and 0.011 mg/l in October 1994, September 1995, October 2008, and April and October 2009, respectively.

*barium*: Barium was detected in six sampling events for SWPT1 with concentrations of 0.045, 0.033, 0.03, 0.029, 0.183, and 0.222 mg/l in October and November 1994, January and March 1995, October 2008, and April 2009, respectively.

*cadmium*: Cadmium was detected in three sampling events for SWPT1 with concentrations of 0.001 mg/l in September 1995, October 2003, and October 2010.

*chromium*: Chromium was detected in two sampling event for SWPT1 with concentrations of 0.002 and 0.011 mg/l in October 1994 and April 2009.

*cobalt*: Cobalt was detected in three sampling events for SWPT1 with a concentration of 0.010, 0.031, and 0.037 mg/l in October 1999, October 2008, ands April 2009, respectively.

*copper:* Copper was detected in three sampling events for SWPT1 with concentrations of 0.006, 0.006, and 0.015 mg/l in October 1994, March 1995, and April 2009, respectively.

*lead:* Lead was detected in two sampling events for SWPT1 with concentrations of 0.01, and 0.029 mg/l in October 2008 and April 2009.

*vanadium:* Vanadium was detected in two sampling events for SWPT1 with concentrations of 0.04 and 0.039 mg/l in October 2008 and April 2009, respectively.

*zinc*: Zinc was detected in 11 sampling events for SWPT1 with concentrations of 0.011, 0.016, 0.021, 0.013, 0.22, 0.04, 0.011, 0.022, 0.033, 0.073, and 0.016 mg/l in October and November 1994, January and March 1995, October 1997, October 1998, May 2007, April and October 2008, April 2009, and October 2010, respectively.

*chloromethane*: Chloromethane was detected in one sampling event for SWPT1 with a concentration of 1.3 ug/l in October 2008.

*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. Arsenic exceeded NCGS in one sampling event with a concentration of 0.012 in October 2008. Cobalt exceeded 13B GPS with a concentration of 0.01 mg/l in October 1999 and *estimated* concentration of 5.2 ug/l in October 2008, October 2009, and April and October 2010, respectively. Vanadium exceeded 13B GPS with *estimated* concentrations of 23.1, 7.1, 7.4, and 4.0 ug/l in October 2008, October 2009, and April and October 2010, respectively. Detected organics include toluene. Zinc was detected during the latest sampling event.

The following result was obtained for the detected inorganic in SWPT2 in October 2010:

*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, arsenic exceeded NCGS in two sampling events with concentrations of 0.023 and 0.011 mg/l in September 1995 and October 1998, respectively. Cadmium exceeded NCGS in two sampling events with concentrations of 0.0045 and 0.006 mg/l in October 1994 and September 1995. Chromium exceeded NCGS in one sampling event with a concentration of 0.02 mg/l in April 1998. Cobalt exceeded current GPS with concentrations of 0.006 and 0.002 mg/l in October 1994 and October 2002, respectively. Lead exceeded NCGS in one sampling event with a concentration of 0.02 mg/l in October 1998. Vanadium exceeded 13B GPS with *estimated* values of 3.9, 13.7, 4.7, and 1.7 ug/l in April 2008, October 2008, and April and October 2010, respectively. 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 detected during the latest sampling event.

The following result was obtained for the detected inorganic in SWPT3 in October 2010:

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

**SWPT4:** SWPT4 is a compliance surface water monitoring point associated with the proposed new C&D landfill. It has been included in sampling events as of April 2010. It will be included in the Set 3 analysis once four background sampling events have been completed.

Zinc have been the only detected metals in MW59. Cobalt exceeded GPS with an *estimated* result of 3.0 ug/l in October 2010. Vanadium exceeded GPS with an *estimated* result of 5.4 ug/l in October 2010. No inorganics have been detected at SWPT4. Zinc was the only constituent detected during this sampling event.

# TABLES

# 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 | 07-Jul-95 |
| MW1 | 235.67 | 234.27 | no schematic | | - | 210.37 | 211.17 | 211.97 | 212.07 | 210.77 | 210.67 | 210.67 | 215.67 |
| MW2 | 198.01 | 196.01 | 181.01 | 166.01 | - | 182.01 | 182.21 | 182.09 | 183.67 | 182.85 | 181.89 | 182.01 | 184.01 |
| MW3 | 182.16 | 180.16 | 171.16 | 161.16 | - | 175.66 | 176.36 | 176.76 | 176.66 | 175.91 | 175.49 | 176.56 | 178.16 |
| MW3R | 181.52 | 179.44 | 168.52 | 158.52 | - | - | - | - | - | - | - | - | - |
| MW4 | 184.20 | 176.12 | 167.12 | 157.12 | - | 173.72 | 174.12 | 173.02 | 175.22 | 173.82 | 173.89 | 175.02 | 174.72 |
| MW5 | 188.75 | 186.75 | 167.75 | 152.75 | - | 173.45 | 173.15 | 172.75 | 172.75 | 172.08 | 172.25 | 173.75 | 173.75 |
| MW6 | 208.60 | 205.60 | no schematic | | - | 192.20 | 192.10 | 192.25 | 194.65 | 193.70 | 193.60 | 192.60 | 194.60 |
| MW6B | 209.73 | 207.24 | 199.73 | 189.73 | - | - | - | - | - | - | - | - | - |
| 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 | - | 201.31 |
| 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 | 191.31 |
| MW23B | 169.98 | 168.37 | 154.97 | 144.97 | 163.00 | 163.98 | 164.38 | 164.77 | 164.83 | 164.73 | 164.73 | - | 165.28 |
| MW31 | 233.30 | 231.90 | 203.20 | 193.20 | 212.00 | 210.80 | 211.60 | 211.30 | 212.80 | 212.22 | 210.97 | - | 212.30 |
| MW32 | 183.84 | 182.20 | 148.81 | 138.81 | 175.60 | 174.34 | 175.64 | 175.24 | 176.71 | 174.34 | 174.67 | - | 176.34 |
| 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 | | - | - | - | - | - | - | - | - | - |
| MW53 | 209.59 | 207.18 | 204.59 | 194.59 | - | - | - | - | - | - | - | - | - |
| MW56 | 198.11 | 195.59 | 194.11 | 184.11 | - | - | - | - | - | - | - | - | - |
| MW57 | 201.33 | 198.88 | 197.33 | 187.33 | - | - | - | - | - | - | - | - | - |
| MW58 | 193.35 | 191.03 | 188.35 | 178.35 | - | - | - | - | - | - | - | - | - |
| MW59 | 211.56 | 209.01 | 206.56 | 196.56 | - | - | - | - | - | - | - | - | - |
| Averages | | | | | | 185.21 | 185.43 | 185.30 | 186.50 | 187.13 | 186.96 | 185.96 | 187.95 |

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 replaced MW7 as of Sept. 1995. MW3R replaced MW3 as of Oct. 2005. MW6B replaced MW6 as of June 2010.

## Table 1
## Static Water Elevations for
## Dunn/Erwin Landfill

| Monitor Well | Static Water Elevations | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 | 13-Oct-99 | 20-Apr-00 |
| MW1 | 209.92 | 211.07 | 209.87 | 211.37 | 213.25 | 212.10 | 211.10 | 210.12 | 210.42 | 210.56 | 212.21 | 210.50 | 211.70 |
| MW2 | 181.81 | 181.82 | 181.91 | 181.51 | 183.89 | 183.07 | 182.52 | 182.01 | 183.71 | 182.36 | 183.91 | 184.02 | 183.67 |
| MW3 | 175.96 | 176.05 | 176.16 | 175.96 | 177.25 | 177.22 | 177.80 | 176.03 | 176.77 | 176.62 | 176.91 | 177.37 | 176.85 |
| MW3R | - | - | - | - | - | - | - | - | - | - | - | - | - |
| MW4 | 173.72 | 173.7 | 173.82 | 173.92 | 174.81 | 174.61 | 174.97 | 172.91 | 175.04 | 174.09 | 175.47 | 175.78 | 174.67 |
| MW5 | 173.15 | 173.47 | 173.45 | 173.55 | 172.76 | 172.62 | 173.85 | 172.50 | 173.76 | 173.55 | 173.88 | 174.40 | 172.67 |
| MW6 | 194.00 | 193.48 | 193.30 | 193.50 | 193.11 | 193.21 | 193.77 | 193.09 | 192.45 | 192.08 | 192.64 | 193.21 | 193.05 |
| MW6B | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 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 | 193.02 | 191.46 |
| MW8 | 201.91 | 201.46 | 201.36 | 201.11 | 201.39 | 201.68 | 201.36 | 201.31 | 200.97 | 201.67 | 202.79 | 202.77 | 203.01 |
| MW9 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| MW10 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| MW11 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| MW12 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| MW13 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| MW14 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| MW15 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| MW16 | 193.01 | 193.26 | 183.51 | 191.61 | - | 189.96 | 193.29 | 190.70 | 192.79 | 192.96 | 190.01 | 192.91 | 190.49 |
| MW23B | 164.48 | 164.85 | 164.88 | 164.60 | - | 165.40 | 166.80 | 164.99 | 164.92 | 164.33 | 164.61 | 164.84 | 164.14 |
| MW31 | 210.90 | 210.59 | 210.90 | 211.00 | 212.51 | 210.40 | 213.94 | 212.84 | 209.93 | 210.48 | 211.00 | 211.60 | 209.98 |
| MW32 | - | 175.79 | - | 176.14 | - | 176.09 | 176.46 | 175.48 | 176.15 | 176.09 | 175.25 | 176.75 | 175.63 |
| MW33 | - | 163.96 | 163.88 | 163.68 | - | 165.63 | 166.04 | 164.74 | 165.62 | 163.95 | 165.71 | 167.33 | 165.59 |
| MW34** | - | - | - | - | - | - | 190.88 | 188.76 | 190.93 | 190.90 | 189.20 | 191.34 | 189.21 |
| MW35** | - | - | - | - | - | - | 178.59 | 176.78 | 176.71 | 176.12 | 176.40 | 176.63 | 175.93 |
| MW53 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| MW56 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| MW57 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| MW58 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| MW59 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Averages | 188.57 | 185.89 | 186.35 | 186.19 | 191.52 | 185.94 | 186.47 | 185.16 | 185.58 | 185.30 | 185.52 | 186.16 | 185.20 |

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 replaced MW7 as of Sept. 1995. MW3R replaced MW3 as of Oct. 2005. MW6B replaced MW6 as of June 2010.

# Table 1
## Static Water Elevations for Dunn/Erwin Landfill

| Monitor Well | Static Water Elevations | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 | 18-Oct-05 | 19-Apr-06 | 10/23-24/06 |
| MW1 | 210.43 | 210.41 | 210.92 | 211.41 | 210.83 | 211.57 | 211.22 | 210.99 | 211.53 | 211.42 | 208.53 | 209.70 | 209.41 |
| MW2 | 183.69 | 183.49 | 183.34 | 183.62 | 183.46 | 183.01 | 183.25 | 182.82 | 183.14 | 183.52 | 181.59 | 182.07 | 181.99 |
| MW3 | 176.70 | 176.70 | 176.95 | 177.21 | 177.28 | 177.84 | 177.77 | 177.66 | 177.88 | - | - | - | - |
| MW3R | - | - | - | - | - | - | - | - | - | - | 177.12 | 175.64 | 176.43 |
| MW4 | 174.66 | 174.54 | 174.73 | 175.19 | 175.57 | 175.68 | 175.78 | 176.98 | 176.58 | 174.35 | 174.45 | 174.33 | 174.88 |
| MW5 | 173.90 | 172.66 | 174.10 | 173.14 | 174.40 | 173.55 | 175.15 | 175.61 | 176.26 | 173.18 | 174.19 | 172.64 | 173.98 |
| MW6 | 192.74 | 192.62 | 192.70 | 192.68 | 192.15 | 194.11 | 192.75 | 192.81 | 192.95 | 193.12 | 191.99 | 192.50 | 192.17 |
| MW6B | - | - | - | - | - | - | - | - | - | - | - | - | - |
| MW7 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| MW7B | 193.38 | 192.96 | 193.87 | 193.46 | 192.67 | 195.73 | 194.22 | 194.32 | 194.44 | 194.32 | 193.02 | 193.29 | 193.23 |
| MW8 | 209.31 | 203.09 | 209.72 | 203.06 | 202.65 | 203.98 | 203.00 | 202.96 | 202.53 | 202.95 | 201.41 | 202.18 | 201.95 |
| MW9 | - | 192.81 | 193.60 | 193.21 | 192.23 | 195.59 | 193.78 | 194.01 | 194.12 | 194.09 | 192.51 | 192.89 | 192.73 |
| MW10 | - | 193.16 | 193.28 | 192.98 | 192.04 | 195.54 | 192.90 | 193.53 | 193.65 | 194.06 | 191.95 | 192.66 | 191.46 |
| MW11 | - | - | - | - | - | - | - | - | - | - | - | 185.43 | 184.74 |
| MW12 | - | - | - | - | - | - | - | - | - | - | - | 166.16 | 165.65 |
| MW13 | - | - | - | - | - | - | - | - | - | - | - | 162.71 | 163.71 |
| MW14 | - | - | - | - | - | - | - | - | - | - | - | 161.61 | 164.44 |
| MW15 | - | - | - | - | - | - | - | - | - | - | - | 182.45 | 178.36 |
| MW16 | 188.19 | 186.60 | 188.28 | 186.74 | 188.05 | 187.78 | 188.61 | 187.06 | 189.07 | 187.37 | 186.87 | 186.75 | 188.36 |
| MW23B | 164.67 | 164.06 | 164.39 | 164.46 | 164.58 | 164.35 | 164.18 | 164.23 | 163.67 | 163.94 | 163.67 | 163.96 | 163.87 |
| MW31 | 210.96 | 210.27 | 211.21 | 210.12 | 210.40 | 211.03 | 210.55 | 209.86 | 211.30 | 211.02 | 209.58 | 209.72 | 210.45 |
| MW32 | 181.16 | 178.28 | 181.16 | 178.21 | 181.12 | 178.80 | 181.02 | 178.31 | 181.06 | 180.40 | 180.81 | 178.01 | 180.64 |
| MW33 | 165.59 | 165.63 | 164.43 | 165.20 | 164.68 | 166.21 | 164.08 | 164.53 | 164.45 | 165.65 | 163.66 | 164.44 | 163.92 |
| MW34** | 191.09 | 189.03 | 191.01 | 189.38 | 191.41 | 189.38 | 190.85 | 188.92 | 190.89 | 189.14 | 190.85 | 189.13 | 190.96 |
| MW35** | 176.46 | 175.85 | 176.18 | 176.25 | 176.37 | 176.14 | 175.97 | 176.02 | 175.46 | 175.73 | 175.46 | 175.75 | 175.66 |
| MW53 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| MW56 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| MW57 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| MW58 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| MW59 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Averages | 186.20 | 186.01 | 187.05 | 186.25 | 186.46 | 187.08 | 186.77 | 186.51 | 187.00 | 187.14 | 185.74 | 182.46 | 182.68 |

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 replaced MW7 as of Sept. 1995. MW3R replaced MW3 as of Oct. 2005. MW6B replaced MW6 as of June 2010.

# Table 1
## Static Water Elevations for Dunn/Erwin Landfill

| Monitor Well | Static Water Elevations | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 02-May-07 | 24-Oct-07 | 23-Apr-08 | 16-Oct-08 | 22-Apr-09 | 22-Oct-09 | ######## | 20-Oct-10 | Min | Max | Ave | Range | Std Dev |
| MW1 | 209.64 | 208.61 | 209.79 | 209.76 | 210.34 | 209.74 | 210.58 | 209.83 | 208.53 | 215.67 | 210.81 | 7.14 | 1.2 |
| MW2 | 182.33 | 179.47 | 183.19 | 182.31 | 182.59 | 181.62 | 183.08 | 182.84 | 179.47 | 184.02 | 182.70 | 4.55 | 0.9 |
| MW3 | - | - | - | - | - | - | - | - | 175.49 | 178.16 | 176.82 | 2.67 | 0.7 |
| MW3R | 175.72 | 171.57 | 176.30 | 176.78 | 176.92 | 177.24 | 176.59 | 178.65 | 171.57 | 178.65 | 176.27 | 7.08 | 1.8 |
| MW4 | 174.39 | 171.22 | 174.97 | 176.16 | 177.07 | 177.11 | 174.8 | - | 171.22 | 177.11 | 174.74 | 5.89 | 1.1 |
| MW5 | 172.81 | 171.05 | 173.29 | 176.16 | 175.86 | 176.93 | 173.39 | 177.94 | 171.05 | 177.94 | 173.76 | 6.89 | 1.4 |
| MW6 | 191.75 | 191.84 | 193.61 | 192.48 | 193.59 | 192.22 | 193.00 | - | 191.75 | 194.65 | 192.94 | 2.90 | 0.7 |
| MW6B | - | - | - | - | - | - | - | 192.60 | To be added once more data are available | | | | |
| MW7 | - | - | - | - | - | - | - | - | 193.02 | 195.42 | 193.95 | 2.40 | 0.9 |
| MW7B | 194.32 | 192.73 | 193.19 | 193.45 | 194.89 | 193.58 | 194.78 | 193.88 | 191.46 | 197.08 | 193.99 | 5.62 | 1.1 |
| MW8 | 202.15 | 201.13 | 203.23 | 202.68 | 202.92 | 201.80 | 202.86 | 202.45 | 200.51 | 209.72 | 202.43 | 9.21 | 1.8 |
| MW9 | 194.02 | 192.21 | 193.01 | 193.09 | 194.71 | 193.16 | 207.84 | - | 192.21 | 207.84 | 194.19 | 15.63 | 3.4 |
| MW10 | 193.70 | 191.86 | 194.30 | 193.08 | 194.81 | 192.75 | 203.75 | 202.60 | 191.46 | 203.75 | 194.20 | 12.29 | 3.2 |
| MW11 | 184.36 | 183.89 | 185.99 | 184.89 | 185.33 | 184.58 | 185.12 | 184.97 | 183.89 | 185.99 | 184.93 | 2.10 | 0.6 |
| MW12 | 166.23 | 163.37 | 166.25 | 166.59 | 167.80 | 167.22 | 167.38 | 166.90 | 163.37 | 167.80 | 166.36 | 4.43 | 1.2 |
| MW13 | 162.48 | 162.48 | 162.60 | 164.06 | 162.78 | 164.16 | 162.64 | 163.68 | 162.48 | 164.16 | 163.13 | 1.68 | 0.7 |
| MW14 | 163.61 | 160.85 | 163.61 | 164.77 | 163.42 | 164.24 | 163.02 | 163.89 | 160.85 | 164.77 | 163.35 | 3.92 | 1.2 |
| MW15 | 180.58 | - | 182.70 | 180.04 | 181.07 | 178.75 | 181.02 | 179.44 | 178.36 | 182.70 | 180.49 | 4.34 | 1.5 |
| MW16 | 187.21 | 187.62 | 188.23 | 188.67 | 187.28 | 188.71 | 187.31 | 188.63 | 183.51 | 193.29 | 189.40 | 9.78 | 2.3 |
| MW23B | 163.70 | 160.58 | 163.99 | 164.29 | 164.33 | 164.20 | 164.25 | 164.27 | 160.58 | 166.80 | 164.35 | 6.22 | 0.9 |
| MW31 | 210.74 | 208.96 | 210.35 | 210.99 | 210.81 | 210.61 | 211.11 | 211.30 | 208.96 | 213.94 | 210.99 | 4.98 | 1.0 |
| MW32 | 178.74 | 180.63 | 178.68 | 180.94 | 178.53 | 180.86 | 178.38 | 181.08 | 174.34 | 181.16 | 177.94 | 6.82 | 2.3 |
| MW33 | 164.98 | 162.86 | 167.04 | 164.55 | 165.58 | 163.95 | 165.69 | 165.34 | 162.86 | 167.53 | 164.94 | 4.67 | 1.1 |
| MW34** | 189.29 | 190.97 | 189.81 | 191.55 | 189.54 | 191.25 | 189.35 | 191.64 | 188.76 | 191.64 | 190.24 | 2.88 | 1.0 |
| MW35** | 175.49 | 172.37 | 175.78 | 176.08 | 176.12 | 175.99 | 176.04 | 176.06 | 172.37 | 178.59 | 176.01 | 6.22 | 0.9 |
| MW53 | - | - | - | - | - | - | - | 187.59 | To be added once more data are available | | | | |
| MW56 | - | - | - | - | - | - | - | 195.35 | | | | | |
| MW57 | - | - | - | - | - | - | - | 192.79 | | | | | |
| MW58 | - | - | - | - | - | - | - | 190.93 | | | | | |
| MW59 | - | - | - | - | - | - | - | 206.39 | | | | | |
| Averages | 182.65 | 181.25 | 183.18 | 183.34 | 183.47 | 183.21 | 184.18 | 186.04 | 180.75 | 186.60 | 183.29 | 5.85 | 1.38 |

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 replaced MW7 as of Sept. 1995. MW3R replaced MW3 as of Oct. 2005. MW6B replaced MW6 as of June 2010.

# 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 | *179.67* | 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 | *181.61* | 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 | *194.91* | 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 | *190.47* | ND | ND | ND | ND | ND | ND | ND | ND |
| GP-25-W | 200.69 | 196.45 | 191.45 | 186.45 | *191.65* | ND | ND | ND | ND | ND | ND | ND | ND |
| GP-27-W | 207.41 | 203.01 | 195.01 | 185.01 | *190.91* | ND | ND | ND | ND | ND | ND | ND | ND |
| GP-28-W | 204.26 | 199.79 | 194.79 | 184.79 | *192.03* | ND | ND | ND | ND | ND | ND | ND | ND |
| GP-30-W | 208.76 | 204.44 | 198.44 | 188.44 | *192.83* | ND | ND | ND | ND | ND | ND | ND | ND |
| GP-31-W | 199.44 | 195.24 | 190.24 | 185.24 | *190.88* | ND | ND | ND | ND | ND | ND | ND | ND |
| GP-33-W | 212.15 | 207.94 | 195.94 | 185.94 | *192.03* | ND | ND | ND | ND | ND | ND | ND | ND |
| GP-34-W | 210.15 | 205.77 | 197.77 | 187.77 | *192.60* | ND | ND | ND | ND | ND | ND | ND | ND |
| GP-35-W | 193.87 | 189.65 | 187.65 | 182.65 | *189.57* | ND | ND | ND | ND | ND | ND | ND | ND |
| GP-36-W | 211.71 | 207.34 | 195.34 | 185.34 | *192.35* | ND | ND | ND | ND | ND | ND | ND | ND |
| GP-37-W | 197.28 | 193.08 | 188.08 | 183.08 | *188.26* | ND | ND | ND | ND | ND | ND | ND | ND |
| GP-38-W | 215.79 | 211.09 | 206.09 | 196.09 | *199.75* | ND | ND | ND | ND | ND | ND | ND | ND |
| PZ-50 | 205.53 | 204.00 | 195.53 | 185.53 | *190.03* | ND | ND | ND | ND | ND | ND | ND | ND |
| PZ-51 | 179.75 | 177.24 | 168.75 | 153.75 | *169.38* | ND | ND | ND | ND | ND | ND | ND | ND |
| PZ-52 | 198.49 | 197.00 | 185.49 | 175.49 | *178.71* | ND | ND | ND | ND | ND | ND | ND | ND |
| PZ-53 | 201.27 | 198.96 | 186.27 | 181.27 | *183.83* | ND | ND | ND | ND | ND | ND | ND | ND |
| PZ-54 | 214.68 | 212.28 | 204.68 | 194.68 | *To be added once more data available* | ND | ND | ND | ND | ND | ND | ND | ND |
| PZ-55 | 212.43 | 210.08 | 205.43 | 195.43 | | ND | ND | ND | ND | ND | ND | ND | ND |
| PZ-56 | 205.62 | 203.28 | 198.62 | 188.62 | | ND | ND | ND | ND | ND | ND | ND | ND |
| PZ-57 | 204.75 | 202.37 | 194.75 | 184.75 | | ND | ND | ND | ND | ND | ND | ND | ND |
| PZ-58 | 205.51 | 202.80 | 198.51 | 188.51 | | ND | ND | ND | ND | ND | ND | ND | ND |
| PZ-59 | 205.71 | 203.22 | 195.71 | 185.71 | | ND | ND | ND | ND | ND | ND | ND | ND |
| *Average Surficial* | *NA* | *NA* | *NA* | *NA* | *186.13* | *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 | *173.24* | 173.13 | 171.86 | 171.17 | 170.30 | 170.16 | 170.18 | ND | 170.48 |
| 46D | 221.38 | 218.20 | 179.20 | 169.20 | *193.35* | ND | ND | ND | ND | 193.71 | 192.88 | 195.88 | 194.78 |
| 47D | 190.10 | 189.16 | 145.20 | 135.20 | *162.99* | 163.39 | 161.38 | 161.13 | 161.03 | ND | 165.30 | 165.50 | 160.8 |
| *Average Deep* | *NA* | *NA* | *NA* | *NA* | *173.71* | *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

# 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 | 10/15/2002 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 40S | 167.57 | 167.77 | 156.72 | Dry | Dry | Dry | 167.11 | ND | ND | ND | ND | ND |
| 41S | 192.18 | 194.28 | 191.13 | 192.22 | 193.93 | 192.76 | 192.58 | ND | ND | ND | ND | ND |
| 42S | 164.65 | 163.85 | ND | ND | ND | ND | 168.05 | 154.20 | 160.44 | 154.91 | 157.11 | 164.06 |
| 44S | 180.3 | 180.4 | 172.88 | 180.95 | 181.85 | 181.18 | 180.01 | 180.91 | 181.31 | 180.67 | 181.06 | 179.82 |
| 45S | 179.81 | 180.01 | 179.11 | 180.76 | 182.63 | 181.22 | 179.91 | 181.03 | 181.22 | 180.41 | 180.82 | 179.11 |
| 46S | 194.47 | 193.97 | 192.15 | 192.37 | 196.41 | ND | 196.09 | ND | ND | 193.39 | 192.98 | 192.00 |
| 47S | 179.49 | 179.89 | 180.42 | 184.53 | ND | 184.93 | 182.67 | 178.85 | 183.14 | 182.07 | 183.84 | 180.63 |
| 48S | 196.27 | 196.07 | ND | ND | ND | ND | ND | 192.63 | 195.87 | 195.77 | 193.55 | 195.52 |
| GP-24-W | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 190.09 | ND |
| GP-25-W | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 190.95 | ND |
| GP-27-W | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 190.10 | ND |
| GP-28-W | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 190.79 | ND |
| GP-30-W | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 191.61 | ND |
| GP-31-W | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 190.34 | ND |
| GP-33-W | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 190.74 | ND |
| GP-34-W | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 191.52 | ND |
| GP-35-W | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 189.35 | ND |
| GP-36-W | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 190.84 | ND |
| GP-37-W | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 187.98 | ND |
| GP-38-W | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 196.89 | ND |
| PZ-50 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PZ-51 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PZ-52 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PZ-53 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PZ-54 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PZ-55 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PZ-56 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PZ-57 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PZ-58 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PZ-59 | ND | 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* | *181.86* |
| 42D | 147.36 | 147.26 | ND | ND | ND | ND | 167.96 | 157.87 | 160.39 | 158.37 | 159.98 | 152.48 |
| 44D | 171.18 | 171.28 | 179.57 | 173.11 | 174.02 | 172.59 | 174.03 | 172.17 | 173.61 | 174.32 | 173.55 | 174.63 |
| 46D | 194.28 | 194.08 | 193.4 | 191.98 | 192.65 | 193.33 | 192.53 | 191.65 | 192.83 | 195.13 | 192.38 | 192.16 |
| 47D | 161.10 | 160.60 | 162.22 | 161.64 | ND | 161.91 | 162.52 | 162.19 | 162.9 | 163.21 | 163.13 | 163.45 |
| *Average Deep* | *168.48* | *168.31* | *178.40* | *175.58* | *183.34* | *175.94* | *174.26* | *170.97* | *172.43* | *172.76* | *172.26* | *170.68* |
| PB9 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

NOTE: Indicates LOW Water
Indicates HIGH Water
ND= No Data

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

| Piez. No. | Date Sampled 4/30/2003 | 10/28/2003 | 4/21/2004 | 10/27/2004 | 4/25/2005 | 10/17/2005 | 4/18/2006 | 10/23/2006 | 5/1/2007 | 10/23/2007 | 4/22/2008 | 10/15/2008 | 4/22/2009 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 40S | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 41S | 194.23 | 191.58 | 192.27 | 192.35 | 193.22 | 190.71 | 191.80 | 191.58 | 192.58 | 190.37 | 194.38 | 192.46 | 193.81 |
| 42S | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 44S | ND | 179.8 | 171.66 | 181.07 | 181.44 | 171.66 | 180.16 | 179.88 | 180.91 | 175.03 | 181.33 | 180.26 | 181.39 |
| 45S | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 46S | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 47S | ND | 182.31 | 178.88 | 182.44 | 179.08 | 176.58 | 182.58 | 179.18 | 183.18 | 174.92 | 184.86 | 179.75 | 183.91 |
| 48S | 193.46 | 195.75 | 185.53 | 196.17 | 193.49 | 194.46 | 193.06 | 195.33 | 193.24 | 193.72 | 193.59 | 195.35 | 193.32 |
| GP-24-W | ND | 191.11 | 189.76 | 191.59 | 190.04 | 189.72 | 190.78 | 190.57 | 191.51 | 189.47 | 189.73 | 189.91 | 189.97 |
| GP-25-W | 192.89 | 191.81 | 192.04 | 192.07 | 192.33 | 190.55 | 191.31 | 190.95 | 191.94 | 189.63 | 192.84 | 191.24 | 192.47 |
| GP-27-W | ND | 190.17 | 190.89 | 191.02 | 192.04 | 189.33 | 190.57 | 190.38 | 191.38 | 189.15 | 193.59 | 191.11 | 192.60 |
| GP-28-W | ND | 192.29 | 192.65 | 192.58 | 192.97 | 190.85 | 191.76 | 191.23 | 192.63 | 190.17 | 193.00 | 191.63 | 193.26 |
| GP-30-W | 195.21 | 192.19 | 192.84 | 192.95 | 193.76 | 190.98 | 192.16 | 191.92 | 193.24 | 190.84 | 194.76 | 192.79 | 194.50 |
| GP-31-W | ND | 191.33 | 191.06 | 191.66 | 190.32 | 190.24 | 191.00 | 190.60 | 191.73 | 189.09 | 190.21 | 190.62 | 192.10 |
| GP-33-W | 194.45 | 191.75 | 192.16 | 192.39 | 192.81 | 190.45 | 191.54 | 191.18 | 192.54 | 190.15 | 193.15 | 191.69 | 193.50 |
| GP-34-W | ND | 192.38 | 193.04 | 193.19 | 193.75 | 191.11 | 192.22 | 191.96 | 192.33 | 190.82 | 194.21 | 192.72 | 194.54 |
| GP-35-W | ND | 189.91 | 189.84 | 189.90 | 189.87 | 189.28 | 189.65 | 189.48 | 189.83 | 188.17 | 189.66 | 189.43 | 189.86 |
| GP-36-W | ND | 192.25 | 192.80 | 192.91 | 193.35 | 191.00 | 191.95 | 191.70 | 193.04 | 190.58 | 193.52 | 192.24 | 194.09 |
| GP-37-W | 188.73 | 188.17 | 188.79 | 188.23 | 188.66 | 187.62 | 188.50 | 188.01 | 188.52 | 185.58 | 189.09 | 188.29 | 188.71 |
| GP-38-W | 200.37 | 200.19 | 199.75 | 199.98 | 199.79 | 199.90 | 199.67 | 199.91 | 199.78 | 199.84 | 199.73 | 199.96 | 199.95 |
| PZ-50 | ND | ND | ND | ND | ND | ND | 190.22 | 189.24 | ND | ND | 190.77 | ND | 190.38 |
| PZ-51 | ND | ND | ND | ND | ND | ND | 168.96 | 169.52 | 168.33 | 168.43 | 169.22 | 170.40 | 169.08 |
| PZ-52 | ND | ND | ND | ND | ND | ND | 179.22 | 177.92 | 178.77 | 177.47 | 180.08 | 178.12 | 179.79 |
| PZ-53 | ND | ND | ND | ND | ND | ND | 183.71 | 183.28 | 183.61 | 182.36 | 185.02 | 183.94 | 184.59 |
| PZ-54 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PZ-55 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PZ-56 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PZ-57 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PZ-58 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PZ-59 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| *Average Surficial* | *194.19* | *190.81* | *189.62* | *191.28* | *191.06* | *189.03* | *188.54* | *188.19* | *188.90* | *186.62* | *189.64* | *188.52* | *189.59* |
| 42D | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 44D | ND | 174.82 | 172.87 | 175.47 | 173.57 | 173.75 | 173.05 | 174.63 | 173.21 | 172.90 | 173.19 | 174.67 | 173.49 |
| 46D | ND | 193.54 | 192.82 | 193.72 | 192.95 | 192.19 | 192.03 | 192.45 | 193.07 | 192.05 | 192.16 | 192.77 | 193.51 |
| 47D | ND | 163.65 | 163.06 | 164.16 | 163.49 | 163.15 | 163.22 | 163.80 | 163.25 | 162.13 | 162.99 | 163.64 | 163.55 |
| *Average Deep* | *ND* | *177.34* | *176.25* | *177.78* | *176.67* | *176.36* | *176.10* | *176.96* | *176.51* | *175.69* | *176.11* | *177.03* | *176.85* |
| PB9 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

NOTE: Indicates LOW Water
Indicates HIGH Water
ND= No Data

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

| Piez. No. | 10/21/2009 | 4/20/2010 | 10/19/2010 | RANGE | MIN | MAX |
|---|---|---|---|---|---|---|
| 40S | ND | ND | ND | 14.96 | 156.72 | 171.68 |
| 41S | 191.59 | 193.24 | 192.28 | 4.21 | 190.37 | 194.58 |
| 42S | ND | ND | ND | 13.85 | 154.20 | 168.05 |
| 44S | 179.55 | 181.39 | 180.32 | 10.19 | 171.66 | 181.85 |
| 45S | ND | ND | ND | 3.52 | 179.11 | 182.63 |
| 46S | ND | ND | ND | 4.77 | 192.00 | 196.77 |
| 47S | 177.38 | 184.20 | 176.30 | 10.47 | 174.92 | 185.39 |
| 48S | 195.27 | 193.12 | 195.27 | 13.04 | 185.53 | 198.57 |
| GP-24-W | 190.68 | 192.17 | 190.47 | 2.70 | 189.47 | 192.17 |
| GP-25-W | 191.25 | 192.45 | 191.33 | 3.26 | 189.63 | 192.89 |
| GP-27-W | 190.22 | 191.82 | 190.26 | 4.44 | 189.15 | 193.59 |
| GP-28-W | 191.66 | 193.30 | 191.73 | 3.13 | 190.17 | 193.30 |
| GP-30-W | 192.10 | 193.96 | 192.26 | 4.37 | 190.84 | 195.21 |
| GP-31-W | 190.76 | 192.26 | 190.80 | 3.17 | 189.09 | 192.26 |
| GP-33-W | 191.39 | 193.49 | 191.07 | 4.30 | 190.15 | 194.45 |
| GP-34-W | 192.20 | 193.68 | 191.87 | 3.72 | 190.82 | 194.54 |
| GP-35-W | 189.52 | 189.96 | 189.48 | 1.79 | 188.17 | 189.96 |
| GP-36-W | 191.92 | 193.77 | 191.63 | 3.51 | 190.58 | 194.09 |
| GP-37-W | 188.08 | 188.79 | 188.63 | 3.51 | 185.58 | 189.09 |
| GP-38-W | 199.93 | 200.05 | 200.07 | 3.48 | 196.89 | 200.37 |
| PZ-50 | ND | 189.88 | 189.70 | 1.53 | 189.24 | 190.77 |
| PZ-51 | 170.14 | 168.89 | 170.83 | 2.50 | 168.33 | 170.83 |
| PZ-52 | 177.97 | 179.83 | 177.89 | 2.61 | 177.47 | 180.08 |
| PZ-53 | 183.21 | 184.42 | 184.20 | 2.66 | 182.36 | 185.02 |
| PZ-54 | ND | ND | 214.68 | To be added once more data available | | |
| PZ-55 | ND | ND | 212.43 | | | |
| PZ-56 | ND | ND | 205.62 | | | |
| PZ-57 | ND | ND | 204.75 | | | |
| PZ-58 | ND | ND | 205.51 | | | |
| PZ-59 | ND | ND | 205.71 | | | |
| *Average Surficial* | *188.15* | *189.53* | *192.89* | | | |
| 42D | ND | ND | ND | 20.90 | 147.06 | 167.96 |
| 44D | 174.86 | 173.40 | 175.03 | 9.41 | 170.16 | 179.57 |
| 46D | 192.91 | 194.66 | 199.29 | 7.64 | 191.65 | 199.29 |
| 47D | 163.87 | 163.55 | 167.64 | 7.04 | 160.60 | 167.64 |
| *Average Deep* | *177.21* | *177.20* | *180.65* | | | |
| PB9 | | | | 0.89 | 189.93 | 190.82 |

NOTE: Indicates LOW Water; Indicates HIGH Water; ND= No Data

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

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

| | Oct-10 | | | |
|---|---|---|---|---|
| | Turbidity | Temp. | pH | Conductivity |
| | *NTU* | *°C* | *pH* | *uMhos* |
| MW1 | 10.0 | 18 | 5.4 | 57 |
| MW2 | 4.3 | 19 | 4.4 | 87 |
| MW3R | 11 | 18 | 5.0 | 116 |
| MW4 | 3.0 | NA | NA | NA |
| MW5 | 14 | 19 | 6.0 | 164 |
| MW6B | 90 | 19 | 5.3 | 165 |
| MW7B | 45 | 19 | 4.9 | 141 |
| MW8 | 7 | 20 | 4.7 | 111 |
| MW9 | NA | NA | NA | NA |
| MW10 | 140 | 22 | 5.8 | 395 |
| MW11 | 65 | 20 | 4.4 | 33 |
| MW12 | 29 | 19 | 4.4 | 62 |
| MW13 | 7.7 | 16 | 6.0 | 123 |
| MW14 | 75 | 17 | 5.4 | 106 |
| MW15 | 9 | 19 | 4.0 | 125 |
| MW16 | 15 | 19 | 5.9 | 131 |
| MW23B | 38 | 19 | 5.4 | 46 |
| MW31 | 38 | 18 | 4.8 | 25 |
| MW32 | 500 | 17 | 4.7 | 56 |
| MW33 | 7 | 19 | 4.5 | 72 |
| MW34 | 21 | 18 | 4.6 | 87 |
| MW35 | 65 | 18 | 5.5 | 655 |
| MW53 | 170 | 21 | 4.9 | 75 |
| MW56 | 55 | 20 | 4.6 | 123 |
| MW57 | 45 | 21 | 4.4 | 191 |
| MW58 | 120 | 20 | 4.5 | 78 |
| MW59 | 190 | 22 | 4.7 | 131 |
| SWPT1 | 38 | 16 | 5.4 | 96 |
| SWPT2 | 65 | 16 | 6.0 | 89 |
| SWPT3 | 21 | 17 | 5.6 | 152 |
| SWPT4 | 24 | 16 | 6.3 | 84 |

## Table 2
## Harnett County Dunn-Erwin Landfill
## Groundwater Velocity Data

| | 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 | | 0.25 | | | | 4.8E-02 | 4.8E-06 | | | |
| MW12 | 2.3E-05 | | 0.25 | | | | 4.4E-02 | 4.0E-06 | | | |
| MW13 | 5.5E-06 | | 0.25 | | | | 6.1E-02 | 1.3E-06 | | | |
| MW14 | 7.4E-07 | | 0.25 | | | | 6.5E-02 | 1.9E-07 | | | |
| MW15 | 2.2E-05 | | 0.25 | | | | 2.6E-02 | 2.3E-06 | | | |
| 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.
n=0.25 used for MW11 - MW15, which is average of other values.
(7) Hydraulic gradient as estimated from groundwater contours based on groundwater data sampled in October 1995, except for wells MW11 - MW15, which were estimated from contours based on groundwater data from Jan 2007 - May 2008.

(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
## October 2010

| 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 | Yes | No |
| Barium | TOP[2], PIA[5] | TOP[2], PIA[5] | TOP[2] | MW6B, MW9 | 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 | Yes | No |
| Cobalt | TOP[2], PIA[5] | NA[3] | Qualitative | MW6 | Yes | Yes |
| Copper | TOP[2] | NA[3] | Qualitative | None | Yes | Yes |
| Lead | TOP[2], PIA[5] | TOP[2] | Qualitative | None | Yes | Yes |
| Mercury | TOP[2,4] | Qualitative | NA[4] | MW6B, MW7 | Yes | Yes |
| Nickel | Qualitative | NA[3] | Qualitative | None | Yes | No |
| Selenium | Qualitative | Qualitative | Qualitative | None | Yes | No |
| Silver | Qualitative | Qualitative | Qualitative | None | Yes | No |
| Thallium | NA[7] | NA[7] | NA[7] | NA[7] | Yes | No |
| Tin | Qualitative | NA[6] | NA[6] | None | Yes | No |
| Vanadium | TOP[2] | NA[3] | Qualitative | None | Yes | No |
| 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, MW8, MW9 and MW10 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
## October 2010

| 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 |
| MW6B | barium, 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 | benzene, chloroethane, cis-1,2-dichloroethylene, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, toluene, 1,1,1-trichloroethane, trichloroethylene, trichlorofluoromethane, vinyl chloride, xylenes, dichlorodifluoromethane |
| MW8 | none | benzene, chloroethane, chloromethane, cis-1,2-dichloroethylene, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, trichloroethylene |
| MW9 | barium | benzene, chloroethane, cis-1,2-dichloroethylene, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, trichloroethylene, vinyl chloride, xylenes |
| MW10 | none | benzene, chloroethane, cis-1,2-dichloroethylene, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, toluene, trichloroethylene, xylenes |
| MW11 | none | none |
| MW12 | none | none |
| MW13 | none | none |
| MW14 | none | none |
| MW15 | none | toluene |
| MW23B [2] | 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 4A cont.
## Summary of Appendices I & II Statistical Analysis Results
## October 2010

| Monitoring Well | Parameters Indicating SSIOBL | |
|---|---|---|
| | Inorganics | Organics |
| **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 | toluene |

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**
**October 2010**

| Constituent | 2L STD | 13B STD | SWSL | MW1 | MW31 | MW2 | MW3 | MW4 | MW5 | MW6B | MW7B | MW8 | MW10 | MW11 | MW12 | MW13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Inorganics** | | | | | | | | | | | | | | | | |
| Cobalt | NE | 1 | 10 | | | *1.3* | *2.6* | *1.5* | *4.7* | 29 | *9.6* | *1.3* | | | | |
| Lead | 15 | -- | 10 | | | | | | | | 17 | | | | | |
| Vanadium | NE | 0.3 | 25 | *0.9* | *1.5* | *0.9* | *1.1* | *0.7* | *0.8* | *6.9* | *1.5* | *2.1* | *5.8* | *3.5* | *1.6* | *1.1* |
| **Organics** | | | | | | | | | | | | | | | | |
| Benzene | 1 | -- | 1 | | | | | | | 5.7 | 7.3 | 5.7 | 1.2 | | | |
| 1,4-Dichlorobenzene | 6 | -- | 1 | | | | | | | 7 | | | | | | |
| 1,1-Dichloroethane | 6 | -- | 5 | | | | | | | 6.3 | 140 | 44.6 | | | | |
| 1,2-Dichloroethane | 0.4 | -- | 1 | | | | | | | *0.6* | | | | | | |
| Methylene chloride | 5 | -- | 1 | | | | | | | | 60.8 | 45 | | | | |
| Tetrachloroethylene | 0.7 | -- | 1 | | | | | | | 4.7 | 4.7 | 4.2 | | | | |
| Trichloroethylene | 3 | -- | 1 | | | | | | | 6.1 | 9.8 | 4.6 | | | | |
| Vinyl chloride | 0.03 | -- | 1 | | | | | | | 5.2 | 5.8 | 1.5 | 1 | | | |

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 4B**
**Notification Table**
**NC Groundwater Exceedances**
**Dunn-Erwin Landfill**
**Harnett County, North Carolina**
**October 2010**

| Constituent | 2L STD | 13B STD | SWSL | MW14 | MW15 | MW53 | MW56 | MW57 | MW58 | MW59 | SWPT1 | SWPT2 | SWPT3 | SWPT4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Inorganics** | | | | | | | | | | | | | | |
| Cobalt | NE | 1 | 10 | | *1.5* | *2.9* | *2.1* | *3.3* | *1.1* | *5.2* | | *5.2* | | *3* |
| Lead | 15 | -- | 10 | | | | | | | | | | | |
| Vanadium | NE | 0.3 | 25 | *4.6* | *2.1* | *5.3* | *2.3* | *3.7* | *4.5* | *11.4* | *2.7* | *4* | *1.7* | *5.4* |
| **Organics** | | | | | | | | | | | | | | |
| Benzene | 1 | -- | 1 | | | | | 2 | | | | | | |
| 1,4-Dichlorobenzene | 6 | -- | 1 | | | | | | | | | | | |
| 1,1-Dichloroethane | 6 | -- | 5 | | | 15.6 | | | | | | | | |
| 1,2-Dichloroethane | 0.4 | -- | 1 | | | | | | | | | | | |
| Methylene chloride | 5 | -- | 1 | | | 14.2 | | | | | | | | |
| Tetrachloroethylene | 0.7 | -- | 1 | | | 1.2 | | | | | | | | |
| Trichloroethylene | 3 | -- | 1 | | | | | | | | | | | |
| Vinyl chloride | 0.03 | -- | 1 | | | 1.3 | | 1.2 | | | | | | |

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 4B**
**Notification Table**
**NC Groundwater Exceedances**
**Dunn-Erwin Landfill**
**Harnett County, North Carolina**
**October 2010**

| Constituent | 2L STD | 13B STD | SWSL | Notes |
|---|---|---|---|---|
| **Inorganics** | | | | |
| Cobalt | NE | 1 | 10 | Not SSIOBL, background |
| Lead | 15 | -- | 10 | Not SSIOBL, background |
| Vanadium | NE | 0.3 | 25 | Not SSIOBL, background |
| **Organics** | | | | MW6B - MW10 are located within previously identified contaminant plume. This area is included in corrective action. MW53, MW56 - MW59 are new wells (as of Oct 2010) also associated correction action. |
| Benzene | 1 | -- | 1 | |
| 1,4-Dichlorobenzene | 6 | -- | 1 | |
| 1,1-Dichloroethane | 6 | -- | 5 | |
| 1,2-Dichloroethane | 0.4 | -- | 1 | |
| Methylene chloride | 5 | -- | 1 | |
| Tetrachloroethylene | 0.7 | -- | 1 | |
| Trichloroethylene | 3 | -- | 1 | |
| Vinyl chloride | 0.03 | -- | 1 | |

