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WASTE DISPOSAL INC. SUPERFUND SITE

Project Coordinator

March 15, 1999

Project No. 94-256

Ms. Andria Benner
U.S. Environmental Protection Agency
75 Hawthorne Street, No. H-7-2
San Francisco, California 94105-3901

Transmittal
1998 Annual Soil Gas Monitoring Report
Waste Disposal, Inc. Superfund Site

Dear Ms. Benner:

Enclosed is a copy of the 1998 Annual Soil Gas Monitoring Report for the Waste Disposal, Inc. (WDI) Superfund Site located in Santa Fe Springs, California. This annual report provides a summary of the soil gas data collected from February 1998 through October 1998 at the WDI site.

For your convenience, Appendices A through D of the annual report are currently being transferred to CD-ROM and will be submitted to EPA under a separate cover when completed. This submittal will consist of the following:

- Appendix A: Boring Logs and Vapor Well Construction Details
- Appendix B: Soil Gas Monitoring Field Notes
- Appendix C: Laboratory Data and QA Documentation
- Appendix D: Data Validation Reports

Please feel free to call me with any questions or comments at (562) 692-4535.

Sincerely,

Ian Webster
WDIG Project Coordinator

IW/EA:rm
Enclosure

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TRC

2022466

1998 ANNUAL SOIL GAS MONITORING REPORT

WASTE DISPOSAL, INC. SUPERFUND SITE SANTA FE SPRINGS, CALIFORNIA

Prepared for

United States Environmental Protection Agency

Prepared by

TRC

Irvine, California

Representing

Waste Disposal, Inc. Group (WDIG)

Project No. 94-256
March 1999

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1.0 INTRODUCTION

1.1 INTRODUCTION AND PURPOSE

1. This Annual Soil Gas Monitoring Report provides a summary and evaluation of the soil gas data collected by the Waste Disposal, Inc. Group (WDIG) from February 1998 through October 1998 at the Waste Disposal Inc. (WDI) Superfund Site in Santa Fe Springs, California. This report is submitted as required under the Amended Statement of Work (SOW) of the Amended Administrative Order, Docket No. 97-09, for the Soil and Subsurface Gas Operable Unit of the WDI site.

2. The purpose of this annual report is to review the soil gas conditions observed and to evaluate potential offsite gas migration from WDI sources. This report has been prepared with the following objectives:
   - Provide a summary of the soil gas data collected during 1998 by WDIG.
   - Evaluate the data as to trends or other observations.
   - Provide a formal transmittal to the laboratory data and Quality Assurance/Quality Control (QA/QC) to the United States Environmental Protection Agency (EPA).
   - Submit a proposed modification to the current Soil Gas Monitoring program, based on the findings of the current soil gas conditions.

3. The remaining chapters of this report are organized as follows:
   - Chapter 2.0 - Project Background
   - Chapter 3.0 - Soil Gas Sampling and Analysis Methods
   - Chapter 4.0 - Soil Gas Monitoring Results and Data Evaluation
   - Chapter 5.0 - Quality Assurance/Quality Control Data Evaluation
   - Chapter 6.0 - Conclusion and Recommendations
   - Chapter 7.0 - References

2.0 PROJECT BACKGROUND

2.1 GENERAL SITE HISTORY

1. This general site history is taken from various reports and studies conducted at the site. Extensive site history information is available in previous documents (e.g., Remedial Investigation [RI] Report, EBASCO, 1989d, Intermediate (60%) Design Report, (TRC, 1995).

2. The WDI Superfund site is located in the city of Santa Fe Springs, Los Angeles County, California on an approximate 40-acre parcel of land (see Figures 2.1 and 2.2). The site is bordered on the northwest by Santa Fe Springs Road, on the northeast by Fedco Distribution Center and St. Paul High School, on the southwest by Los Nietos Road, and on the southeast by Greenleaf Avenue. Areas of the site along Los Nietos Road and Santa Fe Springs Road are occupied by industrial complexes. The site property along Greenleaf Avenue, which is the closest property boundary to residential areas (approximately 500 feet), has one remaining structure (Area 5), and a few remaining foundations from previous structures (Areas 6 and 7).

3. The WDI site contains a buried 42-million-gallon-capacity concrete reservoir originally constructed above grade for crude petroleum storage. The reservoir was decommissioned for storage in the late 1920s and beginning in the 1950's was used for disposal of a range of wastes and solid fill materials. Aerial photographs from the mid-1940s to early 1950s show the reservoir as being empty. After 1949, activities were regulated under permit from Los Angeles County until completion of closure in 1964. Reliable documentation on disposal was not maintained; as a result, a comprehensive history of the site is not available. However, investigations have shown that disposed material included drilling muds, sludges and construction debris, both in the reservoir and in unlined disposal pits in Areas 2, 4, 5 and 7.

4. In 1953, WDI started receiving clean fill for covering the site, including the reservoir area and unlined disposal pits. Available data indicates that between 5 to 15 feet of clean fill exists in all or most of the site. Since 1953, the site has been divided into multiple lots, and various businesses have developed on the site. The site was backfilled throughout the 1950s, with disposal continuing on portions of the site into the 1960s when the site was fully closed. A small, northwestern portion of the reservoir area is covered with an asphalt parking lot, used for recreational vehicle storage. The remainder of the reservoir area is undeveloped.

5. The site was placed on the National Priorities List (NPL) in July of 1987. In 1988, EPA undertook a removal action, erecting a fence around the southeast corner of the site to improve security and prevent accidental exposure to alleged surface contamination. During the years 1988 to 1993, EPA completed the Remedial Investigation/Feasibility Study (RI/FS) (EPA, 1993c) process (EPA, 1993b) which led to the selected remedy presented in the Record of Decision (ROD) (EPA, 1993b).

6. The WDIG, initially comprised of the eight companies named in the original Administrative Order, Docket No. 94-17, undertook Predesign and Design activities during 1995 and 1996, and has submitted a Predesign/Intermediate (60%) Design Report (TRC 1995) and a Pre-Final (90%) Design Report (TRC, 1996a).

7. The expanded WDIG, now comprised of 21 companies named in the Amended Administrative Order Docket 97-09 (EPA, 1997a), has undertaken additional Remedial Design (RD) Investigative Activities, which are currently being completed, plus other activities requested by EPA (i.e., stormwater management, in-business air monitoring).

8. EPA has undertaken the performance of the Gas Contingency Plan (EPA, 1997) plus oversight of various experimental investigative activities such as Gore-Sorber™ probes and geophysical surveys. These studies were undertaken by EPA to evaluate the use of the Gore-Sorber™ technology, and to evaluate the use of geophysical methods to collect additional information on reservoir conditions.

2.2 SUMMARY OF SOIL GAS INVESTIGATIONS

2.2.1 SOIL GAS CHARACTERIZATION

1. The WDIG and EPA conducted soil gas investigative activities during 1997 and 1998, under WDIG's 1997 RD Investigative Activities Workplan (TRC, 1997a) and EPA's 1997 Gas Contingency Plan (EPA, 1997). These activities included geoprobe soil gas screening, two soil gas monitoring rounds, in-business air monitoring, the addition of 22 vapor wells installed by WDIG, and the completion of four soil gas monitoring rounds performed by WDIG. Figure 2.3 shows the complete vapor well monitoring network by area. Table 2.1 summarizes the network parameters, including construction details.

2. The following criteria were the primary objectives for performing the soil gas characterization activities:
   - Determine current soil gas conditions in the following areas:
     - Perimeter of the site.
     - Adjacent to onsite structures.
     - Interior of the site.
   - Determine trends in the historical data.
   - Evaluate if other compounds that have currently not been assigned site-specific action levels may pose a site risk.

3. Interim Action Levels (IAL's) for benzene and vinyl chloride were established as part of EPA's Subsurface Gas Contingency Plan and the Amended Administration Order, Docket 97-09, based on the potential migration of subsurface gas into onsite businesses. A more detailed description of the rationale for these IALs is provided in EPA's Subsurface Gas Contingency Plan and the Amended Administrative Order.

4. To address the risks from methane, EPA used the Integrated Waste Management Board's (IWMB's) methane action level in buildings as their criteria. The IWMB's criteria is as follows:
   - Methane levels in buildings will be below 1.25 percent (i.e., 25 percent of the methane lower explosion limit of 5 percent).
   - Subsurface methane levels at the site boundary must be below 5 percent based on California IWMB requirements. An Interim Threshold Screening Level (ITSL) of 1.25 percent was used by EPA in evaluating the results of the Subsurface Gas Contingency Plan Investigations Report.

5. Table 2.2 presents a summary of the soil gas and indoor air ITSLs for the WDI site Constituents of Concern (COCs). The table was reproduced from EPA's Subsurface Gas Contingency Plan Investigations Report dated January 18, 1999.

6. During August and September 1997 EPA conducted screening level soil gas investigations at the WDI site. Soil gas samples were collected from 27 vapor wells and 196 temporary soil gas probes throughout the site area. Figure 2.4 shows the locations at the site where ITSLs were exceeded in EPA's temporary soil gas probes (geoprobes). Figure 2.5 shows the locations where the ITSLs for the site's major COCs (methane, benzene and vinyl chloride) were exceeded in the RI vapor wells.

7. The following ITSL exceedances were observed at the site at various monitoring locations:
   - Vinyl Chloride:
     - 5 geoprobes
     - 7 vapor wells
     - 2 monitoring points (MP-1 and MP-2)
   - Benzene:
     - 9 geoprobes
     - 5 vapor wells
     - 2 monitoring points (MP-1 and MP-2)
   - Tricloroethelene (TCE):
     - 2 vapor wells (VW-22 and VW-23)
     - 1 monitoring point (MP-2)
   - Methane:
     - 16 vapor wells
     - 2 monitoring points (MP-1 and MP-2)

   Table 2.3 provides a summary of volatile organic compound (VOC) ITSL exceedances.

8. Based on the results of the geoprobe soil gas and RI vapor well sampling, EPA directed WDIG to install 22 additional multi-nested vapor wells to further investigate the site's soil gas conditions. Figure 2.3 provides the locations of the expanded vapor well network.

2.2.2 ADDITIONAL SOIL GAS ACTIVITIES

1. In July 1998, EPA installed an additional 10 nested vapor wells (VW-54 through VW-63). The nested wells were installed at the locations shown in Figure 2.3, and completed to the depths shown in Table 2.1.

2. Table 2.4 provides a summary of EPA results for the initial monitoring and sampling of the 10 additional wells. These additional wells were completed by EPA, with a different seal system, and were not integrity tested prior to sampling.

3. As shown in Table 2.4, VW-62 exceeded the methane standard of 50 percent in the shallow sampling probe. Well VW-62 exceeded the 1.25 percent standard in the middle and deep probes. VW-55 exceeded the 1.25 percent standard in the deep monitoring probe:
   - Vinyl chloride exceeded the ITSL in VW-55 and -61.
   - TCE exceeded the ITSL in VW-57 and -58.
   - 1,2 PCP exceeded the ITSL in VW-5 and -61.

2.2.3 EXISTING VAPOR WELL MONITORING NETWORK

1. The current vapor well network as shown in Figure 2.3 is comprised of the following wells:
   - VW-01 through VW-26 installed by EPA in 1989 as part of the RI.
   - VW-27 through VW-55 installed by WDIG in 1998 as part of the RD Investigative Activities Workplan.
   - VW-54 through VW-63 installed by EPA in 1998 as part of RD Investigative Activities Workplan.

2. Table 2.1 provides a summary of the construction details for the current vapor well network.

3. Vapor Wells VW-01 through -26 were completed to a depth of approximately 30 feet and are screened from 5 to 30 feet. Therefore, these wells are screened through the fill, sump-like and the native material. Refer to Appendix A for copies of boring logs and vapor well construction details.

