P0772 20-02

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OPERATION/CONSTRUCTION MANAGERS

**Municipal Services**

PO Box 97, Garner, North Carolina 27529 (919) 772-5393

CIVIL/SANITARY ENGINEERS

**Engineering Company, P.A.**

PO Box 349, Boone, North Carolina 28607 (828) 262-1767

June 9, 1999

Mr. Larry Rose
Solid Waste Section
Division of Waste Management
North Carolina Department of Environment
and Natural Resources
401 Oberlin Road
Raleigh, North Carolina 2760

JUN 1999 Received Solid Waste Section

Re: Cherokee County Lined Landfill
Groundwater Sampling and Analysis
MESCO Project No. G99011.0

Mr. Rose:

On May 19, 1999, the Pace Analytical Services, Inc. of Asheville sampled the Cherokee County Landfill groundwater monitoring well and surface water locations. Laboratory analyses were completed by Pace (Asheville). Municipal Engineering Services Co., P.A. (MESCO) completed and included the following in accordance with 15A NCAC 13B .1633 *Detection Monitoring.*

- a Results Summary with comparison to North Carolina Groundwater Standards
- a Data-Distribution Report
- a Statistical Analysis report
- a potentiometric map with appropriate flow rates and directions at sampling locations
- a copy of laboratory analyses with chain of custody sheets

No constituents were detected above the North Carolina Groundwater Standards. However, three wells showed detections of volatile organic compounds (VOC's). Carbon disulfide Methyl Bromide

An inter-point approach was used to determine if detected constituents are statistically significant over background concentrations. Parametric prediction limits were computed for all normally and log-normally distributed data with non-detects (ND's) < 50%. (EPA simple substitution for data with less than ND<15% and Cohen's adjustment for ND's between 15 and 50%.) Nonparametric prediction limits were used for all non-normally distributed data and for sets with ND>50%.

An inter-point statistical approach relies heavily on background data. Therefore, for detections not showing up at background locations, the Kruskal-Wallace (nonparametric ANOVA) approach was used. This method identifies statistically significant differences among specified groups of data and is useful in handling small data sets with a high proportion of non-detects.

No constituents were found to be statistically significant over background levels, except for bromomethane, which was found in MW-3 at levels below Standard. However, this constituent was also detected in the equipment blank at equivalent levels. This result was determined to be highly suspect and was subsequently discarded.

Carbon disulfide was found in MW-5 at levels well above detection limits. No statistical analyses were run on this parameter because its detection alone flags it as significant. However, this level of carbon disulfide at a location and site where no VOC has previously been detected is questionable. Cross-contamination during the sampling procedure is highly probable.

Considering the above, MESCO suggests Cherokee County continue Detection Monitoring and await results from the next event. Should the next semi-annual sampling event (November, 1999) show repeated detections of these or other constituents, MESCO, with recommendations from the Division, will re-sample and discuss a more inclusive sampling method.

Should you have any questions pertaining to the content of this letter or its enclosures, please contact me at 919.772.5393.

Regards,
**MUNICIAPL ENGINEERING SERVICES CO., P.A.**

James A. Skinner, Jr

James A. Skinner, Jr.

Enclosures

cc: Robert Allen
Cherokee County

# Results Summary with comparison to North Carolina Groundwater Standard

## Result Report (w/ Threshold Exceedences)

**Program:** Cherokee Lined - Groundwater Monitoring **Site:** Lined Landfill
**Page:** 1 **Data Group:** None

| Parameter | Unit | Date | Sample ID | Result Value | Detection Limit | Regulatory Limit | Exceedence Value | Code |
|---|---|---|---|---|---|---|---|---|

## Result Report (w/ Threshold Exceedences)

**Company:** Cherokee County **Data Group:** None
**Site:** Lined Landfill **Date Range:** 05-19-1999 to 05-19-1999
**Program:** Cherokee Lined - Groundwater Monitoring **Permit:**
**Report printed:** 6/ 8/99 2:19:38PM **Confidence Level:** 0.95
**Reported by:** user **Log Transform:** No
**Report Options:** Threshold exceedances by sampling point

**Monitor 5**

**Downgradient**

### MW-2

Metals

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Antimony | mg/L | 5/19/99 | 7 | ND | 0.010 | - | - |
| Arsenic | mg/L | 5/19/99 | 7 | ND | 0.010 | 0.050 | - |
| Barium | mg/L | 5/19/99 | 7 | 0.072 | 0.005 | 2.000 | - |
| Beryllium | mg/L | 5/19/99 | 7 | ND | 0.002 | - | - |
| Cadmium | mg/L | 5/19/99 | 7 | ND | 0.001 | 0.005 | - |
| Chromium | mg/L | 5/19/99 | 7 | 0.015 | 0.005 | 0.050 | - |
| Cobalt | mg/L | 5/19/99 | 7 | 0.015 | 0.005 | - | - |
| Copper | mg/L | 5/19/99 | 7 | ND | 0.005 | 1.000 | - |
| Lead | mg/L | 5/19/99 | 7 | ND | 0.010 | 0.015 | - |
| Nickel | mg/L | 5/19/99 | 7 | 0.020 | 0.005 | 0.100 | - |
| Selenium | mg/L | 5/19/99 | 7 | ND | 0.020 | 0.050 | - |
| Silver | mg/L | 5/19/99 | 7 | ND | 0.002 | 0.018 | - |
| Thallium | mg/L | 5/19/99 | 7 | 0.002 | 0.002 | - | - |
| Vanadium | mg/L | 5/19/99 | 7 | 0.013 | 0.005 | - | - |
| Zinc | mg/L | 5/19/99 | 7 | 0.038 | 0.020 | 2.100 | - |

Volatile Organic Compounds

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - |
| 1,1,1-Trichloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | 200.000 | - |
| 1,1,2,2-Tetrachloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - |
| 1,1,2-Trichloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - |
| 1,1-Dichloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | 700.000 | - |
| 1,1-Dichloroethene | µg/L | 5/19/99 | 7 | ND | 5.000 | 7.000 | - |
| 1,2,3-Trichloropropane | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.006 | - |
| 1,2-Dibromo-3-chloropro | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.025 | - |
| 1,2-Dibromoethane | µg/L | 5/19/99 | 7 | ND | 2.000 | 0.000 | - |
| 1,2-Dichlorobenzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 620.000 | - |
| 1,2-Dichloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.380 | - |
| 1,2-Dichloropropane | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.560 | - |
| 1,4-Dichlorobenzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 75.000 | - |
| 2-Hexanone | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - |
| Acetone | µg/L | 5/19/99 | 7 | ND | 10.000 | 700.000 | - |
| Acrylonitrile | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - |
| Benzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 1.000 | - |
| Bromochloromethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - |
| Bromodichloromethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - |
| Bromoform | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.190 | - |
| Bromomethane | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - |
| Carbon disulfide | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - |
| Carbon tetrachloride | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.300 | - |
| Chlorobenzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 50.000 | - |
| Chlorodibromomethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - |
| Chloroethane | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - |
| Chloroform | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.190 | - |
| Chloromethane | µg/L | 5/19/99 | 7 | ND | 10.000 | 2.600 | - |

**Note:The statistics are replaced by the corresponding minimum variance unbiased estimates for the log normal distribution.**

## Result Report (w/ Threshold Exceedences)

**Program:** Cherokee Lined - Groundwater Monitoring **Site:** Lined Landfill
**Page:** 2 **Data Group:** None

| Parameter | Unit | Date | Sample ID | Result Value | Detection Limit | Regulatory Limit | Exceedence Value | Code |
|---|---|---|---|---|---|---|---|---|
| cis-1,2-Dichloroethene | µg/L | 5/19/99 | 7 | ND | 5.000 | 70.000 | - | |
| cis-1,3-Dichloropropene | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Dibromomethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Ethyl benzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 29.000 | - | |
| Methyl ethyl ketone | µg/L | 5/19/99 | 7 | ND | 10.000 | 170.000 | - | |
| Methyl Iodide | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Methyl isobutyl ketone | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Methylene chloride | µg/L | 5/19/99 | 7 | ND | 5.000 | 5.000 | - | |
| Styrene | µg/L | 5/19/99 | 7 | ND | 5.000 | 100.000 | - | |
| Tetrachloroethylene | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.700 | - | |
| Toluene | µg/L | 5/19/99 | 7 | ND | 5.000 | 1000.000 | - | |
| trans-1,2-Dichloroethene | µg/L | 5/19/99 | 7 | ND | 5.000 | 70.000 | - | |
| trans-1,3-Dichloropropene | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| trans-1,4-Dichloro-2-bute | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Trichloroethylene | µg/L | 5/19/99 | 7 | ND | 5.000 | 2.800 | - | |
| Trichlorofluoromethane | µg/L | 5/19/99 | 7 | ND | 10.000 | 2100.000 | - | |
| Vinyl acetate | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Vinyl chloride | µg/L | 5/19/99 | 7 | ND | 2.000 | 0.015 | - | |
| Xylenes - Total | µg/L | 5/19/99 | 7 | ND | 5.000 | 530.000 | - | |
| **MW-3** | | | | | | | | |
| Metals | | | | | | | | |
| Antimony | mg/L | 5/19/99 | 7 | ND | 0.010 | - | - | |
| Arsenic | mg/L | 5/19/99 | 7 | ND | 0.010 | 0.050 | - | |
| Barium | mg/L | 5/19/99 | 7 | 0.140 | 0.005 | 2.000 | - | |
| Beryllium | mg/L | 5/19/99 | 7 | 0.002 | 0.002 | - | - | |
| Cadmium | mg/L | 5/19/99 | 7 | ND | 0.001 | 0.005 | - | |
| Chromium | mg/L | 5/19/99 | 7 | 0.023 | 0.005 | 0.050 | - | |
| Cobalt | mg/L | 5/19/99 | 7 | 0.026 | 0.005 | - | - | |
| Copper | mg/L | 5/19/99 | 7 | ND | 0.005 | 1.000 | - | |
| Lead | mg/L | 5/19/99 | 7 | ND | 0.010 | 0.015 | - | |
| Nickel | mg/L | 5/19/99 | 7 | 0.029 | 0.005 | 0.100 | - | |
| Selenium | mg/L | 5/19/99 | 7 | ND | 0.020 | 0.050 | - | |
| Silver | mg/L | 5/19/99 | 7 | ND | 0.002 | 0.018 | - | |
| Thallium | mg/L | 5/19/99 | 7 | 0.006 | 0.002 | - | - | |
| Vanadium | mg/L | 5/19/99 | 7 | 0.019 | 0.005 | - | - | |
| Zinc | mg/L | 5/19/99 | 7 | 0.065 | 0.020 | 2.100 | - | |
| Volatile Organic Compounds | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| 1,1,1-Trichloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | 200.000 | - | |
| 1,1,2,2-Tetrachloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| 1,1,2-Trichloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| 1,1-Dichloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | 700.000 | - | |
| 1,1-Dichloroethene | µg/L | 5/19/99 | 7 | ND | 5.000 | 7.000 | - | |
| 1,2,3-Trichloropropane | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.006 | - | |
| 1,2-Dibromo-3-chloropro | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.025 | - | |
| 1,2-Dibromoethane | µg/L | 5/19/99 | 7 | ND | 2.000 | 0.000 | - | |
| 1,2-Dichlorobenzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 620.000 | - | |
| 1,2-Dichloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.380 | - | |
| 1,2-Dichloropropane | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.560 | - | |
| 1,4-Dichlorobenzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 75.000 | - | |
| 2-Hexanone | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Acetone | µg/L | 5/19/99 | 7 | ND | 10.000 | 700.000 | - | |
| Acrylonitrile | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Benzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 1.000 | - | |
| Bromochloromethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Bromodichloromethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Bromoform | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.190 | - | |

**Note:The statistics are replaced by the corresponding minimum variance unbiased estimates for the log normal distribution.**

## Result Report (w/ Threshold Exceedences)

**Program:** Cherokee Lined - Groundwater Monitoring **Site:** Lined Landfill
**Page:** 3 **Data Group:** None

| Parameter | Unit | Date | Sample ID | Result Value | Detection Limit | Regulatory Limit | Exceedence Value | Code |
|---|---|---|---|---|---|---|---|---|
| Bromomethane | µg/L | 5/19/99 | 7 | 10.000 | 10.000 | - | - | |
| Carbon disulfide | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Carbon tetrachloride | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.300 | - | |
| Chlorobenzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 50.000 | - | |
| Chlorodibromomethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Chloroethane | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Chloroform | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.190 | - | |
| Chloromethane | µg/L | 5/19/99 | 7 | ND | 10.000 | 2.600 | - | |
| cis-1,2-Dichloroethene | µg/L | 5/19/99 | 7 | ND | 5.000 | 70.000 | - | |
| cis-1,3-Dichloropropene | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Dibromomethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Ethyl benzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 29.000 | - | |
| Methyl ethyl ketone | µg/L | 5/19/99 | 7 | ND | 10.000 | 170.000 | - | |
| Methyl Iodide | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Methyl isobutyl ketone | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Methylene chloride | µg/L | 5/19/99 | 7 | ND | 5.000 | 5.000 | - | |
| Styrene | µg/L | 5/19/99 | 7 | ND | 5.000 | 100.000 | - | |
| Tetrachloroethylene | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.700 | - | |
| Toluene | µg/L | 5/19/99 | 7 | ND | 5.000 | 1000.000 | - | |
| trans-1,2-Dichloroethene | µg/L | 5/19/99 | 7 | ND | 5.000 | 70.000 | - | |
| trans-1,3-Dichloropropene | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| trans-1,4-Dichloro-2-bute | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Trichloroethylene | µg/L | 5/19/99 | 7 | ND | 5.000 | 2.800 | - | |
| Trichlorofluoromethane | µg/L | 5/19/99 | 7 | ND | 10.000 | 2100.000 | - | |
| Vinyl acetate | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Vinyl chloride | µg/L | 5/19/99 | 7 | ND | 2.000 | 0.015 | - | |
| Xylenes - Total | µg/L | 5/19/99 | 7 | ND | 5.000 | 530.000 | - | |
| **MW-4** | | | | | | | | |
| Metals | | | | | | | | |
| Antimony | mg/L | 5/19/99 | 7 | ND | 0.010 | - | - | |
| Arsenic | mg/L | 5/19/99 | 7 | 0.012 | 0.010 | 0.050 | - | |
| Barium | mg/L | 5/19/99 | 7 | 0.210 | 0.005 | 2.000 | - | |
| Beryllium | mg/L | 5/19/99 | 7 | 0.025 | 0.002 | - | - | |
| Cadmium | mg/L | 5/19/99 | 7 | ND | 0.001 | 0.005 | - | |
| Chromium | mg/L | 5/19/99 | 7 | 0.032 | 0.005 | 0.050 | - | |
| Cobalt | mg/L | 5/19/99 | 7 | 0.026 | 0.005 | - | - | |
| Copper | mg/L | 5/19/99 | 7 | ND | 0.005 | 1.000 | - | |
| Lead | mg/L | 5/19/99 | 7 | ND | 0.010 | 0.015 | - | |
| Nickel | mg/L | 5/19/99 | 7 | 0.042 | 0.005 | 0.100 | - | |
| Selenium | mg/L | 5/19/99 | 7 | ND | 0.020 | 0.050 | - | |
| Silver | mg/L | 5/19/99 | 7 | ND | 0.002 | 0.018 | - | |
| Thallium | mg/L | 5/19/99 | 7 | 0.005 | 0.002 | - | - | |
| Vanadium | mg/L | 5/19/99 | 7 | 0.023 | 0.005 | - | - | |
| Zinc | mg/L | 5/19/99 | 7 | 0.077 | 0.020 | 2.100 | - | |
| Volatile Organic Compounds | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| 1,1,1-Trichloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | 200.000 | - | |
| 1,1,2,2-Tetrachloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| 1,1,2-Trichloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| 1,1-Dichloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | 700.000 | - | |
| 1,1-Dichloroethene | µg/L | 5/19/99 | 7 | ND | 5.000 | 7.000 | - | |
| 1,2,3-Trichloropropane | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.006 | - | |
| 1,2-Dibromo-3-chloropro | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.025 | - | |
| 1,2-Dibromoethane | µg/L | 5/19/99 | 7 | ND | 2.000 | 0.000 | - | |
| 1,2-Dichlorobenzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 620.000 | - | |
| 1,2-Dichloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.380 | - | |
| 1,2-Dichloropropane | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.560 | - | |

**Note:The statistics are replaced by the corresponding minimum variance unbiased estimates for the log normal distribution.**

## Result Report (w/ Threshold Exceedences)

**Program:** Cherokee Lined - Groundwater Monitoring **Site:** Lined Landfill
**Page:** 4 **Data Group:** None

| Parameter | Unit | Date | Sample ID | Result Value | Detection Limit | Regulatory Limit | Exceedence Value | Code |
|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 75.000 | - | |
| 2-Hexanone | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Acetone | µg/L | 5/19/99 | 7 | ND | 10.000 | 700.000 | - | |
| Acrylonitrile | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Benzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 1.000 | - | |
| Bromochloromethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Bromodichloromethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Bromoform | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.190 | - | |
| Bromomethane | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Carbon disulfide | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Carbon tetrachloride | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.300 | - | |
| Chlorobenzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 50.000 | - | |
| Chlorodibromomethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Chloroethane | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Chloroform | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.190 | - | |
| Chloromethane | µg/L | 5/19/99 | 7 | ND | 10.000 | 2.600 | - | |
| cis-1,2-Dichloroethene | µg/L | 5/19/99 | 7 | ND | 5.000 | 70.000 | - | |
| cis-1,3-Dichloropropene | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Dibromomethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Ethyl benzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 29.000 | - | |
| Methyl ethyl ketone | µg/L | 5/19/99 | 7 | ND | 10.000 | 170.000 | - | |
| Methyl Iodide | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Methyl isobutyl ketone | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Methylene chloride | µg/L | 5/19/99 | 7 | ND | 5.000 | 5.000 | - | |
| Styrene | µg/L | 5/19/99 | 7 | ND | 5.000 | 100.000 | - | |
| Tetrachloroethylene | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.700 | - | |
| Toluene | µg/L | 5/19/99 | 7 | ND | 5.000 | 1000.000 | - | |
| trans-1,2-Dichloroethene | µg/L | 5/19/99 | 7 | ND | 5.000 | 70.000 | - | |
| trans-1,3-Dichloropropene | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| trans-1,4-Dichloro-2-bute | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Trichloroethylene | µg/L | 5/19/99 | 7 | ND | 5.000 | 2.800 | - | |
| Trichlorofluoromethane | µg/L | 5/19/99 | 7 | ND | 10.000 | 2100.000 | - | |
| Vinyl acetate | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Vinyl chloride | µg/L | 5/19/99 | 7 | ND | 2.000 | 0.015 | - | |
| Xylenes - Total | µg/L | 5/19/99 | 7 | ND | 5.000 | 530.000 | - | |
| **MW-5** | | | | | | | | |
| Metals | | | | | | | | |
| Antimony | mg/L | 5/19/99 | 7 | ND | 0.010 | - | - | |
| Arsenic | mg/L | 5/19/99 | 7 | ND | 0.010 | 0.050 | - | |
| Barium | mg/L | 5/19/99 | 7 | 0.048 | 0.005 | 2.000 | - | |
| Beryllium | mg/L | 5/19/99 | 7 | ND | 0.002 | - | - | |
| Cadmium | mg/L | 5/19/99 | 7 | ND | 0.001 | 0.005 | - | |
| Chromium | mg/L | 5/19/99 | 7 | 0.009 | 0.005 | 0.050 | - | |
| Cobalt | mg/L | 5/19/99 | 7 | 0.015 | 0.005 | - | - | |
| Copper | mg/L | 5/19/99 | 7 | 0.023 | 0.005 | 1.000 | - | |
| Lead | mg/L | 5/19/99 | 7 | ND | 0.010 | 0.015 | - | |
| Nickel | mg/L | 5/19/99 | 7 | 0.021 | 0.005 | 0.100 | - | |
| Selenium | mg/L | 5/19/99 | 7 | ND | 0.020 | 0.050 | - | |
| Silver | mg/L | 5/19/99 | 7 | ND | 0.002 | 0.018 | - | |
| Thallium | mg/L | 5/19/99 | 7 | ND | 0.002 | - | - | |
| Vanadium | mg/L | 5/19/99 | 7 | 0.016 | 0.005 | - | - | |
| Zinc | mg/L | 5/19/99 | 7 | 0.082 | 0.020 | 2.100 | - | |
| Volatile Organic Compounds | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| 1,1,1-Trichloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | 200.000 | - | |
| 1,1,2,2-Tetrachloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| 1,1,2-Trichloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |

**Note:The statistics are replaced by the corresponding minimum variance unbiased estimates for the log normal distribution.**

## Result Report (w/ Threshold Exceedences)

**Program:** Cherokee Lined - Groundwater Monitoring **Site:** Lined Landfill
**Page:** 5 **Data Group:** None

| Parameter | Unit | Date | Sample ID | Result Value | Detection Limit | Regulatory Limit | Exceedence Value | Code |
|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | 700.000 | - | |
| 1,1-Dichloroethene | µg/L | 5/19/99 | 7 | ND | 5.000 | 7.000 | - | |
| 1,2,3-Trichloropropane | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.006 | - | |
| 1,2-Dibromo-3-chloropro | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.025 | - | |
| 1,2-Dibromoethane | µg/L | 5/19/99 | 7 | ND | 2.000 | 0.000 | - | |
| 1,2-Dichlorobenzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 620.000 | - | |
| 1,2-Dichloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.380 | - | |
| 1,2-Dichloropropane | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.560 | - | |
| 1,4-Dichlorobenzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 75.000 | - | |
| 2-Hexanone | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Acetone | µg/L | 5/19/99 | 7 | ND | 10.000 | 700.000 | - | |
| Acrylonitrile | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Benzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 1.000 | - | |
| Bromochloromethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Bromodichloromethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Bromoform | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.190 | - | |
| Bromomethane | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Carbon disulfide | µg/L | 5/19/99 | 7 | 23.000 | 5.000 | - | - | |
| Carbon tetrachloride | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.300 | - | |
| Chlorobenzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 50.000 | - | |
| Chlorodibromomethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Chloroethane | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Chloroform | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.190 | - | |
| Chloromethane | µg/L | 5/19/99 | 7 | ND | 10.000 | 2.600 | - | |
| cis-1,2-Dichloroethene | µg/L | 5/19/99 | 7 | ND | 5.000 | 70.000 | - | |
| cis-1,3-Dichloropropene | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Dibromomethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Ethyl benzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 29.000 | - | |
| Methyl ethyl ketone | µg/L | 5/19/99 | 7 | ND | 10.000 | 170.000 | - | |
| Methyl Iodide | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Methyl isobutyl ketone | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Methylene chloride | µg/L | 5/19/99 | 7 | ND | 5.000 | 5.000 | - | |
| Styrene | µg/L | 5/19/99 | 7 | ND | 5.000 | 100.000 | - | |
| Tetrachloroethylene | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.700 | - | |
| Toluene | µg/L | 5/19/99 | 7 | ND | 5.000 | 1000.000 | - | |
| trans-1,2-Dichloroethene | µg/L | 5/19/99 | 7 | ND | 5.000 | 70.000 | - | |
| trans-1,3-Dichloropropene | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| trans-1,4-Dichloro-2-bute | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Trichloroethylene | µg/L | 5/19/99 | 7 | ND | 5.000 | 2.800 | - | |
| Trichlorofluoromethane | µg/L | 5/19/99 | 7 | ND | 10.000 | 2100.000 | - | |
| Vinyl acetate | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Vinyl chloride | µg/L | 5/19/99 | 7 | ND | 2.000 | 0.015 | - | |
| Xylenes - Total | µg/L | 5/19/99 | 7 | ND | 5.000 | 530.000 | - | |
| **MW-6D** | | | | | | | | |
| Metals | | | | | | | | |
| Antimony | mg/L | 5/19/99 | 7 | ND | 0.010 | - | - | |
| Arsenic | mg/L | 5/19/99 | 7 | ND | 0.010 | 0.050 | - | |
| Barium | mg/L | 5/19/99 | 7 | 0.009 | 0.005 | 2.000 | - | |
| Beryllium | mg/L | 5/19/99 | 7 | ND | 0.002 | - | - | |
| Cadmium | mg/L | 5/19/99 | 7 | ND | 0.001 | 0.005 | - | |
| Chromium | mg/L | 5/19/99 | 7 | ND | 0.005 | 0.050 | - | |
| Cobalt | mg/L | 5/19/99 | 7 | ND | 0.005 | - | - | |
| Copper | mg/L | 5/19/99 | 7 | ND | 0.005 | 1.000 | - | |
| Lead | mg/L | 5/19/99 | 7 | ND | 0.010 | 0.015 | - | |
| Nickel | mg/L | 5/19/99 | 7 | 0.005 | 0.005 | 0.100 | - | |
| Selenium | mg/L | 5/19/99 | 7 | ND | 0.020 | 0.050 | - | |
| Silver | mg/L | 5/19/99 | 7 | ND | 0.002 | 0.018 | - | |

**Note:The statistics are replaced by the corresponding minimum variance unbiased estimates for the log normal distribution.**