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 | 35 | 700 | 0 | 0 |
| Benzene | 0 | 35 | 1 | 0 | 0 |
| Carbon Disulfide | 0 | 35 | 700 | 0 | 0 |
| Carbon Tetrachloride | 0 | 35 | 0.3 | 0 | 0 |
| Chlorobenzene | 0 | 35 | 50 | 0 | 0 |
| Chloroethane | 0 | 35 | 3000 | 0 | 0 |
| Chloromethane | 0 | 35 | 3 | 0 | 0 |
| 1,2-Dibromoethane | 0 | 35 | 0.02 | 0 | 0 |
| 1,4-Dichlorobenzene | 0 | 35 | 6 | 0 | 0 |
| cis-1,2-Dichloroethene | 0 | 35 | 70 | 0 | 0 |
| 1,1-Dichloroethane | 0 | 35 | 6 | 0 | 0 |
| 1,2-Dichloroethane | 0 | 35 | 0.4 | 0 | 0 |
| 1,1-Dichloroethene | 0 | 35 | 7 | 0 | 0 |
| Methylene Chloride | 0 | 35 | 5 | 0 | 0 |
| Tetrachloroethylene | 0 | 35 | 0.7 | 0 | 0 |
| Toluene | 0 | 35 | 600 | 0 | 0 |
| 1,1,1-Trichloroethane | 0 | 35 | 200 | 0 | 0 |
| Trichloroethylene | 0 | 35 | 3 | 0 | 0 |
| Trichloroflouromethane | 0 | 35 | 2000 | 0 | 0 |
| Vinyl Chloride | 0 | 35 | 0.03 | 0 | 0 |
| Xylenes | 0 | 35 | 500 | 0 | 0 |
| Dichlorodifluoromethane* | 0 | 10 | 1000 | 0 | 0 |
| Diethyphthalate* | 13 | 10 | 6000 | 1 | 1.3 |
| bis(2-ethylhexyl)phthalate* | 0 | 10 | 3 | 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 | 34 | 700 | 0 | 0 |
| Benzene | 0 | 34 | 1 | 0 | 0 |
| Carbon Disulfide | 64.4 | 34 | 700 | 1 | 1.89 |
| Carbon Tetrachloride | 0 | 35 | 0.3 | 0 | 0 |
| Chlorobenzene | 0 | 34 | 50 | 0 | 0 |
| Chloroethane | 0 | 34 | 3000 | 0 | 0 |
| Chloromethane | 0 | 34 | 3 | 0 | 0 |
| 1,2-Dibromoethane | 0 | 34 | 0.02 | 0 | 0 |
| 1,4-Dichlorobenzene | 0 | 34 | 6 | 0 | 0 |
| cis-1,2-Dichloroethene | 0 | 34 | 70 | 0 | 0 |
| 1,1-Dichloroethane | 0 | 34 | 6 | 0 | 0 |
| 1,2-Dichloroethane | 0 | 34 | 0.4 | 0 | 0 |
| 1,1-Dichloroethene | 0 | 34 | 7 | 0 | 0 |
| Methylene Chloride | 0 | 34 | 5 | 0 | 0 |
| Tetrachloroethylene | 0 | 34 | 0.7 | 0 | 0 |
| Toluene | 0 | 34 | 600 | 0 | 0 |
| 1,1,1-Trichloroethane | 0 | 34 | 200 | 0 | 0 |
| Trichloroethylene | 0 | 34 | 3 | 0 | 0 |
| Trichloroflouromethane | 0 | 34 | 2000 | 0 | 0 |
| Vinyl Chloride | 0 | 34 | 0.03 | 0 | 0 |
| Xylenes | 0 | 34 | 500 | 0 | 0 |
| Dichlorodifluoromethane* | 0 | 10 | 1000 | 0 | 0 |
| Diethyphthalate* | 0 | 10 | 6000 | 0 | 0 |
| bis(2-ethylhexyl)phthalate* | 0 | 10 | 3 | 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 | 35 | 700 | 0 | 0 |
| Benzene | 0 | 35 | 1 | 0 | 0 |
| Carbon Disulfide | 48.8 | 35 | 700 | 3 | 1.39 |
| Carbon Tetrachloride | 0 | 35 | 0.3 | 0 | 0 |
| Chlorobenzene | 0 | 35 | 50 | 0 | 0 |
| Chloroethane | 0 | 35 | 3000 | 0 | 0 |
| Chloromethane | 0 | 35 | 3 | 0 | 0 |
| 1,2-Dibromoethane | 0 | 35 | 0.02 | 0 | 0 |
| 1,4-Dichlorobenzene | 0 | 35 | 6 | 0 | 0 |
| cis-1,2-Dichloroethene | 0 | 35 | 70 | 0 | 0 |
| 1,1-Dichloroethane | 0 | 35 | 6 | 0 | 0 |
| 1,2-Dichloroethane | 0 | 35 | 0.4 | 0 | 0 |
| 1,1-Dichloroethene | 0 | 35 | 7 | 0 | 0 |
| Methylene Chloride | 0 | 35 | 5 | 0 | 0 |
| Tetrachloroethylene | 0 | 35 | 0.7 | 0 | 0 |
| Toluene | 0 | 35 | 600 | 0 | 0 |
| 1,1,1-Trichloroethane | 0 | 35 | 200 | 0 | 0 |
| Trichloroethylene | 0 | 35 | 3 | 0 | 0 |
| Trichloroflouromethane | 0 | 35 | 2000 | 0 | 0 |
| Vinyl Chloride | 0 | 35 | 0.03 | 0 | 0 |
| Xylenes | 0 | 35 | 500 | 0 | 0 |
| Dichlorodifluoromethane* | 0 | 10 | 1000 | 0 | 0 |
| Diethyphthalate* | 26 | 10 | 6000 | 2 | 2.60 |
| bis(2-ethylhexyl)phthalate* | 0 | 10 | 3 | 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 | 35 | 700 |
| Benzene | 0 | 35 | 1 |
| Carbon Disulfide | 37.3 | 35 | 700 |
| Carbon Tetrachloride | 0 | 35 | 0.3 |
| Chlorobenzene | 0 | 35 | 50 |
| Chloroethane | 0 | 35 | 3000 |
| Chloromethane | 0 | 35 | 3 |
| 1,2-Dibromoethane | 0 | 35 | 0.02 |
| 1,4-Dichlorobenzene | 0 | 35 | 6 |
| cis-1,2-Dichloroethene | 0 | 35 | 70 |
| 1,1-Dichloroethane | 0 | 35 | 6 |
| 1,2-Dichloroethane | 0 | 35 | 0.4 |
| 1,1-Dichloroethene | 0 | 35 | 7 |
| Methylene Chloride | 0 | 35 | 5 |
| Tetrachloroethylene | 0 | 35 | 0.7 |
| Toluene | 0 | 35 | 600 |
| 1,1,1-Trichloroethane | 0 | 35 | 200 |
| Trichloroethylene | 0 | 35 | 3 |
| Trichloroflouromethane | 0 | 35 | 2000 |
| Vinyl Chloride | 0 | 35 | 0.03 |
| Xylenes | 0 | 35 | 500 |
| Dichlorodifluoromethane* | 0 | 10 | 1000 |
| Diethyphthalate* | 0 | 10 | 6000 |
| bis(2-ethylhexyl)phthalate* | 0 | 10 | 3 |
| NOTES | | | |

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

| CONSTITUENT | MW6,6B Detects | | NCGS | # Detects | Averages |
|---|---|---|---|---|---|
| SAMPLING DATES | SUM | Events | (ug/l) | | |
| ORGANICS (ug/l) | | | | | |
| Acetone | 170 | 36 | 700 | 1 | 4.72 |
| Benzene | 42.2 | 36 | 1 | 9 | 1.17 |
| Carbon Disulfide | 7.9 | 36 | 700 | 1 | 0.22 |
| Carbon Tetrachloride | 2.9 | 36 | 0.3 | 1 | 0.08 |
| Chlorobenzene | 135.6 | 36 | 50 | 7 | 3.77 |
| Chloroethane | 850.8 | 36 | 3000 | 17 | 23.63 |
| Chloromethane | 46 | 36 | 3 | 1 | 1.28 |
| 1,2-Dibromoethane | 0 | 36 | 0.02 | 0 | 0.00 |
| 1,4-Dichlorobenzene | 58.7 | 36 | 6 | 10 | 1.63 |
| cis-1,2-Dichloroethene | 245.8 | 36 | 70 | 15 | 6.83 |
| 1,1-Dichloroethane | 1418.6 | 36 | 6 | 31 | 39.41 |
| 1,2-Dichloroethane | 0 | 36 | 0.4 | 0 | 0.00 |
| 1,1-Dichloroethene | 84.6 | 36 | 7 | 2 | 2.35 |
| Methylene Chloride | 1366 | 36 | 5 | 30 | 37.94 |
| Tetrachloroethylene | 89.7 | 36 | 0.7 | 17 | 2.49 |
| Toluene | 0 | 36 | 600 | 0 | 0.00 |
| 1,1,1-Trichloroethane | 94.5 | 36 | 200 | 9 | 2.63 |
| Trichloroethylene | 190.24 | 36 | 3 | 25 | 5.28 |
| Trichloroflouromethane | 0 | 36 | 2000 | 0 | 0.00 |
| Vinyl Chloride | 84.5 | 36 | 0.03 | 10 | 2.35 |
| Xylenes (total) | 447.8 | 36 | 500 | 14 | 12.44 |
| Dichlorodifluoromethane* | 42.1 | 22 | 1000 | 7 | 1.91 |
| Diethyphthalate* | 0 | 22 | 6000 | 0 | 0.00 |
| bis(2-ethylhexyl)phthalate* | 6.8 | 22 | 3 | 1 | 0.31 |
| 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 | 34 | 700 | 0 | 0 |
| Benzene | 50.7 | 34 | 1 | 9 | 1.491176 |
| Carbon Disulfide | 0 | 34 | 700 | 0 | 0 |
| Carbon Tetrachloride | 0 | 34 | 0.3 | 0 | 0 |
| Chlorobenzene | 30.4 | 34 | 50 | 6 | 0.894118 |
| Chloroethane | 783.2 | 34 | 3000 | 26 | 23.03529 |
| Chloromethane | 64 | 34 | 3 | 1 | 1.882353 |
| 1,2-Dibromoethane | 0 | 34 | 0.02 | 0 | 0 |
| 1,4-Dichlorobenzene | 8.3 | 34 | 6 | 5 | 0.244118 |
| cis-1,2-Dichloroethene | 54.5 | 34 | 70 | 6 | 1.602941 |
| 1,1-Dichloroethane | 3939.3 | 34 | 6 | 32 | 115.8618 |
| 1,2-Dichloroethane | 8.7 | 34 | 0.4 | 1 | 0.255882 |
| 1,1-Dichloroethene | 188.6 | 34 | 7 | 20 | 5.547059 |
| Methylene Chloride | 1758.6 | 34 | 5 | 26 | 51.72353 |
| Tetrachloroethylene | 39.8 | 34 | 0.7 | 8 | 1.170588 |
| Toluene | 76.8 | 34 | 600 | 7 | 2.258824 |
| 1,1,1-Trichloroethane | 600.7 | 34 | 200 | 17 | 17.66765 |
| Trichloroethylene | 185 | 34 | 3 | 23 | 5.441176 |
| Trichloroflouromethane | 138.4 | 34 | 2000 | 17 | 4.070588 |
| Vinyl Chloride | 45 | 34 | 0.03 | 8 | 1.323529 |
| Xylenes | 63.9 | 34 | 500 | 9 | 1.879412 |
| Dichlorodifluoromethane* | 772.4 | 22 | 1000 | 18 | 35.10909 |
| Diethyphthalate* | 13 | 22 | 6000 | 1 | 0.590909 |
| bis(2-ethylhexyl)phthalate* | 24 | 22 | 3 | 1 | 1.090909 |
| 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 | 36 | 700 | 0 | 0.00 |
| Benzene | 50.8 | 36 | 1 | 9 | 1.41 |
| Carbon Disulfide | 0 | 36 | 700 | 0 | 0.00 |
| Carbon Tetrachloride | 0 | 36 | 0.3 | 0 | 0.00 |
| Chlorobenzene | 0 | 36 | 50 | 0 | 0.00 |
| Chloroethane | 268.6 | 36 | 3000 | 14 | 7.46 |
| Chloromethane | 119.1 | 36 | 3 | 3 | 3.31 |
| 1,2-Dibromoethane | 0 | 36 | 0.02 | 0 | 0.00 |
| 1,4-Dichlorobenzene | 12.7 | 36 | 6 | 7 | 0.35 |
| cis-1,2-Dichloroethene | 118 | 36 | 70 | 8 | 3.28 |
| 1,1-Dichloroethane | 1431.9 | 36 | 6 | 29 | 39.78 |
| 1,2-Dichloroethane | 0 | 36 | 0.4 | 0 | 0.00 |
| 1,1-Dichloroethene | 81 | 36 | 7 | 1 | 2.25 |
| Methylene Chloride | 1380.9 | 36 | 5 | 26 | 38.36 |
| Tetrachloroethylene | 47 | 36 | 0.7 | 9 | 1.31 |
| Toluene | 0 | 36 | 600 | 0 | 0.00 |
| 1,1,1-Trichloroethane | 0 | 36 | 200 | 0 | 0.00 |
| Trichloroethylene | 91 | 36 | 3 | 13 | 2.53 |
| Trichloroflouromethane | 0 | 36 | 2000 | 0 | 0.00 |
| Vinyl Chloride | 6.9 | 36 | 0.03 | 5 | 0.19 |
| Xylenes | 5 | 36 | 500 | 1 | 0.14 |
| Dichlorodifluoromethane* | 20.4 | 22 | 1000 | 4 | 0.927273 |
| Diethyphthalate* | 0 | 22 | 6000 | 0 | 0 |
| bis(2-ethylhexyl)phthalate* | 0 | 22 | 3 | 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 | 19 | 700 | 0 | 0 |
| Benzene | 114.8 | 19 | 1 | 15 | 6.042105 |
| Carbon Disulfide | 0 | 19 | 700 | 0 | 0 |
| Carbon Tetrachloride | 0 | 19 | 0.3 | 0 | 0 |
| Chlorobenzene | 231.6 | 19 | 50 | 17 | 12.18947 |
| Chloroethane | 423.2 | 19 | 3000 | 16 | 22.27368 |
| Chloromethane | 189 | 19 | 3 | 1 | 9.947368 |
| 1,2-Dibromoethane | 14 | 19 | 0.02 | 1 | 0.736842 |
| 1,4-Dichlorobenzene | 16.2 | 19 | 6 | 6 | 0.852632 |
| cis-1,2-Dichloroethene | 108.8 | 19 | 70 | 10 | 5.726316 |
| 1,1-Dichloroethane | 1709.6 | 19 | 6 | 16 | 89.97895 |
| 1,2-Dichloroethane | 11.8 | 19 | 0.4 | 1 | 0.621053 |
| 1,1-Dichloroethene | 0 | 19 | 7 | 0 | 0 |
| Methylene Chloride | 1918.2 | 19 | 5 | 17 | 100.9579 |
| Tetrachloroethylene | 29 | 19 | 0.7 | 9 | 1.526316 |
| Toluene | 0 | 19 | 600 | 0 | 0 |
| 1,1,1-Trichloroethane | 0 | 19 | 200 | 0 | 0 |
| Trichloroethylene | 120.4 | 19 | 3 | 18 | 6.336842 |
| Trichloroflouromethane | 0 | 19 | 2000 | 0 | 0 |
| Vinyl Chloride | 50.8 | 19 | 0.03 | 7 | 2.673684 |
| Xylenes | 174.8 | 19 | 500 | 10 | 9.2 |
| Dichlorodifluoromethane* | 0 | 3 | 1000 | 0 | NA |
| Diethyphthalate* | 0 | 3 | 6000 | 0 | NA |
| bis(2-ethylhexyl)phthalate* | 0 | 3 | 3 | 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 | 3279 | 20 | 700 | 5 | 163.95 |
| Benzene | 55.3 | 20 | 1 | 11 | 2.765 |
| Carbon Disulfide | 0 | 20 | 700 | 0 | 0 |
| Carbon Tetrachloride | 0 | 20 | 0.3 | 0 | 0 |
| Chlorobenzene | 133.1 | 20 | 50 | 12 | 6.655 |
| Chloroethane | 285.4 | 20 | 3000 | 9 | 14.27 |
| Chloromethane | 0 | 20 | 3 | 0 | 0 |
| 1,2-Dibromoethane | 0 | 20 | 0.02 | 0 | 0 |
| 1,4-Dichlorobenzene | 18.4 | 20 | 6 | 7 | 0.92 |
| cis-1,2-Dichloroethene | 266.5 | 20 | 70 | 19 | 13.325 |
| 1,1-Dichloroethane | 1347.2 | 20 | 6 | 18 | 67.36 |
| 1,2-Dichloroethane | 0 | 20 | 0.4 | 0 | 0 |
| 1,1-Dichloroethene | 0 | 20 | 7 | 0 | 0 |
| Methylene Chloride | 936.5 | 20 | 5 | 15 | 46.825 |
| Tetrachloroethylene | 58.3 | 20 | 0.7 | 7 | 2.915 |
| Toluene | 25.3 | 20 | 600 | 3 | 1.265 |
| 1,1,1-Trichloroethane | 0 | 20 | 200 | 0 | 0 |
| Trichloroethylene | 40.8 | 20 | 3 | 7 | 2.04 |
| Trichloroflouromethane | 0 | 20 | 2000 | 0 | 0 |
| Vinyl Chloride | 27.5 | 20 | 0.03 | 8 | 1.375 |
| Xylenes | 145.9 | 20 | 500 | 9 | 7.295 |
| Dichlorodifluoromethane* | 0 | 4 | 1000 | 0 | NA |
| Diethyphthalate* | 0 | 4 | 6000 | 0 | NA |
| bis(2-ethylhexyl)phthalate* | 0 | 4 | 3 | 0 | NA |
| NOTES | | | | | |

**Table 5**
**Groundwater Monitoring Well Data**
**Monitoring Well 11 (MW11)**
**Downgradient Well - Set 1**
**Dunn-Erwin Landfill**
**Harnett County, North Carolina**

| CONSTITUENT | MW11 Detects | | NCGS | # Detects | Averages |
|---|---|---|---|---|---|
| SAMPLING DATES | SUM | Events | (ug/l) | | |
| ORGANICS (ug/l) | | | | | |
| Acetone | 0 | 8 | 700 | 0 | 0 |
| Benzene | 0 | 8 | 1 | 0 | 0 |
| Carbon Disulfide | 0 | 8 | 700 | 0 | 0 |
| Carbon Tetrachloride | 0 | 8 | 0.3 | 0 | 0 |
| Chlorobenzene | 0 | 8 | 50 | 0 | 0 |
| Chloroethane | 0 | 8 | 3000 | 0 | 0 |
| Chloromethane | 0 | 8 | 3 | 0 | 0 |
| 1,2-Dibromoethane | 0 | 8 | 0.02 | 0 | 0 |
| 1,4-Dichlorobenzene | 0 | 8 | 6 | 0 | 0 |
| cis-1,2-Dichloroethene | 0 | 8 | 70 | 0 | 0 |
| 1,1-Dichloroethane | 0 | 8 | 6 | 0 | 0 |
| 1,2-Dichloroethane | 0 | 8 | 0.4 | 0 | 0 |
| 1,1-Dichloroethene | 0 | 8 | 7 | 0 | 0 |
| Methylene Chloride | 0 | 8 | 5 | 0 | 0 |
| Tetrachloroethylene | 0 | 8 | 0.7 | 0 | 0 |
| Toluene | 0 | 8 | 600 | 0 | 0 |
| 1,1,1-Trichloroethane | 0 | 8 | 200 | 0 | 0 |
| Trichloroethylene | 0 | 8 | 3 | 0 | 0 |
| Trichloroflouromethane | 0 | 8 | 2000 | 0 | 0 |
| Vinyl Chloride | 0 | 8 | 0.03 | 0 | 0 |
| Xylenes | 0 | 8 | 500 | 0 | 0 |
| Dichlorodifluoromethane* | 0 | 0 | 1000 | 0 | NA |
| Diethyphthalate* | 0 | 0 | 6000 | 0 | NA |
| bis(2-ethylhexyl)phthalate* | 0 | 0 | 3 | 0 | NA |
| NOTES | | | | | |

**Table 5**
**Groundwater Monitoring Well Data**
**Monitoring Well 12 (MW12)**
**Downgradient Well - Set 1**
**Dunn-Erwin Landfill**
**Harnett County, North Carolina**

| CONSTITUENT | MW12 Detects | | NCGS | # Detects | Averages |
|---|---|---|---|---|---|
| SAMPLING DATES | SUM | Events | (ug/l) | | |
| ORGANICS (ug/l) | | | | | |
| Acetone | 0 | 8 | 700 | 0 | 0 |
| Benzene | 0 | 8 | 1 | 0 | 0 |
| Carbon Disulfide | 0 | 8 | 700 | 0 | 0 |
| Carbon Tetrachloride | 0 | 8 | 0.3 | 0 | 0 |
| Chlorobenzene | 0 | 8 | 50 | 0 | 0 |
| Chloroethane | 0 | 8 | 3000 | 0 | 0 |
| Chloromethane | 0 | 8 | 3 | 0 | 0 |
| 1,2-Dibromoethane | 0 | 8 | 0.02 | 0 | 0 |
| 1,4-Dichlorobenzene | 0 | 8 | 6 | 0 | 0 |
| cis-1,2-Dichloroethene | 0 | 8 | 70 | 0 | 0 |
| 1,1-Dichloroethane | 0 | 8 | 6 | 0 | 0 |
| 1,2-Dichloroethane | 0 | 8 | 0.4 | 0 | 0 |
| 1,1-Dichloroethene | 0 | 8 | 7 | 0 | 0 |
| Methylene Chloride | 0 | 8 | 5 | 0 | 0 |
| Tetrachloroethylene | 0 | 8 | 0.7 | 0 | 0 |
| Toluene | 0 | 8 | 600 | 0 | 0 |
| 1,1,1-Trichloroethane | 0 | 8 | 200 | 0 | 0 |
| Trichloroethylene | 0 | 8 | 3 | 0 | 0 |
| Trichloroflouromethane | 0 | 8 | 2000 | 0 | 0 |
| Vinyl Chloride | 0 | 8 | 0.03 | 0 | 0 |
| Xylenes | 0 | 8 | 500 | 0 | 0 |
| Dichlorodifluoromethane* | 0 | 0 | 1000 | 0 | NA |
| Diethyphthalate* | 0 | 0 | 6000 | 0 | NA |
| bis(2-ethylhexyl)phthalate* | 0 | 0 | 3 | 0 | NA |
| NOTES | | | | | |

**Table 5**
**Groundwater Monitoring Well Data**
**Monitoring Well 13 (MW13)**
**Downgradient Well - Set 1**
**Dunn-Erwin Landfill**
**Harnett County, North Carolina**

| CONSTITUENT | MW13 Detects | | NCGS | # Detects | Averages |
|---|---|---|---|---|---|
| SAMPLING DATES | SUM | Events | (ug/l) | | |
| ORGANICS (ug/l) | | | | | |
| Acetone | 0 | 8 | 700 | 0 | 0 |
| Benzene | 0 | 8 | 1 | 0 | 0 |
| Carbon Disulfide | 0 | 8 | 700 | 0 | 0 |
| Carbon Tetrachloride | 0 | 8 | 0.3 | 0 | 0 |
| Chlorobenzene | 0 | 8 | 50 | 0 | 0 |
| Chloroethane | 0 | 8 | 3000 | 0 | 0 |
| Chloromethane | 0 | 8 | 3 | 0 | 0 |
| 1,2-Dibromoethane | 0 | 8 | 0.02 | 0 | 0 |
| 1,4-Dichlorobenzene | 0 | 8 | 6 | 0 | 0 |
| cis-1,2-Dichloroethene | 0 | 8 | 70 | 0 | 0 |
| 1,1-Dichloroethane | 0 | 8 | 6 | 0 | 0 |
| 1,2-Dichloroethane | 0 | 8 | 0.4 | 0 | 0 |
| 1,1-Dichloroethene | 0 | 8 | 7 | 0 | 0 |
| Methylene Chloride | 0 | 8 | 5 | 0 | 0 |
| Tetrachloroethylene | 0 | 8 | 0.7 | 0 | 0 |
| Toluene | 0 | 8 | 600 | 0 | 0 |
| 1,1,1-Trichloroethane | 0 | 8 | 200 | 0 | 0 |
| Trichloroethylene | 0 | 8 | 3 | 0 | 0 |
| Trichloroflouromethane | 0 | 8 | 2000 | 0 | 0 |
| Vinyl Chloride | 0 | 8 | 0.03 | 0 | 0 |
| Xylenes | 0 | 8 | 500 | 0 | 0 |
| Dichlorodifluoromethane* | 0 | 0 | 1000 | 0 | NA |
| Diethyphthalate* | 0 | 0 | 6000 | 0 | NA |
| bis(2-ethylhexyl)phthalate* | 0 | 0 | 3 | 0 | NA |
| NOTES | | | | | |

**Table 5**
**Groundwater Monitoring Well Data**
**Monitoring Well 14 (MW14)**
**Downgradient Well - Set 1**
**Dunn-Erwin Landfill**
**Harnett County, North Carolina**

| CONSTITUENT | MW14 Detects | | NCGS | # Detects | Averages |
|---|---|---|---|---|---|
| SAMPLING DATES | SUM | Events | (ug/l) | | |
| ORGANICS (ug/l) | | | | | |
| Acetone | 0 | 8 | 700 | 0 | 0 |
| Benzene | 0 | 8 | 1 | 0 | 0 |
| Carbon Disulfide | 0 | 8 | 700 | 0 | 0 |
| Carbon Tetrachloride | 0 | 8 | 0.3 | 0 | 0 |
| Chlorobenzene | 0 | 8 | 50 | 0 | 0 |
| Chloroethane | 0 | 8 | 3000 | 0 | 0 |
| Chloromethane | 1 | 8 | 3 | 1 | 0.125 |
| 1,2-Dibromoethane | 0 | 8 | 0.02 | 0 | 0 |
| 1,4-Dichlorobenzene | 0 | 8 | 6 | 0 | 0 |
| cis-1,2-Dichloroethene | 0 | 8 | 70 | 0 | 0 |
| 1,1-Dichloroethane | 0 | 8 | 6 | 0 | 0 |
| 1,2-Dichloroethane | 0 | 8 | 0.4 | 0 | 0 |
| 1,1-Dichloroethene | 0 | 8 | 7 | 0 | 0 |
| Methylene Chloride | 0 | 8 | 5 | 0 | 0 |
| Tetrachloroethylene | 0 | 8 | 0.7 | 0 | 0 |
| Toluene | 0 | 8 | 600 | 0 | 0 |
| 1,1,1-Trichloroethane | 0 | 8 | 200 | 0 | 0 |
| Trichloroethylene | 0 | 8 | 3 | 0 | 0 |
| Trichloroflouromethane | 0 | 8 | 2000 | 0 | 0 |
| Vinyl Chloride | 0 | 8 | 0.03 | 0 | 0 |
| Xylenes | 0 | 8 | 500 | 0 | 0 |
| Dichlorodifluoromethane* | 0 | 0 | 1000 | 0 | NA |
| Diethyphthalate* | 0 | 0 | 6000 | 0 | NA |
| bis(2-ethylhexyl)phthalate* | 0 | 0 | 3 | 0 | NA |
| NOTES | | | | | |

**Table 5**
**Groundwater Monitoring Well Data**
**Monitoring Well 15 (MW15)**
**Downgradient Well - Set 1**
**Dunn-Erwin Landfill**
**Harnett County, North Carolina**

| CONSTITUENT | MW15 Detects | | NCGS | # Detects | Averages |
|---|---|---|---|---|---|
| SAMPLING DATES | SUM | Events | (ug/l) | | |
| ORGANICS (ug/l) | | | | | |
| Acetone | 144 | 7 | 700 | 1 | 20.6 |
| Benzene | 0 | 7 | 1 | 0 | 0 |
| Carbon Disulfide | 0 | 7 | 700 | 0 | 0 |
| Carbon Tetrachloride | 0 | 7 | 0.3 | 0 | 0 |
| Chlorobenzene | 0 | 7 | 50 | 0 | 0 |
| Chloroethane | 0 | 7 | 3000 | 0 | 0 |
| Chloromethane | 0 | 7 | 3 | 0 | 0 |
| 1,2-Dibromoethane | 0 | 7 | 0.02 | 0 | 0 |
| 1,4-Dichlorobenzene | 0 | 7 | 6 | 0 | 0 |
| cis-1,2-Dichloroethene | 0 | 7 | 70 | 0 | 0 |
| 1,1-Dichloroethane | 0 | 7 | 6 | 0 | 0 |
| 1,2-Dichloroethane | 0 | 7 | 0.4 | 0 | 0 |
| 1,1-Dichloroethene | 0 | 7 | 7 | 0 | 0 |
| Methylene Chloride | 0 | 7 | 5 | 0 | 0 |
| Tetrachloroethylene | 0 | 7 | 0.7 | 0 | 0 |
| Toluene | 196.3 | 7 | 600 | 5 | 28.0 |
| 1,1,1-Trichloroethane | 0 | 7 | 200 | 0 | 0 |
| Trichloroethylene | 0 | 7 | 3 | 0 | 0 |
| Trichloroflouromethane | 0 | 7 | 2000 | 0 | 0 |
| Vinyl Chloride | 0 | 7 | 0.03 | 0 | 0 |
| Xylenes | 0 | 7 | 500 | 0 | 0 |
| Dichlorodifluoromethane* | 0 | 0 | 1000 | 0 | NA |
| Diethyphthalate* | 0 | 0 | 6000 | 0 | NA |
| bis(2-ethylhexyl)phthalate* | 0 | 0 | 3 | 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 | 34 | 700 | 0 | 0 |
| Benzene | 0 | 34 | 1 | 0 | 0 |
| Carbon Disulfide | 0 | 34 | 700 | 0 | 0 |
| Carbon Tetrachloride | 0 | 34 | 0.3 | 0 | 0 |
| Chlorobenzene | 0 | 34 | 50 | 0 | 0 |
| Chloroethane | 0 | 34 | 3000 | 0 | 0 |
| Chloromethane | 0 | 34 | 3 | 0 | 0 |
| 1,2-Dibromoethane | 0 | 34 | 0.02 | 0 | 0 |
| 1,4-Dichlorobenzene | 0 | 34 | 6 | 0 | 0 |
| cis-1,2-Dichloroethene | 0 | 34 | 70 | 0 | 0 |
| 1,1-Dichloroethane | 0 | 34 | 6 | 0 | 0 |
| 1,2-Dichloroethane | 0 | 34 | 0.4 | 0 | 0 |
| 1,1-Dichloroethene | 0 | 34 | 7 | 0 | 0 |
| Methylene Chloride | 0 | 34 | 5 | 0 | 0 |
| Tetrachloroethylene | 0 | 34 | 0.7 | 0 | 0 |
| Toluene | 0 | 34 | 600 | 0 | 0 |
| 1,1,1-Trichloroethane | 0 | 34 | 200 | 0 | 0 |
| Trichloroethylene | 0 | 34 | 3 | 0 | 0 |
| Trichloroflouromethane | 0 | 34 | 2000 | 0 | 0 |
| Vinyl Chloride | 0 | 34 | 0.03 | 0 | 0 |
| Xylenes | 0 | 34 | 500 | 0 | 0 |
| Dichlorodifluoromethane* | 0 | 2 | 1000 | 0 | 0 |
| Diethyphthalate* | 0 | 2 | 6000 | 0 | 0 |
| bis(2-ethylhexyl)phthalate* | 0 | 2 | 3 | 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 | 7 | 12.62 | 700 | 1.80E-02 |
| Benzene | 53 | 0.86 | 1 | **0.86** |
| Carbon Disulfide | 7 | 0.30 | 700 | 4.36E-04 |
| Carbon Tetrachloride | 1 | 0.00 | 0.3 | 0.00E+00 |
| Chlorobenzene | 42 | 1.57 | 50 | 0.03 |
| Chloroethane | 82 | 6.04 | 3000 | 2.01E-03 |
| Chloromethane | 7 | 1.10 | 3 | 0.37 |
| 1,2-Dibromoethane | 1 | 0.05 | 0.02 | 2 |
| 1,4-Dichlorobenzene | 35 | 0.27 | 6 | 4.44E-02 |
| cis-1,2-Dichloroethene | 58 | 2.05 | 70 | 0.03 |
| 1,1-Dichloroethane | 126 | 23.49 | 6 | **3.92** |
| 1,2-Dichloroethane | 2 | 0.06 | 0.4 | 0.15 |
| 1,1-Dichloroethene | 23 | 0.68 | 7 | 0.10 |
| Methylene Chloride | 114 | 18.39 | 5 | **3.68** |
| Tetrachloroethylene | 50 | 0.63 | 0.7 | **0.90** |
| Toluene | 15 | 2.10 | 600 | 3.51E-03 |
| 1,1,1-Trichloroethane | 26 | 1.35 | 200 | 0.01 |
| Trichloroethylene | 86 | 1.44 | 3 | **0.48** |
| Trichlorofluoromethane | 17 | 0.27 | 2000 | 1.36E-04 |
| Vinyl Chloride | 38 | 0.53 | 0.03 | **17.6** |
| Xylenes | 43 | 2.06 | 500 | 4.13E-03 |
| Dichlorodifluoromethane** | 29 | 4.74 | 1000 | 4.74E-03 |
| Diethyphthalate** | 4 | 0.56 | 6000 | 9.36E-05 |
| bis(2-ethylhexyl)phthalate** | 2 | 0.18 | 3 | 0.06 |

**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 | 6 | 33.73 | 700 | 4.82E-02 |
| Benzene | 53 | 2.58 | 1 | **2.58** |
| Carbon Disulfide | 1 | 0.04 | 700 | 6.27E-05 |
| Carbon Tetrachloride | 1 | 0.00 | 0.3 | 0.00E+00 |
| Chlorobenzene | 42 | 4.70 | 50 | 0.09 |
| Chloroethane | 82 | 18.13 | 3000 | 0.01 |
| Chloromethane | 6 | 3.28 | 3 | 1.09 |
| 1,2-Dibromoethane | 1 | 0.15 | 0.02 | 7.37 |
| 1,4-Dichlorobenzene | 35 | 0.80 | 6 | 1.33E-01 |
| cis-1,2-Dichloroethene | 58 | 6.15 | 70 | 0.09 |
| 1,1-Dichloroethane | 126 | 70.48 | 6 | **11.75** |
| 1,2-Dichloroethane | 2 | 0.18 | 0.4 | 0.44 |
| 1,1-Dichloroethene | 23 | 2.03 | 7 | 0.29 |
| Methylene Chloride | 114 | 55.16 | 5 | **11.03** |
| Tetrachloroethylene | 50 | 1.88 | 0.7 | **2.69** |
| Toluene | 10 | 0.70 | 600 | 1.17E-03 |
| 1,1,1-Trichloroethane | 26 | 4.06 | 200 | 0.02 |
| Trichloroethylene | 86 | 4.33 | 3 | **1.44** |
| Trichlorofluoromethane | 17 | 0.81 | 2000 | 4.07E-04 |
| Vinyl Chloride | 38 | 1.58 | 0.03 | **52.74** |
| Xylenes | 43 | 6.19 | 500 | 0.01 |
| Dichlorodifluoromethane** | 29 | 12.65 | 1000 | 0.01 |
| Diethyphthalate** | 1 | 0.20 | 6000 | 3.28E-05 |
| bis(2-ethylhexyl)phthalate** | 2 | 0.47 | 3 | 0.16 |

**Table 6**
**Comparison of Standards, SWSL, Current and Historic Detection Limits**
**For selected Constituents**
**Dunn-Erwin Landfill**
**Harnett County, North Carolina**
**Oct-10**

| Constituent | 2L STD | 13B STD | SWSL | 2010 MDL | 2006 DL |
|---|---|---|---|---|---|
| **Inorganics** | | | | | |
| Antimony | NE | 1 | 6 | 0.22 | 30 |
| Arsenic | 10 | -- | 10 | 0.04 | 10 |
| Barium | 700 | -- | 100 | 0.03 | 500 |
| Beryllium | NE | 4 | 1 | 0.02 | 2 |
| Cadmium | 2 | -- | 1 | 0.02 | 1 |
| Chromium | 10 | -- | 10 | 0.03 | 10 |
| Cobalt | NE | 1 | 10 | 0.1 | 10 |
| Copper | 1000 | -- | 10 | 0.03 | 200 |
| Lead | 15 | -- | 10 | 0.01 | 10 |
| Nickel | 100 | -- | 50 | 0.05 | 50 |
| Selenium | 20 | -- | 10 | 0.32 | 20 |
| Silver | 20 | -- | 10 | 0.03 | 10 |
| Thallium | NE | 0.28 | 5.5 | 0.05 | 10 |
| Vanadium | NE | 0.3 | 25 | 0.03 | 40 |
| Zinc | 1000 | -- | 10 | 0.08 | 50 |
| Cyanide | 70 | -- | 10 | 5 | 50 |
| Mercury | 1 | -- | 0.2 | 0.08 | 1 |
| Tin | NE | 2000 | 100 | 0.11 | 100 |
| **Organics** | | | | | |
| Acetone | 700 | -- | 100 | 9.06 | 100 |
| Benzene | 1 | -- | 1 | 0.24 | 5 |
| Carbon disulfide | 700 | -- | 100 | 0.23 | 100 |
| Carbon Tetrachloride | 0.3 | -- | 1 | 0.22 | 10 |
| Chlorobenzene | 50 | -- | 3 | 0.3 | 5 |
| Chloroethane | 3000 | -- | 10 | 0.48 | 10 |
| Methyl chloride | 3 | -- | 1 | 0.77 | 10 |
| 1,2-Dibromoethane | 0.02 | -- | 1 | 0.26 | 5 |
| 1,4-Dichlorobenzene | 6 | -- | 1 | 0.39 | 5 |
| cis-1,2-Dichloroethene | 70 | -- | 5 | 0.25 | 5 |
| 1,1-Dichloroethane | 6 | -- | 5 | 0.2 | 5 |
| 1,2-Dichloroethane | 0.4 | -- | 1 | 0.21 | 5 |
| 1,1-Dichloroethene | 7 | -- | 5 | 0.17 | 5 |
| Methylene chloride | 5 | -- | 1 | 0.64 | 10 |
| Tetrachloroethylene | 0.7 | -- | 1 | 0.17 | 5 |
| Toluene | 600 | -- | 1 | 0.23 | 5 |
| 1,1,1-Trichloroethane | 200 | -- | 1 | 0.19 | 5 |
| Trichloroethylene | 3 | -- | 1 | 0.23 | 5 |
| Trichlorofluoromethane | 2000 | -- | 1 | 0.24 | 5 |
| Vinyl chloride | 0.03 | -- | 1 | 0.63 | 10 |
| Xylenes (total) | 500 | -- | 5 | 0.68 | 5 |

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

# FIGURES

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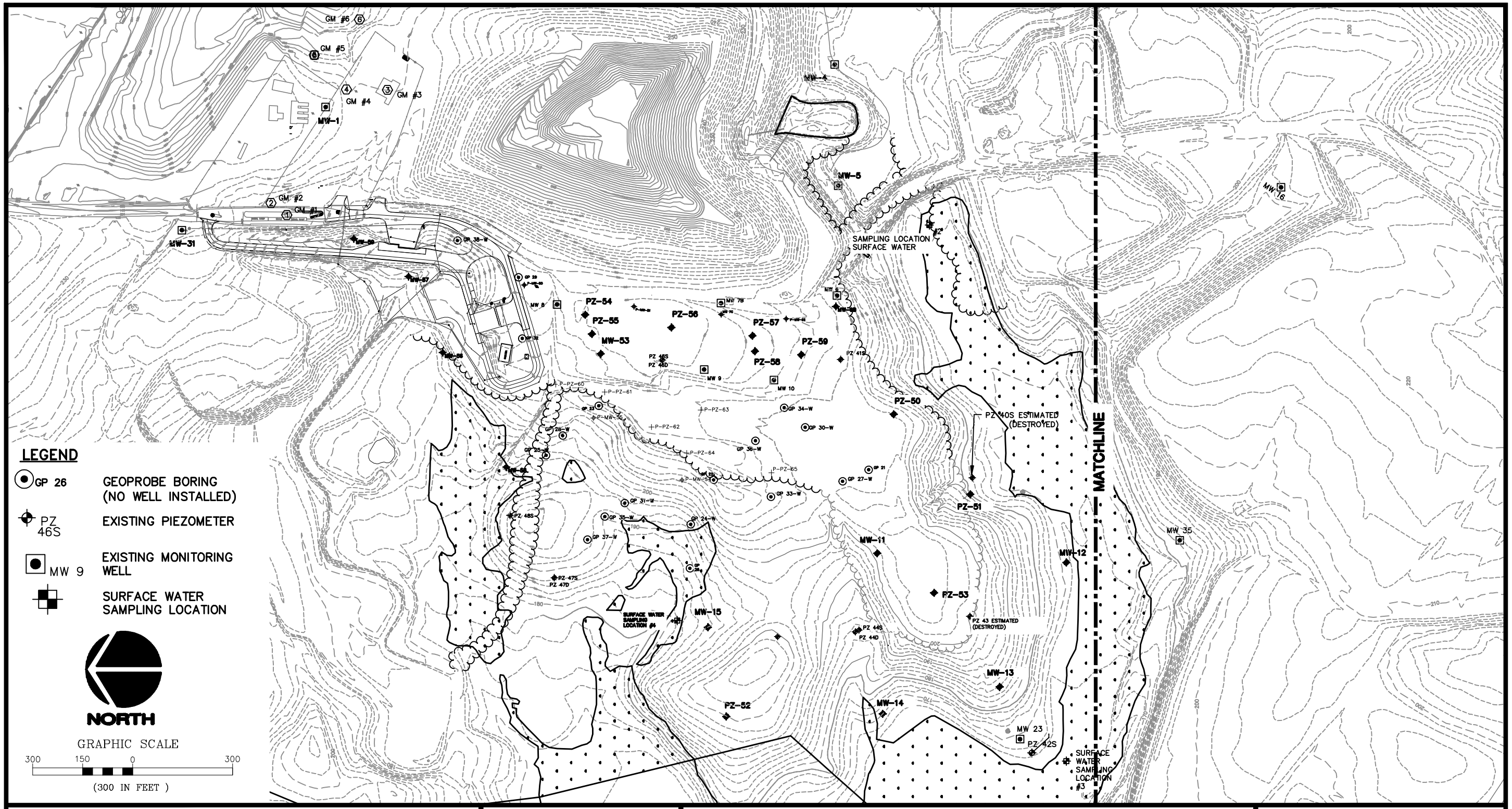
# DUNN-ERWIN
## LANDFILL

## LANDFILL LAYOUT

HARNETT COUNTY NORTH CAROLINA

| | |
|---|---|
| PROJECT # | : 3002 |
| PROJ. ENG. | : RS |
| DRAWN BY | : SBK |
| FIELD BK. | : – |
| CAD FILE | : 3035Mas Exhibit.DWG |
| SCALE | : 1" = 300' |
| DATE | : 4 MAY 2011 |
| FIGURE # | : 1 |

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# DUNN-ERWIN
## LANDFILL

## LANDFILL LAYOUT

HARNETT COUNTY NORTH CAROLINA

| | |
|---|---|
| PROJECT # | : 3002 |
| PROJ. ENG. | : RS |
| DRAWN BY | : SBK |
| FIELD BK. | : – |
| CAD FILE | : 3035Mas Exhibit.DWG |
| SCALE | : 1" = 300' |
| DATE | : 4 MAY 2011 |
| FIGURE # | : 2A |

## LEGEND

| | |
|---|---|
| GP 26 | GEOPROBE BORING (NO WELL INSTALLED) |
| PZ 46S | EXISTING PIEZOMETER |
| MW 9 | EXISTING MONITORING WELL |

NORTH

GRAPHIC SCALE

300 150 0 300

(300 IN FEET )

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# DUNN-ERWIN
## LANDFILL

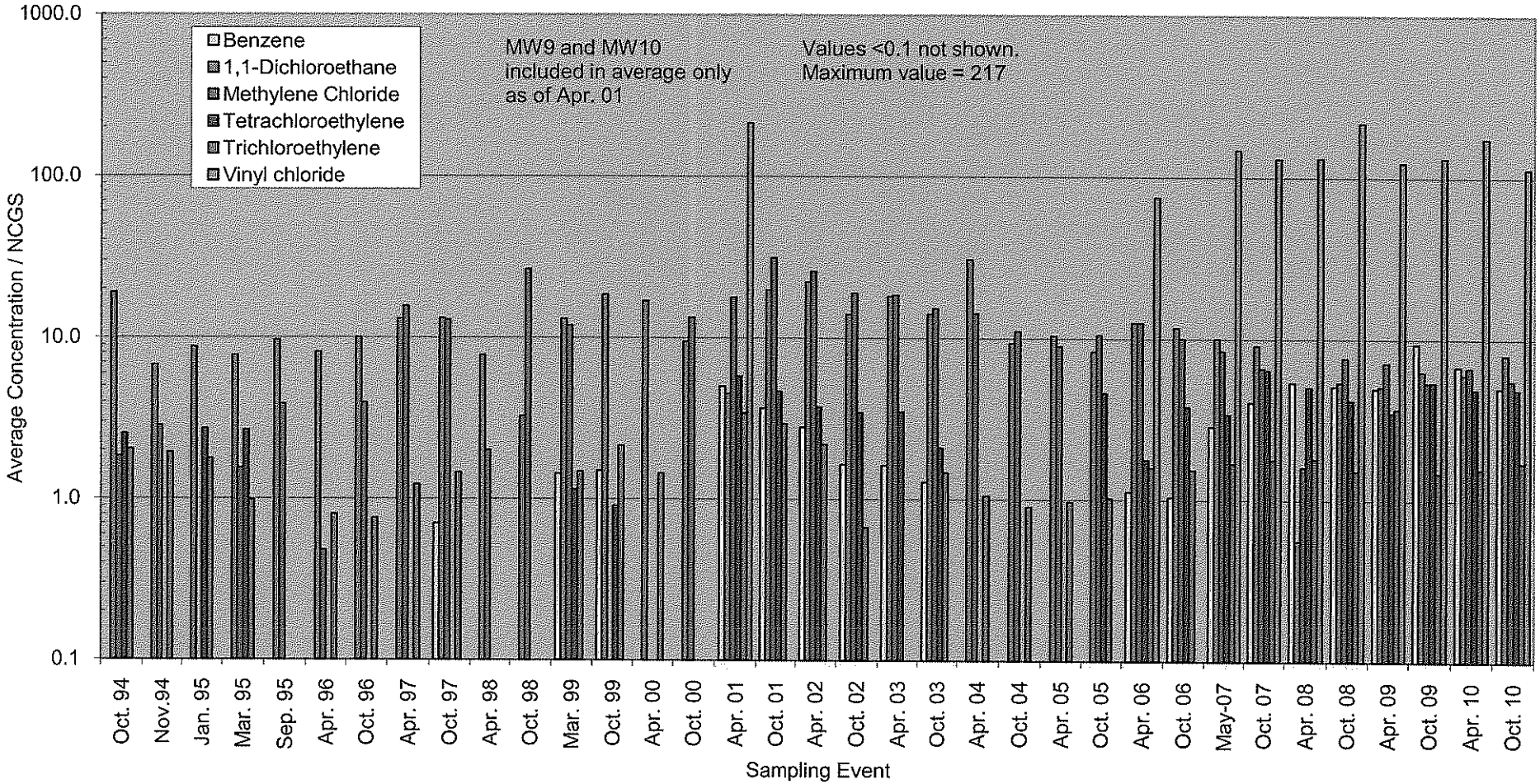
## LANDFILL LAYOUT

HARNETT COUNTY NORTH CAROLINA

| | |
|---|---|
| PROJECT # | : 3002 |
| PROJ. ENG. | : RS |
| DRAWN BY | : SBK |
| FIELD BK. | : – |
| CAD FILE | : 3035Mas Exhibit.DWG |
| SCALE | : 1" = 300' |
| DATE | : 4 MAY 2011 |
| FIGURE # | : 2B |

## Figure 3

Top Six, NCGS-Normalized Average Organics Concentrations per Sampling Event
Averages for Select Downgradient Wells (Contaminant Plume Area)
MW6B, MW7B, MW8, MW9, MW10
Dunn-Erwin Landfill, Harnett County