4. Vapor Wells VW-27 through VW-63 are multi-nested wells (i.e., 2 or 3 probes) and are completed and screened through either shallow fill, sump-like or native material. Refer to Appendix A for copies of boring logs and vapor well construction details.

3.0 SOIL GAS SAMPLING AND ANALYSIS METHODS

1. In February 1998, WDIG began quarterly soil gas monitoring. The soil gas monitoring would be used to gather additional data to determine if soil gas was migrating vertically into local businesses or horizontally towards offsite migration.

2. As required by EPA, WDIG generated generated a Field Sampling and Analysis Plan (FSAP) (TRC, 1997c) and Quality Assurance Project Plan (QAPP) (1997d) to support the monitoring activities.

3.1 SOIL GAS FIELD MONITORING PROCEDURES

1. To monitor the soil gas conditions, prior to collecting a vapor well sample (i.e., summa canister) for laboratory analysis, field monitoring parameters were collected using field instrumentation (Foxboro TVA - 1000 photo ionization detector/flame ionization detector [PID/FID] and Landtec GEM-500). The parameters included the following:
   - Methane
   - Oxygen
   - Carbon Dioxide
   - VOCs

2. The purpose of collecting this information is to confirm that a representative soil gas sample is being collected.

3.2 SOIL GAS SAMPLING PROCEDURES

1. A detailed outline of the sampling process is provided below:
   - Required equipment and materials:
     - LANDTEC GEM-500 or GA 90 landfill gas monitor.
     - Foxboro TVA-1000 PID/FID combination air monitor with sample dilution capability.
     - In-line filters and moisture trap.
     - Dwyer magnehelic pressure gauges (various ranges).
     - One vacuum pump.
     - One stainless steel tee with tubing adapters.
     - Two stainless steel adapters to connect summa canisters to the well lead.
     - 100 feet various 1/4- and 1/2-inch-diameter Tygon tubing.
     - Barometer.
     - Timer/stop watch.
     - Gas collection well monitoring data sheets.
     - 6-liter summa canisters.

- Preliminary inspection procedures:
  - Lab cocks in place.
  - Well box labeled.
  - Surface completion intact.
  - Check all valve positions.
  - Repair of leaks and replacement of missing or damaged fittings was also done at this time.
- Measure static pressure conditions as follows:
  - Using the appropriate magnehelic gauge and Tygon tubing, attach the magnehelic to the well head lab cock. Record the initial static pressure on the field data sheet.
- Measure ambient air temperature and barometric pressure conditions as follows:
  - The ambient air temperature and barometric pressure is recorded using a portable thermometer and barometer. Record information on the field data sheet.
- Measure preliminary gas composition conditions as follows:
  - The LANDTEC GEM-500 or GA-90 is connected to the well lab cock using Tygon tubing and an in-line filter. The lab cock is opened and the well gas composition is recorded on the field data sheet after the readings reach equilibrium (approximately 2 minutes).
  - The lab cock and tubing are removed.
  - The vacuum pump is connected to the well lab cock using Tygon vacuum tubing and the pump started.
  - The pressure gauge started on the pump is checked for a full vacuum and any leaks repaired.
  - The inlet line also contained a tee with an in-line thermometer to measure the gas temperature during purging, a flow meter to measure gas flow and a water trop.
  - The vacuum outlet line also contained a tee to connect the GEM-500 and PID/FID to monitor the gas composition during purging.
  - The well lab cock is opened and the well purged three well volumes.
  - The gas composition readings are recorded on the field data sheet.
  - Increases in pressure in line from the gauge on the vacuum pump are noted.
  - The lab cock is closed and the Tygon removed. The line is purged with ambient air until the monitoring instrument readings return to ambient conditions, then the pump is turned off.
- Sampling procedures are as follows:
  - The well gas static pressure is monitored and recorded on the field data sheet. If the pressure does not return to the initial pressure, the pressure is rechecked later.
  - A summa canister is connected to the lab cock using Tygon tubing and the canister filled to capacity.
  - The canister is sealed by closing the valve and replacing the cap.

- Duplicate or split samples are collected for QA/QC and for the oversight agency. Both canisters are sampled simultaneously.
- The tubing is discarded after each well sample.
- The use of generators, vehicles or other potential sources of contamination upwind is limited during sampling.

- The samples are collected and delivered to the laboratory, via courier, and analyzed using the methods noted below.
- As required by the FSAP (TRC, 1997c) and QAPP (December, 1997d), field blanks and field duplicates were collected as required. The frequency and type of QA/QC sampling is discussed in Chapter 5.0.

2. The organic analyses of the vapor well samples (including QC samples) were performed by Performance Analytical, Inc., Canoga Park, California. These samples were collectively analyzed for volatiles by EPA Method TO-14 and for methane and total gaseous nonmethane organic compounds by EPA Method 25C using either a FID or a thermal conductivity detector (methane only).

4.0 SOIL GAS MONITORING RESULTS AND DATA EVALUATION

1. The data provided in this report is based on four quarters of sampling events (February 1998 through October 1998 timeframe). The data was collected using the procedures summarized in Chapter 3.0 and as indicated in the Subsurface Gas Quarterly Monitoring Plan and the relevant FSAP and QAPP documents.

2. Results of the soil gas monitoring are summarized by site area, as shown in Figure 2.3. The summary for each area is divided into the following sections below:
   - Shallow Vapor Wells
   - Intermediate Vapor Wells
   - Deep Vapor Wells
   - RI Vapor Wells

3. The results of the field monitoring activities as described in Section 3.1, will not be addressed in this report with the exception where significant differences occurred between the laboratory and field results. The results of the field monitoring are provided as field notes in Appendix B (CD-ROM).

4.1 SOIL VAPOR MONITORING RESULTS

1. Tables 4.1 through 4.4 summarize the analytical results for each sampling event conducted during 1998 for COCs with ITSLs. Laboratory reports and supporting QA documentation are provided in Appendix C. In addition, summary tables listing the complete set of analytes are provided at the beginning of each set of laboratory reports in Appendix C.

2. The following subsections summarizes the COCs with ITSLs for soil gas monitoring and are separated by area and zone of monitoring (i.e., shallow, intermediate and deep). RI vapor well results are also included.

4.1.1 AREA 1 MONITORING LOCATIONS

4.1.1.1 Shallow Vapor Wells

1. The following laboratory results were observed for shallow vapor wells in Area 1 (see Figure 4.3 for well locations):
   - **Methane**
     - All shallow vapor wells had detectable methane concentrations with the exception of VW-40, -46 and -62 which exceeded the ITSL

TRC

(12,500 ppm) with concentrations of 15,000 parts per million (ppm), 46,500 ppm and 28,000 ppm, respectively.

- **Benzene**
  - VWs -36 through -40, -44, -46, -62 and -63 detected benzene ranging from 0.61 parts per billion (ppb) to 28 ppb. Benzene was not detected above the laboratory reporting limit for VW-35. The ITSL for benzene is 200 ppb.
- **Vinyl Chloride**
  - Vinyl chloride concentrations were below laboratory reporting limits for the shallow vapor wells. The ITSL for vinyl chloride of 25 ppb.

2. As shown in Table 4.5, the only ITSL exceedance in the Area 1 shallow vapor wells was for methane (VW-40, -46 and -62).

3. The following COCs with ITSLs were not detected above the laboratory reporting limits:
   - Acetone
   - Dibromoethane
   - 1,2-Dichloropropane
   - 1,1,2-Trichlorethane

4.1.1.2 Intermediate Vapor Wells

1. The following laboratory results were observed for the intermediate vapor wells (VW-44, -46, -62 and -63) in Area 1:
   - **Methane**
     - VW-44 and -62 indicated concentrations above the reporting limit for methane ranging from 3.1 ppm to 2,000 ppm. The remaining wells were below detection limits. There were no exceedances of the ITSL for methane.
   - **Benzene**
     - VW-44 showed concentrations of benzene ranging from 0.98 ppb to 1.0 ppb). There were no exceedances of the ITSL for benzene. The remaining wells were below detection limits for benzene.
   - **Vinyl Chloride**
     - VW-44 and -62 show concentrations above the reporting limit for vinyl chloride ranging from 1.7 ppb to 14 ppb. The remaining wells were below detection limits for vinyl chloride. No exceedances of ITSL for vinyl chloride were observed.

2. As shown in Table 4.5, ITSL exceedances were not observed in Area 1 intermediate vapor wells.

3. The following COCs with ITSLs were not detected above the laboratory reporting limits:

- Carbon Tetrachloride
- Chloroethane
- Dibromoethane
- cis-1,2-Dichloroethane
- trans-1,2-Dichloroethene
- 1,1,2-Trichlorethane

4.1.1.3 Deep Vapor Wells

1. The following laboratory results were observed for deep vapor wells in Area 1:

- **Methane**
  - Methane concentrations were below laboratory reporting limits for deep vapor wells. VW-35, -37, -38, -39, -44 and -62 had methane levels ranging from 0.59 ppm to 8,000 ppm. There were no exceedances of the ITSLs for methane.
- **Benzene**
  - Benzene concentrations were below laboratory reporting limits for the deep vapor wells VW-36, -38, -40, -44, -46, -62 and -63. Benzene levels in VW-35, -37 and -39 ranged from 0.8 ppb to 1.6 ppb.
- **Vinyl Chloride**
  - VW-44 showed concentrations for vinyl chloride ranging from 50 ppb to 59 ppb. VW-35 showed concentrations of vinyl chloride ranging from 3.7 ppb to 26 ppb. The remaining wells were below detection limits.

2. VW-35 showed an ITSL exceedance for Trichlorethane (TCE) (ITSL is 822 ppb). TCE levels ranged from 1,200 ppb to 1,700 ppb during the 1998 monitoring period. Refer to Table 4.5 for all ITSL exceedances in Area 1 deep vapor wells.

3. The following COCs with ITSLs were not detected above the laboratory reporting limits:

- Carbon Tetrachloride
- Chloroethane
- Dibromoethane
- trans-1,2-Dichloroethene
- 1,1,2-Trichlorethane

4.1.1.4 RI Vapor Wells

1. The following laboratory results were observed for RI vapor wells in Area 1:

- **Methane**
  - VW-11 showed concentrations ranging from 15,000 ppm to 18,000 ppm. VW-17 showed no concentrations of methane above the reporting limit. The remaining vapor wells were below the ITSL.

- **Benzene**
  - VW-18 showed concentrations ranging from 420 ppb to 1,600 ppb. The remaining wells ranged from 0.83 ppb to 110 ppb.
- **Vinyl Chloride**
  - VW-10 and VW-11 showed concentrations (above the ITSL) ranging from 1.6 to 160 ppb. The remaining wells were below the detection limits.

2. As shown in Table 4.5, VW-10, -11 and –18 were the only RI vapor wells to have ITSL exceedances.

3. The following COCs with ITSLs were not detected above the laboratory reporting limits:
   - Carbon Tetrachloride
   - Chloroethane
   - Dibromoethane
   - 1,2-Dichloroethane
   - 1,2-Dichloropropane
   - trans-1,2-Dichloroethene
   - 1,1,2-Trichlorethane

4.1.2 AREA 2 MONITORING LOCATIONS

4.1.2.1 Shallow Vapor Wells

1. The following laboratory results were observed for shallow vapor wells in Area 2 (See Figure 4.4 for well locations):
   - **Methane**
     - All shallow vapor wells detected methane concentrations above laboratory reporting limit ranging from 0.5 to 3.9 ppm.
     - VW-45 and -48 methane concentrations ranged from 155,000 ppm to 365,000 ppm, exceeding the ITSL. The remaining wells had methane levels ranging from 0.59 to 160 ppm.
   - **Benzene**
     - VW-45 and -48 benzene concentrations ranged from 9.9 ppb to 32,000 ppb, exceeding the ITSL. The remaining wells ranged from nondetect to 1.7 ppb.
   - **Vinyl Chloride**
     - VW-45 and -48 were the only wells to show concentrations of vinyl chloride above the ITSL, ranging from 55 ppb to 140,000 ppb. VW-41, -42, and -47 showed no detectable levels of vinyl chloride. VW-43 vinyl chloride levels ranged from nondetect to 2.5 ppb.