## Result Report (w/ Threshold Exceedences)

**Program:** Cherokee Lined - Groundwater Monitoring **Site:** Lined Landfill
**Page:** 6 **Data Group:** None

| Parameter | Unit | Date | Sample ID | Result Value | Detection Limit | Regulatory Limit | Exceedence Value | Code |
|---|---|---|---|---|---|---|---|---|
| Thallium | mg/L | 5/19/99 | 7 | 0.002 | 0.002 | - | - | |
| Vanadium | mg/L | 5/19/99 | 7 | ND | 0.005 | - | - | |
| Zinc | mg/L | 5/19/99 | 7 | ND | 0.020 | 2.100 | - | |
| Volatile Organic Compounds | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| 1,1,1-Trichloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | 200.000 | - | |
| 1,1,2,2-Tetrachloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| 1,1,2-Trichloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| 1,1-Dichloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | 700.000 | - | |
| 1,1-Dichloroethene | µg/L | 5/19/99 | 7 | ND | 5.000 | 7.000 | - | |
| 1,2,3-Trichloropropane | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.006 | - | |
| 1,2-Dibromo-3-chloropro | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.025 | - | |
| 1,2-Dibromoethane | µg/L | 5/19/99 | 7 | ND | 2.000 | 0.000 | - | |
| 1,2-Dichlorobenzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 620.000 | - | |
| 1,2-Dichloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.380 | - | |
| 1,2-Dichloropropane | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.560 | - | |
| 1,4-Dichlorobenzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 75.000 | - | |
| 2-Hexanone | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Acetone | µg/L | 5/19/99 | 7 | ND | 10.000 | 700.000 | - | |
| Acrylonitrile | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Benzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 1.000 | - | |
| Bromochloromethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Bromodichloromethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Bromoform | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.190 | - | |
| Bromomethane | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Carbon disulfide | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Carbon tetrachloride | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.300 | - | |
| Chlorobenzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 50.000 | - | |
| Chlorodibromomethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Chloroethane | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Chloroform | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.190 | - | |
| Chloromethane | µg/L | 5/19/99 | 7 | ND | 10.000 | 2.600 | - | |
| cis-1,2-Dichloroethene | µg/L | 5/19/99 | 7 | ND | 5.000 | 70.000 | - | |
| cis-1,3-Dichloropropene | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Dibromomethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Ethyl benzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 29.000 | - | |
| Methyl ethyl ketone | µg/L | 5/19/99 | 7 | ND | 10.000 | 170.000 | - | |
| Methyl Iodide | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Methyl isobutyl ketone | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Methylene chloride | µg/L | 5/19/99 | 7 | ND | 5.000 | 5.000 | - | |
| Styrene | µg/L | 5/19/99 | 7 | ND | 5.000 | 100.000 | - | |
| Tetrachloroethylene | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.700 | - | |
| Toluene | µg/L | 5/19/99 | 7 | ND | 5.000 | 1000.000 | - | |
| trans-1,2-Dichloroethene | µg/L | 5/19/99 | 7 | ND | 5.000 | 70.000 | - | |
| trans-1,3-Dichloropropene | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| trans-1,4-Dichloro-2-bute | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Trichloroethylene | µg/L | 5/19/99 | 7 | ND | 5.000 | 2.800 | - | |
| Trichlorofluoromethane | µg/L | 5/19/99 | 7 | ND | 10.000 | 2100.000 | - | |
| Vinyl acetate | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Vinyl chloride | µg/L | 5/19/99 | 7 | ND | 2.000 | 0.015 | - | |
| Xylenes - Total | µg/L | 5/19/99 | 7 | ND | 5.000 | 530.000 | - | |
| **MW-6S** | | | | | | | | |
| Metals | | | | | | | | |
| Antimony | mg/L | 5/19/99 | 7 | ND | 0.010 | - | - | |
| Arsenic | mg/L | 5/19/99 | 7 | ND | 0.010 | 0.050 | - | |
| Barium | mg/L | 5/19/99 | 7 | 0.048 | 0.005 | 2.000 | - | |
| Beryllium | mg/L | 5/19/99 | 7 | ND | 0.002 | - | - | |

**Note:The statistics are replaced by the corresponding minimum variance unbiased estimates for the log normal distribution.**

## Result Report (w/ Threshold Exceedences)

**Program:** Cherokee Lined - Groundwater Monitoring **Site:** Lined Landfill
**Page:** 7 **Data Group:** None

| Parameter | Unit | Date | Sample ID | Result Value | Detection Limit | Regulatory Limit | Exceedence Value | Code |
|---|---|---|---|---|---|---|---|---|
| Cadmium | mg/L | 5/19/99 | 7 | ND | 0.001 | 0.005 | - | |
| Chromium | mg/L | 5/19/99 | 7 | ND | 0.005 | 0.050 | - | |
| Cobalt | mg/L | 5/19/99 | 7 | 0.009 | 0.005 | - | - | |
| Copper | mg/L | 5/19/99 | 7 | ND | 0.005 | 1.000 | - | |
| Lead | mg/L | 5/19/99 | 7 | ND | 0.010 | 0.015 | - | |
| Nickel | mg/L | 5/19/99 | 7 | 0.009 | 0.005 | 0.100 | - | |
| Selenium | mg/L | 5/19/99 | 7 | ND | 0.020 | 0.050 | - | |
| Silver | mg/L | 5/19/99 | 7 | ND | 0.002 | 0.018 | - | |
| Thallium | mg/L | 5/19/99 | 7 | ND | 0.002 | - | - | |
| Vanadium | mg/L | 5/19/99 | 7 | ND | 0.005 | - | - | |
| Zinc | mg/L | 5/19/99 | 7 | ND | 0.020 | 2.100 | - | |
| Volatile Organic Compounds | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| 1,1,1-Trichloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | 200.000 | - | |
| 1,1,2,2-Tetrachloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| 1,1,2-Trichloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| 1,1-Dichloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | 700.000 | - | |
| 1,1-Dichloroethene | µg/L | 5/19/99 | 7 | ND | 5.000 | 7.000 | - | |
| 1,2,3-Trichloropropane | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.006 | - | |
| 1,2-Dibromo-3-chloropro | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.025 | - | |
| 1,2-Dibromoethane | µg/L | 5/19/99 | 7 | ND | 2.000 | 0.000 | - | |
| 1,2-Dichlorobenzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 620.000 | - | |
| 1,2-Dichloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.380 | - | |
| 1,2-Dichloropropane | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.560 | - | |
| 1,4-Dichlorobenzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 75.000 | - | |
| 2-Hexanone | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Acetone | µg/L | 5/19/99 | 7 | ND | 10.000 | 700.000 | - | |
| Acrylonitrile | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Benzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 1.000 | - | |
| Bromochloromethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Bromodichloromethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Bromoform | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.190 | - | |
| Bromomethane | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Carbon disulfide | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Carbon tetrachloride | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.300 | - | |
| Chlorobenzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 50.000 | - | |
| Chlorodibromomethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Chloroethane | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Chloroform | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.190 | - | |
| Chloromethane | µg/L | 5/19/99 | 7 | ND | 10.000 | 2.600 | - | |
| cis-1,2-Dichloroethene | µg/L | 5/19/99 | 7 | ND | 5.000 | 70.000 | - | |
| cis-1,3-Dichloropropene | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Dibromomethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Ethyl benzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 29.000 | - | |
| Methyl ethyl ketone | µg/L | 5/19/99 | 7 | ND | 10.000 | 170.000 | - | |
| Methyl Iodide | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Methyl isobutyl ketone | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Methylene chloride | µg/L | 5/19/99 | 7 | ND | 5.000 | 5.000 | - | |
| Styrene | µg/L | 5/19/99 | 7 | ND | 5.000 | 100.000 | - | |
| Tetrachloroethylene | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.700 | - | |
| Toluene | µg/L | 5/19/99 | 7 | ND | 5.000 | 1000.000 | - | |
| trans-1,2-Dichloroethene | µg/L | 5/19/99 | 7 | ND | 5.000 | 70.000 | - | |
| trans-1,3-Dichloropropene | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| trans-1,4-Dichloro-2-bute | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Trichloroethylene | µg/L | 5/19/99 | 7 | ND | 5.000 | 2.800 | - | |
| Trichlorofluoromethane | µg/L | 5/19/99 | 7 | ND | 10.000 | 2100.000 | - | |
| Vinyl acetate | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Vinyl chloride | µg/L | 5/19/99 | 7 | ND | 2.000 | 0.015 | - | |

**Note:The statistics are replaced by the corresponding minimum variance unbiased estimates for the log normal distribution.**

## Result Report (w/ Threshold Exceedences)

**Program:** Cherokee Lined - Groundwater Monitoring **Site:** Lined Landfill
**Page:** 8 **Data Group:** None

| Parameter | Unit | Date | Sample ID | Result Value | Detection Limit | Regulatory Limit | Exceedence Value | Code |
|---|---|---|---|---|---|---|---|---|
| Xylenes - Total | µg/L | 5/19/99 | 7 | ND | 5.000 | 530.000 | - | |
| **MW-7** | | | | | | | | |
| Metals | | | | | | | | |
| Antimony | mg/L | 5/19/99 | 7 | ND | 0.010 | - | - | |
| Arsenic | mg/L | 5/19/99 | 7 | ND | 0.010 | 0.050 | - | |
| Barium | mg/L | 5/19/99 | 7 | 0.026 | 0.005 | 2.000 | - | |
| Beryllium | mg/L | 5/19/99 | 7 | ND | 0.002 | - | - | |
| Cadmium | mg/L | 5/19/99 | 7 | ND | 0.001 | 0.005 | - | |
| Chromium | mg/L | 5/19/99 | 7 | ND | 0.005 | 0.050 | - | |
| Cobalt | mg/L | 5/19/99 | 7 | 0.006 | 0.005 | - | - | |
| Copper | mg/L | 5/19/99 | 7 | ND | 0.005 | 1.000 | - | |
| Lead | mg/L | 5/19/99 | 7 | ND | 0.010 | 0.015 | - | |
| Nickel | mg/L | 5/19/99 | 7 | 0.009 | 0.005 | 0.100 | - | |
| Selenium | mg/L | 5/19/99 | 7 | ND | 0.020 | 0.050 | - | |
| Silver | mg/L | 5/19/99 | 7 | ND | 0.002 | 0.018 | - | |
| Thallium | mg/L | 5/19/99 | 7 | ND | 0.002 | - | - | |
| Vanadium | mg/L | 5/19/99 | 7 | 0.007 | 0.005 | - | - | |
| Zinc | mg/L | 5/19/99 | 7 | ND | 0.020 | 2.100 | - | |
| Volatile Organic Compounds | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| 1,1,1-Trichloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | 200.000 | - | |
| 1,1,2,2-Tetrachloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| 1,1,2-Trichloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| 1,1-Dichloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | 700.000 | - | |
| 1,1-Dichloroethene | µg/L | 5/19/99 | 7 | ND | 5.000 | 7.000 | - | |
| 1,2,3-Trichloropropane | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.006 | - | |
| 1,2-Dibromo-3-chloropro | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.025 | - | |
| 1,2-Dibromoethane | µg/L | 5/19/99 | 7 | ND | 2.000 | 0.000 | - | |
| 1,2-Dichlorobenzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 620.000 | - | |
| 1,2-Dichloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.380 | - | |
| 1,2-Dichloropropane | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.560 | - | |
| 1,4-Dichlorobenzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 75.000 | - | |
| 2-Hexanone | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Acetone | µg/L | 5/19/99 | 7 | ND | 10.000 | 700.000 | - | |
| Acrylonitrile | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Benzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 1.000 | - | |
| Bromochloromethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Bromodichloromethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Bromoform | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.190 | - | |
| Bromomethane | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Carbon disulfide | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Carbon tetrachloride | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.300 | - | |
| Chlorobenzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 50.000 | - | |
| Chlorodibromomethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Chloroethane | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Chloroform | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.190 | - | |
| Chloromethane | µg/L | 5/19/99 | 7 | ND | 10.000 | 2.600 | - | |
| cis-1,2-Dichloroethene | µg/L | 5/19/99 | 7 | ND | 5.000 | 70.000 | - | |
| cis-1,3-Dichloropropene | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Dibromomethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Ethyl benzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 29.000 | - | |
| Methyl ethyl ketone | µg/L | 5/19/99 | 7 | ND | 10.000 | 170.000 | - | |
| Methyl Iodide | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Methyl isobutyl ketone | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Methylene chloride | µg/L | 5/19/99 | 7 | ND | 5.000 | 5.000 | - | |
| Styrene | µg/L | 5/19/99 | 7 | ND | 5.000 | 100.000 | - | |
| Tetrachloroethylene | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.700 | - | |

**Note:The statistics are replaced by the corresponding minimum variance unbiased estimates for the log normal distribution.**

## Result Report (w/ Threshold Exceedences)

**Program:** Cherokee Lined - Groundwater Monitoring **Site:** Lined Landfill
**Page:** 9 **Data Group:** None

| Parameter | Unit | Date | Sample ID | Result Value | Detection Limit | Regulatory Limit | Exceedence Value | Code |
|---|---|---|---|---|---|---|---|---|
| Toluene | µg/L | 5/19/99 | 7 | ND | 5.000 | 1000.000 | - | |
| trans-1,2-Dichloroethene | µg/L | 5/19/99 | 7 | ND | 5.000 | 70.000 | - | |
| trans-1,3-Dichloropropene | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| trans-1,4-Dichloro-2-bute | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Trichloroethylene | µg/L | 5/19/99 | 7 | ND | 5.000 | 2.800 | - | |
| Trichlorofluoromethane | µg/L | 5/19/99 | 7 | ND | 10.000 | 2100.000 | - | |
| Vinyl acetate | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Vinyl chloride | µg/L | 5/19/99 | 7 | ND | 2.000 | 0.015 | - | |
| Xylenes - Total | µg/L | 5/19/99 | 7 | ND | 5.000 | 530.000 | - | |
| **Upgradient** | | | | | | | | |
| **MW-1** | | | | | | | | |
| Metals | | | | | | | | |
| Antimony | mg/L | 5/19/99 | 7 | ND | 0.010 | - | - | |
| Arsenic | mg/L | 5/19/99 | 7 | ND | 0.010 | 0.050 | - | |
| Barium | mg/L | 5/19/99 | 7 | 0.064 | 0.005 | 2.000 | - | |
| Beryllium | mg/L | 5/19/99 | 7 | ND | 0.002 | - | - | |
| Cadmium | mg/L | 5/19/99 | 7 | ND | 0.001 | 0.005 | - | |
| Chromium | mg/L | 5/19/99 | 7 | 0.022 | 0.005 | 0.050 | - | |
| Cobalt | mg/L | 5/19/99 | 7 | 0.022 | 0.005 | - | - | |
| Copper | mg/L | 5/19/99 | 7 | 0.028 | 0.005 | 1.000 | - | |
| Lead | mg/L | 5/19/99 | 7 | ND | 0.010 | 0.015 | - | |
| Nickel | mg/L | 5/19/99 | 7 | 0.025 | 0.005 | 0.100 | - | |
| Selenium | mg/L | 5/19/99 | 7 | ND | 0.020 | 0.050 | - | |
| Silver | mg/L | 5/19/99 | 7 | ND | 0.002 | 0.018 | - | |
| Thallium | mg/L | 5/19/99 | 7 | ND | 0.002 | - | - | |
| Vanadium | mg/L | 5/19/99 | 7 | 0.023 | 0.005 | - | - | |
| Zinc | mg/L | 5/19/99 | 7 | 0.035 | 0.020 | 2.100 | - | |
| Volatile Organic Compounds | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| 1,1,1-Trichloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | 200.000 | - | |
| 1,1,2,2-Tetrachloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| 1,1,2-Trichloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| 1,1-Dichloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | 700.000 | - | |
| 1,1-Dichloroethene | µg/L | 5/19/99 | 7 | ND | 5.000 | 7.000 | - | |
| 1,2,3-Trichloropropane | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.006 | - | |
| 1,2-Dibromo-3-chloropro | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.025 | - | |
| 1,2-Dibromoethane | µg/L | 5/19/99 | 7 | ND | 2.000 | 0.000 | - | |
| 1,2-Dichlorobenzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 620.000 | - | |
| 1,2-Dichloroethane | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.380 | - | |
| 1,2-Dichloropropane | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.560 | - | |
| 1,4-Dichlorobenzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 75.000 | - | |
| 2-Hexanone | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Acetone | µg/L | 5/19/99 | 7 | ND | 10.000 | 700.000 | - | |
| Acrylonitrile | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Benzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 1.000 | - | |
| Bromochloromethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Bromodichloromethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Bromoform | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.190 | - | |
| Bromomethane | µg/L | 5/19/99 | 7 | 10.000 | 10.000 | - | - | |
| Carbon disulfide | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Carbon tetrachloride | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.300 | - | |
| Chlorobenzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 50.000 | - | |
| Chlorodibromomethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Chloroethane | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Chloroform | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.190 | - | |
| Chloromethane | µg/L | 5/19/99 | 7 | ND | 10.000 | 2.600 | - | |
| cis-1,2-Dichloroethene | µg/L | 5/19/99 | 7 | ND | 5.000 | 70.000 | - | |

**Note:The statistics are replaced by the corresponding minimum variance unbiased estimates for the log normal distribution.**

## Result Report (w/ Threshold Exceedences)

**Program:** Cherokee Lined - Groundwater Monitoring **Site:** Lined Landfill

**Page:** 10 **Data Group:** None

| Parameter | Unit | Date | Sample ID | Result Value | Detection Limit | Regulatory Limit | Exceedence Value | Code |
|---|---|---|---|---|---|---|---|---|
| cis-1,3-Dichloropropene | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Dibromomethane | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Ethyl benzene | µg/L | 5/19/99 | 7 | ND | 5.000 | 29.000 | - | |
| Methyl ethyl ketone | µg/L | 5/19/99 | 7 | ND | 10.000 | 170.000 | - | |
| Methyl Iodide | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Methyl isobutyl ketone | µg/L | 5/19/99 | 7 | ND | 10.000 | - | - | |
| Methylene chloride | µg/L | 5/19/99 | 7 | ND | 5.000 | 5.000 | - | |
| Styrene | µg/L | 5/19/99 | 7 | ND | 5.000 | 100.000 | - | |
| Tetrachloroethylene | µg/L | 5/19/99 | 7 | ND | 5.000 | 0.700 | - | |
| Toluene | µg/L | 5/19/99 | 7 | ND | 5.000 | 1000.000 | - | |
| trans-1,2-Dichloroethene | µg/L | 5/19/99 | 7 | ND | 5.000 | 70.000 | - | |
| trans-1,3-Dichloropropene | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| trans-1,4-Dichloro-2-bute | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Trichloroethylene | µg/L | 5/19/99 | 7 | ND | 5.000 | 2.800 | - | |
| Trichlorofluoromethane | µg/L | 5/19/99 | 7 | ND | 10.000 | 2100.000 | - | |
| Vinyl acetate | µg/L | 5/19/99 | 7 | ND | 5.000 | - | - | |
| Vinyl chloride | µg/L | 5/19/99 | 7 | ND | 2.000 | 0.015 | - | |
| Xylenes - Total | µg/L | 5/19/99 | 7 | ND | 5.000 | 530.000 | - | |

**End of report**

**Note:The statistics are replaced by the corresponding minimum variance unbiased estimates for the log normal distribution.**

# Data Distribution Report

**Data Distribution Report**

| | | | |
|---|---|---|---|
| **Company:** | Cherokee County | **Data Group:** | may99 detects |
| **Site:** | Lined Landfill<br>Cherokee Lined - Groundwater | **Date Range:** | All |
| **Program:** | Monitoring | **Non-detects:** | 1/2 detection limit |
| **Permit:** | | **Duplicates:** | Mean |
| **Minimum Size:** | 3.000 | **Confidence Level:** | 0.95 |
| **Report printed:** | 6/ 8/99 3:15:34PM | **Reported by:** | user |
| **Report Options:** | by sampling point | **Range of Censoring:** | 0% - 100%<br>**Monitor 5** |

| Parameter | Unit | Size | %NDs | Best Fit Distribution | Normal p Value | Lognormal p Value | Coefficient Variation |
|---|---|---|---|---|---|---|---|
| **Downgradient** | | | | | | | |
| **MW-2** | | | | | | | |
| Metals | | | | | | | |
| Barium | mg/L | 6 | 33.3% | Lognormal | - | 0.387 | 1.353 |
| Chromium | mg/L | 6 | 16.7% | Lognormal | - | 0.527 | 2.016 |
| Cobalt | mg/L | 6 | 0.0% | Normal | 0.160 | - | 1.119 |
| Nickel | mg/L | 6 | 66.7% | Non-normal | 0.000 | 0.000 | 0.981 |
| Thallium | mg/L | 6 | 83.3% | Non-normal | 0.001 | 0.006 | 0.727 |
| Vanadium | mg/L | 6 | 50.0% | Non-normal | 0.000 | 0.030 | 1.974 |
| Zinc | mg/L | 6 | 16.7% | Lognormal | - | 0.829 | 1.514 |
| **MW-3** | | | | | | | |
| Metals | | | | | | | |
| Barium | mg/L | 6 | 0.0% | Normal | 0.914 | - | 0.598 |
| Beryllium | mg/L | 6 | 0.0% | Normal | 0.212 | - | 0.426 |
| Chromium | mg/L | 6 | 0.0% | Lognormal | - | 0.126 | 0.999 |
| Cobalt | mg/L | 6 | 0.0% | Normal | 0.372 | - | 0.451 |
| Nickel | mg/L | 6 | 83.3% | Normal | *** | - | 0.064 |
| Thallium | mg/L | 6 | 50.0% | Lognormal | - | 0.083 | 1.112 |
| Vanadium | mg/L | 6 | 66.7% | Normal | 0.061 | - | 0.901 |
| Zinc | mg/L | 6 | 0.0% | Lognormal | - | 0.070 | 0.169 |
| Volatile Organic Compounds | | | | | | | |
| Bromomethane | µg/L | 6 | 83.3% | Normal | *** | - | 0.350 |
| **MW-4** | | | | | | | |
| Metals | | | | | | | |
| Arsenic | mg/L | 6 | 83.3% | Lognormal | - | *** | 0.950 |
| Barium | mg/L | 6 | 0.0% | Normal | 0.967 | - | 0.607 |
| Beryllium | mg/L | 6 | 16.7% | Lognormal | - | 0.307 | 1.384 |
| Chromium | mg/L | 6 | 0.0% | Lognormal | - | 0.508 | 1.248 |
| Cobalt | mg/L | 6 | 0.0% | Normal | 0.487 | - | 0.572 |
| Nickel | mg/L | 6 | 83.3% | Non-normal | 0.000 | 0.000 | 0.249 |
| Thallium | mg/L | 6 | 66.7% | Non-normal | 0.000 | 0.001 | 1.356 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Vanadium | mg/L | 6 | 66.7% | Lognormal | - | 0.098 | 1.068 |
| Zinc | mg/L | 6 | 0.0% | Normal | 0.950 | - | 0.238 |
| **MW-5** | | | | | | | |
| Metals | | | | | | | |
| Barium | mg/L | 6 | 66.7% | Non-normal | 0.000 | 0.000 | 0.822 |
| Chromium | mg/L | 6 | 50.0% | Lognormal | - | 0.068 | 1.419 |
| Cobalt | mg/L | 6 | 0.0% | Normal | 0.495 | - | 0.566 |
| Copper | mg/L | 6 | 33.3% | Normal | 0.117 | - | 0.606 |
| Nickel | mg/L | 6 | 83.3% | Normal | *** | - | 0.067 |
| Vanadium | mg/L | 6 | 66.7% | Normal | 0.102 | - | 0.812 |
| Zinc | mg/L | 6 | 16.7% | Normal | 0.998 | - | 0.662 |
| Volatile Organic Compounds | | | | | | | |
| Carbon disulfide | µg/L | 6 | 83.3% | Non-normal | 0.004 | 0.005 | 1.411 |
| **MW-6D** | | | | | | | |
| Metals | | | | | | | |
| Barium | mg/L | 6 | 83.3% | Non-normal | 0.000 | 0.000 | 0.391 |
| Nickel | mg/L | 6 | 83.3% | Lognormal | - | *** | 0.377 |
| Thallium | mg/L | 6 | 50.0% | Non-normal | 0.003 | 0.003 | 0.657 |
| **MW-6S** | | | | | | | |
| Metals | | | | | | | |
| Barium | mg/L | 6 | 50.0% | Non-normal | 0.001 | 0.002 | 0.393 |
| Cobalt | mg/L | 6 | 0.0% | Normal | 0.359 | - | 0.936 |
| Nickel | mg/L | 6 | 83.3% | Lognormal | - | *** | 0.303 |
| **MW-7** | | | | | | | |
| Metals | | | | | | | |
| Barium | mg/L | 5 | 20.0% | Normal | 0.243 | - | 0.967 |
| Cobalt | mg/L | 5 | 0.0% | Normal | 0.504 | - | 0.592 |
| Nickel | mg/L | 5 | 80.0% | Lognormal | - | *** | 0.328 |
| Vanadium | mg/L | 5 | 80.0% | Lognormal | - | *** | 0.602 |
| **Upgradient** | | | | | | | |
| **MW-1** | | | | | | | |
| Metals | | | | | | | |
| Barium | mg/L | 6 | 33.3% | Non-normal | 0.009 | 0.026 | 1.497 |
| Chromium | mg/L | 6 | 16.7% | Normal | 0.666 | - | 0.905 |
| Cobalt | mg/L | 6 | 0.0% | Non-normal | 0.012 | 0.044 | 1.314 |
| Copper | mg/L | 6 | 0.0% | Lognormal | - | 0.449 | 1.378 |
| Nickel | mg/L | 6 | 66.7% | Normal | *** | - | 0.463 |
| Vanadium | mg/L | 6 | 50.0% | Non-normal | 0.026 | 0.009 | 0.892 |
| Zinc | mg/L | 6 | 0.0% | Normal | 0.723 | - | 0.666 |
| Volatile Organic Compounds | | | | | | | |
| Bromomethane | µg/L | 6 | 83.3% | Normal | *** | - | 0.350 |