# 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 | Oct. 01 | Apr. 02 | Oct. 02 |
| 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 | | | | | 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 | 0.018 | | | | | | | | | | |
| 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 | NA | NA | NA |
| Mercury* | NA | NA | NA | 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 | NA | NA | NA |
| ORGANICS (ug/l) | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | NA | NA | | NA | | | | | | | | | | | | | |
| Benzene | | | | | | NA | NA | | NA | | | | | | | | | | | | | |
| Carbon Disulfide | | 20.9 | | | | NA | NA | | NA | | | | | | | 7.4 | | | | | | |
| Carbon Tetrachloride | | | | | | 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 | NA | NA | NA |
| Diethyphthalate* | NA | NA | NA | NA | 5.3 | | | 5.3 | | | 9.8 | | NA | | NA | | NA | NA | NA | NA | NA | NA |
| bis(2-ethylhexyl)phthalate* | NA | NA | NA | 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 | Apr. 03 | Oct. 03 | Apr. 04 | Oct. 04 | Apr. 05 | Oct. 05 | Apr. 06 | Oct. 06 | May 07 | Oct. 07 | Apr. 08 | Oct. 08 | Apr. 09 | Oct. 09 | Apr. 10 | Oct. 10 | detect# | detect% | |
| INORGANICS (mg/l) | | | | | | | | | | | | | | | | | | | (mg/l) |
| Antimony | | | | | | | | | | | | | | | | | 0 | 0% | 0.001** |
| Arsenic | | | | | | | | | | | | | | | | | 0 | 0% | 0.01 |
| Barium | | | | | | | | | | | | | | | | | 6 | 17% | 0.7 |
| Beryllium | | | | | | | | | | | | | | 0.001 | | | 12 | 34% | 0.004** |
| Cadmium | | | | | | | | | | | | | | | | | 4 | 11% | 0.002 |
| Chromium | | | | | | | | | | | | | | | | | 5 | 14% | 0.01 |
| Cobalt | | | | | | | | | | | | | | | | | 1 | 3% | 0.001** |
| Copper | | | | | | | | | | | | | | | | | 4 | 11% | 1 |
| Lead | | | | | | | | | | | | | | | | | 6 | 17% | 0.015 |
| Nickel | | | | | | | | | | | | | | | | | 1 | 3% | 0.1 |
| Selenium | | | | | | | | | | | | | | | | | 0 | 0% | 0.02 |
| Silver | | | | | | | | | | | | | | | | | 0 | 0% | 0.02 |
| Vanadium | | | | | | | | | | | | | | | | | 2 | 6% | 0.0003** |
| Zinc | | | 0.08 | | | | | | 0.011 | | | | | | | | 8 | 23% | 1 |
| t-Cyanide* | NA | NA | 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 | NA | NA | 0 | 0% | 0.001 |
| Tin* | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 1 | 17% | 2** |
| ORGANICS (ug/l) | | | | | | | | | | | | | | | | | | | (ug/l) |
| Acetone | | | | | | | | | | | | | | | | | 0 | 0% | 700 |
| Benzene | | | | | | | | | | | | | | | | | 0 | 0% | 1 |
| Carbon Disulfide | | | | | | | | | | | | | | | | | 2 | 6% | 700 |
| Carbon Tetrachloride | | | | | | | | | | | | | | | | | 0 | 0% | 0.3 |
| Chlorobenzene | | | | | | | | | | | | | | | | | 0 | 0% | 50 |
| Chloroethane | | | | | | | | | | | | | | | | | 0 | 0% | 3000 |
| Chloromethane | | | | | | | | | | | | | | | | | 0 | 0% | 3 |
| 1,2-Dibromoethane | | | | | | | | | | | | | | | | | 0 | 0% | 0.02 |
| 1,4-Dichlorobenzene | | | | | | | | | | | | | | | | | 0 | 0% | 6 |
| cis-1,2-Dichloroethene | | | | | | | | | | | | | | | | | 0 | 0% | 70 |
| 1,1-Dichloroethane | | | | | | | | | | | | | | | | | 0 | 0% | 6 |
| 1,2-Dichloroethane | | | | | | | | | | | | | | | | | 0 | 0% | 0.4 |
| 1,1-Dichloroethene | | | | | | | | | | | | | | | | | 0 | 0% | 7 |
| Methylene Chloride | | | | | | | | | | | | | | | | | 0 | 0% | 5 |
| Tetrachloroethylene | | | | | | | | | | | | | | | | | 0 | 0% | 0.7 |
| Toluene | | | | | | | | | | | | | | | | | 0 | 0% | 600 |
| 1,1,1-Trichloroethane | | | | | | | | | | | | | | | | | 0 | 0% | 200 |
| Trichloroethylene | | | | | | | | | | | | | | | | | 0 | 0% | 3 |
| Trichloroflouromethane | | | | | | | | | | | | | | | | | 0 | 0% | 2000 |
| Vinyl Chloride | | | | | | | | | | | | | | | | | 0 | 0% | 0.03 |
| Xylenes | | | | | | | | | | | | | | | | | 0 | 0% | 500 |
| Dichlorodifluoromethane* | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | 0% | 1000 |
| Diethyphthalate* | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 3 | 30% | 6000 |
| bis(2-ethylhexyl)phthalate* | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | 0% | 3 |

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 | Oct. 01 | Apr. 02 | Oct. 02 |
| INORGANICS (mg/l) | | | | | | | | | | | | | | | | | | | | | | |
| Antimony | | | | | | NA | NA | | NA | | | | | | | | | | | | | |
| Arsenic | | | | 0.005 | 0.055 | 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 | | 0.0013 | | | | | | | | | | | |
| 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 | NA | NA | NA |
| Mercury* | NA | NA | NA | 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 | NA | NA | NA |
| ORGANICS (ug/l) | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | NA | NA | | NA | | | | | | | | | | | | | |
| Benzene | | | | | | NA | NA | | NA | | | | | | | | | | | | | |
| Carbon Disulfide | | | | | | NA | NA | | NA | | | | | | | | | | | | | |
| Carbon Tetrachloride | | | | | | 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 | NA | NA | NA |
| Diethyphthalate* | 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 |

| | | |
|---|---|---|
| | | - 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 | Apr. 03 | Oct. 03 | Apr. 04 | Oct. 04 | Apr. 05 | Oct. 05 | Apr. 06 | Oct. 06 | May 07 | Oct. 07 | Apr. 08 | Oct. 08 | Apr. 09 | Oct. 09 | Apr. 10 | Oct. 10 | detect# | detect% | |
| INORGANICS (mg/l) | | | | | | | | | | | | | | | | | | | (mg/l) |
| Antimony | | | | | | | | | | | | | | | | | 0 | 0% | 0.001** |
| Arsenic | | | | | | | | | | | | | | | | | 5 | 14% | 0.01 |
| Barium | | | | | | | | | | | | | | | | | 5 | 14% | 0.7 |
| Beryllium | | | | | | | | | | | | | | | | | 6 | 17% | 0.004** |
| Cadmium | | | | | | | | | | | | | | | | | 4 | 11% | 0.002 |
| Chromium | | | | | | | | | | | | | | | | | 11 | 31% | 0.01 |
| Cobalt | | | | | | | | | | | | | | | | | 2 | 6% | 0.001** |
| Copper | | | | | | | | | | | | | | | | | 9 | 26% | 1 |
| Lead | | | | | | | | | | | 0.014 | 0.013 | | | | | 13 | 37% | 0.015 |
| Nickel | | | | | | | | | | | | | | | | | 0 | 0% | 0.1 |
| Selenium | | | | | | | | | | | | | | | | | 0 | 0% | 0.02 |
| Silver | | | | | | | | | | | | | | | | | 0 | 0% | 0.02 |
| Vanadium | | | | | | | | | | | | | | | | | 10 | 29% | 0.0003** |
| Zinc | | | | | | | | | 0.017 | | 0.01 | | | | | | 11 | 31% | 1 |
| t-Cyanide* | NA | NA | 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 | NA | NA | 0 | 0% | 0.001 |
| Tin* | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | 0% | 2** |
| ORGANICS (ug/l) | | | | | | | | | | | | | | | | | | | (ug/l) |
| Acetone | | | | | | | | | | | | | | | | | 0 | 0% | 700 |
| Benzene | | | | | | | | | | | | | | | | | 0 | 0% | 1 |
| Carbon Disulfide | | | | | | | | | | | | | | | | | 0 | 0% | 700 |
| Carbon Tetrachloride | | | | | | | | | | | | | | | | | 0 | 0% | 0.3 |
| Chlorobenzene | | | | | | | | | | | | | | | | | 0 | 0% | 50 |
| Chloroethane | | | | | | | | | | | | | | | | | 0 | 0% | 3000 |
| Chloromethane | | | | | | | | | | | | | | | | | 0 | 0% | 3 |
| 1,2-Dibromoethane | | | | | | | | | | | | | | | | | 0 | 0% | 0.02 |
| 1,4-Dichlorobenzene | | | | | | | | | | | | | | | | | 0 | 0% | 6 |
| cis-1,2-Dichloroethene | | | | | | | | | | | | | | | | | 0 | 0% | 70 |
| 1,1-Dichloroethane | | | | | | | | | | | | | | | | | 0 | 0% | 6 |
| 1,2-Dichloroethane | | | | | | | | | | | | | | | | | 0 | 0% | 0.4 |
| 1,1-Dichloroethene | | | | | | | | | | | | | | | | | 0 | 0% | 7 |
| Methylene Chloride | | | | | | | | | | | | | | | | | 0 | 0% | 5 |
| Tetrachloroethylene | | | | | | | | | | | | | | | | | 0 | 0% | 0.7 |
| Toluene | | | | | | | | | | | | | | | | | 0 | 0% | 600 |
| 1,1,1-Trichloroethane | | | | | | | | | | | | | | | | | 0 | 0% | 200 |
| Trichloroethylene | | | | | | | | | | | | | | | | | 0 | 0% | 3 |
| Trichloroflouromethane | | | | | | | | | | | | | | | | | 0 | 0% | 2000 |
| Vinyl Chloride | | | | | | | | | | | | | | | | | 0 | 0% | 0.03 |
| Xylenes | | | | | | | | | | | | | | | | | 0 | 0% | 500 |
| Dichlorodifluoromethane* | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | 0% | 1000 |
| Diethyphthalate* | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | 0% | 6000 |
| bis(2-ethylhexyl)phthalate* | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | 0% | 3 |

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 | Oct. 01 | Apr. 02 | Oct. 02 | Apr. 03 |
| 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 | 0.002 | 0.002 | | 0.004 |
| 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 | 0.025 | 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 | NA | NA | NA | NA |
| Mercury* | NA | NA | NA | NA | | NA | NA | | NA | | NA | 0.0008 | 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 | NA | NA | NA | NA |
| ORGANICS (ug/l) | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | NA | NA | | NA | | | | | | | | | | | | | | |
| Benzene | | | | | | NA | NA | | NA | | | | | | | | | | | | | | |
| Carbon Disulfide | | | | | | NA | NA | | NA | | | | | | | | | | | | | | |
| Carbon Tetrachloride | | | | | | 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 | NA | NA | NA | NA |
| Diethyphthalate* | NA | NA | NA | NA | 13 | | | | | | | | 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 |

| | | |
|---|---|---|
| | | - 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. 03 | Apr. 04 | Oct. 04 | Apr. 05 | Oct. 05 | Apr. 06 | Oct. 06 | May 07 | Oct. 07 | Apr. 08 | Oct. 08 | Apr. 09 | Oct. 09 | Apr. 10 | Oct. 10 | detect# | detect% | |
| INORGANICS (mg/l) | | | | | | | | | | | | | | | | | | (mg/l) |
| Antimony | | | | | | | | | | | | | | | | 0 | 0% | 0.001** |
| Arsenic | | | | | | | | | | | | | | | | 2 | 6% | 0.01 |
| Barium | | | | | | | | | | | | | | | | 7 | 20% | 0.7 |
| Beryllium | | 0.002 | 0.003 | | | | | 0.002 | 0.0015 | 0.002 | 0.002 | 0.0019 | 0.0018 | 0.0017 | 0.002 | 24 | 69% | 0.004** |
| Cadmium | | | | | | | | | | | | | | | | 4 | 11% | 0.002 |
| Chromium | | | | | | | | | | | | | | | | 6 | 17% | 0.01 |
| Cobalt | | | | | | | | | | | | | | | | 3 | 9% | 0.001** |
| Copper | | | | | | | | | | | | | | | | 5 | 14% | 1 |
| Lead | | | | | | | | | | | | | | | | 8 | 23% | 0.015 |
| Nickel | | | | | | | | | | | | | | | | 2 | 6% | 0.1 |
| Selenium | | | | | | | | | | | | | | | | 0 | 0% | 0.02 |
| Silver | | | | | | | | | | | | | | | | 0 | 0% | 0.02 |
| Vanadium | | | | | | | | | | | | | | | | 4 | 11% | 0.0003** |
| Zinc | | | | | | | | 0.013 | | 0.012 | | | | | 0.012 | 11 | 31% | 1 |
| t-Cyanide* | NA | 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 | NA | 1 | 17% | 0.001 |
| Tin* | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 1 | 17% | 2** |
| ORGANICS (ug/l) | | | | | | | | | | | | | | | | | | (ug/l) |
| Acetone | | | | | | | | | | | | | | | | 0 | 0% | 700 |
| Benzene | | | | | | | | | | | | | | | | 0 | 0% | 1 |
| Carbon Disulfide | | | | | | | | | | | | | | | | 0 | 0% | 700 |
| Carbon Tetrachloride | | | | | | | | | | | | | | | | 0 | 0% | 0.3 |
| Chlorobenzene | | | | | | | | | | | | | | | | 0 | 0% | 50 |
| Chloroethane | | | | | | | | | | | | | | | | 0 | 0% | 3000 |
| Chloromethane | | | | | | | | | | | | | | | | 0 | 0% | 3 |
| 1,2-Dibromoethane | | | | | | | | | | | | | | | | 0 | 0% | 0.02 |
| 1,4-Dichlorobenzene | | | | | | | | | | | | | | | | 0 | 0% | 6 |
| cis-1,2-Dichloroethene | | | | | | | | | | | | | | | | 0 | 0% | 70 |
| 1,1-Dichloroethane | | | | | | | | | | | | | | | | 0 | 0% | 6 |
| 1,2-Dichloroethane | | | | | | | | | | | | | | | | 0 | 0% | 0.4 |
| 1,1-Dichloroethene | | | | | | | | | | | | | | | | 0 | 0% | 7 |
| Methylene Chloride | | | | | | | | | | | | | | | | 0 | 0% | 5 |
| Tetrachloroethylene | | | | | | | | | | | | | | | | 0 | 0% | 0.7 |
| Toluene | | | | | | | | | | | | | | | | 0 | 0% | 600 |
| 1,1,1-Trichloroethane | | | | | | | | | | | | | | | | 0 | 0% | 200 |
| Trichloroethylene | | | | | | | | | | | | | | | | 0 | 0% | 3 |
| Trichlorofiouromethane | | | | | | | | | | | | | | | | 0 | 0% | 2000 |
| Vinyl Chloride | | | | | | | | | | | | | | | | 0 | 0% | 0.03 |
| Xylenes | | | | | | | | | | | | | | | | 0 | 0% | 500 |
| Dichlorodifluoromethane* | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | 0% | 1000 |
| Diethyphthalate* | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 1 | 10% | 6000 |
| bis(2-ethylhexyl)phthalate* | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | 0% | 3 |

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 | Oct. 01 | Apr. 02 | Oct. 02 |
| 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 | 0.005 | 0.005 | 0.005 |
| Cadmium | | 0.002 | 0.001 | 0.011 | | NA | NA | | NA | | | | | | | | | | | | | |
| Chromium | 0.005 | | | 0.003 | | NA | NA | | NA | | | | | | | 0.01 | | | | | 0.014 | |
| 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 | NA | NA | NA |
| Mercury* | NA | NA | NA | 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 | NA | NA | NA |
| ORGANICS (ug/l) | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | NA | NA | | NA | | | | | | | | | | | | | |
| Benzene | | | | | | NA | NA | | NA | | | | | | | | | | | | | |
| Carbon Disulfide | | 64.4 | | | | NA | NA | | NA | | | | | | | | | | | | | |
| Carbon Tetrachloride | | | | | | 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 | NA | NA | NA |
| Diethyphthalate* | 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 |

| | |
|---|---|
| | - 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 | Apr. 03 | Oct. 03 | Apr. 04 | Oct. 04 | Apr. 05 | Oct. 05 | Apr. 06 | Oct. 06 | May 07 | Oct. 07 | Apr. 08 | Oct. 08 | Apr. 09 | Oct. 09 | Apr. 10 | Oct. 10 | detect# | detect% | |
| INORGANICS (mg/l) | | | | | | | | | | | | | | | | | | | (mg/l) |
| Antimony | | | | | NA | | | | | | | | | | | | 0 | 0% | 0.001** |
| Arsenic | | | | | NA | | | | | | | | | | | | 0 | 0% | 0.01 |
| Barium | | | | | NA | | | | | | | 0.124 | 0.107 | | | | 8 | 24% | 0.7 |
| Beryllium | 0.005 | 0.005 | 0.005 | 0.006 | NA | | | | | | 0.001 | 0.002 | 0.0027 | 0.0032 | 0.0028 | 0.003 | 28 | 82% | 0.004** |
| Cadmium | | | | | NA | | | | | | | | | | | | 3 | 9% | 0.002 |
| Chromium | | | | | NA | | | | | | | | | | | | 4 | 12% | 0.01 |
| Cobalt | | | | | NA | | | | | | | | | | | | 2 | 6% | 0.001** |
| Copper | | | | | NA | | | | | | | | | | | | 2 | 6% | 1 |
| Lead | | | | | NA | | | | | | | | | | | | 3 | 9% | 0.015 |
| Nickel | | | | | NA | | | | | | | | | | | | 0 | 0% | 0.1 |
| Selenium | | | | | NA | | | | | | | | | | | | 0 | 0% | 0.02 |
| Silver | | | | | NA | | | | | | | | | | | | 0 | 0% | 0.02 |
| Vanadium | | | | | NA | | | | | | | | | | | | 2 | 6% | 0.0003** |
| Zinc | | | | | NA | | | | 0.015 | | 0.014 | 0.022 | 0.016 | 0.014 | 0.012 | 0.011 | 14 | 41% | 1 |
| t-Cyanide* | NA | NA | 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 | NA | NA | 0 | 0% | 0.001 |
| Tin* | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | 0% | 2** |
| ORGANICS (ug/l) | | | | | | | | | | | | | | | | | | | (ug/l) |
| Acetone | | | | | NA | | | | | | | | | | | | 0 | 0% | 700 |
| Benzene | | | | | NA | | | | | | | | | | | | 0 | 0% | 1 |
| Carbon Disulfide | | | | | NA | | | | | | | | | | | | 1 | 3% | 700 |
| Carbon Tetrachloride | | | | | NA | | | | | | | | | | | | 0 | 0% | 0.3 |
| Chlorobenzene | | | | | NA | | | | | | | | | | | | 0 | 0% | 50 |
| Chloroethane | | | | | NA | | | | | | | | | | | | 0 | 0% | 3000 |
| Chloromethane | | | | | NA | | | | | | | | | | | | 0 | 0% | 3 |
| 1,2-Dibromoethane | | | | | NA | | | | | | | | | | | | 0 | 0% | 0.02 |
| 1,4-Dichlorobenzene | | | | | NA | | | | | | | | | | | | 0 | 0% | 6 |
| cis-1,2-Dichloroethene | | | | | NA | | | | | | | | | | | | 0 | 0% | 70 |
| 1,1-Dichloroethane | | | | | NA | | | | | | | | | | | | 0 | 0% | 6 |
| 1,2-Dichloroethane | | | | | NA | | | | | | | | | | | | 0 | 0% | 0.4 |
| 1,1-Dichloroethene | | | | | NA | | | | | | | | | | | | 0 | 0% | 7 |
| Methylene Chloride | | | | | NA | | | | | | | | | | | | 0 | 0% | 5 |
| Tetrachloroethylene | | | | | NA | | | | | | | | | | | | 0 | 0% | 0.7 |
| Toluene | | | | | NA | | | | | | | | | | | | 0 | 0% | 600 |
| 1,1,1-Trichloroethane | | | | | NA | | | | | | | | | | | | 0 | 0% | 200 |
| Trichloroethylene | | | | | NA | | | | | | | | | | | | 0 | 0% | 3 |
| Trichloroflouromethane | | | | | NA | | | | | | | | | | | | 0 | 0% | 2000 |
| Vinyl Chloride | | | | | NA | | | | | | | | | | | | 0 | 0% | 0.03 |
| Xylenes | | | | | NA | | | | | | | | | | | | 0 | 0% | 500 |
| Dichlorodifluoromethane* | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | 0% | 1000 |
| Diethyphthalate* | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | 0% | 6000 |
| bis(2-ethylhexyl)phthalate* | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | 0% | 3 |

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 | Oct. 01 | Apr. 02 | Oct. 02 |
| 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 | 0.003 | 0.003 | 0.003 |
| 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 | NA | NA | NA |
| Mercury* | NA | NA | NA | 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 | NA | NA | NA |
| ORGANICS (ug/l) | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | NA | NA | | NA | | | | | | | | | | | | | |
| Benzene | | | | | | NA | NA | | NA | | | | | | | | | | | | | |
| Carbon Disulfide | | 21.3 | 21.3 | 6.2 | | NA | NA | | NA | | | | | | | | | | | | | |
| Carbon Tetrachloride | | | | | | 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 | NA | NA | NA |
| Diethyphthalate* | NA | NA | NA | NA | | 13 | | | 13 | | | | NA | | NA | | NA | NA | NA | NA | NA | NA |
| bis(2-ethylhexyl)phthalate* | NA | NA | NA | 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 | Apr. 03 | Oct. 03 | Apr. 04 | Oct. 04 | Apr. 05 | Oct. 05 | Apr. 06 | Oct. 06 | May 07 | Oct. 07 | Apr. 08 | Oct. 08 | Apr. 09 | Oct. 09 | Apr. 10 | Oct. 10 | detect# | detect% | |
| INORGANICS (mg/l) | | | | | | | | | | | | | | | | | | | (mg/l) |
| Antimony | | | | | | | | | | | | | | | | | 0 | 0% | 0.001** |
| Arsenic | | | | | | | | | | | | | | | | | 0 | 0% | 0.01 |
| Barium | | | | | | | | | | | | | | | | | 6 | 17% | 0.7 |
| Beryllium | 0.003 | | 0.002 | 0.004 | | 0.002 | 0.002 | 0.002 | 0.002 | 0.0026 | 0.003 | 0.006 | 0.0029 | 0.003 | 0.0028 | 0.003 | 31 | 89% | 0.004** |
| Cadmium | | | | | | | | | | | | | | | | | 2 | 6% | 0.002 |
| Chromium | | | | | | | | | | | | | | | | | 6 | 17% | 0.01 |
| Cobalt | | | | | | | | | | | | | | | | | 2 | 6% | 0.001** |
| Copper | | | | | | | | | | | | | | | | | 5 | 14% | 1 |
| Lead | | | | | | | | | | | | | | | | | 9 | 26% | 0.015 |
| Nickel | | | | | | | | | | | | | | | | | 1 | 3% | 0.1 |
| Selenium | | | | | | | | | | | | | | | | | 0 | 0% | 0.02 |
| Silver | | | | | | | | | | | | | | | | | 0 | 0% | 0.02 |
| Vanadium | | | | | | | | | | | | | | | | | 2 | 6% | 0.0003** |
| Zinc | | | | | | | | | 0.019 | | 0.017 | 0.013 | 0.016 | 0.01 | 0.013 | | 14 | 40% | 1 |
| t-Cyanide* | NA | NA | 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 | NA | NA | 0 | 0% | 0.001 |
| Tin* | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | 0% | 2** |
| ORGANICS (ug/l) | | | | | | | | | | | | | | | | | | | (ug/l) |
| Acetone | | | | | | | | | | | | | | | | | 0 | 0% | 700 |
| Benzene | | | | | | | | | | | | | | | | | 0 | 0% | 1 |
| Carbon Disulfide | | | | | | | | | | | | | | | | | 3 | 9% | 700 |
| Carbon Tetrachloride | | | | | | | | | | | | | | | | | 0 | 0% | 0.3 |
| Chlorobenzene | | | | | | | | | | | | | | | | | 0 | 0% | 50 |
| Chloroethane | | | | | | | | | | | | | | | | | 0 | 0% | 3000 |
| Chloromethane | | | | | | | | | | | | | | | | | 0 | 0% | 3 |
| 1,2-Dibromoethane | | | | | | | | | | | | | | | | | 0 | 0% | 0.02 |
| 1,4-Dichlorobenzene | | | | | | | | | | | | | | | | | 0 | 0% | 6 |
| cis-1,2-Dichloroethene | | | | | | | | | | | | | | | | | 0 | 0% | 70 |
| 1,1-Dichloroethane | | | | | | | | | | | | | | | | | 0 | 0% | 6 |
| 1,2-Dichloroethane | | | | | | | | | | | | | | | | | 0 | 0% | 0.4 |
| 1,1-Dichloroethene | | | | | | | | | | | | | | | | | 0 | 0% | 7 |
| Methylene Chloride | | | | | | | | | | | | | | | | | 0 | 0% | 5 |
| Tetrachloroethylene | | | | | | | | | | | | | | | | | 0 | 0% | 0.7 |
| Toluene | | | | | | | | | | | | | | | | | 0 | 0% | 600 |
| 1,1,1-Trichloroethane | | | | | | | | | | | | | | | | | 0 | 0% | 200 |
| Trichloroethylene | | | | | | | | | | | | | | | | | 0 | 0% | 3 |
| Trichloroflouromethane | | | | | | | | | | | | | | | | | 0 | 0% | 2000 |
| Vinyl Chloride | | | | | | | | | | | | | | | | | 0 | 0% | 0.03 |
| Xylenes | | | | | | | | | | | | | | | | | 0 | 0% | 500 |
| Dichlorodifluoromethane* | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | 0% | 1000 |
| Diethyphthalate* | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 2 | 20% | 6000 |
| bis(2-ethylhexyl)phthalate* | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | 0% | 3 |

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 | Oct. 01 | Apr. 02 | Oct. 02 |
| 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 | NA | NA | NA |
| Mercury* | NA | NA | NA | 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 | NA | NA | NA |
| ORGANICS (ug/l) | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | NA | NA | | NA | | | | | | | | | | | | | |
| Benzene | | | | | | NA | NA | | NA | | | | | | | | | | | | | |
| Carbon Disulfide | | 30.5 | | | | NA | NA | | NA | | | | | | | 6.8 | | | | | | |
| Carbon Tetrachloride | | | | | | 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 | NA | NA | NA |
| Diethyphthalate* | 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 |
| | | - 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 | Apr. 03 | Oct. 03 | Apr. 04 | Oct. 04 | Apr. 05 | Oct. 05 | Apr. 06 | Oct. 06 | May 07 | Oct. 07 | Apr. 08 | Oct. 08 | Apr. 09 | Oct. 09 | Apr. 10 | Oct. 10 | detect# | detect% | |
| INORGANICS (mg/l) | | | | | | | | | | | | | | | | | | | (mg/l) |
| Antimony | | | | | | | | | | | | | | | | | 0 | 0% | 0.001** |
| Arsenic | | | | | | | | | | | | | | | | | 1 | 3% | 0.01 |
| Barium | | | | | | | | | 0.112 | 0.103 | | 0.197 | 0.129 | 0.117 | 0.113 | 0.115 | 15 | 43% | 0.7 |
| Beryllium | | | | | | | | | | | | 0.003 | | | | | 5 | 14% | 0.004** |
| Cadmium | | | | | | | | | | | | | | | | | 2 | 6% | 0.002 |
| Chromium | | | | | | | | | | | | | | | | | 1 | 3% | 0.01 |
| Cobalt | | | | | | | | | | | | | | | | | 0 | 0% | 0.001** |
| Copper | | | | | | | | | | | | | | | | | 4 | 11% | 1 |
| Lead | | | | | | | | | | | | | | | | | 4 | 11% | 0.015 |
| Nickel | | | | | | | | | | | | | | | | | 1 | 3% | 0.1 |
| Selenium | | | | | | | | | | | | | | | | | 0 | 0% | 0.02 |
| Silver | | | | | | | | | | | | | | | | | 0 | 0% | 0.02 |
| Vanadium | | | | | | | | | | | | | | | | | 1 | 3% | 0.0003** |
| Zinc | | | | | | | | | | | | 0.014 | | | | | 6 | 17% | 1 |
| t-Cyanide* | NA | NA | 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 | NA | NA | 0 | 0% | 0.001 |
| Tin* | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | 0% | 2** |
| ORGANICS (ug/l) | | | | | | | | | | | | | | | | | | | (ug/l) |
| Acetone | | | | | | | | | | | | | | | | | 0 | 0% | 700 |
| Benzene | | | | | | | | | | | | | | | | | 0 | 0% | 1 |
| Carbon Disulfide | | | | | | | | | | | | | | | | | 2 | 6% | 700 |
| Carbon Tetrachloride | | | | | | | | | | | | | | | | | 0 | 0% | 0.3 |
| Chlorobenzene | | | | | | | | | | | | | | | | | 0 | 0% | 50 |
| Chloroethane | | | | | | | | | | | | | | | | | 0 | 0% | 3000 |
| Chloromethane | | | | | | | | | | | | | | | | | 0 | 0% | 3 |
| 1,2-Dibromoethane | | | | | | | | | | | | | | | | | 0 | 0% | 0.02 |
| 1,4-Dichlorobenzene | | | | | | | | | | | | | | | | | 0 | 0% | 6 |
| cis-1,2-Dichloroethene | | | | | | | | | | | | | | | | | 0 | 0% | 70 |
| 1,1-Dichloroethane | | | | | | | | | | | | | | | | | 0 | 0% | 6 |
| 1,2-Dichloroethane | | | | | | | | | | | | | | | | | 0 | 0% | 0.4 |
| 1,1-Dichloroethene | | | | | | | | | | | | | | | | | 0 | 0% | 7 |
| Methylene Chloride | | | | | | | | | | | | | | | | | 0 | 0% | 5 |
| Tetrachloroethylene | | | | | | | | | | | | | | | | | 0 | 0% | 0.7 |
| Toluene | | | | | | | | | | | | | | | | | 0 | 0% | 600 |
| 1,1,1-Trichloroethane | | | | | | | | | | | | | | | | | 0 | 0% | 200 |
| Trichloroethylene | | | | | | | | | | | | | | | | | 0 | 0% | 3 |
| Trichloroflouromethane | | | | | | | | | | | | | | | | | 0 | 0% | 2000 |
| Vinyl Chloride | | | | | | | | | | | | | | | | | 0 | 0% | 0.03 |
| Xylenes | | | | | | | | | | | | | | | | | 0 | 0% | 500 |
| Dichlorodifluoromethane* | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | 0% | 1000 |
| Diethyphthalate* | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | 0% | 6000 |
| bis(2-ethylhexyl)phthalate* | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | 0% | 3 |

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

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

| CONSTITUENT | MW6,6B | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | Oct .01 | Apr. 02 | Oct. 02 |
| 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 | | | | | | | | | | 0.017 | |
| Cobalt | | | | | | NA | NA | | NA | | 0.011 | 0.009 | | | 0.01 | | 0.01 | | 0.011 | 0.012 | 0.013 | |
| 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 | | NA | |
| Mercury* | NA | NA | NA | NA | | NA | NA | | NA | | NA | 0.0004 | 0.0004 | 0.0004 | NA | 0.002 | NA | | NA | | NA | 0.0006 |
| Tin* | NA | NA | NA | NA | | NA | NA | | NA | | NA | 0.1 | | | NA | | 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 | | | | | | | | | | | | | |
| Carbon Tetrachloride | | | | | | 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 | 17 | 19 | |
| 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 | | 5.8 | |
| 1,1-Dichloroethane | 78.9 | 51.7 | 105 | 87.1 | 67 | NA | 66 | 61 | NA | 80 | 134 | 160 | 30.1 | | 88 | 64 | 41 | 37 | | 27 | 28 | 27.7 |
| 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 | 156 | 160 | 10.2 | 240 | 96 | | | 66 | 109 | 47 | 37 | 34.8 |
| 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 | 5.4 | 5.2 | |
| 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 | | NA | |
| Diethyphthalate* | NA | NA | NA | NA | | | | | | | | | NA | | | | NA | | NA | | NA | |
| bis(2-ethylhexyl)phthalate* | NA | NA | NA | NA | | | | | 6.8 | | | | 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 6,6B (MW6,6B)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

| CONSTITUENT | | | | | | | | | | | | | | | | | MW6,6B Detects | | NCGS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLING DATES | Apr. 03 | Oct. 03 | Apr. 04 | Oct. 04 | Apr. 05 | Oct. 05 | Apr. 06 | Oct. 06 | May 07 | Oct. 07 | Apr. 08 | Oct. 08 | Apr. 09 | Oct. 09 | Apr. 10 | Oct. 10 | detect# | detect% | |
| INORGANICS (mg/l) | | | | | | | | | | | | | | | | | | | (mg/l) |
| Antimony | | | | | | | | | | | | | | | | | 0 | 0% | 0.001** |
| Arsenic | | | | | | | | | | | | | | | | | 1 | 3% | 0.01 |
| Barium | | | | | | | | | 0.148 | 0.103 | 0.14 | 0.136 | 0.118 | | 0.153 | 0.136 | 14 | 40% | 0.7 |
| Beryllium | | | | | | | | | | | | | | | | | 0 | 0% | 0.004** |
| Cadmium | | | | | | | | | | | | | | | 0.0014 | | 4 | 11% | 0.002 |
| Chromium | | | | | | | | | | | | | | | | | 6 | 17% | 0.01 |
| Cobalt | 0.019 | 0.015 | 0.015 | 0.019 | 0.017 | 0.013 | 0.017 | 0.016 | 0.028 | 0.017 | 0.03 | 0.027 | 0.02 | 0.022 | 0.034 | 0.029 | 23 | 66% | 0.001** |
| Copper | | | | | | | | | | | | | | | | | 4 | 11% | 1 |
| Lead | | | | | | | | | | | | | | | 0.019 | | 9 | 26% | 0.015 |
| Nickel | | | | | | | | | | | | | | | | | 1 | 3% | 0.1 |
| Selenium | | | | | | | | | | | | | | | | | 0 | 0% | 0.02 |
| Silver | | | | | | | | | | | | | | | | | 0 | 0% | 0.02 |
| Vanadium | | | | | | | | | | | | | | | | | 4 | 11% | 0.0003** |
| Zinc | | | | 91.5 | | | | | | 0.015 | 0.016 | | | | 0.1 | | 9 | 26% | 1 |
| t-Cyanide* | NA | | NA | | NA | | NA | | NA | | NA | | NA | | NA | | 0 | 0% | 0.07 |
| Mercury* | NA | 0.0008 | NA | | NA | | NA | | NA | 0.0004 | NA | | NA | | NA | 0.0008 | 8 | 44% | 0.001 |
| Tin* | NA | | NA | | NA | | NA | | NA | | NA | | NA | | NA | | 1 | 6% | 2** |
| ORGANICS (ug/l) | | | | | | | | | | | | | | | | | | | (ug/l) |
| Acetone | | | | | | | | | | | | | | | | | 1 | 3% | 700 |
| Benzene | | | | | | | | | | 6.1 | 4.2 | 4.9 | 2.4 | | 3.3 | 5.7 | 9 | 25% | 1 |
| Carbon Disulfide | | | | | | | | | | | | | | | | | 1 | 3% | 700 |
| Carbon Tetrachloride | | | | | | | | | | | | | | 2.9 | | | 1 | 3% | 0.3 |
| Chlorobenzene | | | | | | | | | | | | | | | | | 7 | 19% | 50 |
| Chloroethane | | | 15.9 | | | 12.3 | | | | | | | | | | | 17 | 47% | 3000 |
| Chloromethane | | | | | | | | | | | | | | | | | 1 | 3% | 3 |
| 1,2-Dibromoethane | | | | | | | | | | | | | | | | | 0 | 0% | 0.02 |
| 1,4-Dichlorobenzene | | | | | | 6.9 | | | 3.2 | 7.7 | 7.4 | 5 | 4.7 | 4.4 | 5.2 | 7 | 10 | 28% | 6 |
| cis-1,2-Dichloroethene | | | | | | 17.3 | 11.9 | 12.8 | 12.6 | 23.1 | 31.4 | 41.2 | 12.5 | 13.6 | 17.3 | 28.8 | 15 | 42% | 70 |
| 1,1-Dichloroethane | 6.6 | 18.4 | 13.1 | 7.4 | 8.9 | 33.2 | 18.6 | 18.4 | 13.9 | 22.7 | 9.2 | 8.4 | | | | 6.3 | 31 | 86% | 6 |
| 1,2-Dichloroethane | | | | | | | | | | | | | | | | | 0 | 0% | 0.4 |
| 1,1-Dichloroethene | | | | | | | | | | | | | | | | | 2 | 6% | 7 |
| Methylene Chloride | | 28.2 | 12.8 | | | 64.5 | 20.1 | 12.9 | 8.8 | 33 | 4.1 | 9 | 1.5 | 6.3 | 1.5 | 4.8 | 30 | 83% | 5 |
| Tetrachloroethylene | | | | | | 7.1 | 6.2 | 8 | 6.9 | 9.3 | 4.5 | 3.8 | 1.8 | 5.3 | 4.9 | 4.7 | 17 | 47% | 0.7 |
| Toluene | | | | | | | | | | | | | | | | | 0 | 0% | 600 |
| 1,1,1-Trichloroethane | | | | | | | | | | | | | | | | | 9 | 25% | 200 |
| Trichloroethylene | | | | | | 8.8 | 7.1 | 8.1 | 7.7 | 9.24 | 5.9 | 4.9 | 2.3 | 4.7 | 4.8 | 6.1 | 25 | 69% | 3 |
| Trichloroflouromethane | | | | | | | | | | | | | | | | | 0 | 0% | 2000 |
| Vinyl Chloride | | | | | | | 11.2 | | 8 | 7.2 | 6.3 | 10.8 | 2.6 | 5 | 6.2 | 5.2 | 10 | 28% | 0.03 |
| Xylenes | | | | | | 9.8 | | | | | | | | | | 10.8 | 14 | 39% | 500 |
| Dichlorodifluoromethane* | NA | | NA | | NA | | NA | | NA | | NA | | NA | | NA | | 7 | 32% | 1000 |
| Diethyphthalate* | NA | | NA | | NA | | NA | | NA | | NA | | NA | | NA | | 0 | 0% | 6000 |
| bis(2-ethylhexyl)phthalate* | NA | | NA | | NA | | NA | | NA | | NA | | NA | | NA | | 1 | 5% | 3 |

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 | Oct. 01 | Apr. 02 | Oct. 02 |
| 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 | | | 0.013 | |
| 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 | 0.014 | | 0.024 |
| 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 | | 0.017 | 0.020 | |
| 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 | | NA | |
| Mercury* | NA | NA | NA | NA | | NA | NA | | NA | | NA | 0.0006 | NA | NT | NA | 0.001 | NA | | NA | 0.001 | NA | 0.0027 |
| Tin* | NA | NA | NA | NA | | NA | NA | | NA | | NA | | NA | NT | NA | | NA | | NA | | NA | 0.179 |
| ORGANICS (ug/l) | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | NA | | | NA | | | NA | | | | | NT | | | | | | | | |
| Benzene | | | NA | | | NA | | | NA | | | | | NT | 1.1 | | | | | | | |
| Carbon Disulfide | | | NA | | | NA | | | NA | | | | | NT | | | | | | | | |
| Carbon Tetrachloride | | | 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 | 22 | 34 | 14.9 |
| 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 | | 176 | 230 | 87.1 |
| 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 | 5.3 | 7.4 | 6.5 |
| Methylene Chloride | | 11.2 | NA | | | NA | | | NA | 13 | 28 | 2.2 | 14.6 | NT | 53 | | | 60 | 75 | 138 | 154 | 26.4 |
| 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 | 5.6 | 6.9 | |
| Trichloroethylene | 9.9 | 10.7 | NA | | | NA | | | NA | | | 1 | | NT | 3.6 | 7.8 | 6 | | 5.30 | 7.3 | 8.8 | |
| Trichlorofluoromethane | | | NA | 11.7 | 14 | NA | 8.7 | 11 | NA | 22 | 11 | 13 | 9.4 | NT | 8.3 | | | | 9.10 | | 7 | 5.1 |
| Vinyl Chloride | | | NA | | | NA | | | NA | | | | | NT | | | | | | | | |
| Xylenes | 6.5 | 5.4 | NA | | | NA | | | NA | | | | | NT | 4.8 | | 12 | | | | 9.3 | |
| Dichlorodifluoromethane* | NA | NA | NA | NA | 56 | 155 | 34 | 53 | 69.2 | 110 | 94 | | 33.2 | NT | 31 | 41 | NA | | NA | | NA | 24.7 |
| Diethyphthalate* | NA | NA | NA | NA | 13 | | | | | | | | | NT | | | NA | | NA | | NA | |
| bis(2-ethylhexyl)phthalate* | NA | NA | NA | NA | 24 | | | | | | | | | NT | | | 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 7,7B (MW7,7B)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

| CONSTITUENT | | | | | | | | | | | | | | | | | MW7,7B Detects | | NCGS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLING DATES | Apr. 03 | Oct. 03 | Apr. 04 | Oct. 04 | Apr. 05 | Oct. 05 | Apr. 06 | Oct. 06 | May 07 | Oct. 07 | Apr. 08 | Oct. 08 | Apr. 09 | Oct. 09 | Apr. 10 | Oct. 10 | detect# | detect% | |
| INORGANICS (mg/l) | | | | | | | | | | | | | | | | | | | (mg/l) |
| Antimony | | | | | | | | | | | | | | | | | 0 | 0% | 0.001** |
| Arsenic | | | | | | | | | | | | | | | | | 5 | 16% | 0.01 |
| Barium | | | | | | | | | 0.341 | 0.345 | 0.268 | 0.64 | 0.626 | 0.453 | 0.364 | 0.260 | 14 | 44% | 0.7 |
| Beryllium | | | | | | | | | | | | | | | | | 4 | 13% | 0.004** |
| Cadmium | | | | | | | | | | | | | | | | 0.001 | 5 | 16% | 0.002 |
| Chromium | | | | | | | | | | | | | | | | | 12 | 38% | 0.01 |
| Cobalt | 0.017 | 0.025 | 0.022 | 0.019 | 0.015 | 0.022 | 0.032 | 0.031 | 0.025 | 0.026 | 0.031 | 0.036 | 0.024 | 0.029 | 0.021 | | 27 | 84% | 0.001** |
| Copper | | | | | | | | | | | | | | | | | 4 | 13% | 1 |
| Lead | | 0.035 | | 0.018 | 0.027 | 0.019 | 0.010 | 0.015 | 0.014 | 0.031 | | 0.019 | 0.015 | 0.061 | 0.023 | 0.017 | 27 | 84% | 0.015 |
| Nickel | | | | | | | | | | | | | | | | | 1 | 3% | 0.1 |
| Selenium | | | | | | | | | | | | | | | | | 0 | 0% | 0.02 |
| Silver | | | | | | | | | | | | | | | | | 0 | 0% | 0.02 |
| Vanadium | | | | | | | | | | | | | | | | | 7 | 22% | 0.0003** |
| Zinc | | | | | | | | | | | | | | | | | 6 | 19% | 1 |
| t-Cyanide* | NA | | NA | | NA | | NA | | NA | | NA | | NA | | NA | | 0 | 0% | 0.07 |
| Mercury* | NA | 0.0014 | NA | 0.0011 | NA | 0.0015 | NA | 0.0046 | NA | 0.0026 | NA | 0.00038 | NA | 0.00063 | NA | 0.00027 | 12 | 75% | 0.001 |
| Tin* | NA | | NA | | NA | | NA | | NA | | NA | | NA | | NA | | 1 | 6% | 2** |
| ORGANICS (ug/l) | | | | | | | | | | | | | | | | | | | (ug/l) |
| Acetone | | | | | | | | | | | | | | | | | 0 | 0% | 700 |
| Benzene | | | | | | | | | 4.7 | 4.1 | 4.2 | 5.8 | 4.6 | 9.4 | 9.5 | 7.3 | 9 | 26% | 1 |
| Carbon Disulfide | | | | | | | | | | | | | | | | | 0 | 0% | 700 |
| Carbon Tetrachloride | | | | | | | | | | | | | | | | | 0 | 0% | 0.3 |
| Chlorobenzene | 6 | | | 5.3 | | | | | | | 3 | 3.9 | 4 | | | 8.2 | 6 | 18% | 50 |
| Chloroethane | 19.9 | 30.7 | 28.5 | 22.6 | 13.6 | 21.9 | 24.9 | 16.1 | 10.5 | 12.4 | | 11.1 | | | | | 26 | 76% | 3000 |
| Chloromethane | | | | | | | | | | | | | | | | | 1 | 3% | 3 |
| 1,2-Dibromoethane | | | | | | | | | | | | | | | | | 0 | 0% | 0.02 |
| 1,4-Dichlorobenzene | | | | | | | | | | | | 1.7 | 1.4 | 1.4 | 1.5 | 2.3 | 5 | 15% | 6 |
| cis-1,2-Dichloroethene | | | | | | | | | 6 | | | 16 | 8.1 | 7.8 | 5.7 | 10.9 | 6 | 18% | 70 |
| 1,1-Dichloroethane | 220 | 141 | 137 | 113 | 147 | 22.5 | 176 | 174 | 153 | 129 | | 15.1 | 114 | 110 | 136 | 140 | 32 | 94% | 6 |
| 1,2-Dichloroethane | 8.7 | | | | | | | | | | | | | | | | 1 | 3% | 0.4 |
| 1,1-Dichloroethene | 8.1 | 6 | 5.9 | | 5.4 | | | | | | | | | | | | 20 | 59% | 7 |
| Methylene Chloride | 174 | 70.3 | 93.3 | 101 | 75.1 | 59.6 | 79.9 | 74.1 | 74.5 | 45.5 | | 69 | 80.9 | 45.3 | 79.9 | 60.8 | 26 | 76% | 5 |
| Tetrachloroethylene | | | | | | 9 | | | | 3.7 | 3.2 | 3.7 | 3.3 | 7.3 | 4.9 | 4.7 | 8 | 24% | 0.7 |
| Toluene | | | | | | | | | | | | | | | | | 7 | 21% | 600 |
| 1,1,1-Trichloroethane | 5.1 | | | | | | | | | | | | | | | | 17 | 50% | 200 |
| Trichloroethylene | | 6.8 | 7.6 | 7.7 | 7.5 | | 10.5 | 9.9 | 8.8 | 9.2 | 9.1 | 8.8 | 7.8 | 10.9 | 10.2 | 9.8 | 23 | 68% | 3 |
| Trichlorofluoromethane | | | | | | | | | | 1.5 | 2.2 | 1 | 1.1 | | 2.3 | | 17 | 50% | 2000 |
| Vinyl Chloride | | | | | | | | | 5 | 5 | 3.9 | 8.2 | 4.3 | 6.4 | 6.4 | 5.8 | 8 | 24% | 0.03 |
| Xylenes | 6.3 | | | 5.6 | | | | | 4.8 | | | 9.2 | | | | | 9 | 26% | 500 |
| Dichlorodifluoromethane* | NA | 20.6 | NA | 10.7 | NA | 12.6 | NA | 9.5 | NA | 7 | NA | 5.7 | NA | 5.2 | NA | | 18 | 82% | 1000 |
| Diethyphthalate* | NA | | NA | | NA | | NA | | NA | | NA | | NA | | NA | | 1 | 5% | 6000 |
| bis(2-ethylhexyl)phthalate* | NA | | NA | | NA | | NA | | NA | | NA | | NA | | NA | | 1 | 5% | 3 |