2. The following ITSL exceedances were observed in the Area 2 shallow well (VW-45):

   - Trans-1,2-DCE (9,700 ppb)
   - cis-1,2-DCE (7,700 ppb)
   - Toluene (39,000 ppb)
   - m,p-Xylene (23,000 ppb)

   Table 4.5 summarizes the ITSL exceedances for Area 2 shallow vapor wells.

3. The following COCs with ITSLs were not detected above reporting the laboratory limits:

   - Carbon Tetrachloride
   - Chloroethane
   - Dibromoethane
   - 1,2-Dichloroethane
   - 1,1-Dichloroethane
   - 1,2-Dichloropropane
   - 1,1,2-Trichlorethane

4.1.2.2 Intermediate Vapor Wells

1. The following laboratory results were observed for intermediate vapor wells in Area 2:

   - **Methane**
     - VW-43, -45 and -48 showed methane concentrations ranged from 15,100 ppm to 592,000 ppm, above the ITSLs. VW-43 had methane levels of 15,100 ppm to 22,000 ppm. VW-45 methane levels ranged from 61,000 ppm to 101,000 ppm. VW-48 showed methane levels of 441,000 ppm to 589,000 ppm. The remaining wells ranged from nondetect to 7,300 ppm.
   - **Benzene**
     - VW-45 and -48 showed benzene concentrations ranged from 570 ppb to 6,700 ppb above the ITSL. VW-43 was below detection limits for benzene. The remaining wells ranged from nondetect to 12 ppb.
   - **Vinyl Chloride**
     - VW-43 vinyl chloride concentrations ranged from 120 ppb to 430 ppb. VW-45 vinyl chloride concentrations ranged from 380 ppb to 38,000 ppb. VW-41, -42 and -47 vinyl chloride concentrations were below detection limits. Vinyl chloride was not detected in VW-48, however the detection limits were generally very high due to the elevated methane levels.

2. As shown in Table 4.5, in addition to the ITSL exceedances noted above, VW-45 also exceeded the ITSLs for trans-1,2-DCE and cis-1,2-DCE.

3. The following COCs with ITSLs were not detected above laboratory reporting limits:
   - Carbon Tetrachloride
   - Dibromoethane
   - 1,1-Dichloroethane
   - 1,1,2-Trichlorethane

4.1.2.3 Deep Vapor Wells

1. The following laboratory results were observed for deep vapor wells in Area 2:
   - **Methane**
     - VW-43, -45 and -48 methane concentrations ranged from 14,100 ppm to 37,000 ppm exceeding the ITSLs. VW-41 and -42 methane levels were below detection limits. VW-47 methane levels ranged from 0.58 to 2,300 ppm.
   - **Benzene**
     - VW-41, -42, -43, -45, -47 and -48 benzene concentrations were below detection limits.
   - **Vinyl Chloride**
     - VW-43 vinyl chloride concentrations ranged from 220 ppb to 530 ppb. VW-41, -42, -45, -47 and -48 were below detection limits for vinyl chloride.

2. No other exceedances of the ITSL were observed in the Area 2 deep wells with the exception of the exceedances noted above.

3. The following COCs with ITSLs were not detected above the laboratory reporting limits:
   - Carbon Tetrachloride
   - Chloroethane
   - Chloroform
   - Dibromoethane
   - 1,2-Dichloropropane
   - 1,1,2-Trichlorethane
   - 1,1,1-Trichloroethane

4.1.2.4 RI Vapor Wells

1. The following laboratory results were observed for RI vapor wells in Area 2:
   - **Methane**
     - VW-02, -03 and -04 showed methane concentrations ranging from 14,000 ppm to 130,000 ppm. The remaining wells showed concentrations ranging from 0.76 ppm to 10,000 ppm.

- **Benzene**
  - VW-04 benzene concentrations were detected up to 830 ppb. The remaining wells were below detection levels.
- **Vinyl Chloride**
  - VW-04 and -08 vinyl chloride concentrations ranged from 82 ppb to 280 ppb. The remaining wells were below detection limits.

2. As shown in Table 4.5, with the exception of the ITSL exceedances noted above, no other exceedances were observed.

3. The following constituents with COCs with ITSLs were not detected above the laboratory reporting limits:
   - Acetone
   - Carbon Tetrachloride
   - Chloroethane
   - Chloroform
   - Dibromoethane
   - 1,2-Dichloroethane
   - cis-1,2-Dichloroethane
   - 1,1-Dichloroethane
   - 1,2-Dichloropropane
   - trans-1,2-Dichloroethene
   - Ethylbenzene
   - Tetrachloroethene (Perc)
   - Toluene
   - 1,1,2-Trichlorethane
   - 1,1,1-Trichloroethane
   - Trichloroethene
   - m,p-Xylene
   - o-Xylene

4.1.3 AREA 3 MONITORING LOCATIONS

4.1.3.1 Shallow Vapor Well

1. The following laboratory results were observed for shallow vapor well (VW-28) in Area 3 (see Figure 4.5 for well location):
   - **Methane**
     - VW-28 showed no methane levels above the reporting limits.
   - **Benzene**
     - VW-28 showed no benzene levels above the reporting limits.
   - **Vinyl Chloride**
     - VW-28 showed no vinyl chloride levels above the reporting limits.

2. Additional ITSL exceedances were not observed in the Area 3 shallow vapor well.

3. The following COCs with ITSLs were not detected above the laboratory reporting limits:

- Carbon Tetrachloride
- Chloroethane
- Dibromoethane
- 1,2-Dichloroethane
- cis-1,2-Dichloroethane
- 1,1-Dichloroethane
- 1,2-Dichloropropane
- trans-1,2-Dichloroethene
- Ethylbenzene
- 1,1,2-Trichlorethane
- 1,1,1-Trichloroethane

4.1.3.2 Intermediate Vapor Wells

1. Area 3 does not contain any intermediate vapor wells.

4.1.3.3 Deep Vapor Well

1. The following laboratory results were observed for deep vapor well (VW-28) in Area 3:

- **Methane**
  - VW-28 showed no methane levels above the reporting limits.
- **Benzene**
  - VW-28 showed no benzene levels above the reporting limits.
- **Vinyl Chloride**
  - VW-28 showed no vinyl chloride levels above the reporting limits.

2. Additional ITSL exceedances were not observed in the Area 3 deep well.

3. The following COCs with ITSLs were not detected above the laboratory reporting limits:

- Carbon Tetrachloride
- Chloroethane
- Dibromoethane
- 1,2-Dichloroethane
- cis-1,2-Dichloroethane
- 1,1-Dichloroethane
- 1,2-Dichloropropane
- trans-1,2-Dichloroethene
- Ethylbenzene
- 1,1,2-Trichlorethane
- 1,1,1-Trichloroethane
- Trichloroethene

4.1.3.4 RI Vapor Wells

1. Area 3 does not contain any RI vapor wells.

4.1.4 AREA 4 MONITORING LOCATIONS

4.1.4.1 Shallow Vapor Well

1. The following laboratory results were observed for the shallow vapor well (VW-29) in Area 4 (see Figure 4.5 for well location):
   - **Methane**
     - VW-29 methane levels ranged from 0.99 ppm to 1.2 ppm.
   - **Benzene**
     - VW-29 benzene levels ranged from nondetect to 1.3 ppb.
   - **Vinyl Chloride**
     - VW-29 vinyl chloride levels were below detection limits.

2. Additional ITSL exceedances were not observed in the Area 4 shallow vapor well.

3. The following COCs with ITSL were not detected above the laboratory reporting limits:
   - Carbon Tetrachloride
   - Chloroethane
   - Dibromoethane
   - 1,2-Dichloroethane
   - cis-1,2-Dichloroethane
   - 1,1-Dichloroethane
   - 1,2-Dichloropropane
   - trans-1,2-Dichloroethene
   - 1,1,2-Trichlorethane
   - Trichloroethene

4.1.4.2 Intermediate Vapor Well

1. The following laboratory results were observed for intermediate vapor well (VW-29) for Area 4:
   - **Methane**
     - VW-29 methane levels were below detection limits.
   - **Benzene**
     - VW-29 benzene levels ranged from nondetect to 1.3 ppb.
   - **Vinyl Chloride**
     - VW-29 vinyl chloride levels were below detection limits.

2. ITSL exceedances were not observed in the Area 4 intermediate vapor well (refer to Table 4.5).

3. The following COCs with ITSLs were not detected above the laboratory reporting limits:
   - Chloroethane
   - Chloroform
   - Dibromoethane
   - 1,2-Dichloroethane
   - cis-1,2-Dichloroethane
   - 1,1-Dichloroethane
   - 1,2-Dichloropropane
   - trans-1,2-Dichloroethene
   - 1,1,2-Trichlorethane
   - Trichloroethene

4.1.4.3 Deep Vapor Well

1. The following laboratory results were observed for the deep vapor well (VW-29) for Area 4:
   - **Methane**
     - VW-29 methane levels ranged from 0.71 ppm to 1.3 ppm.
   - **Benzene**
     - VW-29 benzene levels were below detection limits.
   - **Vinyl Chloride**
     - VW-29 vinyl chloride levels were below reporting limits.

2. ITSL exceedances were not observed in the Area 4 deep well, as shown in Table 4.5.

3. The following COCs with ITSLs were not detected above the laboratory reporting limits:
   - Carbon Tetrachloride
   - Chloroethane
   - Dibromoethane
   - 1,2-Dichloroethane
   - cis-1,2-Dichloroethane
   - 1,1-Dichloroethane
   - 1,2-Dichloropropane
   - trans-1,2-Dichloroethene
   - Ethylbenzene
   - 1,1,2-Trichlorethane
   - o-Xylene

4.1.4.4 RI Vapor Well

1. The following laboratory results were observed for the RI vapor well (VW-06) for Area 4:
   - **Methane**
     - Methane concentrations ranged from 1.9 ppm to 53,000 ppm.
   - **Benzene**
     - VW-06 benzene levels ranged from nondetect to 0.87 ppb.
   - **Vinyl Chloride**
     - Vinyl chloride concentrations ranged from 3.3 ppb to 55 ppb, exceeding the ITSL.

2. ITSL exceedances were not observed in the Area 4 RI vapor well (refer to Table 4.5).

3. The following COCs with ITSLs were not detected above the laboratory reporting limits:
   - Carbon Tetrachloride
   - Chloroethane
   - Chloroform
   - Dibromoethane
   - 1,2-Dichloroethane
   - cis-1,2-Dichloroethane
   - 1,1-Dichloroethane
   - 1,2-Dichloropropane
   - trans-1,2-Dichloroethene
   - Ethylbenzene
   - 1,1,2-Trichlorethane
   - 1,1,1-Trichloroethane

4.1.5 AREA 5 MONITORING LOCATIONS

4.1.5.1 Shallow Vapor Wells

1. The following laboratory results were observed for the shallow vapor wells for Area 5 (see Figure 4.5 for well locations):
   - **Methane**
     - Methane levels in the Area 5 shallow wells ranged from 1.1 to 90 ppm.
   - **Benzene**
     - Benzene levels were below detection limits in the Area 5 shallow wells.
   - **Vinyl Chloride**
     - Vinyl chloride levels were below detection limits in the shallow wells.