**End of report**

**Note: *** - The number of sampling results must be in the range from 3 to 2000 inclusive, to test for Shapiro-Wilk Distribution .**

**Monitor 5** ***Dove Technologies*** , Inc

# Statistical Analyses

**Prediction Limit Report**

| | | | |
|---|---|---|---|
| **Company:** | Cherokee County | **Data Group:** | None |
| **Site:** | Lined Landfill | **Date Range:** | All |
| **Program:** | Cherokee Lined - Groundwater Monitoring | **Non-detects:** | 1/2 detection limit |
| **Permit:** | | **Duplicates:** | Mean |
| **Report printed:** | 6/ 8/99 3:41:08PM | **Confidence Level:** | 0.95 |
| **Reported by:** | user | **Cut off Date:** | 5/18/99 |
| **Prediction Plan:** | Pass next resample | **Prediction Limit Case:** | Largest Value |
| **Minimum Size:** | 4 | **Range of Censoring:** | 0% - 100% |
| **Report Options:** | Nonparametric inter point by parameter | | **Monitor 5** |

| Sampling Point | Sample Size | %NDs | Prediction Limit | Site Wide Confidence | Exceeded Result | Sample ID | Sample Date | Sample Point |
|---|---|---|---|---|---|---|---|---|
| **Bromomethane (µg/L)** | | | | | | | | |
| **Background Wells** | | | | | | | | |
| MW-1 | | | | | | | | |
| Background Wells | 5 | 100.0% | 5.000 | 0.833 | 10.000 | 7 | 5/19/99 | MW-3 |

**End of report**

**Note: *** - The site wide false positive rate [alpha*] could not be computed. There were fewer than 4 result values available before the cut-off date.**

*** - The Prediction Limit for the 2nd Maximum case could not be computed. There were fewer than 2 result values before cut-off date.**

**Monitor 5** ***Dove Technologies***, Inc

**Prediction Limit Report**

| | | | |
|---|---|---|---|
| **Company:** | Cherokee County | **Data Group:** | None |
| **Site:** | Lined Landfill | **Date Range:** | All |
| **Program:** | Cherokee Lined - Groundwater Monitoring | **Non-detects:** | 1/2 detection limit |
| **Permit:** | | **Duplicates:** | Mean |
| **Report printed:** | 6/ 8/99 3:33:15PM | **Confidence Level:** | 0.95 |
| **Reported by:** | user | **Cut off Date:** | 5/18/99 |
| **Prediction Plan:** | Pass next resample | **Prediction Limit Case:** | Largest Value |
| **Minimum Size:** | 4 | **Range of Censoring:** | 0% - 100% |
| **Report Options:** | Nonparametric inter point by parameter | | **Monitor 5** |

| Sampling Point | Sample Size | %NDs | Prediction Limit | Site Wide Confidence | Exceeded | Sample ID Result | Sample Date | Sample Point |
|---|---|---|---|---|---|---|---|---|
| **Barium (mg/L)** | | | | | | | | |
| **Background Wells** | | | | | | | | |
| MW-1 | | | | | | | | |
| Background Wells | 5 | 40.0% | 3.000 | 0.833 | | | | |

**End of report**

**Note: *** - The site wide false positive rate [alpha*] could not be computed. There were fewer than 4 result values available before the cut-off date.**

*** - The Prediction Limit for the 2nd Maximum case could not be computed. There were fewer than 2 result values before cut-off date.**

**Monitor 5** ***Dove Technologies***, Inc

**Kruskal-Wallis Report**

| | | | |
|---|---|---|---|
| **Company:** | Cherokee County | **Data Group:** | None |
| **Site:** | Lined Landfill<br>Cherokee Lined - Groundwater | **Date Range:** | All |
| **Program:** | Monitoring | **Non-detects:** | 1/2 detection limit |
| **Permit:** | | **Duplicates:** | Mean |
| **Report printed:** | 6/ 8/99 4:01:34PM | **Confidence Level:** | 0.95 |
| **Report Options:** | One-Way Nonparametric | **Range of Censoring:** | 0%- 100% |
| | | **Reported by:** | user<br>**Monitor 5** |

**Metals**

**Beryllium (mg/L)**

| Sampling Points Tested | Mean | Mean Rank | Count | % NDs |
|---|---|---|---|---|
| MW-3 | 0.004 | 7 | 6 | 0.0% |
| MW-4 | 0.007 | 6 | 6 | 16.7% |

**Statistical Summary**

| | |
|---|---|
| Number of ties: | 3 |
| Total degrees of freedom: | 1 |
| Kruskal-Wallis H Statistic: | 0.230769 |
| Kruskal-Wallis H' (corrected for ties): | 0.235714 |
| Tabular H: | 3.84146 |
| Significant difference among groups: | No |

| Comparison | Difference of Ranks | Critical Value | Significant? |
|---|---|---|---|
| MW-3 vs. MW-4 | -1.000 | 4.080 | No |

**End of report**

**Monitor 5** ***Dove Technologies*** , Inc

**Prediction Limit Report**

| | | | |
|---|---|---|---|
| **Company:** | Cherokee County | **Data Group:** | None |
| **Site:** | Lined Landfill | **Date Range:** | All |
| **Program:** | Cherokee Lined - Groundwater Monitoring | **Non-detects:** | 1/2 detection limit |
| **Permit:** | | **Duplicates:** | Mean |
| **Report printed:** | 6/ 8/99 3:34:52PM | **Confidence Level:** | 0.95 |
| **Reported by:** | user | **Log Transform:** | No |
| **Minimum Size:** | 4 | **Cut off Date:** | 5/18/99 |
| **Prediction Plan:** | Pass next resample | **Range of Censoring:** | 0% - 100% |
| **Report Options:** | Normal inter point by parameter | | **Monitor 5** |

| Sampling Point | Sample Size | %NDs | Prediction Limit | Exceeded Result | Sample ID | Sample Date | Sample Point |
|---|---|---|---|---|---|---|---|
| **Chromium (mg/L)** | | | | | | | |
| **Background Wells** | | | | | | | |
| MW-1 | | | | | | | |
| Background Wells | 5 | 20.0% | 0.048 | | | | |

**End of report**

**Note: *** - Monitor cannot compute Prediction Limits for less than 4 or more than 200 result values.**

**Monitor 5** ***Dove Technologies***, Inc

**Prediction Limit Report**

| | | | |
|---|---|---|---|
| **Company:** | Cherokee County | **Data Group:** | None |
| **Site:** | Lined Landfill | **Date Range:** | All |
| **Program:** | Cherokee Lined - Groundwater Monitoring | **Non-detects:** | 1/2 detection limit |
| **Permit:** | | **Duplicates:** | Mean |
| **Report printed:** | 6/ 8/99 3:35:59PM | **Confidence Level:** | 0.95 |
| **Reported by:** | user | **Cut off Date:** | 5/18/99 |
| **Prediction Plan:** | Pass next resample | **Prediction Limit Case:** | Largest Value |
| **Minimum Size:** | 4 | **Range of Censoring:** | 0% - 100% |
| **Report Options:** | Nonparametric inter point by parameter | | |

**Monitor 5**

| Sampling Point | Sample Size | %NDs | Prediction Limit | Site Wide Confidence | Exceeded Result | Sample ID | Sample Date | Sample Point |
|---|---|---|---|---|---|---|---|---|
| **Cobalt (mg/L)** | | | | | | | | |
| **Background Wells** | | | | | | | | |
| MW-1 | | | | | | | | |
| Background Wells | 5 | 0.0% | 0.531 | 0.833 | | | | |

**End of report**

**Note: *** - The site wide false positive rate [alpha*] could not be computed. There were fewer than 4 result values available before the cut-off date.**

*** - The Prediction Limit for the 2nd Maximum case could not be computed. There were fewer than 2 result values before cut-off date.**

**Monitor 5** ***Dove Technologies***, Inc

**Prediction Limit Report**

| | | | |
|---|---|---|---|
| **Company:** | Cherokee County | **Data Group:** | None |
| **Site:** | Lined Landfill | **Date Range:** | All |
| **Program:** | Cherokee Lined - Groundwater Monitoring | **Non-detects:** | 1/2 detection limit |
| **Permit:** | | **Duplicates:** | Mean |
| **Report printed:** | 6/ 8/99 3:37:10PM | **Confidence Level:** | 0.95 |
| **Reported by:** | user | **Log Transform:** | No |
| **Minimum Size:** | 4 | **Cut off Date:** | 5/18/99 |
| **Prediction Plan:** | Pass next resample | **Range of Censoring:** | 0% - 100% |
| **Report Options:** | Normal inter point by parameter | | **Monitor 5** |

| Sampling Point | Sample Size | %NDs | Prediction Limit | Exceeded Result | Sample ID | Sample Date | Sample Point |
|---|---|---|---|---|---|---|---|
| **Copper (mg/L)** | | | | | | | |
| **Background Wells** | | | | | | | |
| MW-1 | | | | | | | |
| Background Wells | 5 | 0.0% | 1.036 | | | | |

**End of report**

**Note: *** - Monitor cannot compute Prediction Limits for less than 4 or more than 200 result values.**

**Monitor 5** ***Dove Technologies*** , Inc

**Prediction Limit Report**

| | | | |
|---|---|---|---|
| **Company:** | Cherokee County | **Data Group:** | None |
| **Site:** | Lined Landfill | **Date Range:** | All |
| **Program:** | Cherokee Lined - Groundwater Monitoring | **Non-detects:** | 1/2 detection limit |
| **Permit:** | | **Duplicates:** | Mean |
| **Report printed:** | 6/ 8/99 3:38:14PM | **Confidence Level:** | 0.95 |
| **Reported by:** | user | **Cut off Date:** | 5/18/99 |
| **Prediction Plan:** | Pass next resample | **Prediction Limit Case:** | Largest Value |
| **Minimum Size:** | 4 | **Range of Censoring:** | 0% - 100% |
| **Report Options:** | Nonparametric inter point by parameter | | **Monitor 5** |

| Sampling Point | Sample Size | %NDs | Prediction Limit | Site Wide Confidence | Exceeded Result | Sample ID | Sample Point | Sample Date |
|---|---|---|---|---|---|---|---|---|
| **Nickel (mg/L)** | | | | | | | | |
| **Background Wells** | | | | | | | | |
| MW-1 | | | | | | | | |
| Background Wells | 5 | 80.0% | 0.060 | 0.833 | | | | |

**End of report**

**Note: *** - The site wide false positive rate [alpha*] could not be computed. There were fewer than 4 result values available before the cut-off date.**

*** - The Prediction Limit for the 2nd Maximum case could not be computed. There were fewer than 2 result values before cut-off date.**

**Monitor 5** *Dove Technologies* , Inc

**Kruskal-Wallis Report**

| | | | |
|---|---|---|---|
| **Company:** | Cherokee County | **Data Group:** | None |
| **Site:** | Lined Landfill | **Date Range:** | All |
| | Cherokee Lined - Groundwater | | 1/2 detection |
| **Program:** | Monitoring | **Non-detects:** | limit |
| **Permit:** | | **Duplicates:** | Mean |
| **Report printed:** | 6/ 8/99 4:03:10PM | **Confidence Level:** | 0.95 |
| **Report Options:** | One-Way Nonparametric | **Range of Censoring:** | 0%- 100% |
| | | **Reported by:** | user **Monitor 5** |

**Metals**

**Thallium (mg/L)**

| Sampling Points Tested | Mean | Mean Rank | Count | % NDs |
|---|---|---|---|---|
| MW-2 | 0.001 | 10.8333 | 6 | 83.3% |
| MW-3 | 0.002 | 14.25 | 6 | 50.0% |
| MW-4 | 0.001 | 11.4167 | 6 | 66.7% |
| MW-6D | 0.001 | 13.5 | 6 | 50.0% |

**Statistical Summary**

| | |
|---|---|
| Number of ties: | 3 |
| Total degrees of freedom: | 3 |
| Kruskal-Wallis H Statistic: | 0.961667 |
| Kruskal-Wallis H' (corrected for ties): | 1.22268 |
| Tabular H: | 7.81473 |
| Significant difference among groups: | No |

| Comparison | Difference of Ranks | Critical Value | Significant? |
|---|---|---|---|
| MW-2 vs. MW-3 | 3.417 | 9.150 | No |
| MW-2 vs. MW-4 | 0.583 | 9.150 | No |
| MW-2 vs. MW-6D | 2.667 | 9.150 | No |
| MW-3 vs. MW-4 | -2.833 | 9.150 | No |
| MW-3 vs. MW-6D | -0.750 | 9.150 | No |
| MW-4 vs. MW-6D | 2.083 | 9.150 | No |

**End of report**

**Monitor 5** *Dove Technologies* , Inc

**Prediction Limit Report**

| | | | |
|---|---|---|---|
| **Company:** | Cherokee County | **Data Group:** | None |
| **Site:** | Lined Landfill | **Date Range:** | All |
| **Program:** | Cherokee Lined - Groundwater Monitoring | **Non-detects:** | 1/2 detection limit |
| **Permit:** | | **Duplicates:** | Mean |
| **Report printed:** | 6/ 8/99 3:39:04PM | **Confidence Level:** | 0.95 |
| **Reported by:** | user | **Cut off Date:** | 5/18/99 |
| **Prediction Plan:** | Pass next resample | **Prediction Limit Case:** | Largest Value |
| **Minimum Size:** | 4 | **Range of Censoring:** | 0% - 100% |
| **Report Options:** | Nonparametric inter point by parameter | | **Monitor 5** |

| Sampling Point | Sample Size | %NDs | Prediction Limit | Site Wide Confidence | Exceeded Result | Sample ID | Sample Date | Sample Point |
|---|---|---|---|---|---|---|---|---|
| **Vanadium (mg/L)** | | | | | | | | |
| **Background Wells** | | | | | | | | |
| MW-1 | | | | | | | | |
| Background Wells | 5 | 60.0% | 0.026 | 0.833 | | | | |

**End of report**

**Note: *** - The site wide false positive rate [alpha*] could not be computed. There were fewer than 4 result values available before the cut-off date.**

*** - The Prediction Limit for the 2nd Maximum case could not be computed. There were fewer than 2 result values before cut-off date.**

**Monitor 5** ***Dove Technologies***, Inc

**Prediction Limit Report**

| | | | |
|---|---|---|---|
| **Company:** | Cherokee County | **Data Group:** | None |
| **Site:** | Lined Landfill | **Date Range:** | All |
| **Program:** | Cherokee Lined - Groundwater Monitoring | **Non-detects:** | 1/2 detection limit |
| **Permit:** | | **Duplicates:** | Mean |
| **Report printed:** | 6/ 8/99 3:40:03PM | **Confidence Level:** | 0.95 |
| **Reported by:** | user | **Log Transform:** | No |
| **Minimum Size:** | 4 | **Cut off Date:** | 5/18/99 |
| **Prediction Plan:** | Pass next resample | **Range of Censoring:** | 0% - 100% |
| **Report Options:** | Normal inter point by parameter | | **Monitor 5** |

| Sampling Point | Sample Size | %NDs | Prediction Limit | Exceeded Result | Sample ID | Sample Date | Sample Point |
|---|---|---|---|---|---|---|---|
| **Zinc (mg/L)** | | | | | | | |
| **Background Wells** | | | | | | | |
| MW-1 | | | | | | | |
| Background Wells | 5 | 0.0% | 0.400 | | | | |

**End of report**

**Note: *** - Monitor cannot compute Prediction Limits for less than 4 or more than 200 result values.**

**Monitor 5** *Dove Technologies* , Inc

# Laboratory Data

Pace Analytical Services, Inc.
54 Ravenscroft Drive
Asheville, NC 28801
Tel: 828-254-7176
Fax: 828-252-4618

# Pace Analytical

June 04, 1999

JUN 7 1999
SERVICES COMPANY

Mr. Richard Allison
Municipal Engineering Co. P.A.
PO Box 97
Garner, NC 27529

RE: Pace Project Number: 935744
Client Project ID: New Landfill

Dear Mr. Allison:

Enclosed are the results of analyses for sample(s) received by the laboratory on May 20, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jennifer Jones
Project Manager

Enclosures

Pace Analytical Services, Inc.
54 Ravenscroft Drive
Asheville, NC 28801
Tel: 828-254-7176
Fax: 828-252-4618

# Pace Analytical

DATE: 06/04/99
PAGE: 1

Municipal Engineering Co. P.A.
PO Box 97
Garner, NC 27529

Pace Project Number: 935744
Client Project ID: New Landfill

Attn: Mr. Richard Allison
Phone: (704)837-2621

Solid results are reported on a wet weight basis

Pace Sample No: 93262095 Date Collected: 05/19/99 Matrix: Water
Client Sample ID: MW #1 Date Received: 05/20/99

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| **Field Services** | | | | | | | |
| Monitoring Well Data | Method: | | | | Prep Method: | | |
| Field pH | 5.7 | Std. Units | | 05/19/99 | MPS | | |
| Field Specific Conductance | 37 | umhos/cm | | 05/19/99 | MPS | | |
| Field Temperature | 15 | deg C | | 05/19/99 | MPS | | |
| Depth of Water | 95.93 | feet | 0 | 05/19/99 | MPS | | |
| **Metals** | | | | | | | |
| Metals, ICP, trace-level | Method: EPA 6010 | | | | Prep Method: EPA 3010 | | |
| Antimony | ND | mg/l | 0.01 | 05/24/99 | KEK | 7440-36-0 | |
| Arsenic | ND | mg/l | 0.01 | 05/24/99 | KEK | 7440-38-2 | |
| Barium | 0.064 | mg/l | 0.005 | 05/24/99 | KEK | 7440-39-3 | |
| Beryllium | ND | mg/l | 0.002 | 05/24/99 | KEK | 7440-41-7 | |
| Cadmium | ND | mg/l | 0.001 | 05/24/99 | KEK | 7440-43-9 | |
| Chromium | 0.022 | mg/l | 0.005 | 05/24/99 | KEK | 7440-47-3 | |
| Cobalt | 0.022 | mg/l | 0.005 | 05/24/99 | KEK | 7440-48-4 | |
| Copper | 0.028 | mg/l | 0.005 | 05/24/99 | KEK | 7440-50-8 | |
| Lead | ND | mg/l | 0.01 | 05/24/99 | KEK | 7439-92-1 | |
| Nickel | 0.025 | mg/l | 0.005 | 05/24/99 | KEK | 7440-02-0 | |
| Selenium | ND | mg/l | 0.02 | 05/24/99 | KEK | 7782-49-2 | |
| Silver | ND | mg/l | 0.002 | 05/24/99 | KEK | 7440-22-4 | |
| Vanadium | 0.023 | mg/l | 0.005 | 05/24/99 | KEK | 7440-62-2 | |
| Zinc | 0.035 | mg/l | 0.02 | 05/24/99 | KEK | 7440-66-6 | |
| Date Digested | | | | 05/20/99 | | | |
| Thallium, AAS Furnace | Method: EPA 7841 | | | | Prep Method: EPA 3020 | | |
| Thallium | ND | mg/l | 0.002 | 05/24/99 | KEK | 7440-28-0 | |

Laboratory Certification IDs
NC Wastewater 40
NC Drinking Water 37712

## REPORT OF LABORATORY ANALYSIS

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Laboratory Certification IDs
TN Drinking Water 02980
SC Environmental 99030

Pace Analytical

Pace Analytical Services, Inc.
54 Ravenscroft Drive
Asheville, NC 28801
Tel: 828-254-7176
Fax: 828-252-4618



Pace Project Number: 935744
Client Project ID: New Landfill

Pace Sample No: 93262095 Date Collected: 05/19/99 Matrix: Water
Client Sample ID: MW #1 Date Received: 05/20/99

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| Date Digested | | | | 05/20/99 | | | |

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Fax: 828-252-4618

# Pace Analytical



Pace Project Number: 935744
Client Project ID: New Landfill

Pace Sample No: 93262103 | Date Collected: 05/19/99 | Matrix: Water
Client Sample ID: MW #2 | Date Received: 05/20/99

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| **Field Services** | | | | | | | |
| Monitoring Well Data | Method: | | | | Prep Method: | | |
| Field pH | 6.2 | Std. Units | | 05/19/99 | MPS | | |
| Field Specific Conductance | 32 | umhos/cm | | 05/19/99 | MPS | | |
| Field Temperature | 14 | deg C | | 05/19/99 | MPS | | |
| Depth of Water | 55.10 | feet | 0 | 05/19/99 | MPS | | |
| **Metals** | | | | | | | |
| Metals, ICP, trace-level | Method: EPA 6010 | | | | Prep Method: EPA 3010 | | |
| Antimony | ND | mg/l | 0.01 | 05/24/99 | KEK | 7440-36-0 | |
| Arsenic | ND | mg/l | 0.01 | 05/24/99 | KEK | 7440-38-2 | |
| Barium | 0.072 | mg/l | 0.005 | 05/24/99 | KEK | 7440-39-3 | |
| Beryllium | ND | mg/l | 0.002 | 05/24/99 | KEK | 7440-41-7 | |
| Cadmium | ND | mg/l | 0.001 | 05/24/99 | KEK | 7440-43-9 | |
| Chromium | 0.015 | mg/l | 0.005 | 05/24/99 | KEK | 7440-47-3 | |
| Cobalt | 0.015 | mg/l | 0.005 | 05/24/99 | KEK | 7440-48-4 | |
| Copper | ND | mg/l | 0.005 | 05/24/99 | KEK | 7440-50-8 | |
| Lead | ND | mg/l | 0.01 | 05/24/99 | KEK | 7439-92-1 | |
| Nickel | 0.02 | mg/l | 0.005 | 05/24/99 | KEK | 7440-02-0 | |
| Selenium | ND | mg/l | 0.02 | 05/24/99 | KEK | 7782-49-2 | |
| Silver | ND | mg/l | 0.002 | 05/24/99 | KEK | 7440-22-4 | |
| Vanadium | 0.013 | mg/l | 0.005 | 05/24/99 | KEK | 7440-62-2 | |
| Zinc | 0.038 | mg/l | 0.02 | 05/24/99 | KEK | 7440-66-6 | |
| Date Digested | | | | 05/20/99 | | | |
| Thallium, AAS Furnace | Method: EPA 7841 | | | | Prep Method: EPA 3020 | | |
| Thallium | 0.002 | mg/l | 0.002 | 05/24/99 | KEK | 7440-28-0 | |
| Date Digested | | | | 05/20/99 | | | |



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Fax: 828-252-4618

# Pace Analytical



Pace Project Number: 935744
Client Project ID: New Landfill

Pace Sample No: 93262111 | Date Collected: 05/19/99 | Matrix: Water
Client Sample ID: MW #3 | Date Received: 05/20/99

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| **Field Services** | | | | | | | |
| Monitoring Well Data | Method: | | | | Prep Method: | | |
| Field pH | 6.2 | Std. Units | | 05/19/99 | MPS | | |
| Field Specific Conductance | 31 | umhos/cm | | 05/19/99 | MPS | | |
| Field Temperature | 15 | deg C | | 05/19/99 | MPS | | |
| Depth of Water | 30.20 | feet | 0 | 05/19/99 | MPS | | |
| **Metals** | | | | | | | |
| Metals, ICP, trace-level | Method: EPA 6010 | | | | Prep Method: EPA 3010 | | |
| Antimony | ND | mg/l | 0.01 | 05/24/99 | KEK | 7440-36-0 | |
| Arsenic | ND | mg/l | 0.01 | 05/24/99 | KEK | 7440-38-2 | |
| Barium | 0.14 | mg/l | 0.005 | 05/24/99 | KEK | 7440-39-3 | |
| Beryllium | 0.0022 | mg/l | 0.002 | 05/24/99 | KEK | 7440-41-7 | |
| Cadmium | ND | mg/l | 0.001 | 05/24/99 | KEK | 7440-43-9 | |
| Chromium | 0.023 | mg/l | 0.005 | 05/24/99 | KEK | 7440-47-3 | |
| Cobalt | 0.026 | mg/l | 0.005 | 05/24/99 | KEK | 7440-48-4 | |
| Copper | ND | mg/l | 0.005 | 05/24/99 | KEK | 7440-50-8 | |
| Lead | ND | mg/l | 0.01 | 05/24/99 | KEK | 7439-92-1 | |
| Nickel | 0.029 | mg/l | 0.005 | 05/24/99 | KEK | 7440-02-0 | |
| Selenium | ND | mg/l | 0.02 | 05/24/99 | KEK | 7782-49-2 | |
| Silver | ND | mg/l | 0.002 | 05/24/99 | KEK | 7440-22-4 | |
| Vanadium | 0.019 | mg/l | 0.005 | 05/24/99 | KEK | 7440-62-2 | |
| Zinc | 0.065 | mg/l | 0.02 | 05/24/99 | KEK | 7440-66-6 | |
| Date Digested | | | | 05/20/99 | | | |
| Thallium, AAS Furnace | Method: EPA 7841 | | | | Prep Method: EPA 3020 | | |
| Thallium | 0.006 | mg/l | 0.002 | 05/24/99 | KEK | 7440-28-0 | |
| Date Digested | | | | 05/20/99 | | | |

