

**2003 ANNUAL  
GROUNDWATER PROTECTION MONITORING REPORT**

**PREPARED FOR:**

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FEBRUARY 18, 2004

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## 1. EXECUTIVE SUMMARY

This report presents data and evaluations associated with the groundwater protection programs for the Clean Harbors (Deer Trail), Inc. facility (Facility) for the January 1 through December 31, 2003 reporting period. This 2003 Fourth Quarter and Annual Groundwater Protection Monitoring Report is being submitted in fulfillment of Permit Condition VII.D.2 of the Facility's Final Modified Permit (revised March 1998).

In 2003, groundwater, leachate, and leak detection samples were collected and analyzed by the on-site Deer Trail laboratory, Cameron-Cole, LLC., Severn Trent Laboratories (STL) of Arvada, Colorado. Samples were analyzed in accordance with the procedures as specified in Part VII of the Permit and Attachment 8, the Groundwater Sampling and Analysis Plan (GWSAP). In addition to leachate and leak detection samples, groundwater samples from 27 monitoring wells were collected and analyzed during 2003.

During 2003, the Level 3 (L3) wells remained dry except for L3-42. Thirty of 61 Level 4 (L4) wells were dry in the first quarter. Thirty-one of the 61 L4 wells were dry in the second quarter. L4 wells that contained water remained relatively constant through the third and fourth quarters with small increases and decreases in water levels in individual wells. No strong trends in water level were identified in the L4 wells.

The L5 wells exhibited a general increase in fluid levels between the third and fourth quarters. The two L6 wells with measurable water showed both increases and decreases between quarters. A review of all fluid level information for the facility indicates that the observed increases and decreases in measured fluid levels are within the range anticipated for this site. The fluid levels represent local hydrogeologic conditions and provide no indication of a release from a regulated unit on site.

The fluid levels in the Cell 1 and Cell 2 LDSs remained relatively constant through the third and fourth quarters with variations within the normal range. Similarly, fluid levels in the LDS and PS systems for both cells remained relatively constant. The fluid level data from all seven sumps does not indicate any hydraulic communication between the LCS (Leachate Collection System) and the LDS or PS.

The number and concentrations of organic analytes detected in Cell 1 and Cell 2 LCS samples are consistent with historical detections of organic compounds in these LCS. Of the 48 organic detections during the 2003 reporting period, 34 detections were reported for the Cell 1 LCS and 14 detections were reported for the Cell 2 LCS

There were no inorganic statistical exceedances for groundwater monitoring well and leachate samples collected during 2003.

Nineteen organic and fourteen inorganic analytes were detected in leachate that are not listed in the Table VII-3 detection monitoring parameter list. These analytes are listed in Section 5.5. It is recommended that the analytes be added to the parameter list in Table VII-3 to fulfill the Permit condition VII.B.8.f.

In summary, the groundwater protection monitoring data from first through fourth quarters 2003 present no indications of a verifiable waste release to groundwater from Facility operations.

## 2. INTRODUCTION

This report presents the results of the Fourth Quarter 2003 and summary of the 2003 Annual Groundwater Protection Monitoring Program for the Clean Harbors (Deer Trail), LLC. hazardous waste treatment, storage, and disposal facility (Facility) located near Deer Trail, Colorado. This report addresses the groundwater protection reporting requirements of the three Facility monitoring programs as described below and in the Facility's current RCRA Part B Hazardous Waste Permit, Part VII.

### 2.1. DESCRIPTION OF MONITORING PROGRAM

The Facility's Groundwater Protection Program is described in Part VII of the Facility's Permit and referenced attachments. The program consists of three monitoring programs:

- Secure Cell and Surface Impoundment Performance Monitoring Program;
- Inspection Well Monitoring Program; and
- Detection Well Monitoring Program.

The Secure Cell Performance Monitoring includes Cell 1 and Cell 2 LCS, LDS and PS sampling. The Surface Impoundment Monitoring consists of the Treatment Building (TRB) LDS sampling.

The Detection and Inspection Monitoring Program wells are located inside, outside, and along the compliance boundary (**Plate 1**). The inspection wells are screened at depths of less than 60 feet below ground surface. The detection and inspection wells are completed in several different shallow geologic levels. From shallowest to deepest, these levels are described in the following sections.

- Level 3 (L3) is defined as the discrete lenticular sand bodies that infrequently occur in the surficial Silty Clay Unit. Monitoring wells are installed at 50-foot intervals along the compliance boundary in those areas where the L3 is present. Water has not been detected in any L3 wells, with the exception of L3-42. The L3 wells are included in the Inspection Monitoring Program.
- Level 4A (L4A) is defined as the interface between the surficial Silty Clay Unit and the underlying weathered Pierre Shale. Monitoring wells are installed at 100-foot intervals in those areas where L4A is (or historically was) saturated. The saturated conditions requiring L4A wells occur only along the northern compliance boundary in the vicinity of a former oil field brine pond. The L4A wells are included in the Inspection Monitoring Program.
- Level 4 (L4) is defined as the interface between the weathered Pierre Shale and the underlying unweathered Pierre Shale. Monitoring wells are installed at 300-foot intervals along the compliance boundary except in those areas where L4 is (or historically was) saturated, where closer spacing (typically 100-foot intervals) is required. The saturated conditions requiring

tighter spacing of the L4 wells occur only along portions of the northern compliance boundary and along the part of western compliance boundary. Several L4 wells are also installed along part of the western compliance boundary adjacent to Cells 1 and 2, and one L4 well (L4-9W) is installed outside the compliance boundary west of Cell 2. The L4 wells are included in the Inspection Monitoring Program.

- Level 5 (L5) represents the uppermost water-bearing unit at the Facility and is defined as the uppermost saturated portion of the unweathered Pierre Shale. Eight L5 monitoring wells, installed along the compliance boundary (**Plate 1**), comprise the Facility's groundwater detection monitoring network. The L5 wells are screened in silty partings that occur at varying depths in the unweathered Pierre Shale. The L5 wells are screened at depths of approximately 250 to 435 feet below ground surface. The L5 wells are included in the Detection Monitoring Program.
- Level 6 (L6) is defined as the first occurrence of saturated conditions in the alluvial drainages outside the compliance boundary. Three L6 wells are located in the vicinity of the Facility. The wells are screened in silt and fine sand units overlying weathered Pierre Shale, and within the weathered Pierre Shale. The L6 wells are included in the Inspection Monitoring Program.

Groundwater quality data from monitoring wells are assembled into well groupings (**Table 1**). The groupings were developed based on a comprehensive evaluation of hydrogeologic and water chemistry data. These groupings were presented in the Supplemental Background Data Evaluation Report, Revision No. 1, which was prepared by McCulley, Frick & Gilman, Inc. (MFG) and submitted to the CDPHE by the Facility on November 15, 1991. The groupings were verified in the 1991, 1992, 1993, 1994, and 1998 Annual Groundwater Monitoring Reports for the Facility prepared by MFG and Cameron-Cole, LLC. Cameron-Cole, LLC. has verified the well groupings annually since 1998. An analysis of the well groupings is further discussed in Section 5.4.

The background groundwater quality database is comprised of monitoring data that have been collected on a quarterly, semi-annual, and/or annual basis at the Facility since 1986. Groundwater quality data collected after the initial acceptance of waste at the Facility (i.e., after the fourth quarter 1991) are added to the background database in accordance with the Permit-specified procedures. The continued incorporation of new data and the re-evaluation, and possible reorganization, of well groupings are especially necessary for the wells that monitor the decaying brine pond seepage plumes (i.e., L4A and L4 wells). The data from wells sampled during 2003 were statistically evaluated with respect to a background database that consists of groundwater data collected through the fourth quarter 2003.

## **2.2. FIELD METHODS**

Prior to collection of groundwater quality samples, monitoring wells were checked for total depth and presence of water. The first quarter and second quarter inspections were performed during the week of March 10, 2003, and the week of June 2, 2003, respectively. Third quarter inspections were performed on

August 7 and 8, 2003, and fourth quarter inspections were performed during the week of November 10, 2003. Fluid level measurements (fourth quarter and historical) for both well and non-well locations are shown as hydrographs in **Appendix A**. Where measurable groundwater was present, water level and total depth measurements were collected from each well (see **Appendix B** for the fourth quarter well inspection logs).

- In addition, non-grouped wells (those wells not appearing on Table 1) were classified for yield during the first quarter event according to permit condition VII.B.6. The yield classification is used to determine which non-grouped wells will be sampled throughout the year. Those wells that do not recover to 90% of the initial water level within 48 hours are classified as dry for the year and are not sampled. Similarly, those wells that do not demonstrate water above the bottom of the screen during the classification are classified as dry and are not sampled. Per the permit, those wells that are already grouped (present in Table 1) are sampled during the second and fourth quarters. All of the non-grouped wells were classified as dry during the first quarter sampling event either due to lack of water above the bottom of the screen or lack of sufficient recovery.

Samples were collected quarterly during 2003 from the Cell 1 and Cell 2 LCS, LDS, and PS, and the TRB LDS. Cell 2 PS was consistently dry during 2003. No groundwater samples were collected from the inspection and detection wells during the first and third quarters 2003. Groundwater samples were collected and analyzed from 26 wells during the second quarter 2003 and 27 wells during the fourth quarter 2003 (**Table 5**).

Deer Trail and Cameron-Cole personnel conducted sampling activities for this fourth quarter 2003 report from October 1 through December 31, 2003. Severn Trent Laboratories (STL) and Deer Trail onsite laboratory performed analyses. One field blank and two trip blanks were submitted during the fourth quarter sampling. Groundwater sampling procedures were performed according to procedures specified in Part VII of the Permit, including Appendices 1 through 9 (Groundwater Sampling and Analysis Plan).

### **2.3. ANALYTICAL METHODS**

STL Denver analyzed the samples using procedures specified in Part VII of the Permit, including the Groundwater Sampling and Analysis Plan. Sample analyses for the fourth quarter 2003 monitoring period are detailed below:

- The Cell 1 LDS, Cell 2 LDS, TRB LDS and Cell 1 PS were analyzed for the detection monitoring parameters listed in Tables VII-3 and VII-4 of the permit. Cell 2 PS was dry during the fourth quarter 2003.
- Detection and Inspection Well Monitoring Program samples were analyzed for the detection monitoring parameters listed in Tables VII-3 and VII-4 of the Permit.
- Cell 1 LCS and Cell 2 LCS were analyzed for the parameters listed in 6 CCR 1007-3, 268.40 for waste code F039.

A summary of the analytical suites for the Cell 1 and Cell 2 LCS, LDS, and PS, TRB LDS, and monitoring wells for the fourth quarter is provided in **Table 5**. Laboratory reports for the fourth quarter 2003 Groundwater Protection Program are included in **Appendix C**. Deer Trail onsite laboratory provided analysis for pH and specific conductance.

### 3. FLUID LEVEL MONITORING RESULTS

The 2003 groundwater elevation data for L3, L4, L4A, L5, and L6 series wells are presented in **Plates 2 through 4**. Third and fourth quarter 2003 fluid level elevation data are summarized in **Table 2**. First and second quarter 2003 fluid level elevation data are summarized in **Table 3**. **Appendix A** contains hydrographs for the wells, Cell 1 and 2 LCS, LDS, and PS, including the 2003 fourth quarter event and historical data (per Permit Condition VII.C.1.b). **Appendix B** includes the well inspection logs and field sampling records.

#### 3.1. FLUID LEVEL ELEVATIONS

Fluid levels were collected as described in the permit. All fluid levels were within the range of historical values and fluctuations are considered normal for this site.

##### L3 Wells

- The L3 wells, which have previously not contained water (except L3-42), remained dry during the 2003 monitoring events. Well L3-42, which has a measured groundwater elevation of 4857.87 feet mean sea level (msl), changed by -0.70 feet from the third quarter level to the fourth quarter level. The water level for well L3-42 has decreased by approximately -0.57 feet per quarterly event during 2003. There were no fluid level exceedances in the L3 wells during the 2003 monitoring period.

##### L4 Wells

- Thirty-one of the 61 L4 wells were dry in first quarter 2003. Of the 30 L4 wells that contained water, 5 exhibited very little change in water level from fourth quarter 2002 (i.e., water level changes ranged from +0.1 feet to -0.1 feet). Ten L4 wells exhibited a water level decrease of greater than 0.1 feet, and 15 L4 well exhibited a water level increase of greater than 0.1 feet from the fourth quarter 2002.
- Thirty of the 61 L4 wells remained dry in second quarter 2003. Of the 31 L4 wells that contained water, 11 exhibited very little change in water level from first quarter 2003 (i.e., water level changes ranged from +0.1 feet to -0.1 feet). Nine L4 wells exhibited a water level decrease of greater than 0.1 feet, and 11 L4 well exhibited a water level increase of greater than 0.1 feet from the first quarter 2003.
- Thirty of the L4 wells remained dry in third quarter 2003. Of the 31 L4 wells that contained water, 10 exhibited very little change in water level from second quarter 2003 (i.e., water level changes ranged from +0.1 feet to -0.1 feet). Fourteen L4 wells exhibited a water level change ranging from + 0.1 feet to -0.1 feet, and six L4 wells exhibited a water level change of greater than +1.0 feet to -1.0 from the second quarter 2003.

- Thirty of the L4 wells were dry in fourth quarter 2003. Of the 30 L4 wells that contained water, five exhibited very little change in water level from the previous quarter (i.e. water level changes ranged from +0.1 feet to -0.1 feet). Four L4 wells exhibited water level decreases of greater than or equal to 0.1 feet, and 21 L4 wells exhibited water level increases of greater than or equal to 0.1 feet from the previous quarter. One well (L4-40), which was previously dry during third quarter 2003, contained fluid below the screen.

#### L5 Wells

- All eight of the L5 wells had measurable fluid levels during first quarter 2003. Two wells (L5-5, L5-9 and L5-10A) exhibited an increase in water level from the fourth quarter 2002. Five wells demonstrated a decrease in water level from the fourth quarter 2002.
- All eight of the L5 wells had measurable fluid levels during second quarter 2003. Seven wells (L5-3, L5-4, L5-5, L5-6, L5-7, L5-8 and L5-9) exhibited an increase in water level from the first quarter 2003. One well (L5-10A) demonstrated a small decrease (0.08 feet) in water level from the first quarter 2003.
- All eight of the L5 wells had measurable fluid levels during third quarter 2003. All eight wells demonstrated a decrease in water level from the second quarter 2003. The decrease in water levels ranged from 0.18 feet to 7.37 feet.
- All eight of the L5 wells had measurable fluid levels during fourth quarter 2003. Seven wells exhibited an increase in water level from the third quarter 2003. One well (L5-9) demonstrated a decrease in water level from the third quarter 2003.

#### L6 Wells

- Well L6-1 remained dry during the first quarter 2003. Compared to the previous quarter, first quarter 2003 water levels in L6-2 and L6-3A decreased 0.02 and 1.51 feet, respectively.
- Well L6-1 remained dry during the second quarter 2003. Well L6-2 did not show a change in water level from the first quarter 2003. Well L6-3A showed an increase in water level of 1.31 feet from the first quarter 2003.
- Well L6-1 remained dry during the third quarter 2003. Compared to the previous quarter, third quarter 2003 water levels in L6-2 and L6-3A decreased 0.06 and 2.60 feet, respectively.
- Well L6-1 remained dry during the fourth quarter 2003. Compared to the previous quarter, fourth quarter 2003 water levels in L6-2 increased 0.06 feet and groundwater in L6-3A decreased 0.86 feet.

#### Secure Cell LCS

- The Cell 1 LCS fluid levels fluctuated slightly during the first quarter 2003, ranging from 0.5 feet to 0.75 feet prior to system pumping. The average fluid levels in Cell 1 LCS were 0.63

feet prior to pumping and 0.35 feet after pumping. Cell 2 LCS fluid levels fluctuated over 3 feet during the first quarter, ranging from 0.67 feet to 4.0 feet prior to system pumping. The average fluid levels in Cell 2 LCS were 0.86 feet prior to pumping. Changes in the fluid levels for the LCS vary with the rate and frequency at which the sumps are pumped, and are not necessarily indicative of changes in the subsurface fluid levels.

- Cell 2 LCS fluid levels fluctuated over 3 feet during the second quarter, ranging from 0.67 feet to 4.8 feet prior to system pumping. The average fluid levels in Cell 2 LCS were 1.37 feet prior to pumping. Changes in the fluid levels for the LCS vary with the rate and frequency at which the sumps are pumped, and are not necessarily indicative of changes in the subsurface fluid levels.
- The Cell 1 LCS fluid levels remained relatively constant during the third quarter 2003, ranging from 0.5 feet to 1.00 feet prior to system pumping. The average fluid levels in Cell 1 LCS were 0.69 feet prior to pumping and 0.21 feet after pumping. Cell 2 LCS fluid levels fluctuated over 2 feet during the third quarter, ranging from 0.58 feet to 2.67 feet prior to system pumping. The average fluid levels in Cell 2 LCS were 1.16 feet prior to pumping and 0.36 feet after pumping. Changes in the fluid levels for the LCS vary with the rate and frequency at which the sumps are pumped, and are not necessarily indicative of changes in the subsurface fluid levels.
- The Cell 1 LCS fluid levels fluctuated 0.33 feet during the fourth quarter 2003, ranging from 0.67 to 1.0 feet prior to system pumping. The average fluid level in Cell 1 LCS was 0.79 feet. Cell 2 LCS fluid levels fluctuated over 1.25 feet during the fourth quarter, ranging from 0.75 feet to 2.0 feet. The average fluid level in Cell 2 LCS was 1.11 feet.

#### Secure Cell LDS

- The Cell 1 LDS fluid levels remained relatively constant during first quarter 2003, ranging from 0.17 feet to 0.5 feet. The average fluid level in Cell 1 LDS was 0.36 feet. The Cell 2 LDS fluid levels ranged from 0.17 to 0.58 feet, with an average of 0.33 feet.
- The Cell 1 LDS fluid levels remained relatively constant during second quarter 2003, ranging from 0.17 feet to 0.67 feet. The average fluid level in Cell 1 LDS was 0.40 feet. The Cell 2 LDS fluid levels ranged from 0.17 to 0.67 feet, with an average of 0.39 feet.
- The Cell 1 LDS fluid levels remained relatively constant during third quarter 2003, ranging from 0.25 feet to 0.67 feet. The average fluid level in Cell 1 LDS was 0.46 feet. The Cell 2 LDS fluid levels ranged from 0.2 to 0.67 feet, with an average of 0.42 feet.
- The Cell 1 LDS fluid levels fluctuated 0.42 feet during fourth quarter 2003, ranging from 0.25 feet to 0.67 feet on multiple dates. The average fluid level in Cell 1 LDS was 0.41 feet. The Cell 2 LDS fluid levels fluctuated 0.42 feet in the fourth quarter. Cell 2 LDS fluid levels ranged from 0.25 feet to 0.67 feet, with an average of 0.46 feet.

### Secure Cell PS

- The Cell 1 and Cell 2 PS fluid levels remained relatively constant during the first, second and third quarters of 2003. The recorded fluid level in the Cell 1 PS and Cell 2 PS was 0.17 feet throughout the third quarter.
- The Cell 1 PS fluid levels remained relatively constant during fourth quarter 2003, measuring 0.17 feet throughout the quarter. The Cell 2 PS fluid levels remained relatively constant during fourth quarter 2003, measuring 0.17 feet throughout the quarter. The average fluid levels in Cell 1 and 2 PS were 0.17 feet.

### Treatment Building LDS

- Only three fluid level readings were taken from the TRB LDS during the first quarter 2003. This issue was previously discussed with CDPHE and was be rectified during the second quarter. The TRB LDS fluid levels were relatively constant for first quarter 2003, ranging from 0.17 feet to 0.5 feet. The average fluid level in the TRB LDS was 0.36 feet.
- The TRB LDS fluid levels were relatively constant for second quarter 2003, ranging from 0.17 feet to 0.58 feet. The average fluid level in the TRB LDS was 0.40 feet.
- The TRB LDS fluid levels were relatively constant for third quarter 2003, ranging from 0.25 feet to 0.67 feet. The average fluid level in the TRB LDS was 0.4 feet.
- The TRB LDS fluid levels fluctuated 0.42 feet during fourth quarter 2003, ranging from 0.16 feet on November 14 to 0.33 feet on multiple dates. The average fluid level in the TRB LDS was 0.24 feet.

The fluid level results for the fourth quarter 2003 indicate that there is no hydraulic communication between the LCS and the LDS. The seven sumps for Cell 1, Cell 2 and the TRB are currently analyzed for fluid level exceedances based on the sump fluid level data. However, the sumps are pumped almost daily as a part of normal Facility operations. Exceedance results from the sumps are not necessarily indicative of physical changes in the landfill cells or TRB. They may represent precipitation events, operational changes, or changes in pumping volumes.

## **3.2. GROUNDWATER FLOW**

An annual evaluation of groundwater flow and direction is included in this report in accordance with the Permit Condition VII.D.2.c. The groundwater elevation data collected during 2003 for the Facility groundwater monitoring wells are presented in **Tables 2 and 3**. Groundwater elevation data collected during the four quarters of 2003 for the L3 wells are shown on **Plate 2**. Groundwater elevation data collected in 2003 for the L4 and L4A wells, and the L5 and L6 wells are shown on **Plates 3 and 4**, respectively.

Groundwater flow and direction are determined by using the measured groundwater elevations, hydraulic conductivities, and geologic features to construct potentiometric surface contours and flow vectors. The L5 wells represent the upper-most water bearing unit for determining the groundwater flow and direction. During fourth quarter 2003, groundwater elevations ranged from 4658.91 feet mean sea level (msl) in well L5-4 to 4699.00 feet msl in well L5-5, a difference of 40.09 feet. The wide range of groundwater elevations may be attributed to the range of screen depths for the wells in the unweathered Pierre Shale. For example, the top of screen for the deepest well, L5-5, is at 4462.9 feet msl; the top of screen for the shallowest well, L5-9, is at 4592.2, and 129.3 feet above the top of the screen in well L5-5. The L5 wells were completed in the same formation and have similar geochemistry based on the box and whisker plots in **Appendix E**. However, the hydraulic connection within L5 may not be consistent. The *Background Soils Characterization Report* (Attachment 27, Exhibit 8 of the NOD Response, issued on April 18, 1985) concluded that the L5 wells are located in “distinct and unconnected zones of relatively short lateral extent” based on historic infiltration, moisture content, water level, and borehole data. This conclusion is supported by the tight, striated nature of the unweathered Pierre Shale. A second geologic report, *Final Report on Three Deep Pierre Shale Wells (Level 5 Wells WW-3, WW-4, and WW-5)* (November 18, 1986) states, “the results of this investigation indicate that there is no single continuous water-bearing zone above a depth of about 400 feet beneath the site.” Although the L5 wells were completed in the same formation and consistently contain water, the deep Pierre Shale may recharge through fractured pathways and function as a confining layer between the Dakota formation and the upper, discontinuous, water-bearing formations in L3, L4, and L4A. No plausible defensible groundwater gradient could be determined for the L5 wells for the above reasons.

The average horizontal permeability of the unweathered Pierre Shale was approximated to be  $2 \times 10^{-7}$  cm/sec during the Background Soils Characterization study. The vertical permeability of the unconsolidated materials above the Pierre Shale was estimated to be about  $1 \times 10^{-7}$  cm/sec. These low hydraulic conductivities indicate that slow velocities could be expected within this formation. These values could be used to estimate a groundwater velocity, if there was confidence that the L5 wells were hydraulically connected. Due to the uncertainty of communication among the L5 wells, the groundwater velocity has not been calculated for the 2003 annual period.

Water levels below the screened intervals are not considered representative of true saturation levels. Water level elevation contour maps (potentiometric surface maps) constructed using these data would result in erroneous flow directions and flow rates.

## **4. DATA VALIDATION AND PROCEDURES**

Cameron-Cole, LLC reviewed the fourth quarter 2003 Deer Trail water quality data prior to incorporation into the background database. The review process included evaluation of both field and laboratory quality assurance and quality control (QA/QC) sample results. Evaluation criteria for the QA/QC review were based on facility Permit requirements, SW-846 Method requirements, EPA data validation guidance, and professional judgment of Cameron-Cole's data validation manager. All samples were submitted to Severn Trent Laboratory (STL) in Arvada, Colorado, for analysis. Results of the fourth quarter sampling are provided in seven separate STL reports.

A data validation checklist was previously prepared and submitted for approval in accordance with Permit Condition VII.C.2. The data validation procedures were developed to evaluate the data in terms of accuracy, precision, and completeness. An evaluation of data variability, possible data outliers, and potential data transfer or transcription errors, was also performed. The sections listed below detail the evaluation procedures and results of the data validation.

Samples collected during the fourth quarter 2003 include groundwater monitoring well samples, leachate collection system samples, and leachate detection monitoring system samples.

### **4.1. SAMPLE HOLDING TIME EVALUATION**

Sample holding time limits stipulate the time allowed between sample collection, sample preparation (if required), and sample analysis, when the specified sample preservation and storage procedures are followed (SW-846). The time interval from sample collection to sample analysis, for each sample and parameter tested, was evaluated to determine if the required holding times were met. All sample analyses for the fourth quarter 2003 sampling event were completed within prescribed holding times, and with proper preservation, with the following exceptions.

Samples Cell1 LDS and L4-8N were both re-extracted and re-analyzed out of prescribed holding times (extraction holding times were exceeded) due to low surrogate recoveries in the initial sample analyses. No action is taken, as the results from the initial analysis for both samples are retained in the final database (sample results are potentially biased low in either case – missed holding times or low surrogate recoveries).

### **4.2. OUTLIER EVALUATION**

The objective of this evaluation was to screen the analytical data for potentially erroneous values prior to incorporation into the background database. Data values identified as outliers were evaluated for possible data entry errors, transcription and transmittal errors, and reporting unit errors.

Outlier tests were performed on an intra-well basis. The most recent data values for each well and constituent were compared to historical results. The distribution of the historical data was determined through tests of normality. If the historical data were found to better fit a log-normal distribution, the data were transformed so the resulting data set fits a normal distribution. In this case, the new data value would also be transformed to perform the outlier tests.