2. ITSL exceedances were not observed in the Area 5 shallow vapor well (refer to Table 4.5).

3. The following COCs with ITSLs were not detected above the laboratory reporting limits:
   - Carbon Tetrachloride
   - Chloroethane
   - Dibromoethane
   - 1,2-Dichloroethane
   - 1,2-Dichloropropane
   - trans-1,2-Dichloroethene
   - Ethylbenzene
   - 1,1,2-Trichloroethane
   - o-Xylene

4.1.5.2 Intermediate Vapor Wells

1. The following laboratory results were observed for the intermediate vapor wells for Area 5:
   - **Methane**
     - VW-51 methane concentrations ranged from 234,000 ppm to 386,000 ppm above the ITSL. VW-30 methane levels ranged from 14 ppm to 12,000 ppm. MP-1 levels ranged from 73,200 ppm to 857,000 ppm. MP-2 levels ranged from 3,000 ppm to 840,000 ppm.
   - **Benzene**
     - VW-30 benzene levels were below detection limits. VW-51 benzene concentrations were above the ITSL ranging from 410 ppb to 6,500 ppb. MP-1 ranged from 100 ppb to 420 ppb. MP-2 ranged from 1,300 ppb to 60,000 ppb.
   - **Vinyl Chloride**
     - VW-30 vinyl chloride levels ranged from nondetect to 1.3 ppb. VW-51, MP-1 and MP-2 vinyl chloride levels were below detection limits.

2. Additional ITSL exceedances were not observed in the Area 5 intermediate wells, as shown in Table 4.5.

3. The following COCs with ITSLs were not detected above the laboratory reporting limits:
   - Acetone
   - Carbon Tetrachloride
   - Dibromoethane
   - 1,2-Dichloroethane
   - 1,2-Dichloropropane
   - 1,1,2-Trichlorethane

4.1.5.3 Deep Vapor Wells

1. The following laboratory results were observed for deep vapor wells for Area 5:
   - **Methane**
     - VW-30 methane concentrations ranged from 1,200 ppm to 13,000 ppm slightly above the ITSL of 12,500 ppm. VW-51 methane levels ranged from 41,000 ppm to 327,000 ppm.
   - **Benzene**
     - VW-51 benzene concentrations ranged from 27 ppb to 310 ppb. VW-30 levels were below detection limits for benzene.
   - **Vinyl Chloride**
     - VW-51 vinyl chloride concentrations ranged from 20 ppb to 82 ppb. VW-30 levels were below reporting limits.

2. In addition to the above ITSL exceedances, VW-51 also showed a single exceedance for PCE as shown in Table 4.5.

3. The following COCs with ITSLs were not detected above the laboratory reporting limits:
   - Acetone
   - Carbon Tetrachloride
   - Chloroethane
   - Dibromoethane
   - 1,2-Dichloroethane
   - 1,2-Dichloropropane
   - 1,1,2-Trichloroethane
   - o-Xylene

4.1.5.4 RI Vapor Wells

1. Area 5 does not contain RI vapor wells.

4.1.6 AREA 6 MONITORING LOCATIONS

4.1.6.1 Shallow Vapor Well

1. The following laboratory results were observed for the shallow vapor well (VW-31) for Area 6 (see Figure 4.6 for well locations):
   - **Methane**
     - Methane levels in VW-31 ranged from 0.69 ppm to 0.73 ppm.
   - **Benzene**
     - Benzene levels in VW-3 were below detection limits.
   - **Vinyl Chloride**
     - Vinyl chloride levels in VW-31 were below detection limits.

2. As shown in Table 4.5, ITSL exceedances were not observed in the Area 6 shallow vapor well.

3. The following COCs with ITSLs were not detected above the laboratory reporting limits:
   - Carbon Tetrachloride
   - Chloroethane
   - Dibromoethane
   - cis-1,2-Dichloroethane
   - 1,1-Dichloroethane
   - 1,2-Dichloropropane
   - trans-1,2-Dichloroethene
   - 1,1,2-Trichlorethane

4.1.6.2 Intermediate Vapor Wells

1. Area 6 does not contain intermediate vapor wells.

4.1.6.3 Deep Vapor Well

1. The following laboratory results were observed for the deep vapor well (VW-31) for Area 4:
   - **Methane**
     - VW-31 methane levels ranged from 0.55 ppm to 0.75 ppm.
   - **Benzene**
     - VW-31 methane levels ranged from nondetect to 0.22 ppb.
   - **Vinyl Chloride**
     - VW-31 vinyl chloride levels were below detection limits.

2. As shown in Table 4.5, ITSL exceedances were not observed in the Area 6 deep vapor well.

3. The following COCs with ITSLs were not detected above the laboratory reporting limits:
   - Acetone
   - Carbon Tetrachloride
   - Chloroethane
   - Chloroform
   - Dibromoethane
   - 1,2-Dichloroethane
   - cis-1,2-Dichloroethane
   - 1,1-Dichloroethane
   - 1,2-Dichloropropane
   - trans-1,2-Dichloroethene
   - Ethylbenzene
   - Tetrachloroethene (Perc)
   - Toluene
   - 1,1,2-Trichlorethane
   - 1,1,1-Trichloroethane

- Trichloroethene
- m,p-Xylene
- o-Xylene

4.1.6.4 RI Vapor Well

1. The following laboratory results were observed for the RI vapor well (VW-12) for Area 6:
   - **Methane**
     - Methane levels in VW-12 ranged from 0.69 ppm to 0.72 ppm.
   - **Benzene**
     - Benzene levels in VW-12 were below detection limits.
   - **Vinyl Chloride**
     - Vinyl chloride levels in VW-12 were below detection limits.

2. As shown in Table 4.5, ITSL exceedances were observed in the Area 6 RI well.

3. The following COCs with ITSLs were not detected above the laboratory reporting limits:
   - Carbon Tetrachloride
   - Chloroethane
   - Chloroform
   - Dibromoethane
   - 1,2-Dichloroethane
   - cis-1,2-Dichloroethane
   - 1,1-Dichloroethane
   - 1,2-Dichloropropane
   - trans-1,2-Dichloroethene
   - 1,1,2-Trichlorethane

4.1.7 AREA 7 MONITORING LOCATIONS

4.1.7.1 Shallow Vapor Wells

1. The following laboratory results were observed for the shallow vapor wells (VW-32 and -50) for Area 7 (see Figure 4.6 for well locations):
   - **Methane**
     - Methane levels in VW-32 and -50 ranged from 0.95 ppm to 6 ppm.
   - **Benzene**
     - Benzene levels in VW-32 were below detection limits. VW-50 benzene levels ranged from nondetect to 0.32 ppb. ITSL exceedance for benzene was not observed.
   - **Vinyl Chloride**
     - Vinyl chloride levels were below detection limits in both VW-32 and -50. ITSL exceedance for vinyl chloride was not observed.

2. As shown in Table 4.5, ITSL exceedances were not observed in the Area 7 shallow vapor well.

3. The following COCs with ITSLs were not detected above the laboratory reporting limits:
   - Carbon Tetrachloride
   - Chloroethane
   - Dibromoethane
   - 1,2-Dichloropropane
   - trans-1,2-Dichloroethene
   - 1,1,2-Trichlorethane

4.1.7.2 Intermediate Vapor Wells

1. The following laboratory results were observed for the intermediate vapor wells (VW-32 and -50) for Area 7:
   - **Methane**
     - Methane levels in VW-32 were below detection limits. VW-50 methane levels ranged from 0.93 ppm to 5.1 ppm.
   - **Benzene**
     - Benzene levels in VW-32 were below detection limits. VW-50 levels ranged from nondetect to 0.41 ppb.
   - **Vinyl Chloride**
     - Vinyl chloride levels were below detection limits in VW-32 and -50.

2. As shown in Table 4.5, ITSL exceedances were not observed in the Area 7 intermediate vapor well.

3. The following COCs with ITSLs were not detected above the laboratory reporting limits:
   - Carbon Tetrachloride
   - Dibromoethane
   - 1,2-Dichloropropane
   - trans-1,2-Dichloroethene
   - 1,1,2-Trichlorethane

4.1.7.3 Deep Vapor Wells

1. The following laboratory results were observed for the deep vapor wells (VW-32 and -50) for Area 7 (see Figure 4.6 for well locations):
   - **Methane**
     - Methane levels in VW-32 and -50 ranged from nondetect to 0.93 ppb.

- **Benzene**
  - Benzene levels in VW-32 and -50 ranged from nondetect to 0.93 ppb.
- **Vinyl Chloride**
  - Vinyl chloride levels were below detection limits in both VW-32 and -50.

2. As shown in Table 4.5, ITSL exceedances were not observed in the Area 7 deep vapor well.

3. The following COCs with ITSLs were not detected above the laboratory reporting limits:
   - Carbon Tetrachloride
   - Chloroethane
   - Dibromoethane
   - 1,2-Dichloropropane
   - trans-1,2-Dichloroethene
   - Ethylbenzene
   - 1,1,2-Trichlorethane

4.1.7.4 RI Vapor Wells

1. The following laboratory results were observed for RI vapor wells (VW-25 and -26) for Area 7 (see Figure 4.6 for well locations):
   - **Methane**
     - VW-25 methane concentration exceeded the ITSL ranged from 65,000 ppm to 507,000 ppm. VW-26 methane levels ranged from 0.8 to 1.3 ppm.
   - **Benzene**
     - Benzene levels in VW-25 were below detection limits. VW-26 benzene levels ranged from 0.94 ppb to 1.1 ppb.
   - **Vinyl Chloride**
     - Vinyl chloride levels were below detection limits in both VW-25 and -26.

2. As shown in Table 4.5, additional ITSL exceedances were not observed in the Area 7 RI vapor well. VW-25 may have been affected by recent SVE treatability studies conducted in Area 7.

3. The following COCs with ITSLs were not detected above the laboratory reporting limits:
   - Carbon Tetrachloride
   - Chloroethane
   - Dibromoethane

- 1,2-Dichloroethane
- 1,2-Dichloropropane
- 1,1,2-Trichloroethane

4.1.8 AREA 8 MONITORING LOCATIONS

4.1.8.1 Shallow Vapor Wells

1. The following laboratory results were observed for the shallow vapor wells for Area 8 (see Figure 4.7 for well locations):
   - **Methane**
     - VW-55 methane concentration exceeded the ITSL with levels up to 119,000 ppm. The remaining wells ranged from 0.79 ppm to 4,400 ppm.
   - **Benzene**
     - VW-27, -33, -49, -55, -59, -60 and -61 were below detection levels for benzene. VW-34, -52, -53, -56, -57 and -58 benzene levels ranged from 0.79 ppb to 26 ppb.
   - **Vinyl Chloride**
     - Vinyl chloride levels in VW-53 and -56 ranged from 14 ppb to 18 ppb. Vinyl chloride levels in the remaining wells were below detection limits.

2. As shown in Table 4.5, in addition to the ITSL exceedances noted above VW-58 also showed a single exceedance for TCE (3,200 ppb).

3. The following COCs with ITSLs were not detected above the laboratory reporting limits:
   - Carbon Tetrachloride
   - Dibromoethane
   - 1,1,2-Trichlorethane

4.1.8.2 Intermediate Vapor Wells

1. The following laboratory results were observed for the intermediate vapor wells for Area 8:
   - **Methane**
     - VW-58 was below detection limits for methane. The remaining intermediate wells ranged from nondetect to 9,930 ppm methane.
   - **Benzene**
     - VW-27, -49, -52, -54, -55, -57 and -61 showed benzene levels from 0.93 ppb to 2.0 ppb. VW-34, -53, -58, -59 and -60 were below detection limits.

- **Vinyl Chloride**
  - VW-53, -55 and -61 showed vinyl chloride levels from 21 ppb to 87 ppb. The remaining wells were below detection limits.