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# Pace Analytical



Pace Project Number: 935744
Client Project ID: New Landfill

Pace Sample No: 93262129 | Date Collected: 05/19/99 | Matrix: Water
Client Sample ID: MW #4 | Date Received: 05/20/99

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| **Field Services** | | | | | | | |
| Monitoring Well Data | Method: | | | | Prep Method: | | |
| Field pH | 6.3 | Std. Units | | 05/19/99 | MPS | | |
| Field Specific Conductance | 55 | umhos/cm | | 05/19/99 | MPS | | |
| Field Temperature | 16 | deg C | | 05/19/99 | MPS | | |
| Depth of Water | 16.55 | feet | 0 | 05/19/99 | MPS | | |
| **Metals** | | | | | | | |
| Metals, ICP, trace-level | Method: EPA 6010 | | | | Prep Method: EPA 3010 | | |
| Antimony | ND | mg/l | 0.01 | 05/24/99 | KEK | 7440-36-0 | |
| Arsenic | 0.012 | mg/l | 0.01 | 05/24/99 | KEK | 7440-38-2 | |
| Barium | 0.21 | mg/l | 0.005 | 05/24/99 | KEK | 7440-39-3 | |
| Beryllium | 0.025 | mg/l | 0.002 | 05/24/99 | KEK | 7440-41-7 | |
| Cadmium | ND | mg/l | 0.001 | 05/24/99 | KEK | 7440-43-9 | |
| Chromium | 0.032 | mg/l | 0.005 | 05/24/99 | KEK | 7440-47-3 | |
| Cobalt | 0.026 | mg/l | 0.005 | 05/24/99 | KEK | 7440-48-4 | |
| Copper | ND | mg/l | 0.005 | 05/24/99 | KEK | 7440-50-8 | |
| Lead | ND | mg/l | 0.01 | 05/24/99 | KEK | 7439-92-1 | |
| Nickel | 0.042 | mg/l | 0.005 | 05/24/99 | KEK | 7440-02-0 | |
| Selenium | ND | mg/l | 0.02 | 05/24/99 | KEK | 7782-49-2 | |
| Silver | ND | mg/l | 0.002 | 05/24/99 | KEK | 7440-22-4 | |
| Vanadium | 0.023 | mg/l | 0.005 | 05/24/99 | KEK | 7440-62-2 | |
| Zinc | 0.077 | mg/l | 0.02 | 05/24/99 | KEK | 7440-66-6 | |
| Date Digested | | | | 05/20/99 | | | |
| Thallium, AAS Furnace | Method: EPA 7841 | | | | Prep Method: EPA 3020 | | |
| Thallium | 0.005 | mg/l | 0.002 | 05/24/99 | KEK | 7440-28-0 | |
| Date Digested | | | | 05/20/99 | | | |

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# Pace Analytical



Pace Project Number: 935744
Client Project ID: New Landfill

Pace Sample No: 93262137 | Date Collected: 05/19/99 | Matrix: Water
Client Sample ID: MW #5 | Date Received: 05/20/99

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| **Field Services** | | | | | | | |
| Monitoring Well Data | Method: | | | | Prep Method: | | |
| Field pH | 6.3 | Std. Units | | 05/19/99 | MPS | | |
| Field Specific Conductance | 65 | umhos/cm | | 05/19/99 | MPS | | |
| Field Temperature | 14 | deg C | | 05/19/99 | MPS | | |
| Depth of Water | 7.30 | feet | 0 | 05/19/99 | MPS | | |
| **Metals** | | | | | | | |
| Metals, ICP, trace-level | Method: EPA 6010 | | | | Prep Method: EPA 3010 | | |
| Antimony | ND | mg/l | 0.01 | 05/24/99 | KEK | 7440-36-0 | |
| Arsenic | ND | mg/l | 0.01 | 05/24/99 | KEK | 7440-38-2 | |
| Barium | 0.048 | mg/l | 0.005 | 05/24/99 | KEK | 7440-39-3 | |
| Beryllium | ND | mg/l | 0.002 | 05/24/99 | KEK | 7440-41-7 | |
| Cadmium | ND | mg/l | 0.001 | 05/24/99 | KEK | 7440-43-9 | |
| Chromium | 0.0094 | mg/l | 0.005 | 05/24/99 | KEK | 7440-47-3 | |
| Cobalt | 0.015 | mg/l | 0.005 | 05/24/99 | KEK | 7440-48-4 | |
| Copper | 0.023 | mg/l | 0.005 | 05/24/99 | KEK | 7440-50-8 | |
| Lead | ND | mg/l | 0.01 | 05/24/99 | KEK | 7439-92-1 | |
| Nickel | 0.021 | mg/l | 0.005 | 05/24/99 | KEK | 7440-02-0 | |
| Selenium | ND | mg/l | 0.02 | 05/24/99 | KEK | 7782-49-2 | |
| Silver | ND | mg/l | 0.002 | 05/24/99 | KEK | 7440-22-4 | |
| Vanadium | 0.016 | mg/l | 0.005 | 05/24/99 | KEK | 7440-62-2 | |
| Zinc | 0.082 | mg/l | 0.02 | 05/24/99 | KEK | 7440-66-6 | |
| Date Digested | | | | 05/20/99 | | | |
| Thallium, AAS Furnace | Method: EPA 7841 | | | | Prep Method: EPA 3020 | | |
| Thallium | ND | mg/l | 0.002 | 05/24/99 | KEK | 7440-28-0 | |
| Date Digested | | | | 05/20/99 | | | |

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# Pace Analytical



Pace Project Number: 935744
Client Project ID: New Landfill

Pace Sample No: 93262145 | Date Collected: 05/19/99 | Matrix: Water
Client Sample ID: MW #6S | Date Received: 05/20/99

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| **Field Services** | | | | | | | |
| Monitoring Well Data | Method: | | | | Prep Method: | | |
| Field pH | 6.4 | Std. Units | | 05/19/99 | MPS | | |
| Field Specific Conductance | 140 | umhos/cm | | 05/19/99 | MPS | | |
| Field Temperature | 14 | deg C | | 05/19/99 | MPS | | |
| Depth of Water | 12.75 | feet | 0 | 05/19/99 | MPS | | |
| **Metals** | | | | | | | |
| Metals, ICP, trace-level | Method: EPA 6010 | | | | Prep Method: EPA 3010 | | |
| Antimony | ND | mg/l | 0.01 | 05/24/99 | KEK | 7440-36-0 | |
| Arsenic | ND | mg/l | 0.01 | 05/24/99 | KEK | 7440-38-2 | |
| Barium | 0.048 | mg/l | 0.005 | 05/24/99 | KEK | 7440-39-3 | |
| Beryllium | ND | mg/l | 0.002 | 05/24/99 | KEK | 7440-41-7 | |
| Cadmium | ND | mg/l | 0.001 | 05/24/99 | KEK | 7440-43-9 | |
| Chromium | ND | mg/l | 0.005 | 05/24/99 | KEK | 7440-47-3 | |
| Cobalt | 0.0092 | mg/l | 0.005 | 05/24/99 | KEK | 7440-48-4 | |
| Copper | ND | mg/l | 0.005 | 05/24/99 | KEK | 7440-50-8 | |
| Lead | ND | mg/l | 0.01 | 05/24/99 | KEK | 7439-92-1 | |
| Nickel | 0.0085 | mg/l | 0.005 | 05/24/99 | KEK | 7440-02-0 | |
| Selenium | ND | mg/l | 0.02 | 05/24/99 | KEK | 7782-49-2 | |
| Silver | ND | mg/l | 0.002 | 05/24/99 | KEK | 7440-22-4 | |
| Vanadium | ND | mg/l | 0.005 | 05/24/99 | KEK | 7440-62-2 | |
| Zinc | ND | mg/l | 0.02 | 05/24/99 | KEK | 7440-66-6 | |
| Date Digested | | | | 05/20/99 | | | |
| Thallium, AAS Furnace | Method: EPA 7841 | | | | Prep Method: EPA 3020 | | |
| Thallium | ND | mg/l | 0.002 | 05/24/99 | KEK | 7440-28-0 | |
| Date Digested | | | | 05/20/99 | | | |

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Asheville, NC 28801
Tel: 828-254-7176
Fax: 828-252-4618

# Pace Analytical



Pace Project Number: 935744
Client Project ID: New Landfill

Pace Sample No: 93262152 | Date Collected: 05/19/99 | Matrix: Water
Client Sample ID: MW #6D | Date Received: 05/20/99

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| **Field Services** | | | | | | | |
| Monitoring Well Data | Method: | | | | Prep Method: | | |
| Field pH | 7.8 | Std. Units | | 05/19/99 | MPS | | |
| Field Specific Conductance | 210 | umhos/cm | | 05/19/99 | MPS | | |
| Field Temperature | 15 | deg C | | 05/19/99 | MPS | | |
| Depth of Water | 23.78 | feet | 0 | 05/19/99 | MPS | | |
| **Metals** | | | | | | | |
| Metals, ICP, trace-level | Method: EPA 6010 | | | | Prep Method: EPA 3010 | | |
| Antimony | ND | mg/l | 0.01 | 05/24/99 | KEK | 7440-36-0 | |
| Arsenic | ND | mg/l | 0.01 | 05/24/99 | KEK | 7440-38-2 | |
| Barium | 0.0087 | mg/l | 0.005 | 05/24/99 | KEK | 7440-39-3 | |
| Beryllium | ND | mg/l | 0.002 | 05/24/99 | KEK | 7440-41-7 | |
| Cadmium | ND | mg/l | 0.001 | 05/24/99 | KEK | 7440-43-9 | |
| Chromium | ND | mg/l | 0.005 | 05/24/99 | KEK | 7440-47-3 | |
| Cobalt | ND | mg/l | 0.005 | 05/24/99 | KEK | 7440-48-4 | |
| Copper | ND | mg/l | 0.005 | 05/24/99 | KEK | 7440-50-8 | |
| Lead | ND | mg/l | 0.01 | 05/24/99 | KEK | 7439-92-1 | |
| Nickel | 0.005 | mg/l | 0.005 | 05/24/99 | KEK | 7440-02-0 | |
| Selenium | ND | mg/l | 0.02 | 05/24/99 | KEK | 7782-49-2 | |
| Silver | ND | mg/l | 0.002 | 05/24/99 | KEK | 7440-22-4 | |
| Vanadium | ND | mg/l | 0.005 | 05/24/99 | KEK | 7440-62-2 | |
| Zinc | ND | mg/l | 0.02 | 05/24/99 | KEK | 7440-66-6 | |
| Date Digested | | | | 05/20/99 | | | |
| Thallium, AAS Furnace | Method: EPA 7841 | | | | Prep Method: EPA 3020 | | |
| Thallium | 0.002 | mg/l | 0.002 | 05/24/99 | KEK | 7440-28-0 | |
| Date Digested | | | | 05/20/99 | | | |

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# Pace Analytical



Pace Project Number: 935744
Client Project ID: New Landfill

Pace Sample No: 93262160 | Date Collected: 05/19/99 | Matrix: Water
Client Sample ID: MW#7 | Date Received: 05/20/99

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| **Field Services** | | | | | | | |
| Monitoring Well Data | Method: | | | | Prep Method: | | |
| Field pH | 5.1 | Std. Units | | 05/19/99 | MPS | | |
| Field Specific Conductance | 52 | umhos/cm | | 05/19/99 | MPS | | |
| Field Temperature | 15 | deg C | | 05/19/99 | MPS | | |
| Depth of Water | 18.20 | feet | 0 | 05/19/99 | MPS | | |
| **Metals** | | | | | | | |
| Metals, ICP, trace-level | Method: EPA 6010 | | | | Prep Method: EPA 3010 | | |
| Antimony | ND | mg/l | 0.01 | 05/24/99 | KEK | 7440-36-0 | |
| Arsenic | ND | mg/l | 0.01 | 05/24/99 | KEK | 7440-38-2 | |
| Barium | 0.026 | mg/l | 0.005 | 05/24/99 | KEK | 7440-39-3 | |
| Beryllium | ND | mg/l | 0.002 | 05/24/99 | KEK | 7440-41-7 | |
| Cadmium | ND | mg/l | 0.001 | 05/24/99 | KEK | 7440-43-9 | |
| Chromium | ND | mg/l | 0.005 | 05/24/99 | KEK | 7440-47-3 | |
| Cobalt | 0.0063 | mg/l | 0.005 | 05/24/99 | KEK | 7440-48-4 | |
| Copper | ND | mg/l | 0.005 | 05/24/99 | KEK | 7440-50-8 | |
| Lead | ND | mg/l | 0.01 | 05/24/99 | KEK | 7439-92-1 | |
| Nickel | 0.009 | mg/l | 0.005 | 05/24/99 | KEK | 7440-02-0 | |
| Selenium | ND | mg/l | 0.02 | 05/24/99 | KEK | 7782-49-2 | |
| Silver | ND | mg/l | 0.002 | 05/24/99 | KEK | 7440-22-4 | |
| Vanadium | 0.0071 | mg/l | 0.005 | 05/24/99 | KEK | 7440-62-2 | |
| Zinc | ND | mg/l | 0.02 | 05/24/99 | KEK | 7440-66-6 | |
| Date Digested | | | | 05/20/99 | | | |
| Thallium, AAS Furnace | Method: EPA 7841 | | | | Prep Method: EPA 3020 | | |
| Thallium | ND | mg/l | 0.002 | 05/24/99 | KEK | 7440-28-0 | |
| Date Digested | | | | 05/20/99 | | | |



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# Pace Analytical



Pace Project Number: 935744
Client Project ID: New Landfill

Pace Sample No: 93262178 | Date Collected: 05/19/99 | Matrix: Water
Client Sample ID: SW #1 UPSTREAM | Date Received: 05/20/99

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| **Field Services** | | | | | | | |
| Monitoring Well Data | | Method: | | | Prep Method: | | |
| Field pH | 7.0 | Std. Units | | 05/19/99 | MPS | | |
| Field Specific Conductance | 82 | umhos/cm | | 05/19/99 | MPS | | |
| Field Temperature | 20 | deg C | | 05/19/99 | MPS | | |
| **Metals** | | | | | | | |
| Metals, ICP, trace-level | | Method: EPA 6010 | | | Prep Method: EPA 3010 | | |
| Antimony | ND | mg/l | 0.01 | 05/24/99 | KEK | 7440-36-0 | |
| Arsenic | ND | mg/l | 0.01 | 05/24/99 | KEK | 7440-38-2 | |
| Barium | 0.013 | mg/l | 0.005 | 05/24/99 | KEK | 7440-39-3 | |
| Beryllium | ND | mg/l | 0.002 | 05/24/99 | KEK | 7440-41-7 | |
| Cadmium | ND | mg/l | 0.001 | 05/24/99 | KEK | 7440-43-9 | |
| Chromium | ND | mg/l | 0.005 | 05/24/99 | KEK | 7440-47-3 | |
| Cobalt | ND | mg/l | 0.005 | 05/24/99 | KEK | 7440-48-4 | |
| Copper | ND | mg/l | 0.005 | 05/24/99 | KEK | 7440-50-8 | |
| Lead | ND | mg/l | 0.01 | 05/24/99 | KEK | 7439-92-1 | |
| Nickel | ND | mg/l | 0.005 | 05/24/99 | KEK | 7440-02-0 | |
| Selenium | ND | mg/l | 0.02 | 05/24/99 | KEK | 7782-49-2 | |
| Silver | ND | mg/l | 0.002 | 05/24/99 | KEK | 7440-22-4 | |
| Vanadium | ND | mg/l | 0.005 | 05/24/99 | KEK | 7440-62-2 | |
| Zinc | ND | mg/l | 0.02 | 05/24/99 | KEK | 7440-66-6 | |
| Date Digested | | | | 05/20/99 | | | |
| Thallium, AAS Furnace | | Method: EPA 7841 | | | Prep Method: EPA 3020 | | |
| Thallium | ND | mg/l | 0.002 | 05/24/99 | KEK | 7440-28-0 | |
| Date Digested | | | | 05/20/99 | | | |

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Pace Project Number: 935744
Client Project ID: New Landfill

Pace Sample No: 93262186 Date Collected: 05/19/99 Matrix: Water
Client Sample ID: SW#2 DOWNSTREAM Date Received: 05/20/99

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| **Field Services** | | | | | | | |
| Monitoring Well Data | | Method: | | | Prep Method: | | |
| Field pH | 6.4 | Std. Units | | 05/19/99 | MPS | | |
| Field Specific Conductance | 42 | umhos/cm | | 05/19/99 | MPS | | |
| Field Temperature | 12 | deg C | | 05/19/99 | MPS | | |
| **Metals** | | | | | | | |
| Metals, ICP, trace-level | | Method: EPA 6010 | | | Prep Method: EPA 3010 | | |
| Antimony | ND | mg/l | 0.01 | 05/24/99 | KEK | 7440-36-0 | |
| Arsenic | ND | mg/l | 0.01 | 05/24/99 | KEK | 7440-38-2 | |
| Barium | 0.0076 | mg/l | 0.005 | 05/24/99 | KEK | 7440-39-3 | |
| Beryllium | ND | mg/l | 0.002 | 05/24/99 | KEK | 7440-41-7 | |
| Cadmium | ND | mg/l | 0.001 | 05/24/99 | KEK | 7440-43-9 | |
| Chromium | ND | mg/l | 0.005 | 05/24/99 | KEK | 7440-47-3 | |
| Cobalt | ND | mg/l | 0.005 | 05/24/99 | KEK | 7440-48-4 | |
| Copper | ND | mg/l | 0.005 | 05/24/99 | KEK | 7440-50-8 | |
| Lead | ND | mg/l | 0.01 | 05/24/99 | KEK | 7439-92-1 | |
| Nickel | ND | mg/l | 0.005 | 05/24/99 | KEK | 7440-02-0 | |
| Selenium | ND | mg/l | 0.02 | 05/24/99 | KEK | 7782-49-2 | |
| Silver | ND | mg/l | 0.002 | 05/24/99 | KEK | 7440-22-4 | |
| Vanadium | ND | mg/l | 0.005 | 05/24/99 | KEK | 7440-62-2 | |
| Zinc | ND | mg/l | 0.02 | 05/24/99 | KEK | 7440-66-6 | |
| Date Digested | | | | 05/20/99 | | | |
| Thallium, AAS Furnace | | Method: EPA 7841 | | | Prep Method: EPA 3020 | | |
| Thallium | ND | mg/l | 0.002 | 05/24/99 | KEK | 7440-28-0 | |
| Date Digested | | | | 05/20/99 | | | |



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Pace Project Number: 935744
Client Project ID: New Landfill

Pace Sample No: 93262202 Date Collected: 05/18/99 Matrix: Water
Client Sample ID: EQUIPMENT BLANK Date Received: 05/20/99

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| Metals | | | | | | | |
| Metals, ICP, trace-level | Method: EPA 6010 | | | | Prep Method: EPA 3010 | | |
| Antimony | ND | mg/l | 0.01 | 05/24/99 | KEK | 7440-36-0 | |
| Arsenic | ND | mg/l | 0.01 | 05/24/99 | KEK | 7440-38-2 | |
| Barium | ND | mg/l | 0.005 | 05/24/99 | KEK | 7440-39-3 | |
| Beryllium | ND | mg/l | 0.002 | 05/24/99 | KEK | 7440-41-7 | |
| Cadmium | ND | mg/l | 0.001 | 05/24/99 | KEK | 7440-43-9 | |
| Chromium | ND | mg/l | 0.005 | 05/24/99 | KEK | 7440-47-3 | |
| Cobalt | ND | mg/l | 0.005 | 05/24/99 | KEK | 7440-48-4 | |
| Copper | ND | mg/l | 0.005 | 05/24/99 | KEK | 7440-50-8 | |
| Lead | ND | mg/l | 0.01 | 05/24/99 | KEK | 7439-92-1 | |
| Nickel | ND | mg/l | 0.005 | 05/24/99 | KEK | 7440-02-0 | |
| Selenium | ND | mg/l | 0.02 | 05/24/99 | KEK | 7782-49-2 | |
| Silver | ND | mg/l | 0.002 | 05/24/99 | KEK | 7440-22-4 | |
| Vanadium | ND | mg/l | 0.005 | 05/24/99 | KEK | 7440-62-2 | |
| Zinc | ND | mg/l | 0.02 | 05/24/99 | KEK | 7440-66-6 | |
| Date Digested | | | | 05/20/99 | | | |
| Thallium, AAS Furnace | Method: EPA 7841 | | | | Prep Method: EPA 3020 | | |
| Thallium | ND | mg/l | 0.002 | 05/24/99 | KEK | 7440-28-0 | |
| Date Digested | | | | 05/20/99 | | | |



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# Pace Analytical



Pace Project Number: 935744
Client Project ID: New Landfill

Pace Sample No: 93262210 | Date Collected: 05/19/99 | Matrix: Water
Client Sample ID: LEACHATE | Date Received: 05/20/99

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| **Field Services** | | | | | | | |
| Monitoring Well Data | Method: | | | | Prep Method: | | |
| Field pH | 5.7 | Std. Units | | 05/19/99 | MPS | | |
| Field Specific Conductance | 130 | umhos/cm | | 05/19/99 | MPS | | |
| Field Temperature | 19 | deg C | | 05/19/99 | MPS | | |
| **Metals** | | | | | | | |
| Metals, ICP, trace-level | Method: EPA 6010 | | | | Prep Method: EPA 3010 | | |
| Antimony | ND | mg/l | 0.01 | 05/24/99 | KEK | 7440-36-0 | |
| Arsenic | ND | mg/l | 0.01 | 05/24/99 | KEK | 7440-38-2 | |
| Barium | 0.017 | mg/l | 0.005 | 05/24/99 | KEK | 7440-39-3 | |
| Beryllium | ND | mg/l | 0.002 | 05/24/99 | KEK | 7440-41-7 | |
| Cadmium | ND | mg/l | 0.001 | 05/24/99 | KEK | 7440-43-9 | |
| Chromium | 0.013 | mg/l | 0.005 | 05/24/99 | KEK | 7440-47-3 | |
| Cobalt | ND | mg/l | 0.005 | 05/24/99 | KEK | 7440-48-4 | |
| Copper | ND | mg/l | 0.005 | 05/24/99 | KEK | 7440-50-8 | |
| Lead | ND | mg/l | 0.01 | 05/24/99 | KEK | 7439-92-1 | |
| Nickel | ND | mg/l | 0.005 | 05/24/99 | KEK | 7440-02-0 | |
| Selenium | ND | mg/l | 0.02 | 05/24/99 | KEK | 7782-49-2 | |
| Silver | ND | mg/l | 0.002 | 05/24/99 | KEK | 7440-22-4 | |
| Vanadium | ND | mg/l | 0.005 | 05/24/99 | KEK | 7440-62-2 | |
| Zinc | ND | mg/l | 0.02 | 05/24/99 | KEK | 7440-66-6 | |
| Date Digested | | | | 05/20/99 | | | |
| Mercury in Water | Method: EPA 7470 | | | | Prep Method: EPA 7470 | | |
| Mercury | ND | mg/l | 0.0002 | 05/25/99 | KEK | 7439-97-6 | |
| Thallium, AAS Furnace | Method: EPA 7841 | | | | Prep Method: EPA 3020 | | |
| Thallium | 0.003 | mg/l | 0.002 | 05/24/99 | KEK | 7440-28-0 | |
| Date Digested | | | | 05/20/99 | | | |
| **Wet Chemistry** | | | | | | | |
| Total Dissolved Solids | Method: EPA 160.1 | | | | Prep Method: EPA 160.1 | | |
| Total Dissolved Solids | 75 | mg/l | 1 | 05/21/99 | SLG | | |
| Cyanide, Total, Water | Method: EPA 335.4 | | | | Prep Method: EPA 335.4 | | |

Laboratory Certification IDs
NC Wastewater 40
NC Drinking Water 37712

## REPORT OF LABORATORY ANALYSIS

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Laboratory Certification IDs
TN Drinking Water 02980
SC Environmental 99030

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Pace Project Number: 935744
Client Project ID: New Landfill

Pace Sample No: 93262210 Date Collected: 05/19/99 Matrix: Water
Client Sample ID: LEACHATE Date Received: 05/20/99

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| Cyanide | ND | mg/l | 0.002 | 05/27/99 | WWB | 57-12-5 | |
| Total Kjeldahl Nitrogen | Method: EPA 351.2 | | | | Prep Method: EPA 351.2 | | |
| Nitrogen, Kjeldahl, Total | 3.1 | mg/l | 0.1 | 05/27/99 | WWB | | |
| Nitrogen, Nitrate plus Nitrite | Method: EPA 353.3 | | | | Prep Method: EPA 353.3 | | |
| Nitrogen, NO2 plus NO3 | ND | mg/l | 0.1 | 05/28/99 | TRW | | 1 |
| Biochemical Oxygen Demand, 5 d | Method: EPA 405.1 | | | | Prep Method: | | |
| Biochemical Oxygen Demand, 5d | 7.2 | mg/l | 2 | 05/25/99 | SLG | | |
| Date Prepared | | | | 05/20/99 | | | |
| Chemical Oxygen Demand | Method: EPA 410.4 | | | | Prep Method: EPA 410.4 | | |
| Chemical Oxygen Demand | ND | mg/l | 50 | 05/26/99 | AAB | | |
| Nitrogen, Total | Method: Standard Methods | | | | Prep Method: | | |
| Nitrogen | 3.1 | mg/l | 1 | 06/01/99 | TRW | 7727-37-9 | |