The parametric outlier tests used for this evaluation attempted to accept or reject the hypothesis that the new data value came from the same population (a normal distribution) as the historical data. The new data value was first screened using a box and whisker plot approach. The upper ( $Q_u$ ) and lower ( $Q_l$ ) quartiles (75<sup>th</sup> and 25<sup>th</sup> percentiles, respectively) of the historical data set were calculated. The inner quartile range (IQR) was then calculated as the difference between  $Q_u$  and  $Q_l$ . The inner fences of the box plot were the values 1.5 times the IQR plus  $Q_u$  and  $Q_l$  minus 1.5 times the IQR. If the new data value lies above the upper inner fence or below the lower inner fence, the new data value may be in question and a more rigorous outlier test was required. If the new data value was the most extreme value (either greatest or least) relative to the historical data set, then the recommended approach was one that compared the new values distance away from the mean of the entire data set in standard deviation units to a critical value (ASTM E178-94). If the new data value fell within the range of the historical data set, one of two outlier tests were used. Dixon's test was used when the number of data points is less than 25, otherwise Rosner's test was used. Both test were documented as acceptable measures for detecting outlying observations in environmental data (Gilbert, 1994).

If the outlier test used rejected the assumption that the new data value came from the same distribution as the historical data, the new data value was deemed a potential outlier. Additional graphical analysis of the data may also be performed. Time series plots, "box and whisker" plots, probability plots, and histograms may be used to better assess the data distribution and to confirm the outlier test results.

**Table 6** presents the detected outliers including the location, sample type, date, parameter tested, result, and the test used to determine whether the data was considered an outlier. Of the 35 confirmed outliers from the fourth quarter 2003, one was a result of being the only detection for the given parameter at the sample location. Eighteen were calculated to be outliers as a result of Rosner's test, nine as a result of Dixon's test, six as a result of minimum detections, and one as a result of maximum detections.

Based on review of field and laboratory data, the outliers identified appear to represent the natural variability commonly observed in this system. Therefore, this data will be incorporated into the site database.

### **4.3. FIELD QUALITY ASSURANCE/QUALITY CONTROL DATA**

One trip blank and one equipment rinsate blank (RB-1) were submitted as a QA/QC samples during both the fourth quarter 2003 sampling event. Two sets of field duplicate samples were also collected. Results of the field quality assurance sampling are discussed in detail in the following sections.

#### 4.3.1. Field Duplicate (RPD) Analysis

Two sets of field duplicate samples were collected during the fourth quarter 2003 groundwater monitoring event. Sample DUP-1 was prepared as a field duplicate of primary sample L6-3A and sample DUP-2 was prepared as a field duplicate of primary sample L5-8. Field duplicate precision, as demonstrated by the results of these analyses, is acceptable for all target analytes in both duplicate sets, with the exception of total dissolved solids (TDS). The relative percent difference (RPD) between primary and duplicate TDS results exceeded 40 percent for both sets of duplicate analyses. As a result, the TDS results for the primary and duplicate sample results in both duplicate pairs were qualified as J/Estimated due to poor field duplicate precision.

#### 4.3.2. Trip Blank Analysis

A trip blank is defined as a sample of analyte-free water prepared at the laboratory, shipped to the sampling site, and returned to the laboratory unopened for analysis (USEPA, 1990). The objective of a trip blank sample is to document potential contamination associated with sample shipping procedures, field and laboratory handling procedures, or other contamination associated with organic-free and deionized water provided by the laboratory. Trip blank samples are particularly useful in documenting volatile organic contamination from outside sources.

Two trip blanks were submitted to STL in support of the fourth quarter 2003 sampling event. The trip blanks were analyzed for Tables VII-3 and VII-4 parameters (per Permit GWSAP condition I.D). Results from the trip blank analyses are included in the analytical results tables. TDS was detected in the fourth quarter trip blank (TB-2) at 17 milligrams per liter (mg/L). The trip blank concentration was not high enough to have any impact on associated field samples. No other target analytes were detected in the trip blanks.

#### 4.3.3. Equipment Blank Analysis

One equipment rinseate blank was collected during the fourth quarter 2003 sampling event. No target analytes were detected in the equipment rinsate blank.

### **4.4. LABORATORY QUALITY ASSURANCE/QUALITY CONTROL DATA**

The laboratory QA/QC program included evaluation of results from method blanks, matrix spike samples, laboratory control samples, and surrogate spike samples. Inorganic and organic QA/QC sample results were evaluated using the guidelines specified in SW-846 and in the STL guidelines.

#### 4.4.1. Method Blank Analysis

A method blank is prepared from analyte-free water to which all reagents are added in the same volumes and proportions as used in the sample processing. The method blank must be carried through the complete sample preparation and analytical procedure (USEPA, 1990). The objective of method blank analysis is to determine the existence and magnitude of potential contamination associated with laboratory methodologies for analysis of inorganic and organic parameters. Target analytes should not be detected in method blanks at concentrations above standard laboratory reporting limits.

Method blank analyses were performed by the laboratory in support of each analytical method performed for each sample batch analyzed. No target constituents were detected in any of the method blanks analyzed during the fourth quarter 2003 sampling event, with the following exceptions for STL Report D3K140335 (C1-LCS and C2-LCS).

- Kepone was detected in the Pesticide method blank at 0.17 ug/L. Kepone was also detected in sample C1-LCS at 0.26 ug/L. The Kepone detection in sample C1-LCS was qualified as "U/Non-detect at the concentration reported" due to the method blank contamination (within five times the value reported in the sample).
- Mercury (0.000067 mg/L) was detected in the preparation batch associated with both samples (C1-LCS and C2-LCS). Mercury detections are within five times the blank value, and are qualified as "U/Non-detect at the concentrations reported" for both samples.
- Beryllium (0.0014 mg/L) was detected in the method blank, but not in the associated samples, and no action is required.

#### 4.4.2. Matrix Spike Analysis

A matrix spike (MS) is defined as an aliquot of sample spiked with a known concentration of selected target analytes. MS duplicates are intra-laboratory split samples spiked with identical concentrations of target analytes. The spiking occurs prior to sample preparation and analysis. The purpose of the MS and MSD analyses is to assess the effect of the sample matrices on laboratory accuracy and precision for inorganic and organic parameters. Sample accuracy is assessed by calculating the percent recovery (%R) of a known amount of each analyte that is added or "spiked" to each sample. Spike recoveries are calculated as follows:

$$\% R = \frac{(SSR - SR)}{SA} \times 100 \%$$

Where:        SSR =        spiked sample concentration;  
                  SR =        sample concentration prior to adding the spike; and  
                  SA =        spike added.

Degrees of accuracy for the utilized laboratory instruments are determined according to SW-846 Method requirements and STL guidelines.

The effects of sample matrices on laboratory precision are assessed by comparing the MS and MSD results using the RPD method. The expression for calculating the RPD is as follows:

$$RPD = \frac{|MS - MSD|}{(MS + MSD) / 2} \times 100\%$$

where MS = matrix spike sample value; and  
MSD = matrix spike duplicate value.

If the calculated RPD between any of the MS/MSD compounds is greater than the laboratory prescribed control limit, the analyst will note the possibility of a matrix effect.

Organic analysis MS recoveries are considered advisory, and no validation action is required if the recoveries are outside QC limits. Poor spike recoveries do not necessarily represent an error in the analytical system. It is possible that unavoidable interferences from the sample spiked preclude efficient recoveries. Therefore, the organic MS/MSD data are used in conjunction with other QA/QC data to determine the overall usability of the data. Inorganic analysis MS recoveries are evaluated against EPA stipulated spike recovery control criteria of 75 to 125 percent.

Precision and accuracy, as demonstrated by MS/MSD data reported in support of the fourth quarter 2003 organic analyses, are acceptable, with the following exceptions for samples C1-LCS and C2-LCS from STL report D3K140335.

Selenium (128 and 133 %) and silver spike recoveries (128 and 133 %) are high in association with sample C1-LCS. Silver was not detected and no action is required. Selenium was detected and is subject to high bias and is qualified as J/Estimated at the concentration reported for sample C1-LCS.

Antimony (127 and 129 %), Silver (185 and 186%), and selenium (138 and 139 %) MS and MSD recoveries are high in association with sample C2-LCS. Silver was not detected and no action is required. Selenium and antimony were each detected and are subject to high bias and are qualified as J/Estimated at the concentrations reported for sample C2-LCS.

#### 4.4.3. Laboratory Control Sample Evaluation

A laboratory control sample (LCS) is a known matrix spiked with compounds representative of the target analytes. Laboratory control samples are used for assessing the accuracy of a method (including any preparation steps) in a controlled matrix for inorganic and organic parameters. They are applicable to any analytical method in which the analyte(s) of interest can be fortified into the control matrix. A laboratory

control sample meeting recovery criteria provides evidence that the method, exclusive of sample matrix considerations, is in control. Laboratory control sample duplicate (LCSD) analyses may also be performed to demonstrate method precision in a controlled matrix. For the Deer Trail facility, many LCS/LCSD analyses were performed to demonstrate precision and accuracy in cases where sufficient sample volume was not available to perform project or batch specific MS and MSD analyses.

The referenced analytical method may specify the percent recovery control limits for the fortified target analytes at a given spike level. When limits are not specified or do not apply to the matrix type (e.g. groundwater), internal control limits will be generated. If a statistically significant number of recovery values from historical data do not exist at the time of implementation of the laboratory control sample, the percent recovery windows would generally default to 80% to 120% for inorganic analyses, and 50% to 150% for organic analyses until such time as they can be generated. Laboratory control sample accuracy is assessed by calculating the percent recovery (%R) of a known amount of each analyte that is added or "spiked" to each sample. Spike recoveries are calculated as follows:

$$\%R = (SSR/TV) * 100$$

where           SSR    =       Spiked sample result of the LCS spike  
                  TV     =       True value of the LCS

If LCS recoveries do not meet specified control limits, the associated samples in the batch should be reanalyzed. The corrective action taken is, in part, dependent upon the remaining volume or weight of samples extracted with laboratory control samples.

STL provided LCS and/or LCS/LCSD results for each method performed for each sample batch analyzed. For the fourth quarter 2003 event, precision and accuracy, as demonstrated by these analyses is acceptable, with the following exceptions:

- For STL Report D3K130275 (samples L4-32EA, L4-8N, L4-8, L4-9N, L6-3A, DUP-1, L4-41, L4-32, and L4-32A), LCSD recoveries for the Method 8151 analysis of herbicides were low. Due to potential low bias, all three herbicide analyte results (2,4,5-T, Silvex, and 2,4-D) for these sample are qualified as UJ/Estimated and non-detect at the reporting limits stated.
- For STL Report D3K140335 (Samples C1-LCS and C2-LCS), LCSD recoveries for the Method 8151 analysis of herbicides are all low. Due to potential low bias, herbicide non-detect results for 2,4,5-T and Silvex are qualified as UJ/Estimated and non-detect at the reporting limits stated. 2,4-D results for samples C1-LCS and C2-LCS are qualified as J/Estimated due to potential low bias.

#### 4.4.4. Surrogate Spike Analysis

A surrogate is an organic compound which is similar to method target analytes in chemical composition and behavior in the analytical process, but which is not normally found in groundwater samples. Unlike the matrix spike, which evaluates the effect of the sample matrix upon the analytical methodology, the objective of surrogate spikes is to evaluate the accuracy and performance of the entire analytical process, including sample preparation. For all organic analyses, each field sample, QC sample, and blank is spiked with between one and six surrogate compounds prior to preparatory operations such as purging or extraction. Surrogate recoveries are calculated to evaluate the ability of the analytical procedures to recover the true amount of a known compound. The accuracy of the sample preparation and analytical processes are evaluated by calculating the percent recovery (%R) of each surrogate added (spiked) to the samples as follows:

$$\% R = \frac{QD}{SA} \times 100 \%$$

where:            QD     =     quantity determined by analysis; and  
                     SA     =     quantity added to sample.

Surrogate recoveries reported in support of the organic analyses performed for the fourth quarter 2003 monitoring event were within prescribed control limits, with the following exceptions.

- For STL Report D3K130275 (samples L4-32EA, L4-8N, L4-8, L4-9N, L6-3A, DUP-1, L4-41, L4-32, and L4-32A), the herbicide surrogate recovery for sample L4-8N is low at 24 percent (lower limit = 32 percent). All three herbicide results are biased low and qualified as UJ/Estimated and non detect at the reporting limits stated.
- For STL Report D3K140344 (samples C1-LDS, C2-LDS, TRB-LDS and trip blank), the herbicide surrogate low for sample C1-LDS is low at 28 percent (lower limit = 32 percent). All three herbicide results are biased low and qualified as UJ/Estimated and non detect at the reporting limits stated.
- For STL Report D3K140335 (samples C1-LCS and C2-LCS), no surrogates were recovered for the SVOC analysis of sample C1-LCS. The sample was analyzed at a 10-fold dilution and the surrogates were diluted out – no action is required. The TCMX surrogate for the pesticide analysis of sample C2-LCS is high at 158 percent (upper control limit of 115 percent). No action is taken as the other surrogate is in control, and only one of two is required by the pesticide method. The decachlorobiphenyl surrogate for the Aroclor analysis of sample C2-LCS is low at 33 percent (lower control limit of 37 percent). No action is taken as the other surrogate is in control, and only one of two is required by the Aroclor method. No surrogates were recovered for the Herbicide analysis of samples C1-LCS and C2-LCS. The samples was analyzed at a 1000 and 100 fold dilutions, respectively, to quantitate 2,4-D and the surrogates were diluted out – no action is required.

#### 4.5. DATA USABILITY

All analytical data reported for the fourth quarter 2003 sampling events at the Deer Trail Facility are determined to be quantitative, with the exceptions noted above, and are suitable for use in the background database. No data were rejected based on the QC review, and completeness is considered to be 100 percent. A summary of the QA/QC results, including those discussed above, is presented below:

<b>Statistical Outliers:</b>	See <b>Table 6</b>
<b>Field QA/QC/:</b>	
Field Duplicates	<u>Fourth Quarter 2003</u> – Two sets of field duplicates were collected. Field duplicate precision was acceptable, with the exception of TDS for both sample sets.
RPD Exceedances:	<ul style="list-style-type: none"> <li>• TDS validated as J/estimated for primary and duplicate samples.</li> </ul>
Trip Blank Detections:	<u>Fourth Quarter 2003</u> – Low concentration of TDS. No data affected.
Equipment Blank Detections:	<u>Fourth Quarter 2003</u> – One equipment blank collected. No target analyte detections.
Field Blank Detections:	<u>Fourth Quarter 2003</u> - No field blanks collected.
<b>Laboratory QA/QC:</b>	
Method Blank Detections:	<p><u>Fourth Quarter 2003</u> – Kepone detected in the pesticide method blank at 0.17 ug/L. Kepone was also detected in sample C1-LCS at 0.26 ug/L. The Kepone detection in sample C1-LCS was qualified as “U/Non-detect at the concentration reported”.</p> <p>Mercury (0.000067 mg/L) was detected in the preparation batch associated with both samples (C1-LCS and C2-LCS). Mercury detections are within five times the blank value, and are qualified as “U/Non-detect at the concentrations reported” for both samples.</p> <p>Beryllium (0.0014 mg/L) was detected in the method blank, but not in the associated samples, and no action is required.</p>

<b>Statistical Outliers:</b>	See <b>Table 6</b>
<b>Field QA/QC/:</b>	
Matrix Spike – Precision and accuracy	<p><u>Fourth Quarter 2003</u> – Selenium (128 and 133 %) and silver spike recoveries (128 and 133 %) are high in association with sample C1-LCS. Silver was not detected and no action is required. Selenium was detected and is subject to high bias and is qualified as J/Estimated at the concentration reported for sample C1-LCS.</p> <p>Antimony (127 and 129 %), Silver (185 and 186%), and selenium (138 and 139 %) MS and MSD recoveries are high in association with sample C2-LCS. Silver was not detected and no action is required. Selenium and antimony were each detected and are subject to high bias and are qualified as J/Estimated.</p>
Laboratory Control Sample – Precision and accuracy	<p><u>Fourth Quarter 2003</u> – For samples L4-32EA, L4-8N, L4-8, L4-9N, L6-3A, DUP-1, L4-41, L4-32, and L4-32A), LCSD recoveries for the Method 8151 analysis of herbicides were low. Due to potential low bias, all three herbicide analyte results (2,4,5-T, Silvex, and 2,4-D) for these samples are qualified as UJ/Estimated and non-detect at the reporting limits stated.</p> <ul style="list-style-type: none"> <li>For samples C1-LCS and C2-LCS, LCSD recoveries for the Method 8151 analysis of herbicides are all low. Due to potential low bias, herbicide non-detect results for 2,4,5-T and Silvex are qualified as UJ/Estimated and non-detect at the reporting limits stated. 2,4-D results for samples C1-LCS and C2-LCS are qualified as J/Estimated due to potential low bias.</li> </ul>
Surrogate Spike Recoveries:	<p><u>Fourth Quarter 2003</u> The herbicide surrogate recovery for sample L4-8N is low at 24 percent. All three herbicide results are biased low and qualified as UJ/Estimated and non detect at the reporting limits stated.</p> <ul style="list-style-type: none"> <li>The herbicide surrogate recovery for sample C1-LDS is low at 28 percent (lower limit = 32 percent). All three herbicide results are biased low and qualified as UJ/Estimated and non detect at the reporting limits stated.</li> <li>The TCMX surrogate for the pesticide analysis of sample C2-LCS is high at 158 percent (upper control limit of 115 percent). No action is taken as the other surrogate is in control, and only one of two is required by the pesticide method. The decachlorobiphenyl surrogate for the Aroclor analysis of sample C2-LCS is low at 33 percent (lower control limit of 37 percent). No action is taken as the other surrogate is in control, and only one of two is required by the Aroclor method.</li> </ul>

## 5. GROUNDWATER PROTECTION DATA EVALUATION

Groundwater protection monitoring parameters at the Facility are categorized into two general groups, organic parameters and inorganic/indicator parameters. Tables VII-2, VII-3, and VII-4 of the Permit contain both organic and inorganic parameters as presented below.

- Organic parameters include:
  - volatile organic compounds (VOCs);
  - semivolatile organic compounds (SVOCs);
  - chlorinated herbicides;
  - chlorinated pesticides;
  - organophosphorous pesticides; and
  - polychlorinated biphenyl compounds (PCBs).

Inorganic/indicator parameters include:

- dissolved metals;
- total metals; and
- general chemistry.

The following sections present the results of evaluations of the organic data and the inorganic/indicator and general chemistry data for 2003. All of the wells at the Facility are assigned to one of seven well groups according to Permit Condition VII.C.7.a, except those without four consecutive quarters of data. As described in the 2001 annual report, seven wells (L4-16, L4-32EA, L4-32WA, L4-33EA, L4-33WA, L4-33A, and L4-9) were grouped based on sufficient background data. A discussion of the new well groupings and recommendations for future sampling are included in **Section 5.4**. A list of the seven well groups can be found in **Table 1**. Laboratory analytical reports for the fourth quarter are presented in **Appendix C**. Copies of analytical reports for the first through third quarters can be found in the corresponding quarterly report. The location of the monitoring wells sampled in fourth quarter 2003 can be found on **Plate 1**. Samples collected during the fourth quarter 2003 and their respective analytical suites are listed in **Table 5**.

### 5.1. ORGANIC DATA EVALUATION

This section describes organic detections from the first quarter through the fourth quarter 2003 sampling events. Data are presented in the following tables:

- **Table 7** summarizes the organic parameters detected above laboratory reporting limits during the first through fourth quarters 2003.

- **Table 8** summarizes the inorganic parameters detected above laboratory reporting limits during the first through fourth quarters 2003. There were no inorganic detections above reporting limits during 2003.
- **Table 9** presents the analytical results (including organic results) for unclassified well locations from all four quarters of 2003. All non-grouped wells were classified as dry during the first quarter 2003 and were not sampled during 2004.
- **Tables 10** and **11** summarize the Volatile Organic Compounds results from each well group, LCS and LDS (grouped wells with no data are not represented by a table). **Tables 10** and **11** are for second quarter and fourth quarter results respectively.
- **Table 12** through **23** summarize the Semi-Volatile Organic Compounds results from each group (groups with no data are not represented by a table). **Tables 12** through **17** are for second quarter results and **Tables 18** through **23** are from fourth quarter results.
- **Table 24** through **35** summarize the Pesticide, Herbicide and PCB results from each group (groups with no data are not represented by a table). **Tables 24** through **29** are for second quarter results and **Tables 33** through **35** are from fourth quarter results.

#### 5.1.1. First Quarter 2003 Organic Detections

There were 7 detections of organic analytes above Permit reporting limits in non-well samples collected during first quarter 2003. All of these detections were in the Cell 1 LCS.

As described in **Table 7**, the Cell 1 LCS detections included one herbicide (Silvex, 6.2 ug/L), three SVOCs (bis(2-ethylhexyl)phthalate, 21 ug/L, 2,6-dichlorophenol, 51 ug/L, and 2,4,6-trichlorophenol, 42 ug/L), and three organo-chlorine pesticides (dieldrin, 0.59 ug/L, delta BHC, 0.63 ug/L, and beta-BHC, 1 ug/L). The number and concentrations of organic analytes detected in the Cell 1 LCS samples are generally consistent with historical detections of organic compounds in the LCS samples. No organic compounds were detected in the LDS or PS samples above the reportable detection limits.

#### 5.1.2. Second Quarter 2003 Organic Detections

As presented in **Table 7**, organic analytes were detected above the laboratory reporting limits. Ten of the 16 detections were in the Cell 1 LCS. The Cell 1 LCS detections included one VOC (1,1-dichloroethane at 20 µg/L), three SVOCs, five pesticides and one herbicide (2,4,5-TP at 15 µg/L). Concentrations of SVOCs ranged from 900 µg/L of 2,4-dichlorophenol to 31 µg/L of 2,4,6-trichlorophenol. The pesticide concentrations ranged from 0.49 µg/L beta-BHC to 0.051 µg/L gamma-BHC (lindane).

The remaining six organic detections were all in the Cell 2 LCS samples. Detections in the Cell 2 LCS consisted of two VOCs, one SVOC (2,4-dichlorophenol at 35 µg/L), one pesticide (phorate at 0.4 µg/L) and two herbicides. The two VOCs detected were 1,1-dichloroethane (5.1 µg/L) and tetrachloroethene

(5.7 µg/L). The two herbicides 2,4,5-T (0.22 µg/L) and 2,4,5-TP (0.66 µg/L) were also detected. These organic parameter detections are consistent with the types and levels of organic parameters historically detected in the LCS samples. These organic parameter detections are consistent with the types and levels of organic parameters historically detected in the LCS samples. These detections do not indicate that a release from a regulated unit has occurred.

There were no organic detections in any monitoring wells during 2003.

#### 5.1.3. Third Quarter 2003 Organic Detections

There were 11 detections of organic analytes above Permit reporting limits in non-well samples collected during third quarter 2003. Eight of the 11 detections were in the Cell 1 LCS. Three detections were associated with the Cell 2 LCS.

As described in **Table 7**, the Cell 1 LCS detections included three SVOCs, two VOCs, two pesticides and one herbicide. Concentrations of SVOCs ranged from 160 µg/L of 2,6-dichlorophenol to 35 µg/L of 2,4,6-trichlorophenol. Concentrations of VOCs were 5.6 µg/L of total xylenes and 21 µg/L of 1,1-dichloroethane. The herbicide 2,4-D concentration was 1300 µg/L. Pesticides included Dieldrin (0.083 µg/L), and Delta-BHC (0.19 µg/L). The number and concentrations of organic analytes detected in Cell 1 and Cell 2 LCS samples are generally consistent with historical detections of organic compounds in the LCS samples.

Detections in the Cell 2 LCS consisted of the herbicide 2,4-D (90 µg/L), pesticide Beta-BHC (0.18 µg/L) and the VOC 1,1-dichloroethene (7.3 µg/L). Detections of herbicides and pesticides in the Cell 2 LCS are also consistent with historical detections of organic compounds. No organic compounds were detected in the LDS or PS samples above the reportable detection limits.

#### 5.1.4. Fourth Quarter 2003 Organic Detections

There were 14 detections of organic analytes above Permit reporting limits in non-well samples collected during fourth quarter 2003. Nine of the 14 detections were in the Cell 1 LCS. Five detections were associated with the Cell 2 LCS.

As described in **Table 7**, the Cell 1 LCS detections included four SVOCs, one VOC, three pesticides and one herbicide. Concentrations of SVOCs ranged from 73 µg/L of 2,4,6-trichlorophenol to 1600 µg/L of 2,4,-dichlorophenol. The VOC concentration was 25 µg/L of 1,1-dichloroethane. The herbicide (2,4-D) concentration was 1700 µg/L. Pesticides included alpha-BHC (0.17 µg/L), Beta-BHC (0.70 µg/L) and delta-BHC (0.29 µg/L). The number and concentrations of organic analytes detected in Cell 1 and Cell 2 LCS samples are generally consistent with historical detections of organic compounds in the LCS samples.

Detections in the Cell 2 LCS consisted of the herbicide 2,4-D (340 µg/L), and the VOC 1,4-dichloroethane (18 µg/L), and three SVOCs ranging from from 14 µg/L of 2,4-dichlorophenol to 54 µg/L of 2,6-dichlorophenol. Detections in the Cell 2 LCS are also consistent with historical detections of organic compounds.

No organic compounds were detected in the LDS or PS samples above the reportable detection limits. Trip blanks were submitted for background monitoring and detection monitoring parameters per the Permit GWSAP condition I.D. No organic compounds were detected in the submitted trip blanks indicating that the laboratory methods, laboratory water and sample handling procedures remain accurate.

## 5.2. INORGANIC/INDICATOR DATA EVALUATION

This section summarizes 2003 inorganic detections above the prediction limits. A summary of the inorganic detections above calculated prediction limits is provided in **Table 8**. No inorganic parameters exceeded the prediction limits during 2003. Inorganic data for first through fourth quarters 2003 are presented in the following tables:

- **Table 36** through **47** summarize the Dissolved Metal results from each group (groups with no data are not represented by a table). **Tables 36** through **41** are for second quarter results and **Tables 42** through **47** are from fourth quarter results.
- **Table 48** summarizes the Total Metal results from the second quarter from the LCS group. **Table 49** summarizes Total Metals results from the fourth quarter from the LCS group.
- **Table 50** through **61** summarize the General Chemistry results from each group (groups with no data are not represented by a table). **Tables 50** through **55** are for second quarter results and **Tables 56** through **61** are from fourth quarter results.