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 | Oct. 01 | Apr. 02 | Oct. 02 |
| 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 | | | | | | | | 0.022 | | |
| 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 | | | | | | | | | | | | | 0.053 |
| Selenium | | | | | | NA | NA | | NA | | | | | | | | | | | | | |
| Silver | | | | | | NA | NA | | NA | | | | | | | | | | | | | |
| Vanadium | | 0.045 | | | | NA | NA | | NA | | 0.410 | | | | | | | | | 0.063 | | |
| 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 | | NA | |
| Mercury* | NA | NA | NA | NA | | NA | NA | | NA | | NA | | NA | 0.002 | NA | | NA | | NA | | NA | |
| Tin* | NA | 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 | | | | | | | | | | | | | |
| Carbon Tetrachloride | | | | | | NA | | | NA | | | | | | | | | | | | | |
| Chlorobenzene | | | | | | NA | | | NA | | | | | | | | | | | | | |
| Chloroethane | | | | | 16 | NA | 7.2 | | NA | | 31 | 22 | 12.2 | | 14 | 21 | 41 | 16 | 19 | | 28 | 15.3 |
| Chloromethane | | | | | | NA | | | NA | | | | | | | 6.1 | 88 | | | 25 | | |
| 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 | | 80 | 76.8 |
| 1,2-Dichloroethane | | | | | | NA | | | NA | | | | | | | | | | | | | |
| 1,1-Dichloroethene | | | | | | NA | | | NA | | | | | | | | | | | 81 | | |
| Methylene Chloride | | | | | | NA | | | NA | | 49 | 31 | 5.2 | 25 | 30 | | | 74 | 140 | 92 | 90 | 80.5 |
| Tetrachloroethylene | | | | | | NA | | | NA | | | | | | | | | | | | | |
| Toluene | | | | | | NA | | | NA | | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | | | | | | NA | | | NA | | | | | | | | | | | | | |
| Trichloroethylene | | | | | | NA | | | NA | | | 2.2 | | | 1.8 | 2.8 | | | 6.80 | 5.3 | | |
| Trichloroflouromethane | | | | | | NA | | | NA | | | | | | | | | | | | | |
| Vinyl Chloride | | | | | | NA | | | NA | | | | | | | | | | | | | |
| Xylenes | | | | | | NA | | | NA | | | | | | | | | | 5 | | | |
| Dichlorodifluoromethane* | NA | NA | NA | NA | 7 | 6.8 | | | | | | | NA | | 2.3 | 4.3 | NA | | NA | | NA | |
| Diethyphthalate* | NA | NA | NA | NA | | | | | | | | | NA | | | | NA | | NA | | NA | |
| bis(2-ethylhexyl)phthalate* | 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 8 (MW8)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

| CONSTITUENT | | | | | | | | | | | | | | | | | MW8 Detects | | NCGS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLING DATES | Apr. 03 | Oct. 03 | Apr. 04 | Oct. 04 | Apr. 05 | Oct. 05 | Apr. 06 | Oct. 06 | May 07 | Oct. 07 | Apr. 08 | Oct. 08 | Apr. 09 | Oct. 09 | Apr. 10 | Oct. 10 | detect# | detect% | |
| INORGANICS (mg/l) | | | | | | | | | | | | | | | | | | | (mg/l) |
| Antimony | | | | | | | | | | | | | | | | | 0 | 0% | 0.001** |
| Arsenic | | | | | | | | | | | | | | | | | 1 | 3% | 0.01 |
| Barium | | | | | | | | | | | 0.115 | 0.108 | 0.123 | | 0.115 | | 10 | 29% | 0.7 |
| Beryllium | | | | | | | | | | | | | | | | | 2 | 6% | 0.004** |
| Cadmium | | | | | | | | | | | | | | | | | 3 | 9% | 0.002 |
| Chromium | | | | | | | | | | | | | | | | | 4 | 11% | 0.01 |
| Cobalt | | | | | | | | | | | | | | | | | 0 | 0% | 0.001** |
| Copper | | | | | | | | | | | | | | | | | 5 | 14% | 1 |
| Lead | | | | | | | | | | | | | | | | | 4 | 11% | 0.015 |
| Nickel | | | | | | | | | | | | | | | | | 1 | 3% | 0.1 |
| Selenium | | | | | | | | | | | | | | | | | 0 | 0% | 0.02 |
| Silver | | | | | | | | | | | | | | | | | 0 | 0% | 0.02 |
| Vanadium | | | | | | | | | | | | | | | | | 3 | 9% | 0.0003** |
| Zinc | | | | | | | | | | | | | 0.019 | | | | 8 | 23% | 1 |
| t-Cyanide* | NA | | NA | | NA | | NA | | NA | | NA | | NA | | NA | | 1 | 6% | 0.07 |
| Mercury* | NA | | NA | | NA | | NA | | NA | | NA | 0.0002 | NA | 0.0003 | NA | 0.0005 | 4 | 24% | 0.001 |
| Tin* | NA | | NA | | NA | | NA | | NA | | NA | | NA | | NA | | 0 | 0% | 2** |
| ORGANICS (ug/l) | | | | | | | | | | | | | | | | | | | (ug/l) |
| Acetone | | | | | | | | | | | | | | | | | 0 | 0% | 700 |
| Benzene | | | | | | | | | | 2.6 | 2.5 | 2.9 | 2.6 | 25.2 | 5.6 | 5.7 | 9 | 25% | 1 |
| Carbon Disulfide | | | | | | | | | | | | | | | | | 0 | 0% | 700 |
| Carbon Tetrachloride | | | | | | | | | | | | | | | | | 0 | 0% | 0.3 |
| Chlorobenzene | | | | | | | | | | | | | | | | | 0 | 0% | 50 |
| Chloroethane | 12.7 | 13.2 | | | | | | | | | | | | | | | 14 | 39% | 3000 |
| Chloromethane | | | | | | | | | | | | | | | | | 3 | 8% | 3 |
| 1,2-Dibromoethane | | | | | | | | | | | | | | | | | 0 | 0% | 0.02 |
| 1,4-Dichlorobenzene | | | | | | | | | | 1.3 | 1.2 | 1.5 | 1.7 | 1.7 | 2 | 3.3 | 7 | 19% | 6 |
| cis-1,2-Dichloroethene | | | | | | | | | 7 | 5.4 | 10.2 | 13.2 | 17.3 | 12.9 | 21.2 | 30.8 | 8 | 22% | 70 |
| 1,1-Dichloroethane | 71.5 | 59.2 | 42.7 | 31 | 38.9 | 59 | 58.6 | 63 | 49.1 | 54.3 | | 61.8 | 32 | 38 | 38 | 44.6 | 29 | 81% | 6 |
| 1,2-Dichloroethane | | | | | | | | | | | | | | | | | 0 | 0% | 0.4 |
| 1,1-Dichloroethene | | | | | | | | | | | | | | | | | 1 | 3% | 7 |
| Methylene Chloride | 71.2 | 69 | 44.5 | 39.9 | 40.6 | 63.3 | 64 | 67.2 | 48.4 | 35.9 | 31 | 48 | 32.5 | 32.3 | 31.4 | 45 | 26 | 72% | 5 |
| Tetrachloroethylene | | | | | | | | 5.2 | 5 | 6.5 | 5.5 | 4.7 | 5.7 | 5.2 | 5 | 4.2 | 9 | 25% | 0.7 |
| Toluene | | | | | | | | | | | | | | | | | 0 | 0% | 600 |
| 1,1,1-Trichloroethane | | | | | | | | | | | | | | | | | 0 | 0% | 200 |
| Trichloroethylene | | | | | | | | | 4 | 4.4 | 4.8 | 4.8 | 41.1 | 4.1 | 4.3 | 4.6 | 13 | 36% | 3 |
| Trichloroflouromethane | | | | | | | | | | | | | | | | | 0 | 0% | 2000 |
| Vinyl Chloride | | | | | | | | | | | 1 | 1.5 | 1.3 | | 1.6 | 1.5 | 5 | 14% | 0.03 |
| Xylenes | | | | | | | | | | | | | | | | | 1 | 3% | 500 |
| Dichlorodifluoromethane* | NA | | NA | | NA | | NA | | NA | | NA | | NA | | NA | | 4 | 18% | 1000 |
| Diethyphthalate* | NA | | NA | | NA | | NA | | NA | | NA | | NA | | NA | | 0 | 0% | 6000 |
| bis(2-ethylhexyl)phthalate* | NA | | NA | | NA | | NA | | NA | | NA | | NA | | NA | | 0 | 0% | 3 |

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 | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | Oct. 08 | Apr. 09 | Oct. 09 | Apr. 10 |
| INORGANICS (mg/l) | | | | | | | | | | | | | | | | | | | |
| Antimony | | | | | | | | | | | | | | | | | | | |
| Arsenic | | | | | | | | | | | | | | | | | | | |
| Barium | | | | | | | | | | | | | 0.103 | 0.123 | 0.129 | 0.140 | 0.105 | 0.15 | 0.126 |
| Beryllium | | | | | | | | | | | | | | | | | | | |
| Cadmium | | | | | | | | | | | | | | | | | | | |
| Chromium | | 0.038 | 0.015 | 0.082 | | | | | | | | | | | | | | | 0.017 |
| Cobalt | | | | | | | | | | | | | | | | | | | |
| Copper | | | | | | | | | | | | | | 0.013 | | | | 0.015 | |
| Lead | | | | 0.014 | | | | | | | | | | | | | | | 0.014 |
| Nickel | | | | | | | | | | | | | | | | | | | |
| Selenium | | | | | | | | | | | | | | | | | | | |
| Silver | | | | | | | | | | | | | | | | | | | |
| Vanadium | | 0.078 | | 0.189 | | | | | | | | | | | | | | | 0.039 |
| Zinc | | | | | | | | | | | | | | | | | | | |
| t-Cyanide* | 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 | NA | NA | NA | 0.005 | NA | 0.0015 | NA | 0.00075 | NA |
| Tin* | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | | NA | | NA | | NA |
| ORGANICS (ug/l) | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | | | | | | | | | | | | | | |
| Benzene | 8.6 | 11 | 7.8 | 8.2 | 8.1 | 6.4 | | | | | 5.6 | 5.2 | 5 | 5.4 | 11.5 | 8 | 8.1 | 7.2 | 8.7 |
| Carbon Disulfide | | | | | | | | | | | | | | | | | | | |
| Carbon Tetrachloride | | | | | | | | | | | | | | | | | | | |
| 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 | 9.6 | 11.2 | 11.7 | 10.1 |
| 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 | 12.3 | | | |
| Chloromethane | 189 | | | | | | | | | | | | | | | | | | |
| 1,2-Dibromoethane | | 14 | | | | | | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | | | | | | | | | | | | | | 2.5 | 6.6 | 2.1 | 1.6 | 2 | 1.4 |
| cis-1,2-Dichloroethene | | | | 6 | | | | | | | 6.5 | 7.9 | 5.7 | 8 | 25 | 13.1 | 10.7 | 11.7 | 14.2 |
| 1,1-Dichloroethane | | 126 | 219 | 170 | 202 | 135 | 122 | 75.2 | 81.9 | 110 | 103 | 87 | 74.7 | 58.1 | | 68.1 | 43.3 | 34.3 | |
| 1,2-Dichloroethane | | | | | 11.8 | | | | | | | | | | | | | | |
| 1,1-Dichloroethene | | | | | | | | | | | | | | | | | | | |
| Methylene Chloride | | 195 | 231 | 272 | 197 | 166 | 127 | 67.9 | 56.7 | 75.7 | 122 | 96.4 | 64.2 | 49.6 | | 64.6 | 53.2 | 42.2 | 37.7 |
| Tetrachloroethylene | | 5.3 | | 5.3 | 5.1 | | | | | | | | | 2.9 | 4.4 | 2.4 | 1.4 | 1 | 1.2 |
| Toluene | | | | | | | | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | | | | | | | | | | | | | | | | | | | |
| Trichloroethylene | 11 | 15 | 9.8 | 10 | | 9.5 | 8.2 | 5.8 | 7 | 6.5 | 6.2 | 5 | 4.7 | 3.9 | 5.9 | 4.2 | 2.9 | 2.4 | 2.40 |
| Trichloroflouromethane | | | | | | | | | | | | | | | | | | | |
| Vinyl Chloride | | | | | | | | | | | | | 9.1 | 5.9 | 6.5 | 8.7 | 6.4 | 6.3 | 7.9 |
| Xylenes | 26 | 39 | 25 | 24.5 | 19.6 | 15.6 | 7.3 | | | | 7.1 | 5.6 | | | 5.1 | | | | |
| Dichlorodifluoromethane* | 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 |
| bis(2-ethylhexyl)phthalate* | NA | NA | NA | NA | NA | NA | NA | 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 9 (MW9)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

| CONSTITUENT | | MW9 Detects | | NCGS |
|---|---|---|---|---|
| SAMPLING DATES | Oct. 10 | detect# | detect% | |
| | | | | |
| INORGANICS (mg/l) | | | | (mg/l) |
| Antimony | NA | 0 | 0% | 0.001** |
| Arsenic | NA | 0 | 0% | 0.01 |
| Barium | NA | 7 | 37% | 0.7 |
| Beryllium | NA | 0 | 0% | 0.004** |
| Cadmium | NA | 0 | 0% | 0.002 |
| Chromium | NA | 4 | 21% | 0.01 |
| Cobalt | NA | 0 | 0% | 0.001** |
| Copper | NA | 2 | 11% | 1 |
| Lead | NA | 2 | 11% | 0.015 |
| Nickel | NA | 0 | 0% | 0.1 |
| Selenium | NA | 0 | 0% | 0.02 |
| Silver | NA | 0 | 0% | 0.02 |
| Vanadium | NA | 3 | 16% | 0.0003** |
| Zinc | NA | 0 | 0% | 1 |
| t-Cyanide* | NA | 0 | NA | 0.07 |
| Mercury* | NA | 3 | NA | 0.001 |
| Tin* | NA | 0 | NA | 2** |
| | | | | |
| ORGANICS (ug/l) | | | | (ug/l) |
| Acetone | | 0 | 0% | 700 |
| Benzene | NA | 15 | 79% | 1 |
| Carbon Disulfide | NA | 0 | 0% | 700 |
| Carbon Tetrachloride | NA | 0 | 0% | 0.3 |
| Chlorobenzene | NA | 17 | 89% | 50 |
| Chloroethane | NA | 16 | 84% | 3000 |
| Chloromethane | NA | 1 | 5% | 3 |
| 1,2-Dibromoethane | NA | 1 | 5% | 0.02 |
| 1,4-Dichlorobenzene | NA | 6 | 32% | 6 |
| cis-1,2-Dichloroethene | NA | 10 | 53% | 70 |
| 1,1-Dichloroethane | NA | 16 | 84% | 6 |
| 1,2-Dichloroethane | NA | 1 | 5% | 0.4 |
| 1,1-Dichloroethene | NA | 0 | 0% | 7 |
| Methylene Chloride | NA | 17 | 89% | 5 |
| Tetrachloroethylene | NA | 9 | 47% | 0.7 |
| Toluene | NA | 0 | 0% | 600 |
| 1,1,1-Trichloroethane | NA | 0 | 0% | 200 |
| Trichloroethylene | NA | 18 | 95% | 3 |
| Trichloroflouromethane | NA | 0 | 0% | 2000 |
| Vinyl Chloride | NA | 7 | 37% | 0.03 |
| Xylenes | NA | 10 | 53% | 500 |
| Dichlorodifluoromethane* | NA | 0 | NA | 1000 |
| Diethyphthalate* | NA | 0 | NA | 6000 |
| bis(2-ethylhexyl)phthalate* | NA | 0 | NA | 3 |
| | | | | |
| | | | | 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 | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | Oct. 08 | Apr. 09 | Oct. 09 | Apr. 10 |
| INORGANICS (mg/l) | | | | | | | | | | | | | | | | | | | |
| Antimony | | | | | | | | | | | | | | | | | | | |
| Arsenic | | | | | | | | | | | | | | | | | 0.016 | | |
| Barium | | | | | | | | | | | | | | | | | | | |
| Beryllium | | | | | | | | | | | | | | | | | | | |
| Cadmium | | | | | | | | | | | | | | | | | | | |
| Chromium | 0.014 | | 0.013 | 0.118 | | | | | | 0.012 | | | | | | | | | |
| Cobalt | | | | | | | | | | | | | | | | | | | |
| Copper | | | | | | | | | | | | | | 0.018 | 0.021 | | 0.015 | 0.01 | |
| Lead | | | | 0.012 | | | | | | | | | | | | | | | |
| Nickel | | | | | | | | | | | | | | | | | | | |
| Selenium | | | | | | | | | | | | | | | | | | | |
| Silver | | | | | | | | | | | | | | | | | | | |
| Vanadium | | | | 0.246 | | | | | | | | | | | | | | | |
| Zinc | 0.052 | | | | | | | | | | | | 0.019 | | 0.013 | | 0.01 | | |
| t-Cyanide* | 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 | NA | NA | NA | | NA | | NA | 0.00029 | NA |
| Tin* | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | | NA | | NA | | NA |
| ORGANICS (ug/l) | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | 156 | | | | 130 | 419 | 234 | | | | | | 2340 | | |
| Benzene | 6.9 | 7.3 | 6.2 | | | | | | | | | | 4.6 | 2 | 4.5 | 3.9 | 7 | 5 | 6.7 |
| Carbon Disulfide | | | | | | | | | | | | | | | | | | | |
| Carbon Tetrachloride | | | | | | | | | | | | | | | | | | | |
| Chlorobenzene | 25 | 33 | 21 | 9.2 | | 6.8 | 5.7 | 6.7 | | | | | 3.4 | | | | 3.6 | 3.3 | 3.3 |
| Chloroethane | 72 | 47 | 51 | 16.7 | 11.6 | 18.8 | 19.1 | 19.8 | 12.2 | | | | | | | | | | |
| Chloromethane | | | | | | | | | | | | | | | | | | | |
| 1,2-Dibromoethane | | | | | | | | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | | | | | | | | | | | | | | 1.3 | 1.3 | 1.4 | 3 | 3.8 | 5.4 |
| 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 | 13 | 27.4 | 22.1 | 31.2 |
| 1,1-Dichloroethane | | 266 | 109 | 59.3 | 42.6 | 69.1 | 606 | 53.3 | 34.9 | 25.2 | 19.1 | 9.4 | 10.9 | 9.2 | 7.5 | 7.7 | 5.8 | 6 | 6.2 |
| 1,2-Dichloroethane | | | | | | | | | | | | | | | | | | | |
| 1,1-Dichloroethene | | | | | | | | | | | | | | | | | | | |
| Methylene Chloride | 120 | 310 | 132 | 59.3 | 19.7 | 48.7 | 48 | 67.7 | 51.6 | | 27.1 | | 14.4 | | 4.9 | | 10 | 7.7 | 15.4 |
| Tetrachloroethylene | 12 | 11 | 13 | 6.8 | 7.1 | 7.3 | | | | | | | | | | | | | 1.1 |
| Toluene | | | | | | | | | | | | | | | | 13.1 | 6 | 6.2 | |
| 1,1,1-Trichloroethane | | | | | | | | | | | | | | | | | | | |
| Trichloroethylene | 11 | 11 | 9.1 | | | 5.7 | | | | | | | | | 1.3 | | 1.1 | | 1.6 |
| Trichloroflouromethane | | | | | | | | | | | | | | | | | | | |
| Vinyl Chloride | 10 | | | | | | | | | | | | | 1.4 | 2 | 3.3 | 3.9 | 2 | 3.9 |
| Xylenes | 35 | 39 | 30 | 7.4 | 5 | 6.4 | | 12.3 | 5.5 | | 5.3 | | | | | | | | |
| Dichlorodifluoromethane* | 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 |
| bis(2-ethylhexyl)phthalate* | NA | NA | NA | NA | NA | NA | NA | 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 10 (MW10)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

| CONSTITUENT | | MW10 Detects | | NCGS |
|---|---|---|---|---|
| SAMPLING DATES | Oct. 10 | detect# | detect% | |
| | | | | |
| INORGANICS (mg/l) | | | | (mg/l) |
| Antimony | | 0 | 0% | 0.001** |
| Arsenic | | 1 | 5% | 0.01 |
| Barium | 0.117 | 1 | 5% | 0.7 |
| Beryllium | | 0 | 0% | 0.004** |
| Cadmium | | 0 | 0% | 0.002 |
| Chromium | | 4 | 20% | 0.01 |
| Cobalt | | 0 | 0% | 0.001** |
| Copper | 0.015 | 5 | 25% | 1 |
| Lead | | 1 | 5% | 0.015 |
| Nickel | | 0 | 0% | 0.1 |
| Selenium | | 0 | 0% | 0.02 |
| Silver | | 0 | 0% | 0.02 |
| Vanadium | | 1 | 5% | 0.0003** |
| Zinc | | 4 | 20% | 1 |
| t-Cyanide* | | 0 | NA | 0.07 |
| Mercury* | 0.00031 | 2 | NA | 0.001 |
| Tin* | | 0 | NA | 2** |
| | | | | |
| ORGANICS (ug/l) | | | | (ug/l) |
| Acetone | | 5 | 25% | 700 |
| Benzene | 1.2 | 11 | 55% | 1 |
| Carbon Disulfide | | 0 | 0% | 700 |
| Carbon Tetrachloride | | 0 | 0% | 0.3 |
| Chlorobenzene | | 11 | 55% | 50 |
| Chloroethane | | 9 | 45% | 3000 |
| Chloromethane | | 0 | 0% | 3 |
| 1,2-Dibromoethane | | 0 | 0% | 0.02 |
| 1,4-Dichlorobenzene | 2.2 | 7 | 35% | 6 |
| cis-1,2-Dichloroethene | 7.1 | 19 | 95% | 70 |
| 1,1-Dichloroethane | | 18 | 90% | 6 |
| 1,2-Dichloroethane | | 0 | 0% | 0.4 |
| 1,1-Dichloroethene | | 0 | 0% | 7 |
| Methylene Chloride | | 15 | 75% | 5 |
| Tetrachloroethylene | | 7 | 35% | 0.7 |
| Toluene | | 3 | 15% | 600 |
| 1,1,1-Trichloroethane | | 0 | 0% | 200 |
| Trichloroethylene | | 7 | 35% | 3 |
| Trichloroflouromethane | | 0 | 0% | 2000 |
| Vinyl Chloride | 1 | 8 | 40% | 0.03 |
| Xylenes | | 9 | 45% | 500 |
| Dichlorodifluoromethane* | | 0 | NA | 1000 |
| Diethyphthalate* | | 0 | NA | 6000 |
| bis(2-ethylhexyl)phthalate* | | 0 | NA | 3 |
| | | | | |
| | | | | NCGS = |
| | | | | 2L STD or |
| | | ** 13B GWPS as of Oct 07 | | |

Groundwater Monitoring Well Data
Monitoring Well 11 (MW11)
Downgradient Well - Set 1 (Subset 1N)
Dunn-Erwin Landfill
Harnett County, North Carolina

| CONSTITUENT | MW11 | | | | | | | | MW11 Detects | | NCGS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLING DATES | May 07 | Oct. 07 | Apr. 08 | Oct. 08 | Apr. 09 | Oct. 09 | Apr. 10 | Oct. 10 | detect# | detect% | |
| INORGANICS (mg/l) | | | | | | | | | | | (mg/l) |
| Antimony | | | | | | | | | 0 | 0% | 0.001** |
| Arsenic | | | | | | | | | 0 | 0% | 0.01 |
| Barium | | | | | | | | | 0 | 0% | 0.7 |
| Beryllium | | | | | | | | | 0 | 0% | 0.004** |
| Cadmium | | | | | | | | | 0 | 0% | 0.002 |
| Chromium | | | | | | | | | 0 | 0% | 0.01 |
| Cobalt | | | | | | | | | 0 | 0% | 0.001** |
| Copper | | | | | | | | | 0 | 0% | 1 |
| Lead | | | | | | | | | 0 | 0% | 0.015 |
| Nickel | | | | | | | | | 0 | 0% | 0.1 |
| Selenium | | | | | | | | | 0 | 0% | 0.02 |
| Silver | | | | | | | | | 0 | 0% | 0.02 |
| Vanadium | | | | | | | | | 0 | 0% | 0.0003** |
| Zinc | | 0.013 | | | | | | | 1 | 13% | 1 |
| t-Cyanide* | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | 0.07 |
| Mercury* | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | 0.001 |
| Tin* | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | 2** |
| ORGANICS (ug/l) | | | | | | | | | | | (ug/l) |
| Acetone | | | | | | | | | 0 | 0% | 700 |
| Benzene | | | | | | | | | 0 | 0% | 1 |
| Carbon Disulfide | | | | | | | | | 0 | 0% | 700 |
| Carbon Tetrachloride | | | | | | | | | 0 | 0% | 0.3 |
| Chlorobenzene | | | | | | | | | 0 | 0% | 50 |
| Chloroethane | | | | | | | | | 0 | 0% | 3000 |
| Chloromethane | | | | | | | | | 0 | 0% | 3 |
| 1,2-Dibromoethane | | | | | | | | | 0 | 0% | 0.02 |
| 1,4-Dichlorobenzene | | | | | | | | | 0 | 0% | 6 |
| cis-1,2-Dichloroethene | | | | | | | | | 0 | 0% | 70 |
| 1,1-Dichloroethane | | | | | | | | | 0 | 0% | 6 |
| 1,2-Dichloroethane | | | | | | | | | 0 | 0% | 0.4 |
| 1,1-Dichloroethene | | | | | | | | | 0 | 0% | 7 |
| Methylene Chloride | | | | | | | | | 0 | 0% | 5 |
| Tetrachloroethylene | | | | | | | | | 0 | 0% | 0.7 |
| Toluene | | | | | | | | | 0 | 0% | 600 |
| 1,1,1-Trichloroethane | | | | | | | | | 0 | 0% | 200 |
| Trichloroethylene | | | | | | | | | 0 | 0% | 3 |
| Trichloroflouromethane | | | | | | | | | 0 | 0% | 2000 |
| Vinyl Chloride | | | | | | | | | 0 | 0% | 0.03 |
| Xylenes | | | | | | | | | 0 | 0% | 500 |
| Dichlorodifluoromethane* | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | 1000 |
| Diethyphthalate* | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | 6000 |
| bis(2-ethylhexyl)phthalate* | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | 3 |

| | | |
|---|---|---|
| | - 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 12 (MW12)
Downgradient Well - Set 1 (Subset 1N)
Dunn-Erwin Landfill
Harnett County, North Carolina

| CONSTITUENT | MW12 | | | | | | | | MW12 Detects | | NCGS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLING DATES | May 07 | Oct. 07 | Apr. 08 | Oct. 08 | Apr. 09 | Oct. 09 | Apr. 10 | Oct. 10 | detect# | detect% | |
| INORGANICS (mg/l) | | | | | | | | | | | (mg/l) |
| Antimony | | | | | | | | | 0 | 0% | 0.001** |
| Arsenic | | | | | | | | | 0 | 0% | 0.01 |
| Barium | | | | | | | | | 0 | 0% | 0.7 |
| Beryllium | 0.001 | 0.0019 | 0.0015 | 0.002 | 0.0035 | 0.0022 | 0.0012 | 0.001 | 8 | 100% | 0.004** |
| Cadmium | | | | | | | | | 0 | 0% | 0.002 |
| Chromium | | | | | | | | | 0 | 0% | 0.01 |
| Cobalt | | | | | | | | | 0 | 0% | 0.001** |
| Copper | | | | | | | | | 0 | 0% | 1 |
| Lead | | | | | | | | | 0 | 0% | 0.015 |
| Nickel | | | | | | | | | 0 | 0% | 0.1 |
| Selenium | | | | | | | | | 0 | 0% | 0.02 |
| Silver | | | | | | | | | 0 | 0% | 0.02 |
| Vanadium | | | | | | | | | 0 | 0% | 0.0003** |
| Zinc | 0.013 | 0.017 | | 0.012 | 0.015 | | | | 4 | 50% | 1 |
| t-Cyanide* | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | 0.07 |
| Mercury* | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | 0.001 |
| Tin* | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | 2** |
| ORGANICS (ug/l) | | | | | | | | | | | (ug/l) |
| Acetone | | | | | | | | | 0 | 0% | 700 |
| Benzene | | | | | | | | | 0 | 0% | 1 |
| Carbon Disulfide | | | | | | | | | 0 | 0% | 700 |
| Carbon Tetrachloride | | | | | | | | | 0 | 0% | 0.3 |
| Chlorobenzene | | | | | | | | | 0 | 0% | 50 |
| Chloroethane | | | | | | | | | 0 | 0% | 3000 |
| Chloromethane | | | | | | | | | 0 | 0% | 3 |
| 1,2-Dibromoethane | | | | | | | | | 0 | 0% | 0.02 |
| 1,4-Dichlorobenzene | | | | | | | | | 0 | 0% | 6 |
| cis-1,2-Dichloroethene | | | | | | | | | 0 | 0% | 70 |
| 1,1-Dichloroethane | | | | | | | | | 0 | 0% | 6 |
| 1,2-Dichloroethane | | | | | | | | | 0 | 0% | 0.4 |
| 1,1-Dichloroethene | | | | | | | | | 0 | 0% | 7 |
| Methylene Chloride | | | | | | | | | 0 | 0% | 5 |
| Tetrachloroethylene | | | | | | | | | 0 | 0% | 0.7 |
| Toluene | | | | | | | | | 0 | 0% | 600 |
| 1,1,1-Trichloroethane | | | | | | | | | 0 | 0% | 200 |
| Trichloroethylene | | | | | | | | | 0 | 0% | 3 |
| Trichloroflouromethane | | | | | | | | | 0 | 0% | 2000 |
| Vinyl Chloride | | | | | | | | | 0 | 0% | 0.03 |
| Xylenes | | | | | | | | | 0 | 0% | 500 |
| Dichlorodifluoromethane* | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | 1000 |
| Diethyphthalate* | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | 6000 |
| bis(2-ethylhexyl)phthalate* | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | 3 |

| | | |
|---|---|---|
| | | - 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 13 (MW13)
Downgradient Well - Set 1 (Subset 1N)
Dunn-Erwin Landfill
Harnett County, North Carolina

| CONSTITUENT | MW13 | | | | | | | | MW13 Detects | | NCGS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLING DATES | May 07 | Oct. 07 | Apr. 08 | Oct. 08 | Apr. 09 | Oct. 09 | Apr. 10 | Oct. 10 | detect# | detect% | |
| INORGANICS (mg/l) | | | | | | | | | | | (mg/l) |
| Antimony | | | | | | | | | 0 | 0% | 0.001** |
| Arsenic | | | | | | | | | 0 | 0% | 0.01 |
| Barium | | | | | | | | | 0 | 0% | 0.7 |
| Beryllium | | | | | | | | | 0 | 0% | 0.004** |
| Cadmium | | | | | | | | | 0 | 0% | 0.002 |
| Chromium | | | | | | | | | 0 | 0% | 0.01 |
| Cobalt | | | | | | | | | 0 | 0% | 0.001** |
| Copper | | | | | | | | | 0 | 0% | 1 |
| Lead | | | | | | | | | 0 | 0% | 0.015 |
| Nickel | | | | | | | | | 0 | 0% | 0.1 |
| Selenium | | | | | | | | | 0 | 0% | 0.02 |
| Silver | | | | | | | | | 0 | 0% | 0.02 |
| Vanadium | | | | | | | | | 0 | 0% | 0.0003** |
| Zinc | 0.012 | | | | | | | | 1 | 13% | 1 |
| t-Cyanide* | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | 0.07 |
| Mercury* | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | 0.001 |
| Tin* | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | 2** |
| ORGANICS (ug/l) | | | | | | | | | | | (ug/l) |
| Acetone | | | | | | | | | 0 | 0% | 700 |
| Benzene | | | | | | | | | 0 | 0% | 1 |
| Carbon Disulfide | | | | | | | | | 0 | 0% | 700 |
| Carbon Tetrachloride | | | | | | | | | 0 | 0% | 0.3 |
| Chlorobenzene | | | | | | | | | 0 | 0% | 50 |
| Chloroethane | | | | | | | | | 0 | 0% | 3000 |
| Chloromethane | | | | | | | | | 0 | 0% | 3 |
| 1,2-Dibromoethane | | | | | | | | | 0 | 0% | 0.02 |
| 1,4-Dichlorobenzene | | | | | | | | | 0 | 0% | 6 |
| cis-1,2-Dichloroethene | | | | | | | | | 0 | 0% | 70 |
| 1,1-Dichloroethane | | | | | | | | | 0 | 0% | 6 |
| 1,2-Dichloroethane | | | | | | | | | 0 | 0% | 0.4 |
| 1,1-Dichloroethene | | | | | | | | | 0 | 0% | 7 |
| Methylene Chloride | | | | | | | | | 0 | 0% | 5 |
| Tetrachloroethylene | | | | | | | | | 0 | 0% | 0.7 |
| Toluene | | | | | | | | | 0 | 0% | 600 |
| 1,1,1-Trichloroethane | | | | | | | | | 0 | 0% | 200 |
| Trichloroethylene | | | | | | | | | 0 | 0% | 3 |
| Trichloroflouromethane | | | | | | | | | 0 | 0% | 2000 |
| Vinyl Chloride | | | | | | | | | 0 | 0% | 0.03 |
| Xylenes | | | | | | | | | 0 | 0% | 500 |
| Dichlorodifluoromethane* | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | 1000 |
| Diethyphthalate* | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | 6000 |
| bis(2-ethylhexyl)phthalate* | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | 3 |

| | | |
|---|---|---|
| | - indicates concentrations exceeding NCGS | |
| "NE" | - not established | NCGS = |
| "NA" | - not applicable | 2L STD or |
| * | -denotes an Appendix II constituent not included in Appendix I | ** 13B GWPS as of Oct 07 |

Groundwater Monitoring Well Data
Monitoring Well 14 (MW14)
Downgradient Well - Set 1 (Subset 1N)
Dunn-Erwin Landfill
Harnett County, North Carolina

| CONSTITUENT | MW14 | | | | | | | | MW14 Detects | | NCGS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLING DATES | May 07 | Oct. 07 | Apr. 08 | Oct. 08 | Apr. 09 | Oct. 09 | Apr. 10 | Oct. 10 | detect# | detect% | |
| INORGANICS (mg/l) | | | | | | | | | | | (mg/l) |
| Antimony | | | | | | | | | 0 | 0% | 0.001** |
| Arsenic | | | | | | | | | 0 | 0% | 0.01 |
| Barium | | | | | | | | | 0 | 0% | 0.7 |
| Beryllium | | | | | 0.001 | | | | 1 | 13% | 0.004** |
| Cadmium | | | | | | | | | 0 | 0% | 0.002 |
| Chromium | | | | | | | | | 0 | 0% | 0.01 |
| Cobalt | | | | | | | | | 0 | 0% | 0.001** |
| Copper | | | | | | | | | 0 | 0% | 1 |
| Lead | | | | | | | | | 0 | 0% | 0.015 |
| Nickel | | | | | | | | | 0 | 0% | 0.1 |
| Selenium | | | | | | | | | 0 | 0% | 0.02 |
| Silver | | | | | | | | | 0 | 0% | 0.02 |
| Vanadium | | | | | | | | | 0 | 0% | 0.0003** |
| Zinc | 0.012 | 0.018 | | 0.012 | | | 0.011 | | 4 | 50% | 1 |
| t-Cyanide* | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | 0.07 |
| Mercury* | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | 0.001 |
| Tin* | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | 2** |
| ORGANICS (ug/l) | | | | | | | | | | | (ug/l) |
| Acetone | | | | | | | | | 0 | 0% | 700 |
| Benzene | | | | | | | | | 0 | 0% | 1 |
| Carbon Disulfide | | | | | | | | | 0 | 0% | 700 |
| Carbon Tetrachloride | | | | | | | | | 0 | 0% | 0.3 |
| Chlorobenzene | | | | | | | | | 0 | 0% | 50 |
| Chloroethane | | | | | | | | | 0 | 0% | 3000 |
| Chloromethane | | | | | | 1 | | | 1 | 13% | 3 |
| 1,2-Dibromoethane | | | | | | | | | 0 | 0% | 0.02 |
| 1,4-Dichlorobenzene | | | | | | | | | 0 | 0% | 6 |
| cis-1,2-Dichloroethene | | | | | | | | | 0 | 0% | 70 |
| 1,1-Dichloroethane | | | | | | | | | 0 | 0% | 6 |
| 1,2-Dichloroethane | | | | | | | | | 0 | 0% | 0.4 |
| 1,1-Dichloroethene | | | | | | | | | 0 | 0% | 7 |
| Methylene Chloride | | | | | | | | | 0 | 0% | 5 |
| Tetrachloroethylene | | | | | | | | | 0 | 0% | 0.7 |
| Toluene | | | | | | | | | 0 | 0% | 600 |
| 1,1,1-Trichloroethane | | | | | | | | | 0 | 0% | 200 |
| Trichloroethylene | | | | | | | | | 0 | 0% | 3 |
| Trichloroflouromethane | | | | | | | | | 0 | 0% | 2000 |
| Vinyl Chloride | | | | | | | | | 0 | 0% | 0.03 |
| Xylenes | | | | | | | | | 0 | 0% | 500 |
| Dichlorodifluoromethane* | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | 1000 |
| Diethyphthalate* | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | 6000 |
| bis(2-ethylhexyl)phthalate* | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | 3 |

| | | |
|---|---|---|
| | - indicates concentrations exceeding NCGS | |
| "NE" | - not established | NCGS = |
| "NA" | - not applicable | 2L STD or |
| * | -denotes an Appendix II constituent not included in Appendix I | ** 13B GWPS as of Oct 07 |

Groundwater Monitoring Well Data
Monitoring Well 15 (MW15)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

| CONSTITUENT | MW15 | | | | | | | | MW15 Detects | | NCGS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLING DATES | May 07 | Oct. 07 | Apr. 08 | Oct. 08 | Apr. 09 | Oct. 09 | Apr. 10 | Oct. 10 | detect# | detect% | |
| INORGANICS (mg/l) | | | | | | | | | | | (mg/l) |
| Antimony | | NA | | | | | | | 0 | 0% | 0.001** |
| Arsenic | | NA | | | | | | | 0 | 0% | 0.01 |
| Barium | | NA | | | | | | 0.116 | 1 | 14% | 0.7 |
| Beryllium | | NA | | | | | | 0.001 | 1 | 14% | 0.004** |
| Cadmium | | NA | | | | | | | 0 | 0% | 0.002 |
| Chromium | | NA | | | | | | | 0 | 0% | 0.01 |
| Cobalt | | NA | | | | | | | 0 | 0% | 0.001** |
| Copper | | NA | | | | | | | 0 | 0% | 1 |
| Lead | | NA | | | | | | | 0 | 0% | 0.015 |
| Nickel | | NA | | | | | | | 0 | 0% | 0.1 |
| Selenium | | NA | | | | | | | 0 | 0% | 0.02 |
| Silver | | NA | | | | | | | 0 | 0% | 0.02 |
| Vanadium | | NA | | | | | | | 0 | 0% | 0.0003** |
| Zinc | | NA | | | | | | | 0 | 0% | 1 |
| t-Cyanide* | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | 0.07 |
| Mercury* | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | 0.001 |
| Tin* | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | 2** |
| ORGANICS (ug/l) | | | | | | | | | | | (ug/l) |
| Acetone | | NA | | | | | | 144 | 1 | 14% | 700 |
| Benzene | | NA | | | | | | | 0 | 0% | 1 |
| Carbon Disulfide | | NA | | | | | | | 0 | 0% | 700 |
| Carbon Tetrachloride | | NA | | | | | | | 0 | 0% | 0.3 |
| Chlorobenzene | | NA | | | | | | | 0 | 0% | 50 |
| Chloroethane | | NA | | | | | | | 0 | 0% | 3000 |
| Chloromethane | | NA | | | | | | | 0 | 0% | 3 |
| 1,2-Dibromoethane | | NA | | | | | | | 0 | 0% | 0.02 |
| 1,4-Dichlorobenzene | | NA | | | | | | | 0 | 0% | 6 |
| cis-1,2-Dichloroethene | | NA | | | | | | | 0 | 0% | 70 |
| 1,1-Dichloroethane | | NA | | | | | | | 0 | 0% | 6 |
| 1,2-Dichloroethane | | NA | | | | | | | 0 | 0% | 0.4 |
| 1,1-Dichloroethene | | NA | | | | | | | 0 | 0% | 7 |
| Methylene Chloride | | NA | | | | | | | 0 | 0% | 5 |
| Tetrachloroethylene | | NA | | | | | | | 0 | 0% | 0.7 |
| Toluene | | NA | 4.5 | 149 | 11.6 | 2.6 | | 28.6 | 5 | 71% | 600 |
| 1,1,1-Trichloroethane | | NA | | | | | | | 0 | 0% | 200 |
| Trichloroethylene | | NA | | | | | | | 0 | 0% | 3 |
| Trichloroflouromethane | | NA | | | | | | | 0 | 0% | 2000 |
| Vinyl Chloride | | NA | | | | | | | 0 | 0% | 0.03 |
| Xylenes | | NA | | | | | | | 0 | 0% | 500 |
| Dichlorodifluoromethane* | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | 1000 |
| Diethyphthalate* | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | 6000 |
| bis(2-ethylhexyl)phthalate* | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | 3 |

| | | |
|---|---|---|
| | - indicates concentrations exceeding NCGS | |
| "NE" | - not established | NCGS = |
| "NA" | - not applicable | 2L STD or |
| * | -denotes an Appendix II constituent not included in Appendix I | ** 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 | Apr. 02 | Oct. 02 |
| INORGANICS (mg/l) | | | | | | | | | | | | | | | | | | | | | | |
| Antimony | | | | | | NA | NA | 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 | 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 | NA | NA |
| Copper | 0.015 | 0.034 | 0.02 | 0.037 | | NA | NA | 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 | 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 | 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 | NA | NA |
| t-Cyanide* | NA | NA | 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 | NA | NA |
| ORGANICS (ug/l) | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | NA | | | NA | NA | NA | | | | | | | | | | | |
| Benzene | | | | | | NA | | | NA | NA | NA | | | | | | | | | | | |
| Carbon Disulfide | | | | | | NA | | | NA | NA | NA | | | | | | | | | | | |
| Carbon Tetrachloride | | | | | | 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 | NA | NA |
| Diethyphthalate* | NA | NA | 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 | 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. 03 | Oct. 03 | Apr. 04 | Oct. 04 | Apr. 04 | Oct. 05 | Apr. 06 | Oct. 06 | May 07 | Oct. 07 | Apr. 08 | Oct. 08 | Apr. 09 | Oct. 09 | Apr. 10 | Oct. 10 | detect# | detect% | |
| INORGANICS (mg/l) | | | | | | | | | | | | | | | | | | | (mg/l) |
| Antimony | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | 0% | 0.001** |
| Arsenic | | | | | | | | | | | | | | | | | 3 | 9% | 0.01 |
| Barium | | | | | | | | | | | 0.101 | 0.101 | | | | | 12 | 34% | 0.7 |
| Beryllium | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 3 | 43% | 0.004** |
| Cadmium | | | | | | | | | | | | | | | | | 2 | 6% | 0.002 |
| Chromium | | | | | | | | | | | | | | | | | 7 | 20% | 0.01 |
| Cobalt | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | 0% | 0.001** |
| Copper | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 4 | 57% | 1 |
| Lead | | | | | | | | | | | | | | | | | 11 | 31% | 0.015 |
| Nickel | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | 0% | 0.1 |
| Selenium | | | | | | | | | | | | | | | | | 1 | 3% | 0.02 |
| Silver | | | | | | | | | | | | | | | | | 1 | 3% | 0.02 |
| Vanadium | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 4 | 57% | 0.0003** |
| Zinc | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 5 | 71% | 1 |
| t-Cyanide* | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | 0% | 0.07 |
| Mercury* | | | | | | | | | | | | | | | | | 2 | 7% | 0.001 |
| Tin* | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | 0% | 2** |
| ORGANICS (ug/l) | | | | | | | | | | | | | | | | | | | (ug/l) |
| Acetone | | | | | | | | | | | | | | | | | 0 | 0% | 700 |
| Benzene | | | | | | | | | | | | | | | | | 0 | 0% | 1 |
| Carbon Disulfide | | | | | | | | | | | | | | | | | 0 | 0% | 700 |
| Carbon Tetrachloride | | | | | | | | | | | | | | | | | 0 | 0% | 0.3 |
| Chlorobenzene | | | | | | | | | | | | | | | | | 0 | 0% | 50 |
| Chloroethane | | | | | | | | | | | | | | | | | 0 | 0% | 3000 |
| Chloromethane | | | | | | | | | | | | | | | | | 0 | 0% | 3 |
| 1,2-Dibromoethane | | | | | | | | | | | | | | | | | 0 | 0% | 0.02 |
| 1,4-Dichlorobenzene | | | | | | | | | | | | | | | | | 0 | 0% | 6 |
| cis-1,2-Dichloroethene | | | | | | | | | | | | | | | | | 0 | 0% | 70 |
| 1,1-Dichloroethane | | | | | | | | | | | | | | | | | 0 | 0% | 6 |
| 1,2-Dichloroethane | | | | | | | | | | | | | | | | | 0 | 0% | 0.4 |
| 1,1-Dichloroethene | | | | | | | | | | | | | | | | | 0 | 0% | 7 |
| Methylene Chloride | | | | | | | | | | | | | | | | | 0 | 0% | 5 |
| Tetrachloroethylene | | | | | | | | | | | | | | | | | 0 | 0% | 0.7 |
| Toluene | | | | | | | | | | | | | | | | | 0 | 0% | 600 |
| 1,1,1-Trichloroethane | | | | | | | | | | | | | | | | | 0 | 0% | 200 |
| Trichloroethylene | | | | | | | | | | | | | | | | | 0 | 0% | 3 |
| Trichloroflouromethane | | | | | | | | | | | | | | | | | 0 | 0% | 2000 |
| Vinyl Chloride | | | | | | | | | | | | | | | | | 0 | 0% | 0.03 |
| Xylenes | | | | | | | | | | | | | | | | | 0 | 0% | 500 |
| Dichlorodifluoromethane* | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | 1000 |
| Diethyphthalate* | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | 6000 |
| bis(2-ethylhexyl)phthalate* | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | 3 |