2. As shown in Table 4.5, VW-53 and VW-58 have shown an ITSL exceedance for TCE (1,000 ppb and 5,400 ppb).

3. The following COCs with ITSLs were not detected above the laboratory reporting limits:
   - Carbon Tetrachloride
   - Dibromoethane
   - 1,2-Dichloroethane
   - 1,1,2-Trichlorethane

4.1.8.3 Deep Vapor Wells

1. The following laboratory results were observed for the deep vapor wells for Area 8:
   - **Methane**
     - VW-27 and -60 were below detection limits for methane. The remaining wells ranged from 0.53 ppb to 8,760 ppb.
   - **Benzene**
     - VW-27, -33, -54, -55, -56 and -59 showed benzene levels ranging from 1.1 ppb to 8.7 ppb. The remaining wells were below detection limits.
   - **Vinyl Chloride**
     - VW-53 and VW-55 vinyl chloride concentrations exceeded the ITSL with levels ranging from 7.0 ppb to 82 ppb. The remaining wells were below detection limits for vinyl chloride.

2. As shown in Table 4.5, in addition to the ITSL exceedance noted above VW-53, -57 and -58 have shown TCE exceedance levels (840, 890 and 4,100 respectively).

3. The following COCs with ITSLs were not detected above the laboratory reporting limits:
   - Carbon Tetrachloride
   - Chloroethane
   - Dibromoethane
   - 1,1,2-Trichlorethane

4.1.8.4 RI Vapor Wells

1. The following laboratory results were observed for RI vapor wells for Area 8:

- **Methane**
  - VW-13 methane concentrations exceeding the ITSL ranged from 13,000 ppm to 13,800 ppm. VW-14, -20, -21, -22, -23 and -24 showed concentrations of methane ranging from nondetect to 4,400 ppm.
- **Benzene**
  - VW-13, -14, -23 and -26 showed benzene levels ranging from 0.39 ppb to 37 ppb. The remaining wells were below detection limits.
- **Vinyl Chloride**
  - VW-13, -14 and -23 vinyl chloride concentrations exceeding the ITSL ranged from 26 ppb to 370 ppb. The remaining wells were below the detection limits.

2. As shown in Table 4.5, in addition to the ITSL exceedances noted above VW-22 showed a consistent exceedance for TCE (850 to 3,200 ppb).

3. The following COCs with ITSLs were not detected above the laboratory reporting limits:
   - Carbon Tetrachloride
   - Dibromoethane
   - 1,1,2-Trichlorethane

4.2 SUMMARY OF MONITORING RESULTS

1. Based on the results presented in Chapter 4.0, the following provides a brief summary of the significant results by area.

   Area 1:

   - Methane levels exceed the ITSL, but are below the California IWMB methane standard of 5 percent.
   - Benzene and vinyl chloride levels exceed the ITSL in limited area (VW-10, VW-18 and VW-44).
   - TCE exceeds the ITSLs in one well (VW-35) presumably from local business disposal activities or from the past Toxco facility.

   Area 2:

   - Methane levels in Area 2 exceed the ITSL, generally in proximity to the reservoir.
   - No perimeter exceedances were observed along the northern fenceline adjacent to the high school and Fedco.
   - Exceedances in benzene and vinyl chloride were consistent with prior investigation, and will be addressed as part of the remedial activities.

Area 3:

- Only one exceedance was observed for methane and vinyl chloride, during the second quarter monitoring. Levels have decreased in subsequent sampling.

Area 4:

- No soil gas ITSL exceedance were observed.

Area 5:

- Exceedance of the ITSLs for methane, benzene and vinyl chloride were generally observed in the intermediate wells installed in the waste. Some exceedances were observed in the deeper wells. However, the perimeter wells were below the action limits.

Area 6:

- No soil gas ITSLs exceedance were observed.

Area 7:

- In Area 7, one well, VW-35 which is screened through a waste zone, has shown variable methane levels exceeding the ITSLs. The remainder of the Area 7 wells are well below action limits.

Area 8:

- Area 8 monitoring results have shown a significant difference between Area 8 and the other areas of the site.
  - The results in Area 8 show primarily exceedance of ITSLs for chlorinated solvent. This is probably due to prior disposal activities by local businesses or from the prior Toxco facility.

Additional discussions of the results, and recommendations for future monitoring activities is presented in Chapter 6.0.

5.0 QUALITY ASSURANCE/QUALITY CONTROL

1. Soil gas monitoring has been performed by WDIG as part of the 1997 RD Investigative Activities Workplan and Comprehensive Subsurface Gas Quarterly Monitoring Plan (Workplan) (TRC, 1997e). The QAPP, which is provided in the Workplan as Appendix B, outlines the procedures to be used to assure that field investigation activities provide accurate and representative data and the design calculations and drawings are complete and correct. The QAPP was approved by EPA on September 12, 1997.

2. The following sections briefly review the QA/QC field and reporting procedures for the Quarterly Subsurface Gas Monitoring Program. Section 5.2 discusses the data and its compliance with QAPP requirements.

5.1 SOIL GAS MONITORING FIELD AND LABORATORY QA/QC PROCEDURES

5.1.1 FIELD QA/QC PROCEDURES

1. As discussed in Chapter 3.0, field data is collected on the following parameters using field instrumentation (Foxboro TVA-1000 PID/FID and GEM-500):
   - Methane
   - Oxygen
   - Carbon dioxide
   - VOCs

2. The purpose of collecting this information is to confirm that a representative soil gas sample is being collected.

3. Field instruments are calibrated and maintained using the procedures outlined in the Standard Operating Procedures (SOP) B of the QAPP.

5.1.2 LABORATORY QA/QC PROCEDURES

1. Table 5.1 provides a summary of the Data Quality Objectives (DQA) for the subsurface gas monitoring program. Based on these requirements, relevant QA/QC levels were established.

2. Table 5.2 provides a summary of the field collection QA requirements (i.e., collection of trip blanks, field blanks, field duplicates and matrix spikes and matrix spike duplicates) for the vapor well samples.

3. All vapor well samples are to be collected and submitted to the laboratory under a chain-of-custody, as indicated in SOP I of the QAPP.

4. Table 5.3 provides a summary of Laboratory QA/QC analysis limits for the soil gas samples. This table indicates guidelines for detection limits, accuracy, precision and completeness for each analyte. Table 5.3 also specifies the sample container types, the preservation system and the maximum allowable holding time.

5. Table 5.4 provides a summary of the relevant internal laboratory QA requirements for the vapor well samples, which include calibration requirements, blank analyses, method blanks, matrix spike and matrix spike duplicates and surrogate compound requirements.

5.2 QA/QC FIELD AND LABORATORY DATA EVALUATION

5.2.1 FIELD DATA EVALUATION

1. As part of the field data collection, the field instrumentation was calibrated on a regular basis, as required by the QAPP. Appendix B provides the calibration records for the field monitoring activities. Based on these records, the calibration requirements have been achieved.

5.2.2 LABORATORY DATA ANALYSES

1. The evaluation of the laboratory data is divided into two areas. The first area is data inspection which evaluates the following elements as shown in Table 5.3.
   - Detection Limits
   - Accuracy
   - Precision
   - Completeness
   - Container Type
   - Preservation
   - Holding

2. The second level of evaluation is the formal data validation process. In this process, each data point is evaluated for its adherence with all of the project QA/QC requirements. The results of the formal data validation activities are presented in Chapter 4.0.

3. The data presented in Chapter 4.0, has been evaluated for its compliance with the requirements provided in Table 5.3. The results of the evaluation are provided in Table 5.5.

5.3 DATA VALIDATION RESULTS

1. Based on a comprehensive review of the Level IV deliverables with regard to holding times, blank analysis results, surrogate recoveries, duplicate recoveries, calibrations, retention time windows and shifts, laboratory control sample (LCS) recoveries, internal standard recoveries analytical sequence and instrument sensitivity, the data meets the general requirements for compliance, accuracy and precision.

2. Overall, the organic data quality for this data set was good. Reporting requirements were met for this data set. It should be noted that the data issues discussed below are clerical in nature and do not necessarily affect data usability.

3. With regard to data usability, the principal areas of concern include blank contamination, results exceeding the calibration range of the instrument, and low but acceptable precision between sample duplicates. It should be noted that the following data usability issues represent an interpretation of the QC results for the project samples. Quite often, data qualifications address issues relating to problems associated with the sample matrix. Similarly, the validation guidelines routinely specify areas of the data that require qualification for which the analytical methods applied do not require corrective action by the laboratory. Tables 5.6 and 5.7 provide a summary of the laboratory data qualifiers and field duplicate QA/QC evaluation.

4. Appendix D is provided on CD-ROM and includes a copy of the data validation reports for the soil gas monitoring conducted during 1998.

6.0 CONCLUSION AND RECOMMENDATIONS

6.1 CONCLUSIONS

1. Field monitoring is performed to provide immediate data on the vapor well conditions and to assure proper purging as discussed in Chapter 3.0. Due to its low specificity, field monitoring is not generally used for compliance monitoring. However, during the October 1998 monitoring period, the field monitoring results appear to overestimate the methane and VOC concentrations by approximately 10 percent. Figures 4.1 and 4.2, show the similarities in the field monitoring results versus the laboratory analytical results. Considering these results, it may be adequate for routine field monitoring of noncritical vapor wells using portable monitoring equipment.

2. EPA's Subsurface Gas Contingency Plan Investigation Report also compared the use of field monitoring equipment results versus laboratory analytical results, and indicated relative agreement between the two approaches.

3. Conclusions for the Subsurface Gas Monitoring program are summarized below by site area.

6.1.1 AREA 1

1. In Area 1, the vapor well results indicate the following conditions:
   - Perimeter wells: The perimeter wells in Area 1 are all below the California IWMB 5.0 percent methane standard. VW-35 (deep well), near Los Nietos Road has shown elevated TCE levels above the ITSL.
   - Onsite structures: VW-18 located near the southeast corner of the site between two buildings has shown elevated benzene levels above the ITSL. VW-44 (deep well), adjacent to Buffalo Bullet, showed elevated vinyl chloride levels during the first three quarters of monitoring, but dropped below the ITSL in the October sampling event. In-business monitoring of buildings in this area has shown no evidence of soil gas infiltration.
   - Data Trends: No significant trends were observed in Area 1. However, the COCs in this area appear more likely due to solvent dispersal/dumping rather than reservoir related crude oil activities.
   - Other compounds: VW-10 exceeded the ITSL for vinyl chloride but decreased to below the ITSL during the October 1998 sampling event.

   Table 6.1 provides a summary of the ITSL exceedances in Area 1.

2. Based on the data collected during the four quarters, the soil gas levels in Area 1 appear to be relatively stable, or in some cases decreasing slightly.

6.1.2 AREA 2

1. The vapor wells in Area 2 have shown the following conditions:
   - Perimeter wells: All of the perimeter wells on the north portion of Area 2 are below the California IWMB criteria and ITSLs.
   - Onsite structures: There are no onsite structures located in Area 2.
   - Data Trends: Vapor Wells VW-43 (intermediate and deep wells), -45 (shallow and intermediate well) and -48 (shallow, intermediate and deep wells) have shown elevated levels of methane, benzene and vinyl chloride.

2. Two wells, VW-45 and -48 have shown elevated methane, benzene and vinyl chloride levels in the shallow, intermediate and deep wells. These wells are adjacent to the reservoir and may be located in impacted areas (i.e., sump-like material). VW-43, both intermediate and deep wells, have shown elevated levels of methane and vinyl chloride near the eastern edge of Area 2.

3. RI vapor wells, VW-02 and –03, have shown elevated methane levels above the ITSLs but below the California IWMB standards. VW-4 located in the reservoir area has shown elevated methane levels above 15 percent, and elevated vinyl chloride and benzene levels above the ITSLs.

4. Soil gas levels in Area 2 are generally higher than the remainder of the site due to the elevated methane and VOC levels in the reservoir. Soil gas levels appear to be relatively stable in Area 2.

5. Table 6.2 provides a summary of the ITSL exceedances in Area 2.

6.1.3 AREAS 3, 4 AND 5

1. Vapor well monitoring in Areas 3, 4 and 5 has indicated the following conditions:
   - Perimeter wells: All perimeter wells in Areas 3,4 and 5 are below the California IWMB standards. Perimeter well VW-30 (deep well), exceeded the ITSL of 1.25 percent for methane in April 1998, but has since decreased to below the ITSL level.