## 5.3. STATISTICS

A trend analysis for detection monitoring (inorganic and metal) and general groundwater quality parameters for the annual 2003 reporting period was completed in accordance with Permit Condition VII.C.4.b. Additional analysis and discussion of the statistical evaluations including the trend analysis, C vs. T plots, descriptive statistics, and prediction limits, can be found in **Appendix D**.

**Appendix D-1** presents the trend analysis table for fourth quarter 2003. Trend analyses are used to identify temporal changes in the data sets that may result from natural changes in the composition of the landfill cell fluids and groundwater. These trends are used to determine the suitability of the current indication parameters in evaluating potential releases from the landfill cells. Trend analyses are only performed when ten or more sample points are available for the given parameter and location to obtain statistically significant results. The 2003 trend analysis is consistent with past year analysis.

**Appendix D-2** presents C vs. T tables for well groups and all parameters detected since 1986. Individual sampling locations are listed within each well group on each C vs. T plot.

**Appendices D-3** and **D-4** present the descriptive statistics updated using fourth quarter 2003 data. Descriptive statistics, including the mean, median, maximum value, minimum value, standard deviation, variance, kurtosis, skewness coefficient, standard error and coefficient of variance, are calculated for background, inorganic detection, organic detection, and general water quality parameters for each well (**Appendix D-3**) and for each well-group (**Appendix D-4**). Any variations in the descriptive statistics appear to be associated with normal geochemical variability in groundwater onsite.

**Appendix D-5** presents a list of the 2003 prediction limits by well group and parameter group. Prediction limit calculations for 2003 are based on data obtained in 2003 and are presented in both tabular and graphical formats.

#### **5.4. WELL GROUPING VALIDATION**

As specified in the Permit Condition VII.D.2.c, an annual evaluation of the validity of the well grouping is included in this report. Historically, bivariate plots and discriminant function analyses were used to perform this analysis. However, some of the parameters used in these previous evaluations are no longer required for sample analyses. As a result, an alternative analyses has been used.

A graphical representation of the well grouping validation involved representing selected analytical data using “box plots.” Box plots are a graphical means of assessing data distribution and are useful in exploratory screening of the variability between identified groups of monitoring wells and identifying statistical outliers. The purpose for developing these plots was to identify possible modifications to the current well groups described in Permit Condition VII.C.7.a.

The box plots used in this evaluation are presented in **Appendix E**. The box plots show the relative frequency of the historical concentration values in each well and well grouping over time. Specifically, the middle line in the box indicates the location of the median or the 50<sup>th</sup> percentile of the ordered concentration values. The top and bottom of the box are the 75<sup>th</sup> and 25<sup>th</sup> percentile of the ordered concentration values, respectively. The vertical lines (called “whiskers”) are a measure of the dispersion or spread of the data and reach to two standard deviations on either side of the mean. Values beyond these points are flagged as potential outliers and displayed as points.

The analytical parameters selected for this method of presentation included specific conductance, and three dominant anions and cations (sodium, chloride and sulfate). The specific conductance box plot shows a distinct differentiation between wells in Group 2, and the other wells in Groups 3, 4, 5, and 6. There is also differentiation between Group 3/Group 4 wells and Group 5/Group 6 wells for specific conductance. The sodium box plots show a pattern similar to the specific conductance box plots. Wells in Group 2 are distinctly different from the wells in Groups 3 and 4, and from wells in Groups 5 and 6.

The sulfate box plot shows a distinction between wells in Groups 2, 3, 4, 5, and 6. In the chloride box plot, the most obvious differentiation between wells in Group 5 and wells in Group 6. There is some overlap of the boxes (25<sup>th</sup> to 75<sup>th</sup> percentile) among the Group 2, 3, and 4 wells on the chloride plot, but no overlap with or between the Group 5 and Group 6 wells. Evaluation of the box plots confirm that the well groups as presently defined can be geochemically differentiated.

Only L4-33A (currently classified as a Group 3 well) shows significant overlap into other well groups in more than one box and whisker plot. L4-33A shows some characteristics of Group 2 wells in sulfate concentration and specific conductance. The differentiation between Group 3 and Group 2 is insufficient for chloride to confidently note the proper placement of L4-33A. However, L4-33A shows sodium concentrations that are distinct to Group 3 characteristics. Therefore, L4-33A was kept in Group 3.

These wells have been placed into the assigned groupings in this 2003 Annual Report (**Table 1**). The background monitoring period is considered to be complete. The well groupings will remain the same for the 2004 groundwater monitoring event. Therefore, it is recommended that these wells be sampled for the parameters listed in Tables VII-3 and VII-4 from this point forward in accordance with the detection monitoring program.

## **5.5. ANALYSIS OF DETECTED ANALYTES IN LEACHATE**

As specified in Permit condition VII.B.8.f, the LCS analytical results will be analyzed annually to determine new parameters for addition to the detection monitoring program (Table VII-3). Analysis of LCS samples during 2002 indicated 13 organic compounds, 13 metals and one inorganic compound detected in leachate that were not currently included in Table VII-3. These compounds have not yet been incorporated into Table VII-3. An additional eight (8) organic compounds and two (2) metals were detected in 2003 in the LCS that are not currently included in Table VII-3. No criteria are provided in the Permit as to when an analyte will be added to Table VII-3. In the absence of any criteria, all of the detected analytes (even those with only one unqualified detection) are included. The complete list of organic compounds from 2002 and 2003 is:

- 1,1-Dichloroethane
- 1,1Dichloroethene
- 1,4 Dioxane
- Acetone
- Benzene
- Phorate
- Tetrachloroethene
- Trichloroethene
- Ethylbenzene

- Vinyl chloride
- Methylene chloride
- bis (2-ethylhexyl) phthalate
- Butylbenzylphthalate
- Ethylether
- Kepone
- N-Nitrosodimethylamine
- N-Nitrosomorpholine
- Naphthalene
- Parathione

The inorganic and metal analytes are:

- Cyanide
- Beryllium
- Arsenic
- Barium
- Cadmium
- Nickel
- Selenium
- Chromium
- Lead
- Mercury
- Fluoride
- Vanadium
- Thallium
- Silver

It is recommended in this report that each of these analytes be considered for addition to the Table VII-3 list of parameters to fulfill Permit condition VII.B.8.f.

## **6. CONCLUSIONS AND RECOMMENDATIONS**

### **6.1. CONCLUSIONS**

The following conclusions are based upon fourth quarter 2003 data and analyses as well as the summary evaluation of the 2003 annual data presented in this report. The fourth quarter 2003 data were compared to the previous three quarters in 2003 and historical data for the groundwater monitoring program.

#### **6.1.1. Fluid Levels**

During fourth quarter 2003, fluid levels exhibited by the majority of the shallow site wells (L4 and L6 series wells) were consistent with the observed historical patterns and trends. Water levels fluctuated slightly in the L4 and L5 series wells, with generally increasing water levels, compared to the previous quarter. The L3 series well containing water (L3-42) had water levels that decreased throughout 2003.

The Cell 1 and Cell 2 LCS fluid levels remained relatively constant throughout 2003. No hydraulic communication between the LCS and the LDS or PS was indicated from the observed fluid levels.

#### **6.1.2. Organic Detections**

The number and concentrations of organic analytes detected in Cell 1 and Cell 2 LCS samples are consistent with historical detections of organic compounds in these LCS. Of the 48 organic detections during the 2003 reporting period, 34 detections were reported for the Cell 1 LCS and 14 detections were reported for the Cell 2 LCS

Overall, the groundwater monitoring well, LCS, LDS, and PS organic data from 2003 present no indication of a release from the landfill cells.

#### **6.1.3. Inorganic Detections**

There were no inorganic statistical exceedances for groundwater monitoring well samples collected during 2003. The groundwater monitoring well, LCS, LDS, and PS inorganic data collected during the 2002 reporting period present no indication of a verifiable release from the landfill cells or Facility operations.

#### **6.1.4. General Conclusions**

The transducer system used to measure fluid levels in the LCS, LDS and PS systems was replaced during the third quarter 2002. The pressure transducers were replaced with a bubbling system that measures the pressure head of air introduced into the leachate. This new measurement system has been previously

approved by the CDPHE. Measurements taken during 2003 are generally consistent with previous measurements indicating that the new system is functioning well.

Nineteen organic and fourteen inorganic analytes were detected in leachate that are not listed in the Table VII-3 detection monitoring parameter list. These analytes are listed in Section 5.5. It is recommended that the analytes be added to the parameter list in Table VII-3 to fulfill the Permit condition VII.B.8.f.

Two well designations were changed during the third quarter 2002. Well L3-45 is now designated as L3-46. Well L3-46 is now designated as L3-47. The Class I permit modification associated with these designations has been previously submitted to CDPHE. All of the databases have been updated accordingly.

## **6.2. RECOMMENDATIONS**

Based on results from the 2003 Groundwater Protection Monitoring Report, particularly the fourth quarter data and evaluations, the following are recommendations for the upcoming monitoring period.

- It is recommended that the analytes listed in **Section 5.5** be added to the parameter list in Table VII-3 to fulfill the Permit condition VII.B.8.f.
- Based on equipment blank analysis that showed detectable methanol concentrations, it is recommended that proposed modifications to the Permit submitted in September, 2002 be evaluated with regard to required decontamination techniques.

## 7. REFERENCES

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## TABLES

**TABLE 1**  
**2003 FOURTH QUARTER**  
**WELL GROUPINGS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Group	Location
0	L4-16, L4-31
2	L3-42, L4-32A, L4-32EA, L4-32WA, L4-33E, L4-33EA, L4-33WA, L4-34E, L4-41
3	L4-32, L4-32E, L4-32W, L4-33, L4-33A, L4-33W, L4-34, L4-34W
4	L4-8, L4-8N, L4-9, L4-9N, L4-9S, L4-9W
5	L5-10A, L5-3, L5-4, L5-5, L5-6, L5-7, L5-8, L5-9
6	L6-1, L6-2, L6-3A

**Well groups assigned based on Box and Whisker plots as per permit condition VII.C.7.a. Groups last updated Fourth Quarter 2002. Group 1 reserved.**

**TABLE 2**  
**2003 FOURTH QUARTER**  
**FLUID LEVEL ELEVATIONS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Well Series	Location	Top Of Screen (ft. msl)	Bottom of Screen (ft. msl)	Base Of Sump (ft. msl)	Top Of Casing (ft. msl)	GW Elevation (ft. MSL) Third Qtr 2003	Depth to Water (ft) Third Qtr 2003	GW Elevation (ft. MSL) Fourth Qtr 2003	Depth to Water (ft) Fourth Qtr 2003	Water Level Change (ft)
BP	BP-1	NA	NA	4,847.15	4,876.95	4851.79	25.16	4852.19	24.76	0.40
BP	BP-2	NA	NA	4,833.94	4,872.56	4849.28	23.28	4850.30	22.26	1.02
BP	BP-4	NA	NA	4,839.72	4,879.86	4850.25	29.61	4850.74	29.12	0.49
BP	BP-5	4,870.00	4,860.00	4,860.00	4,879.30	dry	dry	dry	dry	NA
BP	BP-6	4,869.50	4,859.50	4,859.50	4,880.00	dry	dry	dry	dry	NA
BP	BP-7	4,869.20	4,854.20	4,854.20	4,878.50	dry	dry	dry	dry	NA
BP	BP-8	4,867.70	4,857.70	4,857.70	4,878.50	dry	dry	dry	dry	NA
BP	BP-10	4,834.50	4,829.50	4,824.55	4,877.55	4832.11	45.44	4832.03	45.52	-0.08
BP	BP-10A	4,863.90	4,858.90	4,853.90	4,877.40	dry	dry	dry	dry	NA
BP	BP-11	4,839.80	4,834.80	4,829.80	4,879.10	4841.90	37.20	4842.37	36.73	0.47
BP	BP-11A	4,866.10	4,861.10	4,856.15	4,879.15	dry	dry	dry	dry	NA
BP	BP-12	4,840.40	4,835.40	4,830.40	4,880.40	4842.05	38.35	4842.42	37.98	0.37
BP	BP-12A	4,867.50	4,862.50	4,857.50	4,880.30	dry	dry	dry	dry	NA
BP	BP-13	4,833.70	4,828.70	4,823.75	4,876.35	4833.34	43.01	4834.40	41.95	1.06
BP	BP-13A	4,863.70	4,858.70	4,853.70	4,876.70	dry	dry	dry	dry	NA
L3	L3-2	4,876.80	4,871.80	4,866.30	4,892.70	dry	dry	dry	dry	NA
L3	L3-3	4,875.20	4,870.20	4,865.20	4,884.30	dry	dry	dry	dry	NA
L3	L3-6	4,872.30	4,867.30	4,862.30	4,891.30	dry	dry	dry	dry	NA
L3	L3-7	4,867.60	4,862.60	4,857.60	4,894.00	dry	dry	dry	dry	NA
L3	L3-8	4,872.10	4,867.10	4,862.10	4,894.30	dry	dry	dry	dry	NA
L3	L3-9	4,873.40	4,868.40	4,863.40	4,892.50	dry	dry	dry	dry	NA
L3	L3-10	4,876.20	4,871.20	4,866.20	4,892.20	dry	dry	dry	dry	NA
L3	L3-11	4,875.30	4,870.30	4,865.30	4,892.10	dry	dry	dry	dry	NA
L3	L3-12	4,874.90	4,869.90	4,864.90	4,890.40	dry	dry	dry	dry	NA
L3	L3-13	4,874.00	4,869.00	4,864.00	4,889.10	dry	dry	dry	dry	NA
L3	L3-15	4,878.20	4,868.20	4,863.20	4,891.60	dry	dry	dry	dry	NA

NA = Not Available

**TABLE 2**  
**2003 FOURTH QUARTER**  
**FLUID LEVEL ELEVATIONS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Well Series	Location	Top Of Screen (ft. msl)	Bottom of Screen (ft. msl)	Base Of Sump (ft. msl)	Top Of Casing (ft. msl)	GW Elevation (ft. MSL) Third Qtr 2003	Depth to Water (ft) Third Qtr 2003	GW Elevation (ft. MSL) Fourth Qtr 2003	Depth to Water (ft) Fourth Qtr 2003	Water Level Change (ft)
L3	L3-16	4,877.50	4,867.50	4,862.50	4,890.60	dry	dry	dry	dry	NA
L3	L3-17	4,874.00	4,869.00	4,864.00	4,888.10	dry	dry	dry	dry	NA
L3	L3-19	4,843.40	4,838.40	4,833.40	4,868.10	dry	dry	dry	dry	NA
L3	L3-22	4,869.40	4,864.40	4,859.40	4,889.80	dry	dry	dry	dry	NA
L3	L3-24	4,846.40	4,841.40	4,836.52	4,870.22	dry	dry	dry	dry	NA
L3	L3-25	4,871.50	4,866.50	4,861.50	4,892.40	dry	dry	dry	dry	NA
L3	L3-26	4,872.60	4,867.60	4,862.60	4,893.60	dry	dry	dry	dry	NA
L3	L3-27	4,872.70	4,867.70	4,862.70	4,894.10	dry	dry	dry	dry	NA
L3	L3-28	4,871.10	4,866.10	4,861.10	4,894.60	dry	dry	dry	dry	NA
L3	L3-29	4,868.40	4,863.40	4,858.40	4,894.80	dry	dry	dry	dry	NA
L3	L3-30	4,872.70	4,862.70	4,857.70	4,894.60	dry	dry	dry	dry	NA
L3	L3-31	4,871.50	4,861.50	4,856.50	4,895.00	dry	dry	dry	dry	NA
L3	L3-32	4,873.60	4,863.60	4,858.60	4,894.60	dry	dry	dry	dry	NA
L3	L3-33	4,869.30	4,864.30	4,859.30	4,894.80	dry	dry	dry	dry	NA
L3	L3-34	4,873.80	4,863.80	4,858.80	4,894.80	dry	dry	dry	dry	NA
L3	L3-35	4,872.60	4,862.60	4,857.60	4,894.40	dry	dry	dry	dry	NA
L3	L3-36	4,871.10	4,866.10	4,861.10	4,895.20	dry	dry	dry	dry	NA
L3	L3-37	4,874.10	4,864.10	4,859.10	4,895.50	dry	dry	dry	dry	NA
L3	L3-38	4,874.50	4,864.50	4,859.50	4,895.90	dry	dry	dry	dry	NA
L3	L3-39	4,873.30	4,863.30	4,858.30	4,896.30	dry	dry	dry	dry	NA
L3	L3-40	4,872.60	4,862.60	4,857.60	4,896.70	dry	dry	dry	dry	NA
L3	L3-41	4,874.70	4,864.70	4,859.70	4,896.80	dry	dry	dry	dry	NA
L3	L3-42	4,871.10	4,861.10	4,856.10	4,896.70	4858.57	38.13	4857.87	38.83	-0.70
L3	L3-43	4,872.20	4,867.20	4,862.20	4,895.90	dry	dry	dry	dry	NA
L3	L3-47	NA	NA	NA	NA	dry	dry	dry	dry	NA
L3	L3-44	4,874.00	4,869.00	4,864.00	4,895.00	dry	dry	dry	dry	NA

NA = Not Available

**TABLE 2**  
**2003 FOURTH QUARTER**  
**FLUID LEVEL ELEVATIONS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Well Series	Location	Top Of Screen (ft. msl)	Bottom of Screen (ft. msl)	Base Of Sump (ft. msl)	Top Of Casing (ft. msl)	GW Elevation (ft. MSL) Third Qtr 2003	Depth to Water (ft) Third Qtr 2003	GW Elevation (ft. MSL) Fourth Qtr 2003	Depth to Water (ft) Fourth Qtr 2003	Water Level Change (ft)
L3	L3-46	NA	NA	NA	NA	dry	dry	dry	dry	NA
L4	L4-1	4,827.10	4,822.10	4,817.10	4,870.60	dry	dry	dry	dry	NA
L4	L4-2	4,833.30	4,828.30	4,823.30	4,875.20	dry	dry	dry	dry	NA
L4	L4-3	4,841.70	4,836.70	4,831.70	4,881.40	dry	dry	dry	dry	NA
L4	L4-4	4,842.40	4,837.40	4,832.40	4,889.70	4836.62	53.08	4838.52	51.18	1.90
L4	L4-5	4,839.60	4,834.60	4,829.60	4,888.90	dry	dry	dry	dry	NA
L4	L4-6	4,823.80	4,818.80	4,813.80	4,870.80	dry	dry	dry	dry	NA
L4	L4-7A	4,833.00	4,828.00	4,823.00	4,870.50	dry	dry	dry	dry	NA
L4	L4-8	4,833.40	4,828.40	4,823.40	4,873.00	4835.91	37.09	4836.09	36.91	0.18
L4	L4-8N	4,831.30	4,826.30	4,826.30	4,875.10	4836.31	38.79	4836.49	38.61	0.18
L4	L4-9	4,832.30	4,827.30	4,822.30	4,874.30	4832.79	41.51	4833.59	40.71	0.80
L4	L4-9S	4,833.10	4,828.10	4,823.11	4,875.11	4836.74	38.37	4836.95	38.16	0.21
L4	L4-9N	4,833.00	4,828.00	4,823.04	4,874.84	4836.51	38.33	4836.66	38.18	0.15
L4	L4-9W	4,833.10	4,828.10	4,823.19	4,875.09	4840.58	34.51	4837.36	37.73	-3.22
L4	L4-10	4,834.50	4,829.50	4,824.50	4,876.10	4824.77	51.33	4824.89	51.21	0.12
L4	L4-11	4,836.90	4,831.90	4,826.90	4,881.30	dry	dry	dry	dry	NA
L4	L4-12	4,823.60	4,818.60	4,813.60	4,882.40	dry	dry	dry	dry	NA
L4	L4-13	4,836.30	4,831.30	4,826.30	4,892.80	dry	dry	dry	dry	NA
L4	L4-14	4,844.10	4,839.10	4,834.10	4,893.90	dry	dry	dry	dry	NA
L4	L4-16	4,837.90	4,832.90	4,827.90	4,877.00	4835.98	41.02	4836.22	40.78	0.24
L4	L4-17	4,842.40	4,837.40	4,832.40	4,879.50	dry	dry	dry	dry	NA
L4	L4-18	4,844.40	4,839.40	4,834.40	4,884.10	dry	dry	dry	dry	NA
L4	L4-19	4,809.30	4,804.30	4,799.30	4,851.10	dry	dry	dry	dry	NA
L4	L4-20	4,817.60	4,812.60	4,807.60	4,860.30	dry	dry	dry	dry	NA
L4	L4-21	4,814.80	4,809.80	4,804.80	4,853.00	dry	dry	dry	dry	NA
L4	L4-22	4,811.10	4,806.10	4,801.10	4,852.90	dry	dry	dry	dry	NA

NA = Not Available

**TABLE 2**  
**2003 FOURTH QUARTER**  
**FLUID LEVEL ELEVATIONS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Well Series	Location	Top Of Screen (ft. msl)	Bottom of Screen (ft. msl)	Base Of Sump (ft. msl)	Top Of Casing (ft. msl)	GW Elevation (ft. MSL) Third Qtr 2003	Depth to Water (ft) Third Qtr 2003	GW Elevation (ft. MSL) Fourth Qtr 2003	Depth to Water (ft) Fourth Qtr 2003	Water Level Change (ft)
L4	L4-23	4,813.80	4,808.80	4,803.80	4,855.80	dry	dry	dry	dry	NA
L4	L4-24	4,817.60	4,812.60	4,807.60	4,869.60	dry	dry	dry	dry	NA
L4	L4-25	4,834.90	4,829.90	4,824.90	4,883.40	dry	dry	dry	dry	NA
L4	L4-26	4,836.50	4,831.50	4,826.50	4,882.80	4831.76	51.04	4833.57	49.23	1.81
L4	L4-27	4,838.80	4,833.80	4,828.80	4,882.30	4830.64	51.66	4834.08	48.22	3.44
L4	L4-28	4,840.20	4,835.20	4,830.20	4,882.20	4847.27	34.93	4849.43	32.77	2.16
L4	L4-29	4,838.30	4,833.30	4,828.30	4,877.70	4835.49	42.21	4835.98	41.72	0.49
L4	L4-30	4,835.20	4,830.20	4,825.20	4,872.10	4829.54	42.56	4830.06	42.04	0.52
L4	L4-31	4,835.30	4,830.30	4,825.30	4,872.50	4862.02	10.48	4857.33	15.17	-4.69
L4	L4-32	4,836.90	4,831.90	4,826.90	4,874.80	4854.38	20.42	4855.01	19.79	0.63
L4	L4-32A	4,861.80	4,856.80	4,851.80	4,875.50	4861.55	13.95	4861.19	14.31	-0.36
L4	L4-32E	4,838.40	4,833.40	4,828.40	4,876.40	4849.81	26.59	4851.06	25.34	1.25
L4	L4-32EA	4,863.40	4,858.40	4,853.40	4,876.30	4859.91	16.39	4859.81	16.49	-0.10
L4	L4-32W	4,837.60	4,832.60	4,827.60	4,874.60	4855.31	19.29	4856.72	17.88	1.41
L4	L4-32WA	4,862.70	4,857.70	4,852.70	4,874.40	4862.08	12.32	4861.76	12.64	-0.32
L4	L4-33	4,840.00	4,835.00	4,830.00	4,878.40	4852.76	25.64	4853.33	25.07	0.57
L4	L4-33A	4,864.70	4,859.70	4,854.70	4,878.70	4854.95	23.75	4855.04	23.66	0.09
L4	L4-33E	4,838.20	4,833.20	4,828.20	4,878.90	dry	dry	dry	dry	NA
L4	L4-33EA	4,866.10	4,861.10	4,856.10	4,879.10	dry	dry	dry	dry	NA
L4	L4-33W	4,839.30	4,834.30	4,829.35	4,876.95	4846.77	30.18	4847.60	29.35	0.83
L4	L4-33WA	4,864.00	4,859.00	4,854.00	4,876.80	4854.39	22.41	4854.45	22.35	0.06
L4	L4-34	4,835.40	4,830.40	4,825.40	4,880.80	dry	dry	dry	dry	NA
L4	L4-34W	4,840.60	4,835.60	4,830.60	4,880.90	4835.56	45.34	4836.51	44.39	0.95
L4	L4-34E	4,840.40	4,835.40	4,830.40	4,882.50	dry	dry	dry	dry	NA
L4	L4-35	4,836.80	4,831.80	4,826.80	4,884.50	dry	dry	dry	dry	NA
L4	L4-36	4,840.90	4,835.90	4,830.90	4,891.30	dry	dry	dry	dry	NA

NA = Not Available

**TABLE 2**  
**2003 FOURTH QUARTER**  
**FLUID LEVEL ELEVATIONS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Well Series	Location	Top Of Screen (ft. msl)	Bottom of Screen (ft. msl)	Base Of Sump (ft. msl)	Top Of Casing (ft. msl)	GW Elevation (ft. MSL) Third Qtr 2003	Depth to Water (ft) Third Qtr 2003	GW Elevation (ft. MSL) Fourth Qtr 2003	Depth to Water (ft) Fourth Qtr 2003	Water Level Change (ft)
L4	L4-37	4,846.40	4,841.40	4,836.40	4,896.20	dry	dry	dry	dry	NA
L4	L4-38	4,845.40	4,840.40	4,835.40	4,895.30	dry	dry	dry	dry	NA
L4	L4-39	4,829.30	4,824.30	4,818.80	4,872.40	dry	dry	dry	dry	NA
L4	L4-40	4,827.50	4,822.50	4,817.00	4,874.30	dry	dry	4817.05	57.25	NA
L4	L4-41	4,843.50	4,833.50	4,833.28	4,875.38	4858.68	16.70	4860.30	15.08	1.62
L4	L4-42	4,835.20	4,830.20	4,830.04	4,874.04	4837.99	36.05	4839.20	34.84	1.21
L4	L4-43	NA	NA	NA	NA	NA	53.43	NA	53.36	0.07
L4	L4-44	NA	NA	NA	NA	dry	dry	dry	dry	NA
L4	L4-45	NA	NA	NA	NA	NA	67.64	NA	67.58	0.06
L4	L4-46	NA	NA	NA	NA	dry	dry	dry	dry	NA
L5	L5-3	4,599.50	4,580.00	4,579.50	4,876.30	4668.21	208.09	4671.86	204.44	3.65
L5	L5-4	4,585.40	4,565.90	4,565.40	4,884.70	4652.30	232.40	4658.91	225.79	6.61
L5	L5-5	4,462.90	4,438.40	4,417.90	4,857.60	4698.00	159.60	4699.00	158.60	1.00
L5	L5-6	4,606.20	4,586.70	4,586.20	4,860.60	4647.96	212.64	4652.55	208.05	4.59
L5	L5-7	4,572.80	4,553.30	4,552.80	4,891.70	4677.88	213.82	4680.47	211.23	2.59
L5	L5-8	4,606.30	4,583.80	4,583.30	4,870.40	4674.50	195.90	4679.85	190.55	5.35
L5	L5-9	4,592.20	4,572.70	4,572.20	4,874.40	4662.37	212.03	4661.08	213.32	-1.29
L5	L5-10A	4,528.40	4,508.90	4,508.40	4,895.20	4679.31	215.89	4679.51	215.69	0.20
L6	L6-1	4,837.60	4,827.60	4,822.80	4,849.80	dry	dry	dry	dry	NA
L6	L6-2	4,742.00	4,732.00	4,727.20	4,784.50	4730.34	54.16	4730.40	54.10	0.06
L6	L6-3A	4,801.80	4,791.80	4,787.00	4,827.40	4803.41	23.99	4802.55	24.85	-0.86