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 | 19 | 4% | QUALITATIVE |
| Barium | 106 | 25% | TEST OF PROPORTIONS* |
| Beryllium | 125 | 32% | TEST OF PROPORTIONS* |
| Cadmium | 33 | 8% | QUALATATIVE |
| Chromium | 70 | 17% | TEST OF PROPORTIONS* |
| Cobalt | 60 | 15% | TEST OF PROPORTIONS* |
| Copper | 53 | 13% | TEST OF PROPORTIONS* |
| Lead | 97 | 23% | TEST OF PROPORTIONS* |
| Nickel | 8 | 2% | QUALITATIVE |
| Selenium | 1 | 0% | QUALITATIVE |
| Silver | 1 | 0% | QUALITATIVE |
| Vanadium | 43 | 11% | TEST OF PROPORTIONS* |
| Zinc | 106 | 27% | TEST OF PROPORTIONS* |
| t-Cyanide** | 1 | 1% | QUALITATIVE |
| Mercury** | 32 | 26% | TEST OF PROPORTIONS* |
| Tin** | 4 | 4% | QUALITATIVE |
| | | | |
| ORGANICS (ug/l) | | | |
| Acetone | 7 | 2% | QUALITATIVE |
| Benzene | 53 | 12% | TEST OF PROPORTIONS* |
| Carbon Disulfide | 9 | 2% | QUALITATIVE |
| Carbon Tetrachloride | 1 | 0% | QUALITATIVE |
| Chlorobenzene | 41 | 10% | QUALITATIVE |
| Chloroethane | 82 | 19% | TEST OF PROPORTIONS* |
| Chloromethane | 7 | 2% | QUALITATIVE |
| 1,2-Dibromoethane | 1 | 0% | QUALITATIVE |
| 1,4-Dichlorobenzene | 35 | 8% | QUALITATIVE |
| cis-1,2-Dichloroethene | 58 | 14% | TEST OF PROPORTIONS* |
| 1,1-Dichloroethane | 126 | 30% | TEST OF PROPORTIONS* |
| 1,2-Dichloroethane | 2 | 0% | QUALITATIVE |
| 1,1-Dichloroethene | 23 | 5% | QUALITATIVE |
| Methylene Chloride | 114 | 27% | TEST OF PROPORTIONS* |
| Tetrachloroethylene | 50 | 12% | TEST OF PROPORTIONS* |
| Toluene | 15 | 4% | QUALITATIVE |
| 1,1,1-Trichloroethane | 26 | 6% | QUALITATIVE |
| Trichloroethylene | 86 | 20% | TEST OF PROPORTIONS* |
| Trichlorofluoromethane | 17 | 4% | QUALITATIVE |
| Vinyl Chloride | 38 | 9% | QUALITATIVE |
| Xylenes | 43 | 10% | TEST OF PROPORTIONS* |
| Dichlorodifluoromethane** | 29 | 22% | TEST OF PROPORTIONS* |
| Diethyphthalate** | 7 | 5% | 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 | 105 | 0.1714 | 18 | 87 | 70 | 0.1571 | 35 | 0.2 | 0.078 | -0.54929 | not SSIOBL |
| Beryllium | 105 | 0.4 | 42 | 63 | 70 | 0.2571 | 35 | 0.6857 | 0.1014 | -4.22577 | SSIOBL |
| Chromium | 105 | 0.2095 | 22 | 83 | 70 | 0.2286 | 35 | 0.1714 | 0.0843 | 0.678249 | not SSIOBL |
| Cobalt | 105 | 0.0571 | 6 | 99 | 70 | 0.0429 | 35 | 0.0857 | 0.0481 | -0.89188 | not SSIOBL |
| Copper | 105 | 0.1714 | 18 | 87 | 70 | 0.1857 | 35 | 0.1429 | 0.078 | 0.549294 | not SSIOBL |
| Lead | 105 | 0.2571 | 27 | 78 | 70 | 0.2714 | 35 | 0.2286 | 0.0905 | 0.473665 | not SSIOBL |
| Vanadium | 105 | 0.1524 | 16 | 89 | 70 | 0.1714 | 35 | 0.1143 | 0.0744 | 0.768041 | not SSIOBL |
| Zinc | 105 | 0.2857 | 30 | 75 | 70 | 0.2714 | 35 | 0.3143 | 0.0935 | -0.45826 | not SSIOBL |
| | | | | | | | | | | | |
| ORGANICS | | | | | | | | | | | |
| Benzene | 105 | 0 | 0 | 105 | 70 | 0 | 35 | 0 | 0 | NA | * |
| Chloroethane | 105 | 0 | 0 | 105 | 70 | 0 | 35 | 0 | 0 | NA | * |
| cis-1,2-Dichloroethene | 105 | 0 | 0 | 105 | 70 | 0 | 35 | 0 | 0 | NA | * |
| 1,1 Dichloroethane | 105 | 0 | 0 | 105 | 70 | 0 | 35 | 0 | 0 | NA | * |
| Methylene Chloride | 105 | 0 | 0 | 105 | 70 | 0 | 35 | 0 | 0 | NA | * |
| Tetrachloroethylene | 105 | 0 | 0 | 105 | 70 | 0 | 35 | 0 | 0 | NA | * |
| Trichloroethylene | 105 | 0 | 0 | 105 | 70 | 0 | 35 | 0 | 0 | NA | * |
| Xylenes | 105 | 0 | 0 | 105 | 70 | 0 | 35 | 0 | 0 | NA | * |
| Dichlorodifluoromethane | 30 | 0 | 0 | 30 | 20 | 0 | 10 | 0 | 0 | NA | * |
| | | | | | | | | | | | |
| **MW3** | | | | | | | | | | | |
| METALS | | | | | | | | | | | |
| Barium | 104 | 0.1827 | 19 | 85 | 70 | 0.1571 | 34 | 0.2353 | 0.0808 | -0.96751 | not SSIOBL |
| Beryllium | 104 | 0.4423 | 46 | 58 | 70 | 0.2571 | 34 | 0.8235 | 0.1038 | -5.45538 | SSIOBL |
| Chromium | 104 | 0.1923 | 20 | 84 | 70 | 0.2286 | 34 | 0.1176 | 0.0824 | 1.34641 | not SSIOBL |
| Cobalt | 104 | 0.0481 | 5 | 99 | 70 | 0.0429 | 34 | 0.0588 | 0.0447 | -0.35703 | not SSIOBL |
| Copper | 104 | 0.1442 | 15 | 89 | 70 | 0.1857 | 34 | 0.0588 | 0.0734 | 1.727804 | not SSIOBL |
| Lead | 104 | 0.2115 | 22 | 82 | 70 | 0.2714 | 34 | 0.0882 | 0.0854 | 2.145835 | not SSIOBL |
| Vanadium | 104 | 0.1346 | 14 | 90 | 70 | 0.1714 | 34 | 0.0588 | 0.0713 | 1.578257 | not SSIOBL |
| Zinc | 104 | 0.3173 | 33 | 71 | 70 | 0.2714 | 34 | 0.4118 | 0.0973 | -1.44241 | not SSIOBL |
| | | | | | | | | | | | |
| ORGANICS | | | | | | | | | | | |
| Benzene | 104 | 0 | 0 | 104 | 70 | 0 | 34 | 0 | 0 | NA | * |
| Chloroethane | 104 | 0 | 0 | 104 | 70 | 0 | 34 | 0 | 0 | NA | * |
| cis-1,2-Dichloroethene | 104 | 0 | 0 | 104 | 70 | 0 | 34 | 0 | 0 | NA | * |
| 1,1 Dichloroethane | 104 | 0 | 0 | 104 | 70 | 0 | 34 | 0 | 0 | NA | * |
| Methylene Chloride | 104 | 0 | 0 | 104 | 70 | 0 | 34 | 0 | 0 | NA | * |
| Tetrachloroethylene | 104 | 0 | 0 | 104 | 70 | 0 | 34 | 0 | 0 | NA | * |
| Trichloroethylene | 104 | 0 | 0 | 104 | 70 | 0 | 34 | 0 | 0 | NA | * |
| Xylenes | 104 | 0 | 0 | 104 | 70 | 0 | 34 | 0 | 0 | NA | * |
| Dichlorodifluoromethane | 30 | 0 | 0 | 30 | 20 | 0 | 10 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **MW4** | | | | | | | | | | | |
| METALS | | | | | | | | | | | |
| Barium | 105 | 0.1619 | 17 | 88 | 70 | 0.1571 | 35 | 0.1714 | 0.0763 | -0.18733 | not SSIOBL |
| Beryllium | 105 | 0.4667 | 49 | 56 | 70 | 0.2571 | 35 | 0.8857 | 0.1033 | -6.08612 | SSIOBL |
| Chromium | 105 | 0.2095 | 22 | 83 | 70 | 0.2286 | 35 | 0.1714 | 0.0843 | 0.678249 | not SSIOBL |
| Cobalt | 105 | 0.0476 | 5 | 100 | 70 | 0.0429 | 35 | 0.0571 | 0.0441 | -0.32404 | not SSIOBL |
| Copper | 105 | 0.1714 | 18 | 87 | 70 | 0.1857 | 35 | 0.1429 | 0.078 | 0.549294 | not SSIOBL |
| Lead | 105 | 0.2667 | 28 | 77 | 70 | 0.2714 | 35 | 0.2571 | 0.0915 | 0.156047 | not SSIOBL |
| Vanadium | 105 | 0.1333 | 14 | 91 | 70 | 0.1714 | 35 | 0.0571 | 0.0704 | 1.623996 | not SSIOBL |
| Zinc | 105 | 0.3143 | 33 | 72 | 70 | 0.2714 | 35 | 0.4 | 0.0961 | -1.33782 | not SSIOBL |
| | | | | | | | | | | | |
| ORGANICS | | | | | | | | | | | |
| Benzene | 105 | 0 | 0 | 105 | 70 | 0 | 35 | 0 | 0 | NA | * |
| Chloroethane | 105 | 0 | 0 | 105 | 70 | 0 | 35 | 0 | 0 | NA | * |
| cis-1,2-Dichloroethene | 105 | 0 | 0 | 105 | 70 | 0 | 35 | 0 | 0 | NA | * |
| 1,1 Dichloroethane | 105 | 0 | 0 | 105 | 70 | 0 | 35 | 0 | 0 | NA | * |
| Methylene Chloride | 105 | 0 | 0 | 105 | 70 | 0 | 35 | 0 | 0 | NA | * |
| Tetrachloroethylene | 105 | 0 | 0 | 105 | 70 | 0 | 35 | 0 | 0 | NA | * |
| Trichloroethylene | 105 | 0 | 0 | 105 | 70 | 0 | 35 | 0 | 0 | NA | * |
| Xylenes | 105 | 0 | 0 | 105 | 70 | 0 | 35 | 0 | 0 | NA | * |
| Dichlorodifluoromethane | 30 | 0 | 0 | 30 | 20 | 0 | 10 | 0 | 0 | NA | * |
| | | | | | | | | | | | |
| **MW5** | | | | | | | | | | | |
| Barium | 105 | 0.2476 | 26 | 79 | 70 | 0.1571 | 35 | 0.4286 | 0.0894 | -3.03762 | SSIOBL |
| Beryllium | 105 | 0.219 | 23 | 82 | 70 | 0.2571 | 35 | 0.1429 | 0.0856 | 1.334747 | not SSIOBL |
| Chromium | 105 | 0.1619 | 17 | 88 | 70 | 0.2286 | 35 | 0.0286 | 0.0763 | 2.622659 | not SSIOBL |
| Cobalt | 105 | 0.0286 | 3 | 102 | 70 | 0.0429 | 35 | 0 | 0.0345 | 1.242625 | * |
| Copper | 105 | 0.1619 | 17 | 88 | 70 | 0.1857 | 35 | 0.1143 | 0.0763 | 0.936664 | not SSIOBL |
| Lead | 105 | 0.219 | 23 | 82 | 70 | 0.2714 | 35 | 0.1143 | 0.0856 | 1.835276 | not SSIOBL |
| Vanadium | 105 | 0.1238 | 13 | 92 | 70 | 0.1714 | 35 | 0.0286 | 0.0682 | 2.095145 | not SSIOBL |
| Zinc | 105 | 0.2381 | 25 | 80 | 70 | 0.2714 | 35 | 0.1714 | 0.0882 | 1.13413 | not SSIOBL |
| | | | | | | | | | | | |
| ORGANICS | | | | | | | | | | | |
| Benzene | 105 | 0 | 0 | 105 | 70 | 0 | 35 | 0 | 0 | NA | * |
| Chloroethane | 105 | 0 | 0 | 105 | 70 | 0 | 35 | 0 | 0 | NA | * |
| cis-1,2-Dichloroethene | 105 | 0 | 0 | 105 | 70 | 0 | 35 | 0 | 0 | NA | * |
| 1,1 Dichloroethane | 105 | 0 | 0 | 105 | 70 | 0 | 35 | 0 | 0 | NA | * |
| Methylene Chloride | 105 | 0 | 0 | 105 | 70 | 0 | 35 | 0 | 0 | NA | * |
| Tetrachloroethylene | 105 | 0 | 0 | 105 | 70 | 0 | 35 | 0 | 0 | NA | * |
| Trichloroethylene | 105 | 0 | 0 | 105 | 70 | 0 | 35 | 0 | 0 | NA | * |
| Xylenes | 105 | 0 | 0 | 105 | 70 | 0 | 35 | 0 | 0 | NA | * |
| Dichlorodifluoromethane | 30 | 0 | 0 | 30 | 20 | 0 | 10 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **MW6,6B** | | | | | | | | | | | |
| METALS | | | | | | | | | | | |
| Barium | 105 | 0.2381 | 25 | 80 | 70 | 0.1571 | 35 | 0.4 | 0.0882 | -2.75431 | SSIOBL |
| Beryllium | 105 | 0.1714 | 18 | 87 | 70 | 0.2571 | 35 | 0 | 0.078 | 3.295765 | not SSIOBL |
| Chromium | 105 | 0.2095 | 22 | 83 | 70 | 0.2286 | 35 | 0.1714 | 0.0843 | 0.678249 | not SSIOBL |
| Cobalt | 105 | 0.2476 | 26 | 79 | 70 | 0.0429 | 35 | 0.6571 | 0.0894 | -6.87461 | SSIOBL |
| Copper | 105 | 0.1619 | 17 | 88 | 70 | 0.1857 | 35 | 0.1143 | 0.0763 | 0.936664 | not SSIOBL |
| Lead | 105 | 0.2667 | 28 | 77 | 70 | 0.2714 | 35 | 0.2571 | 0.0915 | 0.156047 | not SSIOBL |
| Vanadium | 105 | 0.1524 | 16 | 89 | 70 | 0.1714 | 35 | 0.1143 | 0.0744 | 0.768041 | not SSIOBL |
| Zinc | 105 | 0.2667 | 28 | 77 | 70 | 0.2714 | 35 | 0.2571 | 0.0915 | 0.156047 | not SSIOBL |
| Mercury | 30 | 0.2667 | 8 | 22 | 12 | 0 | 18 | 0.4444 | 0.1648 | -2.6968 | SSIOBL |
| | | | | | | | | | | | |
| ORGANICS | | | | | | | | | | | |
| Benzene | 106 | 0.0849 | 9 | 97 | 70 | 0 | 36 | 0.25 | 0.0572 | -4.37307 | SSIOBL |
| Chloroethane | 106 | 0.1604 | 17 | 89 | 70 | 0 | 36 | 0.4722 | 0.0753 | -6.27451 | SSIOBL |
| cis-1,2-Dichloroethene | 106 | 0.1415 | 15 | 91 | 70 | 0 | 36 | 0.4167 | 0.0715 | -5.82875 | SSIOBL |
| 1,1 Dichloroethane | 106 | 0.2925 | 31 | 75 | 70 | 0 | 36 | 0.8611 | 0.0933 | -9.22998 | SSIOBL |
| Methylene Chloride | 106 | 0.283 | 30 | 76 | 70 | 0 | 36 | 0.8333 | 0.0924 | -9.01996 | SSIOBL |
| Tetrachloroethylene | 106 | 0.1604 | 17 | 89 | 70 | 0 | 36 | 0.4722 | 0.0753 | -6.27451 | SSIOBL |
| Trichloroethylene | 106 | 0.2358 | 25 | 81 | 70 | 0 | 36 | 0.6944 | 0.0871 | -7.97587 | SSIOBL |
| Xylenes | 106 | 0.1321 | 14 | 92 | 70 | 0 | 36 | 0.3889 | 0.0694 | -5.60042 | SSIOBL |
| Dichlorodifluoromethane | 42 | 0.1667 | 7 | 35 | 20 | 0 | 22 | 0.3182 | 0.1151 | -2.7634 | SSIOBL |
| | | | | | | | | | | | |
| **MW7,7B** | | | | | | | | | | | |
| METALS | | | | | | | | | | | |
| Barium | 102 | 0.2451 | 25 | 77 | 70 | 0.1571 | 32 | 0.4375 | 0.0918 | -3.05436 | SSIOBL |
| Beryllium | 102 | 0.2157 | 22 | 80 | 70 | 0.2571 | 32 | 0.125 | 0.0878 | 1.505606 | not SSIOBL |
| Chromium | 102 | 0.2745 | 28 | 74 | 70 | 0.2286 | 32 | 0.375 | 0.0952 | -1.53764 | not SSIOBL |
| Cobalt | 102 | 0.2941 | 30 | 72 | 70 | 0.0429 | 32 | 0.8438 | 0.0972 | -8.23705 | SSIOBL |
| Copper | 102 | 0.1667 | 17 | 85 | 70 | 0.1857 | 32 | 0.125 | 0.0795 | 0.763451 | not SSIOBL |
| Lead | 102 | 0.451 | 46 | 56 | 70 | 0.2714 | 32 | 0.8438 | 0.1062 | -5.39003 | SSIOBL |
| Vanadium | 102 | 0.1863 | 19 | 83 | 70 | 0.1714 | 32 | 0.2188 | 0.0831 | -0.56959 | not SSIOBL |
| Zinc | 102 | 0.2451 | 25 | 77 | 70 | 0.2714 | 32 | 0.1875 | 0.0918 | 0.914363 | not SSIOBL |
| Mercury | 28 | 0.4286 | 12 | 16 | 12 | 0 | 16 | 0.75 | 0.189 | -3.96863 | SSIOBL |
| | | | | | | | | | | | |
| ORGANICS | | | | | | | | | | | |
| Benzene | 104 | 0.0865 | 9 | 95 | 70 | 0 | 34 | 0.2647 | 0.0588 | -4.50387 | SSIOBL |
| Chloroethane | 104 | 0.25 | 26 | 78 | 70 | 0 | 34 | 0.7647 | 0.0905 | -8.44823 | SSIOBL |
| cis-1,2-Dichloroethene | 104 | 0.0577 | 6 | 98 | 70 | 0 | 34 | 0.1765 | 0.0487 | -3.62067 | SSIOBL |
| 1,1 Dichloroethane | 104 | 0.3077 | 32 | 72 | 70 | 0 | 34 | 0.9412 | 0.0965 | -9.75517 | SSIOBL |
| Methylene Chloride | 104 | 0.25 | 26 | 78 | 70 | 0 | 34 | 0.7647 | 0.0905 | -8.44823 | SSIOBL |
| Tetrachloroethylene | 104 | 0.0769 | 8 | 96 | 70 | 0 | 34 | 0.2353 | 0.0557 | -4.22411 | SSIOBL |
| Trichloroethylene | 104 | 0.2212 | 23 | 81 | 70 | 0 | 34 | 0.6765 | 0.0868 | -7.79736 | SSIOBL |
| Xylenes | 104 | 0.0865 | 9 | 95 | 70 | 0 | 34 | 0.2647 | 0.0588 | -4.50387 | SSIOBL |
| Dichlorodifluoromethane | 42 | 0.4286 | 18 | 24 | 20 | 0 | 22 | 0.8182 | 0.1529 | -5.3513 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **MW8** | | | | | | | | | | | |
| METALS | | | | | | | | | | | |
| Barium | 105 | 0.2 | 21 | 84 | 70 | 0.1571 | 35 | 0.2857 | 0.0828 | -1.55265 | not SSIOBL |
| Beryllium | 105 | 0.1905 | 20 | 85 | 70 | 0.2571 | 35 | 0.0571 | 0.0813 | 2.460273 | not SSIOBL |
| Chromium | 105 | 0.1905 | 20 | 85 | 70 | 0.2286 | 35 | 0.1143 | 0.0813 | 1.40587 | not SSIOBL |
| Cobalt | 105 | 0.0286 | 3 | 102 | 70 | 0.0429 | 35 | 0 | 0.0345 | 1.242625 | * |
| Copper | 105 | 0.1714 | 18 | 87 | 70 | 0.1857 | 35 | 0.1429 | 0.078 | 0.549294 | not SSIOBL |
| Lead | 105 | 0.219 | 23 | 82 | 70 | 0.2714 | 35 | 0.1143 | 0.0856 | 1.835276 | not SSIOBL |
| Vanadium | 105 | 0.1429 | 15 | 90 | 70 | 0.1714 | 35 | 0.0857 | 0.0724 | 1.183216 | not SSIOBL |
| Zinc | 105 | 0.2571 | 27 | 78 | 70 | 0.2714 | 35 | 0.2286 | 0.0905 | 0.473665 | not SSIOBL |
| Mercury | 29 | 0.1379 | 4 | 25 | 12 | 0 | 17 | 0.2353 | 0.13 | -1.80978 | * |
| | | | | | | | | | | | |
| ORGANICS | | | | | | | | | | | |
| Benzene | 106 | 0.0849 | 9 | 97 | 70 | 0 | 36 | 0.25 | 0.0572 | -4.37307 | SSIOBL |
| Chloroethane | 106 | 0.1321 | 14 | 92 | 70 | 0 | 36 | 0.3889 | 0.0694 | -5.60042 | SSIOBL |
| cis-1,2-Dichloroethene | 106 | 0.0755 | 8 | 98 | 70 | 0 | 36 | 0.2222 | 0.0542 | -4.10188 | SSIOBL |
| 1,1 Dichloroethane | 106 | 0.2736 | 29 | 77 | 70 | 0 | 36 | 0.8056 | 0.0914 | -8.81058 | SSIOBL |
| Methylene Chloride | 106 | 0.2453 | 26 | 80 | 70 | 0 | 36 | 0.7222 | 0.0882 | -8.1845 | SSIOBL |
| Tetrachloroethylene | 106 | 0.0849 | 9 | 97 | 70 | 0 | 36 | 0.25 | 0.0572 | -4.37307 | SSIOBL |
| Trichloroethylene | 106 | 0.1226 | 13 | 93 | 70 | 0 | 36 | 0.3611 | 0.0673 | -5.36761 | SSIOBL |
| Xylenes | 106 | 0.0094 | 1 | 105 | 70 | 0 | 36 | 0.0278 | 0.0198 | -1.40106 | * |
| Dichlorodifluoromethane | 42 | 0.0952 | 4 | 38 | 20 | 0 | 22 | 0.1818 | 0.0907 | -2.00478 | * |
| | | | | | | | | | | | |
| **MW9** | | | | | | | | | | | |
| METALS | | | | | | | | | | | |
| Barium | 89 | 0.2022 | 18 | 71 | 70 | 0.1571 | 19 | 0.3684 | 0.1039 | -2.03334 | SSIOBL |
| Beryllium | 89 | 0.2022 | 18 | 71 | 70 | 0.2571 | 19 | 0 | 0.1039 | 2.474742 | not SSIOBL |
| Chromium | 89 | 0.2247 | 20 | 69 | 70 | 0.2286 | 19 | 0.2105 | 0.108 | 0.167125 | not SSIOBL |
| Cobalt | 89 | 0.0337 | 3 | 86 | 70 | 0.0429 | 19 | 0 | 0.0467 | 0.917982 | * |
| Copper | 89 | 0.1685 | 15 | 74 | 70 | 0.1857 | 19 | 0.1053 | 0.0968 | 0.83079 | not SSIOBL |
| Lead | 89 | 0.236 | 21 | 68 | 70 | 0.2714 | 19 | 0.1053 | 0.1098 | 1.512855 | not SSIOBL |
| Vanadium | 89 | 0.1685 | 15 | 74 | 70 | 0.1714 | 19 | 0.1579 | 0.0968 | 0.139759 | not SSIOBL |
| Zinc | 89 | 0.2135 | 19 | 70 | 70 | 0.2714 | 19 | 0 | 0.106 | 2.560652 | not SSIOBL |
| Mercury | 15 | 0.2 | 3 | 12 | 12 | 0 | 3 | 1 | 0.2582 | -3.87298 | * |
| | | | | | | | | | | | |
| ORGANICS | | | | | | | | | | | |
| Benzene | 89 | 0.1685 | 15 | 74 | 70 | 0 | 19 | 0.7895 | 0.0968 | -8.15262 | SSIOBL |
| Chloroethane | 89 | 0.1798 | 16 | 73 | 70 | 0 | 19 | 0.8421 | 0.0993 | -8.47746 | SSIOBL |
| cis-1,2-Dichloroethene | 89 | 0.1124 | 10 | 79 | 70 | 0 | 19 | 0.5263 | 0.0817 | -6.44249 | SSIOBL |
| 1,1 Dichloroethane | 89 | 0.1798 | 16 | 73 | 70 | 0 | 19 | 0.8421 | 0.0993 | -8.47746 | SSIOBL |
| Methylene Chloride | 89 | 0.191 | 17 | 72 | 70 | 0 | 19 | 0.8947 | 0.1017 | -8.79884 | SSIOBL |
| Tetrachloroethylene | 89 | 0.1011 | 9 | 80 | 70 | 0 | 19 | 0.4737 | 0.078 | -6.07356 | SSIOBL |
| Trichloroethylene | 89 | 0.2022 | 18 | 71 | 70 | 0 | 19 | 0.9474 | 0.1039 | -9.11747 | SSIOBL |
| Xylenes | 89 | 0.1124 | 10 | 79 | 70 | 0 | 19 | 0.5263 | 0.0817 | -6.44249 | SSIOBL |
| Dichlorodifluoromethane | 23 | 0 | 0 | 23 | 20 | 0 | 3 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **MW10** | | | | | | | | | | | |
| METALS | | | | | | | | | | | |
| Barium | 90 | 0.1333 | 12 | 78 | 70 | 0.1571 | 20 | 0.05 | 0.0862 | 1.243113 | not SSIOBL |
| Beryllium | 90 | 0.2 | 18 | 72 | 70 | 0.2571 | 20 | 0 | 0.1014 | 2.535463 | not SSIOBL |
| Chromium | 90 | 0.2222 | 20 | 70 | 70 | 0.2286 | 20 | 0.2 | 0.1054 | 0.271052 | not SSIOBL |
| Cobalt | 90 | 0.0333 | 3 | 87 | 70 | 0.0429 | 20 | 0 | 0.0455 | 0.941647 | * |
| Copper | 90 | 0.2 | 18 | 72 | 70 | 0.1857 | 20 | 0.25 | 0.1014 | -0.63387 | not SSIOBL |
| Lead | 90 | 0.2222 | 20 | 70 | 70 | 0.2714 | 20 | 0.05 | 0.1054 | 2.100656 | not SSIOBL |
| Vanadium | 90 | 0.1444 | 13 | 77 | 70 | 0.1714 | 20 | 0.05 | 0.0891 | 1.362351 | not SSIOBL |
| Zinc | 90 | 0.2556 | 23 | 67 | 70 | 0.2714 | 20 | 0.2 | 0.1106 | 0.645886 | not SSIOBL |
| Mercury | 16 | 0.125 | 2 | 14 | 12 | 0 | 4 | 0.5 | 0.1909 | -2.61861 | * |
| | | | | | | | | | | | |
| ORGANICS | | | | | | | | | | | |
| Benzene | 90 | 0.1222 | 11 | 79 | 70 | 0 | 20 | 0.55 | 0.083 | -6.62275 | SSIOBL |
| Chloroethane | 90 | 0.1 | 9 | 81 | 70 | 0 | 20 | 0.45 | 0.0761 | -5.91608 | SSIOBL |
| cis-1,2-Dichloroethene | 90 | 0.2111 | 19 | 71 | 70 | 0 | 20 | 0.95 | 0.1035 | -9.18127 | SSIOBL |
| 1,1 Dichloroethane | 90 | 0.2 | 18 | 72 | 70 | 0 | 20 | 0.9 | 0.1014 | -8.87412 | SSIOBL |
| Methylene Chloride | 90 | 0.1667 | 15 | 75 | 70 | 0 | 20 | 0.75 | 0.0945 | -7.93725 | SSIOBL |
| Tetrachloroethylene | 90 | 0.0778 | 7 | 83 | 70 | 0 | 20 | 0.35 | 0.0679 | -5.15425 | SSIOBL |
| Trichloroethylene | 90 | 0.0778 | 7 | 83 | 70 | 0 | 20 | 0.35 | 0.0679 | -5.15425 | SSIOBL |
| Xylenes | 90 | 0.1 | 9 | 81 | 70 | 0 | 20 | 0.45 | 0.0761 | -5.91608 | SSIOBL |
| Dichlorodifluoromethane | 24 | 0 | 0 | 24 | 20 | 0 | 4 | 0 | 0 | NA | * |
| | | | | | | | | | | | |
| **MW11** | | | | | | | | | | | |
| METALS | | | | | | | | | | | |
| Barium | 78 | 0.141 | 11 | 67 | 70 | 0.1571 | 8 | 0 | 0.1299 | 1.209768 | not SSIOBL |
| Beryllium | 78 | 0.2308 | 18 | 60 | 70 | 0.2571 | 8 | 0 | 0.1572 | 1.635324 | not SSIOBL |
| Chromium | 78 | 0.2051 | 16 | 62 | 70 | 0.2286 | 8 | 0 | 0.1507 | 1.516727 | not SSIOBL |
| Cobalt | 78 | 0.0385 | 3 | 75 | 70 | 0.0429 | 8 | 0 | 0.0718 | 0.597136 | * |
| Copper | 78 | 0.1667 | 13 | 65 | 70 | 0.1857 | 8 | 0 | 0.1391 | 1.335237 | not SSIOBL |
| Lead | 78 | 0.2436 | 19 | 59 | 70 | 0.2714 | 8 | 0 | 0.1602 | 1.694315 | not SSIOBL |
| Vanadium | 78 | 0.1538 | 12 | 66 | 70 | 0.1714 | 8 | 0 | 0.1347 | 1.273098 | not SSIOBL |
| Zinc | 78 | 0.2564 | 20 | 58 | 70 | 0.2714 | 8 | 0.125 | 0.163 | 0.898542 | not SSIOBL |
| | | | | | | | | | | | |
| ORGANICS | | | | | | | | | | | |
| Benzene | 78 | 0 | 0 | 78 | 70 | 0 | 8 | 0 | 0 | NA | * |
| Chloroethane | 78 | 0 | 0 | 78 | 70 | 0 | 8 | 0 | 0 | NA | * |
| cis-1,2-Dichloroethene | 78 | 0 | 0 | 78 | 70 | 0 | 8 | 0 | 0 | NA | * |
| 1,1 Dichloroethane | 78 | 0 | 0 | 78 | 70 | 0 | 8 | 0 | 0 | NA | * |
| Methylene Chloride | 78 | 0 | 0 | 78 | 70 | 0 | 8 | 0 | 0 | NA | * |
| Tetrachloroethylene | 78 | 0 | 0 | 78 | 70 | 0 | 8 | 0 | 0 | NA | * |
| Trichloroethylene | 78 | 0 | 0 | 78 | 70 | 0 | 8 | 0 | 0 | NA | * |
| Xylenes | 78 | 0 | 0 | 78 | 70 | 0 | 8 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **MW12** | | | | | | | | | | | |
| METALS | | | | | | | | | | | |
| Barium | 78 | 0.141 | 11 | 67 | 70 | 0.1571 | 8 | 0 | 0.1299 | 1.209768 | not SSIOBL |
| Beryllium | 78 | 0.3333 | 26 | 52 | 70 | 0.2571 | 8 | 1 | 0.1759 | -4.22239 | SSIOBL |
| Chromium | 78 | 0.2051 | 16 | 62 | 70 | 0.2286 | 8 | 0 | 0.1507 | 1.516727 | not SSIOBL |
| Cobalt | 78 | 0.0385 | 3 | 75 | 70 | 0.0429 | 8 | 0 | 0.0718 | 0.597136 | * |
| Copper | 78 | 0.1667 | 13 | 65 | 70 | 0.1857 | 8 | 0 | 0.1391 | 1.335237 | not SSIOBL |
| Lead | 78 | 0.2436 | 19 | 59 | 70 | 0.2714 | 8 | 0 | 0.1602 | 1.694315 | not SSIOBL |
| Vanadium | 78 | 0.1538 | 12 | 66 | 70 | 0.1714 | 8 | 0 | 0.1347 | 1.273098 | not SSIOBL |
| Zinc | 78 | 0.2949 | 23 | 55 | 70 | 0.2714 | 8 | 0.5 | 0.1702 | -1.34313 | not SSIOBL |
| | | | | | | | | | | | |
| ORGANICS | | | | | | | | | | | |
| Benzene | 78 | 0 | 0 | 78 | 70 | 0 | 8 | 0 | 0 | NA | * |
| Chloroethane | 78 | 0 | 0 | 78 | 70 | 0 | 8 | 0 | 0 | NA | * |
| cis-1,2-Dichloroethene | 78 | 0 | 0 | 78 | 70 | 0 | 8 | 0 | 0 | NA | * |
| 1,1 Dichloroethane | 78 | 0 | 0 | 78 | 70 | 0 | 8 | 0 | 0 | NA | * |
| Methylene Chloride | 78 | 0 | 0 | 78 | 70 | 0 | 8 | 0 | 0 | NA | * |
| Tetrachloroethylene | 78 | 0 | 0 | 78 | 70 | 0 | 8 | 0 | 0 | NA | * |
| Trichloroethylene | 78 | 0 | 0 | 78 | 70 | 0 | 8 | 0 | 0 | NA | * |
| Xylenes | 78 | 0 | 0 | 78 | 70 | 0 | 8 | 0 | 0 | NA | * |
| | | | | | | | | | | | |
| **MW13** | | | | | | | | | | | |
| METALS | | | | | | | | | | | |
| Barium | 78 | 0.141 | 11 | 67 | 70 | 0.1571 | 8 | 0 | 0.1299 | 1.209768 | not SSIOBL |
| Beryllium | 78 | 0.2308 | 18 | 60 | 70 | 0.2571 | 8 | 0 | 0.1572 | 1.635324 | not SSIOBL |
| Chromium | 78 | 0.2051 | 16 | 62 | 70 | 0.2286 | 8 | 0 | 0.1507 | 1.516727 | not SSIOBL |
| Cobalt | 78 | 0.0385 | 3 | 75 | 70 | 0.0429 | 8 | 0 | 0.0718 | 0.597136 | * |
| Copper | 78 | 0.1667 | 13 | 65 | 70 | 0.1857 | 8 | 0 | 0.1391 | 1.335237 | not SSIOBL |
| Lead | 78 | 0.2436 | 19 | 59 | 70 | 0.2714 | 8 | 0 | 0.1602 | 1.694315 | not SSIOBL |
| Vanadium | 78 | 0.1538 | 12 | 66 | 70 | 0.1714 | 8 | 0 | 0.1347 | 1.273098 | not SSIOBL |
| Zinc | 78 | 0.2564 | 20 | 58 | 70 | 0.2714 | 8 | 0.125 | 0.163 | 0.898542 | not SSIOBL |
| | | | | | | | | | | | |
| ORGANICS | | | | | | | | | | | |
| Benzene | 78 | 0 | 0 | 78 | 70 | 0 | 8 | 0 | 0 | NA | * |
| Chloroethane | 78 | 0 | 0 | 78 | 70 | 0 | 8 | 0 | 0 | NA | * |
| cis-1,2-Dichloroethene | 78 | 0 | 0 | 78 | 70 | 0 | 8 | 0 | 0 | NA | * |
| 1,1 Dichloroethane | 78 | 0 | 0 | 78 | 70 | 0 | 8 | 0 | 0 | NA | * |
| Methylene Chloride | 78 | 0 | 0 | 78 | 70 | 0 | 8 | 0 | 0 | NA | * |
| Tetrachloroethylene | 78 | 0 | 0 | 78 | 70 | 0 | 8 | 0 | 0 | NA | * |
| Trichloroethylene | 78 | 0 | 0 | 78 | 70 | 0 | 8 | 0 | 0 | NA | * |
| Xylenes | 78 | 0 | 0 | 78 | 70 | 0 | 8 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **MW14** | | | | | | | | | | | |
| METALS | | | | | | | | | | | |
| Barium | 78 | 0.141 | 11 | 67 | 70 | 0.1571 | 8 | 0 | 0.1299 | 1.209768 | not SSIOBL |
| Beryllium | 78 | 0.2436 | 19 | 59 | 70 | 0.2571 | 8 | 0.125 | 0.1602 | 0.824864 | not SSIOBL |
| Chromium | 78 | 0.2051 | 16 | 62 | 70 | 0.2286 | 8 | 0 | 0.1507 | 1.516727 | not SSIOBL |
| Cobalt | 78 | 0.0385 | 3 | 75 | 70 | 0.0429 | 8 | 0 | 0.0718 | 0.597136 | * |
| Copper | 78 | 0.1667 | 13 | 65 | 70 | 0.1857 | 8 | 0 | 0.1391 | 1.335237 | not SSIOBL |
| Lead | 78 | 0.2436 | 19 | 59 | 70 | 0.2714 | 8 | 0 | 0.1602 | 1.694315 | not SSIOBL |
| Vanadium | 78 | 0.1538 | 12 | 66 | 70 | 0.1714 | 8 | 0 | 0.1347 | 1.273098 | not SSIOBL |
| Zinc | 78 | 0.2949 | 23 | 55 | 70 | 0.2714 | 8 | 0.5 | 0.1702 | -1.34313 | not SSIOBL |
| | | | | | | | | | | | |
| ORGANICS | | | | | | | | | | | |
| Benzene | 78 | 0 | 0 | 78 | 70 | 0 | 8 | 0 | 0 | NA | * |
| Chloroethane | 78 | 0 | 0 | 78 | 70 | 0 | 8 | 0 | 0 | NA | * |
| cis-1,2-Dichloroethene | 78 | 0 | 0 | 78 | 70 | 0 | 8 | 0 | 0 | NA | * |
| 1,1 Dichloroethane | 78 | 0 | 0 | 78 | 70 | 0 | 8 | 0 | 0 | NA | * |
| Methylene Chloride | 78 | 0 | 0 | 78 | 70 | 0 | 8 | 0 | 0 | NA | * |
| Tetrachloroethylene | 78 | 0 | 0 | 78 | 70 | 0 | 8 | 0 | 0 | NA | * |
| Trichloroethylene | 78 | 0 | 0 | 78 | 70 | 0 | 8 | 0 | 0 | NA | * |
| Xylenes | 78 | 0 | 0 | 78 | 70 | 0 | 8 | 0 | 0 | NA | * |
| | | | | | | | | | | | |
| **MW15** | | | | | | | | | | | |
| METALS | | | | | | | | | | | |
| Barium | 77 | 0.1558 | 12 | 65 | 70 | 0.1571 | 7 | 0.1429 | 0.1438 | 0.099357 | not SSIOBL |
| Beryllium | 77 | 0.2468 | 19 | 58 | 70 | 0.2571 | 7 | 0.1429 | 0.1709 | 0.66872 | not SSIOBL |
| Chromium | 77 | 0.2078 | 16 | 61 | 70 | 0.2286 | 7 | 0 | 0.1608 | 1.421152 | not SSIOBL |
| Cobalt | 77 | 0.039 | 3 | 74 | 70 | 0.0429 | 7 | 0 | 0.0767 | 0.558715 | * |
| Copper | 77 | 0.1688 | 13 | 64 | 70 | 0.1857 | 7 | 0 | 0.1485 | 1.250625 | not SSIOBL |
| Lead | 77 | 0.2468 | 19 | 58 | 70 | 0.2714 | 7 | 0 | 0.1709 | 1.588211 | not SSIOBL |
| Vanadium | 77 | 0.1558 | 12 | 65 | 70 | 0.1714 | 7 | 0 | 0.1438 | 1.192283 | not SSIOBL |
| Zinc | 77 | 0.2468 | 19 | 58 | 70 | 0.2714 | 7 | 0 | 0.1709 | 1.588211 | not SSIOBL |
| | | | | | | | | | | | |
| ORGANICS | | | | | | | | | | | |
| Benzene | 77 | 0 | 0 | 77 | 70 | 0 | 7 | 0 | 0 | NA | * |
| Chloroethane | 77 | 0 | 0 | 77 | 70 | 0 | 7 | 0 | 0 | NA | * |
| cis-1,2-Dichloroethene | 77 | 0 | 0 | 77 | 70 | 0 | 7 | 0 | 0 | NA | * |
| 1,1 Dichloroethane | 77 | 0 | 0 | 77 | 70 | 0 | 7 | 0 | 0 | NA | * |
| Methylene Chloride | 77 | 0 | 0 | 77 | 70 | 0 | 7 | 0 | 0 | NA | * |
| Tetrachloroethylene | 77 | 0 | 0 | 77 | 70 | 0 | 7 | 0 | 0 | NA | * |
| Trichloroethylene | 77 | 0 | 0 | 77 | 70 | 0 | 7 | 0 | 0 | NA | * |
| Xylenes | 77 | 0 | 0 | 77 | 70 | 0 | 7 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **MW23B** | | | | | | | | | | | |
| METALS | | | | | | | | | | | |
| Barium | 105 | 0.219 | 23 | 82 | 70 | 0.1571 | 35 | 0.3429 | 0.0856 | -2.16896 | SSIOBL |
| Cadmium | 105 | 0.0952 | 10 | 95 | 70 | 0.1143 | 35 | 0.0571 | 0.0608 | 0.940325 | not SSIOBL |
| Chromium | 105 | 0.219 | 23 | 82 | 70 | 0.2286 | 35 | 0.2 | 0.0856 | 0.333687 | not SSIOBL |
| Lead | 105 | 0.2857 | 30 | 75 | 70 | 0.2714 | 35 | 0.3143 | 0.0935 | -0.45826 | not SSIOBL |
| Mercury | 40 | 0.05 | 2 | 38 | 12 | 0 | 28 | 0.0714 | 0.0752 | -0.94987 | * |
| | | | | | | | | | | | |
| ORGANICS | | | | | | | | | | | |
| Benzene | 104 | 0 | 0 | 104 | 70 | 0 | 34 | 0 | 0 | NA | * |
| Chloroethane | 104 | 0 | 0 | 104 | 70 | 0 | 34 | 0 | 0 | NA | * |
| cis-1,2-Dichloroethene | 104 | 0 | 0 | 104 | 70 | 0 | 34 | 0 | 0 | NA | * |
| 1,1 Dichloroethane | 104 | 0 | 0 | 104 | 70 | 0 | 34 | 0 | 0 | NA | * |
| Methylene Chloride | 104 | 0 | 0 | 104 | 70 | 0 | 34 | 0 | 0 | NA | * |
| Tetrachloroethylene | 104 | 0 | 0 | 104 | 70 | 0 | 34 | 0 | 0 | NA | * |
| Trichloroethylene | 104 | 0 | 0 | 104 | 70 | 0 | 34 | 0 | 0 | NA | * |
| Xylenes | 104 | 0 | 0 | 104 | 70 | 0 | 34 | 0 | 0 | NA | * |

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 included in sampling only at MW6, MW7, MW8 and MW23B.
Dichlorodifluoromethane included in sampling only at MW6 - MW10.

Predictive Interval Analysis
Monitoring Well 2 (MW2)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

## Prediction Intervals Worksheet for Intrawell Comparisons
## Dunn-Erwin Data Set 1
## Well: MW2

Location: Data Set 1 - Shallow Aquifer

This Test compares baseline sampling concentrations to observed concentrations after waste has been deposited.

| Background Data | | | | |
|---|---|---|---|---|
| Parameter | Background data, mg/l | | Sample Mean | Sample Stan. Dev. |
| Beryllium | 0.012 | 0.035 | 0.024 | 0.016 |

| Variables | | Where |
|---|---|---|
| n= | 2 | n= Background population |
| n-1= | 1 | n-1=degrees of freedom |
| m= | 35 | m=Compliance well sample population |
| t= | 3.75 | t=95th percentile of the Bonferroni - Statistics |

**Prediction Interval:** $K=[O, X_{ave}+S(1/m+1/n)^{1/2}\ t_{n-1,K.095}]$

Where
$X_{ave}$ = the mean concentration of the baseline sampling data
S = standard devation of the baseline sampling data

Note:
The Prediction Interval establishes the range for the mean concentration of all non-baseline sampling data. Quantifications below the detection limit are entered as one-half the detection limit.

| RESULTS | | | |
|---|---|---|---|
| **Well Number** | **Prediction Interval** | **Mean Concentration of Non-Baseline Sampling Data** | **Result** |
| Beryllium | [0,0.068] | 0.002 | Not Significant |

Sep. 95 Dec. 95 Feb. 96 Apr. 96 July 96 Oct. 96 Apr. 97 Oct. 97 Apr. 98 Oct. 98

Predictive Interval Analysis
Monitoring Well 3 (MW3)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

## Prediction Intervals Worksheet for Intrawell Comparisons
## Dunn-Erwin Data Set 1
## Well: MW3

Location: Data Set 1 - Shallow Aquifer

This Test compares baseline sampling concentrations to observed concentrations after waste has been deposited.

| Background Data | | | | | | |
|---|---|---|---|---|---|---|
| Parameter | Background data, mg/l | | | | Sample Mean | Sample Stan. Dev. |
| Beryllium | 0.001 | 0.004 | 0.08 | 0.007 | 0.023 | 0.038 |

| Variables | | Where |
|---|---|---|
| n= | 2 | n= Background population |
| n-1= | 1 | n-1=degrees of freedom |
| m= | 34 | m=Compliance well sample population |
| t= | 3.75 | t=95th percentile of the Bonferroni - Statistics |

**Prediction Interval:** $K=[O, X_{ave}+S(1/m+1/n)^{1/2}\, t_{n-1.K.095}]$

Where
$X_{ave}$ = the mean concentration of the baseline sampling data
S = standard devation of the baseline sampling data

Note:
The Prediction Interval establishes the range for the mean concentration of all non-baseline sampling data. Quantifications below the detection limit are entered as one-half the detection limit.

| RESULTS | | | |
|---|---|---|---|
| **Well Number** | **Prediction Interval** | **Mean Concentration of Non-Baseline Sampling Data** | **Result** |
| Beryllium | [0,0.127] | 0.005 | Not Significant |

Sep. 95 Dec. 95 Feb. 96 Apr. 96 July 96 Oct. 96 Apr. 97 Oct. 97 Apr. 98 Oct. 98

Predictive Interval Analysis
Monitoring Well 4 (MW4)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

## Prediction Intervals Worksheet for Intrawell Comparisons
## Dunn-Erwin Data Set 1
## Well: MW4

Location: Data Set 1 - Shallow Aquifer

This Test compares baseline sampling concentrations to observed concentrations after waste has been deposited.

| Background Data | | | | | | |
|---|---|---|---|---|---|---|
| Parameter | Background data, mg/l | | | | Sample Mean | Sample Stan. Dev. |
| Beryllium | 0.001 | 0.001 | 0.003 | 0.003 | 0.002 | 0.001 |

| Variables | | Where |
|---|---|---|
| n= | 2 | n= Background population |
| n-1= | 1 | n-1=degrees of freedom |
| m= | 35 | m=Compliance well sample population |
| t= | 3.75 | t=95th percentile of the Bonferroni - Statistics |

**Prediction Interval:** $K=[O, X_{ave}+S(1/m+1/n)^{1/2}\ t_{n-1.K.095}]$

Where
$X_{ave}$ = the mean concentration of the baseline sampling data
S = standard devation of the baseline sampling data

Note:
The Prediction Interval establishes the range for the mean concentration of all non-baseline sampling data. Quantifications below the detection limit are entered as one-half the detection limit.

| RESULTS | | | |
|---|---|---|---|
| **Well Number** | **Prediction Interval** | **Mean Concentration of Non-Baseline Sampling Data** | **Result** |
| Beryllium | [0,0.005] | 0.004 | Not Significant |

Sept. 95 Dec. 95 Feb. 96 Apr. 96 July 96 Oct. 96 Apr. 97 Oct. 97 Apr. 98 Oct. 98

## Prediction Intervals Worksheet for Intrawell Comparisons
## Dunn-Erwin Data Set 1
## Well: MW5

Location: Data Set 1 - Shallow Aquifer

This Test compares baseline sampling concentrations to observed concentrations after waste has been deposited.

| Background Data | | | | | | |
|---|---|---|---|---|---|---|
| Parameter | Background data, mg/l | | | | Sample Mean | Sample Stan. Dev. |
| Barium | 0.208 | 0.142 | 0.243 | 0.104 | 0.174 | 0.063 |

| Variables | | Where |
|---|---|---|
| n= | 4 | n= Background population |
| n-1= | 3 | n-1=degrees of freedom |
| m= | 35 | m=Compliance well sample population |
| t= | 3.75 | t=95th percentile of the Bonferroni - Statistics |

**Prediction Interval:** $K=[O, X_{ave}+S(1/m+1/n)^{1/2}\ t_{n-1.K.095)}]$

Where
$X_{ave}$ = the mean concentration of the baseline sampling data
S = standard devation of the baseline sampling data

Note:
The Prediction Interval establishes the range for the mean concentration of all non-baseline sampling data. Quantifications below the detection limit are entered as one-half the detection limit as of October 2000, due to varying detection limits before this date. Non-detects prior to Oct 2000 are not used to compute the prediction interval.

| RESULTS | | | |
|---|---|---|---|
| **Well Number** | **Prediction Interval** | **Mean Concentration of Non-Baseline Sampling Data** | **Result** |
| Barium | [0,0.299] | 0.187 | Not Significant |

Predictive Interval Analysis
Monitoring Well 6,6B (MW6,6B)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

## Prediction Intervals Worksheet for Intrawell Comparisons
## Dunn-Erwin Data Set 1
## Well: MW6,6B

Location: Data Set 1 - Shallow Aquifer

This Test compares baseline sampling concentrations to observed concentrations after waste has been deposited.

| Background Data | | | | | | |
|---|---|---|---|---|---|---|
| Parameter | Background data, mg/l | | | | Sample Mean | Sample Stan. Dev. |
| Barium | 0.068 | 0.096 | 0.141 | 0.062 | 0.092 | 0.036 |

| **Variables** | | **Where** |
|---|---|---|
| n= | 4 | n= Background population |
| n-1= | 3 | n-1=degrees of freedom |
| m= | 35 | m=Compliance well sample population |
| t= | 3.75 | t=95th percentile of the Bonferroni - Statistics |

**Prediction Interval:** $K=[O, X_{ave}+S(1/m+1/n)^{1/2}\, t_{n-1.K.095}]$

Where
$X_{ave}$ = the mean concentration of the baseline sampling data
S = standard devation of the baseline sampling data

Note:
The Prediction Interval establishes the range for the mean concentration of all non-baseline sampling data. Quantifications below the detection limit are entered as one-half the detection limit as of October 2000, due to varying detection limits before this date. Non-detects prior to Oct 2000 are not used to compute the prediction interval.

| RESULTS | | | |
|---|---|---|---|
| **Well Number** | **Prediction Interval** | **Mean Concentration of Non-Baseline Sampling Data** | **Result** |
| Barium | [0,0.163] | 0.190 | Significant |

Predictive Interval Analysis
Monitoring Well 7,7B (MW7;7B)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