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Pace Project Number: 935744
Client Project ID: New Landfill

Pace Sample No: 93263697 Date Collected: 05/19/99 Matrix: Water
Client Sample ID: P9 Date Received: 05/20/99

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| Field Services | | | | | | | |
| Monitoring Well Data | Method: | | | | Prep Method: | | |
| Depth of Water | 19.99 | feet | 0 | 05/19/99 | MPS | | |



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Pace Project Number: 935744
Client Project ID: New Landfill

PARAMETER FOOTNOTES

| | |
|---|---|
| ND | Not Detected |
| NC | Not Calculable |
| PRL | Pace Reporting Limit |
| [1] | All QC requirements were not met. Acceptable method performance based upon remaining batch QC. |



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# Pace Analytical



Cherokee County Landfill
Cherokee Cty. Courthouse
Murphy, NC 28906

Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

Attn: Mr. Robert Allen

Solid results are reported on a dry weight basis

Pace Sample No: 93262095 Date Collected: 05/19/99 Matrix: Water
Client Sample ID: MW-1 Date Received: 05/21/99

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| GC/MS Volatiles | | | | | | | |
| GC/MS VOCs by 8260 | Method: EPA 8260 | | | | Prep Method: EPA 8260 | | |
| Chloromethane | ND | ug/l | 10 | 05/25/99 | VFT | 74-87-3 | |
| Vinyl Chloride | ND | ug/l | 10 | 05/25/99 | VFT | 75-01-4 | |
| Bromomethane | 10 | ug/l | 10 | 05/25/99 | VFT | 74-83-9 | |
| Chloroethane | ND | ug/l | 10 | 05/25/99 | VFT | 75-00-3 | |
| Trichlorofluoromethane | ND | ug/l | 10 | 05/25/99 | VFT | 75-69-4 | |
| Acetone | ND | ug/l | 100 | 05/25/99 | VFT | 67-64-1 | |
| 1,1-Dichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 75-35-4 | |
| Iodomethane | ND | ug/l | 5 | 05/25/99 | VFT | 74-88-4 | |
| Acrylonitrile | ND | ug/l | 100 | 05/25/99 | VFT | 107-13-1 | |
| Methylene Chloride | ND | ug/l | 5 | 05/25/99 | VFT | 75-09-2 | |
| Carbon Disulfide | ND | ug/l | 5 | 05/25/99 | VFT | 75-15-0 | |
| trans-1,2-Dichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 156-60-5 | |
| 1,1-Dichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 75-34-3 | |
| Vinyl Acetate | ND | ug/l | 50 | 05/25/99 | VFT | 108-05-4 | |
| 2-Butanone | ND | ug/l | 100 | 05/25/99 | VFT | 78-93-3 | |
| cis-1,2-Dichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 156-59-2 | |
| Chloroform | ND | ug/l | 5 | 05/25/99 | VFT | 67-66-3 | |
| Bromochloromethane | ND | ug/l | 5 | 05/25/99 | VFT | 74-97-5 | |
| 1,1,1-Trichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 71-55-6 | |
| 1,2-Dichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 107-06-2 | |
| Carbon Tetrachloride | ND | ug/l | 5 | 05/25/99 | VFT | 56-23-5 | |
| Benzene | ND | ug/l | 5 | 05/25/99 | VFT | 71-43-2 | |
| Trichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 79-01-6 | |
| 1,2-Dichloropropane | ND | ug/l | 5 | 05/25/99 | VFT | 78-87-5 | |
| Dibromomethane | ND | ug/l | 5 | 05/25/99 | VFT | 74-95-3 | |
| Bromodichloromethane | ND | ug/l | 5 | 05/25/99 | VFT | 75-27-4 | |


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# Pace Analytical

DATE: 06/08/99
PAGE: 2

Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

Pace Sample No: 93262095
Client Sample ID: MW-1
Date Collected: 05/19/99
Date Received: 05/21/99
Matrix: Water

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| 4-Methyl-2-Pentanone | ND | ug/l | 50 | 05/25/99 | VFT | 108-10-1 | |
| cis-1,3-Dichloropropene | ND | ug/l | 5 | 05/25/99 | VFT | 10061-01-5 | |
| Toluene | ND | ug/l | 5 | 05/25/99 | VFT | 108-88-3 | |
| trans-1,3-Dichloropropene | ND | ug/l | 5 | 05/25/99 | VFT | 10061-02-6 | |
| 1,1,2-Trichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 79-00-5 | |
| 2-Hexanone | ND | ug/l | 50 | 05/25/99 | VFT | 591-78-6 | |
| Dibromochloromethane | ND | ug/l | 5 | 05/25/99 | VFT | 124-48-1 | |
| Tetrachloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 127-18-4 | |
| 1,2-Dibromoethane | ND | ug/l | 5 | 05/25/99 | VFT | 106-93-4 | |
| Chlorobenzene | ND | ug/l | 5 | 05/25/99 | VFT | 108-90-7 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 630-20-6 | |
| Ethylbenzene | ND | ug/l | 5 | 05/25/99 | VFT | 100-41-4 | |
| m&p-Xylene | ND | ug/l | 10 | 05/25/99 | VFT | 7816-60-0 | |
| Styrene | ND | ug/l | 5 | 05/25/99 | VFT | 100-42-5 | |
| o-Xylene (1,2-Dimethylbenzene) | ND | ug/l | 5 | 05/25/99 | VFT | 95-47-6 | |
| Bromoform | ND | ug/l | 5 | 05/25/99 | VFT | 75-25-2 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 79-34-5 | |
| 1,2,3-Trichloropropane | ND | ug/l | 5 | 05/25/99 | VFT | 96-18-4 | |
| trans-1,4-Dichloro-2-Butene | ND | ug/l | 5 | 05/25/99 | VFT | 110-57-6 | |
| 1,4-Dichlorobenzene | ND | ug/l | 5 | 05/25/99 | VFT | 106-46-7 | |
| 1,2-Dichlorobenzene | ND | ug/l | 5 | 05/25/99 | VFT | 95-50-1 | |
| 1,2-Dibromo-3-Chloropropane | ND | ug/l | 5 | 05/25/99 | VFT | 96-12-8 | |
| Dibromofluoromethane (S) | 94 | % | | 05/25/99 | VFT | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 91 | % | | 05/25/99 | VFT | 17060-07-0 | |
| Toluene-d8 (S) | 101 | % | | 05/25/99 | VFT | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 100 | % | | 05/25/99 | VFT | 460-00-4 | |



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Fax: 704-875-9091

# Pace Analytical

DATE: 06/08/99
PAGE: 3

Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

Pace Sample No: 93262103
Client Sample ID: MW-2

Date Collected: 05/19/99
Date Received: 05/21/99

Matrix: Water

GC/MS Volatiles

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| GC/MS VOCs by 8260 | | Method: EPA 8260 | | | Prep Method: EPA 8260 | | |
| Chloromethane | ND | ug/l | 10 | 05/25/99 | VFT | 74-87-3 | |
| Vinyl Chloride | ND | ug/l | 10 | 05/25/99 | VFT | 75-01-4 | |
| Bromomethane | ND | ug/l | 10 | 05/25/99 | VFT | 74-83-9 | |
| Chloroethane | ND | ug/l | 10 | 05/25/99 | VFT | 75-00-3 | |
| Trichlorofluoromethane | ND | ug/l | 10 | 05/25/99 | VFT | 75-69-4 | |
| Acetone | ND | ug/l | 100 | 05/25/99 | VFT | 67-64-1 | |
| 1,1-Dichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 75-35-4 | |
| Iodomethane | ND | ug/l | 5 | 05/25/99 | VFT | 74-88-4 | |
| Acrylonitrile | ND | ug/l | 100 | 05/25/99 | VFT | 107-13-1 | |
| Methylene Chloride | ND | ug/l | 5 | 05/25/99 | VFT | 75-09-2 | |
| Carbon Disulfide | ND | ug/l | 5 | 05/25/99 | VFT | 75-15-0 | |
| trans-1,2-Dichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 156-60-5 | |
| 1,1-Dichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 75-34-3 | |
| Vinyl Acetate | ND | ug/l | 50 | 05/25/99 | VFT | 108-05-4 | |
| 2-Butanone | ND | ug/l | 100 | 05/25/99 | VFT | 78-93-3 | |
| cis-1,2-Dichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 156-59-2 | |
| Chloroform | ND | ug/l | 5 | 05/25/99 | VFT | 67-66-3 | |
| Bromochloromethane | ND | ug/l | 5 | 05/25/99 | VFT | 74-97-5 | |
| 1,1,1-Trichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 71-55-6 | |
| 1,2-Dichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 107-06-2 | |
| Carbon Tetrachloride | ND | ug/l | 5 | 05/25/99 | VFT | 56-23-5 | |
| Benzene | ND | ug/l | 5 | 05/25/99 | VFT | 71-43-2 | |
| Trichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 79-01-6 | |
| 1,2-Dichloropropane | ND | ug/l | 5 | 05/25/99 | VFT | 78-87-5 | |
| Dibromomethane | ND | ug/l | 5 | 05/25/99 | VFT | 74-95-3 | |
| Bromodichloromethane | ND | ug/l | 5 | 05/25/99 | VFT | 75-27-4 | |
| 4-Methyl-2-Pentanone | ND | ug/l | 50 | 05/25/99 | VFT | 108-10-1 | |
| cis-1,3-Dichloropropene | ND | ug/l | 5 | 05/25/99 | VFT | 10061-01-5 | |
| Toluene | ND | ug/l | 5 | 05/25/99 | VFT | 108-88-3 | |
| trans-1,3-Dichloropropene | ND | ug/l | 5 | 05/25/99 | VFT | 10061-02-6 | |
| 1,1,2-Trichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 79-00-5 | |
| 2-Hexanone | ND | ug/l | 50 | 05/25/99 | VFT | 591-78-6 | |
| Dibromochloromethane | ND | ug/l | 5 | 05/25/99 | VFT | 124-48-1 | |
| Tetrachloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 127-18-4 | |
| 1,2-Dibromoethane | ND | ug/l | 5 | 05/25/99 | VFT | 106-93-4 | |
| Chlorobenzene | ND | ug/l | 5 | 05/25/99 | VFT | 108-90-7 | |

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

## REPORT OF LABORATORY ANALYSIS

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Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

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Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

Pace Sample No: 93262103
Client Sample ID: MW-2
Date Collected: 05/19/99
Date Received: 05/21/99
Matrix: Water

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 630-20-6 | |
| Ethylbenzene | ND | ug/l | 5 | 05/25/99 | VFT | 100-41-4 | |
| m&p-Xylene | ND | ug/l | 10 | 05/25/99 | VFT | 7816-60-0 | |
| Styrene | ND | ug/l | 5 | 05/25/99 | VFT | 100-42-5 | |
| o-Xylene (1,2-Dimethylbenzene) | ND | ug/l | 5 | 05/25/99 | VFT | 95-47-6 | |
| Bromoform | ND | ug/l | 5 | 05/25/99 | VFT | 75-25-2 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 79-34-5 | |
| 1,2,3-Trichloropropane | ND | ug/l | 5 | 05/25/99 | VFT | 96-18-4 | |
| trans-1,4-Dichloro-2-Butene | ND | ug/l | 5 | 05/25/99 | VFT | 110-57-6 | |
| 1,4-Dichlorobenzene | ND | ug/l | 5 | 05/25/99 | VFT | 106-46-7 | |
| 1,2-Dichlorobenzene | ND | ug/l | 5 | 05/25/99 | VFT | 95-50-1 | |
| 1,2-Dibromo-3-Chloropropane | ND | ug/l | 5 | 05/25/99 | VFT | 96-12-8 | |
| Dibromofluoromethane (S) | 97 | % | | 05/25/99 | VFT | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 100 | % | | 05/25/99 | VFT | 17060-07-0 | |
| Toluene-d8 (S) | 101 | % | | 05/25/99 | VFT | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 100 | % | | 05/25/99 | VFT | 460-00-4 | |



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Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

Pace Sample No: 93262111 Date Collected: 05/19/99 Matrix: Water
Client Sample ID: MW-3 Date Received: 05/21/99

GC/MS Volatiles

GC/MS VOCs by 8260 Method: EPA 8260 Prep Method: EPA 8260

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| Chloromethane | ND | ug/l | 10 | 05/25/99 | VFT | 74-87-3 | |
| Vinyl Chloride | ND | ug/l | 10 | 05/25/99 | VFT | 75-01-4 | |
| Bromomethane | 10 | ug/l | 10 | 05/25/99 | VFT | 74-83-9 | |
| Chloroethane | ND | ug/l | 10 | 05/25/99 | VFT | 75-00-3 | |
| Trichlorofluoromethane | ND | ug/l | 10 | 05/25/99 | VFT | 75-69-4 | |
| Acetone | ND | ug/l | 100 | 05/25/99 | VFT | 67-64-1 | |
| 1,1-Dichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 75-35-4 | |
| Iodomethane | ND | ug/l | 5 | 05/25/99 | VFT | 74-88-4 | |
| Acrylonitrile | ND | ug/l | 100 | 05/25/99 | VFT | 107-13-1 | |
| Methylene Chloride | ND | ug/l | 5 | 05/25/99 | VFT | 75-09-2 | |
| Carbon Disulfide | ND | ug/l | 5 | 05/25/99 | VFT | 75-15-0 | |
| trans-1,2-Dichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 156-60-5 | |
| 1,1-Dichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 75-34-3 | |
| Vinyl Acetate | ND | ug/l | 50 | 05/25/99 | VFT | 108-05-4 | |
| 2-Butanone | ND | ug/l | 100 | 05/25/99 | VFT | 78-93-3 | |
| cis-1,2-Dichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 156-59-2 | |
| Chloroform | ND | ug/l | 5 | 05/25/99 | VFT | 67-66-3 | |
| Bromochloromethane | ND | ug/l | 5 | 05/25/99 | VFT | 74-97-5 | |
| 1,1,1-Trichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 71-55-6 | |
| 1,2-Dichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 107-06-2 | |
| Carbon Tetrachloride | ND | ug/l | 5 | 05/25/99 | VFT | 56-23-5 | |
| Benzene | ND | ug/l | 5 | 05/25/99 | VFT | 71-43-2 | |
| Trichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 79-01-6 | |
| 1,2-Dichloropropane | ND | ug/l | 5 | 05/25/99 | VFT | 78-87-5 | |
| Dibromomethane | ND | ug/l | 5 | 05/25/99 | VFT | 74-95-3 | |
| Bromodichloromethane | ND | ug/l | 5 | 05/25/99 | VFT | 75-27-4 | |
| 4-Methyl-2-Pentanone | ND | ug/l | 50 | 05/25/99 | VFT | 108-10-1 | |
| cis-1,3-Dichloropropene | ND | ug/l | 5 | 05/25/99 | VFT | 10061-01-5 | |
| Toluene | ND | ug/l | 5 | 05/25/99 | VFT | 108-88-3 | |
| trans-1,3-Dichloropropene | ND | ug/l | 5 | 05/25/99 | VFT | 10061-02-6 | |
| 1,1,2-Trichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 79-00-5 | |
| 2-Hexanone | ND | ug/l | 50 | 05/25/99 | VFT | 591-78-6 | |
| Dibromochloromethane | ND | ug/l | 5 | 05/25/99 | VFT | 124-48-1 | |
| Tetrachloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 127-18-4 | |
| 1,2-Dibromoethane | ND | ug/l | 5 | 05/25/99 | VFT | 106-93-4 | |
| Chlorobenzene | ND | ug/l | 5 | 05/25/99 | VFT | 108-90-7 | |



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Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

Pace Sample No: 93262111 Date Collected: 05/19/99 Matrix: Water
Client Sample ID: MW-3 Date Received: 05/21/99

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 630-20-6 | |
| Ethylbenzene | ND | ug/l | 5 | 05/25/99 | VFT | 100-41-4 | |
| m&p-Xylene | ND | ug/l | 10 | 05/25/99 | VFT | 7816-60-0 | |
| Styrene | ND | ug/l | 5 | 05/25/99 | VFT | 100-42-5 | |
| o-Xylene (1,2-Dimethylbenzene) | ND | ug/l | 5 | 05/25/99 | VFT | 95-47-6 | |
| Bromoform | ND | ug/l | 5 | 05/25/99 | VFT | 75-25-2 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 79-34-5 | |
| 1,2,3-Trichloropropane | ND | ug/l | 5 | 05/25/99 | VFT | 96-18-4 | |
| trans-1,4-Dichloro-2-Butene | ND | ug/l | 5 | 05/25/99 | VFT | 110-57-6 | |
| 1,4-Dichlorobenzene | ND | ug/l | 5 | 05/25/99 | VFT | 106-46-7 | |
| 1,2-Dichlorobenzene | ND | ug/l | 5 | 05/25/99 | VFT | 95-50-1 | |
| 1,2-Dibromo-3-Chloropropane | ND | ug/l | 5 | 05/25/99 | VFT | 96-12-8 | |
| Dibromofluoromethane (S) | 94 | % | | 05/25/99 | VFT | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 92 | % | | 05/25/99 | VFT | 17060-07-0 | |
| Toluene-d8 (S) | 100 | % | | 05/25/99 | VFT | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 99 | % | | 05/25/99 | VFT | 460-00-4 | |


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# Pace Analytical



Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

Pace Sample No: 93262129 Date Collected: 05/19/99 Matrix: Water
Client Sample ID: MW-4 Date Received: 05/21/99

GC/MS Volatiles

GC/MS VOCs by 8260 Method: EPA 8260 Prep Method: EPA 8260

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| Chloromethane | ND | ug/l | 10 | 05/25/99 | VFT | 74-87-3 | |
| Vinyl Chloride | ND | ug/l | 10 | 05/25/99 | VFT | 75-01-4 | |
| Bromomethane | ND | ug/l | 10 | 05/25/99 | VFT | 74-83-9 | |
| Chloroethane | ND | ug/l | 10 | 05/25/99 | VFT | 75-00-3 | |
| Trichlorofluoromethane | ND | ug/l | 10 | 05/25/99 | VFT | 75-69-4 | |
| Acetone | ND | ug/l | 100 | 05/25/99 | VFT | 67-64-1 | |
| 1,1-Dichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 75-35-4 | |
| Iodomethane | ND | ug/l | 5 | 05/25/99 | VFT | 74-88-4 | |
| Acrylonitrile | ND | ug/l | 100 | 05/25/99 | VFT | 107-13-1 | |
| Methylene Chloride | ND | ug/l | 5 | 05/25/99 | VFT | 75-09-2 | |
| Carbon Disulfide | ND | ug/l | 5 | 05/25/99 | VFT | 75-15-0 | |
| trans-1,2-Dichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 156-60-5 | |
| 1,1-Dichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 75-34-3 | |
| Vinyl Acetate | ND | ug/l | 50 | 05/25/99 | VFT | 108-05-4 | |
| 2-Butanone | ND | ug/l | 100 | 05/25/99 | VFT | 78-93-3 | |
| cis-1,2-Dichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 156-59-2 | |
| Chloroform | ND | ug/l | 5 | 05/25/99 | VFT | 67-66-3 | |
| Bromochloromethane | ND | ug/l | 5 | 05/25/99 | VFT | 74-97-5 | |
| 1,1,1-Trichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 71-55-6 | |
| 1,2-Dichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 107-06-2 | |
| Carbon Tetrachloride | ND | ug/l | 5 | 05/25/99 | VFT | 56-23-5 | |
| Benzene | ND | ug/l | 5 | 05/25/99 | VFT | 71-43-2 | |
| Trichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 79-01-6 | |
| 1,2-Dichloropropane | ND | ug/l | 5 | 05/25/99 | VFT | 78-87-5 | |
| Dibromomethane | ND | ug/l | 5 | 05/25/99 | VFT | 74-95-3 | |
| Bromodichloromethane | ND | ug/l | 5 | 05/25/99 | VFT | 75-27-4 | |
| 4-Methyl-2-Pentanone | ND | ug/l | 50 | 05/25/99 | VFT | 108-10-1 | |
| cis-1,3-Dichloropropene | ND | ug/l | 5 | 05/25/99 | VFT | 10061-01-5 | |
| Toluene | ND | ug/l | 5 | 05/25/99 | VFT | 108-88-3 | |
| trans-1,3-Dichloropropene | ND | ug/l | 5 | 05/25/99 | VFT | 10061-02-6 | |
| 1,1,2-Trichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 79-00-5 | |
| 2-Hexanone | ND | ug/l | 50 | 05/25/99 | VFT | 591-78-6 | |
| Dibromochloromethane | ND | ug/l | 5 | 05/25/99 | VFT | 124-48-1 | |
| Tetrachloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 127-18-4 | |
| 1,2-Dibromoethane | ND | ug/l | 5 | 05/25/99 | VFT | 106-93-4 | |
| Chlorobenzene | ND | ug/l | 5 | 05/25/99 | VFT | 108-90-7 | |

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

## REPORT OF LABORATORY ANALYSIS

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Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

Pace Analytical

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9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091



Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

Pace Sample No: 93262129 Date Collected: 05/19/99 Matrix: Water
Client Sample ID: MW-4 Date Received: 05/21/99

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 630-20-6 | |
| Ethylbenzene | ND | ug/l | 5 | 05/25/99 | VFT | 100-41-4 | |
| m&p-Xylene | ND | ug/l | 10 | 05/25/99 | VFT | 7816-60-0 | |
| Styrene | ND | ug/l | 5 | 05/25/99 | VFT | 100-42-5 | |
| o-Xylene (1,2-Dimethylbenzene) | ND | ug/l | 5 | 05/25/99 | VFT | 95-47-6 | |
| Bromoform | ND | ug/l | 5 | 05/25/99 | VFT | 75-25-2 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 79-34-5 | |
| 1,2,3-Trichloropropane | ND | ug/l | 5 | 05/25/99 | VFT | 96-18-4 | |
| trans-1,4-Dichloro-2-Butene | ND | ug/l | 5 | 05/25/99 | VFT | 110-57-6 | |
| 1,4-Dichlorobenzene | ND | ug/l | 5 | 05/25/99 | VFT | 106-46-7 | |
| 1,2-Dichlorobenzene | ND | ug/l | 5 | 05/25/99 | VFT | 95-50-1 | |
| 1,2-Dibromo-3-Chloropropane | ND | ug/l | 5 | 05/25/99 | VFT | 96-12-8 | |
| Dibromofluoromethane (S) | 95 | % | | 05/25/99 | VFT | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 95 | % | | 05/25/99 | VFT | 17060-07-0 | |
| Toluene-d8 (S) | 102 | % | | 05/25/99 | VFT | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 100 | % | | 05/25/99 | VFT | 460-00-4 | |



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Fax: 704-875-9091



Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

Pace Sample No: 93262137
Client Sample ID: MW-5

Date Collected: 05/19/99
Date Received: 05/21/99

Matrix: Water

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| GC/MS Volatiles | | | | | | | |
| GC/MS VOCs by 8260 | Method: EPA 8260 | | | | Prep Method: EPA 8260 | | |
| Chloromethane | ND | ug/l | 10 | 05/26/99 | VFT | 74-87-3 | |
| Vinyl Chloride | ND | ug/l | 10 | 05/26/99 | VFT | 75-01-4 | |
| Bromomethane | ND | ug/l | 10 | 05/26/99 | VFT | 74-83-9 | |
| Chloroethane | ND | ug/l | 10 | 05/26/99 | VFT | 75-00-3 | |
| Trichlorofluoromethane | ND | ug/l | 10 | 05/26/99 | VFT | 75-69-4 | |
| Acetone | ND | ug/l | 100 | 05/26/99 | VFT | 67-64-1 | |
| 1,1-Dichloroethene | ND | ug/l | 5 | 05/26/99 | VFT | 75-35-4 | |
| Iodomethane | ND | ug/l | 5 | 05/26/99 | VFT | 74-88-4 | |
| Acrylonitrile | ND | ug/l | 100 | 05/26/99 | VFT | 107-13-1 | |
| Methylene Chloride | ND | ug/l | 5 | 05/26/99 | VFT | 75-09-2 | |
| Carbon Disulfide | 23 | ug/l | 5 | 05/26/99 | VFT | 75-15-0 | |
| trans-1,2-Dichloroethene | ND | ug/l | 5 | 05/26/99 | VFT | 156-60-5 | |
| 1,1-Dichloroethane | ND | ug/l | 5 | 05/26/99 | VFT | 75-34-3 | |
| Vinyl Acetate | ND | ug/l | 50 | 05/26/99 | VFT | 108-05-4 | |
| 2-Butanone | ND | ug/l | 100 | 05/26/99 | VFT | 78-93-3 | |
| cis-1,2-Dichloroethene | ND | ug/l | 5 | 05/26/99 | VFT | 156-59-2 | |
| Chloroform | ND | ug/l | 5 | 05/26/99 | VFT | 67-66-3 | |
| Bromochloromethane | ND | ug/l | 5 | 05/26/99 | VFT | 74-97-5 | |
| 1,1,1-Trichloroethane | ND | ug/l | 5 | 05/26/99 | VFT | 71-55-6 | |
| 1,2-Dichloroethane | ND | ug/l | 5 | 05/26/99 | VFT | 107-06-2 | |
| Carbon Tetrachloride | ND | ug/l | 5 | 05/26/99 | VFT | 56-23-5 | |
| Benzene | ND | ug/l | 5 | 05/26/99 | VFT | 71-43-2 | |
| Trichloroethene | ND | ug/l | 5 | 05/26/99 | VFT | 79-01-6 | |
| 1,2-Dichloropropane | ND | ug/l | 5 | 05/26/99 | VFT | 78-87-5 | |
| Dibromomethane | ND | ug/l | 5 | 05/26/99 | VFT | 74-95-3 | |
| Bromodichloromethane | ND | ug/l | 5 | 05/26/99 | VFT | 75-27-4 | |
| 4-Methyl-2-Pentanone | ND | ug/l | 50 | 05/26/99 | VFT | 108-10-1 | |
| cis-1,3-Dichloropropene | ND | ug/l | 5 | 05/26/99 | VFT | 10061-01-5 | |
| Toluene | ND | ug/l | 5 | 05/26/99 | VFT | 108-88-3 | |
| trans-1,3-Dichloropropene | ND | ug/l | 5 | 05/26/99 | VFT | 10061-02-6 | |
| 1,1,2-Trichloroethane | ND | ug/l | 5 | 05/26/99 | VFT | 79-00-5 | |
| 2-Hexanone | ND | ug/l | 50 | 05/26/99 | VFT | 591-78-6 | |
| Dibromochloromethane | ND | ug/l | 5 | 05/26/99 | VFT | 124-48-1 | |
| Tetrachloroethene | ND | ug/l | 5 | 05/26/99 | VFT | 127-18-4 | |
| 1,2-Dibromoethane | ND | ug/l | 5 | 05/26/99 | VFT | 106-93-4 | |
| Chlorobenzene | ND | ug/l | 5 | 05/26/99 | VFT | 108-90-7 | |