NA = Not Available

**TABLE 3**  
**2003 SECOND QUARTER**  
**FLUID LEVEL ELEVATIONS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Well Series	Location	Top Of Screen (ft. msl)	Bottom of Screen (ft. msl)	Base Of Sump (ft. msl)	Top Of Casing (ft. msl)	GW Elevation (ft. MSL) First Qtr 2003	Depth to Water (ft) First Qtr 2003	GW Elevation (ft. MSL) Second Qtr 2003	Depth to Water (ft) Second Qtr 2003	Water Level Change (ft)
BP	BP-1	NA	NA	4,847.15	4,876.95	4852.08	24.87	4851.93	25.02	-0.15
BP	BP-2	NA	NA	4,833.94	4,872.56	4848.76	23.80	4849.58	22.98	0.82
BP	BP-4	NA	NA	4,839.72	4,879.86	4850.11	29.75	4850.14	29.72	0.03
BP	BP-5	4,870.00	4,860.00	4,860.00	4,879.30	dry	dry	dry	dry	NA
BP	BP-6	4,869.50	4,859.50	4,859.50	4,880.00	dry	dry	dry	dry	NA
BP	BP-7	4,869.20	4,854.20	4,854.20	4,878.50	dry	dry	dry	dry	NA
BP	BP-8	4,867.70	4,857.70	4,857.70	4,878.50	dry	dry	dry	dry	NA
BP	BP-10	4,834.50	4,829.50	4,824.55	4,877.55	4832.05	45.50	4832.07	45.48	0.02
BP	BP-10A	4,863.90	4,858.90	4,853.90	4,877.40	dry	dry	dry	dry	NA
BP	BP-11	4,839.80	4,834.80	4,829.80	4,879.10	4841.37	37.73	4841.76	37.34	0.39
BP	BP-11A	4,866.10	4,861.10	4,856.15	4,879.15	dry	dry	dry	dry	NA
BP	BP-12	4,840.40	4,835.40	4,830.40	4,880.40	4841.49	38.91	4841.92	38.48	0.43
BP	BP-12A	4,867.50	4,862.50	4,857.50	4,880.30	dry	dry	dry	dry	NA
BP	BP-13	4,833.70	4,828.70	4,823.75	4,876.35	4831.94	44.41	4832.75	43.60	0.81
BP	BP-13A	4,863.70	4,858.70	4,853.70	4,876.70	dry	dry	dry	dry	NA
L3	L3-2	4,876.80	4,871.80	4,866.30	4,892.70	dry	dry	dry	dry	NA
L3	L3-3	4,875.20	4,870.20	4,865.20	4,884.30	dry	dry	dry	dry	NA
L3	L3-6	4,872.30	4,867.30	4,862.30	4,891.30	dry	dry	dry	dry	NA
L3	L3-7	4,867.60	4,862.60	4,857.60	4,894.00	dry	dry	dry	dry	NA
L3	L3-8	4,872.10	4,867.10	4,862.10	4,894.30	dry	dry	dry	dry	NA
L3	L3-9	4,873.40	4,868.40	4,863.40	4,892.50	dry	dry	dry	dry	NA
L3	L3-10	4,876.20	4,871.20	4,866.20	4,892.20	dry	dry	dry	dry	NA
L3	L3-11	4,875.30	4,870.30	4,865.30	4,892.10	dry	dry	dry	dry	NA
L3	L3-12	4,874.90	4,869.90	4,864.90	4,890.40	dry	dry	dry	dry	NA
L3	L3-13	4,874.00	4,869.00	4,864.00	4,889.10	dry	dry	dry	dry	NA
L3	L3-15	4,878.20	4,868.20	4,863.20	4,891.60	dry	dry	dry	dry	NA

NA = Not Available

**TABLE 3**  
**2003 SECOND QUARTER**  
**FLUID LEVEL ELEVATIONS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Well Series	Location	Top Of Screen (ft. msl)	Bottom of Screen (ft. msl)	Base Of Sump (ft. msl)	Top Of Casing (ft. msl)	GW Elevation (ft. MSL) First Qtr 2003	Depth to Water (ft) First Qtr 2003	GW Elevation (ft. MSL) Second Qtr 2003	Depth to Water (ft) Second Qtr 2003	Water Level Change (ft)
L3	L3-16	4,877.50	4,867.50	4,862.50	4,890.60	dry	dry	dry	dry	NA
L3	L3-17	4,874.00	4,869.00	4,864.00	4,888.10	dry	dry	dry	dry	NA
L3	L3-19	4,843.40	4,838.40	4,833.40	4,868.10	dry	dry	dry	dry	NA
L3	L3-22	4,869.40	4,864.40	4,859.40	4,889.80	dry	dry	dry	dry	NA
L3	L3-24	4,846.40	4,841.40	4,836.52	4,870.22	dry	dry	dry	dry	NA
L3	L3-25	4,871.50	4,866.50	4,861.50	4,892.40	dry	dry	dry	dry	NA
L3	L3-26	4,872.60	4,867.60	4,862.60	4,893.60	dry	dry	dry	dry	NA
L3	L3-27	4,872.70	4,867.70	4,862.70	4,894.10	dry	dry	dry	dry	NA
L3	L3-28	4,871.10	4,866.10	4,861.10	4,894.60	dry	dry	dry	dry	NA
L3	L3-29	4,868.40	4,863.40	4,858.40	4,894.80	dry	dry	dry	dry	NA
L3	L3-30	4,872.70	4,862.70	4,857.70	4,894.60	dry	dry	dry	dry	NA
L3	L3-31	4,871.50	4,861.50	4,856.50	4,895.00	dry	dry	dry	dry	NA
L3	L3-32	4,873.60	4,863.60	4,858.60	4,894.60	dry	dry	dry	dry	NA
L3	L3-33	4,869.30	4,864.30	4,859.30	4,894.80	dry	dry	dry	dry	NA
L3	L3-34	4,873.80	4,863.80	4,858.80	4,894.80	dry	dry	dry	dry	NA
L3	L3-35	4,872.60	4,862.60	4,857.60	4,894.40	dry	dry	dry	dry	NA
L3	L3-36	4,871.10	4,866.10	4,861.10	4,895.20	dry	dry	dry	dry	NA
L3	L3-37	4,874.10	4,864.10	4,859.10	4,895.50	dry	dry	dry	dry	NA
L3	L3-38	4,874.50	4,864.50	4,859.50	4,895.90	dry	dry	dry	dry	NA
L3	L3-39	4,873.30	4,863.30	4,858.30	4,896.30	dry	dry	dry	dry	NA
L3	L3-40	4,872.60	4,862.60	4,857.60	4,896.70	dry	dry	dry	dry	NA
L3	L3-41	4,874.70	4,864.70	4,859.70	4,896.80	dry	dry	dry	dry	NA
L3	L3-42	4,871.10	4,861.10	4,856.10	4,896.70	4859.59	37.11	4859.12	37.58	-0.47
L3	L3-43	4,872.20	4,867.20	4,862.20	4,895.90	dry	dry	dry	dry	NA
L3	L3-47	NA	NA	NA	NA	dry	dry	dry	dry	NA
L3	L3-44	4,874.00	4,869.00	4,864.00	4,895.00	dry	dry	dry	dry	NA

NA = Not Available

**TABLE 3**  
**2003 SECOND QUARTER**  
**FLUID LEVEL ELEVATIONS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Well Series	Location	Top Of Screen (ft. msl)	Bottom of Screen (ft. msl)	Base Of Sump (ft. msl)	Top Of Casing (ft. msl)	GW Elevation (ft. MSL) First Qtr 2003	Depth to Water (ft) First Qtr 2003	GW Elevation (ft. MSL) Second Qtr 2003	Depth to Water (ft) Second Qtr 2003	Water Level Change (ft)
L3	L3-46	NA	NA	NA	NA	dry	dry	dry	dry	NA
L4	L4-1	4,827.10	4,822.10	4,817.10	4,870.60	dry	dry	dry	dry	NA
L4	L4-2	4,833.30	4,828.30	4,823.30	4,875.20	dry	dry	dry	dry	NA
L4	L4-3	4,841.70	4,836.70	4,831.70	4,881.40	dry	dry	dry	dry	NA
L4	L4-4	4,842.40	4,837.40	4,832.40	4,889.70	4836.46	53.24	4836.30	53.40	-0.16
L4	L4-5	4,839.60	4,834.60	4,829.60	4,888.90	dry	dry	dry	dry	NA
L4	L4-6	4,823.80	4,818.80	4,813.80	4,870.80	dry	dry	dry	dry	NA
L4	L4-7A	4,833.00	4,828.00	4,823.00	4,870.50	dry	dry	dry	dry	NA
L4	L4-8	4,833.40	4,828.40	4,823.40	4,873.00	4836.00	37.00	4836.00	37.00	0.00
L4	L4-8N	4,831.30	4,826.30	4,826.30	4,875.10	4836.42	38.68	4836.36	38.74	-0.06
L4	L4-9	4,832.30	4,827.30	4,822.30	4,874.30	4833.66	40.64	4833.29	41.01	-0.37
L4	L4-9S	4,833.10	4,828.10	4,823.11	4,875.11	4836.85	38.26	4836.79	38.32	-0.06
L4	L4-9N	4,833.00	4,828.00	4,823.04	4,874.84	4835.56	39.28	4836.54	38.30	0.98
L4	L4-9W	4,833.10	4,828.10	4,823.19	4,875.09	4837.31	37.78	4837.20	37.89	-0.11
L4	L4-10	4,834.50	4,829.50	4,824.50	4,876.10	4824.73	51.37	4824.76	51.34	0.03
L4	L4-11	4,836.90	4,831.90	4,826.90	4,881.30	dry	dry	dry	dry	NA
L4	L4-12	4,823.60	4,818.60	4,813.60	4,882.40	dry	dry	dry	dry	NA
L4	L4-13	4,836.30	4,831.30	4,826.30	4,892.80	dry	dry	dry	dry	NA
L4	L4-14	4,844.10	4,839.10	4,834.10	4,893.90	dry	dry	dry	dry	NA
L4	L4-16	4,837.90	4,832.90	4,827.90	4,877.00	4836.06	40.94	4835.99	41.01	-0.07
L4	L4-17	4,842.40	4,837.40	4,832.40	4,879.50	dry	dry	dry	dry	NA
L4	L4-18	4,844.40	4,839.40	4,834.40	4,884.10	dry	dry	dry	dry	NA
L4	L4-19	4,809.30	4,804.30	4,799.30	4,851.10	dry	dry	dry	dry	NA
L4	L4-20	4,817.60	4,812.60	4,807.60	4,860.30	dry	dry	dry	dry	NA
L4	L4-21	4,814.80	4,809.80	4,804.80	4,853.00	dry	dry	dry	dry	NA
L4	L4-22	4,811.10	4,806.10	4,801.10	4,852.90	dry	dry	dry	dry	NA

NA = Not Available

**TABLE 3**  
**2003 SECOND QUARTER**  
**FLUID LEVEL ELEVATIONS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Well Series	Location	Top Of Screen (ft. msl)	Bottom of Screen (ft. msl)	Base Of Sump (ft. msl)	Top Of Casing (ft. msl)	GW Elevation (ft. MSL) First Qtr 2003	Depth to Water (ft) First Qtr 2003	GW Elevation (ft. MSL) Second Qtr 2003	Depth to Water (ft) Second Qtr 2003	Water Level Change (ft)
L4	L4-23	4,813.80	4,808.80	4,803.80	4,855.80	dry	dry	dry	dry	NA
L4	L4-24	4,817.60	4,812.60	4,807.60	4,869.60	dry	dry	dry	dry	NA
L4	L4-25	4,834.90	4,829.90	4,824.90	4,883.40	dry	dry	dry	dry	NA
L4	L4-26	4,836.50	4,831.50	4,826.50	4,882.80	4829.60	53.20	4830.62	52.18	1.02
L4	L4-27	4,838.80	4,833.80	4,828.80	4,882.30	dry	dry	4829.20	53.10	NA
L4	L4-28	4,840.20	4,835.20	4,830.20	4,882.20	4843.42	38.78	4845.28	36.92	1.86
L4	L4-29	4,838.30	4,833.30	4,828.30	4,877.70	4835.82	41.88	4835.90	41.80	0.08
L4	L4-30	4,835.20	4,830.20	4,825.20	4,872.10	4830.17	41.93	4830.26	41.84	0.09
L4	L4-31	4,835.30	4,830.30	4,825.30	4,872.50	4855.03	17.47	4853.62	18.88	-1.41
L4	L4-32	4,836.90	4,831.90	4,826.90	4,874.80	4854.40	20.40	4854.06	20.74	-0.34
L4	L4-32A	4,861.80	4,856.80	4,851.80	4,875.50	4860.81	14.69	4861.82	13.68	1.01
L4	L4-32E	4,838.40	4,833.40	4,828.40	4,876.40	4850.12	26.28	4849.92	26.48	-0.20
L4	L4-32EA	4,863.40	4,858.40	4,853.40	4,876.30	4859.15	17.15	4859.78	16.52	0.63
L4	L4-32W	4,837.60	4,832.60	4,827.60	4,874.60	4854.39	20.21	4854.68	19.92	0.29
L4	L4-32WA	4,862.70	4,857.70	4,852.70	4,874.40	4861.33	13.07	4862.44	11.96	1.11
L4	L4-33	4,840.00	4,835.00	4,830.00	4,878.40	4852.37	26.03	4852.62	25.78	0.25
L4	L4-33A	4,864.70	4,859.70	4,854.70	4,878.70	4855.09	23.61	4854.08	24.62	-1.01
L4	L4-33E	4,838.20	4,833.20	4,828.20	4,878.90	dry	dry	dry	dry	NA
L4	L4-33EA	4,866.10	4,861.10	4,856.10	4,879.10	dry	dry	dry	dry	NA
L4	L4-33W	4,839.30	4,834.30	4,829.35	4,876.95	4847.32	29.63	4847.11	29.84	-0.21
L4	L4-33WA	4,864.00	4,859.00	4,854.00	4,876.80	4854.38	22.42	4854.42	22.38	0.04
L4	L4-34	4,835.40	4,830.40	4,825.40	4,880.80	dry	dry	dry	dry	NA
L4	L4-34W	4,840.60	4,835.60	4,830.60	4,880.90	4836.11	44.79	4835.92	44.98	-0.19
L4	L4-34E	4,840.40	4,835.40	4,830.40	4,882.50	dry	dry	dry	dry	NA
L4	L4-35	4,836.80	4,831.80	4,826.80	4,884.50	dry	dry	dry	dry	NA
L4	L4-36	4,840.90	4,835.90	4,830.90	4,891.30	dry	dry	dry	dry	NA

NA = Not Available

**TABLE 3**  
**2003 SECOND QUARTER**  
**FLUID LEVEL ELEVATIONS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Well Series	Location	Top Of Screen (ft. msl)	Bottom of Screen (ft. msl)	Base Of Sump (ft. msl)	Top Of Casing (ft. msl)	GW Elevation (ft. MSL) First Qtr 2003	Depth to Water (ft) First Qtr 2003	GW Elevation (ft. MSL) Second Qtr 2003	Depth to Water (ft) Second Qtr 2003	Water Level Change (ft)
L4	L4-37	4,846.40	4,841.40	4,836.40	4,896.20	dry	dry	dry	dry	NA
L4	L4-38	4,845.40	4,840.40	4,835.40	4,895.30	dry	dry	dry	dry	NA
L4	L4-39	4,829.30	4,824.30	4,818.80	4,872.40	dry	dry	dry	dry	NA
L4	L4-40	4,827.50	4,822.50	4,817.00	4,874.30	4817.04	57.26	4816.99	57.31	-0.05
L4	L4-41	4,843.50	4,833.50	4,833.28	4,875.38	4859.48	15.90	4859.96	15.42	0.48
L4	L4-42	4,835.20	4,830.20	4,830.04	4,874.04	4837.75	36.29	4838.04	36.00	0.29
L4	L4-43	NA	NA	NA	NA	NA	53.34	NA	53.38	-0.04
L4	L4-44	NA	NA	NA	NA	dry	dry	dry	dry	NA
L4	L4-45	NA	NA	NA	NA	NA	67.60	NA	67.65	-0.05
L4	L4-46	NA	NA	NA	NA	dry	dry	dry	dry	NA
L5	L5-3	4,599.50	4,580.00	4,579.50	4,876.30	4670.20	206.10	4672.14	204.16	1.94
L5	L5-4	4,585.40	4,565.90	4,565.40	4,884.70	4656.32	228.38	4658.98	225.72	2.66
L5	L5-5	4,462.90	4,438.40	4,417.90	4,857.60	4698.57	159.03	4698.98	158.62	0.41
L5	L5-6	4,606.20	4,586.70	4,586.20	4,860.60	4650.46	210.14	4652.97	207.63	2.51
L5	L5-7	4,572.80	4,553.30	4,552.80	4,891.70	4680.11	211.59	4680.70	211.00	0.59
L5	L5-8	4,606.30	4,583.80	4,583.30	4,870.40	4679.96	190.44	4681.87	188.53	1.91
L5	L5-9	4,592.20	4,572.70	4,572.20	4,874.40	4655.04	219.36	4662.55	211.85	7.51
L5	L5-10A	4,528.40	4,508.90	4,508.40	4,895.20	4679.80	215.40	4679.72	215.48	-0.08
L6	L6-1	4,837.60	4,827.60	4,822.80	4,849.80	dry	dry	dry	dry	NA
L6	L6-2	4,742.00	4,732.00	4,727.20	4,784.50	4730.40	54.10	4730.40	54.10	0.00
L6	L6-3A	4,801.80	4,791.80	4,787.00	4,827.40	4804.70	22.70	4806.01	21.39	1.31

NA = Not Available

**TABLE 4**  
**2003 FLUID LEVEL EXCEEDANCES BY QUARTER**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Location	Date	Mean	Std	Exceedance	Water Level
<b>First Quarter 2003</b>					
BP-11	3/10/03	4840.1724	0.5439	4841.2603	4841.3701
L4-28	3/10/03	4835.5693	1.8531	4839.2754	4843.4204
L4-31	3/12/03	4852.4502	1.0103	4854.4707	4855.0298
L4-34W	3/10/03	4835.5322	0.2153	4835.9629	4836.1099
L4-42	3/10/03	4833.7275	0.5979	4834.9233	4837.75
<b>Second Quarter 2003</b>					
BP-11	6/2/03	4840.4351	0.5527	4841.5405	4841.7603
L4-28	6/2/03	4836.709	3.2443	4843.1978	4845.2803
L4-42	6/2/03	4834.2251	1.5446	4837.3145	4838.04
L5-9	6/2/03	4650.0601	4.2362	4658.5327	4662.5498
<b>Third Quarter 2003</b>					
L4-28	8/8/03	4837.9429	4.3635	4846.6699	4847.27
L4-31	8/8/03	4853.29	0.8411	4854.9722	4862.02
L4-9W	8/8/03	4837.1187	0.1611	4837.4409	4840.5801
<b>Fourth Quarter 2003</b>					
BP-1	11/10/03	4851.9253	0.0888	4852.103	4852.1904
BP-11	11/10/03	4840.9702	0.6102	4842.1909	4842.3701
BP-2	11/10/03	4849.3726	0.2902	4849.9531	4850.3003
BP-4	11/10/03	4850.1187	0.1504	4850.4194	4850.7397
L4-16	11/10/03	4835.9312	0.1236	4836.1782	4836.2202
L4-32	11/10/03	4854.3159	0.1127	4854.5415	4855.0098
L4-32E	11/10/03	4849.981	0.1029	4850.187	4851.0601
L4-33W	11/10/03	4847.0039	0.1841	4847.3721	4847.6001
L4-34W	11/10/03	4835.6958	0.2826	4836.2612	4836.5098
L4-41	11/10/03	4859.5112	0.381	4860.2734	4860.2998
L4-9S	11/10/03	4836.7197	0.1044	4836.9287	4836.9497

**TABLE 5  
2003 FOURTH QUARTER MONITORING ANALYTICAL SUMMARY  
CLEAN HARBORS (DEER TRAIL), INC.**

Location	Event	Alkalinity (1)	Chloride (3)	Dioxins- Furans (4)	Metals (5)	Fluoride (6)	Herbicide s (7)	Mercury (8)	Methanol (9)	Nitrate- Nitrite (10)	Organo- chlorine Pesticides (11)	Organo- phosphate Pesticides (12)	PCBs (13)	Semi-Volatile Organic Compounds (14)	Sulfate (15)	Sulfide (16)	Total Cyanide (17)	Total Dissolved Solids (18)	Total Organic Carbon (19)	Volatile Organic Compounds (21)
Cell1-LCS	Fourth Qtr 03			X	X	X	X	X	X		X	X	X	X		X	X	X	X	X
Cell1-LDS	Fourth Qtr 03	X	X		X		X			X	X			X	X			X	X	X
Cell1-PS	Fourth Qtr 03	X	X		X		X			X	X			X	X			X	X	
Cell2-LCS	Fourth Qtr 03			X	X	X	X	X	X		X	X	X	X		X	X			X
Cell2-LDS	Fourth Qtr 03	X	X		X		X			X	X			X	X			X	X	X
FILTRATION EQUIP. BL	Fourth Qtr 03				X															
L4-16	Fourth Qtr 03	X	X		X		X			X	X			X	X			X	X	
L4-31	Fourth Qtr 03	X	X		X		X			X	X			X	X			X	X	
L4-32	Fourth Qtr 03	X	X		X		X			X	X			X	X			X	X	
L4-32A	Fourth Qtr 03	X	X		X		X			X	X			X	X			X	X	
L4-32E	Fourth Qtr 03	X	X		X		X			X	X			X	X			X	X	
L4-32EA	Fourth Qtr 03	X	X		X		X			X	X			X	X			X	X	
L4-32W	Fourth Qtr 03	X	X		X		X			X	X			X	X			X	X	
L4-32WA	Fourth Qtr 03	X	X		X		X			X	X			X	X			X	X	
L4-33	Fourth Qtr 03	X	X		X		X			X	X			X	X			X	X	
L4-33W	Fourth Qtr 03	X	X		X		X			X	X			X	X			X	X	
L4-34W	Fourth Qtr 03	X	X		X		X			X	X			X	X			X	X	
L4-41	Fourth Qtr 03	X	X		X		X			X	X			X	X			X	X	
L4-8	Fourth Qtr 03	X	X		X		X			X	X			X	X			X	X	
L4-8N	Fourth Qtr 03	X	X		X		X			X	X			X	X			X	X	
L4-9	Fourth Qtr 03	X	X		X					X	X				X			X	X	
L4-9N	Fourth Qtr 03	X	X		X		X			X	X			X	X			X	X	
L4-9S	Fourth Qtr 03	X	X		X		X			X	X			X	X			X	X	
L4-9W	Fourth Qtr 03	X	X		X		X			X	X			X	X			X	X	
L5-10A	Fourth Qtr 03	X	X		X		X			X	X			X	X			X	X	
L5-3	Fourth Qtr 03	X	X		X		X			X	X			X	X			X	X	
L5-4	Fourth Qtr 03	X	X		X		X			X	X			X	X			X	X	
L5-5	Fourth Qtr 03	X	X		X		X			X	X			X	X			X	X	
L5-6	Fourth Qtr 03	X	X		X		X			X	X			X	X			X	X	
L5-7	Fourth Qtr 03	X	X		X		X			X	X			X	X			X	X	
L5-8	Fourth Qtr 03	X	X		X		X			X	X			X	X			X	X	
L5-9	Fourth Qtr 03	X	X		X		X			X	X			X	X			X	X	
L6-3A	Fourth Qtr 03	X	X		X		X			X	X			X	X			X	X	
TRB-LDS	Fourth Qtr 03	X	X		X		X			X	X			X	X			X	X	X

(1) Alkalinity (EPA Method 310.1)

(2) Ammonia (EPA Method 350.1)

(3) Chloride (EPA Method 325.3)

(4) Dioxins-Furans (EPA Method 8280A)

(5) Total and Dissolved Metals (EPA Method 6010B)

(6) Fluoride (EPA Method 300.0A)

(7) Herbicides (EPA Method 8151A)

(8) Mercury (EPA Method 7470A)

(9) Methanol (EPA Method 8015B)

(10) Nitrate-Nitrite (EPA Method 353.2)

(11) Organo-chlorine Pesticides (EPA Method 8081A)

(12) Organo-phosphate Pesticides (EPA Method 8141A)

(13) PCBs (EPA Method 8082)

(14) Semi-Volatiles (EPA Method 8270C)

(15) Sulfate (EPA Method 375.4)

(16) Total Sulfides (EPA Method 9030B/9034)

(17) Total Cyanide (EPA Method 9012A)

(18) Total Dissolved Solids (EPA Method 160.1)

(19) Total Organic Carbon (EPA Method 415.1)

(20) Total Organic Halides (EPA Method 9020B)

(21) Volatile Organic Compounds (EPA Method 8260B)

**TABLE 6**  
**2003 ANNUAL STATISTICAL OUTLIER TEST RESULTS**  
**SUMMARY OF OUTLIERS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