## Prediction Intervals Worksheet for Intrawell Comparisons
## Dunn-Erwin Data Set 1
## Well: MW7,7B

Location: Data Set 1 - Shallow Aquifer

This Test compares baseline sampling concentrations to observed concentrations after waste has been deposited.

| Background Data | | | | | | |
|---|---|---|---|---|---|---|
| Parameter | Background data, mg/l | | | | Sample Mean | Sample Stan. Dev. |
| Barium | 0.892 | NA | NA | 0.2 | 0.546 | 0.489 |
| Cobalt | 0.146 | NA | NA | 0.013 | 0.080 | 0.094 |
| Lead | 0.519 | NA | NA | 0.044 | 0.282 | 0.336 |

| **Variables** | | **Where** |
|---|---|---|
| n= | 2 | n= Background population |
| n-1= | 1 | n-1=degrees of freedom |
| m= | 32 | m=Compliance well sample population |
| t= | 3.75 | t=95th percentile of the Bonferroni - Statistics |

**Prediction Interval:** $K=[O, X_{ave}+S(1/m+1/n)^{1/2}\, t_{n-1.K.095)}]$

Where
$X_{ave}$ = the mean concentration of the baseline sampling data
S = standard devation of the baseline sampling data

Note:
The Prediction Interval establishes the range for the mean concentration of all non-baseline sampling data.
Quantifications below the detection limit are entered as one-half the detection limit.
For barium, quantifications below the detection limit are entered as one-half the detection limit as of October 2000, due to varying detection limits before this date. Non-detects prior to Oct 2000 are not used to compute the prediction interval for barium.

| RESULTS | | | |
|---|---|---|---|
| **Well Number** | **Prediction Interval** | **Mean Concentration of Non-Baseline Sampling Data** | **Result** |
| Barium | [0,1.88] | 0.352 | Not Significant |
| Cobalt | [0,0.337] | 0.022 | Not Significant |
| Lead | [0,1.20] | 0.077 | Not Significant |

## Prediction Intervals Worksheet for Intrawell Comparisons
## Dunn-Erwin Data Set 1
## Well: MW12

Location: Data Set 1 - Shallow Aquifer

This Test compares baseline sampling concentrations to observed concentrations after waste has been deposited.

| Background Data | | | | | | |
|---|---|---|---|---|---|---|
| Parameter | Background data, mg/l | | | | Sample Mean | Sample Stan. Dev. |
| Beryllium | 0.001 | 0.002 | 0.002 | 0.002 | 0.002 | 0.0005 |

| **Variables** | | **Where** |
|---|---|---|
| n= | 4 | n= Background population |
| n-1= | 3 | n-1=degrees of freedom |
| m= | 8 | m=Compliance well sample population |
| t= | 3.75 | t=95th percentile of the Bonferroni - Statistics |

**Prediction Interval:** $K=[O, X_{ave}+S(1/m+1/n)^{1/2}\ t_{n-1,K,095}]$

Where
$X_{ave}$ = the mean concentration of the baseline sampling data
S = standard devation of the baseline sampling data

Note:
The Prediction Interval establishes the range for the mean concentration of all non-baseline sampling data.
Quantifications below the detection limit are entered as one-half the detection limit.
For barium, quantifications below the detection limit are entered as one-half the detection limit as of October 2000, due to varying detection limits before this date. Non-detects prior to Oct 2000 are not used to compute the prediction interval for barium.

| RESULTS | | | |
|---|---|---|---|
| **Well Number** | **Prediction Interval** | **Mean Concentration of Non-Baseline Sampling Data** | **Result** |
| Beryllium | [0,0.0026] | 0.0020 | Not Significant |

Predictive Interval Analysis
Monitoring Well 23B (MW23B)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

## Prediction Intervals Worksheet for Intrawell Comparisons
## Dunn-Erwin Data Set 1
## Well: MW23B

Location: Data Set 1 - Shallow Aquifer

This Test compares baseline sampling concentrations to observed concentrations after waste has been deposited.

| Background Data | | | | | | |
|---|---|---|---|---|---|---|
| Parameter | Background data, mg/l | | | | Sample Mean | Sample Stan. Dev. |
| Barium | 0.071 | 0.17 | 0.109 | 0.228 | 0.145 | 0.069 |

| Variables | | Where |
|---|---|---|
| n= | 4 | n= Background population |
| n-1= | 3 | n-1=degrees of freedom |
| m= | 35 | m=Compliance well sample population |
| t= | 3.75 | t=95th percentile of the Bonferroni - Statistics |

**Prediction Interval:** $K=[O, X_{ave}+S(1/m+1/n)^{1/2}\, t_{n-1.K.095}]$

Where
$X_{ave}$ = the mean concentration of the baseline sampling data
S = standard devation of the baseline sampling data

Note:
The Prediction Interval establishes the range for the mean concentration of all non-baseline sampling data. Quantifications below the detection limit are entered as one-half the detection limit as of October 2000, due to varying detection limits before this date. Non-detects prior to Oct 2000 are not used to compute the prediction interval.

| RESULTS | | | |
|---|---|---|---|
| **Well Number** | **Prediction Interval** | **Mean Concentration of Non-Baseline Sampling Data** | **Result** |
| Barium | [0,0.281] | 0.251 | Not Significant |

# 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 | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | Oct. 08 |
| INORGANICS (mg/l) | | | | | | | | | | | | | | | |
| Antimony | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Arsenic | | | | | | | | | | | | | | | |
| Barium | | | | | | | | | | | | | | | |
| Beryllium | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Cadmium | | | | | | | | | | | | | | | |
| Chromium | | | | | | | | | | | | | | | |
| Cobalt | 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 |
| Lead | | | | | | | | | | | | | | | |
| Mercury | | | | | | | | | | | | | | | |
| Nickel | 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 |
| Zinc | 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 | | | | | | | | | | | | | | | |

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

| CONSTITUENT | | | | | MW16 Detects | | NCGS |
|---|---|---|---|---|---|---|---|
| SAMPLE DATE | Apr. 09 | Oct. 09 | Apr. 10 | Oct. 10 | detect# | detect% | |
| INORGANICS (mg/l) | | | | | | | (mg/l) |
| Antimony | NA | NA | NA | NA | 0 | 0% | 0.0014** |
| Arsenic | | | | | 0 | 0% | 0.01 |
| Barium | | | | | 10 | 29% | 0.7 |
| Beryllium | NA | NA | NA | NA | 0 | 0% | 0.004** |
| Cadmium | | | | | 8 | 23% | 0.002 |
| Chromium | | | | | 9 | 26% | 0.01 |
| Cobalt | NA | NA | NA | NA | 1 | 14% | 0.001** |
| Copper | NA | NA | NA | NA | 4 | 57% | 1 |
| Lead | | | | | 11 | 31% | 0.015 |
| Mercury | | | | | 1 | 3% | 0.001 |
| Nickel | NA | NA | NA | NA | 0 | 0% | 0.1 |
| Selenium | | | | | 0 | 0% | 0.02 |
| Silver | | | | | 0 | 0% | 0.02 |
| Vanadium | NA | NA | NA | NA | 2 | 29% | 0.0003** |
| Zinc | NA | NA | NA | NA | 5 | 71% | 1 |
| | | | | | | | |
| ORGANICS (ug/l) | | | | | | | (ug/l) |
| cis-1,2-dichloroethene | | | | | 0 | 0% | 70 |
| methylene chloride | | | | | 1 | 3% | 5 |
| mek; 2-butanone | | | | | 0 | 0% | 4000 |
| 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 | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | Oct. 08 |
| INORGANICS (mg/l) | | | | | | | | | | | | | | |
| Antimony | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Arsenic | | | | | | | | | | | | | | |
| Barium | | | | | | | | | | | | | 0.105 | |
| Beryllium | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Cadmium | | | | | | | | | | | | | 0.001 | |
| Chromium | | | 0.094 | 0.012 | | | | | | | | | | |
| Cobalt | 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 |
| Lead | | | 0.063 | | | | 0.029 | | 0.021 | | 0.011 | 0.011 | 0.024 | |
| Mercury | | | | | | | | | | | | | | |
| Nickel | 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 |
| Zinc | 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 | | | | | | | | | | | | | | |

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. 09 | Oct. 09 | Apr. 10 | Oct. 10 | detect# | detect% | |
| INORGANICS (mg/l) | | | | | | | (mg/l) |
| Antimony | NA | NA | NA | NA | 1 | 14% | 0.0014** |
| Arsenic | | | | | 4 | 11% | 0.01 |
| Barium | | 0.11 | | | 11 | 31% | 0.7 |
| Beryllium | NA | NA | NA | NA | 1 | 14% | 0.004** |
| Cadmium | | | | | 6 | 17% | 0.002 |
| Chromium | | | | | 8 | 23% | 0.01 |
| Cobalt | NA | NA | NA | NA | 3 | 43% | 0.001** |
| Copper | NA | NA | NA | NA | 4 | 57% | 1 |
| Lead | | 0.023 | | | 16 | 46% | 0.015 |
| Mercury | | | | | 0 | 0% | 0.001 |
| Nickel | NA | NA | NA | NA | 1 | 14% | 0.1 |
| Selenium | | | | | 1 | 3% | 0.02 |
| Silver | | | | | 0 | 0% | 0.02 |
| Vanadium | NA | NA | NA | NA | 4 | 57% | 0.0003** |
| Zinc | NA | NA | NA | NA | 4 | 57% | 1 |
| | | | | | | | |
| ORGANICS (ug/l) | | | | | | | (ug/l) |
| cis-1,2-dichloroethene | | | | | 0 | 0% | 70 |
| methylene chloride | | | | | 0 | 0% | 5 |
| mek; 2-butanone | | | | | 1 | 3% | 4000 |
| 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 | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | Oct. 08 |
| INORGANICS (mg/l) | | | | | | | | | | | | | | |
| Antimony | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Arsenic | | | | | | | | | | | | | | |
| Barium | | | | | | | | | | | | | | |
| Beryllium | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Cadmium | | | | | | | | | | | | | | |
| Chromium | | | | | | | | | | | | | | |
| Cobalt | 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 |
| Lead | | | | | | | | | | | | | | |
| Mercury | | | | | | | | | | | | | | |
| Nickel | 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 |
| Zinc | 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 | | | | | | | | | | | | | | |

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. 09 | Oct. 09 | Apr. 10 | Oct. 10 | detect# | detect% | |
| INORGANICS (mg/l) | | | | | | | (mg/l) |
| Antimony | NA | NA | NA | NA | 0 | 0% | 0.0014** |
| Arsenic | | | | | 0 | 0% | 0.01 |
| Barium | | | | | 10 | 29% | 0.7 |
| Beryllium | NA | NA | NA | NA | 3 | 43% | 0.004** |
| Cadmium | | | | | 3 | 9% | 0.002 |
| Chromium | | | | | 6 | 17% | 0.01 |
| Cobalt | NA | NA | NA | NA | 2 | 29% | 0.001** |
| Copper | NA | NA | NA | NA | 4 | 57% | 1 |
| Lead | | | | | 8 | 23% | 0.015 |
| Mercury | | | | | 2 | 6% | 0.001 |
| Nickel | NA | NA | NA | NA | 0 | 0% | 0.1 |
| Selenium | | | | | 0 | 0% | 0.02 |
| Silver | | | | | 0 | 0% | 0.02 |
| Vanadium | NA | NA | NA | NA | 3 | 43% | 0.0003** |
| Zinc | NA | NA | NA | NA | 4 | 57% | 1 |
| | | | | | | | |
| ORGANICS (ug/l) | | | | | | | (ug/l) |
| cis-1,2-dichloroethene | | | | | 3 | 9% | 70 |
| methylene chloride | | | | | 0 | 0% | 5 |
| mek; 2-butanone | | | | | 0 | 0% | 4000 |
| 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 | Oct. 08 | Apr. 09 | Oct. 09 | Apr. 10 | Oct. 10 | detect# | detect% | |
| INORGANICS (mg/l) | | | | | | | | | | | | | | (mg/l) |
| Antimony | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.0014** |
| Arsenic | | | | | | | | | | | | 0 | 0% | 0.01 |
| Barium | | | | | | | | | | | | 6 | 21% | 0.7 |
| Beryllium | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.004** |
| Cadmium | | | | | | 0.001 | 0.001 | | | | | 0 | 7% | 0.002 |
| Chromium | | | | | | | | | | | | 3 | 16% | 0.01 |
| Cobalt | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.001** |
| Copper | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 1 |
| Lead | | | | | | | | | | 0.06 | | 5 | 26% | 0.015 |
| Mercury | | | | | | | | | | | | 2 | 11% | 0.001 |
| Nickel | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.1 |
| Selenium | | | | | | | | | | | | 0 | 0% | 0.02 |
| Silver | | | | | | | | | | | | 0 | 0% | 0.02 |
| Vanadium | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.0003** |
| Zinc | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 1 |
| | | | | | | | | | | | | | | |
| ORGANICS (ug/l) | | | | | | | | | | | | | | (ug/l) |
| cis-1,2-dichloroethene | | | | | | | | | | | | 0 | 0% | 70 |
| methylene chloride | | | | | | | | | | | | 0 | 0% | 5 |
| mek; 2-butanone | | | | | | | | | | | | 0 | 0% | 4000 |
| **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 | Oct. 08 | Apr. 09 | Oct. 09 | Apr. 10 | Oct. 10 | detect# | detect% | |
| INORGANICS (mg/l) | | | | | | | | | | | | | | (mg/l) |
| Antimony | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.0014** |
| Arsenic | | | | | | | | | | | | 5 | 17% | 0.01 |
| Barium | | | | 0.132 | 0.318 | 0.225 | 0.25 | 0.179 | 0.29 | 0.179 | 0.405 | 7 | 52% | 0.7 |
| Beryllium | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.004** |
| Cadmium | | | | | | | | | | | | 3 | 10% | 0.002 |
| Chromium | | | | | | | | | | | | 5 | 26% | 0.01 |
| Cobalt | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.001** |
| Copper | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 1 |
| Lead | | | | | | | | | | | | 7 | 37% | 0.015 |
| Mercury | | | | | | | | | | | | 3 | 16% | 0.001 |
| Nickel | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.1 |
| Selenium | | | | | | | | | | | | 1 | 3% | 0.02 |
| Silver | | | | | | | | | | | | 0 | 0% | 0.02 |
| Vanadium | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.0003** |
| Zinc | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 1 |
| | | | | | | | | | | | | | | |
| ORGANICS (ug/l) | | | | | | | | | | | | | | (ug/l) |
| cis-1,2-dichloroethene | | | | | | | | | | | | 0 | 0% | 70 |
| methylene chloride | | | | | | | | | | | | 0 | 0% | 5 |
| mek; 2-butanone | | | | | | | | | | | | 0 | 0% | 4000 |
| 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 | 6% | QUALITATIVE |
| Barium | 44 | 27% | TEST OF PROPORTIONS* |
| Cadmium | 20 | 12% | TEST OF PROPORTIONS* |
| Chromium | 31 | 19% | TEST OF PROPORTIONS* |
| Lead | 47 | 29% | TEST OF PROPORTIONS* |
| Mercury | 8 | 5% | 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 | 70 | 0.300 | 21 | 49 | 35 | 0.286 | 35 | 0.314 | 0.110 | -0.261 | not SSIOBL |
| Cadmium | 70 | 0.200 | 14 | 56 | 35 | 0.229 | 35 | 0.171 | 0.096 | 0.598 | not SSIOBL |
| Chromium | 70 | 0.243 | 17 | 53 | 35 | 0.257 | 35 | 0.229 | 0.103 | 0.279 | not SSIOBL |
| Lead | 70 | 0.386 | 27 | 43 | 35 | 0.314 | 35 | 0.457 | 0.116 | -1.228 | not SSIOBL |
| | | | | | | | | | | | |
| **MW33** | | | | | | | | | | | |
| Barium | 70 | 0.286 | 20 | 50 | 35 | 0.286 | 35 | 0.286 | 0.108 | 0.000 | not SSIOBL |
| Cadmium | 70 | 0.157 | 11 | 59 | 35 | 0.229 | 35 | 0.086 | 0.087 | 1.642 | not SSIOBL |
| Chromium | 70 | 0.214 | 15 | 55 | 35 | 0.257 | 35 | 0.171 | 0.098 | 0.874 | not SSIOBL |
| Lead | 70 | 0.271 | 19 | 51 | 35 | 0.314 | 35 | 0.229 | 0.106 | 0.806 | not SSIOBL |
| | | | | | | | | | | | |
| **MW34** | | | | | | | | | | | |
| Barium | 64 | 0.250 | 16 | 48 | 35 | 0.286 | 29 | 0.207 | 0.109 | 0.725 | not SSIOBL |
| Cadmium | 64 | 0.125 | 8 | 56 | 35 | 0.229 | 29 | 0.069 | 0.083 | 1.922 | not SSIOBL |
| Chromium | 64 | 0.188 | 12 | 52 | 35 | 0.257 | 29 | 0.158 | 0.098 | 1.013 | not SSIOBL |
| Lead | 64 | 0.250 | 16 | 48 | 35 | 0.314 | 29 | 0.263 | 0.109 | 0.470 | not SSIOBL |
| | | | | | | | | | | | |
| **MW35** | | | | | | | | | | | |
| Barium | 64 | 0.266 | 17 | 47 | 35 | 0.286 | 29 | 0.517 | 0.111 | -2.088 | SSIOBL |
| Cadmium | 64 | 0.172 | 11 | 53 | 35 | 0.229 | 29 | 0.103 | 0.095 | 1.321 | not SSIOBL |
| Chromium | 64 | 0.219 | 14 | 50 | 35 | 0.257 | 29 | 0.263 | 0.104 | -0.058 | not SSIOBL |
| Lead | 64 | 0.281 | 18 | 46 | 35 | 0.31 | 29 | 0.368 | 0.113 | -0.480 | 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.

Predictive Interval Analysis
Monitoring Well 35 (MW35)
Downgradient Well - Set 2
Dunn-Erwin Landfill
Harnett County, North Carolina

## Prediction Intervals Worksheet for Intrawell Comparisons
## Dunn-Erwin Data Set 1
## Well: MW35

Location: Data Set 1 - Shallow Aquifer

This Test compares baseline sampling concentrations to observed concentrations after waste has been deposited.

| Background Data | | | | | |
|---|---|---|---|---|---|
| Parameter | Background data, mg/l | | | Sample Mean | Sample Stan. Dev. |
| Barium | 2.06 | 0.877 | 0.005 | 0.981 | 1.031 |

| Variables | | Where |
|---|---|---|
| n= | 4 | n= Background population |
| n-1= | 3 | n-1=degrees of freedom |
| m= | 29 | m=Compliance well sample population |
| t= | 3.75 | t=95th percentile of the Bonferroni - Statistics |

**Prediction Interval:** $K=[O, X_{ave}+S(1/m+1/n)^{1/2}\ t_{n-1,K.095}]$

Where
$X_{ave}$ = the mean concentration of the baseline sampling data
S = standard devation of the baseline sampling data

Note:
The Prediction Interval establishes the range for the mean concentration of all non-baseline sampling data. Quantifications below the detection limit are entered as one-half the detection limit as of October 2000, due to varying detection limits before this date. Non-detects prior to Oct 2000 are not used to compute the prediction interval.

| RESULTS | | | |
|---|---|---|---|
| **Well Number** | **Prediction Interval** | **Mean Concentration of Non-Baseline Sampling Data** | **Result** |
| Barium | [0,3.043] | 0.288 | Not Significant |

# 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 | | | | | | | | | | | | |
| Chloromethane | | | | | | 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 | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | Oct. 08 | Apr. 09 | Oct. 09 |
| INORGANICS (mg/l) | | | | | | | | | | | | | | | | |
| Antimony | | | | | | | | NA | | | | NA | | | | |
| Arsenic | | | | | | | | NA | | | | NA | | 0.047 | 0.021 | 0.011 |
| Barium | | | | | | | | NA | | | | NA | | 0.183 | 0.222 | |
| Beryllium | | | | | | | | NA | | | | NA | | | | |
| Cadmium | | | | 0.001 | | | | NA | | | | NA | | | | |
| Chromium | | | | | | | | NA | | | | NA | | | 0.011 | |
| Cobalt | | | | | | | | NA | | | | NA | | 0.031 | 0.037 | |
| Copper | | | | | | | | NA | | | | NA | | | 0.015 | |
| Lead | | | | | | | | NA | | | | NA | | 0.01 | 0.029 | |
| Nickel | | | | | | | | NA | | | | NA | | | | |
| Selenium | | | | | | | | NA | | | | NA | | | | |
| Silver | | | | | | | | NA | | | | NA | | | | |
| Vanadium | | | | | | | | NA | | | | NA | | 0.04 | 0.039 | |
| Zinc | | | | | | | | NA | | | 0.011 | NA | 0.022 | 0.033 | 0.073 | |
| ORGANICS (ug/l) | | | | | | | | | | | | | | | | |
| Benzene | | | | | | | | NA | | | | NA | | | | |
| Chloromethane | | | | | | | | NA | | | | NA | | 1.3 | | |
| cis-1,2 Dichloroethene | | | | | | | | NA | | | | NA | | | | |
| Ethylbenzene | | | | | | | | NA | | | | NA | | | | |
| Toluene | | | | | | | | NA | | | | NA | | | | |
| Vinyl chloride | | | | | | | | NA | | | | NA | | | | |
| Xylenes | | | | | | | | NA | | | | NA | | | | |
| NOTES | | | | | | | | | | | | | | | | |

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. 10 | Oct. 10 | detect# | detect% | |
| | | | | | |
| INORGANICS (mg/l) | | | | | (mg/l) |
| Antimony | | | 0 | 0% | 0.001** |
| Arsenic | | | 5 | 15% | 0.01 |
| Barium | | | 6 | 18% | 0.7 |
| Beryllium | | | 0 | 0% | 0.004** |
| Cadmium | | 0.001 | 3 | 9% | 0.002 |
| Chromium | | | 2 | 6% | 0.01 |
| Cobalt | | | 3 | 9% | 0.001** |
| Copper | | | 3 | 9% | 1 |
| Lead | | | 2 | 6% | 0.015 |
| Nickel | | | 0 | 0% | 0.1 |
| Selenium | | | 0 | 0% | 0.02 |
| Silver | | | 0 | 0% | 0.02 |
| Vanadium | | | 2 | 6% | 0.0003** |
| Zinc | | 0.016 | 11 | 33% | 1 |
| | | | | | |
| ORGANICS (ug/l) | | | | | (ug/l) |
| Benzene | | | 0 | 0% | 1 |
| Chloromethane | | | 1 | 3% | 3 |
| cis-1,2 Dichloroethene | | | 0 | 0% | 70 |
| Ethylbenzene | | | 0 | 0% | 600 |
| Toluene | | | 1 | 3% | 600 |
| Vinyl chloride | | | 0 | 0% | 0.03 |
| Xylenes | | | 0 | 0% | 500 |
| 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 | | | | | | | | | | | | |
| Chloromethane | | | | | | 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 | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | Oct. 08 | Apr. 09 | Oct. 09 |
| INORGANICS (mg/l) | | | | | | | | | | | | | | | | |
| Antimony | | | | | | | | | | | | NA | | | | |
| Arsenic | | | | | | | | | | | | NA | | 0.012 | | |
| Barium | | | | | | | | | | | | NA | | | | |
| Beryllium | | | | | | | | | | | | NA | | | | |
| Cadmium | | | | | | | | | | | | NA | | | | |
| Chromium | | | | | | | | | | | | NA | | | | |
| Cobalt | | | | | | | | | | | | NA | | | | |
| Copper | | | | | | | | | | | | NA | | | | |
| Lead | | | | | | | | | | | | NA | | | | |
| Nickel | | | | | | | | | | | | NA | | | | |
| Selenium | | | | | | | | | | | | NA | | | | |
| Silver | | | | | | | | | | | | NA | | | | |
| Vanadium | | | | | | | | | | | | NA | | | | |
| Zinc | | | | | | | | | | | | NA | 0.02 | 0.014 | 0.01 | |
| ORGANICS (ug/l) | | | | | | | | | | | | | | | | |
| Benzene | | | | | | | | | | | | NA | | | | |
| Chloromethane | | | | | | | | | | | | NA | | | | |
| cis-1,2 Dichloroethene | | | | | | | | | | | | NA | | | | |
| Ethylbenzene | | | | | | | | | | | | NA | | | | |
| Toluene | | | | | | | | | | | | NA | | 2.3 | | |
| Vinyl chloride | | | | | | | | | | | | NA | | | | |
| Xylenes | | | | | | | | | | | | NA | | | | |
| NOTES | | | | | | | | | | | | | | | | |

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. 10 | Oct. 10 | detect# | detect% | |
| | | | | | |
| INORGANICS (mg/l) | | | | | (mg/l) |
| Antimony | | | 0 | 0% | 0.001** |
| Arsenic | | | 2 | 6% | 0.01 |
| Barium | | | 5 | 15% | 0.7 |
| Beryllium | | | 0 | 0% | 0.004** |
| Cadmium | | | 1 | 3% | 0.002 |
| Chromium | | | 1 | 3% | 0.01 |
| Cobalt | | | 1 | 3% | 0.001** |
| Copper | | | 3 | 9% | 1 |
| Lead | | | 1 | 3% | 0.015 |
| Nickel | | | 0 | 0% | 0.1 |
| Selenium | | | 0 | 0% | 0.02 |
| Silver | | | 0 | 0% | 0.02 |
| Vanadium | | | 0 | 0% | 0.0003** |
| Zinc | 0.017 | 0.014 | 10 | 29% | 1 |
| | | | | | |
| ORGANICS (ug/l) | | | | | (ug/l) |
| Benzene | | | 0 | 0% | 1 |
| Chloromethane | | | 0 | 0% | 3 |
| cis-1,2 Dichloroethene | | | 0 | 0% | 70 |
| Ethylbenzene | | | 0 | 0% | 600 |
| Toluene | 1.4 | | 2 | 6% | 600 |
| Vinyl chloride | | | 0 | 0% | 0.03 |
| Xylenes | | | 0 | 0% | 500 |
| 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 | | | | | | | | | | | | |
| Chloromethane | | | | | | 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 | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | Oct. 08 | Apr. 09 | Oct. 09 |
| INORGANICS (mg/l) | | | | | | | | | | | | | | | | |
| Antimony | | | | | | | | | | | | NA | | | | |
| Arsenic | | | | | | | | | | | | NA | | 0.011 | | |
| Barium | | | | | | | | | | | | NA | | 0.118 | | |
| Beryllium | | | | | | | | | | | | NA | | | | |
| Cadmium | | | | | | | | | | | | NA | | | | |
| Chromium | | | | | | | | | | | | NA | | | | |
| Cobalt | | 0.002 | | | | | | | | | | NA | | | | |
| Copper | | | | | | | | | | | | NA | | | | |
| Lead | | | | | | | | | | | | NA | | | | |
| Nickel | | | | | | | | | | | | NA | | | | |
| Selenium | | | | | | | | | | | | NA | | | | |
| Silver | | | | | | | | | | | | NA | | | | |
| Vanadium | | | | | | | | | | | | NA | | | | |
| Zinc | | | | | 0.366 | | | | | | | NA | 0.016 | 0.028 | | |
| ORGANICS (ug/l) | | | | | | | | | | | | | | | | |
| Benzene | | | | | | | | | | | | NA | | | | |
| Chloromethane | | | | | | | | | | | | NA | | | | |
| cis-1,2 Dichloroethene | | | | | | | | | | | | NA | | | | |
| Ethylbenzene | | | | | | | | | | | | NA | | | | |
| Toluene | | | | | | | | | | | | NA | | 3.5 | | |
| Vinyl chloride | | | | | | | | | | | | NA | | | | |
| Xylenes | | | | | | | | | | | | NA | | | | |
| NOTES | | | | | | | | | | | | | | | | |

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. 10 | Oct. 10 | detect# | detect% | |
| | | | | | |
| INORGANICS (mg/l) | | | | | (mg/l) |
| Antimony | | | 0 | 0% | 0.001** |
| Arsenic | | | 2 | 6% | 0.01 |
| Barium | | | 8 | 24% | 0.7 |
| Beryllium | | | 0 | 0% | 0.004** |
| Cadmium | | | 2 | 6% | 0.002 |
| Chromium | | | 2 | 6% | 0.01 |
| Cobalt | | | 2 | 6% | 0.001** |
| Copper | | | 4 | 12% | 1 |
| Lead | | | 2 | 6% | 0.015 |
| Nickel | | | 0 | 0% | 0.1 |
| Selenium | | | 0 | 0% | 0.02 |
| Silver | | | 0 | 0% | 0.02 |
| Vanadium | | | 0 | 0% | 0.0003** |
| Zinc | | 0.01 | 10 | 29% | 1 |
| | | | | | |
| ORGANICS (ug/l) | | | | | (ug/l) |
| Benzene | | | 1 | 3% | 1 |
| Chloromethane | | | 0 | 0% | 3 |
| cis-1,2 Dichloroethene | | | 1 | 3% | 70 |
| Ethylbenzene | | | 1 | 3% | 600 |
| Toluene | | | 3 | 9% | 600 |
| Vinyl chloride | | | 1 | 3% | 0.03 |
| Xylenes | | | 1 | 3% | 500 |
| NOTES | | | | | |
| | | | | | NCGS = |
| | | | | | 2L STD or |
| | | | | ** | 13B GWPS |

Groundwater Monitoring Point Data
Surface Water Monitoring Point 4 (SWPT4)
Set 3 - Downgradient Point
Dunn-Erwin Landfill
Harnett County, North Carolina

| CONSTITUENT | SWPT4 | | SWPT3 Detects | | NCGS |
|---|---|---|---|---|---|
| SAMPLE DATE | Apr. 10 | Oct. 10 | detect# | detect% | |
| INORGANICS (mg/l) | | | | | (mg/l) |
| Antimony | | | 0 | 0% | 0.001** |
| Arsenic | | | 0 | 0% | 0.01 |
| Barium | | | 0 | 0% | 0.7 |
| Beryllium | | | 0 | 0% | 0.004** |
| Cadmium | | | 0 | 0% | 0.002 |
| Chromium | | | 0 | 0% | 0.01 |
| Cobalt | | | 0 | 0% | 0.001** |
| Copper | | | 0 | 0% | 1 |
| Lead | | | 0 | 0% | 0.015 |
| Nickel | | | 0 | 0% | 0.1 |
| Selenium | | | 0 | 0% | 0.02 |
| Silver | | | 0 | 0% | 0.02 |
| Vanadium | | | 0 | 0% | 0.0003** |
| Zinc | | 0.012 | 1 | 50% | 1 |
| ORGANICS (ug/l) | | | | | (ug/l) |
| Benzene | | | 0 | 0% | 1 |
| Chloromethane | | | 0 | 0% | 3 |
| cis-1,2 Dichloroethene | | | 0 | 0% | 70 |
| Ethylbenzene | | | 0 | 0% | 600 |
| Toluene | | | 0 | 0% | 600 |
| Vinyl chloride | | | 0 | 0% | 0.03 |
| Xylenes | | | 0 | 0% | 500 |

SWPT4 not included in statistical analysis until background sampling is completed.

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

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 | 9 | 9% | QUALITATIVE |
| Barium | 19 | 19% | TEST OF PROPORTIONS* |
| Beryllium | 0 | 0% | QUALITATIVE |
| Cadmium | 6 | 6% | QUALITATIVE |
| Chromium | 5 | 5% | QUALITATIVE |
| Cobalt | 6 | 6% | QUALITATIVE |
| Copper | 10 | 10% | QUALITATIVE |
| Lead | 5 | 5% | QUALITATIVE |
| Nickel | 0 | 0% | QUALITATIVE |
| Selenium | 0 | 0% | QUALITATIVE |
| Silver | 0 | 0% | QUALITATIVE |
| Vanadium | 2 | 2% | QUALITATIVE |
| Zinc | 31 | 31% | TEST OF PROPORTIONS* |
| | | | |
| ORGANICS (ug/l) | | | |
| Benzene | 1 | 1% | QUALITATIVE |
| Chloromethane | 1 | 1% | QUALITATIVE |
| cis-1,2 Dichloroethene | 1 | 1% | QUALITATIVE |
| Ethylbenzene | 1 | 1% | QUALITATIVE |
| Toluene | 6 | 6% | 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 | 67 | 0.164 | 11 | 56 | 33 | 0.182 | 34 | 0.147 | 0.091 | 0.384 | not SSIOBL |
| Copper | 67 | 0.090 | 6 | 61 | 33 | 0.091 | 34 | 0.088 | 0.070 | 0.038 | not SSIOBL |
| Zinc | 67 | 0.313 | 21 | 46 | 33 | 0.333 | 34 | 0.294 | 0.113 | 0.346 | not SSIOBL |
| **SWPT3** | | | | | | | | | | | |
| Barium | 67 | 0.209 | 14 | 53 | 33 | 0.182 | 34 | 0.235 | 0.099 | -0.538 | not SSIOBL |
| Copper | 67 | 0.104 | 7 | 60 | 33 | 0.091 | 34 | 0.118 | 0.075 | -0.358 | not SSIOBL |
| Zinc | 67 | 0.313 | 21 | 46 | 33 | 0.333 | 34 | 0.294 | 0.113 | 0.346 | 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

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

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

DATE COLLECTED: 10/20/10
DATE REPORTED : 11/15/10

REVIEWED BY:

| PARAMETERS | MDL | SWSL | MW-6B | MW-7B | MW-8 | MW-9 | MW-10 | Analysis Date | Analyst | Method Code |
|---|---|---|---|---|---|---|---|---|---|---|
| PH (field measurement), Units | | | 5.3 | 4.9 | 4.7 | Missing | 5.8 | 10/20/10 | RJH | SM4500HB |
| Cyanide, ug/l | 5.0 | 10.0 | --- U | --- U | --- U | Missing | --- U | 10/27/10 | SEJ | SM4500 CN- |
| Antimony, ug/l | 0.22 | 6.0 | --- U | --- U | --- U | Missing | 0.2 J | 10/27/10 | LFJ | EPA200.8 |
| Arsenic, ug/l | 0.04 | 10.0 | 0.5 J | 0.6 J | --- U | Missing | 7 J | 10/27/10 | LFJ | EPA200.8 |
| Barium, ug/l | 0.03 | 100.0 | 136 | 260 | 92.8 J | Missing | 117 | 10/27/10 | LFJ | EPA200.8 |
| Beryllium, ug/l | 0.02 | 1.0 | 0.1 J | 0.1 J | 0.6 J | Missing | 0.1 J | 10/27/10 | LFJ | EPA200.8 |
| Cadmium, ug/l | 0.02 | 1.0 | 0.2 J | 1 | 0.1 J | Missing | 0.1 J | 10/27/10 | LFJ | EPA200.8 |
| Cobalt, ug/l | 0.10 | 10.0 | 29 | 9.6 J | 1.3 J | Missing | 0.5 J | 10/27/10 | LFJ | EPA200.8 |
| Copper, ug/l | 0.03 | 10.0 | 2 J | 1.2 J | 1.9 J | Missing | 15 | 10/27/10 | LFJ | EPA200.8 |
| Total Chromium, ug/l | 0.03 | 10.0 | 1.6 J | --- U | 0.1 J | Missing | 1.4 J | 10/27/10 | LFJ | EPA200.8 |
| Lead, ug/l | 0.01 | 10.0 | 2.1 J | 17 | 1.4 J | Missing | 2.6 J | 10/27/10 | LFJ | EPA200.8 |
| Mercury, ug/l | 0.08 | 0.20 | 0.8 | 0.27 | 0.54 | Missing | 0.31 | 10/27/10 | LFJ | EPA200.8 |
| Nickel, ug/l | 0.05 | 50.0 | 2.2 J | 1.2 J | 1.5 J | Missing | 2.2 J | 10/27/10 | LFJ | EPA200.8 |
| Selenium, ug/l | 0.32 | 10.0 | 0.4 J | 1.2 J | 0.8 J | Missing | 1 J | 10/27/10 | LFJ | EPA200.8 |
| Silver, ug/l | 0.03 | 10.0 | --- U | --- U | --- U | Missing | 0.1 J | 10/27/10 | LFJ | EPA200.8 |
| Thallium, ug/l | 0.05 | 5.5 | 0.2 J | 0.5 J | --- U | Missing | --- U | 10/27/10 | LFJ | EPA200.8 |
| Tin, ug/l | 0.11 | 100.0 | 0.5 J | 0.1 J | 0.2 J | Missing | 0.5 J | 10/27/10 | LFJ | EPA200.8 |
| Vanadium, ug/l | 0.03 | 25.0 | 6.9 J | 1.5 J | 2.1 J | Missing | 5.8 J | 10/27/10 | LFJ | EPA200.8 |
| Zinc, ug/l | 0.08 | 10.0 | 6.2 J | 3.6 J | 7 J | Missing | 5.3 J | 10/27/10 | LFJ | EPA200.8 |
| Turbidity, NTU | 1.0 | 1.0 | 90 | 45 | 6.9 | Missing | 140 | 10/21/10 | MEL | SM2130B |
| Sulfide, ug/l | 100 | 1000 | --- U | --- U | --- U | Missing | 671 J | 10/21/10 | LFJ | SM4500-S2D |
| Conductivity (at 25c), uMhos | 1.0 | 1.0 | 165 | 141 | 111 | Missing | 395 | 10/20/10 | RJH | SM2510B |
| Temperature, °C | | | 19 | 19 | 20 | Missing | 22 | 10/20/10 | RJH | SM2550B |
| Static Water Level, feet | | | 17.13 | 25.45 | 16.26 | Missing | 11.94 | 10/20/10 | RJH | |
| Well Depth, feet | | | 23.11 | 30.23 | 25.22 | Missing | 16.56 | 10/20/10 | RJH | |
| Water Bailed, Gals. | | | 2.4 | 2.1 | 3.9 | Missing | 2.1 | 10/20/10 | RJH | |

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

# Environment 1, Incorporated

Drinking Water ID: 37715
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

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

DATE COLLECTED: 10/20/10
DATE REPORTED : 11/15/10

REVIEWED BY:

| PARAMETERS | MDL | SWSL | Equipment Blank | Trip Blank | Analysis Date | Analyst | Method Code |
|---|---|---|---|---|---|---|---|
| Cyanide, ug/l | 5.0 | 10.0 | --- U | | 10/27/10 | SEJ | SM4500 CN-E |
| Antimony, ug/l | 0.22 | 6.0 | 0.5 J | | 10/27/10 | LFJ | EPA200.8 |
| Arsenic, ug/l | 0.04 | 10.0 | --- U | | 10/27/10 | LFJ | EPA200.8 |
| Barium, ug/l | 0.03 | 100.0 | --- U | | 10/27/10 | LFJ | EPA200.8 |
| Beryllium, ug/l | 0.02 | 1.0 | 0.1 J | | 10/27/10 | LFJ | EPA200.8 |
| Cadmium, ug/l | 0.02 | 1.0 | --- U | | 10/27/10 | LFJ | EPA200.8 |
| Cobalt, ug/l | 0.10 | 10.0 | --- U | | 10/27/10 | LFJ | EPA200.8 |
| Copper, ug/l | 0.03 | 10.0 | --- U | | 10/27/10 | LFJ | EPA200.8 |
| Total Chromium, ug/l | 0.03 | 10.0 | --- U | | 10/27/10 | LFJ | EPA200.8 |
| Lead, ug/l | 0.01 | 10.0 | --- U | | 10/27/10 | LFJ | EPA200.8 |
| Mercury, ug/l | 0.08 | 0.20 | --- U | | 10/27/10 | LFJ | EPA200.8 |
| Nickel, ug/l | 0.05 | 50.0 | --- U | | 10/27/10 | LFJ | EPA200.8 |
| Selenium, ug/l | 0.32 | 10.0 | --- U | | 10/27/10 | LFJ | EPA200.8 |
| Silver, ug/l | 0.03 | 10.0 | 0.1 J | | 10/27/10 | LFJ | EPA200.8 |
| Thallium, ug/l | 0.05 | 5.5 | --- U | | 10/27/10 | LFJ | EPA200.8 |
| Tin, ug/l | 0.11 | 100.0 | 0.2 J | | 10/27/10 | LFJ | EPA200.8 |
| Vanadium, ug/l | 0.03 | 25.0 | 0.6 J | | 10/27/10 | LFJ | EPA200.8 |
| Zinc, ug/l | 0.08 | 10.0 | 0.3 J | | 10/27/10 | LFJ | EPA200.8 |
| Sulfide, ug/l | 100 | 1000 | --- U | | 10/21/10 | LFJ | SM4500-S2D |

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

# Environment 1, Incorporated

Drinking Water ID: 37715
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

ANALYST: CHS
DATE COLLECTED: 10/20/10
DATE EXTRACTED: 10/21/10
DATE ANALYZED: 10/21/10
DATE REPORTED: 11/15/10

PESTICIDES AND PCB'S
EPA METHOD 8081B

| PARAMETERS, ug/l | MDL | SWSL | MW-6B | MW-7B | MW-8 | MW-10 | Equipment Blank |
|---|---|---|---|---|---|---|---|
| 1. Aldrin | 0.029 | 0.05 | --- U | --- U | --- U | --- U | --- U |
| 2. Alpha-BHC | 0.032 | 0.05 | --- U | --- U | --- U | --- U | --- U |
| 3. Beta-BHC | 0.031 | 0.05 | --- U | --- U | --- U | --- U | --- U |
| 4. Delta-BHC | 0.030 | 0.05 | --- U | --- U | --- U | --- U | --- U |
| 5. Gamma-BHC (Lindane) | 0.032 | 0.05 | --- U | --- U | --- U | --- U | --- U |
| 6. Chlordane | 0.320 | 0.50 | --- U | --- U | --- U | --- U | --- U |
| 7. 4,4-DDD | 0.051 | 0.10 | --- U | --- U | --- U | --- U | --- U |
| 8. 4,4-DDE | 0.049 | 0.10 | --- U | --- U | --- U | --- U | --- U |
| 9. 4,4-DDT | 0.052 | 0.10 | --- U | --- U | --- U | --- U | --- U |
| 10. Dieldrin | 0.042 | 0.075 | --- U | --- U | --- U | --- U | --- U |
| 11. Endosulfan I | 0.056 | 0.10 | --- U | --- U | --- U | --- U | --- U |
| 12. Endosulfan II | 0.046 | 0.10 | --- U | --- U | --- U | --- U | --- U |
| 13. Endosulfan Sulfate | 0.072 | 0.10 | --- U | --- U | --- U | --- U | --- U |
| 14. Endrin | 0.053 | 0.10 | --- U | --- U | --- U | --- U | --- U |
| 15. Endrin Aldehyde | 0.068 | 0.10 | --- U | --- U | --- U | --- U | --- U |
| 16. Heptachlor | 0.039 | 0.05 | --- U | --- U | --- U | --- U | --- U |
| 17. Heptachlor Epoxide | 0.042 | 0.075 | --- U | --- U | --- U | --- U | --- U |
| 18. Methoxychlor | 0.530 | 1.00 | --- U | --- U | --- U | --- U | --- U |
| 19. Pcb's (Aroclors) | 0.500 | 2.00 | --- U | --- U | --- U | --- U | --- U |
| 20. Toxaphene | 0.690 | 1.50 | --- U | --- U | --- U | --- U | --- U |

NOTE: Surrogate recovery for MW-6B & MW-10 was outside control limits due to sample matrix interference

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

Environment 1, Incorporated

Drinking Water ID: 37715
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

CLIENT ID: 6040

ANALYST: CHS
DATE COLLECTED: 10/20/10
DATE EXTRACTED: 10/25/10
DATE REPORTED: 11/15/10

REVIEWED BY:

LANDFILL APPENDIX II
EPA METHOD 8151A

| PARAMETERS, ug/l | MDL | SWSL | Date Analyzed: 11/01/10 MW-6B | 10/26/10 MW-7B | 11/01/10 MW-8 | 11/01/10 MW-10 | 11/01/10 Equipment Blank |
|---|---|---|---|---|---|---|---|
| 1. 2,4-D | 0.36 | 2.0 | --- U | --- U | --- U | --- U | --- U |
| 2. Dinoseb | 0.54 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 3. 2,4,5-TP | 0.42 | 2.0 | --- U | --- U | --- U | --- U | --- U |
| 4. 2,4,5-T | 0.47 | 2.0 | --- U | --- U | --- U | --- U | --- U |

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

Environment 1, Incorporated

Drinking Water ID: 37215
Wastewater ID: 10

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

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LILLINGTON, NC 27546

REVIEWED BY:

CLIENT ID: 6040

ANALYST: CHS
DATE COLLECTED: 10/20/10
DATE EXTRACTED: 10/22/10
DATE ANALYZED: 10/28/10
DATE REPORTED: 11/15/10



SEMI-VOLATILE ORGANICS
EPA METHOD 8270C

| PARAMETERS, ug/l | MDL | SWSL | MW-6B | MW-7B | MW-8 | MW-10 | Equipment Blank |
|---|---|---|---|---|---|---|---|
| 1. Acenaphthene | 2.66 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 2. Acenaphthylene | 2.60 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 3. Anthracene | 2.97 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 4. Benzo[a]antrhacene | 4.16 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 5. Benzo[b]fluoranthene | 3.32 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 6. Benzo[k]fluoranthene | 4.23 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 7. Benzo[g,h,i]perylene | 2.61 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 8. Benzo[a]pyrene | 3.27 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 9. 4-Bromophenyl Phenyl Ether | 2.63 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 10. Butyl Benzyl Phthalate | 5.78 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 11. Bis-(2-Chloroethoxy) Methane | 3.14 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 12. Bis-(2-Chloroethyl) Ether | 2.58 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 13. Bis-(2-Chloroisopropyl) Ether | 2.58 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 14. 2-Chloronaphthalene | 2.17 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 15. 4-Chlorophenyl Phenyl Ether | 2.42 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 16. Chrysene | 4.04 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 17. Dibenzo[a,h]anthracene | 2.78 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 18. Di-N-Butyl Phthalate | 3.09 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 19. Dimethyl Phthalate | 3.78 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 20. Diethyl Phthalate | 3.92 | 6000 | --- U | --- U | --- U | --- U | --- U |
| 21. 2,4-Dinitrotoluene | 3.95 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 22. 2,6-Dinitrotoluene | 3.88 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 23. Di-N-Octyl Phthalate | 2.81 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 24. Bis-(2-Ethylhexyl) Phthalate | 9.97 | 15.0 | --- U | --- U | --- U | --- U | --- U |
| 25. Fluoranthene | 3.92 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 26. Fluorene | 2.95 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 27. Hexachlorobenzene | 2.61 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 28. Hexachlorocyclopentadiene | 4.16 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 29. Indeno[1,2,3-Cd]pyrene | 2.91 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 30. Isophorone | 3.74 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 31. Nitrobenzene | 2.85 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 32. N-Nitrosodimethylamine | 4.25 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 33. N-Nitrosodiphenylamine | 3.95 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 34. N-Nitrosodi-N-Propylamine | 4.06 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 35. Phenanthrene | 3.24 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 36. Pyrene | 3.63 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 37. 4-Chloro-3-Methylphenol | 3.79 | 20.0 | --- U | --- U | --- U | --- U | --- U |
| 38. 2-Chlorophenol | 2.75 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 39. O-Cresol | 3.68 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 40. P-Cresol | 4.12 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 41. 2,4-Dichlorophenol | 5.19 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 42. 2,6-Dichlorophenol | 4.89 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 43. 2,4-Dimethylphenol | 3.21 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 44. 4,6-Dinitro-2-Methylphenol | 4.77 | 50.0 | --- U | --- U | --- U | --- U | --- U |
| 45. 2,4-Dinitrophenol | 4.37 | 50.0 | --- U | --- U | --- U | --- U | --- U |
| 46. Ethyl Methanesulfonate | 5.26 | 20.0 | --- U | --- U | --- U | --- U | --- U |
| 47. Methyl Methanesulfonate | 4.92 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 48. 2-Nitrophenol | 3.64 | 10.0 | --- U | --- U | --- U | --- U | --- U |