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

# REPORT OF LABORATORY ANALYSIS

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Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

Pace Analytical

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091



Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

Pace Sample No: 93262137 Date Collected: 05/19/99 Matrix: Water
Client Sample ID: MW-5 Date Received: 05/21/99

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | ug/l | 5 | 05/26/99 | VFT | 630-20-6 | |
| Ethylbenzene | ND | ug/l | 5 | 05/26/99 | VFT | 100-41-4 | |
| m&p-Xylene | ND | ug/l | 10 | 05/26/99 | VFT | 7816-60-0 | |
| Styrene | ND | ug/l | 5 | 05/26/99 | VFT | 100-42-5 | |
| o-Xylene (1,2-Dimethylbenzene) | ND | ug/l | 5 | 05/26/99 | VFT | 95-47-6 | |
| Bromoform | ND | ug/l | 5 | 05/26/99 | VFT | 75-25-2 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/l | 5 | 05/26/99 | VFT | 79-34-5 | |
| 1,2,3-Trichloropropane | ND | ug/l | 5 | 05/26/99 | VFT | 96-18-4 | |
| trans-1,4-Dichloro-2-Butene | ND | ug/l | 5 | 05/26/99 | VFT | 110-57-6 | |
| 1,4-Dichlorobenzene | ND | ug/l | 5 | 05/26/99 | VFT | 106-46-7 | |
| 1,2-Dichlorobenzene | ND | ug/l | 5 | 05/26/99 | VFT | 95-50-1 | |
| 1,2-Dibromo-3-Chloropropane | ND | ug/l | 5 | 05/26/99 | VFT | 96-12-8 | |
| Dibromofluoromethane (S) | 93 | % | | 05/26/99 | VFT | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 93 | % | | 05/26/99 | VFT | 17060-07-0 | |
| Toluene-d8 (S) | 100 | % | | 05/26/99 | VFT | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 100 | % | | 05/26/99 | VFT | 460-00-4 | |



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Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091



Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

Pace Sample No: 93262145 | Date Collected: 05/19/99 | Matrix: Water
Client Sample ID: MW-6S | Date Received: 05/21/99

GC/MS Volatiles

GC/MS VOCs by 8260 — Method: EPA 8260 — Prep Method: EPA 8260

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| Chloromethane | ND | ug/l | 10 | 05/25/99 | VFT | 74-87-3 | |
| Vinyl Chloride | ND | ug/l | 10 | 05/25/99 | VFT | 75-01-4 | |
| Bromomethane | ND | ug/l | 10 | 05/25/99 | VFT | 74-83-9 | |
| Chloroethane | ND | ug/l | 10 | 05/25/99 | VFT | 75-00-3 | |
| Trichlorofluoromethane | ND | ug/l | 10 | 05/25/99 | VFT | 75-69-4 | |
| Acetone | ND | ug/l | 100 | 05/25/99 | VFT | 67-64-1 | |
| 1,1-Dichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 75-35-4 | |
| Iodomethane | ND | ug/l | 5 | 05/25/99 | VFT | 74-88-4 | |
| Acrylonitrile | ND | ug/l | 100 | 05/25/99 | VFT | 107-13-1 | |
| Methylene Chloride | ND | ug/l | 5 | 05/25/99 | VFT | 75-09-2 | |
| Carbon Disulfide | ND | ug/l | 5 | 05/25/99 | VFT | 75-15-0 | |
| trans-1,2-Dichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 156-60-5 | |
| 1,1-Dichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 75-34-3 | |
| Vinyl Acetate | ND | ug/l | 50 | 05/25/99 | VFT | 108-05-4 | |
| 2-Butanone | ND | ug/l | 100 | 05/25/99 | VFT | 78-93-3 | |
| cis-1,2-Dichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 156-59-2 | |
| Chloroform | ND | ug/l | 5 | 05/25/99 | VFT | 67-66-3 | |
| Bromochloromethane | ND | ug/l | 5 | 05/25/99 | VFT | 74-97-5 | |
| 1,1,1-Trichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 71-55-6 | |
| 1,2-Dichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 107-06-2 | |
| Carbon Tetrachloride | ND | ug/l | 5 | 05/25/99 | VFT | 56-23-5 | |
| Benzene | ND | ug/l | 5 | 05/25/99 | VFT | 71-43-2 | |
| Trichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 79-01-6 | |
| 1,2-Dichloropropane | ND | ug/l | 5 | 05/25/99 | VFT | 78-87-5 | |
| Dibromomethane | ND | ug/l | 5 | 05/25/99 | VFT | 74-95-3 | |
| Bromodichloromethane | ND | ug/l | 5 | 05/25/99 | VFT | 75-27-4 | |
| 4-Methyl-2-Pentanone | ND | ug/l | 50 | 05/25/99 | VFT | 108-10-1 | |
| cis-1,3-Dichloropropene | ND | ug/l | 5 | 05/25/99 | VFT | 10061-01-5 | |
| Toluene | ND | ug/l | 5 | 05/25/99 | VFT | 108-88-3 | |
| trans-1,3-Dichloropropene | ND | ug/l | 5 | 05/25/99 | VFT | 10061-02-6 | |
| 1,1,2-Trichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 79-00-5 | |
| 2-Hexanone | ND | ug/l | 50 | 05/25/99 | VFT | 591-78-6 | |
| Dibromochloromethane | ND | ug/l | 5 | 05/25/99 | VFT | 124-48-1 | |
| Tetrachloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 127-18-4 | |
| 1,2-Dibromoethane | ND | ug/l | 5 | 05/25/99 | VFT | 106-93-4 | |
| Chlorobenzene | ND | ug/l | 5 | 05/25/99 | VFT | 108-90-7 | |

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

# REPORT OF LABORATORY ANALYSIS

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Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

Pace Analytical

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Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

Pace Sample No: 93262145 Date Collected: 05/19/99 Matrix: Water
Client Sample ID: MW-6S Date Received: 05/21/99

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 630-20-6 | |
| Ethylbenzene | ND | ug/l | 5 | 05/25/99 | VFT | 100-41-4 | |
| m&p-Xylene | ND | ug/l | 10 | 05/25/99 | VFT | 7816-60-0 | |
| Styrene | ND | ug/l | 5 | 05/25/99 | VFT | 100-42-5 | |
| o-Xylene (1,2-Dimethylbenzene) | ND | ug/l | 5 | 05/25/99 | VFT | 95-47-6 | |
| Bromoform | ND | ug/l | 5 | 05/25/99 | VFT | 75-25-2 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 79-34-5 | |
| 1,2,3-Trichloropropane | ND | ug/l | 5 | 05/25/99 | VFT | 96-18-4 | |
| trans-1,4-Dichloro-2-Butene | ND | ug/l | 5 | 05/25/99 | VFT | 110-57-6 | |
| 1,4-Dichlorobenzene | ND | ug/l | 5 | 05/25/99 | VFT | 106-46-7 | |
| 1,2-Dichlorobenzene | ND | ug/l | 5 | 05/25/99 | VFT | 95-50-1 | |
| 1,2-Dibromo-3-Chloropropane | ND | ug/l | 5 | 05/25/99 | VFT | 96-12-8 | |
| Dibromofluoromethane (S) | 98 | % | | 05/25/99 | VFT | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 101 | % | | 05/25/99 | VFT | 17060-07-0 | |
| Toluene-d8 (S) | 100 | % | | 05/25/99 | VFT | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 101 | % | | 05/25/99 | VFT | 460-00-4 | |



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Huntersville, NC 28078

Tel: 704-875-9092
Fax: 704-875-9091



Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

Pace Sample No: 93262152 Date Collected: 05/19/99 Matrix: Water
Client Sample ID: MW-6D Date Received: 05/21/99

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| GC/MS Volatiles | | | | | | | |
| GC/MS VOCs by 8260 | Method: EPA 8260 | | | | Prep Method: EPA 8260 | | |
| Chloromethane | ND | ug/l | 10 | 05/25/99 | VFT | 74-87-3 | |
| Vinyl Chloride | ND | ug/l | 10 | 05/25/99 | VFT | 75-01-4 | |
| Bromomethane | ND | ug/l | 10 | 05/25/99 | VFT | 74-83-9 | |
| Chloroethane | ND | ug/l | 10 | 05/25/99 | VFT | 75-00-3 | |
| Trichlorofluoromethane | ND | ug/l | 10 | 05/25/99 | VFT | 75-69-4 | |
| Acetone | ND | ug/l | 100 | 05/25/99 | VFT | 67-64-1 | |
| 1,1-Dichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 75-35-4 | |
| Iodomethane | ND | ug/l | 5 | 05/25/99 | VFT | 74-88-4 | |
| Acrylonitrile | ND | ug/l | 100 | 05/25/99 | VFT | 107-13-1 | |
| Methylene Chloride | ND | ug/l | 5 | 05/25/99 | VFT | 75-09-2 | |
| Carbon Disulfide | ND | ug/l | 5 | 05/25/99 | VFT | 75-15-0 | |
| trans-1,2-Dichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 156-60-5 | |
| 1,1-Dichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 75-34-3 | |
| Vinyl Acetate | ND | ug/l | 50 | 05/25/99 | VFT | 108-05-4 | |
| 2-Butanone | ND | ug/l | 100 | 05/25/99 | VFT | 78-93-3 | |
| cis-1,2-Dichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 156-59-2 | |
| Chloroform | ND | ug/l | 5 | 05/25/99 | VFT | 67-66-3 | |
| Bromochloromethane | ND | ug/l | 5 | 05/25/99 | VFT | 74-97-5 | |
| 1,1,1-Trichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 71-55-6 | |
| 1,2-Dichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 107-06-2 | |
| Carbon Tetrachloride | ND | ug/l | 5 | 05/25/99 | VFT | 56-23-5 | |
| Benzene | ND | ug/l | 5 | 05/25/99 | VFT | 71-43-2 | |
| Trichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 79-01-6 | |
| 1,2-Dichloropropane | ND | ug/l | 5 | 05/25/99 | VFT | 78-87-5 | |
| Dibromomethane | ND | ug/l | 5 | 05/25/99 | VFT | 74-95-3 | |
| Bromodichloromethane | ND | ug/l | 5 | 05/25/99 | VFT | 75-27-4 | |
| 4-Methyl-2-Pentanone | ND | ug/l | 50 | 05/25/99 | VFT | 108-10-1 | |
| cis-1,3-Dichloropropene | ND | ug/l | 5 | 05/25/99 | VFT | 10061-01-5 | |
| Toluene | ND | ug/l | 5 | 05/25/99 | VFT | 108-88-3 | |
| trans-1,3-Dichloropropene | ND | ug/l | 5 | 05/25/99 | VFT | 10061-02-6 | |
| 1,1,2-Trichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 79-00-5 | |
| 2-Hexanone | ND | ug/l | 50 | 05/25/99 | VFT | 591-78-6 | |
| Dibromochloromethane | ND | ug/l | 5 | 05/25/99 | VFT | 124-48-1 | |
| Tetrachloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 127-18-4 | |
| 1,2-Dibromoethane | ND | ug/l | 5 | 05/25/99 | VFT | 106-93-4 | |
| Chlorobenzene | ND | ug/l | 5 | 05/25/99 | VFT | 108-90-7 | |



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9800 Kincey Avenue, Suite 100
Huntersville, NC 28078

Tel: 704-875-9092
Fax: 704-875-9091



Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

Pace Sample No: 93262152 Date Collected: 05/19/99 Matrix: Water
Client Sample ID: MW-6D Date Received: 05/21/99

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 630-20-6 | |
| Ethylbenzene | ND | ug/l | 5 | 05/25/99 | VFT | 100-41-4 | |
| m&p-Xylene | ND | ug/l | 10 | 05/25/99 | VFT | 7816-60-0 | |
| Styrene | ND | ug/l | 5 | 05/25/99 | VFT | 100-42-5 | |
| o-Xylene (1,2-Dimethylbenzene) | ND | ug/l | 5 | 05/25/99 | VFT | 95-47-6 | |
| Bromoform | ND | ug/l | 5 | 05/25/99 | VFT | 75-25-2 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 79-34-5 | |
| 1,2,3-Trichloropropane | ND | ug/l | 5 | 05/25/99 | VFT | 96-18-4 | |
| trans-1,4-Dichloro-2-Butene | ND | ug/l | 5 | 05/25/99 | VFT | 110-57-6 | |
| 1,4-Dichlorobenzene | ND | ug/l | 5 | 05/25/99 | VFT | 106-46-7 | |
| 1,2-Dichlorobenzene | ND | ug/l | 5 | 05/25/99 | VFT | 95-50-1 | |
| 1,2-Dibromo-3-Chloropropane | ND | ug/l | 5 | 05/25/99 | VFT | 96-12-8 | |
| Dibromofluoromethane (S) | 97 | % | | 05/25/99 | VFT | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 96 | % | | 05/25/99 | VFT | 17060-07-0 | |
| Toluene-d8 (S) | 101 | % | | 05/25/99 | VFT | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 101 | % | | 05/25/99 | VFT | 460-00-4 | |



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Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091



Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

Pace Sample No: 93262160 Date Collected: 05/19/99 Matrix: Water
Client Sample ID: MW-7 Date Received: 05/21/99

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| GC/MS Volatiles | | | | | | | |
| GC/MS VOCs by 8260 | | Method: EPA 8260 | | | Prep Method: EPA 8260 | | |
| Chloromethane | ND | ug/l | 10 | 05/25/99 | VFT | 74-87-3 | |
| Vinyl Chloride | ND | ug/l | 10 | 05/25/99 | VFT | 75-01-4 | |
| Bromomethane | ND | ug/l | 10 | 05/25/99 | VFT | 74-83-9 | |
| Chloroethane | ND | ug/l | 10 | 05/25/99 | VFT | 75-00-3 | |
| Trichlorofluoromethane | ND | ug/l | 10 | 05/25/99 | VFT | 75-69-4 | |
| Acetone | ND | ug/l | 100 | 05/25/99 | VFT | 67-64-1 | |
| 1,1-Dichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 75-35-4 | |
| Iodomethane | ND | ug/l | 5 | 05/25/99 | VFT | 74-88-4 | |
| Acrylonitrile | ND | ug/l | 100 | 05/25/99 | VFT | 107-13-1 | |
| Methylene Chloride | ND | ug/l | 5 | 05/25/99 | VFT | 75-09-2 | |
| Carbon Disulfide | ND | ug/l | 5 | 05/25/99 | VFT | 75-15-0 | |
| trans-1,2-Dichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 156-60-5 | |
| 1,1-Dichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 75-34-3 | |
| Vinyl Acetate | ND | ug/l | 50 | 05/25/99 | VFT | 108-05-4 | |
| 2-Butanone | ND | ug/l | 100 | 05/25/99 | VFT | 78-93-3 | |
| cis-1,2-Dichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 156-59-2 | |
| Chloroform | ND | ug/l | 5 | 05/25/99 | VFT | 67-66-3 | |
| Bromochloromethane | ND | ug/l | 5 | 05/25/99 | VFT | 74-97-5 | |
| 1,1,1-Trichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 71-55-6 | |
| 1,2-Dichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 107-06-2 | |
| Carbon Tetrachloride | ND | ug/l | 5 | 05/25/99 | VFT | 56-23-5 | |
| Benzene | ND | ug/l | 5 | 05/25/99 | VFT | 71-43-2 | |
| Trichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 79-01-6 | |
| 1,2-Dichloropropane | ND | ug/l | 5 | 05/25/99 | VFT | 78-87-5 | |
| Dibromomethane | ND | ug/l | 5 | 05/25/99 | VFT | 74-95-3 | |
| Bromodichloromethane | ND | ug/l | 5 | 05/25/99 | VFT | 75-27-4 | |
| 4-Methyl-2-Pentanone | ND | ug/l | 50 | 05/25/99 | VFT | 108-10-1 | |
| cis-1,3-Dichloropropene | ND | ug/l | 5 | 05/25/99 | VFT | 10061-01-5 | |
| Toluene | ND | ug/l | 5 | 05/25/99 | VFT | 108-88-3 | |
| trans-1,3-Dichloropropene | ND | ug/l | 5 | 05/25/99 | VFT | 10061-02-6 | |
| 1,1,2-Trichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 79-00-5 | |
| 2-Hexanone | ND | ug/l | 50 | 05/25/99 | VFT | 591-78-6 | |
| Dibromochloromethane | ND | ug/l | 5 | 05/25/99 | VFT | 124-48-1 | |
| Tetrachloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 127-18-4 | |
| 1,2-Dibromoethane | ND | ug/l | 5 | 05/25/99 | VFT | 106-93-4 | |
| Chlorobenzene | ND | ug/l | 5 | 05/25/99 | VFT | 108-90-7 | |


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9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091



Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

Pace Sample No: 93262160 Date Collected: 05/19/99 Matrix: Water
Client Sample ID: MW-7 Date Received: 05/21/99

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 630-20-6 | |
| Ethylbenzene | ND | ug/l | 5 | 05/25/99 | VFT | 100-41-4 | |
| m&p-Xylene | ND | ug/l | 10 | 05/25/99 | VFT | 7816-60-0 | |
| Styrene | ND | ug/l | 5 | 05/25/99 | VFT | 100-42-5 | |
| o-Xylene (1,2-Dimethylbenzene) | ND | ug/l | 5 | 05/25/99 | VFT | 95-47-6 | |
| Bromoform | ND | ug/l | 5 | 05/25/99 | VFT | 75-25-2 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 79-34-5 | |
| 1,2,3-Trichloropropane | ND | ug/l | 5 | 05/25/99 | VFT | 96-18-4 | |
| trans-1,4-Dichloro-2-Butene | ND | ug/l | 5 | 05/25/99 | VFT | 110-57-6 | |
| 1,4-Dichlorobenzene | ND | ug/l | 5 | 05/25/99 | VFT | 106-46-7 | |
| 1,2-Dichlorobenzene | ND | ug/l | 5 | 05/25/99 | VFT | 95-50-1 | |
| 1,2-Dibromo-3-Chloropropane | ND | ug/l | 5 | 05/25/99 | VFT | 96-12-8 | |
| Dibromofluoromethane (S) | 96 | % | | 05/25/99 | VFT | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 93 | % | | 05/25/99 | VFT | 17060-07-0 | |
| Toluene-d8 (S) | 101 | % | | 05/25/99 | VFT | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 99 | % | | 05/25/99 | VFT | 460-00-4 | |


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Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

Pace Sample No: 93262178 Date Collected: 05/19/99 Matrix: Water
Client Sample ID: SW-1 UPSTREAM Date Received: 05/21/99

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| GC/MS Volatiles | | | | | | | |
| GC/MS VOCs by 8260 | Method: EPA 8260 | | | | Prep Method: EPA 8260 | | |
| Chloromethane | ND | ug/l | 10 | 05/25/99 | VFT | 74-87-3 | |
| Vinyl Chloride | ND | ug/l | 10 | 05/25/99 | VFT | 75-01-4 | |
| Bromomethane | ND | ug/l | 10 | 05/25/99 | VFT | 74-83-9 | |
| Chloroethane | ND | ug/l | 10 | 05/25/99 | VFT | 75-00-3 | |
| Trichlorofluoromethane | ND | ug/l | 10 | 05/25/99 | VFT | 75-69-4 | |
| Acetone | ND | ug/l | 100 | 05/25/99 | VFT | 67-64-1 | |
| 1,1-Dichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 75-35-4 | |
| Iodomethane | ND | ug/l | 5 | 05/25/99 | VFT | 74-88-4 | |
| Acrylonitrile | ND | ug/l | 100 | 05/25/99 | VFT | 107-13-1 | |
| Methylene Chloride | ND | ug/l | 5 | 05/25/99 | VFT | 75-09-2 | |
| Carbon Disulfide | ND | ug/l | 5 | 05/25/99 | VFT | 75-15-0 | |
| trans-1,2-Dichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 156-60-5 | |
| 1,1-Dichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 75-34-3 | |
| Vinyl Acetate | ND | ug/l | 50 | 05/25/99 | VFT | 108-05-4 | |
| 2-Butanone | ND | ug/l | 100 | 05/25/99 | VFT | 78-93-3 | |
| cis-1,2-Dichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 156-59-2 | |
| Chloroform | ND | ug/l | 5 | 05/25/99 | VFT | 67-66-3 | |
| Bromochloromethane | ND | ug/l | 5 | 05/25/99 | VFT | 74-97-5 | |
| 1,1,1-Trichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 71-55-6 | |
| 1,2-Dichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 107-06-2 | |
| Carbon Tetrachloride | ND | ug/l | 5 | 05/25/99 | VFT | 56-23-5 | |
| Benzene | ND | ug/l | 5 | 05/25/99 | VFT | 71-43-2 | |
| Trichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 79-01-6 | |
| 1,2-Dichloropropane | ND | ug/l | 5 | 05/25/99 | VFT | 78-87-5 | |
| Dibromomethane | ND | ug/l | 5 | 05/25/99 | VFT | 74-95-3 | |
| Bromodichloromethane | ND | ug/l | 5 | 05/25/99 | VFT | 75-27-4 | |
| 4-Methyl-2-Pentanone | ND | ug/l | 50 | 05/25/99 | VFT | 108-10-1 | |
| cis-1,3-Dichloropropene | ND | ug/l | 5 | 05/25/99 | VFT | 10061-01-5 | |
| Toluene | ND | ug/l | 5 | 05/25/99 | VFT | 108-88-3 | |
| trans-1,3-Dichloropropene | ND | ug/l | 5 | 05/25/99 | VFT | 10061-02-6 | |
| 1,1,2-Trichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 79-00-5 | |
| 2-Hexanone | ND | ug/l | 50 | 05/25/99 | VFT | 591-78-6 | |
| Dibromochloromethane | ND | ug/l | 5 | 05/25/99 | VFT | 124-48-1 | |
| Tetrachloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 127-18-4 | |
| 1,2-Dibromoethane | ND | ug/l | 5 | 05/25/99 | VFT | 106-93-4 | |
| Chlorobenzene | ND | ug/l | 5 | 05/25/99 | VFT | 108-90-7 | |



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Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

Pace Sample No: 93262178 Date Collected: 05/19/99 Matrix: Water
Client Sample ID: SW-1 UPSTREAM Date Received: 05/21/99

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 630-20-6 | |
| Ethylbenzene | ND | ug/l | 5 | 05/25/99 | VFT | 100-41-4 | |
| m&p-Xylene | ND | ug/l | 10 | 05/25/99 | VFT | 7816-60-0 | |
| Styrene | ND | ug/l | 5 | 05/25/99 | VFT | 100-42-5 | |
| o-Xylene (1,2-Dimethylbenzene) | ND | ug/l | 5 | 05/25/99 | VFT | 95-47-6 | |
| Bromoform | ND | ug/l | 5 | 05/25/99 | VFT | 75-25-2 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 79-34-5 | |
| 1,2,3-Trichloropropane | ND | ug/l | 5 | 05/25/99 | VFT | 96-18-4 | |
| trans-1,4-Dichloro-2-Butene | ND | ug/l | 5 | 05/25/99 | VFT | 110-57-6 | |
| 1,4-Dichlorobenzene | ND | ug/l | 5 | 05/25/99 | VFT | 106-46-7 | |
| 1,2-Dichlorobenzene | ND | ug/l | 5 | 05/25/99 | VFT | 95-50-1 | |
| 1,2-Dibromo-3-Chloropropane | ND | ug/l | 5 | 05/25/99 | VFT | 96-12-8 | |
| Dibromofluoromethane (S) | 93 | % | | 05/25/99 | VFT | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 101 | % | | 05/25/99 | VFT | 17060-07-0 | |
| Toluene-d8 (S) | 101 | % | | 05/25/99 | VFT | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 99 | % | | 05/25/99 | VFT | 460-00-4 | |