LOCATION	TYPE	DATE	PARAMETER	RESULT	UNITS	TEST
<b>First Quarter 2003</b>						
TRB-LDS	Primary	3/13/03	Zinc (Dissolved)	0.21	mg/L	DIXON
<b>Second Quarter 2003</b>						
L4-8N	Primary	6/4/03	Iron (Dissolved)	0.27	mg/L	ROSNER
L4-32	Primary	6/4/03	Nitrogen, Nitrite and Nitrate	11	mg/L	MINIMUM
L4-32A	Primary	6/4/03	Total Dissolved Solids	5700	mg/L	ROSNER
L4-32A	Primary	6/4/03	Total Organic Carbon	2.6	mg/L	ROSNER
L4-32A	Primary	6/4/03	Alkalinity, Total	330	mg/L	ROSNER
L4-32WA	Primary	6/4/03	Total Dissolved Solids	4900	mg/L	DIXON
L4-16	Primary	6/4/03	Total Dissolved Solids	45000	mg/L	MAXIMUM
L4-16	Primary	6/4/03	Iron (Dissolved)	0.075	mg/L	ONLY DETECTION
L4-32EA	Primary	6/5/03	Zinc (Dissolved)	0.054	mg/L	ONLY DETECTION
L4-32EA	Primary	6/5/03	Alkalinity, Total	460	mg/L	DIXON
L6-3A	Primary	6/5/03	Iron (Dissolved)	1.4	mg/L	ROSNER
L4-9S	Primary	6/5/03	Zinc (Dissolved)	0.85	mg/L	ROSNER
L4-9S	Primary	6/5/03	Sulfate	20000	mg/L	ROSNER
L4-31	Primary	6/5/03	Total Dissolved Solids	300	mg/L	MINIMUM
L4-31	Primary	6/5/03	Nitrogen, Nitrite and Nitrate	0.98	mg/L	MINIMUM
L4-31	Primary	6/5/03	Total Organic Carbon	2.1	mg/L	DIXON
L4-31	Primary	6/5/03	Sodium (Dissolved)	10	mg/L	MINIMUM
L4-31	Primary	6/5/03	Chloride	10	mg/L	MINIMUM
L4-31	Primary	6/5/03	Sulfate	140	mg/L	MINIMUM
L4-31	Primary	6/5/03	Alkalinity, Total	36	mg/L	MINIMUM
L4-34W	Primary	6/5/03	Zinc (Dissolved)	0.29	mg/L	DIXON
L4-34W	Primary	6/5/03	Sulfate	18000	mg/L	ROSNER
L4-9W	Primary	6/5/03	Sulfate	19000	mg/L	ROSNER
L4-33W	Primary	6/5/03	Total Dissolved Solids	48000	mg/L	DIXON
L4-33W	Primary	6/5/03	Sodium (Dissolved)	8500	mg/L	ROSNER
L4-33W	Primary	6/5/03	Manganese (Dissolved)	0.62	mg/L	ROSNER
L4-33W	Primary	6/5/03	Zinc (Dissolved)	0.89	mg/L	DIXON
L4-33W	Primary	6/5/03	Chloride	890	mg/L	ROSNER
L4-33W	Primary	6/5/03	Alkalinity, Total	690	mg/L	ROSNER
L4-33W	Primary	6/5/03	Alkalinity, Total	510	mg/L	ROSNER
L5-6	Primary	6/6/03	Sulfate	8.6	mg/L	ROSNER
L5-8	Duplicate	6/6/03	Zinc (Dissolved)	0.052	mg/L	ROSNER
L5-10A	Primary	6/6/03	Iron (Dissolved)	0.32	mg/L	ROSNER
Cell1-LDS	Primary	6/6/03	Zinc (Dissolved)	0.96	mg/L	ROSNER
Cell1-LCS	Primary	6/6/03	Thallium (Total)	0.064	mg/L	DIXON
L5-9	Primary	6/9/03	Iron (Dissolved)	0.099	mg/L	ROSNER
L5-3	Primary	6/9/03	Iron (Dissolved)	0.084	mg/L	ROSNER
L5-7	Primary	6/9/03	Iron (Dissolved)	0.72	mg/L	ROSNER
L5-7	Primary	6/9/03	Alkalinity, Total	260	mg/L	ROSNER
L5-4	Primary	6/9/03	Iron (Dissolved)	0.073	mg/L	ROSNER

**TABLE 6**  
**2003 ANNUAL STATISTICAL OUTLIER TEST RESULTS**  
**SUMMARY OF OUTLIERS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

LOCATION	TYPE	DATE	PARAMETER	RESULT	UNITS	TEST
<b>Third Quarter 2003</b>						
Cell 1 - LDS	Primary	8/8/03	2,4-Dichlorophenol	47	ug/L	ONLY DETECTION
Cell 1 - LDS	Primary	8/8/03	Zinc (Dissolved)	1.1	mg/L	ROSNER
Cell 1 - LCS	Primary	8/8/03	Zinc (Dissolved)	2	mg/L	DIXON
Cell 1 - LCS	Duplicate	8/8/03	Zinc (Dissolved)	2	mg/L	DIXON
<b>Fourth Quarter 2003</b>						
L4-32W		11/11/03	Total Dissolved Solids	16000	mg/L	DIXON
L4-32E		11/11/03	Total Dissolved Solids	22000	mg/L	DIXON
L4-32E		11/11/03	Nitrogen, Nitrite and Nitrate	7	mg/L	MINIMUM
L4-33		11/11/03	Total Dissolved Solids	23000	mg/L	ROSNER
L4-34W		11/11/03	Total Dissolved Solids	17000	mg/L	DIXON
L4-34W		11/11/03	Nitrogen, Nitrite and Nitrate	190	mg/L	MINIMUM
L4-34W		11/11/03	Sulfate	26000	mg/L	ROSNER
L4-9W		11/11/03	Iron (Dissolved)	0.1	mg/L	ROSNER
L4-33W		11/11/03	Nitrogen, Nitrite and Nitrate	6.1	mg/L	MINIMUM
L4-32EA		11/12/03	Total Dissolved Solids	1300	mg/L	MINIMUM
L4-32EA		11/12/03	Nitrogen, Nitrite and Nitrate	1	mg/L	MINIMUM
L4-8N		11/12/03	Total Dissolved Solids	25000	mg/L	DIXON
L4-8N		11/12/03	Iron (Dissolved)	0.44	mg/L	ROSNER
L4-8		11/12/03	Total Dissolved Solids	6300	mg/L	DIXON
L6-3A	DUP	11/12/03	Total Dissolved Solids	22000	mg/L	ROSNER
L4-41		11/12/03	Iron (Dissolved)	0.15	mg/L	ROSNER
L4-32A		11/12/03	Total Organic Carbon	3.4	mg/L	ROSNER
L4-32A		11/12/03	Alkalinity, Total	310	mg/L	ROSNER
L4-16		11/13/03	Alkalinity, Total	150	mg/L	DIXON
L5-8		11/13/03	Total Dissolved Solids	5500	mg/L	DIXON
L5-8		11/13/03	Iron (Dissolved)	0.73	mg/L	ROSNER
L5-8	DUP	11/13/03	Iron (Dissolved)	0.7	mg/L	ROSNER
Cell1-PS		11/13/03	Zinc (Dissolved)	1.9	mg/L	DIXON
Cell1-LCS		11/13/03	Endosulfan II	0.083	ug/L	ONLY DETECTION
Cell1-LCS		11/13/03	Methylene chloride	1.7	ug/L	ROSNER
Cell2-LCS		11/13/03	2,4,6-Trichlorophenol	23	ug/L	ROSNER
Cell2-LCS		11/13/03	Cyanide, Total	1.1	mg/L	ROSNER
Cell2-LDS		11/13/03	Total Organic Carbon	30	mg/L	DIXON
L5-7		11/14/03	Iron (Dissolved)	0.74	mg/L	ROSNER
L5-6		11/14/03	Sulfate	8.5	mg/L	ROSNER
L5-10A		11/14/03	Iron (Dissolved)	0.4	mg/L	ROSNER
L5-4		11/14/03	Iron (Dissolved)	0.067	mg/L	ROSNER
L5-4		11/14/03	Alkalinity, Total	300	mg/L	ROSNER
L4-9		11/14/03	Total Dissolved Solids	53000	mg/L	MAXIMUM
L4-9		11/14/03	Nitrogen, Nitrite and Nitrate	550	mg/L	MINIMUM

See Section 4.2 of the report for an explanation of test methods

**TABLE 7**  
**2003 ANNUAL REPORT**  
**ORGANIC DETECTIONS ABOVE REPORTABLE DETECTION LIMITS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Sampling Event	Sample Location	Sample Date	Analytical Lab	Analytical Method	Parameter Name	Analytical Result	Permit Reporting Limit	Units
First Qtr 03	Cell1-LCS	3/12/03	STL	8081A	Delta-BHC	0.63	0.05	ug/L
First Qtr 03	Cell1-LCS	3/12/03	STL	8081A	Dieldrin	0.59	0.05	ug/L
First Qtr 03	Cell1-LCS	3/12/03	STL	8270C	2,4,6-Trichlorophenol	42	10	ug/L
First Qtr 03	Cell1-LCS	3/12/03	STL	8270C	2,6-Dichlorophenol	51	10	ug/L
First Qtr 03	Cell1-LCS	3/12/03	STL	8270C	bis(2-Ethylhexyl)phthalate	21	10	ug/L
First Qtr 03	Cell1-LCS	3/26/03	STL	8151A	2,4,5-TP (Silvex)	6.2	0.02	ug/L
First Qtr 03	Cell1-LCS	3/12/03	STL	8081A	Beta-BHC	1	0.05	ug/L
Second Qtr 03	Cell1-LCS	6/6/03	STL	8081A	Gamma-BHC (Lindane)	0.051	0.05	ug/L
Second Qtr 03	Cell1-LCS	6/6/03	STL	8270C	2,6-Dichlorophenol	160	10	ug/L
Second Qtr 03	Cell1-LCS	6/6/03	STL	8270C	2,4-Dichlorophenol	900	10	ug/L
Second Qtr 03	Cell1-LCS	6/6/03	STL	8270C	2,4,6-Trichlorophenol	31	10	ug/L
Second Qtr 03	Cell1-LCS	6/6/03	STL	8151A	2,4,5-TP (Silvex)	15	0.02	ug/L
Second Qtr 03	Cell1-LCS	6/6/03	STL	8081A	Dieldrin	0.22	0.05	ug/L
Second Qtr 03	Cell1-LCS	6/6/03	STL	8081A	Delta-BHC	0.36	0.05	ug/L
Second Qtr 03	Cell1-LCS	6/6/03	STL	8081A	Beta-BHC	0.49	0.05	ug/L
Second Qtr 03	Cell1-LCS	6/6/03	STL	8081A	Alpha-BHC	0.17	0.05	ug/L
Second Qtr 03	Cell1-LCS	6/6/03	STL	8260B	1,1-dichloroethane	20	5	ug/L
Second Qtr 03	Cell2-LCS	6/5/03	STL	8270C	2,4-Dichlorophenol	35	10	ug/L
Second Qtr 03	Cell2-LCS	6/5/03	STL	8141A	Phorate	0.4	0.2	ug/L
Second Qtr 03	Cell2-LCS	6/5/03	STL	8151A	2,4,5-T	0.22	0.02	ug/L
Second Qtr 03	Cell2-LCS	6/5/03	STL	8151A	2,4,5-TP (Silvex)	0.66	0.02	ug/L
Second Qtr 03	Cell2-LCS	6/5/03	STL	8260B	1,1-dichloroethene	5.1	5	ug/L
Second Qtr 03	Cell2-LCS	6/5/03	STL	8260B	Tetrachloroethene	5.7	5	ug/L
Third Qtr 03	Cell1-LCS	8/8/03	STL	8081A	Dieldrin	0.083	0.05	ug/L
Third Qtr 03	Cell1-LCS	8/8/03	STL	8151A	2,4-Dichlorophenoxyacetic acid (2,4-D)	1300	0.2	ug/L
Third Qtr 03	Cell1-LCS	8/8/03	STL	8260B	1,1-dichloroethane	21	5	ug/L
Third Qtr 03	Cell1-LCS	8/8/03	STL	8260B	Total Xylenes	5.6	5	ug/L
Third Qtr 03	Cell1-LCS	8/8/03	STL	8270C	2,4,6-Trichlorophenol	35	10	ug/L
Third Qtr 03	Cell1-LCS	8/8/03	STL	8270C	2,6-Dichlorophenol	160	10	ug/L
Third Qtr 03	Cell1-LCS	8/8/03	STL	8081A	Delta-BHC	0.19	0.05	ug/L
Third Qtr 03	Cell1-LDS	8/8/03	STL	8270C	2,4-Dichlorophenol	47	10	ug/L
Third Qtr 03	Cell2-LCS	8/8/03	STL	8081A	Beta-BHC	0.18	0.05	ug/L
Third Qtr 03	Cell2-LCS	8/8/03	STL	8151A	2,4-Dichlorophenoxyacetic acid (2,4-D)	90	0.2	ug/L
Third Qtr 03	Cell2-LCS	8/8/03	STL	8260B	1,1-dichloroethene	7.3	5	ug/L
Fourth Qtr 03	Cell1-LCS	11/13/03	STL	8081A	Beta-BHC	0.7	0.05	ug/L
Fourth Qtr 03	Cell1-LCS	11/13/03	STL	8270C	2-Chlorophenol	88	10	ug/L
Fourth Qtr 03	Cell1-LCS	11/13/03	STL	8270C	2,6-Dichlorophenol	390	10	ug/L
Fourth Qtr 03	Cell1-LCS	11/13/03	STL	8270C	2,4-Dichlorophenol	1600	10	ug/L
Fourth Qtr 03	Cell1-LCS	11/13/03	STL	8270C	2,4,6-Trichlorophenol	73	10	ug/L

**TABLE 7**  
**2003 ANNUAL REPORT**  
**ORGANIC DETECTIONS ABOVE REPORTABLE DETECTION LIMITS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Sampling Event	Sample Location	Sample Date	Analytical Lab	Analytical Method	Parameter Name	Analytical Result	Permit Reporting Limit	Units
Fourth Qtr 03	Cell1-LCS	11/13/03	STL	8260B	1,1-dichloroethane	25	5	ug/L
Fourth Qtr 03	Cell1-LCS	11/13/03	STL	8081A	Delta-BHC	0.29	0.05	ug/L
Fourth Qtr 03	Cell1-LCS	11/13/03	STL	8081A	Alpha-BHC	0.17	0.05	ug/L
Fourth Qtr 03	Cell1-LCS	11/13/03	STL	8151A	2,4-Dichlorophenoxyacetic acid (2,4-D)	1700	0.2	ug/L
Fourth Qtr 03	Cell2-LCS	11/13/03	STL	8270C	2,6-Dichlorophenol	54	10	ug/L
Fourth Qtr 03	Cell2-LCS	11/13/03	STL	8151A	2,4-Dichlorophenoxyacetic acid (2,4-D)	340	0.2	ug/L
Fourth Qtr 03	Cell2-LCS	11/13/03	STL	8260B	1,1-dichloroethane	18	5	ug/L
Fourth Qtr 03	Cell2-LCS	11/13/03	STL	8270C	2,4,6-Trichlorophenol	23	10	ug/L
Fourth Qtr 03	Cell2-LCS	11/13/03	STL	8270C	2,4-Dichlorophenol	14	10	ug/L

**TABLE 8**  
**2003 ANNUAL REPORT**  
**INORGANIC DETECTIONS ABOVE PREDICTION LIMITS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

<b>Sampling Event</b>	<b>Sample Location</b>	<b>Sample Date</b>	<b>Analytical Lab</b>	<b>Analytical Method</b>	<b>Parameter Name</b>	<b>Analytical Result</b>	<b>Prediction limit</b>	<b>Units</b>

No Inorganic Detections Above Reporting Limit

**TABLE 9**  
**2003 ANNUAL REPORT**  
**ANALYTICAL RESULTS FOR UNCLASSIFIED WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Sampling Event	Sample Location	Sample Date	Analytical Lab	Analytical Method	Parameter Name	Analytical Result	Permit Reporting Limit	Units

No Analytical Results For Unclassified Wells.

**TABLE 10**  
**2003 SECOND QUARTER**  
**VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS FOR LEACHATE COLLECTION SYSTEM (LCS) AND LEAK**  
**DETECTION SYSTEM (LDS)**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location				
			Cell1-LCS	Cell1-LDS	Cell2-LCS	Cell2-LDS	TRB-LDS
1,1,1,2-tetrachloroethane	8260B	ug/L	<1	NT	<1	NT	NT
1,1,1-trichloroethane	8260B	ug/L	<1	NT	<1	NT	NT
1,1,2,2-tetrachloroethane	8260B	ug/L	<1	NT	<1	NT	NT
1,1,2-Trichloro-1,2,2-trifluoroethane	8260B	ug/L	<1	NT	<1	NT	NT
1,1,2-trichloroethane	8260B	ug/L	<1	NT	<1	NT	NT
1,1-dichloroethane	8260B	ug/L	20	NT	2.2	NT	NT
1,1-dichloroethene	8260B	ug/L	<1	NT	5.1	NT	NT
1,2,3-trichloropropane	8260B	ug/L	<1	NT	<1	NT	NT
1,2-dibromo-3-chloropropane	8260B	ug/L	<2	NT	<2	NT	NT
1,2-Dibromoethane (Ethylene Dibromide)	8260B	ug/L	<1	NT	<1	NT	NT
1,2-dichloroethane	8260B	ug/L	<1	NT	<1	NT	NT
1,2-dichloropropane	8260B	ug/L	<1	NT	<1	NT	NT
1,4-dioxane	8260B	ug/L	<200	NT	<200	NT	NT
2-butanone (MEK)	8260B	ug/L	<5	<5	<5	<5	<5
2-chloro-1,3-butadiene (Chloroprene)	8260B	ug/L	<1	NT	<1	NT	NT
3-Chloropropene (Allyl chloride)	8260B	ug/L	<2	NT	<2	NT	NT
4-methyl-2-pentanone (Methyl Isobutyl Ketone)	8260B	ug/L	1.2	<5	<5	<5	<5
Acetone	8260B	ug/L	2.5	NT	<10	NT	NT
Acetonitrile	8260B	ug/L	<20	NT	<20	NT	NT
Acrolein	8260B	ug/L	<20	NT	<20	NT	NT
Acrylonitrile	8260B	ug/L	<20	NT	<20	NT	NT
Benzene	8260B	ug/L	0.22	NT	0.33	NT	NT
Bromodichloromethane	8260B	ug/L	<1	NT	<1	NT	NT
Bromoform (Tribromomethane)	8260B	ug/L	<1	NT	<1	NT	NT
Bromomethane	8260B	ug/L	<2	NT	<2	NT	NT
Carbon disulfide	8260B	ug/L	<1	NT	<1	NT	NT
Carbon tetrachloride	8260B	ug/L	<1	NT	<1	NT	NT
Chlorobenzene	8260B	ug/L	<1	NT	<1	NT	NT
Chloroethane	8260B	ug/L	<2	NT	<2	NT	NT
Chloroform	8260B	ug/L	<1	NT	<1	NT	NT
Chloromethane	8260B	ug/L	<2	NT	<2	NT	NT
cis-1,3-dichloropropene	8260B	ug/L	<1	NT	<1	NT	NT
Cyclohexanone	8260B	ug/L	<20	<20	<20	<20	<20
Dibromochloromethane	8260B	ug/L	<1	NT	<1	NT	NT
Dibromomethane	8260B	ug/L	<1	NT	<1	NT	NT

**TABLE 10**  
**2003 SECOND QUARTER**  
**VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS FOR LEACHATE COLLECTION SYSTEM (LCS) AND LEAK**  
**DETECTION SYSTEM (LDS)**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location				
			Cell1-LCS	Cell1-LDS	Cell2-LCS	Cell2-LDS	TRB-LDS
Dichlorodifluoromethane	8260B	ug/L	<2	NT	<2	NT	NT
Ethyl acetate	8260B	ug/L	<5	NT	<5	NT	NT
Ethyl cyanide (Propionitrile)	8260B	ug/L	<8.2	NT	<8.2	NT	NT
Ethyl ether	8260B	ug/L	<2	NT	<2	NT	NT
Ethyl methacrylate	8260B	ug/L	<1	NT	<1	NT	NT
Ethylbenzene	8260B	ug/L	0.12	NT	<1	NT	NT
Ethylene oxide	8260B	ug/L	<600	NT	<600	NT	NT
Iodomethane	8260B	ug/L	<1	NT	<1	NT	NT
Isobutyl Alcohol	8260B	ug/L	<50	NT	<50	NT	NT
Methacrylonitrile	8260B	ug/L	<10	NT	<10	NT	NT
Methanol	8015B	mg/L	<1	NT	<1	NT	NT
Methyl methacrylate	8260B	ug/L	<1	NT	<1	NT	NT
Methylene chloride	8260B	ug/L	<1	NT	1.1	NT	NT
n-Butyl alcohol	8260B	ug/L	<50	NT	<50	NT	NT
Tetrachloroethene	8260B	ug/L	<1	NT	5.7	NT	NT
Toluene	8260B	ug/L	0.2	<1	<1	<1	<1
Total Xylenes	8260B	ug/L	0.79	<1	<1	<1	<1
trans-1,2-Dichloroethene	8260B	ug/L	<0.5	NT	<0.5	NT	NT
trans-1,3-Dichloropropene	8260B	ug/L	<1	NT	<1	NT	NT
Trichloroethene	8260B	ug/L	0.41	NT	3.5	NT	NT
Trichlorofluoromethane (Fluorotrichloromethane)	8260B	ug/L	<2	NT	<2	NT	NT
Vinyl chloride	8260B	ug/L	1.3	NT	<2	NT	NT

**TABLE 11**  
**2003 FOURTH QUARTER**  
**SEMI-VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS FOR LEACHATE COLLECTION SYSTEM (LCS),**  
**LEAK DETECTION SYSTEM (LDS), AND PERMANENT SUMP (PS)**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location					
			Cell1-LCS	Cell1-LDS	Cell1-PS	Cell2-LCS	Cell2-LDS	TRB-LDS
1,2,4,5-Tetrachlorobenzene	8270C	ug/L	<100	NT	NT	<10	NT	NT
1,2,4-Trichlorobenzene	8270C	ug/L	<100	NT	NT	<10	NT	NT
1,2-Dichlorobenzene	8270C	ug/L	<100	NT	NT	<10	NT	NT
1,2-Diphenylhydrazine	8270C	ug/L	<100	NT	NT	<10	NT	NT
1,3-Dichlorobenzene	8270C	ug/L	<100	NT	NT	<10	NT	NT
1,4-Dichlorobenzene	8270C	ug/L	<100	NT	NT	<10	NT	NT
1,4-Dinitrobenzene	8270C	ug/L	<100	NT	NT	<10	NT	NT
2,3,4,6-Tetrachlorophenol	8270C	ug/L	<300	NT	NT	<30	NT	NT
2,4,5-Trichlorophenol	8270C	ug/L	<100	NT	NT	<10	NT	NT
2,4,6-Trichlorophenol	8270C	ug/L	73	<10	<10	23	<10	<10
2,4-Dichlorophenol	8270C	ug/L	1600	<10	<10	14	<10	<10
2,4-Dimethylphenol	8270C	ug/L	<100	<10	<10	<10	<10	<10
2,4-Dinitrophenol	8270C	ug/L	<500	<50	<50	<50	<50	<50
2,4-Dinitrotoluene	8270C	ug/L	<100	NT	NT	<10	NT	NT
2,6-Dichlorophenol	8270C	ug/L	390	<10	NT	54	<10	<10
2,6-Dinitrotoluene	8270C	ug/L	<100	NT	NT	<10	NT	NT
2-Acetylaminofluorene	8270C	ug/L	<590	NT	NT	<59	NT	NT
2-Chloronaphthalene	8270C	ug/L	<100	NT	NT	<10	NT	NT
2-Chlorophenol	8270C	ug/L	88	<10	<10	<10	<10	<10
2-Methylphenol	8270C	ug/L	<100	NT	NT	<10	NT	NT
2-Naphthylamine	8270C	ug/L	<100	NT	NT	<10	NT	NT
3-Methylcholanthrene	8270C	ug/L	<55	NT	NT	<5.5	NT	NT
4,4-Methylene-bis-(2-Chloroaniline)	8270C	ug/L	<1000	NT	NT	<100	NT	NT
4,6-Dinitro-2-methylphenol	8270C	ug/L	<500	<50	<50	<50	<50	<50
4-Aminobiphenyl	8270C	ug/L	<500	NT	NT	<50	NT	NT
4-Bromophenyl phenyl ether	8270C	ug/L	<100	NT	NT	<10	NT	NT
4-Chloroaniline	8270C	ug/L	<100	NT	NT	<10	NT	NT
4-Nitroaniline	8270C	ug/L	<200	NT	NT	<20	NT	NT
4-Nitrophenol	8270C	ug/L	<200	<20	<20	<20	<20	<20
5-Nitro-o-toluidine	8270C	ug/L	<200	NT	NT	<20	NT	NT
Acenaphthene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Acenaphthylene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Acetophenone	8270C	ug/L	<100	NT	NT	<10	NT	NT
Aniline	8270C	ug/L	<100	NT	NT	<10	NT	NT
Anthracene	8270C	ug/L	<100	NT	NT	<10	NT	NT