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

Environment 1, Incorporated

Drinking Water ID: 37715
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

ANALYST: CHS
DATE COLLECTED: 10/20/10
DATE EXTRACTED: 10/22/10
DATE ANALYZED: 10/28/10
DATE REPORTED: 11/15/10



SEMI-VOLATILE ORGANICS
EPA METHOD 8270C

| PARAMETERS, ug/l | MDL | SWSL | MW-6B | MW-7B | MW-8 | MW-10 | Equipment Blank |
|---|---|---|---|---|---|---|---|
| 49. 4-Nitrophenol | 3.17 | 50.0 | --- U | --- U | --- U | --- U | --- U |
| 50. Pentachlorophenol | 5.33 | 25.0 | --- U | --- U | --- U | --- U | --- U |
| 51. Phenol | 1.86 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 52. 2,3,4,6-Tetrachlorophenol | 3.12 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 53. 2,4,5-Trichlorophenol | 4.17 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 54. 2,4,6-Trichlorophenol | 3.84 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 55. Acetophenone | 2.89 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 56. 2-Acetylaminofluorene | 3.98 | 20.0 | --- U | --- U | --- U | --- U | --- U |
| 57. 4-Aminobiphenyl | 4.12 | 20.0 | --- U | --- U | --- U | --- U | --- U |
| 58. Benzyl Alcohol | 4.47 | 20.0 | --- U | --- U | --- U | --- U | --- U |
| 59. 4-Chloroaniline | 3.36 | 20.0 | --- U | --- U | --- U | --- U | --- U |
| 60. Chlorobenzilate | 5.12 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 61. Diallate | 2.98 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 62. Dibenzofuran | 4.28 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 63. 3,3-Dichlorobenzidine | 4.22 | 20.0 | --- U | --- U | --- U | --- U | --- U |
| 64. Dimethoate | 3.98 | 20.0 | --- U | --- U | --- U | --- U | --- U |
| 65. P-Dimethylaminoazobenzene | 2.89 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 66. 7,12-Dimethylbenz[a]anthracene | 5.26 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 67. 3,3-Dimethylbenzadine | 3.21 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 68. 1,3-Dinitrobenzene | 2.89 | 20.0 | --- U | --- U | --- U | --- U | --- U |
| 69. Diphenylamine | 5.10 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 70. Disulfoton | 4.28 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 71. Famphur | 3.98 | 20.0 | --- U | --- U | --- U | --- U | --- U |
| 72. Hexachloropropene | 4.31 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 73. Isosafrole | 2.88 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 74. Kepone | 2.78 | 20.0 | --- U | --- U | --- U | --- U | --- U |
| 75. Methapyrilene | 3.54 | 100.0 | --- U | --- U | --- U | --- U | --- U |
| 76. 3-Methylchloroanthrene | 4.21 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 77. 2-Methylnaphthalene | 3.79 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 78. Methyl Parathion | 4.32 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 79. m-Cresol | 3.81 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 80. 1,4-Naphthoquinone | 4.00 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 81. 1-Naphthylamine | 5.61 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 82. 2-Naphthylamine | 4.62 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 83. 2-Nitroaniline | 3.61 | 50.0 | --- U | --- U | --- U | --- U | --- U |
| 84. 3-Nitroaniline | 4.81 | 50.0 | --- U | --- U | --- U | --- U | --- U |
| 85. 4-Nitroaniline | 4.22 | 20.0 | --- U | --- U | --- U | --- U | --- U |
| 86. 5-Nitro-O-Toluidine | 4.01 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 87. N-Nitrosodi-n-butylamine | 3.63 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 88. N-Nitrosodiethylamine | 3.83 | 20.0 | --- U | --- U | --- U | --- U | --- U |
| 89. N-Nitrosomethylethylamine | 3.83 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 90. N-Nitrosopiperidine | 5.19 | 20.0 | --- U | --- U | --- U | --- U | --- U |
| 91. N-Nitrosopyrrolidine | 2.89 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 92. Parathion | 3.12 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 93. Pentachlorobenzene | 3.92 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 94. Pentachloronitrobenzene | 3.71 | 20.0 | --- U | --- U | --- U | --- U | --- U |
| 95. Phenacetin | 4.41 | 20.0 | --- U | --- U | --- U | --- U | --- U |
| 96. 1,4 Benzenediamine | 2.99 | 10.0 | --- U | --- U | --- U | --- U | --- U |

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

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

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GENERAL SERVICES HARNETT CO.
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REVIEWED BY:

CLIENT ID: 6040

ANALYST: CHS
DATE COLLECTED: 10/20/10
DATE EXTRACTED: 10/22/10
DATE ANALYZED: 10/28/10
DATE REPORTED: 11/15/10



SEMI-VOLATILE ORGANICS
EPA METHOD 8270C

| PARAMETERS, ug/l | MDL | SWSL | MW-6B | MW-7B | MW-8 | MW-10 | Equipment Blank |
|---|---|---|---|---|---|---|---|
| 97. Phorate | 3.86 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 98. Pronamide | 3.69 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 99. Safrole | 4.12 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 100. 1,2,4,5-Tetrachlorobenzene | 5.01 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 101. Thionazin | 4.62 | 20.0 | --- U | --- U | --- U | --- U | --- U |
| 102. O-Toluidine | 4.11 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 103. 1,3,5-Trinitrobenzene | 3.98 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 104. 0,0,0-Triethyl Phosphorothioate | 3.61 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 105. Hexachloroethane | 1.49 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 106. Isodrin | 3.11 | 20.0 | --- U | --- U | --- U | --- U | --- U |

NOTE: Surrogate recovery for MW-10 was outside control limits due to sample matrix interference

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

# Environment 1, Incorporated

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Wastewater ID: 10

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CLIENT ID: 6040

ANALYST: MAO
DATE COLLECTED: 10/20/10
DATE ANALYZED: 11/02/10
DATE REPORTED: 11/15/10



REVIEWED BY: _____

LANDFILL APPENDIX II
EPA METHOD 8260B

| PARAMETERS, ug/l | MDL | SWSL | MW-6B | MW-7B | MW-8 | MW-10 | Equipment Blank |
|---|---|---|---|---|---|---|---|
| 1. Chloromethane | 0.77 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 2. Vinyl Chloride | 0.63 | 1.0 | 5.20 | 5.80 | 1.50 | 1.00 | --- U |
| 3. Bromomethane | 0.67 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 4. Chloroethane | 0.48 | 10.0 | 2.10 J | 3.80 J | 2.10 J | --- U | --- U |
| 5. Trichlorofluoromethane | 0.24 | 1.0 | --- U | 0.70 J | --- U | --- U | --- U |
| 6. 1,1-Dichloroethene | 0.17 | 5.0 | 0.20 J | 2.30 J | 0.30 J | --- U | --- U |
| 7. Acetone | 9.06 | 100.0 | --- U | --- U | --- U | 48.30 J | --- U |
| 8. Iodomethane | 0.26 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 9. Carbon Disulfide | 0.23 | 100.0 | --- U | --- U | --- U | --- U | --- U |
| 10. Methylene Chloride | 0.64 | 1.0 | 4.80 | 60.80 | 45.00 | --- U | --- U |
| 11. trans-1,2-Dichloroethene | 0.23 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 12. 1,1-Dichloroethane | 0.20 | 5.0 | 6.30 | 140.00 | 44.60 | 3.70 J | --- U |
| 13. Vinyl Acetate | 0.20 | 50.0 | --- U | --- U | --- U | --- U | --- U |
| 14. Cis-1,2-Dichloroethene | 0.25 | 5.0 | 28.80 | 10.90 | 30.80 | 7.10 | --- U |
| 15. 2-Butanone | 2.21 | 100.0 | --- U | --- U | --- U | 2.60 J | --- U |
| 16. Bromochloromethane | 0.27 | 3.0 | --- U | --- U | --- U | --- U | --- U |
| 17. Chloroform | 0.25 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 18. 1,1,1-Trichloroethane | 0.19 | 1.0 | --- U | 0.30 J | --- U | --- U | --- U |
| 19. Carbon Tetrachloride | 0.22 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 20. Benzene | 0.24 | 1.0 | 5.70 | 7.30 | 5.70 | 1.20 | --- U |
| 21. 1,2-Dichloroethane | 0.21 | 1.0 | 0.60 J | --- U | --- U | --- U | --- U |
| 22. Trichloroethene | 0.23 | 1.0 | 6.10 | 9.80 | 4.60 | 0.40 J | --- U |
| 23. 1,2-Dichloropropane | 0.21 | 1.0 | 0.30 J | --- U | --- U | --- U | --- U |
| 24. Bromodichloromethane | 0.21 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 25. Cis-1,3-Dichloropropene | 0.24 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 26. 4-Methyl-2-Pentanone | 1.19 | 100.0 | --- U | --- U | --- U | --- U | --- U |
| 27. Toluene | 0.23 | 1.0 | --- U | --- U | --- U | 0.50 J | --- U |
| 28. trans-1,3-Dichloropropene | 0.28 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 29. 1,1,2-Trichloroethane | 0.25 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 30. Tetrachloroethene | 0.17 | 1.0 | 4.70 | 4.70 | 4.20 | 0.20 J | --- U |
| 31. 2-Hexanone | 1.57 | 50.0 | --- U | --- U | --- U | --- U | --- U |
| 32. Dibromochloromethane | 0.24 | 3.0 | --- U | --- U | --- U | --- U | --- U |
| 33. 1,2-Dibromoethane | 0.26 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 34. Chlorobenzene | 0.30 | 3.0 | 0.70 J | 8.20 | 0.80 J | 0.90 J | --- U |
| 35. 1,1,1,2-Tetrachloroethane | 0.22 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 36. Ethylbenzene | 0.21 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 37. Xylenes | 0.68 | 5.0 | 10.80 | 2.50 J | --- U | 1.20 J | --- U |
| 38. Dibromomethane | 0.28 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 39. Styrene | 0.19 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 40. Bromoform | 0.20 | 3.0 | --- U | --- U | --- U | --- U | --- U |
| 41. 1,1,2,2-Tetrachloroethane | 0.26 | 3.0 | --- U | --- U | --- U | --- U | --- U |
| 42. 1,2,3-Trichloropropane | 0.43 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 43. 1,4-Dichlorobenzene | 0.39 | 1.0 | 7.00 | 2.30 | 3.30 | 2.20 | --- U |
| 44. 1,2-Dichlorobenzene | 0.32 | 5.0 | --- U | --- U | 1.10 J | --- U | --- U |
| 45. 1,2-Dibromo-3-Chloropropane | 0.34 | 13.0 | --- U | --- U | --- U | --- U | --- U |
| 46. Acrylonitrile | 2.72 | 200.0 | --- U | --- U | --- U | --- U | --- U |
| 47. trans-1,4-Dichloro-2-Butene | 0.42 | 100.0 | --- U | --- U | --- U | --- U | --- U |
| 48. Acrolein | 40.57 | 53.0 | --- U | --- U | --- U | --- U | --- U |

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

Environment 1, Incorporated

Drinking Water ID: 37715
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

CLIENT ID: 6040

ANALYST: MAO
DATE COLLECTED: 10/20/10
DATE ANALYZED: 11/02/10
DATE REPORTED: 11/15/10



REVIEWED BY:

LANDFILL APPENDIX II
EPA METHOD 8260B

| PARAMETERS, ug/l | MDL | SWSL | MW-6B | MW-7B | MW-8 | MW-10 | Equipment Blank |
|---|---|---|---|---|---|---|---|
| 49. Allyl Chloride | 0.20 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 50. Chloroprene | 0.21 | 20.0 | --- U | --- U | --- U | --- U | --- U |
| 51. 1,3-Dichlorobenzene | 0.41 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 52. Dichlorodifluoromethane | 0.51 | 5.0 | 0.70 J | 3.60 J | 0.70 J | --- U | --- U |
| 53. 1,3-Dichloropropane | 0.28 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 54. 2,2-Dichloropropane | 0.17 | 15.0 | --- U | --- U | --- U | --- U | --- U |
| 55. 1,1-Dichloropropene | 0.22 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 56. Ethyl Methacrylate | 0.16 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 57. Hexachlorobutadiene | 0.57 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 58. Isobutyl Alcohol | 12.80 | 100.0 | --- U | --- U | --- U | --- U | --- U |
| 59. Methacrylonitrile | 1.93 | 100.0 | --- U | --- U | --- U | --- U | --- U |
| 60. Methyl Methacrylate | 0.25 | 30.0 | --- U | --- U | --- U | --- U | --- U |
| 61. Naphthalene | 0.47 | 10.0 | 1.30 J | --- U | --- U | --- U | --- U |
| 62. Propionitrile | 3.26 | 150.0 | --- U | --- U | --- U | --- U | --- U |
| 63. 1,2,4-Trichlorobenzene | 0.50 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 64. Acetonitrile | 36.29 | 55.0 | --- U | --- U | --- U | --- U | --- U |

NOTE: Methylene Chloride and 1,1-Dichloroethane concentrations exceeded the calibration range

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

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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)
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MR. JERRY BLANCHARD, MANAGER
900 SOUTH 9TH STREET
LILLINGTON, NC 27546

CLIENT ID: 6040

ANALYST: MAO
DATE COLLECTED: 10/20/10
DATE ANALYZED: 11/02/10
DATE REPORTED: 11/15/10



REVIEWED BY: _____

LANDFILL APPENDIX II
EPA METHOD 8260B

| PARAMETERS, ug/l | MDL | SWSL | Trip Blank |
|---|---|---|---|
| 1. Chloromethane | 0.77 | 1.0 | --- U |
| 2. Vinyl Chloride | 0.63 | 1.0 | --- U |
| 3. Bromomethane | 0.67 | 10.0 | --- U |
| 4. Chloroethane | 0.48 | 10.0 | --- U |
| 5. Trichlorofluoromethane | 0.24 | 1.0 | --- U |
| 6. 1,1-Dichloroethene | 0.17 | 5.0 | --- U |
| 7. Acetone | 9.06 | 100.0 | --- U |
| 8. Iodomethane | 0.26 | 10.0 | --- U |
| 9. Carbon Disulfide | 0.23 | 100.0 | --- U |
| 10. Methylene Chloride | 0.64 | 1.0 | --- U |
| 11. trans-1,2-Dichloroethene | 0.23 | 5.0 | --- U |
| 12. 1,1-Dichloroethane | 0.20 | 5.0 | --- U |
| 13. Vinyl Acetate | 0.20 | 50.0 | --- U |
| 14. Cis-1,2-Dichloroethene | 0.25 | 5.0 | --- U |
| 15. 2-Butanone | 2.21 | 100.0 | --- U |
| 16. Bromochloromethane | 0.27 | 3.0 | --- U |
| 17. Chloroform | 0.25 | 5.0 | --- U |
| 18. 1,1,1-Trichloroethane | 0.19 | 1.0 | --- U |
| 19. Carbon Tetrachloride | 0.22 | 1.0 | --- U |
| 20. Benzene | 0.24 | 1.0 | --- U |
| 21. 1,2-Dichloroethane | 0.21 | 1.0 | --- U |
| 22. Trichloroethene | 0.23 | 1.0 | --- U |
| 23. 1,2-Dichloropropane | 0.21 | 1.0 | --- U |
| 24. Bromodichloromethane | 0.21 | 1.0 | --- U |
| 25. Cis-1,3-Dichloropropene | 0.24 | 1.0 | --- U |
| 26. 4-Methyl-2-Pentanone | 1.19 | 100.0 | --- U |
| 27. Toluene | 0.23 | 1.0 | --- U |
| 28. trans-1,3-Dichloropropene | 0.28 | 1.0 | --- U |
| 29. 1,1,2-Trichloroethane | 0.25 | 1.0 | --- U |
| 30. Tetrachloroethene | 0.17 | 1.0 | --- U |
| 31. 2-Hexanone | 1.57 | 50.0 | --- U |
| 32. Dibromochloromethane | 0.24 | 3.0 | --- U |
| 33. 1,2-Dibromoethane | 0.26 | 1.0 | --- U |
| 34. Chlorobenzene | 0.30 | 3.0 | --- U |
| 35. 1,1,1,2-Tetrachloroethane | 0.22 | 5.0 | --- U |
| 36. Ethylbenzene | 0.21 | 1.0 | --- U |
| 37. Xylenes | 0.68 | 5.0 | --- U |
| 38. Dibromomethane | 0.28 | 10.0 | --- U |
| 39. Styrene | 0.19 | 1.0 | --- U |
| 40. Bromoform | 0.20 | 3.0 | --- U |
| 41. 1,1,2,2-Tetrachloroethane | 0.26 | 3.0 | --- U |
| 42. 1,2,3-Trichloropropane | 0.43 | 1.0 | --- U |
| 43. 1,4-Dichlorobenzene | 0.39 | 1.0 | --- U |
| 44. 1,2-Dichlorobenzene | 0.32 | 5.0 | --- U |
| 45. 1,2-Dibromo-3-Chloropropane | 0.34 | 13.0 | --- U |
| 46. Acrylonitrile | 2.72 | 200.0 | --- U |
| 47. trans-1,4-Dichloro-2-Butene | 0.42 | 100.0 | --- U |
| 48. Acrolein | 40.57 | 53.0 | --- U |

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

Environment 1, Incorporated

Drinking Water ID: 37715
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

CLIENT ID: 6040

ANALYST: MAO
DATE COLLECTED: 10/20/10
DATE ANALYZED: 11/02/10
DATE REPORTED: 11/15/10



REVIEWED BY:

LANDFILL APPENDIX II
EPA METHOD 8260B

| PARAMETERS, ug/l | MDL | SWSL | Trip Blank |
|---|---|---|---|
| 49. Allyl Chloride | 0.20 | 10.0 | --- U |
| 50. Chloroprene | 0.21 | 20.0 | --- U |
| 51. 1,3-Dichlorobenzene | 0.41 | 5.0 | --- U |
| 52. Dichlorodifluoromethane | 0.51 | 5.0 | --- U |
| 53. 1,3-Dichloropropane | 0.28 | 1.0 | --- U |
| 54. 2,2-Dichloropropane | 0.17 | 15.0 | --- U |
| 55. 1,1-Dichloropropene | 0.22 | 5.0 | --- U |
| 56. Ethyl Methacrylate | 0.16 | 10.0 | --- U |
| 57. Hexachlorobutadiene | 0.57 | 10.0 | --- U |
| 58. Isobutyl Alcohol | 12.80 | 100.0 | --- U |
| 59. Methacrylonitrile | 1.93 | 100.0 | --- U |
| 60. Methyl Methacrylate | 0.25 | 30.0 | --- U |
| 61. Naphthalene | 0.47 | 10.0 | --- U |
| 62. Propionitrile | 3.26 | 150.0 | --- U |
| 63. 1,2,4-Trichlorobenzene | 0.50 | 10.0 | --- U |
| 64. Acetonitrile | 36.29 | 55.0 | --- 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 **Week:** 43

**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 | Cyanide | Metals | Turbidity | Sulfide | Conductivity | Temperature | Field Parameter | EPA 8270C | 8270C Dup. 1 | EPA 8081B | 8081B Duplicate | 8260B App. II | 8260 App. II 1 | 8260 App. II 2 | 8151A Landfill |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CHLORINE NEUTRALIZED AT COLLECTION | | | | | | | | | | | | | | | | | | | | | |
| pH CHECK (LAB) | | | | | | | 12 | 12 | | 9 | | | | | | | | 12 | 12 | 12 | |
| CONTAINER TYPE, P/G | | | | | | P | P | P | P | P | P | P | | G | G | G | G | G | G | G | G |
| CHEMICAL PRESERVATION | | | | | | A | D | A | A | F D | A | A | | A | A | A | A | E | E | E | A |
| MW-6B | 10/20/10 | 0925 | | 19 | 13 | G | G | G | G | G | G | G | G | G | G | G | G | G | G | | G |
| MW-7B | 10/20/10 | 0915 | | 19 | 13 | G | G | G | G | G | G | G | G | G | G | G | G | G | G | | G |
| MW-8 | 10/20/10 | 0840 | | 20 | 14 | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G |
| MW-9 | ~~10/20/10~~ | | | | 13 | | | | | | | | | | | | | | | | |
| MW-10 | 10/20/10 | 0945 | | 22 | 13 | G | G | G | G | G | G | G | G | G | G | G | G | G | G | | G |
| Equipment Blank | 10/20/10 | | | | 11 | | G | G | | G | | | | G | G | G | G | G | G | | G |
| Trip Blank | | | | | 2 | | | | | | | | | | | | | | | | |

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 Rogge / FOA

SAMPLES RECEIVED IN LAB AT 0.8 °C

| RELINQUISHED BY (SIG.) (SAMPLER) | DATE/TIME | RECEIVED BY (SIG.) | DATE/TIME |
|---|---|---|---|
| Bob H Rogge | 10/20/10 3:30PM | [illegible signature] | 10/20/10 3:30PM |
| RELINQUISHED BY (SIG.) | DATE/TIME | RECEIVED BY (SIG.) | DATE/TIME |
| RELINQUISHED BY (SIG.) | DATE/TIME | RECEIVED BY (SIG.) | DATE/TIME |

COMMENTS:
MW 6B - REPLACES MW6
MW9 DRY

PLEASE READ Instructions for completing this form 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

№ 209314

**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 **Week: 43**

**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 | 8151A Duplicate |
|---|---|---|---|---|---|---|
| | | | | | G | A |
| MW-6B | 10 20 10 | 0925 | | 19 | 13 | G |
| MW-7B | 10 20 10 | 0915 | | 19 | 13 | G |
| MW-8 | 10 20 10 | 0840 | | 20 | 14 | G |
| ~~MW-9~~ | ~~10 20 10~~ | | | | ~~13~~ | |
| MW-10 | 10 20 10 | 0945 | | 22 | 13 | G |
| Equipment Blank | 10 20 10 | | | | 11 | G |
| Trip Blank | | | | | 2 | |

CHLORINE NEUTRALIZED AT COLLECTION

pH CHECK (LAB)

CONTAINER TYPE, P/G

CHEMICAL PRESERVATION

PARAMETERS

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
- [X] SOLID WASTE SECTION

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

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

SAMPLES RECEIVED IN LAB AT 0.2 °C

| RELINQUISHED BY (SIG.) (SAMPLER) | DATE/TIME | RECEIVED BY (SIG.) | DATE/TIME |
|---|---|---|---|
| Bob H Lage | 10 20 10 8:50AM | [illegible] | 10/20/10 8:50AM |
| RELINQUISHED BY (SIG.) | DATE/TIME | RECEIVED BY (SIG.) | DATE/TIME |
| | | | |
| RELINQUISHED BY (SIG.) | DATE/TIME | RECEIVED BY (SIG.) | DATE/TIME |
| | | | |

COMMENTS:
MW 6B - REPLACES MW 6

PLEASE READ Instructions for completing this form 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

№ 209313

# Environment 1, Incorporated

Drinking Water ID: 37715
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 A

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

DATE COLLECTED: 10/20/10
DATE REPORTED : 11/12/10

REVIEWED BY:

| PARAMETERS | MDL | SWSL | SW-1 | SW-2 | SW-3 | SW-4 | Analysis Date | Analyst | Method Code |
|---|---|---|---|---|---|---|---|---|---|
| PH (field measurement), Units | | | 5.4 | 6.0 | 5.6 | 6.3 | 10/20/10 | RJH | SM4500HB |
| Antimony, ug/l | 0.22 | 6.0 | --- U | --- U | --- U | --- U | 10/27/10 | LFJ | EPA200.8 |
| Arsenic, ug/l | 0.04 | 10.0 | 1.7 J | 2.2 J | 0.9 J | 2.8 J | 10/27/10 | LFJ | EPA200.8 |
| Barium, ug/l | 0.03 | 100.0 | 53.9 J | 56.2 J | 42.1 J | 58.1 J | 10/27/10 | LFJ | EPA200.8 |
| Beryllium, ug/l | 0.02 | 1.0 | 0.1 J | 0.1 J | 0.1 J | 0.1 J | 10/27/10 | LFJ | EPA200.8 |
| Cadmium, ug/l | 0.02 | 1.0 | 1 | 0.1 J | 0.3 J | 0.3 J | 10/27/10 | LFJ | EPA200.8 |
| Cobalt, ug/l | 0.10 | 10.0 | 1 J | 5.2 J | 0.5 J | 3 J | 10/27/10 | LFJ | EPA200.8 |
| Copper, ug/l | 0.03 | 10.0 | 2.2 J | 1 J | 1.1 J | 2.4 J | 10/27/10 | LFJ | EPA200.8 |
| Total Chromium, ug/l | 0.03 | 10.0 | 1 J | 1.1 J | 0.4 J | 1.5 J | 10/27/10 | LFJ | EPA200.8 |
| Lead, ug/l | 0.01 | 10.0 | 1 J | 0.9 J | 0.4 J | 2.5 J | 10/27/10 | LFJ | EPA200.8 |
| Nickel, ug/l | 0.05 | 50.0 | 1.1 J | 0.7 J | 0.8 J | 1.3 J | 10/27/10 | LFJ | EPA200.8 |
| Selenium, ug/l | 0.32 | 10.0 | 0.5 J | --- U | 0.4 J | --- U | 10/27/10 | LFJ | EPA200.8 |
| Silver, ug/l | 0.03 | 10.0 | --- U | --- U | --- U | --- U | 10/27/10 | LFJ | EPA200.8 |
| Thallium, ug/l | 0.05 | 5.5 | --- U | --- U | --- U | --- U | 10/27/10 | LFJ | EPA200.8 |
| Vanadium, ug/l | 0.03 | 25.0 | 2.7 J | 4 J | 1.7 J | 5.4 J | 10/27/10 | LFJ | EPA200.8 |
| Zinc, ug/l | 0.08 | 10.0 | 16 | 14 | 10 | 12 | 10/27/10 | LFJ | EPA200.8 |
| Turbidity, NTU | 1.0 | 1.0 | 38 | 65 | 21 | 24 | 10/21/10 | MEL | SM2130B |
| Conductivity (at 25c), uMhos | 1.0 | 1.0 | 96 | 89 | 152 | 84 | 10/20/10 | RJH | SM2510B |
| Temperature, °C | | | 16 | 16 | 17 | 16 | 10/20/10 | RJH | SM2550B |

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

# Environment 1, Incorporated

Drinking Water ID: 37715
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 A

ANALYST: MAO
DATE COLLECTED: 10/20/10
DATE ANALYZED: 10/28/10
DATE REPORTED: 11/12/10



## VOLATILE ORGANICS
## EPA METHOD 8260B

| PARAMETERS, ug/l | MDL | SWSL | SW-1 | SW-2 | SW-3 | SW-4 |
|---|---|---|---|---|---|---|
| 1. Chloromethane | 0.77 | 1.0 | --- U | --- U | --- U | --- U |
| 2. Vinyl Chloride | 0.63 | 1.0 | --- U | --- U | --- U | --- U |
| 3. Bromomethane | 0.67 | 10.0 | --- U | --- U | --- U | --- U |
| 4. Chloroethane | 0.48 | 10.0 | --- U | --- U | --- U | --- U |
| 5. Trichlorofluoromethane | 0.24 | 1.0 | --- U | --- U | --- U | --- U |
| 6. 1,1-Dichloroethene | 0.17 | 5.0 | --- U | --- U | --- U | --- U |
| 7. Acetone | 9.06 | 100.0 | --- U | 10.30 J | --- U | --- U |
| 8. Iodomethane | 0.26 | 10.0 | --- U | --- U | --- U | --- U |
| 9. Carbon Disulfide | 0.23 | 100.0 | --- U | --- U | --- U | --- U |
| 10. Methylene Chloride | 0.64 | 1.0 | --- U | --- U | --- U | --- U |
| 11. trans-1,2-Dichloroethene | 0.23 | 5.0 | --- U | --- U | --- U | --- U |
| 12. 1,1-Dichloroethane | 0.20 | 5.0 | --- U | --- U | --- U | --- U |
| 13. Vinyl Acetate | 0.20 | 50.0 | --- U | --- U | --- U | --- U |
| 14. Cis-1,2-Dichloroethene | 0.25 | 5.0 | --- U | --- U | --- U | --- U |
| 15. 2-Butanone | 2.21 | 100.0 | --- U | --- U | --- U | --- U |
| 16. Bromochloromethane | 0.27 | 3.0 | --- U | --- U | --- U | --- U |
| 17. Chloroform | 0.25 | 5.0 | --- U | --- U | --- U | --- U |
| 18. 1,1,1-Trichloroethane | 0.19 | 1.0 | --- U | --- U | --- U | --- U |
| 19. Carbon Tetrachloride | 0.22 | 1.0 | --- U | --- U | --- U | --- U |
| 20. Benzene | 0.24 | 1.0 | --- U | --- U | --- U | --- U |
| 21. 1,2-Dichloroethane | 0.27 | 1.0 | --- U | --- U | --- U | --- U |
| 22. Trichloroethene | 0.23 | 1.0 | --- U | --- U | --- U | --- U |
| 23. 1,2-Dichloropropane | 0.21 | 1.0 | --- U | --- U | --- U | --- U |
| 24. Bromodichloromethane | 0.21 | 1.0 | --- U | --- U | --- U | --- U |
| 25. Cis-1,3-Dichloropropene | 0.24 | 1.0 | --- U | --- U | --- U | --- U |
| 26. 4-Methyl-2-Pentanone | 1.19 | 100.0 | --- U | --- U | --- U | --- U |
| 27. Toluene | 0.23 | 1.0 | --- U | --- U | --- U | 1.40 |
| 28. trans-1,3-Dichloropropene | 0.28 | 1.0 | --- U | --- U | --- U | --- U |
| 29. 1,1,2-Trichloroethane | 0.25 | 1.0 | --- U | --- U | --- U | --- U |
| 30. Tetrachloroethene | 0.17 | 1.0 | --- U | --- U | --- U | --- U |
| 31. 2-Hexanone | 1.57 | 50.0 | --- U | --- U | --- U | --- U |
| 32. Dibromochloromethane | 0.24 | 3.0 | --- U | --- U | --- U | --- U |
| 33. 1,2-Dibromoethane | 0.26 | 1.0 | --- U | --- U | --- U | --- U |
| 34. Chlorobenzene | 0.30 | 3.0 | --- U | --- U | --- U | --- U |
| 35. 1,1,1,2-Tetrachloroethane | 0.22 | 5.0 | --- U | --- U | --- U | --- U |
| 36. Ethylbenzene | 0.21 | 1.0 | --- U | --- U | --- U | --- U |
| 37. Xylenes | 0.68 | 5.0 | --- U | --- U | --- U | --- U |
| 38. Dibromomethane | 0.28 | 10.0 | --- U | --- U | --- U | --- U |
| 39. Styrene | 0.19 | 1.0 | --- U | --- U | --- U | --- U |
| 40. Bromoform | 0.20 | 3.0 | --- U | --- U | --- U | --- U |
| 41. 1,1,2,2-Tetrachloroethane | 0.26 | 3.0 | --- U | --- U | --- U | --- U |
| 42. 1,2,3-Trichloropropane | 0.43 | 1.0 | --- U | --- U | --- U | --- U |
| 43. 1,4-Dichlorobenzene | 0.39 | 1.0 | --- U | --- U | --- U | --- U |
| 44. 1,2-Dichlorobenzene | 0.32 | 5.0 | --- U | --- U | --- U | --- U |
| 45. 1,2-Dibromo-3-Chloropropane | 0.34 | 13.0 | --- U | --- U | --- U | --- U |
| 46. Acrylonitrile | 2.72 | 200.0 | --- U | --- U | --- U | --- U |
| 47. trans-1,4-Dichloro-2-Butene | 0.42 | 100.0 | --- U | --- U | --- U | --- U |

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

**Environment 1, Inc.**
P.O. Box 7055, 114 Oakmont Dr.
Greenville, NC 27858

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

# CHAIN OF CUSTODY RECORD



**CLIENT:** 6040 A **Week: 43**

**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 | 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 |
| SW-1 | 10/20/10 | 1115 | | 16 | 6 | G | G | G | G | G | G | G | G |
| SW-2 | 10/20/10 | 0935 | | 16 | 5 | G | G | G | G | G | G | G | |
| SW-3 | 10/20/10 | 1230 | | 17 | 5 | G | G | G | G | G | G | G | |
| SW-4 | 10/20/10 | 1025 | | 16 | 6 | G | G | G | G | G | G | G | G |

PARAMETERS

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
- [X] SOLID WASTE SECTION

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

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

SAMPLES RECEIVED IN LAB AT 2.8 °C

| RELINQUISHED BY (SIG.) (SAMPLER) | DATE/TIME | RECEIVED BY (SIG.) | DATE/TIME |
|---|---|---|---|
| Bob H Moore | 10/20/10 1350 | [illegible] | 10/20/10 1350 |
| RELINQUISHED BY (SIG.) | DATE/TIME | RECEIVED BY (SIG.) | DATE/TIME |
| | | | |
| RELINQUISHED BY (SIG.) | DATE/TIME | RECEIVED BY (SIG.) | DATE/TIME |
| | | | |

COMMENTS:

PLEASE READ Instructions for completing this form 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

№ 207809

# Environment 1, Incorporated

Drinking Water ID: 37715
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: 10/20/10
DATE REPORTED : 11/15/10

REVIEWED BY:

| PARAMETERS | MDL | SWSL | MW-16 | MW-32 | MW-33 | MW23-B | MW-34 | Analysis Date | Analyst | Method Code |
|---|---|---|---|---|---|---|---|---|---|---|
| PH (field measurement), Units | | | 5.9 | 4.7 | 4.5 | 5.4 | 4.6 | 10/20/10 | RJH | SM4500HB |
| Arsenic, ug/l | 0.04 | 10.0 | 0.3 J | 0.5 J | 0.6 J | | | 10/27/10 | LFJ | EPA200.8 |
| Arsenic, ug/l | 0.04 | 10.0 | | | | --- U | 0.4 J | 10/29/10 | CMF | EPA200.8 |
| Barium, ug/l | 0.03 | 100.0 | 51.7 J | 41.3 J | 59.1 J | | | 10/27/10 | LFJ | EPA200.8 |
| Barium, ug/l | 0.03 | 100.0 | | | | 78.4 J | 51.6 J | 10/29/10 | CMF | EPA200.8 |
| Cadmium, ug/l | 0.02 | 1.0 | 0.2 J | 0.1 J | 0.1 J | | | 10/27/10 | LFJ | EPA200.8 |
| Cadmium, ug/l | 0.02 | 1.0 | | | | 0.1 J | 0.1 J | 10/29/10 | CMF | EPA200.8 |
| Total Chromium, ug/l | 0.03 | 10.0 | --- U | 3 J | --- U | | | 10/27/10 | LFJ | EPA200.8 |
| Total Chromium, ug/l | 0.03 | 10.0 | | | | --- U | --- U | 10/29/10 | CMF | EPA200.8 |
| Lead, ug/l | 0.01 | 10.0 | 0.2 J | 4.3 J | 0.4 J | | | 10/27/10 | LFJ | EPA200.8 |
| Lead, ug/l | 0.01 | 10.0 | | | | 0.5 J | 1.9 J | 10/29/10 | CMF | EPA200.8 |
| Mercury, ug/l | 0.08 | 0.20 | --- U | --- U | --- U | | | 10/27/10 | LFJ | EPA200.8 |
| Mercury, ug/l | 0.08 | 0.20 | | | | --- U | --- U | 10/29/10 | CMF | EPA200.8 |
| Selenium, ug/l | 0.32 | 10.0 | 0.6 J | --- U | --- U | | | 10/27/10 | LFJ | EPA200.8 |
| Selenium, ug/l | 0.32 | 10.0 | | | | --- U | 1.2 J | 10/29/10 | CMF | EPA200.8 |
| Silver, ug/l | 0.03 | 10.0 | --- U | --- U | --- U | | | 10/27/10 | LFJ | EPA200.8 |
| Silver, ug/l | 0.03 | 10.0 | | | | 0.1 J | --- U | 10/29/10 | CMF | EPA200.8 |
| Turbidity, NTU | 1.0 | 1.0 | 15 | 500 | 7.2 | 38 | 21 | 10/21/10 | MEL | SM2130B |
| Conductivity (at 25c), uMhos | 1.0 | 1.0 | 131 | 56 | 72 | 46 | 87 | 10/20/10 | RJH | SM2510B |
| Temperature, °C | | | 19 | 17 | 19 | 19 | 18 | 10/20/10 | RJH | SM2550B |
| Static Water Level, feet | | | 6.98 | 2.76 | 8.54 | 5.71 | 2.42 | 10/20/10 | RJH | |
| Well Depth, feet | | | 45.23 | 24.55 | 26.43 | 24.55 | 40.23 | 10/20/10 | RJH | |
| Water Bailed, Gals. | | | 18.9 | 10.2 | 8.4 | 8.7 | 18.3 | 10/20/10 | RJH | |

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

# Environment 1, Incorporated

Drinking Water ID: 37715
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: 10/20/10
DATE REPORTED : 11/15/10

REVIEWED BY:

| PARAMETERS | MDL | SWSL | MW-35 | Analysis Date | Analyst | Method Code |
|---|---|---|---|---|---|---|
| PH (field measurement), Units | | | 5.5 | 10/20/10 | RJH | SM4500HB |
| Arsenic, ug/l | 0.04 | 10.0 | 0.9 J | 10/29/10 | CMF | EPA200.8 |
| Barium, ug/l | 0.03 | 100.0 | 405 | 10/29/10 | CMF | EPA200.8 |
| Cadmium, ug/l | 0.02 | 1.0 | 0.1 J | 10/29/10 | CMF | EPA200.8 |
| Total Chromium, ug/l | 0.03 | 10.0 | 0.5 J | 10/29/10 | CMF | EPA200.8 |
| Lead, ug/l | 0.01 | 10.0 | 0.9 J | 10/29/10 | CMF | EPA200.8 |
| Mercury, ug/l | 0.08 | 0.20 | --- U | 10/29/10 | CMF | EPA200.8 |
| Selenium, ug/l | 0.32 | 10.0 | 1.6 J | 10/29/10 | CMF | EPA200.8 |
| Silver, ug/l | 0.03 | 10.0 | 0.1 J | 10/29/10 | CMF | EPA200.8 |
| Turbidity, NTU | 1.0 | 1.0 | 65 | 10/21/10 | MEL | SM2130B |
| Conductivity (at 25c), uMhos | 1.0 | 1.0 | 655 | 10/20/10 | RJH | SM2510B |
| Temperature, °C | | | 18 | 10/20/10 | RJH | SM2550B |
| Static Water Level, feet | | | 5.17 | 10/20/10 | RJH | |
| Well Depth, feet | | | 22.15 | 10/20/10 | RJH | |
| Water Bailed, Gals. | | | 7.8 | 10/20/10 | RJH | |

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# Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

CLIENT ID: 6040 C

ANALYST: MAO
DATE COLLECTED: 10/20/10
DATE REPORTED: 11/15/10

Page: 1

REVIEWED BY:

## VOLATILE ORGANICS
## EPA METHOD 8260B

| PARAMETERS, ug/l | MDL | SWSL | 10/28/10 MW-16 | 10/28/10 MW-32 | 10/28/10 MW-33 | 10/28/10 MW23-B | 10/28/10 MW-34 |
|---|---|---|---|---|---|---|---|
| 1. Chloromethane | 0.77 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 2. Vinyl Chloride | 0.63 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 3. Bromomethane | 0.67 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 4. Chloroethane | 0.48 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 5. Trichlorofluoromethane | 0.24 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 6. 1,1-Dichloroethene | 0.17 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 7. Acetone | 9.06 | 100.0 | --- U | --- U | --- U | --- U | --- U |
| 8. Iodomethane | 0.26 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 9. Carbon Disulfide | 0.23 | 100.0 | --- U | --- U | --- U | --- U | --- U |
| 10. Methylene Chloride | 0.64 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 11. trans-1,2-Dichloroethene | 0.23 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 12. 1,1-Dichloroethane | 0.20 | 5.0 | --- U | --- U | 0.50 J | --- U | --- U |
| 13. Vinyl Acetate | 0.20 | 50.0 | --- U | --- U | --- U | --- U | --- U |
| 14. Cis-1,2-Dichloroethene | 0.25 | 5.0 | --- U | --- U | 1.40 J | --- U | --- U |
| 15. 2-Butanone | 2.21 | 100.0 | --- U | --- U | --- U | --- U | --- U |
| 16. Bromochloromethane | 0.27 | 3.0 | --- U | --- U | --- U | --- U | --- U |
| 17. Chloroform | 0.25 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 18. 1,1,1-Trichloroethane | 0.19 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 19. Carbon Tetrachloride | 0.22 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 20. Benzene | 0.24 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 21. 1,2-Dichloroethane | 0.27 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 22. Trichloroethene | 0.23 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 23. 1,2-Dichloropropane | 0.21 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 24. Bromodichloromethane | 0.21 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 25. Cis-1,3-Dichloropropene | 0.24 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 26. 4-Methyl-2-Pentanone | 1.19 | 100.0 | --- U | --- U | --- U | --- U | --- U |
| 27. Toluene | 0.23 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 28. trans-1,3-Dichloropropene | 0.28 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 29. 1,1,2-Trichloroethane | 0.25 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 30. Tetrachloroethene | 0.17 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 31. 2-Hexanone | 1.57 | 50.0 | --- U | --- U | --- U | --- U | --- U |
| 32. Dibromochloromethane | 0.24 | 3.0 | --- U | --- U | --- U | --- U | --- U |
| 33. 1,2-Dibromoethane | 0.26 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 34. Chlorobenzene | 0.30 | 3.0 | --- U | --- U | --- U | --- U | --- U |
| 35. 1,1,1,2-Tetrachloroethane | 0.22 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 36. Ethylbenzene | 0.21 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 37. Xylenes | 0.68 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 38. Dibromomethane | 0.28 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 39. Styrene | 0.19 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 40. Bromoform | 0.20 | 3.0 | --- U | --- U | --- U | --- U | --- U |
| 41. 1,1,2,2-Tetrachloroethane | 0.26 | 3.0 | --- U | --- U | --- U | --- U | --- U |
| 42. 1,2,3-Trichloropropane | 0.43 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 43. 1,4-Dichlorobenzene | 0.39 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 44. 1,2-Dichlorobenzene | 0.32 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 45. 1,2-Dibromo-3-Chloropropane | 0.34 | 13.0 | --- U | --- U | --- U | --- U | --- U |
| 46. Acrylonitrile | 2.72 | 200.0 | --- U | --- U | --- U | --- U | --- U |
| 47. trans-1,4-Dichloro-2-Butene | 0.42 | 100.0 | --- U | --- U | --- U | --- U | --- U |

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

Environment 1, Incorporated

Drinking Water ID: 37715
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

CLIENT ID: 6040 C

ANALYST: MAO
DATE COLLECTED: 10/20/10
DATE REPORTED: 11/15/10



REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B

| PARAMETERS, ug/l | MDL | SWSL | Date Analyzed: 11/02/10 MW-35 |
|---|---|---|---|
| 1. Chloromethane | 0.77 | 1.0 | --- U |
| 2. Vinyl Chloride | 0.63 | 1.0 | --- U |
| 3. Bromomethane | 0.67 | 10.0 | --- U |
| 4. Chloroethane | 0.48 | 10.0 | --- U |
| 5. Trichlorofluoromethane | 0.24 | 1.0 | --- U |
| 6. 1,1-Dichloroethene | 0.17 | 5.0 | --- U |
| 7. Acetone | 9.06 | 100.0 | --- U |
| 8. Iodomethane | 0.26 | 10.0 | --- U |
| 9. Carbon Disulfide | 0.23 | 100.0 | --- U |
| 10. Methylene Chloride | 0.64 | 1.0 | --- U |
| 11. trans-1,2-Dichloroethene | 0.23 | 5.0 | --- U |
| 12. 1,1-Dichloroethane | 0.20 | 5.0 | --- U |
| 13. Vinyl Acetate | 0.20 | 50.0 | --- U |
| 14. Cis-1,2-Dichloroethene | 0.25 | 5.0 | --- U |
| 15. 2-Butanone | 2.21 | 100.0 | --- U |
| 16. Bromochloromethane | 0.27 | 3.0 | --- U |
| 17. Chloroform | 0.25 | 5.0 | --- U |
| 18. 1,1,1-Trichloroethane | 0.19 | 1.0 | --- U |
| 19. Carbon Tetrachloride | 0.22 | 1.0 | --- U |
| 20. Benzene | 0.24 | 1.0 | --- U |
| 21. 1,2-Dichloroethane | 0.27 | 1.0 | --- U |
| 22. Trichloroethene | 0.23 | 1.0 | --- U |
| 23. 1,2-Dichloropropane | 0.21 | 1.0 | --- U |
| 24. Bromodichloromethane | 0.21 | 1.0 | --- U |
| 25. Cis-1,3-Dichloropropene | 0.24 | 1.0 | --- U |
| 26. 4-Methyl-2-Pentanone | 1.19 | 100.0 | --- U |
| 27. Toluene | 0.23 | 1.0 | --- U |
| 28. trans-1,3-Dichloropropene | 0.28 | 1.0 | --- U |
| 29. 1,1,2-Trichloroethane | 0.25 | 1.0 | --- U |
| 30. Tetrachloroethene | 0.17 | 1.0 | --- U |
| 31. 2-Hexanone | 1.57 | 50.0 | --- U |
| 32. Dibromochloromethane | 0.24 | 3.0 | --- U |
| 33. 1,2-Dibromoethane | 0.26 | 1.0 | --- U |
| 34. Chlorobenzene | 0.30 | 3.0 | --- U |
| 35. 1,1,1,2-Tetrachloroethane | 0.22 | 5.0 | --- U |
| 36. Ethylbenzene | 0.21 | 1.0 | --- U |
| 37. Xylenes | 0.68 | 5.0 | --- U |
| 38. Dibromomethane | 0.28 | 10.0 | --- U |
| 39. Styrene | 0.19 | 1.0 | --- U |
| 40. Bromoform | 0.20 | 3.0 | --- U |
| 41. 1,1,2,2-Tetrachloroethane | 0.26 | 3.0 | --- U |
| 42. 1,2,3-Trichloropropane | 0.43 | 1.0 | --- U |
| 43. 1,4-Dichlorobenzene | 0.39 | 1.0 | --- U |
| 44. 1,2-Dichlorobenzene | 0.32 | 5.0 | --- U |
| 45. 1,2-Dibromo-3-Chloropropane | 0.34 | 13.0 | --- U |
| 46. Acrylonitrile | 2.72 | 200.0 | --- U |
| 47. trans-1,4-Dichloro-2-Butene | 0.42 | 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: 43**

**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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | CL | | | | | CL | CL | CL |
| | | | | | | P | P | P | P | P | | G | G | G |
| | | | | | | A | A | A | A | A | | E | E | E |
| MW-16 | 10 20 10 | 1145 | | 19 | 6 | G | G | G | G | G | G | G | G | G |
| MW-32 | 10 20 10 | 1135 | | 17 | 5 | G | G | G | G | G | G | G | G | |
| MW-33 | 10 20 10 | 1155 | | 19 | 5 | G | G | G | G | G | G | G | G | |
| MW23-B | 10 20 10 | 1235 | | 19 | 5 | G | G | G | G | G | G | G | G | |
| MW-34 | 10 20 10 | 1200 | | 18 | 5 | G | G | G | G | G | G | G | G | |
| MW-35 | 10 20 10 | 1150 | | 18 | 5 | G | G | G | G | G | 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
- ☒ SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY
Y N

SAMPLES COLLECTED BY: (Please Print) H Logue / F Ot

SAMPLES RECEIVED IN LAB AT 0.8 °C

| RELINQUISHED BY (SIG.) (SAMPLER) | DATE/TIME | RECEIVED BY (SIG.) | DATE/TIME |
|---|---|---|---|
| Bob H Logue | 10 20 10 3:50 PM | [signature] | 10/20/10 3:50 PM |
| RELINQUISHED BY (SIG.) | DATE/TIME | RECEIVED BY (SIG.) | DATE/TIME |
| RELINQUISHED BY (SIG.) | DATE/TIME | RECEIVED BY (SIG.) | DATE/TIME |

COMMENTS:

PLEASE READ Instructions for completing this form 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