- Onsite structures: Well VW-51 (intermediate and deep wells), located near the Brothers facility, has shown elevated methane, benzene and vinyl chloride levels as discussed below. In-business monitoring of the Brothers building has shown no evidence of soil gas infiltration.
- Data trends: No significant trends were observed.

2. VW-51, located near the Brothers facility, has shown elevated methane levels exceeding the 5 percent level in both the intermediate and the deep zones. VW-51-18 (intermediate well) has shown levels of 32.8 percent methane and benzene levels of 6,500 ppb during the October monitoring. VW-51-30 (deep well) during this same period has shown methane, benzene and vinyl chloride levels of 32 percent, 36 ppb and 16 ppb, respectively. Based on these results, additional monitoring of VW-51 is required.

3. Area 5 was included in a recent SVE Treatability Study. The October 1998 monitoring was conducted after completion of the SVE Treatability Study. Soil gas levels in VW-51 have appeared to increase after the study. This phenomenon may require additional evaluation.

4. Table 6.3 provides a summary of the ITSL exceedance in Areas 3, 4 and 5.

6.1.4 AREAS 6 AND 7

1. Vapor well monitoring of Areas 6 and 7 have indicated the following conditions:
   - Perimeter wells: All perimeter wells and Areas 6 and 7 are below the California IWMB standards and ITSLs.
   - Onsite structures: There are no onsite structures in Areas 6 and 7.
   - Data trends: No significant trends were observed.

2. VW-25 (RI well) has shown varying methane levels since 1989. After completion of the SVE testing in Area 7, the methane concentrations in VW-25 have dropped from approximately 50.7 percent and 33.4 percent in February and April respectively, to 0.53 percent and 15.5 percent in the July and October monitoring. The July monitoring may have been affected by SVE activities in Area 7. VW-25 will continue to be monitored to determine if the methane levels have been permanently reduced by SVE.

3. Table 6.4 provides a summary if the ITSL exceedance in Areas 6 and 7.

6.1.5 AREA 8

1. Vapor well monitoring in Area 8 has indicated the following conditions:
   - Perimeter wells: All perimeter wells in Area 8 are below the California IWMB standards and ITSLs.
   - Onsite structures: VW-13 (RI well) and VW-23 (RI well) have shown elevated methane and vinyl chloride levels above the ITSL, but below IALs. In-business monitoring of structures in these areas has shown no indication of soil gas infiltration.
   - Data trends: No significant trends were observed.
   - Other compounds: Area 8 appears to have more detectable levels of chlorinated solvents, (i.e., PCE, TCE, etc.) especially in the southeastern portion. VW-22 (RI well) exceeded the ITSL for TCE in the four quarters of monitoring.

2. In Area 8, VW-23 which has shown levels of vinyl chloride above the ITSL, has shown a steady decrease in concentration throughout the four quarters, with levels ranging from <20 ppb to 40 ppb for the February, April, July and October sampling events, respectively. VW-23 has also shown a corresponding decrease in methane levels from 4,200 to 330 ppm in the October sampling.

3. Soil gas levels in Area 8 appear to be stable, and in several cases are decreasing.

4. Table 6.5 provides a summary of the ITSL exceedances in Area 8.

6.2 SUMMARY OF SOIL GAS CONDITIONS

1. As determined from earlier work, elevated methane and VOC concentrations are not prevalent over most of the site. The satisfaction of state regulatory criteria for boundary areas and areas near to most structures has been confirmed, except as discussed in Section 6.1. In-business air monitoring of these structures has not indicating elevated levels of the COCs.

2. Elevated concentrations of subsurface gases continue to be observed in Area 5, near the Brother's facility and in the portion of Area 8 near the C&E Die facility and VW-18.

3. An area of elevated methane previously observed in Area 7 (VW-25) appears to have decreased after completion of SVE studies. Additional monitoring at this location will be required to long-term conditions.

6.3 RECOMMENDATIONS

1. Based on the data presented in this report, the following recommended modifications are proposed to the Quarterly Vapor Well Monitoring Plan. These proposed changes are discussed below, and summarized in Table 6.5:

   - Vapor Wells VW-01 through -26 with the exception of VW-18 and –25, would be eliminated from future sampling for the following reasons:
     - The construction of these wells (i.e., screening length of 5 feet to 30 feet) makes interpretation of the data in comparison to the nested wells impractical (i.e., screening through the waste zone artificially increases the soil gas levels).
     - Many of these wells are installed through sump-like materials and therefore the results are unreliable.
     - Newer nested wells have generally been installed in the same areas.
     - VW-18 and -25 have shown varying results during previous monitoring and therefore will continue to be monitored.
   - Perimeter wells, and wells located near onsite structures will continue to be monitored and sampled on a quarterly basis.
   - The remaining wells will be monitored using field instruments on a quarterly basis. These wells will be sampled for laboratory analysis on an annual basis. Based on the correlation of the field monitoring results and the laboratory data presented in Section 4.1, the field instrumentation will provide adequate data for monitoring purposes, in the noncritical areas.

2. As previously discussed, WDIG would like to implement the proposed modifications to the Quarterly Vapor Well Monitoring Plan during the April 1999 sampling episode.

7.0 REFERENCES

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Tables

TABLE 2.1

LIST OF EXISTING VAPOR WELLS AND CONSTRUCTION DETAILS WASTE DISPOSAL, INC. SUPERFUND SITE

LOCATION	WELL IDENTIFICATION	TYPE	TOTAL DEPTH (ft)	SCREENED INTERVAL AND MATERIAL TYPE(1) (ft)					
				First Probe	Type	Second Probe	Type	Third Probe	Type
Area 1	VW-10	Interior	38	35-5	A	–	–	–	–
	VW-11	Interior	45	35-5	A	–	–	–	–
	VW-16	Interior	35	34-5	A	–	–	–	–
	VW-17	Interior	35	35-5	A	–	–	–	–
	VW-18	Interior	36	36-6	A	–	–	–	–
	VW-35	Perimeter	38	38-33	N	10-5	F	–	–
	VW-36	Perimeter	30	30-25	N	10-5	F	–	–
	VW-37	Perimeter	30	30-25	N	10-7	F	–	–
	VW-38	Perimeter	35	29-34	N	10-5	F	–	–
	VW-39	Perimeter	30	30-25	N	7-5	F	–	–
	VW-40	Perimeter	25	25-20	N	10-5	F	–	–
	VW-44	Interior	30	30-25	N	16-13	N	7-5	F
	VW-46	Interior	30	27-22	N	15-12	N	6.5-4.5	F
	VW-62	Interior	31	30-25	N	18-15	N	10-5	N
	VW-63	Interior	29	28-23	N	18-14	N	8-5	F, S
Area 2	VW-01	Interior	35	35-5	A	–	–	–	–
	VW-02	Interior	35	35-5	A	–	–	–	–
	VW-03	Interior	35	35-5	A	–	–	–	–
	VW-04	Interior	23	23-6	A	–	–	–	–
	VW-05	Interior	30	29-4	A	–	–	–	–
	VW-08	Interior	35	35-5	A	–	–	–	–
	VW-15	(2)	45	35-5	A	–	–	–	–
	VW-41	Perimeter	20	20-15	N	7-5	F	–	–
	VW-42	Perimeter	30	30-25	N	10-5	F	–	–
	VW-43	Interior	33	32-27	N	19-16	N	10-5	F
	VW-45	Interior	30	30-27	N	21.5-18.5	N	12.5-7.5	F
	VW-47	Interior	30	30-26	N	18-13	N	7.5-4.5	F
	VW-48	Interior	35	35-30	N	17-12	S	8-5	F
Area 3	VW-06	Interior	35	34-4	A	–	–	–	–
	VW-28	Perimeter	25	30-25	N	10-5	F	–	–
Area 4	VW-29	Perimeter	35	35-30	N	23-18	N	10-7	F

(1) Material type: F = Fill Material
S = Sump-like Material
N = Native Material
A = All Material (fill, sump-like and native)

(2) Abandoned

– = Not Applicable

TRC

TABLE 2.1

LIST OF EXISTING VAPOR WELLS AND CONSTRUCTION DETAILS WASTE DISPOSAL, INC. SUPERFUND SITE (Continued)

LOCATION	WELL IDENTIFICATION	TYPE	TOTAL DEPTH (ft)	SCREENED INTERVAL AND MATERIAL TYPE(1) (ft)					
				First Probe	Type	Second Probe	Type	Third Probe	Type
Area 5	VW-07	Perimeter	36	35-5	A	–	–	–	–
	VW-30	Perimeter	35	35-30	N	23-18	N	7-5	F
	VW-51	Interior	35	30-25	N	18-13	S	8-5	F
Area 6	VW-12	Interior	36.3	34-4	A	–	–	–	–
	VW-31	Perimeter	35	30-25	N	10-5	F	–	–
Area 7	VW-25	Interior	35	35-5	A	–	–	–	–
	VW-26	Interior	38	35-5	A	–	–	–	–
	VW-32	Perimeter	35	35-30	N	18-13	N	7.5-4.5	F
	VW-50	Perimeter	35	35-30	N	18-13	N	8-5	F
Area 8	VW-13	Interior	35	31-6	A	–	–	–	–
	VW-14	Interior	35.5	35.5-5.5	A	–	–	–	–
	VW-19	(2)	45	36-6	A	–	–	–	–
	VW-20	Interior	35.5	35.5-5.5	A	–	–	–	–
	VW-21	Interior	36	36-6	A	–	–	–	–
	VW-22	Interior	35	35-5	A	–	–	–	–
	VW-23	Interior	36	36-6	A	–	–	–	–
	VW-24	Interior	35	35-5	A	–	–	–	–
	VW-27	Interior	35	33-28	N	19-16	N	9-6	F
	VW-33	Perimeter	35	35-30	N	10-5	F	–	–
	VW-34	Perimeter	45	40-35	N	23-18	N	10-5	F
	VW-49	Interior	35	30-25	N	18-15	N	10-5	F
	VW-52	Interior	30	30-25	N	19-14	N	10-5	F
	VW-53	Interior	30	30-25	N	20-15	N	10-7	F, S
	VW-54	Interior	34	30-25	N	20-17	N	12-8	F, S
	VW-55	Interior	31	30-25	N	18-15	N	10-5	F, S
	VW-56	Interior	31	30-25	N	20-15	N	8-5	F
	VW-57	Interior	31.5	26-23	N	18-13	N	7-4	F, S
	VW-58	Interior	31	29-24	N	19-14	N	8-5	F
	VW-59	Interior	31	30-25	N	18-15	N	8-5	F
	VW-60	Interior	32	30-25	N	19-14	N	8-5	F, S
	VW-61	Interior	34	30-25	N	19-14	N	9-5	F
Reservoir	VW-09	Reservoir	23.5	23-3	A	–	–	–	–

94-256/Rpts/AnSoVaMoRe (3/3/99/rmm)

(1) Material type: F = Fill Material
S = Sump-like Material
N = Native Material
A = All Material (fill, sump-like and native)

(2) Abandoned

– = Not Applicable

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TABLE 2.2

SOIL GAS AND INDOOR AIR INTERIM THRESHOLD SCREENING LEVELS FOR CONSTITUENTS OF CONCERN WASTE DISPOSAL, INC. SUPERFUND SITE

COMPOUND	SOIL GAS THRESHOLD VALUE (ppbv)	INDOOR AIR THRESHOLD VALUE (ppbv)	SITE BOUNDARY THRESHOLD VALUE (ppbv)
Acetone	31,200	312.0	15,600
Benzene	200	2.0	100
Carbon Tetrachloride	68	0.68	34
Chloroethane	75,200	752.0	37,600
Chloroform	340	3.4	170
Dibromoethane	6	0.06	3
1,2-Dichloroethane	360	3.6	180
cis-1,2-Dichloroethane	1,860	18.6	930
1,1-Dichloroethane	25,600	356.0	12,800
1,2-Dichloropropane	186	1.86	93
trans-1,2-Dichloroethene	3,680	36.8	1,840
Ethylbenzene	49,000	490.0	24,500
Tetrachloroethene (Perc)	1,064	10.6	532
Toluene	21,200	212.0	10,600
1,1,2-Trichlorethane	440	4.4	220
1,1,1-Trichloroethane	36,800	368.0	18,400
Trichloroethene	822	8.2	411
Vinyl Chloride	25	0.25	12.5
m,p-Xylene	14,280	142.8	7,140
o-Xylene	14,280	142.8	7,140
Methane (%)	5	1.25	1.25

94-256/Rpts/AnSoVaMoRe (3/3/99/rmm)

Source: CDM Federal Programs Corporation, Subsurface Gas Contingency Plan Investigation Report, Waste Disposal, Inc. Superfund Site, January 18, 1999.