**TABLE 11**  
**2003 FOURTH QUARTER**  
**SEMI-VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS FOR LEACHATE COLLECTION SYSTEM (LCS),**  
**LEAK DETECTION SYSTEM (LDS), AND PERMANENT SUMP (PS)**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location					
			Cell1-LCS	Cell1-LDS	Cell1-PS	Cell2-LCS	Cell2-LDS	TRB-LDS
Aramite	8270C	ug/L	<200	NT	NT	<20	NT	NT
Benzo(a)anthracene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Benzo(a)pyrene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Benzo(b)fluoranthene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Benzo(ghi)perylene	8270C	ug/L	<55	NT	NT	<5.5	NT	NT
Benzo(k)fluoranthene	8270C	ug/L	<100	NT	NT	<10	NT	NT
bis(2-Chloroethoxy)methane	8270C	ug/L	<100	NT	NT	<10	NT	NT
bis(2-Chloroethyl)ether	8270C	ug/L	<100	NT	NT	<10	NT	NT
bis(2-Chloroisopropyl)ether	8270C	ug/L	<100	NT	NT	<10	NT	NT
bis(2-Ethylhexyl)phthalate	8270C	ug/L	<100	NT	NT	<10	NT	NT
Butyl benzyl phthalate	8270C	ug/L	<100	NT	NT	<10	NT	NT
Chlorobenzilate	8270C	ug/L	<100	NT	NT	<10	NT	NT
Chrysene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Di-n-butyl phthalate	8270C	ug/L	<100	NT	NT	<10	NT	NT
Di-n-octyl phthalate	8270C	ug/L	<100	NT	NT	<10	NT	NT
Dibenz(a,h)anthracene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Dibenzo(a,e)pyrene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Diethylphthalate	8270C	ug/L	<100	NT	NT	<10	NT	NT
Dimethylphthalate	8270C	ug/L	<100	NT	NT	<10	NT	NT
Dinoseb	8270C	ug/L	<200	NT	NT	<20	NT	NT
Diphenylamine	8270C	ug/L	<100	NT	NT	<10	NT	NT
Fluoranthene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Fluorene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Hexachlorobenzene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Hexachlorobutadiene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Hexachlorocyclopentadiene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Hexachloroethane	8270C	ug/L	<100	NT	NT	<10	NT	NT
Hexachloropropene	8270C	ug/L	<350	NT	NT	<35	NT	NT
Indeno(1,2,3-cd)pyrene	8270C	ug/L	<55	NT	NT	<5.5	NT	NT
Isodrin	8270C	ug/L	<100	NT	NT	<10	NT	NT
Isosafrole	8270C	ug/L	<200	NT	NT	<20	NT	NT
m-Cresol	8270C	ug/L	<100	NT	NT	<10	NT	NT
Methapyrilene	8270C	ug/L	<500	NT	NT	<50	NT	NT
Methyl methanesulfonate	8270C	ug/L	<100	NT	NT	<10	NT	NT
N-Nitrosodi-n-butylamine	8270C	ug/L	<100	NT	NT	<10	NT	NT

**TABLE 11**  
**2003 FOURTH QUARTER**  
**SEMI-VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS FOR LEACHATE COLLECTION SYSTEM (LCS),**  
**LEAK DETECTION SYSTEM (LDS), AND PERMANENT SUMP (PS)**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location					
			Cell1-LCS	Cell1-LDS	Cell1-PS	Cell2-LCS	Cell2-LDS	TRB-LDS
N-Nitrosodi-n-propylamine	8270C	ug/L	<100	NT	NT	<10	NT	NT
N-Nitrosodiethylamine	8270C	ug/L	<100	NT	NT	<10	NT	NT
N-Nitrosodimethylamine	8270C	ug/L	<100	NT	NT	<10	NT	NT
N-Nitrosodiphenylamine (Diphenyl nitrosamine)	8270C	ug/L	<100	NT	NT	<10	NT	NT
N-Nitrosomethylethylamine	8270C	ug/L	<100	NT	NT	<10	NT	NT
N-Nitrosomorpholine	8270C	ug/L	<100	NT	NT	<10	NT	NT
N-Nitrosopiperidine	8270C	ug/L	<100	NT	NT	<10	NT	NT
N-Nitrosopyrrolidine	8270C	ug/L	<100	NT	NT	<10	NT	NT
Naphthalene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Nitrobenzene	8270C	ug/L	<100	NT	NT	<10	NT	NT
p-Chloro-m-cresol (4-chloro-3-methylphenol)	8270C	ug/L	<100	<10	<10	<10	<10	<10
p-cresol	8270C	ug/L	<100	NT	NT	<10	NT	NT
Pentachlorobenzene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Pentachloronitrobenzene	8270C	ug/L	<500	NT	NT	<50	NT	NT
Pentachlorophenol	8270C	ug/L	<500	<50	<50	5.3	<50	<50
Phenacetin	8270C	ug/L	<200	NT	NT	<20	NT	NT
Phenanthrene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Phenol	8270C	ug/L	<100	<10	<10	<10	<10	<10
Phthalic anhydride	8270C	ug/L	<4000	NT	NT	<400	NT	NT
Pronamide	8270C	ug/L	<200	NT	NT	<20	NT	NT
Pyrene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Pyridine	8270C	ug/L	<140	NT	NT	<14	NT	NT
Safrole	8270C	ug/L	<500	NT	NT	<50	NT	NT
Tris-(2,3-dibromopropyl)phosphate	8270C	ug/L	<1000	NT	NT	<100	NT	NT

**TABLE 12**  
**2003 SECOND QUARTER**  
**SEMI-VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS FOR GROUP 0 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location	
			L4-16	L4-31
2,4,6-Trichlorophenol	8270C	ug/L	<10	<10
2,4-Dichlorophenol	8270C	ug/L	<10	<10
2,4-Dimethylphenol	8270C	ug/L	<10	<10
2,4-Dinitrophenol	8270C	ug/L	<50	<50
2-Chlorophenol	8270C	ug/L	<10	<10
4,6-Dinitro-2-methylphenol	8270C	ug/L	<50	<50
4-Nitrophenol	8270C	ug/L	<20	<20
p-Chloro-m-cresol (4-chloro-3-methylphenol)	8270C	ug/L	<10	<10
Pentachlorophenol	8270C	ug/L	<50	<50
Phenol	8270C	ug/L	<10	<10

**TABLE 13**  
**2003 SECOND QUARTER**  
**SEMI-VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS FOR GROUP 2 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location			
			L4-32A	L4-32EA	L4-32WA	L4-41
2,4,6-Trichlorophenol	8270C	ug/L	<10	<10	<10	<10
2,4-Dichlorophenol	8270C	ug/L	<10	<10	<10	<10
2,4-Dimethylphenol	8270C	ug/L	<10	<10	<10	<10
2,4-Dinitrophenol	8270C	ug/L	<50	<50	<50	<50
2-Chlorophenol	8270C	ug/L	<10	<10	<10	<10
4,6-Dinitro-2-methylphenol	8270C	ug/L	<50	<50	<50	<50
4-Nitrophenol	8270C	ug/L	<20	<20	<20	<20
p-Chloro-m-cresol (4-chloro-3-methylphenol)	8270C	ug/L	<10	<10	<10	<10
Pentachlorophenol	8270C	ug/L	<50	<50	<50	<50
Phenol	8270C	ug/L	<10	<10	<10	<10

**TABLE 14**  
**2003 SECOND QUARTER**  
**SEMI-VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS FOR GROUP 3 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location				
			L4-32	L4-32E	L4-33	L4-33W	L4-34W
2,4,6-Trichlorophenol	8270C	ug/L	<10	<10	<10	<10	<10
2,4-Dichlorophenol	8270C	ug/L	<10	<10	<10	<10	<10
2,4-Dimethylphenol	8270C	ug/L	<10	<10	<10	<10	<10
2,4-Dinitrophenol	8270C	ug/L	<50	<50	<50	<50	<50
2-Chlorophenol	8270C	ug/L	<10	<10	<10	<10	<10
4,6-Dinitro-2-methylphenol	8270C	ug/L	<50	<50	<50	<50	<50
4-Nitrophenol	8270C	ug/L	<20	<20	<20	<20	<20
p-Chloro-m-cresol (4-chloro-3-methylphenol)	8270C	ug/L	<10	<10	<10	<10	<10
Pentachlorophenol	8270C	ug/L	<50	<50	<50	<50	<50
Phenol	8270C	ug/L	<10	<10	<10	<10	<10

**TABLE 15**  
**2003 SECOND QUARTER**  
**SEMI-VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS FOR GROUP 4 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location			
			L4-8	L4-8N	L4-9S	L4-9W
2,4,6-Trichlorophenol	8270C	ug/L	<10	<10	<10	<10
2,4-Dichlorophenol	8270C	ug/L	<10	<10	<10	<10
2,4-Dimethylphenol	8270C	ug/L	<10	<10	<10	<10
2,4-Dinitrophenol	8270C	ug/L	<50	<50	<50	<50
2-Chlorophenol	8270C	ug/L	<10	<10	<10	<10
4,6-Dinitro-2-methylphenol	8270C	ug/L	<50	<50	<50	<50
4-Nitrophenol	8270C	ug/L	<20	<20	<20	<20
p-Chloro-m-cresol (4-chloro-3-methylphenol)	8270C	ug/L	<10	<10	<10	<10
Pentachlorophenol	8270C	ug/L	<50	<50	<50	<50
Phenol	8270C	ug/L	<10	<10	<10	<10

**TABLE 16**  
**2003 SECOND QUARTER**  
**SEMI-VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS FOR GROUP 5 AND 6 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location								
			L5-10A	L5-3	L5-4	L5-5	L5-6	L5-7	L5-8	L5-9	L6-3A
2,4,6-Trichlorophenol	8270C	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
2,4-Dichlorophenol	8270C	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
2,4-Dimethylphenol	8270C	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
2,4-Dinitrophenol	8270C	ug/L	<50	<50	<50	<50	<50	<50	<50	<50	<50
2-Chlorophenol	8270C	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
4,6-Dinitro-2-methylphenol	8270C	ug/L	<50	<50	<50	<50	<50	<50	<50	<50	<50
4-Nitrophenol	8270C	ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20
p-Chloro-m-cresol (4-chloro-3-methylphenol)	8270C	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
Pentachlorophenol	8270C	ug/L	<50	<50	<50	<50	<50	<50	<50	<50	<50
Phenol	8270C	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10

**TABLE 17**  
**2003 SECOND QUARTER**  
**SEMI-VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS FOR LEACHATE COLLECTION SYSTEM (LCS),**  
**LEAK DETECTION SYSTEM (LDS), AND PERMANENT SUMP (PS)**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location					
			Cell1-LCS	Cell1-LDS	Cell1-PS	Cell2-LCS	Cell2-LDS	TRB-LDS
1,2,4,5-Tetrachlorobenzene	8270C	ug/L	<100	NT	NT	<10	NT	NT
1,2,4-Trichlorobenzene	8270C	ug/L	<100	NT	NT	<10	NT	NT
1,2-Dichlorobenzene	8270C	ug/L	<100	NT	NT	<10	NT	NT
1,2-Diphenylhydrazine	8270C	ug/L	<100	NT	NT	<10	NT	NT
1,3-Dichlorobenzene	8270C	ug/L	<100	NT	NT	<10	NT	NT
1,4-Dichlorobenzene	8270C	ug/L	<100	NT	NT	<10	NT	NT
1,4-Dinitrobenzene	8270C	ug/L	<100	NT	NT	<10	NT	NT
2,3,4,6-Tetrachlorophenol	8270C	ug/L	<300	NT	NT	<30	NT	NT
2,4,5-Trichlorophenol	8270C	ug/L	<100	NT	NT	<10	NT	NT
2,4,6-Trichlorophenol	8270C	ug/L	31	<10	<10	6.7	<10	<10
2,4-Dichlorophenol	8270C	ug/L	900	<10	<10	35	<10	<10
2,4-Dimethylphenol	8270C	ug/L	<100	<10	<10	<10	<10	<10
2,4-Dinitrophenol	8270C	ug/L	<500	<50	<50	<50	<50	<50
2,4-Dinitrotoluene	8270C	ug/L	<100	NT	NT	<10	NT	NT
2,6-Dichlorophenol	8270C	ug/L	160	<10	NT	3	<10	<10
2,6-Dinitrotoluene	8270C	ug/L	<100	NT	NT	<10	NT	NT
2-Acetylaminofluorene	8270C	ug/L	<590	NT	NT	<59	NT	NT
2-Chloronaphthalene	8270C	ug/L	<100	NT	NT	<10	NT	NT
2-Chlorophenol	8270C	ug/L	<100	<10	<10	<10	<10	<10
2-Methylphenol	8270C	ug/L	<100	NT	NT	<10	NT	NT
2-Naphthylamine	8270C	ug/L	<100	NT	NT	<10	NT	NT
3-Methylcholanthrene	8270C	ug/L	<55	NT	NT	<5.5	NT	NT
4,4-Methylene-bis-(2-Chloroaniline)	8270C	ug/L	<1000	NT	NT	<100	NT	NT
4,6-Dinitro-2-methylphenol	8270C	ug/L	<500	<50	<50	<50	<50	<50
4-Aminobiphenyl	8270C	ug/L	<500	NT	NT	<50	NT	NT
4-Bromophenyl phenyl ether	8270C	ug/L	<100	NT	NT	<10	NT	NT
4-Chloroaniline	8270C	ug/L	<100	NT	NT	<10	NT	NT
4-Nitroaniline	8270C	ug/L	<200	NT	NT	<20	NT	NT
4-Nitrophenol	8270C	ug/L	<200	<20	<20	<20	<20	<20
5-Nitro-o-toluidine	8270C	ug/L	<200	NT	NT	<20	NT	NT
Acenaphthene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Acenaphthylene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Acetophenone	8270C	ug/L	<100	NT	NT	<10	NT	NT
Aniline	8270C	ug/L	<100	NT	NT	<10	NT	NT
Anthracene	8270C	ug/L	<100	NT	NT	<10	NT	NT

**TABLE 17**  
**2003 SECOND QUARTER**  
**SEMI-VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS FOR LEACHATE COLLECTION SYSTEM (LCS),**  
**LEAK DETECTION SYSTEM (LDS), AND PERMANENT SUMP (PS)**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location					
			Cell1-LCS	Cell1-LDS	Cell1-PS	Cell2-LCS	Cell2-LDS	TRB-LDS
Aramite	8270C	ug/L	<200	NT	NT	<20	NT	NT
Benzo(a)anthracene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Benzo(a)pyrene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Benzo(b)fluoranthene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Benzo(ghi)perylene	8270C	ug/L	<55	NT	NT	<5.5	NT	NT
Benzo(k)fluoranthene	8270C	ug/L	<100	NT	NT	<10	NT	NT
bis(2-Chloroethoxy)methane	8270C	ug/L	<100	NT	NT	<10	NT	NT
bis(2-Chloroethyl)ether	8270C	ug/L	<100	NT	NT	<10	NT	NT
bis(2-Chloroisopropyl)ether	8270C	ug/L	<100	NT	NT	<10	NT	NT
bis(2-Ethylhexyl)phthalate	8270C	ug/L	<100	NT	NT	<10	NT	NT
Butyl benzyl phthalate	8270C	ug/L	<100	NT	NT	<10	NT	NT
Chlorobenzilate	8270C	ug/L	<100	NT	NT	<10	NT	NT
Chrysene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Di-n-butyl phthalate	8270C	ug/L	<100	NT	NT	<10	NT	NT
Di-n-octyl phthalate	8270C	ug/L	<100	NT	NT	<10	NT	NT
Dibenz(a,h)anthracene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Dibenzo(a,e)pyrene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Diethylphthalate	8270C	ug/L	<100	NT	NT	<10	NT	NT
Dimethylphthalate	8270C	ug/L	<100	NT	NT	<10	NT	NT
Dinoseb	8270C	ug/L	<200	NT	NT	<20	NT	NT
Diphenylamine	8270C	ug/L	<100	NT	NT	<10	NT	NT
Fluoranthene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Fluorene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Hexachlorobenzene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Hexachlorobutadiene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Hexachlorocyclopentadiene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Hexachloroethane	8270C	ug/L	<100	NT	NT	<10	NT	NT
Hexachloropropene	8270C	ug/L	<350	NT	NT	<35	NT	NT
Indeno(1,2,3-cd)pyrene	8270C	ug/L	<55	NT	NT	<5.5	NT	NT
Isodrin	8270C	ug/L	<100	NT	NT	<10	NT	NT
Isosafrole	8270C	ug/L	<200	NT	NT	<20	NT	NT
m-Cresol	8270C	ug/L	<100	NT	NT	<10	NT	NT
Methapyrilene	8270C	ug/L	<500	NT	NT	<50	NT	NT
Methyl methanesulfonate	8270C	ug/L	<100	NT	NT	<10	NT	NT
N-Nitrosodi-n-butylamine	8270C	ug/L	<100	NT	NT	<10	NT	NT

**TABLE 17**  
**2003 SECOND QUARTER**  
**SEMI-VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS FOR LEACHATE COLLECTION SYSTEM (LCS),**  
**LEAK DETECTION SYSTEM (LDS), AND PERMANENT SUMP (PS)**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location					
			Cell1-LCS	Cell1-LDS	Cell1-PS	Cell2-LCS	Cell2-LDS	TRB-LDS
N-Nitrosodi-n-propylamine	8270C	ug/L	<100	NT	NT	<10	NT	NT
N-Nitrosodiethylamine	8270C	ug/L	<100	NT	NT	<10	NT	NT
N-Nitrosodimethylamine	8270C	ug/L	<100	NT	NT	<10	NT	NT
N-Nitrosodiphenylamine (Diphenyl nitrosamine)	8270C	ug/L	<100	NT	NT	<10	NT	NT
N-Nitrosomethylethylamine	8270C	ug/L	<100	NT	NT	<10	NT	NT
N-Nitrosomorpholine	8270C	ug/L	<100	NT	NT	9.8	NT	NT
N-Nitrosopiperidine	8270C	ug/L	<100	NT	NT	<10	NT	NT
N-Nitrosopyrrolidine	8270C	ug/L	<100	NT	NT	<10	NT	NT
Naphthalene	8270C	ug/L	<100	NT	NT	4.5	NT	NT
Nitrobenzene	8270C	ug/L	<100	NT	NT	<10	NT	NT
p-Chloro-m-cresol (4-chloro-3-methylphenol)	8270C	ug/L	<100	<10	<10	<10	<10	<10
p-cresol	8270C	ug/L	<100	NT	NT	<10	NT	NT
Pentachlorobenzene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Pentachloronitrobenzene	8270C	ug/L	<500	NT	NT	<50	NT	NT
Pentachlorophenol	8270C	ug/L	<500	<50	<50	<50	<50	<50
Phenacetin	8270C	ug/L	<200	NT	NT	<20	NT	NT
Phenanthrene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Phenol	8270C	ug/L	<100	<10	<10	<10	<10	<10
Phthalic anhydride	8270C	ug/L	<4000	NT	NT	<400	NT	NT
Pronamide	8270C	ug/L	<200	NT	NT	<20	NT	NT
Pyrene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Pyridine	8270C	ug/L	<140	NT	NT	<14	NT	NT
Safrole	8270C	ug/L	<500	NT	NT	<50	NT	NT
Tris-(2,3-dibromopropyl)phosphate	8270C	ug/L	<1000	NT	NT	<100	NT	NT

**TABLE 18**  
**2003 FOURTH QUARTER**  
**SEMI-VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS FOR GROUP 0 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location	
			L4-16	L4-31
2,4,6-Trichlorophenol	8270C	ug/L	<10	<10
2,4-Dichlorophenol	8270C	ug/L	<10	<10
2,4-Dimethylphenol	8270C	ug/L	<10	<10
2,4-Dinitrophenol	8270C	ug/L	<50	<50
2-Chlorophenol	8270C	ug/L	<10	<10
4,6-Dinitro-2-methylphenol	8270C	ug/L	<50	<50
4-Nitrophenol	8270C	ug/L	<20	<20
p-Chloro-m-cresol (4-chloro-3-methylphenol)	8270C	ug/L	<10	<10
Pentachlorophenol	8270C	ug/L	<50	<50
Phenol	8270C	ug/L	<10	<10

**TABLE 19**  
**2003 FOURTH QUARTER**  
**SEMI-VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS FOR GROUP 2 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location			
			L4-32A	L4-32EA	L4-32WA	L4-41
2,4,6-Trichlorophenol	8270C	ug/L	<10	<10	<10	<10
2,4-Dichlorophenol	8270C	ug/L	<10	<10	<10	<10
2,4-Dimethylphenol	8270C	ug/L	<10	<10	<10	<10
2,4-Dinitrophenol	8270C	ug/L	<50	<50	<50	<50
2-Chlorophenol	8270C	ug/L	<10	<10	<10	<10
4,6-Dinitro-2-methylphenol	8270C	ug/L	<50	<50	<50	<50
4-Nitrophenol	8270C	ug/L	<20	<20	<20	<20
p-Chloro-m-cresol (4-chloro-3-methylphenol)	8270C	ug/L	<10	<10	<10	<10
Pentachlorophenol	8270C	ug/L	<50	<50	<50	<50
Phenol	8270C	ug/L	<10	<10	<10	<10

**TABLE 20**  
**2003 FOURTH QUARTER**  
**SEMI-VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS FOR GROUP 3 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location					
			L4-32	L4-32E	L4-32W	L4-33	L4-33W	L4-34W
2,4,6-Trichlorophenol	8270C	ug/L	<10	<10	<10	<10	<10	<10
2,4-Dichlorophenol	8270C	ug/L	<10	<10	<10	<10	<10	<10
2,4-Dimethylphenol	8270C	ug/L	<10	<10	<10	<10	<10	<10
2,4-Dinitrophenol	8270C	ug/L	<50	<50	<50	<50	<50	<50
2-Chlorophenol	8270C	ug/L	<10	<10	<10	<10	<10	<10
4,6-Dinitro-2-methylphenol	8270C	ug/L	<50	<50	<50	<50	<50	<50
4-Nitrophenol	8270C	ug/L	<20	<20	<20	<20	<20	<20
p-Chloro-m-cresol (4-chloro-3-methylphenol)	8270C	ug/L	<10	<10	<10	<10	<10	<10
Pentachlorophenol	8270C	ug/L	<50	<50	<50	<50	<50	<50
Phenol	8270C	ug/L	<10	<10	<10	<10	<10	<10

**TABLE 21**  
**2003 FOURTH QUARTER**  
**SEMI-VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS FOR GROUP 4 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location				
			L4-8	L4-8N	L4-9N	L4-9S	L4-9W
2,4,6-Trichlorophenol	8270C	ug/L	<10	<10	<10	<10	<10
2,4-Dichlorophenol	8270C	ug/L	<10	<10	<10	<10	<10
2,4-Dimethylphenol	8270C	ug/L	<10	<10	<10	<10	<10
2,4-Dinitrophenol	8270C	ug/L	<50	<50	<50	<50	<50
2-Chlorophenol	8270C	ug/L	<10	<10	<10	<10	<10
4,6-Dinitro-2-methylphenol	8270C	ug/L	<50	<50	<50	<50	<50
4-Nitrophenol	8270C	ug/L	<20	<20	<20	<20	<20
p-Chloro-m-cresol (4-chloro-3-methylphenol)	8270C	ug/L	<10	<10	<10	<10	<10
Pentachlorophenol	8270C	ug/L	<50	<50	<50	<50	<50
Phenol	8270C	ug/L	<10	<10	<10	<10	<10

**TABLE 22**  
**2003 FOURTH QUARTER**  
**SEMI-VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS FOR GROUP 5 AND 6 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location								
			L5-10A	L5-3	L5-4	L5-5	L5-6	L5-7	L5-8	L5-9	L6-3A
2,4,6-Trichlorophenol	8270C	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
2,4-Dichlorophenol	8270C	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
2,4-Dimethylphenol	8270C	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
2,4-Dinitrophenol	8270C	ug/L	<50	<50	<50	<50	<50	<50	<50	<50	<50
2-Chlorophenol	8270C	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
4,6-Dinitro-2-methylphenol	8270C	ug/L	<50	<50	<50	<50	<50	<50	<50	<50	<50
4-Nitrophenol	8270C	ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20
p-Chloro-m-cresol (4-chloro-3-methylphenol)	8270C	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
Pentachlorophenol	8270C	ug/L	<50	<50	<50	<50	<50	<50	<50	<50	<50
Phenol	8270C	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10

**TABLE 23**  
**2003 FOURTH QUARTER**  
**SEMI-VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS FOR LEACHATE COLLECTION SYSTEM (LCS), LEAK**  
**DETECTION SYSTEM (LDS), AND PERMANENT SUMP (PS)**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location					
			Cell1-LCS	Cell1-LDS	Cell1-PS	Cell2-LCS	Cell2-LDS	TRB-LDS
1,2,4,5-Tetrachlorobenzene	8270C	ug/L	<100	NT	NT	<10	NT	NT
1,2,4-Trichlorobenzene	8270C	ug/L	<100	NT	NT	<10	NT	NT
1,2-Dichlorobenzene	8270C	ug/L	<100	NT	NT	<10	NT	NT
1,2-Diphenylhydrazine	8270C	ug/L	<100	NT	NT	<10	NT	NT
1,3-Dichlorobenzene	8270C	ug/L	<100	NT	NT	<10	NT	NT
1,4-Dichlorobenzene	8270C	ug/L	<100	NT	NT	<10	NT	NT
1,4-Dinitrobenzene	8270C	ug/L	<100	NT	NT	<10	NT	NT
2,3,4,6-Tetrachlorophenol	8270C	ug/L	<300	NT	NT	<30	NT	NT
2,4,5-Trichlorophenol	8270C	ug/L	<100	NT	NT	<10	NT	NT
2,4,6-Trichlorophenol	8270C	ug/L	73	<10	<10	23	<10	<10
2,4-Dichlorophenol	8270C	ug/L	1600	<10	<10	14	<10	<10
2,4-Dimethylphenol	8270C	ug/L	<100	<10	<10	<10	<10	<10
2,4-Dinitrophenol	8270C	ug/L	<500	<50	<50	<50	<50	<50
2,4-Dinitrotoluene	8270C	ug/L	<100	NT	NT	<10	NT	NT
2,6-Dichlorophenol	8270C	ug/L	390	<10	NT	54	<10	<10
2,6-Dinitrotoluene	8270C	ug/L	<100	NT	NT	<10	NT	NT
2-Acetylaminofluorene	8270C	ug/L	<590	NT	NT	<59	NT	NT
2-Chloronaphthalene	8270C	ug/L	<100	NT	NT	<10	NT	NT
2-Chlorophenol	8270C	ug/L	88	<10	<10	<10	<10	<10
2-Methylphenol	8270C	ug/L	<100	NT	NT	<10	NT	NT
2-Naphthylamine	8270C	ug/L	<100	NT	NT	<10	NT	NT
3-Methylcholanthrene	8270C	ug/L	<55	NT	NT	<5.5	NT	NT
4,4-Methylene-bis-(2-Chloroaniline)	8270C	ug/L	<1000	NT	NT	<100	NT	NT
4,6-Dinitro-2-methylphenol	8270C	ug/L	<500	<50	<50	<50	<50	<50
4-Aminobiphenyl	8270C	ug/L	<500	NT	NT	<50	NT	NT
4-Bromophenyl phenyl ether	8270C	ug/L	<100	NT	NT	<10	NT	NT
4-Chloroaniline	8270C	ug/L	<100	NT	NT	<10	NT	NT
4-Nitroaniline	8270C	ug/L	<200	NT	NT	<20	NT	NT
4-Nitrophenol	8270C	ug/L	<200	<20	<20	<20	<20	<20
5-Nitro-o-toluidine	8270C	ug/L	<200	NT	NT	<20	NT	NT
Acenaphthene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Acenaphthylene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Acetophenone	8270C	ug/L	<100	NT	NT	<10	NT	NT
Aniline	8270C	ug/L	<100	NT	NT	<10	NT	NT