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Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

Pace Sample No: 93262186 Date Collected: 05/19/99 Matrix: Water
Client Sample ID: SW-2 DOWNSTREAM Date Received: 05/21/99

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| GC/MS Volatiles | | | | | | | |
| GC/MS VOCs by 8260 | Method: EPA 8260 | | | | Prep Method: EPA 8260 | | |
| Chloromethane | ND | ug/l | 10 | 05/25/99 | VFT | 74-87-3 | |
| Vinyl Chloride | ND | ug/l | 10 | 05/25/99 | VFT | 75-01-4 | |
| Bromomethane | ND | ug/l | 10 | 05/25/99 | VFT | 74-83-9 | |
| Chloroethane | ND | ug/l | 10 | 05/25/99 | VFT | 75-00-3 | |
| Trichlorofluoromethane | ND | ug/l | 10 | 05/25/99 | VFT | 75-69-4 | |
| Acetone | ND | ug/l | 100 | 05/25/99 | VFT | 67-64-1 | |
| 1,1-Dichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 75-35-4 | |
| Iodomethane | ND | ug/l | 5 | 05/25/99 | VFT | 74-88-4 | |
| Acrylonitrile | ND | ug/l | 100 | 05/25/99 | VFT | 107-13-1 | |
| Methylene Chloride | ND | ug/l | 5 | 05/25/99 | VFT | 75-09-2 | |
| Carbon Disulfide | ND | ug/l | 5 | 05/25/99 | VFT | 75-15-0 | |
| trans-1,2-Dichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 156-60-5 | |
| 1,1-Dichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 75-34-3 | |
| Vinyl Acetate | ND | ug/l | 50 | 05/25/99 | VFT | 108-05-4 | |
| 2-Butanone | ND | ug/l | 100 | 05/25/99 | VFT | 78-93-3 | |
| cis-1,2-Dichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 156-59-2 | |
| Chloroform | ND | ug/l | 5 | 05/25/99 | VFT | 67-66-3 | |
| Bromochloromethane | ND | ug/l | 5 | 05/25/99 | VFT | 74-97-5 | |
| 1,1,1-Trichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 71-55-6 | |
| 1,2-Dichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 107-06-2 | |
| Carbon Tetrachloride | ND | ug/l | 5 | 05/25/99 | VFT | 56-23-5 | |
| Benzene | ND | ug/l | 5 | 05/25/99 | VFT | 71-43-2 | |
| Trichloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 79-01-6 | |
| 1,2-Dichloropropane | ND | ug/l | 5 | 05/25/99 | VFT | 78-87-5 | |
| Dibromomethane | ND | ug/l | 5 | 05/25/99 | VFT | 74-95-3 | |
| Bromodichloromethane | ND | ug/l | 5 | 05/25/99 | VFT | 75-27-4 | |
| 4-Methyl-2-Pentanone | ND | ug/l | 50 | 05/25/99 | VFT | 108-10-1 | |
| cis-1,3-Dichloropropene | ND | ug/l | 5 | 05/25/99 | VFT | 10061-01-5 | |
| Toluene | ND | ug/l | 5 | 05/25/99 | VFT | 108-88-3 | |
| trans-1,3-Dichloropropene | ND | ug/l | 5 | 05/25/99 | VFT | 10061-02-6 | |
| 1,1,2-Trichloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 79-00-5 | |
| 2-Hexanone | ND | ug/l | 50 | 05/25/99 | VFT | 591-78-6 | |
| Dibromochloromethane | ND | ug/l | 5 | 05/25/99 | VFT | 124-48-1 | |
| Tetrachloroethene | ND | ug/l | 5 | 05/25/99 | VFT | 127-18-4 | |
| 1,2-Dibromoethane | ND | ug/l | 5 | 05/25/99 | VFT | 106-93-4 | |
| Chlorobenzene | ND | ug/l | 5 | 05/25/99 | VFT | 108-90-7 | |



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Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

Pace Sample No: 93262186 | Date Collected: 05/19/99 | Matrix: Water
Client Sample ID: SW-2 DOWNSTREAM | Date Received: 05/21/99

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 630-20-6 | |
| Ethylbenzene | ND | ug/l | 5 | 05/25/99 | VFT | 100-41-4 | |
| m&p-Xylene | ND | ug/l | 10 | 05/25/99 | VFT | 7816-60-0 | |
| Styrene | ND | ug/l | 5 | 05/25/99 | VFT | 100-42-5 | |
| o-Xylene (1,2-Dimethylbenzene) | ND | ug/l | 5 | 05/25/99 | VFT | 95-47-6 | |
| Bromoform | ND | ug/l | 5 | 05/25/99 | VFT | 75-25-2 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/l | 5 | 05/25/99 | VFT | 79-34-5 | |
| 1,2,3-Trichloropropane | ND | ug/l | 5 | 05/25/99 | VFT | 96-18-4 | |
| trans-1,4-Dichloro-2-Butene | ND | ug/l | 5 | 05/25/99 | VFT | 110-57-6 | |
| 1,4-Dichlorobenzene | ND | ug/l | 5 | 05/25/99 | VFT | 106-46-7 | |
| 1,2-Dichlorobenzene | ND | ug/l | 5 | 05/25/99 | VFT | 95-50-1 | |
| 1,2-Dibromo-3-Chloropropane | ND | ug/l | 5 | 05/25/99 | VFT | 96-12-8 | |
| Dibromofluoromethane (S) | 97 | % | | 05/25/99 | VFT | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 97 | % | | 05/25/99 | VFT | 17060-07-0 | |
| Toluene-d8 (S) | 102 | % | | 05/25/99 | VFT | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 100 | % | | 05/25/99 | VFT | 460-00-4 | |



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Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

Pace Sample No: 93262194 Date Collected: 05/18/99 Matrix: Water
Client Sample ID: TRAVEL BLANK Date Received: 05/21/99

GC/MS Volatiles

GC/MS VOCs by 8260 Method: EPA 8260 Prep Method: EPA 8260

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| Chloromethane | ND | ug/l | 10 | 05/24/99 | VFT | 74-87-3 | |
| Vinyl Chloride | ND | ug/l | 10 | 05/24/99 | VFT | 75-01-4 | |
| Bromomethane | ND | ug/l | 10 | 05/24/99 | VFT | 74-83-9 | |
| Chloroethane | ND | ug/l | 10 | 05/24/99 | VFT | 75-00-3 | |
| Trichlorofluoromethane | ND | ug/l | 10 | 05/24/99 | VFT | 75-69-4 | |
| Acetone | ND | ug/l | 100 | 05/24/99 | VFT | 67-64-1 | |
| 1,1-Dichloroethene | ND | ug/l | 5 | 05/24/99 | VFT | 75-35-4 | |
| Iodomethane | ND | ug/l | 5 | 05/24/99 | VFT | 74-88-4 | |
| Acrylonitrile | ND | ug/l | 100 | 05/24/99 | VFT | 107-13-1 | |
| Methylene Chloride | ND | ug/l | 5 | 05/24/99 | VFT | 75-09-2 | |
| Carbon Disulfide | ND | ug/l | 5 | 05/24/99 | VFT | 75-15-0 | |
| trans-1,2-Dichloroethene | ND | ug/l | 5 | 05/24/99 | VFT | 156-60-5 | |
| 1,1-Dichloroethane | ND | ug/l | 5 | 05/24/99 | VFT | 75-34-3 | |
| Vinyl Acetate | ND | ug/l | 50 | 05/24/99 | VFT | 108-05-4 | |
| 2-Butanone | ND | ug/l | 100 | 05/24/99 | VFT | 78-93-3 | |
| cis-1,2-Dichloroethene | ND | ug/l | 5 | 05/24/99 | VFT | 156-59-2 | |
| Chloroform | ND | ug/l | 5 | 05/24/99 | VFT | 67-66-3 | |
| Bromochloromethane | ND | ug/l | 5 | 05/24/99 | VFT | 74-97-5 | |
| 1,1,1-Trichloroethane | ND | ug/l | 5 | 05/24/99 | VFT | 71-55-6 | |
| 1,2-Dichloroethane | ND | ug/l | 5 | 05/24/99 | VFT | 107-06-2 | |
| Carbon Tetrachloride | ND | ug/l | 5 | 05/24/99 | VFT | 56-23-5 | |
| Benzene | ND | ug/l | 5 | 05/24/99 | VFT | 71-43-2 | |
| Trichloroethene | ND | ug/l | 5 | 05/24/99 | VFT | 79-01-6 | |
| 1,2-Dichloropropane | ND | ug/l | 5 | 05/24/99 | VFT | 78-87-5 | |
| Dibromomethane | ND | ug/l | 5 | 05/24/99 | VFT | 74-95-3 | |
| Bromodichloromethane | ND | ug/l | 5 | 05/24/99 | VFT | 75-27-4 | |
| 4-Methyl-2-Pentanone | ND | ug/l | 50 | 05/24/99 | VFT | 108-10-1 | |
| cis-1,3-Dichloropropene | ND | ug/l | 5 | 05/24/99 | VFT | 10061-01-5 | |
| Toluene | ND | ug/l | 5 | 05/24/99 | VFT | 108-88-3 | |
| trans-1,3-Dichloropropene | ND | ug/l | 5 | 05/24/99 | VFT | 10061-02-6 | |
| 1,1,2-Trichloroethane | ND | ug/l | 5 | 05/24/99 | VFT | 79-00-5 | |
| 2-Hexanone | ND | ug/l | 50 | 05/24/99 | VFT | 591-78-6 | |
| Dibromochloromethane | ND | ug/l | 5 | 05/24/99 | VFT | 124-48-1 | |
| Tetrachloroethene | ND | ug/l | 5 | 05/24/99 | VFT | 127-18-4 | |
| 1,2-Dibromoethane | ND | ug/l | 5 | 05/24/99 | VFT | 106-93-4 | |
| Chlorobenzene | ND | ug/l | 5 | 05/24/99 | VFT | 108-90-7 | |



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Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

Pace Sample No: 93262194 Date Collected: 05/18/99 Matrix: Water
Client Sample ID: TRAVEL BLANK Date Received: 05/21/99

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | ug/l | 5 | 05/24/99 | VFT | 630-20-6 | |
| Ethylbenzene | ND | ug/l | 5 | 05/24/99 | VFT | 100-41-4 | |
| m&p-Xylene | ND | ug/l | 10 | 05/24/99 | VFT | 7816-60-0 | |
| Styrene | ND | ug/l | 5 | 05/24/99 | VFT | 100-42-5 | |
| o-Xylene (1,2-Dimethylbenzene) | ND | ug/l | 5 | 05/24/99 | VFT | 95-47-6 | |
| Bromoform | ND | ug/l | 5 | 05/24/99 | VFT | 75-25-2 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/l | 5 | 05/24/99 | VFT | 79-34-5 | |
| 1,2,3-Trichloropropane | ND | ug/l | 5 | 05/24/99 | VFT | 96-18-4 | |
| trans-1,4-Dichloro-2-Butene | ND | ug/l | 5 | 05/24/99 | VFT | 110-57-6 | |
| 1,4-Dichlorobenzene | ND | ug/l | 5 | 05/24/99 | VFT | 106-46-7 | |
| 1,2-Dichlorobenzene | ND | ug/l | 5 | 05/24/99 | VFT | 95-50-1 | |
| 1,2-Dibromo-3-Chloropropane | ND | ug/l | 5 | 05/24/99 | VFT | 96-12-8 | |
| Dibromofluoromethane (S) | 94 | % | | 05/24/99 | VFT | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 93 | % | | 05/24/99 | VFT | 17060-07-0 | |
| Toluene-d8 (S) | 101 | % | | 05/24/99 | VFT | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 101 | % | | 05/24/99 | VFT | 460-00-4 | |



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# Pace Analytical



Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

Pace Sample No: 93262202 Date Collected: 05/18/99 Matrix: Water
Client Sample ID: EQUIP BLANK A1 Date Received: 05/21/99

GC/MS Volatiles

GC/MS VOCs by 8260 Method: EPA 8260 Prep Method: EPA 8260

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| Chloromethane | ND | ug/l | 10 | 05/24/99 | VFT | 74-87-3 | |
| Vinyl Chloride | ND | ug/l | 10 | 05/24/99 | VFT | 75-01-4 | |
| Bromomethane | 11 | ug/l | 10 | 05/24/99 | VFT | 74-83-9 | |
| Chloroethane | ND | ug/l | 10 | 05/24/99 | VFT | 75-00-3 | |
| Trichlorofluoromethane | ND | ug/l | 10 | 05/24/99 | VFT | 75-69-4 | |
| Acetone | ND | ug/l | 100 | 05/24/99 | VFT | 67-64-1 | |
| 1,1-Dichloroethene | ND | ug/l | 5 | 05/24/99 | VFT | 75-35-4 | |
| Iodomethane | ND | ug/l | 5 | 05/24/99 | VFT | 74-88-4 | |
| Acrylonitrile | ND | ug/l | 100 | 05/24/99 | VFT | 107-13-1 | |
| Methylene Chloride | ND | ug/l | 5 | 05/24/99 | VFT | 75-09-2 | |
| Carbon Disulfide | ND | ug/l | 5 | 05/24/99 | VFT | 75-15-0 | |
| trans-1,2-Dichloroethene | ND | ug/l | 5 | 05/24/99 | VFT | 156-60-5 | |
| 1,1-Dichloroethane | ND | ug/l | 5 | 05/24/99 | VFT | 75-34-3 | |
| Vinyl Acetate | ND | ug/l | 50 | 05/24/99 | VFT | 108-05-4 | |
| 2-Butanone | ND | ug/l | 100 | 05/24/99 | VFT | 78-93-3 | |
| cis-1,2-Dichloroethene | ND | ug/l | 5 | 05/24/99 | VFT | 156-59-2 | |
| Chloroform | ND | ug/l | 5 | 05/24/99 | VFT | 67-66-3 | |
| Bromochloromethane | ND | ug/l | 5 | 05/24/99 | VFT | 74-97-5 | |
| 1,1,1-Trichloroethane | ND | ug/l | 5 | 05/24/99 | VFT | 71-55-6 | |
| 1,2-Dichloroethane | ND | ug/l | 5 | 05/24/99 | VFT | 107-06-2 | |
| Carbon Tetrachloride | ND | ug/l | 5 | 05/24/99 | VFT | 56-23-5 | |
| Benzene | ND | ug/l | 5 | 05/24/99 | VFT | 71-43-2 | |
| Trichloroethene | ND | ug/l | 5 | 05/24/99 | VFT | 79-01-6 | |
| 1,2-Dichloropropane | ND | ug/l | 5 | 05/24/99 | VFT | 78-87-5 | |
| Dibromomethane | ND | ug/l | 5 | 05/24/99 | VFT | 74-95-3 | |
| Bromodichloromethane | ND | ug/l | 5 | 05/24/99 | VFT | 75-27-4 | |
| 4-Methyl-2-Pentanone | ND | ug/l | 50 | 05/24/99 | VFT | 108-10-1 | |
| cis-1,3-Dichloropropene | ND | ug/l | 5 | 05/24/99 | VFT | 10061-01-5 | |
| Toluene | ND | ug/l | 5 | 05/24/99 | VFT | 108-88-3 | |
| trans-1,3-Dichloropropene | ND | ug/l | 5 | 05/24/99 | VFT | 10061-02-6 | |
| 1,1,2-Trichloroethane | ND | ug/l | 5 | 05/24/99 | VFT | 79-00-5 | |
| 2-Hexanone | ND | ug/l | 50 | 05/24/99 | VFT | 591-78-6 | |
| Dibromochloromethane | ND | ug/l | 5 | 05/24/99 | VFT | 124-48-1 | |
| Tetrachloroethene | ND | ug/l | 5 | 05/24/99 | VFT | 127-18-4 | |
| 1,2-Dibromoethane | ND | ug/l | 5 | 05/24/99 | VFT | 106-93-4 | |
| Chlorobenzene | ND | ug/l | 5 | 05/24/99 | VFT | 108-90-7 | |



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Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

Pace Sample No: 93262202 | Date Collected: 05/18/99 | Matrix: Water
Client Sample ID: EQUIP BLANK A1 | Date Received: 05/21/99

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | ug/l | 5 | 05/24/99 | VFT | 630-20-6 | |
| Ethylbenzene | ND | ug/l | 5 | 05/24/99 | VFT | 100-41-4 | |
| m&p-Xylene | ND | ug/l | 10 | 05/24/99 | VFT | 7816-60-0 | |
| Styrene | ND | ug/l | 5 | 05/24/99 | VFT | 100-42-5 | |
| o-Xylene (1,2-Dimethylbenzene) | ND | ug/l | 5 | 05/24/99 | VFT | 95-47-6 | |
| Bromoform | ND | ug/l | 5 | 05/24/99 | VFT | 75-25-2 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/l | 5 | 05/24/99 | VFT | 79-34-5 | |
| 1,2,3-Trichloropropane | ND | ug/l | 5 | 05/24/99 | VFT | 96-18-4 | |
| trans-1,4-Dichloro-2-Butene | ND | ug/l | 5 | 05/24/99 | VFT | 110-57-6 | |
| 1,4-Dichlorobenzene | ND | ug/l | 5 | 05/24/99 | VFT | 106-46-7 | |
| 1,2-Dichlorobenzene | ND | ug/l | 5 | 05/24/99 | VFT | 95-50-1 | |
| 1,2-Dibromo-3-Chloropropane | ND | ug/l | 5 | 05/24/99 | VFT | 96-12-8 | |
| Dibromofluoromethane (S) | 95 | % | | 05/24/99 | VFT | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 96 | % | | 05/24/99 | VFT | 17060-07-0 | |
| Toluene-d8 (S) | 100 | % | | 05/24/99 | VFT | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 100 | % | | 05/24/99 | VFT | 460-00-4 | |



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Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

PARAMETER FOOTNOTES

| | |
|---|---|
| ND | Not Detected |
| NC | Not Calculable |
| PRL | Pace Reporting Limit |
| (S) | Surrogate |



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QUALITY CONTROL DATA



Cherokee County Landfill
Cherokee Cty. Courthouse
Murphy, NC 28906

Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

Attn: Mr. Robert Allen

QC Batch ID: 13164
Analysis Method: EPA 8260
Associated Pace Samples: 93262194 93262202

QC Batch Method: EPA 8260
Analysis Description: GC/MS VOCs by 8260

METHOD BLANK: 92468503
Associated Pace Samples:
93262194 93262202

| Parameter | Units | Method Blank Result | PRL | Footnotes |
|---|---|---|---|---|
| Chloromethane | ug/l | ND | 10 | |
| Vinyl Chloride | ug/l | ND | 10 | |
| Bromomethane | ug/l | ND | 10 | |
| Chloroethane | ug/l | ND | 10 | |
| Trichlorofluoromethane | ug/l | ND | 10 | |
| Acetone | ug/l | ND | 100 | |
| 1,1-Dichloroethene | ug/l | ND | 5 | |
| Iodomethane | ug/l | ND | 5 | |
| Acrylonitrile | ug/l | ND | 100 | |
| Methylene Chloride | ug/l | ND | 5 | |
| Carbon Disulfide | ug/l | ND | 5 | |
| trans-1,2-Dichloroethene | ug/l | ND | 5 | |
| 1,1-Dichloroethane | ug/l | ND | 5 | |
| Vinyl Acetate | ug/l | ND | 50 | |
| 2-Butanone | ug/l | ND | 100 | |
| cis-1,2-Dichloroethene | ug/l | ND | 5 | |
| Chloroform | ug/l | ND | 5 | |
| Bromochloromethane | ug/l | ND | 5 | |
| 1,1,1-Trichloroethane | ug/l | ND | 5 | |
| 1,2-Dichloroethane | ug/l | ND | 5 | |
| Carbon Tetrachloride | ug/l | ND | 5 | |
| Benzene | ug/l | ND | 5 | |
| Trichloroethene | ug/l | ND | 5 | |
| 1,2-Dichloropropane | ug/l | ND | 5 | |
| Dibromomethane | ug/l | ND | 5 | |



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QUALITY CONTROL DATA



Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

METHOD BLANK: 92468503
Associated Pace Samples:
93262194 93262202

| Parameter | Units | Method Blank Result | PRL | Footnotes |
|---|---|---|---|---|
| Bromodichloromethane | ug/l | ND | 5 | |
| 4-Methyl-2-Pentanone | ug/l | ND | 50 | |
| cis-1,3-Dichloropropene | ug/l | ND | 5 | |
| Toluene | ug/l | ND | 5 | |
| trans-1,3-Dichloropropene | ug/l | ND | 5 | |
| 1,1,2-Trichloroethane | ug/l | ND | 5 | |
| 2-Hexanone | ug/l | ND | 50 | |
| Dibromochloromethane | ug/l | ND | 5 | |
| Tetrachloroethene | ug/l | ND | 5 | |
| 1,2-Dibromoethane | ug/l | ND | 5 | |
| Chlorobenzene | ug/l | ND | 5 | |
| 1,1,1,2-Tetrachloroethane | ug/l | ND | 5 | |
| Ethylbenzene | ug/l | ND | 5 | |
| m&p-Xylene | ug/l | ND | 10 | |
| Styrene | ug/l | ND | 5 | |
| o-Xylene (1,2-Dimethylbenzene) | ug/l | ND | 5 | |
| Bromoform | ug/l | ND | 5 | |
| 1,1,2,2-Tetrachloroethane | ug/l | ND | 5 | |
| 1,2,3-Trichloropropane | ug/l | ND | 5 | |
| trans-1,4-Dichloro-2-Butene | ug/l | ND | 5 | |
| 1,4-Dichlorobenzene | ug/l | ND | 5 | |
| 1,2-Dichlorobenzene | ug/l | ND | 5 | |
| 1,2-Dibromo-3-Chloropropane | ug/l | ND | 5 | |
| Dibromofluoromethane (S) | % | 94 | | |
| 1,2-Dichloroethane-d4 (S) | % | 93 | | |
| Toluene-d8 (S) | % | 100 | | |
| 4-Bromofluorobenzene (S) | % | 101 | | |

MATRIX SPIKE: 92468529

| Parameter | Units | 93258846 | Spike Conc. | Matrix Spike Result | Spike % Rec | Footnotes |
|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ug/l | 0 | 50 | 53.93 | 108 | |
| Benzene | ug/l | 0 | 50 | 53.44 | 107 | |
| Trichloroethene | ug/l | 0 | 50 | 57.22 | 114 | |
| Toluene | ug/l | 0 | 50 | 49.16 | 98.3 | |
| Chlorobenzene | ug/l | 0 | 50 | 54.12 | 108 | |

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

# REPORT OF LABORATORY ANALYSIS

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Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

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QUALITY CONTROL DATA



Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

MATRIX SPIKE: 92468529

| Parameter | Units | 93258846 | Spike Conc. | Matrix Spike Result | Spike % Rec | Footnotes |
|---|---|---|---|---|---|---|
| Dibromofluoromethane (S) | | | | | 100 | |
| 1,2-Dichloroethane-d4 (S) | | | | | 100 | |
| Toluene-d8 (S) | | | | | 101 | |
| 4-Bromofluorobenzene (S) | | | | | 101 | |

LABORATORY CONTROL SAMPLE: 92468511

| Parameter | Units | Spike Conc. | LCS Result | Spike % Rec | Footnotes |
|---|---|---|---|---|---|
| Chloromethane | ug/l | 50 | 25.39 | 50.8 | |
| Vinyl Chloride | ug/l | 50 | 36.89 | 73.8 | |
| Bromomethane | ug/l | 50 | 57.32 | 115 | |
| Chloroethane | ug/l | 50 | 46.13 | 92.3 | |
| Trichlorofluoromethane | ug/l | 50 | 41.10 | 82.2 | |
| Acetone | ug/l | 100 | 74.13 | 74.1 | |
| 1,1-Dichloroethene | ug/l | 50 | 48.49 | 97.0 | |
| Iodomethane | ug/l | 100 | 111.2 | 111 | |
| Acrylonitrile | ug/l | 500 | 382.8 | 76.6 | |
| Methylene Chloride | ug/l | 50 | 46.00 | 92.0 | |
| Carbon Disulfide | ug/l | 100 | 98.91 | 98.9 | |
| trans-1,2-Dichloroethene | ug/l | 50 | 50.97 | 102 | |
| 1,1-Dichloroethane | ug/l | 50 | 46.06 | 92.1 | |
| Vinyl Acetate | ug/l | 100 | 62.71 | 62.7 | |
| 2-Butanone | ug/l | 100 | 74.18 | 74.2 | |
| cis-1,2-Dichloroethene | ug/l | 50 | 47.74 | 95.5 | |
| Chloroform | ug/l | 50 | 49.82 | 99.6 | |
| Bromochloromethane | ug/l | 50 | 50.97 | 102 | |
| 1,1,1-Trichloroethane | ug/l | 50 | 50.57 | 101 | |
| 1,2-Dichloroethane | ug/l | 50 | 44.51 | 89.0 | |
| Carbon Tetrachloride | ug/l | 50 | 54.18 | 108 | |
| Benzene | ug/l | 50 | 48.08 | 96.2 | |
| Trichloroethene | ug/l | 50 | 52.08 | 104 | |
| 1,2-Dichloropropane | ug/l | 50 | 47.23 | 94.5 | |
| Dibromomethane | ug/l | 50 | 46.69 | 93.4 | |
| Bromodichloromethane | ug/l | 50 | 50.78 | 102 | |
| 4-Methyl-2-Pentanone | ug/l | 100 | 80.29 | 80.3 | |
| cis-1,3-Dichloropropene | ug/l | 50 | 46.02 | 92.0 | |
| Toluene | ug/l | 50 | 48.69 | 97.4 | |
| trans-1,3-Dichloropropene | ug/l | 50 | 47.92 | 95.8 | |
| 1,1,2-Trichloroethane | ug/l | 50 | 44.23 | 88.5 | |