TABLE 2.3

SUMMARY OF EPA VOLATILE ORGANIC INTERIM THRESHOLD SCREENING LEVEL EXCEEDANCES WASTE DISPOSAL, INC. SUPERFUND SITE

CHEMICAL	SOIL GAS THRESHOLD LEVEL (ppbv)	VAPOR WELLS		TEMPORARY PROBES		LOCATIONS THAT SOIL GAS THRESHOLD LEVELS ARE EXCEEDED
		Frequency of Detection	Maximum Concentration (ppbv)	Frequency of Detection	Maximum Concentration (ppbv)	
Dichlorofluoromethane	–	2/81	1.1	0/104	ND	–
Chloromethane	–	14/81	6200E	16/104	14,000	–
Vinyl chloride	25	21/81	1,700	16/104	1,600	VW4, VW8, VW9, VW10, VW14, VW22, MP-1, MP-2, GP9, GP40, GP41, GP78, GP172
Bromomethane	–	0/81	ND	1/104	5	–
Chloroethane	75,200	1/81	60J	1/104	238	–
1,1-Dichloroethene	–	9/81	86J	3/104	280	–
Trichlorofluoromethane	–	8/81	60	0/104	ND	–
Acetone	31,200	30/44	6,414B	77/94	29,000B	–
Methylene Chloride	–	18/81	580J	7/104	240	–
trans-1,2-Dichloroethene	3,680	7/81	58J	0/104	ND	–
1,1-Dichloroethane	25,600	16/81	658	1/104	240	–
cis-1,2-Dichloroethene	1,860	17/81	1,629	9/104	240	–
2-Butanone	–	3/36	89	36/94	6,020B	–
Chloroform	340	17/81	820	5/104	8,400	VW18, MP-1, GP12, GP175
1,1,1-Trichloroethane	36,800	18/81	3,100	6/104	1,900E	–
Carbon Tetrachloride	68	1/81	78	0/104	ND	VW8
Benzene	200	41/81	19,000	39/104	31,000E	VW4, VW9, VW10, VW18, VW22, MP-1, MP-2, GP7, GP9, GP12, GP40, GP41, GP48, GP172, GP175, GP186
1,2-Dichloroethane	360	7/81	293	6/104	430	GP175

NA = Not Analyzed
ND = Not Detected
B = Compound detected in the associated laboratory blank
J = Approximate concentration
E = Qualifier defined in validation report
-- = Not Applicable

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TABLE 2.3

SUMMARY OF EPA VOLATILE ORGANIC INTERIM THRESHOLD SCREENING LEVEL EXCEEDANCES WASTE DISPOSAL, INC. SUPERFUND SITE (Continued)

CHEMICAL	SOIL GAS THRESHOLD LEVEL (ppbv)	VAPOR WELLS		TEMPORARY PROBES		LOCATIONS THAT SOIL GAS THRESHOLD LEVELS ARE EXCEEDED
		Frequency of Detection	Maximum Concentration (ppbv)	Frequency of Detection	Maximum Concentration (ppbv)	
Trichloroethene	822	40/81	2,200	13/104	780	VW22, VW23, MP-2
Bromodichloromethane	–	4/38	1,183	NA	NA	–
1,2-Dichloropropane	186	4/81	215	2/104	230	VW14, GP78
Toluene	21,200	40/81	17,000	31/104	16,000E	–
1,1,2-Trichloroethane	440	1/81	12,0J	0/104	ND	–
Dibromochloromethane	–	1/81	21J	0/94	ND	–
Tetrachloroethene	1,064	42/81	1,088	21/104	1,700D	VW23, GP31, GP172
1,2-Dibromoethene (EDB)	6	3/81	285	1/104	140	VW24, MP-1, GP78
Chlorobenzene	–	8/81	300	11/104	160	–
Ethylbenzene	49,000	23/81	7,200	29/104	12,000	–
m-& p-Xylene	14,280	26/81	23,000	30/104	19,000J	VW9, GP12
o-Xylene	14,280	14/81	7,300	19/104	3,400	–
Styrene	–	1/81	201	NA	NA	–
1,1,2,2-Tetrachloroethane	–	1/81	0.77	1/104	76	–
1,3,5-Trimethylbenzene	–	6/60	2,700	NA	NA	–
1,2,4-Trimethylbenzene	–	6/37	5,000	NA	NA	–
1,3-Dichlorobenzene	–	1/81	0.78	0/104	ND	–
1,4-Dichlorobenzene	–	3/81	0.92	8/104	76	–
1,2-Dichlorobenzene	–	8/81	57	10/104	49	–

94-256/Rpts/AnSoGaMoRe (3/15/99/mc)

NA = Not Analyzed
ND = Not Detected
B = Compound detected in the associated laboratory blank
J = Approximate concentration
E = Qualifier defined in validation report
-- = Not Applicable

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TABLE 2.4

SUMMARY OF EPA SOIL GAS RESULTS FOR VAPOR WELLS VW54 AND VW63 WASTE DISPOSAL, INC. SUPERFUND SITE

VAPOR WELL NUMBER	WELL TYPE	METHANE(1) (%)	VINYL CHLORIDE (ppb)	BENZENE (ppb)	TOTAL NONMETHANE ORGANICS (ppm)
54	Shallow	0.24	<3.5	<3.5	<170
	Medium	0.24	2.7	0.99	<180
	Deep	0.23	<0.2	<0.98	<170
55	Medium	3.0	73	20	340
	Deep	1.8	45	7.0	<170
56	Shallow	0.0024	15	27	<180
	Medium	<0.0017	<3.5	4.1	<170
	Deep	<0.0017	<3.5	<3.5	<170
57	Shallow	0.024	<0.2	2.6	<180
	Medium	0.17	13	<4.2	<170
	Deep	0.27	<15	<15	<170
58	Shallow	<0.0018	<27	39	<180
	Medium	<0.0018	<27	<27	<180
	Deep	<0.0018	<27	<27	<180
59	Shallow	<0.0018	<0.20	4.1	<180
	Medium	<0.0018	<1.20	<1.2	<180
	Deep	<0.0017	<0.87	<0.87	<170
60	Shallow	<0.0017	<2.4	<2.4	<170
	Medium	<0.0017	<0.42	0.48	<170
	Deep	<0.0017	<0.20	0.84	<170
61	Shallow	<0.0017	<0.42	2.1	<170
	Medium	0.39	340	8.7	<170
	Deep	0.12	85	<8.8	<600
62	Shallow	6.1	<3.5	<3.5	190
	Medium	2.5	1.4	0.74	<170
	Deep	3.1	12	0.82	<170
63	Shallow	<0.0017	<0.20	0.85	<170
	Medium	<0.0017	<0.84	<0.84	<170
	Deep	<0.0017	<2.4	<2.4	<170

94-256/Rpts/AnSoVaMoRe (3/3/99/rmm)

(1) Laboratory methane analysis.

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TABLE 4.1

VAPOR WELL ANALYTICAL DATA FOR FEBRUARY 1998
WASTE DISPOSAL, INC. SUPERFUND SITE

PARAMETERS	SOIL GAS THRESHOLD LIMIT (ppbv)	WELL IDENTIFICATION AND ANALYTICAL RESULTS (ppbv, unless noted)																										
		WDI VAPOR WELL - PROBE DEPTH (feet)																										
		01 35	02-35	03 35	04 23	05 29	06 34	08 35	10 35	11-35	12 34	13 31	14 35	16 34	17 35	18 36	20-35	21 36	22 35	23-36	24 35	25 35	26 35	27-09	27-19	27-35	28 10	28 25
Nonmethane Organics as methane/ppm		100	1,200	130	13 000	91	390	100	160	170	62	200	550	32	53	11,000	80	110	75	170	91	12,000	63	(2)	6 0	95	(2)	(2)
Methane/ppm	12,500	**0 92**	**33,000**	**14,000**	**130,000**	12 000	**53,000**	8,600	5 600	**18,000**	1 2	**13,000**	7 200	<0 50	<0 50	9 6	<0 50	4 6	0 84	4 200	<0 50	**507,000**	0 89		1 8	<0 50		
Vinyl chloride	25	<1 6	<3 9	<3 9	<390	<1 6	**55**	4 6	**150**	7 1	<0 39	**29**	**370**	<1 6	<2 0	<390	<1 6	<2 0	<7 8	**35**	<0 39	<200	<0 39		<1 6	<1 6		
Chloroethane	75,200	<1 5	<3 8	<3 8	<380	<1.5	<15	<1 5	<1 5	<1 9	<0 38	<3 8	24	<1 5	<1 9	<380	<1 5	<1 9	<7 6	<0 38	<0 38	<190	<0 38		<1 5	<1 5		
Acetone	31,200	<1 7	<4 2	33	<420	<1 7	<17	1 1[1]	<1 7	<2 1	9 9	<4 2	<17	2 4	8 3	<420	5 5	<2 1	<8 4	100	3 2	<210	2 2		40	9 5		
trans-1,2-Dichloroethene	3 680	<1 0	<2 5	<2 5	<250	<1 0	<10	<1 0	<1 0	<1 3	<0 25	8 7	<10	<1 0	<1 5	<250	<1 0	<1 3	<5 0	45	<0 25	<130	0 97		<1 0	<1 0		
1,1-Dichloroethane	25 600	<0 99	<2 5	<2 5	<250	<0 99	<9 9	<0 99	75	1 1[1]	<0 25	<2 5	95	0 92[1]	<1 2	<250	<0 99	<1 2	<4 9	20	<0 25	<120	3 3		<0 99	<0 99		
cis 1,2-Dichloroethene	1 860	<1 0	<2.5	<2 5	460	0 85[1]	<10	<1 0	83	2 0	<0 25	50	41	<1 0	<1 3	<250	<1 0	1 4	<5 0	130	<0 25	<130	110		<1 0	<1 0		
Chloroform	340	<0 82	<2 0	<2 0	<200	<0 82	<8 2	<0 82	<0 82	<1 0	<0 20	<2 0	<8 2	1 2	<1 0	<210	<0 82	1 8	5 0	1 2	0 42	<100	0 86		<0 82	<0 82		
1,2-Dichloroethane	360	<0 99	<2 5	<2 5	<250	<0 99	<9 9	<0 99	<0 99	<1 2	<0 25	<2 5	22	<0 99	<1 2	<250	<0 99	<1 2	<4 9	<0 25	<0 25	<120	<0 25		<0 99	<0 99		
1,1,1-Trichloroethane	36 800	<0 73	<1 8	<1 8	<180	<0 73	<7 3	<0 73	<0 73	<0 93	<0 18	<1 8	<7 3	6 2	240	<190	<0 73	1 7	7 6	0 91	0 17[1]	<92	0 89		21	<0 73		
Benzene	200	<1 3	<3 1	15	830	<1 3	<13	0 79[1]	0 98[1]	1 5[1]	<0 31	2 6[1]	37	<1 3	6 6	**1,600**	<1 3	<1 6	<6 3	1 1	0 39	**220**	<0 31		1 0[1]	<1 3		
Carbon Tetrachloride	68	<0 64	<1 6	<1 6	<160	<0 64	<6 4	<0 64	<0 64	<0 80	<0 16	<1 6	<6 4	<0 64	<0 80	<160	<0 64	<0 80	<3 2	<0 16	<0 16	<80	<0 16		<0 64	<0 64		
1,2-Dichloropropane	186	<0 87	<2 2	<2.2	<220	<0 87	<8 7	<0 87	<0 87	<1 1	<0 22	<2 2	140	<0 87	<1 1	<220	<0 87	<1 1	<4 3	<0.22	<0 22	<110	<0 22		<0 87	<0 87		
Trichloroethene	822	<0 74	<1 9	<1 9	<190	2 6	<7 4	<0 74	<0 74	8 0	1 3	62	11	91	14	<190	3 9	420	**1400**	**910**	6 6	<93	83		<0 74	<0 74		
1,1,2-Trichloroethane	440	<0 73	<1 8	<1 8	<180	<0 73	<7 3	<0 73	<0 73	<0 93	<0 18	<1 8	<7 3	<0 73	<0 93	<190	<0 73	<0 93	<3 7	<0 18	<0 18	<92	<0 18		<0 73	<0 73		
Toluene	21,200	0 91[1]	<2 7	5 0	<270	<1 1	<11	0 92[1]	1 3	1 3	1 6	<2 7	13	1 1	33	530	1 3	1 1[1]	<5 3	1 2	1 4	4,700	0 56		4 3	2 3		
1,2-Dibromoethane	6	<0 52	<1 3	<1 3	<130	<0 52	<5 2	<0 52	<0.52	<0 66	<0 13	<1 3	<5 2	<0 52	<0 66	<130	<0 52	<0 66	<2 6	<0 13	<0 13	<65	<0 13		<0 52	<0.52		
Tetrachloroethene	1 064	7 8	<1.5	7 7	<150	17	<5 9	1 6	0 82	34	38	<1 5	20	1 9	19	<150	150	18	130	22	7 3	<74	19		0 79	1 0		
Ethylbenzene	49 000	<0 92	<2 3	4 1	<230	<0 92	<9 2	<0 92	<0 92	<1 2	0 26	<2 3	230	<0 92	9 2	<230	<0 92	<1 2	<4 6	0 21[1]	0 31	610	<0 23		0 79[1]	<0 92		
m- & p-Xylenes	14,280	<0 92	1 5[1]	4 3	<230	<0 92	<9 2	<0 92	<0 92	<1 2	0 76	<2 3	620	<0 92	34	350	0 70[1]	<1 2	<4 6	0 66	1 2	1,800	0 33		3 2	1 9		
o-Xylene	14 280	<0 92	<2 3	1 8[1]	<230	<0 92	<9 2	<0 92	<0 92	<1 2	0 24	<2 3	60	<0 92	14	<230	<0 92	<1 2	<4 6	0 53	0 41	550	<0 23		0 93	<0 92		