**TABLE 23**  
**2003 FOURTH QUARTER**  
**SEMI-VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS FOR LEACHATE COLLECTION SYSTEM (LCS), LEAK**  
**DETECTION SYSTEM (LDS), AND PERMANENT SUMP (PS)**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location					
			Cell1-LCS	Cell1-LDS	Cell1-PS	Cell2-LCS	Cell2-LDS	TRB-LDS
Anthracene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Aramite	8270C	ug/L	<200	NT	NT	<20	NT	NT
Benzo(a)anthracene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Benzo(a)pyrene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Benzo(b)fluoranthene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Benzo(ghi)perylene	8270C	ug/L	<55	NT	NT	<5.5	NT	NT
Benzo(k)fluoranthene	8270C	ug/L	<100	NT	NT	<10	NT	NT
bis(2-Chloroethoxy)methane	8270C	ug/L	<100	NT	NT	<10	NT	NT
bis(2-Chloroethyl)ether	8270C	ug/L	<100	NT	NT	<10	NT	NT
bis(2-Chloroisopropyl)ether	8270C	ug/L	<100	NT	NT	<10	NT	NT
bis(2-Ethylhexyl)phthalate	8270C	ug/L	<100	NT	NT	<10	NT	NT
Butyl benzyl phthalate	8270C	ug/L	<100	NT	NT	<10	NT	NT
Chlorobenzilate	8270C	ug/L	<100	NT	NT	<10	NT	NT
Chrysene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Di-n-butyl phthalate	8270C	ug/L	<100	NT	NT	<10	NT	NT
Di-n-octyl phthalate	8270C	ug/L	<100	NT	NT	<10	NT	NT
Dibenz(a,h)anthracene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Dibenzo(a,e)pyrene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Diethylphthalate	8270C	ug/L	<100	NT	NT	<10	NT	NT
Dimethylphthalate	8270C	ug/L	<100	NT	NT	<10	NT	NT
Dinoseb	8270C	ug/L	<200	NT	NT	<20	NT	NT
Diphenylamine	8270C	ug/L	<100	NT	NT	<10	NT	NT
Fluoranthene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Fluorene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Hexachlorobenzene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Hexachlorobutadiene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Hexachlorocyclopentadiene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Hexachloroethane	8270C	ug/L	<100	NT	NT	<10	NT	NT
Hexachloropropene	8270C	ug/L	<350	NT	NT	<35	NT	NT
Indeno(1,2,3-cd)pyrene	8270C	ug/L	<55	NT	NT	<5.5	NT	NT
Isodrin	8270C	ug/L	<100	NT	NT	<10	NT	NT
Isosafrole	8270C	ug/L	<200	NT	NT	<20	NT	NT
m-Cresol	8270C	ug/L	<100	NT	NT	<10	NT	NT
Methapyrilene	8270C	ug/L	<500	NT	NT	<50	NT	NT

**TABLE 23**  
**2003 FOURTH QUARTER**  
**SEMI-VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS FOR LEACHATE COLLECTION SYSTEM (LCS), LEAK**  
**DETECTION SYSTEM (LDS), AND PERMANENT SUMP (PS)**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location					
			Cell1-LCS	Cell1-LDS	Cell1-PS	Cell2-LCS	Cell2-LDS	TRB-LDS
Methyl methanesulfonate	8270C	ug/L	<100	NT	NT	<10	NT	NT
N-Nitrosodi-n-butylamine	8270C	ug/L	<100	NT	NT	<10	NT	NT
N-Nitrosodi-n-propylamine	8270C	ug/L	<100	NT	NT	<10	NT	NT
N-Nitrosodiethylamine	8270C	ug/L	<100	NT	NT	<10	NT	NT
N-Nitrosodimethylamine	8270C	ug/L	<100	NT	NT	<10	NT	NT
N-Nitrosodiphenylamine (Diphenyl nitrosamine)	8270C	ug/L	<100	NT	NT	<10	NT	NT
N-Nitrosomethylethylamine	8270C	ug/L	<100	NT	NT	<10	NT	NT
N-Nitrosomorpholine	8270C	ug/L	<100	NT	NT	<10	NT	NT
N-Nitrosopiperidine	8270C	ug/L	<100	NT	NT	<10	NT	NT
N-Nitrosopyrrolidine	8270C	ug/L	<100	NT	NT	<10	NT	NT
Naphthalene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Nitrobenzene	8270C	ug/L	<100	NT	NT	<10	NT	NT
p-Chloro-m-cresol (4-chloro-3-methylphenol)	8270C	ug/L	<100	<10	<10	<10	<10	<10
p-cresol	8270C	ug/L	<100	NT	NT	<10	NT	NT
Pentachlorobenzene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Pentachloronitrobenzene	8270C	ug/L	<500	NT	NT	<50	NT	NT
Pentachlorophenol	8270C	ug/L	<500	<50	<50	5.3	<50	<50
Phenacetin	8270C	ug/L	<200	NT	NT	<20	NT	NT
Phenanthrene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Phenol	8270C	ug/L	<100	<10	<10	<10	<10	<10
Phthalic anhydride	8270C	ug/L	<4000	NT	NT	<400	NT	NT
Pronamide	8270C	ug/L	<200	NT	NT	<20	NT	NT
Pyrene	8270C	ug/L	<100	NT	NT	<10	NT	NT
Pyridine	8270C	ug/L	<140	NT	NT	<14	NT	NT
Safrole	8270C	ug/L	<500	NT	NT	<50	NT	NT
Tris-(2,3-dibromopropyl)phosphate	8270C	ug/L	<1000	NT	NT	<100	NT	NT

**TABLE 24**  
**2003 SECOND QUARTER**  
**PESTICIDE, HERBICIDE, AND PCB ANALYTICAL RESULTS FOR GROUP 0 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location	
			L4-16	L4-31
2,4,5-T	8151A	ug/L	<0.043	<0.043
2,4,5-TP (Silvex)	8151A	ug/L	<0.036	<0.036
2,4-Dichlorophenoxyacetic acid (2,4-D)	8151A	ug/L	<0.24	<0.24
4,4'-DDD	8081A	ug/L	<0.1	<0.1
4,4'-DDE	8081A	ug/L	<0.1	<0.1
4,4'-DDT	8081A	ug/L	<0.1	<0.1
Aldrin	8081A	ug/L	<0.05	<0.05
Alpha-BHC	8081A	ug/L	<0.05	<0.05
Beta-BHC	8081A	ug/L	<0.05	<0.05
Chlordane	8081A	ug/L	<0.5	<0.5
Delta-BHC	8081A	ug/L	<0.05	<0.05
Dieldrin	8081A	ug/L	<0.1	<0.1
Endosulfan I	8081A	ug/L	<0.05	<0.05
Endosulfan II	8081A	ug/L	<0.1	<0.1
Endosulfan sulfate	8081A	ug/L	<0.1	<0.1
Endrin	8081A	ug/L	<0.1	<0.1
Endrin Aldehyde	8081A	ug/L	<0.1	<0.1
Gamma-BHC (Lindane)	8081A	ug/L	<0.05	<0.05
Heptachlor	8081A	ug/L	<0.05	<0.05
Heptachlor Epoxide	8081A	ug/L	<0.05	<0.05
Methoxychlor	8081A	ug/L	<0.5	<0.5
Toxaphene	8081A	ug/L	<1	<1

**TABLE 25**  
**2003 SECOND QUARTER**  
**PESTICIDE, HERBICIDE, AND PCB ANALYTICAL RESULTS FOR GROUP 2 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location			
			L4-32A	L4-32EA	L4-32WA	L4-41
2,4,5-T	8151A	ug/L	<0.043	<0.043	<0.043	<0.043
2,4,5-TP (Silvex)	8151A	ug/L	<0.036	<0.036	<0.036	<0.036
2,4-Dichlorophenoxyacetic acid (2,4-D)	8151A	ug/L	<0.24	<0.24	<0.24	<0.24
4,4'-DDD	8081A	ug/L	<0.1	<0.1	<0.1	<0.1
4,4'-DDE	8081A	ug/L	<0.1	<0.1	<0.1	<0.1
4,4'-DDT	8081A	ug/L	<0.1	<0.1	<0.1	<0.1
Aldrin	8081A	ug/L	<0.05	<0.05	<0.05	<0.05
Alpha-BHC	8081A	ug/L	<0.05	<0.05	<0.05	<0.05
Beta-BHC	8081A	ug/L	<0.05	<0.05	<0.05	<0.05
Chlordane	8081A	ug/L	<0.5	<0.5	<0.5	<0.5
Delta-BHC	8081A	ug/L	<0.05	<0.05	<0.05	<0.05
Dieldrin	8081A	ug/L	<0.1	<0.1	<0.1	<0.1
Endosulfan I	8081A	ug/L	<0.05	<0.05	<0.05	<0.05
Endosulfan II	8081A	ug/L	<0.1	<0.1	<0.1	<0.1
Endosulfan sulfate	8081A	ug/L	<0.1	<0.1	<0.1	<0.1
Endrin	8081A	ug/L	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	8081A	ug/L	<0.1	<0.1	<0.1	<0.1
Gamma-BHC (Lindane)	8081A	ug/L	<0.05	<0.05	<0.05	<0.05
Heptachlor	8081A	ug/L	<0.05	<0.05	<0.05	<0.05
Heptachlor Epoxide	8081A	ug/L	<0.05	<0.05	<0.05	<0.05
Methoxychlor	8081A	ug/L	<0.5	<0.5	<0.5	<0.5
Toxaphene	8081A	ug/L	<1	<1	<1	<1

**TABLE 26**  
**2003 SECOND QUARTER**  
**PESTICIDE, HERBICIDE, AND PCB ANALYTICAL RESULTS FOR GROUP 3 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location				
			L4-32	L4-32E	L4-33	L4-33W	L4-34W
2,4,5-T	8151A	ug/L	<0.043	<0.043	<0.043	<0.043	<0.043
2,4,5-TP (Silvex)	8151A	ug/L	<0.036	<0.036	<0.036	<0.036	<0.036
2,4-Dichlorophenoxyacetic acid (2,4-D)	8151A	ug/L	<0.24	<0.24	<0.24	<0.24	<0.24
4,4'-DDD	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDE	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDT	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05
Alpha-BHC	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05
Beta-BHC	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05
Chlordane	8081A	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
Delta-BHC	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan II	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulfate	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1
Gamma-BHC (Lindane)	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor Epoxide	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	8081A	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
Toxaphene	8081A	ug/L	<1	<1	<1	<1	<1

**TABLE 27**  
**2003 SECOND QUARTER**  
**PESTICIDE, HERBICIDE, AND PCB ANALYTICAL RESULTS FOR GROUP 4 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location					
			L4-8	L4-8N	L4-9	L4-9N	L4-9S	L4-9W
2,4,5-T	8151A	ug/L	<0.043	<0.043	NT	<0.043	<0.043	<0.043
2,4,5-TP (Silvex)	8151A	ug/L	<0.036	<0.036	NT	<0.036	<0.036	<0.036
2,4-Dichlorophenoxyacetic acid (2,4-D)	8151A	ug/L	<0.24	<0.24	NT	<0.24	<0.24	<0.24
4,4'-DDD	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDE	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDT	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Alpha-BHC	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Beta-BHC	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chlordane	8081A	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Delta-BHC	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan II	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulfate	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Gamma-BHC (Lindane)	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor Epoxide	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	8081A	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toxaphene	8081A	ug/L	<1	<1	<1	<1	<1	<1

**TABLE 28**  
**2003 SECOND QUARTER**  
**PESTICIDE, HERBICIDE, AND PCB ANALYTICAL RESULTS FOR GROUP 5 AND 6 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location								
			L5-10A	L5-3	L5-4	L5-5	L5-6	L5-7	L5-8	L5-9	L6-3A
2,4,5-T	8151A	ug/L	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043
2,4,5-TP (Silvex)	8151A	ug/L	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036
2,4-Dichlorophenoxyacetic acid (2,4-D)	8151A	ug/L	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
4,4'-DDD	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDE	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDT	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Alpha-BHC	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Beta-BHC	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chlordane	8081A	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Delta-BHC	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan II	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulfate	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Gamma-BHC (Lindane)	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor Epoxide	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	8081A	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toxaphene	8081A	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1

**TABLE 29**  
**2003 SECOND QUARTER**  
**PESTICIDE, HERBICIDE, AND PCB ANALYTICAL RESULTS FOR LEACHATE COLLECTION SYSTEM (LCS), LEAK**  
**DETECTION SYSTEM (LDS), AND PERMANENT SUMP (PS)**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location					
			Cell1-LCS	Cell1-LDS	Cell1-PS	Cell2-LCS	Cell2-LDS	TRB-LDS
2,3,7,8-Tetrachlorodibenzo-p-dioxin	8280A	ng/L	<0.18	NT	NT	NT	NT	NT
2,4,5-T	8151A	ug/L	<0.043	<0.043	<0.043	0.22	<0.043	<0.043
2,4,5-TP (Silvex)	8151A	ug/L	15	<0.036	<0.036	0.66	<0.036	<0.036
2,4-Dichlorophenoxyacetic acid (2,4-D)	8151A	ug/L	<0.24	<0.24	<0.24	<6	<0.24	<0.24
4,4'-DDD	8081A	ug/L	<0.05	<0.1	<0.1	<0.05	<0.1	<0.1
4,4'-DDE	8081A	ug/L	<0.05	<0.1	<0.1	<0.05	<0.1	<0.1
4,4'-DDT	8081A	ug/L	<0.05	<0.1	<0.1	<0.05	<0.1	<0.1
Aldrin	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Alpha-BHC	8081A	ug/L	0.17	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Chlordane	8081A	ug/L	0.048	NT	NT	<0.05	NT	NT
Aroclor 1016	8082	ug/L	<0.5	NT	NT	<0.5	NT	NT
Aroclor 1221	8082	ug/L	<0.5	NT	NT	<0.5	NT	NT
Aroclor 1232	8082	ug/L	<0.5	NT	NT	<0.5	NT	NT
Aroclor 1242	8082	ug/L	<0.5	NT	NT	<0.5	NT	NT
Aroclor 1248	8082	ug/L	<0.5	NT	NT	<0.5	NT	NT
Aroclor 1254	8082	ug/L	<1	NT	NT	<1	NT	NT
Aroclor 1260	8082	ug/L	<1	NT	NT	<1	NT	NT
Beta-BHC	8081A	ug/L	0.49	<0.05	<0.05	<0.05	<0.05	<0.05
Chlordane	8081A	ug/L	NT	<0.5	<0.5	NT	<0.5	<0.5
Delta-BHC	8081A	ug/L	0.36	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	8081A	ug/L	0.22	<0.1	<0.1	<0.05	<0.1	<0.1
Disulfoton	8141A	ug/L	<0.2	NT	NT	<0.2	NT	NT
Endosulfan I	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan II	8081A	ug/L	<0.05	<0.1	<0.1	<0.05	<0.1	<0.1
Endosulfan sulfate	8081A	ug/L	<0.05	<0.1	<0.1	<0.05	<0.1	<0.1
Endrin	8081A	ug/L	<0.05	<0.1	<0.1	<0.05	<0.1	<0.1
Endrin Aldehyde	8081A	ug/L	<0.05	<0.1	<0.1	<0.05	<0.1	<0.1
Famphur	8141A	ug/L	<1	NT	NT	<1	NT	NT
Gamma-BHC (Lindane)	8081A	ug/L	0.051	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-Chlordane	8081A	ug/L	<0.05	NT	NT	<0.05	NT	NT
Heptachlor	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor Epoxide	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Kepone	8081A	ug/L	<1	NT	NT	<1	NT	NT
Methoxychlor	8081A	ug/L	<0.1	<0.5	<0.5	<0.1	<0.5	<0.5
Methyl parathion	8141A	ug/L	<0.3	NT	NT	<0.3	NT	NT

**TABLE 29**  
**2003 SECOND QUARTER**  
**PESTICIDE, HERBICIDE, AND PCB ANALYTICAL RESULTS FOR LEACHATE COLLECTION SYSTEM (LCS), LEAK**  
**DETECTION SYSTEM (LDS), AND PERMANENT SUMP (PS)**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location					
			Cell1-LCS	Cell1-LDS	Cell1-PS	Cell2-LCS	Cell2-LDS	TRB-LDS
o,p-DDD	8081A	ug/L	<0.05	NT	NT	<0.05	NT	NT
o,p-DDE	8081A	ug/L	<0.05	NT	NT	<0.05	NT	NT
o,p-DDT	8081A	ug/L	<0.05	NT	NT	<0.05	NT	NT
Parathion	8141A	ug/L	<0.5	NT	NT	<0.5	NT	NT
Phorate	8141A	ug/L	<0.2	NT	NT	0.4	NT	NT
Total HxCDD	8280A	ng/L	<0.82	NT	NT	NT	NT	NT
Total HxCDF	8280A	ng/L	<0.34	NT	NT	NT	NT	NT
Total PeCDD	8280A	ng/L	<0.7	NT	NT	NT	NT	NT
Total PeCDF	8280A	ng/L	<0.39	NT	NT	NT	NT	NT
Total TCDD	8280A	ng/L	<0.18	NT	NT	NT	NT	NT
Total TCDF	8280A	ng/L	<0.41	NT	NT	NT	NT	NT
Toxaphene	8081A	ug/L	<1	<1	<1	<1	<1	<1

**TABLE 30**  
**2003 FOURTH QUARTER**  
**PESTICIDE, HERBICIDE, AND PCB ANALYTICAL RESULTS FOR GROUP 0 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location	
			L4-16	L4-31
2,4,5-T	8151A	ug/L	<0.043	<0.043
2,4,5-TP (Silvex)	8151A	ug/L	<0.036	<0.036
2,4-Dichlorophenoxyacetic acid (2,4-D)	8151A	ug/L	<0.24	<0.24
4,4'-DDD	8081A	ug/L	<0.1	<0.1
4,4'-DDE	8081A	ug/L	<0.1	<0.1
4,4'-DDT	8081A	ug/L	<0.1	<0.1
Aldrin	8081A	ug/L	<0.05	<0.05
Alpha-BHC	8081A	ug/L	<0.05	<0.05
Beta-BHC	8081A	ug/L	<0.05	<0.05
Chlordane	8081A	ug/L	<0.5	<0.5
Delta-BHC	8081A	ug/L	<0.05	<0.05
Dieldrin	8081A	ug/L	<0.1	<0.1
Endosulfan I	8081A	ug/L	<0.05	<0.05
Endosulfan II	8081A	ug/L	<0.1	<0.1
Endosulfan sulfate	8081A	ug/L	<0.1	<0.1
Endrin	8081A	ug/L	<0.1	<0.1
Endrin Aldehyde	8081A	ug/L	<0.1	<0.1
Gamma-BHC (Lindane)	8081A	ug/L	<0.05	<0.05
Heptachlor	8081A	ug/L	<0.05	<0.05
Heptachlor Epoxide	8081A	ug/L	<0.05	<0.05
Methoxychlor	8081A	ug/L	<0.5	<0.5
Toxaphene	8081A	ug/L	<1	<1

**TABLE 31**  
**2003 FOURTH QUARTER**  
**PESTICIDE, HERBICIDE, AND PCB ANALYTICAL RESULTS FOR GROUP 2 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location			
			L4-32A	L4-32EA	L4-32WA	L4-41
2,4,5-T	8151A	ug/L	<0.043	<0.043	<0.043	<0.043
2,4,5-TP (Silvex)	8151A	ug/L	<0.036	<0.036	<0.036	<0.036
2,4-Dichlorophenoxyacetic acid (2,4-D)	8151A	ug/L	<0.24	<0.24	<0.24	<0.24
4,4'-DDD	8081A	ug/L	<0.1	<0.1	<0.1	<0.1
4,4'-DDE	8081A	ug/L	<0.1	<0.1	<0.1	<0.1
4,4'-DDT	8081A	ug/L	<0.1	<0.1	<0.1	<0.1
Aldrin	8081A	ug/L	<0.05	<0.05	<0.05	<0.05
Alpha-BHC	8081A	ug/L	<0.05	<0.05	<0.05	<0.05
Beta-BHC	8081A	ug/L	<0.05	<0.05	<0.05	<0.05
Chlordane	8081A	ug/L	<0.5	<0.5	<0.5	<0.5
Delta-BHC	8081A	ug/L	<0.05	<0.05	<0.05	<0.05
Dieldrin	8081A	ug/L	<0.1	<0.1	<0.1	<0.1
Endosulfan I	8081A	ug/L	<0.05	<0.05	<0.05	<0.05
Endosulfan II	8081A	ug/L	<0.1	<0.1	<0.1	<0.1
Endosulfan sulfate	8081A	ug/L	<0.1	<0.1	<0.1	<0.1
Endrin	8081A	ug/L	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	8081A	ug/L	<0.1	<0.1	<0.1	<0.1
Gamma-BHC (Lindane)	8081A	ug/L	<0.05	<0.05	<0.05	<0.05
Heptachlor	8081A	ug/L	<0.05	<0.05	<0.05	<0.05
Heptachlor Epoxide	8081A	ug/L	<0.05	<0.05	<0.05	<0.05
Methoxychlor	8081A	ug/L	<0.5	<0.5	<0.5	<0.5
Toxaphene	8081A	ug/L	<1	<1	<1	<1

**TABLE 32**  
**2003 FOURTH QUARTER**  
**PESTICIDE, HERBICIDE, AND PCB ANALYTICAL RESULTS FOR GROUP 3 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location					
			L4-32	L4-32E	L4-32W	L4-33	L4-33W	L4-34W
2,4,5-T	8151A	ug/L	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043
2,4,5-TP (Silvex)	8151A	ug/L	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036
2,4-Dichlorophenoxyacetic acid (2,4-D)	8151A	ug/L	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
4,4'-DDD	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDE	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDT	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Alpha-BHC	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Beta-BHC	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chlordane	8081A	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Delta-BHC	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan II	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulfate	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Gamma-BHC (Lindane)	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor Epoxide	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	8081A	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toxaphene	8081A	ug/L	<1	<1	<1	<1	<1	<1

**TABLE 33**  
**2003 FOURTH QUARTER**  
**PESTICIDE, HERBICIDE, AND PCB ANALYTICAL RESULTS FOR GROUP 4 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location					
			L4-8	L4-8N	L4-9	L4-9N	L4-9S	L4-9W
2,4,5-T	8151A	ug/L	<0.043	<0.043	NT	<0.043	<0.043	<0.043
2,4,5-TP (Silvex)	8151A	ug/L	<0.036	<0.036	NT	<0.036	<0.036	<0.036
2,4-Dichlorophenoxyacetic acid (2,4-D)	8151A	ug/L	<0.24	<0.24	NT	<0.24	<0.24	<0.24
4,4'-DDD	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDE	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDT	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Alpha-BHC	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Beta-BHC	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chlordane	8081A	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Delta-BHC	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan II	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulfate	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Gamma-BHC (Lindane)	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor Epoxide	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	8081A	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toxaphene	8081A	ug/L	<1	<1	<1	<1	<1	<1

**TABLE 34**  
**2003 FOURTH QUARTER**  
**PESTICIDE, HERBICIDE, AND PCB ANALYTICAL RESULTS FOR GROUP 5 AND 6 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location								
			L5-10A	L5-3	L5-4	L5-5	L5-6	L5-7	L5-8	L5-9	L6-3A
2,4,5-T	8151A	ug/L	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043
2,4,5-TP (Silvex)	8151A	ug/L	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036
2,4-Dichlorophenoxyacetic acid (2,4-D)	8151A	ug/L	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
4,4'-DDD	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDE	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDT	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Alpha-BHC	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Beta-BHC	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chlordane	8081A	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Delta-BHC	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan II	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulfate	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	8081A	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Gamma-BHC (Lindane)	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor Epoxide	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	8081A	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toxaphene	8081A	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1