№ 209311

# Environment 1, Incorporated

Drinking Water ID: 37715
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 D

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

DATE COLLECTED: 10/20/10
DATE REPORTED : 11/12/10

REVIEWED BY:

| PARAMETERS | MDL | SWSL | MW-1 | MW-2 | MW-3R | MW-4 | MW-5 | Analysis Date | Analyst | Method Code |
|---|---|---|---|---|---|---|---|---|---|---|
| PH (field measurement), Units | | | 5.4 | 4.4 | 5.0 | Missing | 6.0 | 10/20/10 | RJH | SM4500HB |
| Antimony, ug/l | 0.22 | 6.0 | --- U | --- U | --- U | Missing | --- U | 10/29/10 | CMF | EPA200.8 |
| Arsenic, ug/l | 0.04 | 10.0 | --- U | --- U | --- U | Missing | --- U | 10/29/10 | CMF | EPA200.8 |
| Barium, ug/l | 0.03 | 100.0 | 26.2 J | 54.3 J | 80.2 J | Missing | 115 | 10/29/10 | CMF | EPA200.8 |
| Beryllium, ug/l | 0.02 | 1.0 | 0.8 J | 2 | 3 | Missing | 0.2 J | 10/29/10 | CMF | EPA200.8 |
| Cadmium, ug/l | 0.02 | 1.0 | --- U | 0.3 J | --- U | Missing | 0.1 J | 10/29/10 | CMF | EPA200.8 |
| Cobalt, ug/l | 0.10 | 10.0 | 0.4 J | 1.3 J | 2.6 J | Missing | 4.7 J | 10/29/10 | CMF | EPA200.8 |
| Copper, ug/l | 0.03 | 10.0 | 2.5 J | 1.1 J | 0.3 J | Missing | 1.1 J | 10/29/10 | CMF | EPA200.8 |
| Total Chromium, ug/l | 0.03 | 10.0 | --- U | --- U | --- U | Missing | --- U | 10/29/10 | CMF | EPA200.8 |
| Lead, ug/l | 0.01 | 10.0 | --- U | 0.2 J | 0.1 J | Missing | 0.1 J | 10/29/10 | CMF | EPA200.8 |
| Nickel, ug/l | 0.05 | 50.0 | --- U | 1.4 J | 2.4 J | Missing | 1.5 J | 10/29/10 | CMF | EPA200.8 |
| Selenium, ug/l | 0.32 | 10.0 | --- U | --- U | --- U | Missing | --- U | 10/29/10 | CMF | EPA200.8 |
| Silver, ug/l | 0.03 | 10.0 | --- U | --- U | --- U | Missing | --- U | 10/29/10 | CMF | EPA200.8 |
| Thallium, ug/l | 0.05 | 5.5 | --- U | --- U | --- U | Missing | --- U | 10/29/10 | CMF | EPA200.8 |
| Vanadium, ug/l | 0.03 | 25.0 | 0.9 J | 0.9 J | 1.1 J | Missing | 0.8 J | 10/29/10 | CMF | EPA200.8 |
| Zinc, ug/l | 0.08 | 10.0 | 2.3 J | 12 | 11 | Missing | 3.9 J | 10/29/10 | CMF | EPA200.8 |
| Turbidity, NTU | 1.0 | 1.0 | 10 | 4.3 | 11 | Missing | 14 | 10/21/10 | MEL | SM2130B |
| Conductivity (at 25c), uMhos | 1.0 | 1.0 | 57 | 87 | 116 | Missing | 164 | 10/20/10 | RJH | SM2510B |
| Temperature, °C | | | 18 | 19 | 18 | Missing | 19 | 10/20/10 | RJH | SM2550B |
| Static Water Level, feet | | | 25.84 | 15.17 | 2.87 | Missing | 10.81 | 10/20/10 | RJH | |
| Well Depth, feet | | | 65.18 | 30.21 | 25.12 | Missing | 40.14 | 10/20/10 | RJH | |

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

Environment 1, Incorporated

Drinking Water ID: 37715
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 D

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

DATE COLLECTED: 10/20/10
DATE REPORTED : 11/12/10

REVIEWED BY:

| PARAMETERS | MDL | SWSL | MW-31 | Equipment Blank | Trip Blank | Analysis Date | Analyst | Method Code |
|---|---|---|---|---|---|---|---|---|
| PH (field measurement), Units | | | 4.8 | | | 10/20/10 | RJH | SM4500HB |
| Antimony, ug/l | 0.22 | 6.0 | --- U | --- U | | 10/29/10 | CMF | EPA200.8 |
| Arsenic, ug/l | 0.04 | 10.0 | --- U | --- U | | 10/29/10 | CMF | EPA200.8 |
| Barium, ug/l | 0.03 | 100.0 | 5.9 J | 0.1 J | | 10/29/10 | CMF | EPA200.8 |
| Beryllium, ug/l | 0.02 | 1.0 | 0.1 J | --- U | | 10/29/10 | CMF | EPA200.8 |
| Cadmium, ug/l | 0.02 | 1.0 | --- U | --- U | | 10/29/10 | CMF | EPA200.8 |
| Cobalt, ug/l | 0.10 | 10.0 | 0.1 J | --- U | | 10/29/10 | CMF | EPA200.8 |
| Copper, ug/l | 0.03 | 10.0 | 0.5 J | --- U | | 10/29/10 | CMF | EPA200.8 |
| Total Chromium, ug/l | 0.03 | 10.0 | 0.6 J | --- U | | 10/29/10 | CMF | EPA200.8 |
| Lead, ug/l | 0.01 | 10.0 | 0.4 J | --- U | | 10/29/10 | CMF | EPA200.8 |
| Nickel, ug/l | 0.05 | 50.0 | --- U | --- U | | 10/29/10 | CMF | EPA200.8 |
| Selenium, ug/l | 0.32 | 10.0 | --- U | --- U | | 10/29/10 | CMF | EPA200.8 |
| Silver, ug/l | 0.03 | 10.0 | --- U | --- U | | 10/29/10 | CMF | EPA200.8 |
| Thallium, ug/l | 0.05 | 5.5 | --- U | --- U | | 10/29/10 | CMF | EPA200.8 |
| Vanadium, ug/l | 0.03 | 25.0 | 1.5 J | 0.6 J | | 10/29/10 | CMF | EPA200.8 |
| Zinc, ug/l | 0.08 | 10.0 | 0.7 J | --- U | | 10/29/10 | CMF | EPA200.8 |
| Turbidity, NTU | 1.0 | 1.0 | 38 | | | 10/21/10 | MEL | SM2130B |
| Conductivity (at 25c), uMhos | 1.0 | 1.0 | 25 | | | 10/20/10 | RJH | SM2510B |
| Temperature, °C | | | 18 | | | 10/20/10 | RJH | SM2550B |
| Static Water Level, feet | | | 22.00 | | | 10/20/10 | RJH | |
| Well Depth, feet | | | 39.33 | | | 10/20/10 | RJH | |

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

Environment 1, Incorporated

Drinking Water ID: 37715
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

CLIENT ID: 6040 D

ANALYST: MAO
DATE COLLECTED: 10/20/10
DATE ANALYZED: 10/28/10
DATE REPORTED: 11/12/10



REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B

| PARAMETERS, ug/l | MDL | SWSL | MW-1 | MW-2 | MW-3R | MW-5 | MW-31 |
|---|---|---|---|---|---|---|---|
| 1. Chloromethane | 0.77 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 2. Vinyl Chloride | 0.63 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 3. Bromomethane | 0.67 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 4. Chloroethane | 0.48 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 5. Trichlorofluoromethane | 0.24 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 6. 1,1-Dichloroethene | 0.17 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 7. Acetone | 9.06 | 100.0 | --- U | --- U | --- U | --- U | --- U |
| 8. Iodomethane | 0.26 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 9. Carbon Disulfide | 0.23 | 100.0 | --- U | --- U | --- U | --- U | --- U |
| 10. Methylene Chloride | 0.64 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 11. trans-1,2-Dichloroethene | 0.23 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 12. 1,1-Dichloroethane | 0.20 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 13. Vinyl Acetate | 0.20 | 50.0 | --- U | --- U | --- U | --- U | --- U |
| 14. Cis-1,2-Dichloroethene | 0.25 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 15. 2-Butanone | 2.21 | 100.0 | --- U | --- U | --- U | --- U | --- U |
| 16. Bromochloromethane | 0.27 | 3.0 | --- U | --- U | --- U | --- U | --- U |
| 17. Chloroform | 0.25 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 18. 1,1,1-Trichloroethane | 0.19 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 19. Carbon Tetrachloride | 0.22 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 20. Benzene | 0.24 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 21. 1,2-Dichloroethane | 0.27 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 22. Trichloroethene | 0.23 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 23. 1,2-Dichloropropane | 0.21 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 24. Bromodichloromethane | 0.21 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 25. Cis-1,3-Dichloropropene | 0.24 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 26. 4-Methyl-2-Pentanone | 1.19 | 100.0 | --- U | --- U | --- U | --- U | --- U |
| 27. Toluene | 0.23 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 28. trans-1,3-Dichloropropene | 0.28 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 29. 1,1,2-Trichloroethane | 0.25 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 30. Tetrachloroethene | 0.17 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 31. 2-Hexanone | 1.57 | 50.0 | --- U | --- U | --- U | --- U | --- U |
| 32. Dibromochloromethane | 0.24 | 3.0 | --- U | --- U | --- U | --- U | --- U |
| 33. 1,2-Dibromoethane | 0.26 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 34. Chlorobenzene | 0.30 | 3.0 | --- U | --- U | --- U | --- U | --- U |
| 35. 1,1,1,2-Tetrachloroethane | 0.22 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 36. Ethylbenzene | 0.21 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 37. Xylenes | 0.68 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 38. Dibromomethane | 0.28 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 39. Styrene | 0.19 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 40. Bromoform | 0.20 | 3.0 | --- U | --- U | --- U | --- U | --- U |
| 41. 1,1,2,2-Tetrachloroethane | 0.26 | 3.0 | --- U | --- U | --- U | --- U | --- U |
| 42. 1,2,3-Trichloropropane | 0.43 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 43. 1,4-Dichlorobenzene | 0.39 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 44. 1,2-Dichlorobenzene | 0.32 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 45. 1,2-Dibromo-3-Chloropropane | 0.34 | 13.0 | --- U | --- U | --- U | --- U | --- U |
| 46. Acrylonitrile | 2.72 | 200.0 | --- U | --- U | --- U | --- U | --- U |
| 47. trans-1,4-Dichloro-2-Butene | 0.42 | 100.0 | --- U | --- U | --- U | --- U | --- U |

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

Environment 1, Incorporated

Drinking Water ID: 37715
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

CLIENT ID: 6040 D

ANALYST: MAO
DATE COLLECTED: 10/20/10
DATE ANALYZED: 10/28/10
DATE REPORTED: 11/12/10



REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B

| PARAMETERS, ug/l | MDL | SWSL | Equipment Blank | Trip Blank |
|---|---|---|---|---|
| 1. Chloromethane | 0.77 | 1.0 | --- U | --- U |
| 2. Vinyl Chloride | 0.63 | 1.0 | --- U | --- U |
| 3. Bromomethane | 0.67 | 10.0 | --- U | --- U |
| 4. Chloroethane | 0.48 | 10.0 | --- U | --- U |
| 5. Trichlorofluoromethane | 0.24 | 1.0 | --- U | --- U |
| 6. 1,1-Dichloroethene | 0.17 | 5.0 | --- U | --- U |
| 7. Acetone | 9.06 | 100.0 | --- U | --- U |
| 8. Iodomethane | 0.26 | 10.0 | --- U | --- U |
| 9. Carbon Disulfide | 0.23 | 100.0 | --- U | --- U |
| 10. Methylene Chloride | 0.64 | 1.0 | --- U | --- U |
| 11. trans-1,2-Dichloroethene | 0.23 | 5.0 | --- U | --- U |
| 12. 1,1-Dichloroethane | 0.20 | 5.0 | --- U | --- U |
| 13. Vinyl Acetate | 0.20 | 50.0 | --- U | --- U |
| 14. Cis-1,2-Dichloroethene | 0.25 | 5.0 | --- U | --- U |
| 15. 2-Butanone | 2.21 | 100.0 | --- U | --- U |
| 16. Bromochloromethane | 0.27 | 3.0 | --- U | --- U |
| 17. Chloroform | 0.25 | 5.0 | --- U | --- U |
| 18. 1,1,1-Trichloroethane | 0.19 | 1.0 | --- U | --- U |
| 19. Carbon Tetrachloride | 0.22 | 1.0 | --- U | --- U |
| 20. Benzene | 0.24 | 1.0 | --- U | --- U |
| 21. 1,2-Dichloroethane | 0.27 | 1.0 | --- U | --- U |
| 22. Trichloroethene | 0.23 | 1.0 | --- U | --- U |
| 23. 1,2-Dichloropropane | 0.21 | 1.0 | --- U | --- U |
| 24. Bromodichloromethane | 0.21 | 1.0 | --- U | --- U |
| 25. Cis-1,3-Dichloropropene | 0.24 | 1.0 | --- U | --- U |
| 26. 4-Methyl-2-Pentanone | 1.19 | 100.0 | --- U | --- U |
| 27. Toluene | 0.23 | 1.0 | --- U | --- U |
| 28. trans-1,3-Dichloropropene | 0.28 | 1.0 | --- U | --- U |
| 29. 1,1,2-Trichloroethane | 0.25 | 1.0 | --- U | --- U |
| 30. Tetrachloroethene | 0.17 | 1.0 | --- U | --- U |
| 31. 2-Hexanone | 1.57 | 50.0 | --- U | --- U |
| 32. Dibromochloromethane | 0.24 | 3.0 | --- U | --- U |
| 33. 1,2-Dibromoethane | 0.26 | 1.0 | --- U | --- U |
| 34. Chlorobenzene | 0.30 | 3.0 | --- U | --- U |
| 35. 1,1,1,2-Tetrachloroethane | 0.22 | 5.0 | --- U | --- U |
| 36. Ethylbenzene | 0.21 | 1.0 | --- U | --- U |
| 37. Xylenes | 0.68 | 5.0 | --- U | --- U |
| 38. Dibromomethane | 0.28 | 10.0 | --- U | --- U |
| 39. Styrene | 0.19 | 1.0 | --- U | --- U |
| 40. Bromoform | 0.20 | 3.0 | --- U | --- U |
| 41. 1,1,2,2-Tetrachloroethane | 0.26 | 3.0 | --- U | --- U |
| 42. 1,2,3-Trichloropropane | 0.43 | 1.0 | --- U | --- U |
| 43. 1,4-Dichlorobenzene | 0.39 | 1.0 | --- U | --- U |
| 44. 1,2-Dichlorobenzene | 0.32 | 5.0 | --- U | --- U |
| 45. 1,2-Dibromo-3-Chloropropane | 0.34 | 13.0 | --- U | --- U |
| 46. Acrylonitrile | 2.72 | 200.0 | --- U | --- U |
| 47. trans-1,4-Dichloro-2-Butene | 0.42 | 100.0 | --- 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 D **Week: 43**

**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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | L2 | | | | | L2 | L2 | L2 |
| | | | | | | P | P | P | P | P | | G | G | G |
| | | | | | | A | A | A | A | A | | E | E | E |
| MW-1 | 102010 | 1055 | | 18 | 6 | G | G | G | G | G | G | G | G | G |
| MW-2 | 102010 | 1110 | | 19 | 5 | G | G | G | G | G | G | G | G | |
| MW-3R | 102010 | 1120 | | 18 | 5 | G | G | G | G | G | G | G | G | |
| ~~MW-4~~ | ~~102010~~ | | | | 5 | | | | | | | | | |
| MW-5 | 102010 | 1130 | | 19 | 5 | G | G | G | G | G | G | G | G | |
| MW-31 | 102010 | 1305 | | 18 | 5 | G | G | G | G | G | G | G | G | |
| Equipment Blank | 102010 | | | | 3 | | G | | | | | G | G | |
| Trip Blank | | | | | 2 | | | | | | | | | |

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 Logue / Fox

SAMPLES RECEIVED IN LAB AT 0.8 °C

| RELINQUISHED BY (SIG.) (SAMPLER) | DATE/TIME | RECEIVED BY (SIG.) | DATE/TIME |
|---|---|---|---|
| Bob Hogue | 102010 3:50PM | [signature] | 10/20/10 3:50PM |
| RELINQUISHED BY (SIG.) | DATE/TIME | RECEIVED BY (SIG.) | DATE/TIME |
| RELINQUISHED BY (SIG.) | DATE/TIME | RECEIVED BY (SIG.) | DATE/TIME |

COMMENTS:
MW 4 COULD NOT SAMPLE
VERY High WATER

PLEASE READ Instructions for completing this form 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

№ 215823

# Environment 1, Incorporated

Drinking Water ID: 37715
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: 10/20/10
DATE REPORTED : 11/15/10

REVIEWED BY:

| PARAMETERS | MDL | SWSL | MW-11 | MW-12 | MW-13 | MW-14 | MW-15 | Analysis Date | Analyst | Method Code |
|---|---|---|---|---|---|---|---|---|---|---|
| PH (field measurement), Units | | | 4.4 | 4.4 | 5.9 | 5.4 | 4.0 | 10/20/10 | RJH | SM4500HB |
| Antimony, ug/l | 0.22 | 6.0 | --- U | --- U | --- U | --- U | --- U | 10/29/10 | CMF | EPA200.8 |
| Arsenic, ug/l | 0.04 | 10.0 | --- U | --- U | --- U | --- U | 0.8 J | 10/29/10 | CMF | EPA200.8 |
| Barium, ug/l | 0.03 | 100.0 | 24.6 J | 29.1 J | 66.1 J | 47.6 J | 116 | 10/29/10 | CMF | EPA200.8 |
| Beryllium, ug/l | 0.02 | 1.0 | 0.2 J | 1 | 0.2 J | 0.9 J | 1 | 10/29/10 | CMF | EPA200.8 |
| Cadmium, ug/l | 0.02 | 1.0 | 0.1 J | 0.2 J | 0.1 J | 0.1 J | 0.4 J | 10/29/10 | CMF | EPA200.8 |
| Cobalt, ug/l | 0.10 | 10.0 | 0.3 J | 0.4 J | 0.7 J | 0.7 J | 1.5 J | 10/29/10 | CMF | EPA200.8 |
| Copper, ug/l | 0.03 | 10.0 | 1.8 J | 1.2 J | 1.0 J | 2.0 J | 3.0 J | 10/29/10 | CMF | EPA200.8 |
| Total Chromium, ug/l | 0.03 | 10.0 | 2.1 J | --- U | --- U | 0.5 J | 0.1 J | 10/29/10 | CMF | EPA200.8 |
| Lead, ug/l | 0.01 | 10.0 | 1.6 J | 0.5 J | 0.1 J | 1.1 J | 0.9 J | 10/29/10 | CMF | EPA200.8 |
| Nickel, ug/l | 0.05 | 50.0 | 0.2 J | 0.4 J | 0.7 J | 0.9 J | 1.6 J | 10/29/10 | CMF | EPA200.8 |
| Selenium, ug/l | 0.32 | 10.0 | --- U | --- U | --- U | --- U | --- U | 10/29/10 | CMF | EPA200.8 |
| Silver, ug/l | 0.03 | 10.0 | --- U | --- U | --- U | --- U | --- U | 10/29/10 | CMF | EPA200.8 |
| Thallium, ug/l | 0.05 | 5.5 | --- U | --- U | --- U | --- U | --- U | 10/29/10 | CMF | EPA200.8 |
| Vanadium, ug/l | 0.03 | 25.0 | 3.5 J | 1.6 J | 1.1 J | 4.6 J | 2.1 J | 10/29/10 | CMF | EPA200.8 |
| Zinc, ug/l | 0.08 | 10.0 | 4.9 J | 3.9 J | 3.7 J | 6.3 J | 7.1 J | 10/29/10 | CMF | EPA200.8 |
| Turbidity, NTU | 1.0 | 1.0 | 65 | 29 | 7.7 | 75 | | 10/21/10 | MEL | SM2130B |
| Turbidity, NTU | 1.0 | 1.0 | | | | | 8.6 | 10/20/10 | MEL | SM2130B |
| Conductivity (at 25c), uMhos | 1.0 | 1.0 | 33 | 62 | 123 | 106 | 125 | 10/20/10 | RJH | SM2510B |
| Temperature, °C | | | 20 | 19 | 16 | 17 | 19 | 10/20/10 | RJH | SM2550B |
| Static Water Level, feet | | | 18.44 | 5.58 | 23.71 | 7.02 | 10.74 | 10/20/10 | RJH | |
| Well Depth, feet | | | 27.60 | 22.25 | 50.51 | 29.92 | 14.24 | 10/20/10 | RJH | |
| Water Bailed, Gals. | | | 4.5 | 7.8 | 12.6 | 10.5 | 1.5 | 10/20/10 | RJH | |

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

Environment 1, Incorporated

Drinking Water ID: 37715
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

CLIENT ID: 6040 F

ANALYST: MAO
DATE COLLECTED: 10/20/10
DATE ANALYZED: 11/02/10
DATE REPORTED: 11/15/10



REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B

| PARAMETERS, ug/l | MDL | SWSL | MW-11 | MW-12 | MW-13 | MW-14 | MW-15 |
|---|---|---|---|---|---|---|---|
| 1. Chloromethane | 0.77 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 2. Vinyl Chloride | 0.63 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 3. Bromomethane | 0.67 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 4. Chloroethane | 0.48 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 5. Trichlorofluoromethane | 0.24 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 6. 1,1-Dichloroethene | 0.17 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 7. Acetone | 9.06 | 100.0 | --- U | --- U | --- U | --- U | 144.00 |
| 8. Iodomethane | 0.26 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 9. Carbon Disulfide | 0.23 | 100.0 | --- U | --- U | --- U | --- U | --- U |
| 10. Methylene Chloride | 0.64 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 11. trans-1,2-Dichloroethene | 0.23 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 12. 1,1-Dichloroethane | 0.20 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 13. Vinyl Acetate | 0.20 | 50.0 | --- U | --- U | --- U | --- U | --- U |
| 14. Cis-1,2-Dichloroethene | 0.25 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 15. 2-Butanone | 2.21 | 100.0 | --- U | --- U | --- U | --- U | 9.90 J |
| 16. Bromochloromethane | 0.27 | 3.0 | --- U | --- U | --- U | --- U | --- U |
| 17. Chloroform | 0.25 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 18. 1,1,1-Trichloroethane | 0.19 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 19. Carbon Tetrachloride | 0.22 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 20. Benzene | 0.24 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 21. 1,2-Dichloroethane | 0.27 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 22. Trichloroethene | 0.23 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 23. 1,2-Dichloropropane | 0.21 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 24. Bromodichloromethane | 0.21 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 25. Cis-1,3-Dichloropropene | 0.24 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 26. 4-Methyl-2-Pentanone | 1.19 | 100.0 | --- U | --- U | --- U | --- U | --- U |
| 27. Toluene | 0.23 | 1.0 | --- U | --- U | --- U | --- U | 28.60 |
| 28. trans-1,3-Dichloropropene | 0.28 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 29. 1,1,2-Trichloroethane | 0.25 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 30. Tetrachloroethene | 0.17 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 31. 2-Hexanone | 1.57 | 50.0 | --- U | --- U | --- U | --- U | --- U |
| 32. Dibromochloromethane | 0.24 | 3.0 | --- U | --- U | --- U | --- U | --- U |
| 33. 1,2-Dibromoethane | 0.26 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 34. Chlorobenzene | 0.30 | 3.0 | --- U | --- U | --- U | --- U | --- U |
| 35. 1,1,1,2-Tetrachloroethane | 0.22 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 36. Ethylbenzene | 0.21 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 37. Xylenes | 0.68 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 38. Dibromomethane | 0.28 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 39. Styrene | 0.19 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 40. Bromoform | 0.20 | 3.0 | --- U | --- U | --- U | --- U | --- U |
| 41. 1,1,2,2-Tetrachloroethane | 0.26 | 3.0 | --- U | --- U | --- U | --- U | --- U |
| 42. 1,2,3-Trichloropropane | 0.43 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 43. 1,4-Dichlorobenzene | 0.39 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 44. 1,2-Dichlorobenzene | 0.32 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 45. 1,2-Dibromo-3-Chloropropane | 0.34 | 13.0 | --- U | --- U | --- U | --- U | --- U |
| 46. Acrylonitrile | 2.72 | 200.0 | --- U | --- U | --- U | --- U | --- U |
| 47. trans-1,4-Dichloro-2-Butene | 0.42 | 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 F **Week:** 43

**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 | 12 |
| CONTAINER TYPE, P/G | | | | | | P | P | P | P | P | | G | G | G |
| CHEMICAL PRESERVATION | | | | | | A | A | A | A | A | | E | E | E |
| MW-11 | 10 20 10 | 1215 | | 20 | 6 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| MW-12 | 10 20 10 | 1225 | | 19 | 5 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| MW-13 | 10 20 10 | 1230 | | 16 | 5 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| MW-14 | 10 20 10 | 1240 | | 17 | 5 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| MW-15 | 10 20 10 | 1245 | | 19 | 5 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |

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 Pope / Fof

SAMPLES RECEIVED IN LAB AT 0.8 °C

| RELINQUISHED BY (SIG.) (SAMPLER) | DATE/TIME | RECEIVED BY (SIG.) | DATE/TIME |
|---|---|---|---|
| Bob H. Pope | 10 20 10 3:50PM | [signature] | 10/20/10 3:50PM |
| RELINQUISHED BY (SIG.) | DATE/TIME | RECEIVED BY (SIG.) | DATE/TIME |
| RELINQUISHED BY (SIG.) | DATE/TIME | RECEIVED BY (SIG.) | DATE/TIME |

COMMENTS:

PLEASE READ Instructions for completing this form 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

№ 208661

# Environment 1, Incorporated

Drinking Water ID: 37715
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 G

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

DATE COLLECTED: 10/20/10
DATE REPORTED : 11/15/10

REVIEWED BY:

| PARAMETERS | MDL | SWSL | MW-53 | MW-56 | MW-57 | MW-58 | MW-59 | Analysis Date | Analyst | Method Code |
|---|---|---|---|---|---|---|---|---|---|---|
| PH (field measurement), Units | | | 4.9 | 4.6 | 4.4 | 4.5 | 4.7 | 10/20/10 | RJH | SM4500HB |
| Antimony, ug/l | 0.22 | 6.0 | --- U | --- U | --- U | --- U | --- U | 10/29/10 | CMF | EPA200.8 |
| Arsenic, ug/l | 0.04 | 10.0 | --- U | --- U | 0.6 J | --- U | 1.6 J | 10/29/10 | CMF | EPA200.8 |
| Barium, ug/l | 0.03 | 100.0 | 61.2 J | 55.7 J | 105 | 34.8 J | 104 | 10/29/10 | CMF | EPA200.8 |
| Beryllium, ug/l | 0.02 | 1.0 | 0.2 J | 0.4 J | 0.8 J | 0.1 J | 0.5 J | 10/29/10 | CMF | EPA200.8 |
| Cadmium, ug/l | 0.02 | 1.0 | 0.7 J | 0.1 J | 0.9 J | 0.1 J | 0.2 J | 10/29/10 | CMF | EPA200.8 |
| Cobalt, ug/l | 0.10 | 10.0 | 2.9 J | 2.1 J | 3.3 J | 1.1 J | 5.2 J | 10/29/10 | CMF | EPA200.8 |
| Copper, ug/l | 0.03 | 10.0 | 15 | 1.2 J | 3.3 J | 1.6 J | 10 | 10/29/10 | CMF | EPA200.8 |
| Total Chromium, ug/l | 0.03 | 10.0 | 1.2 J | 0.1 J | 0.9 J | 3.2 J | 3.8 J | 10/29/10 | CMF | EPA200.8 |
| Lead, ug/l | 0.01 | 10.0 | 1.8 J | 2.3 J | 1.3 J | 1.8 J | 6.1 J | 10/29/10 | CMF | EPA200.8 |
| Nickel, ug/l | 0.05 | 50.0 | 3.2 J | 2.0 J | 2.8 J | 1.1 J | 5.7 J | 10/29/10 | CMF | EPA200.8 |
| Selenium, ug/l | 0.32 | 10.0 | --- U | --- U | 1.4 J | --- U | 0.5 J | 10/29/10 | CMF | EPA200.8 |
| Silver, ug/l | 0.03 | 10.0 | --- U | --- U | 0.1 J | --- U | --- U | 10/29/10 | CMF | EPA200.8 |
| Thallium, ug/l | 0.05 | 5.5 | --- U | --- U | --- U | --- U | --- U | 10/29/10 | CMF | EPA200.8 |
| Vanadium, ug/l | 0.03 | 25.0 | 5.3 J | 2.3 J | 3.7 J | 4.5 J | 11.4 J | 10/29/10 | CMF | EPA200.8 |
| Zinc, ug/l | 0.08 | 10.0 | 9.4 J | 16 | 8.7 J | 2.7 J | 15 | 10/29/10 | CMF | EPA200.8 |
| Turbidity, NTU | 1.0 | 1.0 | 170 | 55 | 45 | 120 | | 10/21/10 | MEL | SM2130B |
| Turbidity, NTU | 1.0 | 1.0 | | | | | 190 | 10/20/10 | MEL | SM2130B |
| Conductivity (at 25c), uMhos | 1.0 | 1.0 | 75 | 123 | 191 | 78 | 131 | 10/20/10 | RJH | SM2510B |
| Temperature, °C | | | 21 | 20 | 21 | 20 | 22 | 10/20/10 | RJH | SM2550B |
| Static Water Level, feet | | | 14.18 | 6.70 | 6.11 | 8.93 | 9.16 | 10/20/10 | RJH | |
| Well Depth, feet | | | 18.09 | 17.03 | 17.07 | 18.11 | 18.03 | 10/20/10 | RJH | |
| Water Bailed, Gals. | | | 1.5 | 4.8 | 4.8 | 4.5 | 3.9 | 10/20/10 | RJH | |

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

# Environment 1, Incorporated

Drinking Water ID: 37715
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 G

ANALYST: MAO
DATE COLLECTED: 10/20/10
DATE ANALYZED: 11/02/10
DATE REPORTED: 11/15/10



## VOLATILE ORGANICS
## EPA METHOD 8260B

| PARAMETERS, ug/l | MDL | SWSL | MW-53 | MW-56 | MW-57 | MW-58 | MW-59 |
|---|---|---|---|---|---|---|---|
| 1. Chloromethane | 0.77 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 2. Vinyl Chloride | 0.63 | 1.0 | 1.30 | --- U | 1.20 | --- U | --- U |
| 3. Bromomethane | 0.67 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 4. Chloroethane | 0.48 | 10.0 | 1.50 J | --- U | 1.30 J | --- U | 0.60 J |
| 5. Trichlorofluoromethane | 0.24 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 6. 1,1-Dichloroethene | 0.17 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 7. Acetone | 9.06 | 100.0 | --- U | --- U | --- U | --- U | 15.90 J |
| 8. Iodomethane | 0.26 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 9. Carbon Disulfide | 0.23 | 100.0 | --- U | --- U | --- U | --- U | --- U |
| 10. Methylene Chloride | 0.64 | 1.0 | 14.20 | --- U | 0.70 J | --- U | --- U |
| 11. trans-1,2-Dichloroethene | 0.23 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 12. 1,1-Dichloroethane | 0.20 | 5.0 | 15.60 | --- U | 4.60 J | 2.00 J | 0.70 J |
| 13. Vinyl Acetate | 0.20 | 50.0 | --- U | --- U | --- U | --- U | --- U |
| 14. Cis-1,2-Dichloroethene | 0.25 | 5.0 | 4.60 J | --- U | 9.30 | --- U | 3.00 J |
| 15. 2-Butanone | 2.21 | 100.0 | --- U | --- U | --- U | --- U | --- U |
| 16. Bromochloromethane | 0.27 | 3.0 | --- U | --- U | --- U | --- U | --- U |
| 17. Chloroform | 0.25 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 18. 1,1,1-Trichloroethane | 0.19 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 19. Carbon Tetrachloride | 0.22 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 20. Benzene | 0.24 | 1.0 | 0.70 J | --- U | 2.00 | --- U | 1.00 |
| 21. 1,2-Dichloroethane | 0.27 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 22. Trichloroethene | 0.23 | 1.0 | 1.50 | --- U | 1.10 | --- U | 0.50 J |
| 23. 1,2-Dichloropropane | 0.21 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 24. Bromodichloromethane | 0.21 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 25. Cis-1,3-Dichloropropene | 0.24 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 26. 4-Methyl-2-Pentanone | 1.19 | 100.0 | --- U | --- U | --- U | --- U | --- U |
| 27. Toluene | 0.23 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 28. trans-1,3-Dichloropropene | 0.28 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 29. 1,1,2-Trichloroethane | 0.25 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 30. Tetrachloroethene | 0.17 | 1.0 | 1.20 | --- U | 0.40 J | 0.40 J | --- U |
| 31. 2-Hexanone | 1.57 | 50.0 | --- U | --- U | --- U | --- U | --- U |
| 32. Dibromochloromethane | 0.24 | 3.0 | --- U | --- U | --- U | --- U | --- U |
| 33. 1,2-Dibromoethane | 0.26 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 34. Chlorobenzene | 0.30 | 3.0 | --- U | --- U | --- U | --- U | --- U |
| 35. 1,1,1,2-Tetrachloroethane | 0.22 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 36. Ethylbenzene | 0.21 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 37. Xylenes | 0.68 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 38. Dibromomethane | 0.28 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 39. Styrene | 0.19 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 40. Bromoform | 0.20 | 3.0 | --- U | --- U | --- U | --- U | --- U |
| 41. 1,1,2,2-Tetrachloroethane | 0.26 | 3.0 | --- U | --- U | --- U | --- U | --- U |
| 42. 1,2,3-Trichloropropane | 0.43 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 43. 1,4-Dichlorobenzene | 0.39 | 1.0 | 1.30 | --- U | 0.90 J | --- U | --- U |
| 44. 1,2-Dichlorobenzene | 0.32 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 45. 1,2-Dibromo-3-Chloropropane | 0.34 | 13.0 | --- U | --- U | --- U | --- U | --- U |
| 46. Acrylonitrile | 2.72 | 200.0 | --- U | --- U | --- U | --- U | --- U |
| 47. trans-1,4-Dichloro-2-Butene | 0.42 | 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 G **Week: 1**

**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) | | | | | | | 02 | | | | | 02 | 02 | 02 |
| CONTAINER TYPE, P/G | | | | | | P | P | P | P | P | | G | G | G |
| CHEMICAL PRESERVATION | | | | | | A | A | A | A | A | | E | E | E |
| MW-53 | 10/20/10 | 0855 | | 21 | 6 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| MW-56 | 10/20/10 | 1025 | | 20 | 5 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| MW-57 | 10/20/10 | 1030 | | 21 | 5 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| MW-58 | 10/20/10 | 1020 | | 20 | 5 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| MW-59 | 10/20/10 | 1035 | | 22 | 5 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |

PARAMETERS

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
- [x] SOLID WASTE SECTION

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

SAMPLES COLLECTED BY: (Please Print)
H Lane / FA

SAMPLES RECEIVED IN LAB AT 2.8 °C

| RELINQUISHED BY (SIG.) (SAMPLER) | DATE/TIME | RECEIVED BY (SIG.) | DATE/TIME |
|---|---|---|---|
| Rob H Lane | 10/20/10 3:50PM | [illegible] | 10/20/10 3:50PM |
| RELINQUISHED BY (SIG.) | DATE/TIME | RECEIVED BY (SIG.) | DATE/TIME |
| RELINQUISHED BY (SIG.) | DATE/TIME | RECEIVED BY (SIG.) | DATE/TIME |

COMMENTS:

PLEASE READ Instructions for completing this form 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.

№ 180134

FORM #5

# Environment 1, Incorporated

Drinking Water ID: 37715
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: 10/19/10
DATE REPORTED : 11/12/10

REVIEWED BY:

| PARAMETERS | MDL | Piezometer SWSL #41S | Piezometer #44S | Piezometer #44D | Piezometer #46D | Piezometer #47S | Analysis Date | Analyst | Method Code |
|---|---|---|---|---|---|---|---|---|---|
| Static Water Level, feet | | 16.30 | 3.88 | 9.25 | 22.09 | 13.59 | 10/19/10 | RJH | |

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

# Environment 1, Incorporated

Drinking Water ID: 37715
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: 10/19/10
DATE REPORTED : 11/12/10

REVIEWED BY:

| PARAMETERS | MDL | SWSL | Piezometer #47D | Piezometer #48S | Piezometer #50 | Piezometer #51 | Piezometer #52 | Analysis Date | Analyst | Method Code |
|---|---|---|---|---|---|---|---|---|---|---|
| Static Water Level, feet | | | 22.46 | 13.00 | 15.83 | 8.92 | 20.60 | 10/19/10 | RJH | |

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

# Environment 1, Incorporated

Drinking Water ID: 37715
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: 10/19/10
DATE REPORTED : 11/12/10

REVIEWED BY:

| PARAMETERS | MDL | SWSL | Piezometer #53 | Piezometer #54 | Piezometer #55 | Piezometer #56 | Piezometer #57 | Analysis Date | Analyst | Method Code |
|---|---|---|---|---|---|---|---|---|---|---|
| Static Water Level, feet | | | 17.07 | 15.49 | 14.42 | 12.33 | 10.91 | 10/19/10 | RJH | |

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

# Environment 1, Incorporated

Drinking Water ID: 37715
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: 10/19/10
DATE REPORTED : 11/12/10

REVIEWED BY:

| PARAMETERS | MDL | SWSL | Piezometer #58 | Piezometer #59 | GP-24-W | GP-25-W | GP-27-W | Analysis Date | Analyst | Method Code |
|---|---|---|---|---|---|---|---|---|---|---|
| Static Water Level, feet | | | 11.58 | 12.31 | 7.80 | 9.36 | 17.15 | 10/19/10 | RJH | |

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

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

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ID#: 6040 E

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

DATE COLLECTED: 10/19/10
DATE REPORTED : 11/12/10

REVIEWED BY:

| PARAMETERS | MDL | SWSL | GP-28-W | GP-30-W | GP-31-W | GP-33-W | GP-34-W | Analysis Date | Analyst | Method Code |
|---|---|---|---|---|---|---|---|---|---|---|
| Static Water Level, feet | | | 12.53 | 16.50 | 8.64 | 21.08 | 18.28 | 10/19/10 | RJH | |

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

# Environment 1, Incorporated

Drinking Water ID: 37715
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: 10/19/10
DATE REPORTED : 11/12/10

REVIEWED BY:

| PARAMETERS | MDL | SWSL | GP-35-W | GP-36-W | GP-37-W | GP-38-W | Analysis Date | Analyst | Method Code |
|---|---|---|---|---|---|---|---|---|---|
| Static Water Level, feet | | | 4.39 | 20.08 | 8.65 | 15.72 | 10/19/10 | RJH | |

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

# Environment 1, Incorporated

Drinking Water ID: 37715
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

CLIENT ID: 6040 E

ANALYST: MAO
DATE COLLECTED: 10/19/10
DATE REPORTED: 11/12/10

Page: 1

REVIEWED BY:

## VOLATILE ORGANICS
## EPA METHOD 8260B

| PARAMETERS, ug/l | MDL | SWSL | Date Analyzed: 10/27/10 Piezometer #41S | 10/27/10 GP-25-W | 10/27/10 GP-30-W | 10/28/10 GP-37-W | 10/28/10 GP-38-W |
|---|---|---|---|---|---|---|---|
| 1. Chloromethane | 0.77 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 2. Vinyl Chloride | 0.63 | 1.0 | 2.90 | --- U | --- U | --- U | 1.10 |
| 3. Bromomethane | 0.67 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 4. Chloroethane | 0.48 | 10.0 | 1.40 J | --- U | --- U | --- U | 1.00 J |
| 5. Trichlorofluoromethane | 0.24 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 6. 1,1-Dichloroethene | 0.17 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 7. Acetone | 9.06 | 100.0 | --- U | --- U | --- U | --- U | --- U |
| 8. Iodomethane | 0.26 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 9. Carbon Disulfide | 0.23 | 100.0 | --- U | --- U | --- U | --- U | --- U |
| 10. Methylene Chloride | 0.64 | 1.0 | 10.80 | 1.80 | --- U | --- U | --- U |
| 11. trans-1,2-Dichloroethene | 0.23 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 12. 1,1-Dichloroethane | 0.20 | 5.0 | 4.30 J | 1.60 J | 1.10 J | 3.90 J | 1.20 J |
| 13. Vinyl Acetate | 0.20 | 50.0 | --- U | --- U | --- U | --- U | --- U |
| 14. Cis-1,2-Dichloroethene | 0.25 | 5.0 | 11.20 | --- U | 1.80 J | --- U | 22.50 |
| 15. 2-Butanone | 2.21 | 100.0 | --- U | --- U | --- U | --- U | --- U |
| 16. Bromochloromethane | 0.27 | 3.0 | --- U | --- U | --- U | --- U | --- U |
| 17. Chloroform | 0.25 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 18. 1,1,1-Trichloroethane | 0.19 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 19. Carbon Tetrachloride | 0.22 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 20. Benzene | 0.24 | 1.0 | 2.90 | --- U | 0.50 J | --- U | 3.25 |
| 21. 1,2-Dichloroethane | 0.27 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 22. Trichloroethene | 0.23 | 1.0 | 1.90 | 0.30 J | --- U | --- U | 1.50 |
| 23. 1,2-Dichloropropane | 0.21 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 24. Bromodichloromethane | 0.21 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 25. Cis-1,3-Dichloropropene | 0.24 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 26. 4-Methyl-2-Pentanone | 1.19 | 100.0 | --- U | --- U | --- U | --- U | --- U |
| 27. Toluene | 0.23 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 28. trans-1,3-Dichloropropene | 0.28 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 29. 1,1,2-Trichloroethane | 0.25 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 30. Tetrachloroethene | 0.17 | 1.0 | 1.80 | 0.40 J | 0.30 J | 0.30 J | 0.50 J |
| 31. 2-Hexanone | 1.57 | 50.0 | --- U | --- U | --- U | --- U | --- U |
| 32. Dibromochloromethane | 0.24 | 3.0 | --- U | --- U | --- U | --- U | --- U |
| 33. 1,2-Dibromoethane | 0.26 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 34. Chlorobenzene | 0.30 | 3.0 | 0.60 J | --- U | --- U | --- U | --- U |
| 35. 1,1,1,2-Tetrachloroethane | 0.22 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 36. Ethylbenzene | 0.21 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 37. Xylenes | 0.68 | 5.0 | 2.70 J | --- U | --- U | --- U | --- U |
| 38. Dibromomethane | 0.28 | 10.0 | --- U | --- U | --- U | --- U | --- U |
| 39. Styrene | 0.19 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 40. Bromoform | 0.20 | 3.0 | --- U | --- U | --- U | --- U | --- U |
| 41. 1,1,2,2-Tetrachloroethane | 0.26 | 3.0 | --- U | --- U | --- U | --- U | --- U |
| 42. 1,2,3-Trichloropropane | 0.43 | 1.0 | --- U | --- U | --- U | --- U | --- U |
| 43. 1,4-Dichlorobenzene | 0.39 | 1.0 | 2.40 | --- U | --- U | --- U | 0.60 J |
| 44. 1,2-Dichlorobenzene | 0.32 | 5.0 | --- U | --- U | --- U | --- U | --- U |
| 45. 1,2-Dibromo-3-Chloropropane | 0.34 | 13.0 | --- U | --- U | --- U | --- U | --- U |
| 46. Acrylonitrile | 2.72 | 200.0 | --- U | --- U | --- U | --- U | --- U |
| 47. trans-1,4-Dichloro-2-Butene | 0.42 | 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:** 43

**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) |
| | | | | | | | | | | | | | | | | | | | | | | CONTAINER TYPE, P/G |
| | | | | | | | | | | | | | | | | | | | | | | CHEMICAL PRESERVATION |
| | | | | | | | | | | | | | | | | | | | | | | PARAMETERS |
| | | | | | | | | | | | | | | | | | | | | | | A - NONE, B - $HNO_3$, C - $H_2SO_4$, D - NAOH, E - HCL, F - ZINC ACETATE, G - NA THIOSULFATE |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |

**Environment 1, Inc.**
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# CHAIN OF CUSTODY RECORD



**CLIENT:** 6040 E  **Week: 43**

**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 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | L2 | L2 | |
| | | | | | | | G | G | G |
| | | | | | | | E | E | E |
| GP-24-W 10 | 19 10 | | | | 1 | G | | | |
| GP-25-W 10 | 19 10 | 1140 | | 23 | 3 | G | G | G | |
| GP-27-W 10 | 19 10 | | | | 1 | G | | | |
| GP-28-W 10 | 19 10 | | | | 1 | G | | | |
| GP-30-W 10 | 19 10 | 0955 | | 23 | 3 | G | G | G | |
| GP-31-W 10 | 19 10 | | | | 1 | G | | | |
| GP-33-W 10 | 19 10 | | | | 1 | G | | | |
| GP-34-W 10 | 19 10 | | | | 1 | G | | | |
| GP-35-W 10 | 19 10 | | | | 1 | G | | | |
| GP-36-W 10 | 19 10 | | | | 1 | G | | | |
| GP-37-W 10 | 19 10 | 1125 | | 20 | 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
- ☒ SOLID WASTE SECTION

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

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

SAMPLES RECEIVED IN LAB AT _____ °C

| RELINQUISHED BY (SIG.) (SAMPLER) | DATE/TIME | RECEIVED BY (SIG.) | DATE/TIME |
|---|---|---|---|
| Bob H Dgoe 10 | 19 10 | B [signature] | 10/19 1450 |
| RELINQUISHED BY (SIG.) | DATE/TIME | RECEIVED BY (SIG.) | DATE/TIME |
| | | | |
| RELINQUISHED BY (SIG.) | DATE/TIME | RECEIVED BY (SIG.) | DATE/TIME |
| | | | |

COMMENTS:

PLEASE READ Instructions for completing this form 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

№ 208663

**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: 43**

**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 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | <2 | <2 | |
| | | | | | | | G | G | G |
| | | | | | | | E | E | E |
| GP-38-W 10 | 1910 | 1325 | | 24 | 3 | | | | |

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
- ☒ SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY
Y N

SAMPLES COLLECTED BY: (Please Print) H Igoe / F of

SAMPLES RECEIVED IN LAB AT _____ °C

| RELINQUISHED BY (SIG.) (SAMPLER) | DATE/TIME | RECEIVED BY (SIG.) | DATE/TIME |
|---|---|---|---|
| Bob H Igoe 10 | 1910 | B [signature] | 10/19 1450 |
| RELINQUISHED BY (SIG.) | DATE/TIME | RECEIVED BY (SIG.) | DATE/TIME |
| RELINQUISHED BY (SIG.) | DATE/TIME | RECEIVED BY (SIG.) | DATE/TIME |

COMMENTS:

PLEASE READ Instructions for completing this form 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.

№ 208662

FORM #5

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: 1**

**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 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | G | G | G |
| | | | | | | | E | E | E |
| Piezometer #54 | 10 19 10 | | | | 1 | G | | | |
| Piezometer #55 | 10 19 10 | | | | 1 | G | | | |
| Piezometer #56 | 10 19 10 | | | | 1 | G | | | |
| Piezometer #57 | 10 19 10 | | | | 1 | G | | | |
| Piezometer #58 | 10 19 10 | | | | 1 | G | | | |
| Piezometer #59 | 10 19 10 | | | | 1 | G | | | |
| ~~GP-24-W~~ | | | | | 1 | | | | |
| ~~GP-25-W~~ | | | | | 3 | | | | |
| ~~GP-27-W~~ | | | | | 1 | | | | |
| ~~GP-28-W~~ | | | | | 1 | | | | |
| ~~GP-30-W~~ | | | | | 3 | | | | |

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
- ☒ SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY
Y N

SAMPLES COLLECTED BY: (Please Print)
N Spoe / Fox

SAMPLES RECEIVED IN LAB AT _____ °C

| RELINQUISHED BY (SIG.) (SAMPLER) | DATE/TIME | RECEIVED BY (SIG.) | DATE/TIME |
|---|---|---|---|
| Bob H Spoe | 10 19 10 | B [signature] | 10/19/10 |
| RELINQUISHED BY (SIG.) | DATE/TIME | RECEIVED BY (SIG.) | DATE/TIME |
| RELINQUISHED BY (SIG.) | DATE/TIME | RECEIVED BY (SIG.) | DATE/TIME |

COMMENTS:
GP 24
GP 25 GP 30 ON ANOTHER CHAIN OF CUSTODY
GP 27
GP 28

PLEASE READ Instructions for completing this form 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.

№ 180129

FORM #5