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QUALITY CONTROL DATA



Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

LABORATORY CONTROL SAMPLE: 92468511

| Parameter | Units | Spike Conc. | LCS Result | Spike % Rec | Footnotes |
|---|---|---|---|---|---|
| 2-Hexanone | ug/l | 100 | 79.08 | 79.1 | |
| Dibromochloromethane | ug/l | 50 | 50.35 | 101 | |
| Tetrachloroethene | ug/l | 50 | 53.17 | 106 | |
| 1,2-Dibromoethane | ug/l | 50 | 47.09 | 94.2 | |
| Chlorobenzene | ug/l | 50 | 49.00 | 98.0 | |
| 1,1,1,2-Tetrachloroethane | ug/l | 50 | 52.65 | 105 | |
| Ethylbenzene | ug/l | 50 | 47.20 | 94.4 | |
| m&p-Xylene | ug/l | 100 | 98.76 | 98.8 | |
| Styrene | ug/l | 50 | 48.73 | 97.5 | |
| o-Xylene (1,2-Dimethylbenzene) | ug/l | 50 | 48.90 | 97.8 | |
| Bromoform | ug/l | 50 | 50.15 | 100 | |
| 1,1,2,2-Tetrachloroethane | ug/l | 50 | 46.22 | 92.4 | |
| 1,2,3-Trichloropropane | ug/l | 50 | 45.03 | 90.1 | |
| trans-1,4-Dichloro-2-Butene | ug/l | 50 | 41.91 | 83.8 | |
| 1,4-Dichlorobenzene | ug/l | 50 | 49.63 | 99.3 | |
| 1,2-Dichlorobenzene | ug/l | 50 | 48.77 | 97.5 | |
| 1,2-Dibromo-3-Chloropropane | ug/l | 50 | 45.99 | 92.0 | |
| Dibromofluoromethane (S) | | | | 96 | |
| 1,2-Dichloroethane-d4 (S) | | | | 94 | |
| Toluene-d8 (S) | | | | 100 | |
| 4-Bromofluorobenzene (S) | | | | 100 | |



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QUALITY CONTROL DATA



Cherokee County Landfill
Cherokee Cty. Courthouse
Murphy, NC 28906

Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

Attn: Mr. Robert Allen

QC Batch ID: 13242
Analysis Method: EPA 8260
Associated Pace Samples: 93262095 93262103 93262111 93262129 93262137 93262145 93262152 93262160 93262178 93262186

QC Batch Method: EPA 8260
Analysis Description: GC/MS VOCs by 8260

METHOD BLANK: 92470673
Associated Pace Samples: 93262095 93262103 93262111 93262129 93262137 93262145 93262152 93262160 93262178 93262186

| Parameter | Units | Method Blank Result | PRL | Footnotes |
|---|---|---|---|---|
| Chloromethane | ug/l | ND | 10 | |
| Vinyl Chloride | ug/l | ND | 10 | |
| Bromomethane | ug/l | ND | 10 | |
| Chloroethane | ug/l | ND | 10 | |
| Trichlorofluoromethane | ug/l | ND | 10 | |
| Acetone | ug/l | ND | 100 | |
| 1,1-Dichloroethene | ug/l | ND | 5 | |
| Iodomethane | ug/l | ND | 5 | |
| Acrylonitrile | ug/l | ND | 100 | |
| Methylene Chloride | ug/l | ND | 5 | |
| Carbon Disulfide | ug/l | ND | 5 | |
| trans-1,2-Dichloroethene | ug/l | ND | 5 | |
| 1,1-Dichloroethane | ug/l | ND | 5 | |
| Vinyl Acetate | ug/l | ND | 50 | |
| 2-Butanone | ug/l | ND | 100 | |
| cis-1,2-Dichloroethene | ug/l | ND | 5 | |
| Chloroform | ug/l | ND | 5 | |
| Bromochloromethane | ug/l | ND | 5 | |
| 1,1,1-Trichloroethane | ug/l | ND | 5 | |
| 1,2-Dichloroethane | ug/l | ND | 5 | |
| Carbon Tetrachloride | ug/l | ND | 5 | |
| Benzene | ug/l | ND | 5 | |
| Trichloroethene | ug/l | ND | 5 | |



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QUALITY CONTROL DATA



Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

METHOD BLANK: 92470673
Associated Pace Samples:

93262095 93262103 93262111 93262129 93262137 93262145 93262152
93262160 93262178 93262186

| Parameter | Units | Method Blank Result | PRL | Footnotes |
|---|---|---|---|---|
| 1,2-Dichloropropane | ug/l | ND | 5 | |
| Dibromomethane | ug/l | ND | 5 | |
| Bromodichloromethane | ug/l | ND | 5 | |
| 4-Methyl-2-Pentanone | ug/l | ND | 50 | |
| cis-1,3-Dichloropropene | ug/l | ND | 5 | |
| Toluene | ug/l | ND | 5 | |
| trans-1,3-Dichloropropene | ug/l | ND | 5 | |
| 1,1,2-Trichloroethane | ug/l | ND | 5 | |
| 2-Hexanone | ug/l | ND | 50 | |
| Dibromochloromethane | ug/l | ND | 5 | |
| Tetrachloroethene | ug/l | ND | 5 | |
| 1,2-Dibromoethane | ug/l | ND | 5 | |
| Chlorobenzene | ug/l | ND | 5 | |
| 1,1,1,2-Tetrachloroethane | ug/l | ND | 5 | |
| Ethylbenzene | ug/l | ND | 5 | |
| m&p-Xylene | ug/l | ND | 10 | |
| Styrene | ug/l | ND | 5 | |
| o-Xylene (1,2-Dimethylbenzene) | ug/l | ND | 5 | |
| Bromoform | ug/l | ND | 5 | |
| 1,1,2,2-Tetrachloroethane | ug/l | ND | 5 | |
| 1,2,3-Trichloropropane | ug/l | ND | 5 | |
| trans-1,4-Dichloro-2-Butene | ug/l | ND | 5 | |
| 1,4-Dichlorobenzene | ug/l | ND | 5 | |
| 1,2-Dichlorobenzene | ug/l | ND | 5 | |
| 1,2-Dibromo-3-Chloropropane | ug/l | ND | 5 | |
| Dibromofluoromethane (S) | % | 95 | | |
| 1,2-Dichloroethane-d4 (S) | % | 94 | | |
| Toluene-d8 (S) | % | 101 | | |
| 4-Bromofluorobenzene (S) | % | 101 | | |

LABORATORY CONTROL SAMPLE: 92470681

| Parameter | Units | Spike Conc. | LCS Result | Spike % Rec | Footnotes |
|---|---|---|---|---|---|
| Chloromethane | ug/l | 50 | 25.78 | 51.6 | |
| Vinyl Chloride | ug/l | 50 | 39.41 | 78.8 | |

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

# REPORT OF LABORATORY ANALYSIS

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Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

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QUALITY CONTROL DATA



Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

LABORATORY CONTROL SAMPLE: 92470681

| Parameter | Units | Spike Conc. | LCS Result | Spike % Rec | Footnotes |
|---|---|---|---|---|---|
| Bromomethane | ug/l | 50 | 67.05 | 134 | |
| Chloroethane | ug/l | 50 | 50.55 | 101 | |
| Trichlorofluoromethane | ug/l | 50 | 44.88 | 89.8 | |
| Acetone | ug/l | 100 | 108.0 | 108 | |
| 1,1-Dichloroethene | ug/l | 50 | 53.94 | 108 | |
| Iodomethane | ug/l | 100 | 122.1 | 122 | |
| Acrylonitrile | ug/l | 500 | 536.8 | 107 | |
| Methylene Chloride | ug/l | 50 | 52.65 | 105 | |
| Carbon Disulfide | ug/l | 100 | 108.0 | 108 | |
| trans-1,2-Dichloroethene | ug/l | 50 | 56.34 | 113 | |
| 1,1-Dichloroethane | ug/l | 50 | 51.09 | 102 | |
| Vinyl Acetate | ug/l | 100 | 88.34 | 88.3 | |
| 2-Butanone | ug/l | 100 | 110.5 | 111 | |
| cis-1,2-Dichloroethene | ug/l | 50 | 52.68 | 105 | |
| Chloroform | ug/l | 50 | 55.01 | 110 | |
| Bromochloromethane | ug/l | 50 | 56.81 | 114 | |
| 1,1,1-Trichloroethane | ug/l | 50 | 55.88 | 112 | |
| 1,2-Dichloroethane | ug/l | 50 | 51.89 | 104 | |
| Carbon Tetrachloride | ug/l | 50 | 58.24 | 116 | |
| Benzene | ug/l | 50 | 53.22 | 106 | |
| Trichloroethene | ug/l | 50 | 57.94 | 116 | |
| 1,2-Dichloropropane | ug/l | 50 | 52.93 | 106 | |
| Dibromomethane | ug/l | 50 | 53.93 | 108 | |
| Bromodichloromethane | ug/l | 50 | 55.75 | 112 | |
| 4-Methyl-2-Pentanone | ug/l | 100 | 115.2 | 115 | |
| cis-1,3-Dichloropropene | ug/l | 50 | 50.77 | 102 | |
| Toluene | ug/l | 50 | 53.01 | 106 | |
| trans-1,3-Dichloropropene | ug/l | 50 | 53.81 | 108 | |
| 1,1,2-Trichloroethane | ug/l | 50 | 52.74 | 105 | |
| 2-Hexanone | ug/l | 100 | 114.7 | 115 | |
| Dibromochloromethane | ug/l | 50 | 55.70 | 111 | |
| Tetrachloroethene | ug/l | 50 | 56.75 | 114 | |
| 1,2-Dibromoethane | ug/l | 50 | 56.88 | 114 | |
| Chlorobenzene | ug/l | 50 | 53.26 | 107 | |
| 1,1,1,2-Tetrachloroethane | ug/l | 50 | 57.22 | 114 | |
| Ethylbenzene | ug/l | 50 | 51.22 | 102 | |
| m&p-Xylene | ug/l | 100 | 106.0 | 106 | |
| Styrene | ug/l | 50 | 53.17 | 106 | |
| o-Xylene (1,2-Dimethylbenzene) | ug/l | 50 | 53.16 | 106 | |
| Bromoform | ug/l | 50 | 56.63 | 113 | |
| 1,1,2,2-Tetrachloroethane | ug/l | 50 | 56.32 | 113 | |



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QUALITY CONTROL DATA



Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

LABORATORY CONTROL SAMPLE: 92470681

| Parameter | Units | Spike Conc. | LCS Result | Spike % Rec | Footnotes |
|---|---|---|---|---|---|
| 1,2,3-Trichloropropane | ug/l | 50 | 56.85 | 114 | |
| trans-1,4-Dichloro-2-Butene | ug/l | 50 | 52.12 | 104 | |
| 1,4-Dichlorobenzene | ug/l | 50 | 54.74 | 109 | |
| 1,2-Dichlorobenzene | ug/l | 50 | 53.47 | 107 | |
| 1,2-Dibromo-3-Chloropropane | ug/l | 50 | 60.44 | 121 | |
| Dibromofluoromethane (S) | | | | 96 | |
| 1,2-Dichloroethane-d4 (S) | | | | 101 | |
| Toluene-d8 (S) | | | | 101 | |
| 4-Bromofluorobenzene (S) | | | | 100 | |

SAMPLE DUPLICATE: 92470699

| Parameter | Units | 93262137 | Dup. Result | RPD | Footnotes |
|---|---|---|---|---|---|
| Chloromethane | ug/l | ND | ND | NC | |
| Vinyl Chloride | ug/l | ND | ND | NC | |
| Bromomethane | ug/l | ND | ND | NC | |
| Chloroethane | ug/l | ND | ND | NC | |
| Trichlorofluoromethane | ug/l | ND | ND | NC | |
| Acetone | ug/l | ND | ND | NC | |
| 1,1-Dichloroethene | ug/l | ND | ND | NC | |
| Iodomethane | ug/l | ND | ND | NC | |
| Acrylonitrile | ug/l | ND | ND | NC | |
| Methylene Chloride | ug/l | ND | ND | NC | |
| Carbon Disulfide | ug/l | 23.00 | 19.00 | 17 | |
| trans-1,2-Dichloroethene | ug/l | ND | ND | NC | |
| 1,1-Dichloroethane | ug/l | ND | ND | NC | |
| Vinyl Acetate | ug/l | ND | ND | NC | |
| 2-Butanone | ug/l | ND | ND | NC | |
| cis-1,2-Dichloroethene | ug/l | ND | ND | NC | |
| Chloroform | ug/l | ND | ND | NC | |
| Bromochloromethane | ug/l | ND | ND | NC | |
| 1,1,1-Trichloroethane | ug/l | ND | ND | NC | |
| 1,2-Dichloroethane | ug/l | ND | ND | NC | |
| Carbon Tetrachloride | ug/l | ND | ND | NC | |
| Benzene | ug/l | ND | ND | NC | |
| Trichloroethene | ug/l | ND | ND | NC | |
| 1,2-Dichloropropane | ug/l | ND | ND | NC | |
| Dibromomethane | ug/l | ND | ND | NC | |
| Bromodichloromethane | ug/l | ND | ND | NC | |



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Pace Analytical

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091

QUALITY CONTROL DATA



Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

SAMPLE DUPLICATE: 92470699

| Parameter | Units | 93262137 | Dup. Result | RPD | Footnotes |
|---|---|---|---|---|---|
| 4-Methyl-2-Pentanone | ug/l | ND | ND | NC | |
| cis-1,3-Dichloropropene | ug/l | ND | ND | NC | |
| Toluene | ug/l | ND | ND | NC | |
| trans-1,3-Dichloropropene | ug/l | ND | ND | NC | |
| 1,1,2-Trichloroethane | ug/l | ND | ND | NC | |
| 2-Hexanone | ug/l | ND | ND | NC | |
| Dibromochloromethane | ug/l | ND | ND | NC | |
| Tetrachloroethene | ug/l | ND | ND | NC | |
| 1,2-Dibromoethane | ug/l | ND | ND | NC | |
| Chlorobenzene | ug/l | ND | ND | NC | |
| 1,1,1,2-Tetrachloroethane | ug/l | ND | ND | NC | |
| Ethylbenzene | ug/l | ND | ND | NC | |
| m&p-Xylene | ug/l | ND | ND | NC | |
| Styrene | ug/l | ND | ND | NC | |
| o-Xylene (1,2-Dimethylbenzene) | ug/l | ND | ND | NC | |
| Bromoform | ug/l | ND | ND | NC | |
| 1,1,2,2-Tetrachloroethane | ug/l | ND | ND | NC | |
| 1,2,3-Trichloropropane | ug/l | ND | ND | NC | |
| trans-1,4-Dichloro-2-Butene | ug/l | ND | ND | NC | |
| 1,4-Dichlorobenzene | ug/l | ND | ND | NC | |
| 1,2-Dichlorobenzene | ug/l | ND | ND | NC | |
| 1,2-Dibromo-3-Chloropropane | ug/l | ND | ND | NC | |
| Dibromofluoromethane (S) | % | 93 | 97 | 0 | |
| 1,2-Dichloroethane-d4 (S) | % | 93 | 95 | 0 | |
| Toluene-d8 (S) | % | 100 | 101 | 0 | |
| 4-Bromofluorobenzene (S) | % | 100 | 99 | 0 | |



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Pace Project Number: 926406
Client Project ID: CHEROKEE - 935744

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

| | |
|---|---|
| ND | Not Detected |
| NC | Not Calculable |
| PRL | Pace Reporting Limit |
| RPD | Relative Percent Difference |
| (S) | Surrogate |



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# Pace® Analytical

*The Right Chemistry, The Right Solution®*

# CHAIN-OF-CUSTODY / Analytical Request Document

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

454122

**Page:** 2 of 2

**Required** Client Information: **Section A**

Company: Cherokee Co

Address:

Phone: 832-2621 Fax:

**Required** Client Information: **Section B**

Report To:

Invoice To:

P.O.

Project Name:

Project Number:

Client Information (Check quote/contract):

Requested Due Date: *TAT:

* Under 14 day turnaround subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge.

Turn Around Time (TAT) in calender days.

To Be Completed by Pace Analytical and Client **Section C**

Quote Reference:

Project Manager:

Project #: 5141

Profile #:

Requested Analysis:

**Section D** **Required** Client Information:

**SAMPLE ID**

One character per box.
(A–Z, 0–9 / .–)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

| MATRIX | CODE |
|---|---|
| WATER | WT |
| SOIL | SL |
| OIL | OL |
| WIPE | WP |
| AIR | AR |
| TISSUE | TS |
| OTHER | OT |

| ITEM # | SAMPLE ID | MATRIX CODE | DATE COLLECTED mm / dd / yy | TIME COLLECTED mm : hh a/p | # Containers | Preservatives: Unpreserved | $H_2SO_4$ | $HNO_3$ | HCl | NaOH | $Na_2S_2O_3$ | Remarks / Lab ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | SWEET DOWNS-R | | | | | | | | | | | |
| 2 | SWEET DOWNS-R | | | | | | | | | | | |
| 3 | TRAVEL BLANK | | | | | | | | | | | |
| 4 | EQUIP BLANK A | | | | | | | | | | | |
| 5 | LEACHATE | | | | | | | | | | | |
| 6 | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | |

| Sample Condition | | Sample Notes | Item No. | Relinquished By / Company | Date | Time | Accepted By / Company | Date | Time |
|---|---|---|---|---|---|---|---|---|---|
| Temp in °C: | 4.0 | pH preservative | | | | | | | |
| Received on ICE: | (Y) / N | | | | | | | | |
| Sealed Cooler: | Y / N | | | | | | | | |
| Samples Intact: | (Y) / N | | | | | | | | |

**Additional Comments:**

**SAMPLER NAME AND SIGNATURE**

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed: (MM / DD / YY)

**SEE REVERSE SIDE FOR INSTRUCTIONS**

# Pace® Analytical

*The Right Chemistry, The Right Solution®*

# CHAIN-OF-CUSTODY / Analytical Request Document

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

454123

**Page:** 1 **of** 2

**Required** Client Information: **Section A**

Company: Chevron

Address:

Phone: 832 2001 Fax:

**Required** Client Information: **Section B**

Report To:

Invoice To: Chevron

P.O.:

Project Name: [illegible]

Project Number:

Client Information (Check quote/contract):

Requested Due Date: *TAT:

* Under 14 day turnaround subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge.

Turn Around Time (TAT) in calender days.

To Be Completed by Pace Analytical and Client **Section C**

Quote Reference:

Project Manager:

Project #: 5794

Profile #:

Requested Analysis:

**Section D** **Required** Client Information:

**SAMPLE ID**

One character per box.
(A–Z, 0–9 / .–)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

| MATRIX | CODE |
|---|---|
| WATER | WT |
| SOIL | SL |
| OIL | OL |
| WIPE | WP |
| AIR | AR |
| TISSUE | TS |
| OTHER | OT |

| ITEM # | SAMPLE ID | MATRIX CODE | DATE COLLECTED mm / dd / yy | TIME COLLECTED mm : hh a/p | # Containers | Preservatives: Unpreserved | $H_2SO_4$ | $HNO_3$ | HCl | NaOH | $Na_2S_2O_3$ | Remarks / Lab ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | | | [illegible] | [illegible] | | | [illegible] |
| 2 | [illegible] | [illegible] | | [illegible] | [illegible] | | | [illegible] | [illegible] | | | [illegible] |
| 3 | [illegible] | [illegible] | | [illegible] | [illegible] | | | [illegible] | [illegible] | | | [illegible] |
| 4 | [illegible] | [illegible] | | [illegible] | [illegible] | | | [illegible] | [illegible] | | | [illegible] |
| 5 | [illegible] | [illegible] | | [illegible] | [illegible] | | | [illegible] | [illegible] | | | [illegible] |
| 6 | [illegible] | [illegible] | | [illegible] | [illegible] | | | [illegible] | [illegible] | | | [illegible] |
| 7 | [illegible] | [illegible] | | [illegible] | [illegible] | | | [illegible] | [illegible] | | | [illegible] |
| 8 | [illegible] | [illegible] | | [illegible] | [illegible] | | | [illegible] | [illegible] | | | [illegible] |
| 9 | [illegible] | [illegible] | | [illegible] | [illegible] | | | [illegible] | [illegible] | | | [illegible] |
| 10 | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | |

| Sample Condition | | Sample Notes | Item No. | Relinquished By / Company | Date | Time | Accepted By / Company | Date | Time |
|---|---|---|---|---|---|---|---|---|---|
| Temp in °C: | 4.0 | pv preservative ok | | [illegible] | [illegible] | 4:50 | Mark P. Swanson Pace | 5/19 | 4:50 |
| Received on ICE: | (Y) / N | | | Mark P. Swanson | [illegible] | | [illegible] | 5/20 | 800 |
| Sealed Cooler: | Y / N | | | | | | | | |
| Samples Intact: | (Y) / N | | | | | | | | |

**Additional Comments:**

pv preservative ok

**SAMPLER NAME AND SIGNATURE**

PRINT Name of SAMPLER: Alan Mark P. Swanson

SIGNATURE of SAMPLER: [signature] DATE Signed: (MM / DD / YY) 5/19/99

**SEE REVERSE SIDE FOR INSTRUCTIONS**

# Hydrologic Properties at Monitoring Well Locations

## Cherokee County Lined Landfill

| Monitoring Well | Hydraulic Conductivity (cm/sec) | Effective Porosity (%) | Change in Head/ Change in Distance | Groundwater Flow Rate (ft/yr) | Direction |
|---|---|---|---|---|---|
| MW-1 | 3.04E-06 | 5.00% | 0.0629 | 3.96 | S40E |
| MW-2 | 1.97E-04 | 16.00% | 0.2074 | 264.21 | S70E |
| MW-3 | 1.18E-04 | 10.00% | 0.1738 | 212.19 | S56E |
| MW-4 | 1.71E-04 | 16.00% | 0.0845 | 93.44 | S87E |
| MW-5 | 1.66E-03 | 0.01% | 0.1007 | 1729534.39 | N79E |
| MW-6S | 4.15E-05 | 0.01% | 0.1504 | 64578.44 | S02W |
| MW-6D | 3.13E-05 | 0.01% | - | - | S02W |
| MW-7 | 5.80E-05 | 16.00% | 0.0167 | 6.26 | S24W |

Note: All values for effective porosity are derived from the Design Hydrogeologic Study for the Cherokee County Lined Landfill.
Hydraulic conductivities were obtained from slug tests performed by Municipal Engineering on each monitoring well and data from the Design Hydrogeologic Study.

# Cherokee County Monitoring Wells

| Monitoring Wells | Ground Elevation | Top of Pipe | Completion Depth | 12/15/97 | 1/7/98 | 1/26/98 | 3/16/98 | 4/20/98 | 10/19/98 | 5/19/99 |
|---|---|---|---|---|---|---|---|---|---|---|
| MW-1 | 1801.50 | 1803.60 | 1694.50 | 1709.02 | nd | 1707.93 | 1707.27 | 1707.10 | 1708.85 | 1707.67 |
| MW-2 | 1688.48 | 1691.34 | 1630.48 | 1633.34 | 1635.98 | 1636.49 | 1636.00 | 1637.14 | 1634.56 | 1634.24 |
| MW-3 | 1687.15 | 1689.41 | 1648.65 | 1658.11 | 1657.72 | 1658.51 | 1655.81 | 1657.79 | 1655.18 | 1659.21 |
| MW-4 | 1660.58 | 1663.34 | 1633.58 | 1646.57 | 1646.57 | 1644.68 | 1646.62 | 1646.72 | 1646.09 | 1646.79 |
| MW-5 | 1636.30 | 1638.14 | 1626.30 | 1630.64 | 1631.35 | 1631.39 | 1630.64 | 1632.32 | 1628.34 | 1630.84 |
| MW-6S | 1658.67 | 1661.17 | 1638.67 | 1647.00 | 1647.85 | 1649.04 | 1648.00 | 1658.06 | 1644.83 | 1648.42 |
| MW-6D | 1656.14 | 1658.12 | 1606.14 | 1635.04 | 1635.98 | 1635.25 | 1634.61 | 1635.32 | 1631.57 | 1634.34 |
| MW-7 | 1647.17 | 1649.62 | 1622.17 | 1629.12 | 1629.22 | 1631.42 | 1630.39 | 1630.79 | 1627.64 | 1631.42 |
| P-9 | 1692.90 | 1695.20 | 1652.90 | 1673.27 | nd | 1674.43 | 1674.38 | 1675.70 | 1671.3 | |

nd= no data

* Well was plugged with dirt and was unable to be sampled in December
It was developed and then sampled in January.