**TABLE 35**  
**2003 FOURTH QUARTER**  
**PESTICIDE, HERBICIDE, AND PCB ANALYTICAL RESULTS FOR LEACHATE COLLECTION SYSTEM (LCS), LEAK**  
**DETECTION SYSTEM (LDS), AND PERMANENT SUMP (PS)**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location					
			Cell1-LCS	Cell1-LDS	Cell1-PS	Cell2-LCS	Cell2-LDS	TRB-LDS
2,3,7,8-Tetrachlorodibenzo-p-dioxin	8280A	ng/L	<0.049	NT	NT	<0.097	NT	NT
2,4,5-T	8151A	ug/L	<43	<0.043	<0.043	<4.3	<0.043	<0.043
2,4,5-TP (Silvex)	8151A	ug/L	<36	<0.036	<0.036	<3.6	<0.036	<0.036
2,4-Dichlorophenoxyacetic acid (2,4-D)	8151A	ug/L	1700	<0.24	<0.24	340	<0.24	<0.24
4,4'-DDD	8081A	ug/L	<0.05	<0.1	<0.1	<0.05	<0.1	<0.1
4,4'-DDE	8081A	ug/L	<0.05	<0.1	<0.1	0.072	<0.1	<0.1
4,4'-DDT	8081A	ug/L	<0.05	<0.1	<0.1	<0.05	<0.1	<0.1
Aldrin	8081A	ug/L	0.038	<0.05	<0.05	<0.05	<0.05	<0.05
Alpha-BHC	8081A	ug/L	0.17	<0.05	<0.05	0.026	<0.05	<0.05
alpha-Chlordane	8081A	ug/L	<0.05	NT	NT	<0.05	NT	NT
Aroclor 1016	8082	ug/L	<0.5	NT	NT	<0.5	NT	NT
Aroclor 1221	8082	ug/L	<0.5	NT	NT	<0.5	NT	NT
Aroclor 1232	8082	ug/L	<0.5	NT	NT	<0.5	NT	NT
Aroclor 1242	8082	ug/L	<0.5	NT	NT	<0.5	NT	NT
Aroclor 1248	8082	ug/L	<0.5	NT	NT	<0.5	NT	NT
Aroclor 1254	8082	ug/L	<1	NT	NT	<1	NT	NT
Aroclor 1260	8082	ug/L	<1	NT	NT	<1	NT	NT
Beta-BHC	8081A	ug/L	0.7	<0.05	<0.05	<0.05	<0.05	<0.05
Chlordane	8081A	ug/L	NT	<0.5	<0.5	NT	<0.5	<0.5
Delta-BHC	8081A	ug/L	0.29	<0.05	<0.05	0.036	<0.05	<0.05
Dieldrin	8081A	ug/L	<0.05	<0.1	<0.1	<0.05	<0.1	<0.1
Disulfoton	8141A	ug/L	<0.2	NT	NT	<0.2	NT	NT
Endosulfan I	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan II	8081A	ug/L	0.083	<0.1	<0.1	<0.05	<0.1	<0.1
Endosulfan sulfate	8081A	ug/L	<0.05	<0.1	<0.1	<0.05	<0.1	<0.1
Endrin	8081A	ug/L	<0.05	<0.1	<0.1	<0.05	<0.1	<0.1
Endrin Aldehyde	8081A	ug/L	<0.05	<0.1	<0.1	<0.05	<0.1	<0.1
Famphur	8141A	ug/L	<1	NT	NT	<1	NT	NT
Gamma-BHC (Lindane)	8081A	ug/L	0.035	<0.05	<0.05	0.047	<0.05	<0.05
gamma-Chlordane	8081A	ug/L	<0.05	NT	NT	<0.05	NT	NT
Heptachlor	8081A	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor Epoxide	8081A	ug/L	<0.05	<0.05	<0.05	0.03	<0.05	<0.05
Kepone	8081A	ug/L	0.26	NT	NT	<1	NT	NT
Methoxychlor	8081A	ug/L	<0.1	<0.5	<0.5	<0.1	<0.5	<0.5

**TABLE 35**  
**2003 FOURTH QUARTER**  
**PESTICIDE, HERBICIDE, AND PCB ANALYTICAL RESULTS FOR LEACHATE COLLECTION SYSTEM (LCS), LEAK**  
**DETECTION SYSTEM (LDS), AND PERMANENT SUMP (PS)**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location					
			Cell1-LCS	Cell1-LDS	Cell1-PS	Cell2-LCS	Cell2-LDS	TRB-LDS
Methyl parathion	8141A	ug/L	<0.3	NT	NT	<0.3	NT	NT
o,p-DDD	8081A	ug/L	<0.05	NT	NT	<0.05	NT	NT
o,p-DDE	8081A	ug/L	<0.05	NT	NT	<0.05	NT	NT
o,p-DDT	8081A	ug/L	<0.05	NT	NT	<0.05	NT	NT
Parathion	8141A	ug/L	<0.5	NT	NT	<0.5	NT	NT
Phorate	8141A	ug/L	<0.2	NT	NT	<0.2	NT	NT
Total HxCDD	8280A	ng/L	<0.11	NT	NT	<0.2	NT	NT
Total HxCDF	8280A	ng/L	<0.23	NT	NT	<0.63	NT	NT
Total PeCDD	8280A	ng/L	<1.8	NT	NT	<1.8	NT	NT
Total PeCDF	8280A	ng/L	<0.17	NT	NT	<0.47	NT	NT
Total TCDD	8280A	ng/L	<0.049	NT	NT	<0.097	NT	NT
Total TCDF	8280A	ng/L	<0.052	NT	NT	<0.51	NT	NT
Toxaphene	8081A	ug/L	<1	<1	<1	<1	<1	<1

**TABLE 36**  
**2003 SECOND QUARTER**  
**DISSOLVED METAL ANALYTICAL RESULTS FOR GROUP 0 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location	
			L4-16	L4-31
Arsenic (Dissolved)	6010B	mg/L	<0.02	<0.01
Iron (Dissolved)	6010B	mg/L	0.075	<0.05
Manganese (Dissolved)	6010B	mg/L	0.19	<0.01
Sodium (Dissolved)	6010B	mg/L	8500	10
Zinc (Dissolved)	6010B	mg/L	<0.1	<0.05

**TABLE 37**  
**2003 SECOND QUARTER**  
**DISSOLVED METAL ANALYTICAL RESULTS FOR GROUP 2 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location			
			L4-32A	L4-32EA	L4-32WA	L4-41
Arsenic (Dissolved)	6010B	mg/L	<0.01	<0.01	<0.01	<0.01
Iron (Dissolved)	6010B	mg/L	<0.05	<0.05	<0.05	<0.05
Manganese (Dissolved)	6010B	mg/L	<0.01	<0.01	<0.01	<0.01
Sodium (Dissolved)	6010B	mg/L	1400	870	1200	4800
Zinc (Dissolved)	6010B	mg/L	<0.05	0.054	<0.05	<0.05

**TABLE 38**  
**2003 SECOND QUARTER**  
**DISSOLVED METAL ANALYTICAL RESULTS FOR GROUP 3 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location				
			L4-32	L4-32E	L4-33	L4-33W	L4-34W
Arsenic (Dissolved)	6010B	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Iron (Dissolved)	6010B	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Manganese (Dissolved)	6010B	mg/L	0.022	0.4	<0.01	0.031	0.2
Sodium (Dissolved)	6010B	mg/L	6400	5900	5900	6600	7700
Zinc (Dissolved)	6010B	mg/L	<0.05	0.66	0.061	0.059	0.29

**TABLE 39**  
**2003 SECOND QUARTER**  
**DISSOLVED METAL ANALYTICAL RESULTS FOR GROUP 4 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location					
			L4-8	L4-8N	L4-9	L4-9N	L4-9S	L4-9W
Arsenic (Dissolved)	6010B	mg/L	<0.02	<0.02	<0.01	<0.02	<0.01	<0.01
Iron (Dissolved)	6010B	mg/L	0.13	0.27	<0.05	0.073	<0.05	<0.05
Manganese (Dissolved)	6010B	mg/L	0.26	0.049	0.62	0.082	0.068	0.19
Sodium (Dissolved)	6010B	mg/L	6900	6200	8500	8700	6000	6000
Zinc (Dissolved)	6010B	mg/L	<0.1	<0.1	0.89	<0.1	0.85	0.24

**TABLE 40**  
**2003 SECOND QUARTER**  
**DISSOLVED METAL ANALYTICAL RESULTS FOR GROUP 5 AND 6 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location								
			L5-10A	L5-3	L5-4	L5-5	L5-6	L5-7	L5-8	L5-9	L6-3A
Arsenic (Dissolved)	6010B	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Iron (Dissolved)	6010B	mg/L	0.32	0.084	0.073	0.07	0.064	0.72	0.17	0.099	1.4
Manganese (Dissolved)	6010B	mg/L	0.022	0.015	0.01	0.02	0.019	0.03	0.054	<0.01	0.035
Sodium (Dissolved)	6010B	mg/L	1100	1100	1200	1300	990	1100	1100	1100	210
Zinc (Dissolved)	6010B	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

**TABLE 41**  
**2003 SECOND QUARTER**  
**DISSOLVED METAL ANALYTICAL RESULTS FOR LEAK DETECTION SYSTEM (LDS) AND PERMANENT SUMP (PS)**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location			
			Cell1-LDS	Cell1-PS	Cell2-LDS	TRB-LDS
Arsenic (Dissolved)	6010B	mg/L	<0.01	<0.01	<0.01	<0.01
Iron (Dissolved)	6010B	mg/L	0.059	<0.05	<0.05	0.066
Manganese (Dissolved)	6010B	mg/L	0.035	0.011	<0.01	0.012
Sodium (Dissolved)	6010B	mg/L	750	2100	1200	1300
Zinc (Dissolved)	6010B	mg/L	0.96	0.39	0.052	<0.05

**TABLE 42**  
**2003 FOURTH QUARTER**  
**DISSOLVED METAL ANALYTICAL RESULTS FOR GROUP 0 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location	
			L4-16	L4-31
Arsenic (Dissolved)	6010B	mg/L	<0.05	<0.01
Iron (Dissolved)	6010B	mg/L	<0.05	<0.05
Manganese (Dissolved)	6010B	mg/L	0.22	0.044
Sodium (Dissolved)	6010B	mg/L	8200	4000
Zinc (Dissolved)	6010B	mg/L	<0.25	<0.05

**TABLE 43**  
**2003 FOURTH QUARTER**  
**DISSOLVED METAL ANALYTICAL RESULTS FOR GROUP 2 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location			
			L4-32A	L4-32EA	L4-32WA	L4-41
Arsenic (Dissolved)	6010B	mg/L	<0.01	<0.01	<0.01	<0.01
Iron (Dissolved)	6010B	mg/L	<0.05	<0.05	<0.05	0.15
Manganese (Dissolved)	6010B	mg/L	<0.01	<0.01	<0.01	<0.01
Sodium (Dissolved)	6010B	mg/L	1200	850	3900	4300
Zinc (Dissolved)	6010B	mg/L	<0.05	0.079	<0.05	<0.05

**TABLE 44**  
**2003 FOURTH QUARTER**  
**DISSOLVED METAL ANALYTICAL RESULTS FOR GROUP 3 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location					
			L4-32	L4-32E	L4-32W	L4-33	L4-33W	L4-34W
Arsenic (Dissolved)	6010B	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Iron (Dissolved)	6010B	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Manganese (Dissolved)	6010B	mg/L	0.49	0.56	0.18	<0.01	0.05	0.33
Sodium (Dissolved)	6010B	mg/L	6400	6500	6400	5600	6400	7100
Zinc (Dissolved)	6010B	mg/L	<0.05	<0.05	0.63	<0.05	<0.05	<0.05

**TABLE 45**  
**2003 FOURTH QUARTER**  
**DISSOLVED METAL ANALYTICAL RESULTS FOR GROUP 4 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location					
			L4-8	L4-8N	L4-9	L4-9N	L4-9S	L4-9W
Arsenic (Dissolved)	6010B	mg/L	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01
Iron (Dissolved)	6010B	mg/L	<0.05	0.44	<0.05	<0.05	<0.05	0.1
Manganese (Dissolved)	6010B	mg/L	0.24	0.12	0.63	0.084	0.37	0.28
Sodium (Dissolved)	6010B	mg/L	6400	5800	8500	8100	6700	5700
Zinc (Dissolved)	6010B	mg/L	<0.05	<0.05	<0.25	<0.05	0.18	<0.05

**TABLE 46**  
**2003 FOURTH QUARTER**  
**DISSOLVED METAL ANALYTICAL RESULTS FOR GROUP 5 AND 6 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location								
			L5-10A	L5-3	L5-4	L5-5	L5-6	L5-7	L5-8	L5-9	L6-3A
Arsenic (Dissolved)	6010B	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Iron (Dissolved)	6010B	mg/L	0.4	<0.05	0.067	0.076	<0.05	0.74	0.73	<0.05	0.32
Manganese (Dissolved)	6010B	mg/L	0.021	0.013	0.01	0.02	0.018	0.027	0.054	<0.01	<0.01
Sodium (Dissolved)	6010B	mg/L	1100	1200	1100	1300	1000	1100	1100	1100	200
Zinc (Dissolved)	6010B	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

**TABLE 47**  
**2003 FOURTH QUARTER**  
**DISSOLVED METAL ANALYTICAL RESULTS FOR LEAK DETECTION SYSTEM (LDS) AND PERMANENT SUMP (PS)**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location			
			Cell1-LDS	Cell1-PS	Cell2-LDS	TRB-LDS
Arsenic (Dissolved)	6010B	mg/L	<0.01	<0.01	<0.01	<0.01
Iron (Dissolved)	6010B	mg/L	<0.05	<0.05	<0.05	<0.05
Manganese (Dissolved)	6010B	mg/L	<0.01	<0.01	<0.01	0.052
Sodium (Dissolved)	6010B	mg/L	710	2300	1100	1200
Zinc (Dissolved)	6010B	mg/L	0.82	1.9	<0.05	0.077

**TABLE 48**  
**2003 SECOND QUARTER**  
**TOTAL METAL ANALYTICAL RESULTS FOR LEACHATE COLLECTION SYSTEM (LCS)**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location	
			Cell1-LCS	Cell2-LCS
Antimony (Total)	6010B	mg/L	<0.05	0.23
Arsenic (Total)	6010B	mg/L	0.44	38
Barium (Total)	6010B	mg/L	0.076	0.061
Beryllium (Total)	6010B	mg/L	<0.025	<0.005
Cadmium (Total)	6010B	mg/L	0.15	0.024
Chromium (Total)	6010B	mg/L	<0.05	0.22
Lead (Total)	6010B	mg/L	<0.015	0.011
Mercury (Total)	7470A	mg/L	0.00003	0.00023
Nickel (Total)	6010B	mg/L	0.081	0.24
Selenium (Total)	6010B	mg/L	0.063	0.093
Silver (Total)	6010B	mg/L	<0.05	0.00074
Thallium (Total)	6010B	mg/L	0.064	<0.01
Vanadium (Total)	6010B	mg/L	<0.05	0.02

**TABLE 49**  
**2003 FOURTH QUARTER**  
**TOTAL METAL ANALYTICAL RESULTS FOR LEACHATE COLLECTION SYSTEM (LCS)**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location	
			Cell1-LCS	Cell2-LCS
Antimony (Total)	6010B	mg/L	0.0088	0.42
Arsenic (Total)	6010B	mg/L	0.34	19
Barium (Total)	6010B	mg/L	0.087	0.075
Beryllium (Total)	6010B	mg/L	<0.005	<0.005
Cadmium (Total)	6010B	mg/L	0.21	0.0037
Chromium (Total)	6010B	mg/L	0.0045	0.042
Lead (Total)	6010B	mg/L	<0.003	0.011
Mercury (Total)	7470A	mg/L	0.00011	0.00029
Nickel (Total)	6010B	mg/L	0.072	0.06
Selenium (Total)	6010B	mg/L	0.1	0.064
Silver (Total)	6010B	mg/L	<0.01	<0.01
Thallium (Total)	6010B	mg/L	0.012	<0.01
Vanadium (Total)	6010B	mg/L	0.0039	0.013

**TABLE 50**  
**2003 SECOND QUARTER**  
**GENERAL CHEMISTRY ANALYTICAL RESULTS FOR GROUP 0 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location	
			L4-16	L4-31
Alkalinity, Total	310.1	mg/L	980	36
Chloride	325.3	mg/L	1400	10
Nitrogen, Nitrite and Nitrate	353.2	mg/L	370	0.98
Sulfate	375.4	mg/L	28000	140
Total Dissolved Solids	160.1	mg/L	45000	300
Total Organic Carbon	415.1	mg/L	23	2.1

**TABLE 51**  
**2003 SECOND QUARTER**  
**GENERAL CHEMISTRY ANALYTICAL RESULTS FOR GROUP 2 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location			
			L4-32A	L4-32EA	L4-32WA	L4-41
Alkalinity, Total	310.1	mg/L	330	460	220	240
Chloride	325.3	mg/L	27	350	12	730
Nitrogen, Nitrite and Nitrate	353.2	mg/L	3.5	1.1	4	7.2
Sulfate	375.4	mg/L	4300	2900	3200	13000
Total Dissolved Solids	160.1	mg/L	5700	5600	4900	22000
Total Organic Carbon	415.1	mg/L	2.6	5.3	2.2	11

**TABLE 52**  
**2003 SECOND QUARTER**  
**GENERAL CHEMISTRY ANALYTICAL RESULTS FOR GROUP 3 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location				
			L4-32	L4-32E	L4-33	L4-33W	L4-34W
Alkalinity, Total	310.1	mg/L	380	420	210	510	430
Chloride	325.3	mg/L	970	780	900	720	1200
Nitrogen, Nitrite and Nitrate	353.2	mg/L	11	9.3	32	7.8	210
Sulfate	375.4	mg/L	16000	17000	16000	17000	18000
Total Dissolved Solids	160.1	mg/L	31000	32000	26000	31000	37000
Total Organic Carbon	415.1	mg/L	10	12	14	24	13

**TABLE 53**  
**2003 SECOND QUARTER**  
**GENERAL CHEMISTRY ANALYTICAL RESULTS FOR GROUP 4 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location					
			L4-8	L4-8N	L4-9	L4-9N	L4-9S	L4-9W
Alkalinity, Total	310.1	mg/L	480	380	690	720	500	450
Chloride	325.3	mg/L	540	520	890	970	590	720
Nitrogen, Nitrite and Nitrate	353.2	mg/L	630	800	610	500	730	590
Sulfate	375.4	mg/L	27000	27000	25000	29000	20000	19000
Total Dissolved Solids	160.1	mg/L	49000	47000	48000	50000	46000	35000
Total Organic Carbon	415.1	mg/L	19	17	30	18	18	15

**TABLE 54**  
**2003 SECOND QUARTER**  
**GENERAL CHEMISTRY ANALYTICAL RESULTS FOR GROUP 5 AND 6 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location								
			L5-10A	L5-3	L5-4	L5-5	L5-6	L5-7	L5-8	L5-9	L6-3A
Alkalinity, Total	310.1	mg/L	260	240	220	260	270	260	270	210	290
Chloride	325.3	mg/L	1700	1600	1700	1800	1500	1600	1700	1600	27
Nitrogen, Nitrite and Nitrate	353.2	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1.1
Sulfate	375.4	mg/L	<5	7.2	<5	<5	8.6	<5	10	13	1300
Total Dissolved Solids	160.1	mg/L	2800	2800	3000	3300	2600	2900	3000	2800	2500
Total Organic Carbon	415.1	mg/L	4.7	3.5	3.9	8.6	3.8	7.2	4.2	5	2

**TABLE 55**  
**2003 SECOND QUARTER**  
**GENERAL CHEMISTRY ANALYTICAL RESULTS FOR LEACHATE COLLECTION SYSTEM (LCS), LEAK DETECTION**  
**SYSTEM (LDS), AND PERMANENT SUMP (PS)**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location					
			Cell1-LCS	Cell1-LDS	Cell1-PS	Cell2-LCS	Cell2-LDS	TRB-LDS
Alkalinity, Total	310.1	mg/L	NT	100	320	NT	150	140
Chloride	325.3	mg/L	NT	380	300	NT	670	1100
Cyanide, Amenable	9012A	mg/L	<0.01	NT	NT	<0.01	NT	NT
Cyanide, Total	9012A	mg/L	0.091	NT	NT	0.09	NT	NT
Fluoride, Free	340.2	mg/L	0.27	NT	NT	1.1	NT	NT
Nitrogen, Nitrite and Nitrate	353.2	mg/L	NT	14	2.5	NT	10	10
Sulfate	375.4	mg/L	NT	2900	5600	NT	3300	3000
Sulfide	9030B/9034	mg/L	<4	NT	NT	<4	NT	NT
Total Dissolved Solids	160.1	mg/L	NT	5000	9100	NT	6500	6900
Total Organic Carbon	415.1	mg/L	NT	15	7.4	NT	34	21

**TABLE 56**  
**2003 FOURTH QUARTER**  
**GENERAL CHEMISTRY ANALYTICAL RESULTS FOR GROUP 0 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location	
			L4-16	L4-31
Alkalinity, Total	310.1	mg/L	150	270
Chloride	325.3	mg/L	1800	580
Nitrogen, Nitrite and Nitrate	353.2	mg/L	350	9.4
pH (Field)	FIELD	pH	7.38	7.66
Specific Conductance (Field)	FIELD	umhos/cm	29970	15930
Sulfate	375.4	mg/L	30000	13000
Temperature (Field)	FIELD	C	14.8	14.7
Total Dissolved Solids	160.1	mg/L	37000	3300
Total Organic Carbon	415.1	mg/L	20	5.9
Turbidity (Field)	FIELD	NTU	2.8	4.64

**TABLE 57**  
**2003 FOURTH QUARTER**  
**GENERAL CHEMISTRY ANALYTICAL RESULTS FOR GROUP 2 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location			
			L4-32A	L4-32EA	L4-32WA	L4-41
Alkalinity, Total	310.1	mg/L	310	470	280	240
Chloride	325.3	mg/L	42	350	720	740
Nitrogen, Nitrite and Nitrate	353.2	mg/L	3.2	1	8	7.2
pH (Field)	FIELD	pH	7.62	7.82	7.72	7.67
Specific Conductance (Field)	FIELD	umhos/cm	4300	3940	11904	12760
Sulfate	375.4	mg/L	4200	3300	12000	14000
Temperature (Field)	FIELD	C	14	17	19	14
Total Dissolved Solids	160.1	mg/L	5300	1300	10000	24000
Total Organic Carbon	415.1	mg/L	3.4	6	21	11
Turbidity (Field)	FIELD	NTU	1.63	9.1	1.57	28.1

**TABLE 58**  
**2003 FOURTH QUARTER**  
**GENERAL CHEMISTRY ANALYTICAL RESULTS FOR GROUP 3 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location					
			L4-32	L4-32E	L4-32W	L4-33	L4-33W	L4-34W
Alkalinity, Total	310.1	mg/L	530	460	490	200	530	380
Chloride	325.3	mg/L	940	770	800	870	730	1200
Nitrogen, Nitrite and Nitrate	353.2	mg/L	5.7	7	1	30	6.1	190
pH (Field)	FIELD	pH	7.42	7.32	7.41	7.6	7.48	7.24
Specific Conductance (Field)	FIELD	umhos/cm	17300	18883	18555	16749	16748	21264
Sulfate	375.4	mg/L	22000	22000	21000	18000	23000	26000
Temperature (Field)	FIELD	C	13	14	18	18	17	16
Total Dissolved Solids	160.1	mg/L	31000	22000	16000	23000	28000	17000
Total Organic Carbon	415.1	mg/L	10	11	13	9.8	22	12
Turbidity (Field)	FIELD	NTU	41.3	5.3	5.1	1.58	6.67	266

**TABLE 59**  
**2003 FOURTH QUARTER**  
**GENERAL CHEMISTRY ANALYTICAL RESULTS FOR GROUP 4 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location					
			L4-8	L4-8N	L4-9	L4-9N	L4-9S	L4-9W
Alkalinity, Total	310.1	mg/L	490	360	680	730	560	530
Chloride	325.3	mg/L	540	500	870	940	610	680
Nitrogen, Nitrite and Nitrate	353.2	mg/L	610	800	550	460	600	510
pH (Field)	FIELD	pH	6.92	6.95	7.6	7.07	7.13	7.05
Specific Conductance (Field)	FIELD	umhos/cm	23500	22900	23200	25370	23316	20771
Sulfate	375.4	mg/L	32000	30000	31000	32000	32000	27000
Temperature (Field)	FIELD	C	17	18	16.9	18	17	18
Total Dissolved Solids	160.1	mg/L	6300	25000	53000	58000	48000	56000
Total Organic Carbon	415.1	mg/L	19	17	31	19	19	15
Turbidity (Field)	FIELD	NTU	4.11	0.95	18.9	6.98	34.5	6.58

**TABLE 60**  
**2003 FOURTH QUARTER**  
**GENERAL CHEMISTRY ANALYTICAL RESULTS FOR GROUP 5 AND 6 WELLS**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location								
			L5-10A	L5-3	L5-4	L5-5	L5-6	L5-7	L5-8	L5-9	L6-3A
Alkalinity, Total	310.1	mg/L	270	260	300	270	300	270	270	220	290
Chloride	325.3	mg/L	1600	1600	1700	1900	1400	1600	1700	1500	21
Nitrogen, Nitrite and Nitrate	353.2	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.98
pH (Field)	FIELD	pH	8.15	8.23	8.46	8.07	8.48	7.84	7.85	8.59	7.28
Specific Conductance (Field)	FIELD	umhos/cm	3870	3920	4580	4464	3300	3800	4753	3770	1860
Sulfate	375.4	mg/L	<5	<5	<5	<5	8.5	<5	20	13	1600
Temperature (Field)	FIELD	C	17	16.7	16.9	16.9	16.7	17	14.4	17.4	14
Total Dissolved Solids	160.1	mg/L	2900	2900	3100	3300	2700	2900	5500	2900	2700
Total Organic Carbon	415.1	mg/L	4.6	3.7	3.4	5.8	4	4.5	4.3	3.9	1.8
Turbidity (Field)	FIELD	NTU	3.57	2.22	0.67	2.03	2.09	6.44	5.57	1.38	4.95

**TABLE 61**  
**2003 FOURTH QUARTER**  
**GENERAL CHEMISTRY ANALYTICAL RESULTS FOR LEACHATE COLLECTION SYSTEM (LCS), LEAK DETECTION**  
**SYSTEM (LDS), AND PERMANENT SUMP (PS)**  
**CLEAN HARBORS (DEER TRAIL), LLC.**

Parameter Name	Method	Units	Location					
			Cell1-LCS	Cell1-LDS	Cell1-PS	Cell2-LCS	Cell2-LDS	TRB-LDS
Alkalinity, Total	310.1	mg/L	NT	100	320	NT	150	140
Chloride	325.3	mg/L	NT	370	300	NT	630	950
Cyanide, Amenable	9012A	mg/L	<0.01	NT	NT	<0.01	NT	NT
Cyanide, Total	9012A	mg/L	0.062	NT	NT	1.1	NT	NT
Fluoride, Free	340.2	mg/L	0.25	NT	NT	0.35	NT	NT
Nitrogen, Nitrite and Nitrate	353.2	mg/L	NT	14	1.6	NT	9.9	9.2
pH (Field)	FIELD	pH	7.11	8.05	8.01	7.51	7.14	7.89
Specific Conductance (Field)	FIELD	umhos/cm	33825	5090	10100	33300	6453	6617
Sulfate	375.4	mg/L	NT	3000	6500	NT	3400	3200
Sulfide	9030B/9034	mg/L	<4	NT	NT	<4	NT	NT
Temperature (Field)	FIELD	C	14.7	14.8	16.6	13.7	13.7	13.9
Total Dissolved Solids	160.1	mg/L	NT	5200	8900	NT	6300	6400
Total Organic Carbon	415.1	mg/L	NT	14	8	NT	30	19
Turbidity (Field)	FIELD	NTU	11.9	0.76	0.55	18.8	2.41	0.87