(1) Detected Below Indicated Reporting Limit
(2) Well not sampled this quarter
(3) Duplicates may not have been performed on the same sample for each analysis

ppm = parts per million ppb = parts per billion d = lab duplicate fd = field duplicate **Bold Numbers** = concentrations above threshold limits

TRC

TABLE 4.1

VAPOR WELL ANALYTICAL DATA FOR FEBRUARY 1998
WASTE DISPOSAL, INC. SUPERFUND SITE

PARAMETERS	SOIL GAS THRESHOLD LIMIT (ppbv)	WELL IDENTIFICATION AND ANALYTICAL RESULTS (ppbv, unless noted)																											
		WDI-VAPOR WELL - PROBE DEPTH (feet)																											
		29-10	29-23	29-35	30-07	30-23	30 35	31-10	31-30	32-08	32-18	32-35	33-10	33-35	34-10	34-23	34-40	35-10	35-38	36-10	36-30	37-10	37-30	38-10	38-34	39-07	39-30	40-10	40-25
Nonmethane Organics as methane/ppm		18	44	64	29	170	220	19	59	18	50	67	40	89	31	110	85	25	85	16	70	22	75	21	360	25	57	56	74
Methane/ppm	12,500	1 2	<0.50	<0 50	4 8	9,200	11,000	0 73	0 72	1 1	<0 50	<0 50	1 0	2 0	2 4	0 77	1 2	2 9	5 3	2 8	<0.50	2 6	<0.50	21	79	2 5	0 59	8,200	<0 50
Vinyl chloride	25	<1 6	<1 6	<1 6	<1 6	<3 9	5 5	<0 39	<0 39	<2 0	<0 39	<0 39	<0 39	<0 39	<1 6	<1 6	<1 6	<3 9	<26	<0 39	<0 69	<1 6	<1 6	<1 6	<16	<1 6	<1 6	<1 6	<3 9
Chloroethane	75,200	<1 5	<1 5	<1 5	<1 5	<3 8	<3 8	<0 38	<0 38	<1 9	<0 38	<0 38	<0 38	<0 38	<1 5	<1.5	<1 5	<3 8	<25	<0 38	<0 67	<1 5	<1 5	<1 5	<15	<1 5	<1.5	<1.5	<3 8
Acetone	31,200	6 7	3 6	19	2 8	<4 2	<4 2	6 1	4 5	8 0	7 0	15	1 8	8 4	3 7	3 1	4 2	11	46	36	14	9 6	7 7	11	100	9 6	1 6[1]	3 4	<4 2
trans-1,2-Dichloroethene	3 680	<1 0	<1 0	<1 0	<1 0	5 5	26	<0 25	<0 25	<1 3	<0 25	<0 25	<0 25	0 44	<1 0	<1 0	<1 0	<2 5	<17	<0 25	<0 45	<1 0	<1 0	<1 0	<10	<1 0	<1 0	<1 0	<2.5
1,1-Dichloroethane	25,600	<0 99	<0 99	<0 99	0 71[1]	<2 5	<2 5	<0 25	0 56	1 6	0 65	<0 25	0 37	1 2	<0 99	<0 99	<0 99	<2 5	<17	<0 25	<0 44	1 3	<1 00	<0 99	<9 9	3 8	<1 00	<0 99	<2 5
cis-1,2-Dichloroethene	1,860	<1 0	<1 0	<1 0	<1 0	6 9	34	<0 25	<0 25	<1 3	<0 25	0.57	<0 25	2 0	<1 0	<1 0	<1 0	<2 5	<17	<0 25	<0 45	<1 0	<1 0	<1 0	<10	<1 0	<1 0	<1 0	<2 5
Chloroform	340	2 0	<0 82	4 4	1 4	<2 0	<2 0	2 8	0 69	3 6	3 7	2 9	16	9 0	1 2	0 58[1]	1 8	6 4	41	7 8	4 2	1 1	<0 83	1 2	<8 2	1 3	1 1	2 9	<2 0
1,2 Dichloroethane	360	<0 99	<0 99	<0 99	<1 0	<2 5	<2 5	0 36	0 37	3 4	4 4	1 0	4 6	0 17[1]	<0 99	<0 99	<0 99	1 6[1]	<17	1 3	1 2	<1 0	<1 00	<0 99	<9 9	<1 00	1.5	2 0	<2.5
1,1,1-Trichloroethane	36,800	20	<0 73	0 65[1]	590	9 8	4 9	67	8 4	28	10	3 9	160	20	440	15	9 0	260	16	20	1 1	2,900	41	220	69	3,700	160	14	2 1
Benzene	200	1 3	<1 3	<1 3	<1 3	<3 1	<3 1	<0 31	0 22[1]	<1 6	<0 31	0 19[1]	<0 31	1 1	<1 3	<1 3	<1 3	<3 1	<21	0 61	<0 55	9 3	<1 3	<1 3	<13	2 6	<1 3	12	<3 1
Carbon Tetrachloride	68	<0 64	<0 64	<0 64	<0 64	<1 6	<1 6	<0 16	<0 16	<0 80	<0 16	<0 16	<0 16	<0 16	<0 64	<0 64	<0 64	<1 6	<11	0 13[1]	<0 28	<0 64	<0 64	<0 64	<6 4	<0 64	<0 64	<0 64	<1 6
1,2-Dichloropropane	186	<0 87	<0 87	<0 87	<0 87	<2 2	<2 2	<0 22	<0 22	<1 1	<0 22	<0 22	<0 22	<0 22	<0 87	<0 87	<0 87	<2 2	<15	<0 22	<0 38	<0 87	<0 87	<0 87	<8 7	<0 87	<0 87	<0 87	<2 2
Trichloroethene	822	<0 74	<0 74	0 57[1]	0 69[1]	32	76	0 45	7 8	<0 93	0.55	1 2	1 2	420	0.54[1]	<0 74	5 6	44	**1,600**	0 29	<0 33	0 98	0 89	0 69[1]	<7 4	2 6	<0 75	<0 74	5.5
1,1,2-Trichloroethane	440	<0 73	<0 73	<0 73	<0 73	<1 8	<1 8	<0 18	<0 18	<0 92	<0 18	<0 18	<0 18	<0 18	<0 73	<0 73	<0 73	<1 9	<12	<0 19	<0 33	<0 74	<0 74	<0 73	<7 3	<0 74	<0 74	<0 73	<1 8
Toluene	21,200	7 4	7 8	9 0	2 4	2 7	4 0	0 82	0.56	<1 3	0 38	0 76	0 94	1 1	4 2	3 3	3 4	<2 7	<18	2 6	1 9	1 8	1 2	1 5	<11	1 9	0 77[1]	2 5	2 3[1]
1,2-Dibromoethane	6	<0.52	<0.52	<0 52	<0 52	<1 3	<1 3	<0 13	<0 13	<0 65	<0 13	<0 13	<0 13	<0 13	<0.52	<0 52	<0 52	<1 3	<8 8	<0 13	<0 23	<0 53	<0 53	<0 52	<5 2	<0 53	<0 53	<0 52	<1 3
Tetrachloroethene	1,064	1 2	6 7	13	1 7	32	46	17	39	1 5	1 5	1 3	0 87	18	2.2	9 0	5 9	6 6	16	1 3	5 6	0 57[1]	1 9	1 3	<5 9	4 2	10	1 7	130
Ethylbenzene	49,000	1 2	0 68[1]	<0 92	<0 92	<2 3	<2 3	<0 23	<0 23	<1 2	<0 23	<0 23	0 15[1]	<0 23	0 83[1]	<0 92	0 66[1]	<2 3	<15	0 27	<0 40	1 0	<0 92	0 69[1]	<9 2	<0 92	<0 92	0 75[1]	<2 3
m- & p-Xylenes	14,280	5 2	2 9	1 8	1 6	2 1[1]	2 3[1]	0 43	0 35	<1 2	0 25	0 46	0 57	0 25	3 4	2 4	2 7	<2 3	<15	1 1	0 89	4 8	1 0	2 7	<9 2	1 5	1 1	2.7	1 8[1]
o-Xylene	14,280	1 2	0 66[1]	<0 92	<0 92	<2 3	<2 3	<0 23	0 50	<1 2	<0 23	0 16[1]	0 22[1]	<0 23	0 85[1]	<0 92	0 61[1]	<2 3	<15	1 2	0 25[1]	0 77[1]	<0 92	<0 92	<9 2	<0 92	<0 92	0 76[1]	<2 3

(1) Detected Below Indicated Reporting Limit
(2) Well not sampled this quarter
(3) Duplicates may not have been performed on the same sample for each analysis

ppm = parts per million ppb = parts per billion d = lab duplicate fd = field duplicate **Bold Numbers** = concentrations above threshold limits

TRC

TABLE 4.1

VAPOR WELL ANALYTICAL DATA FOR FEBRUARY 1998
WASTE DISPOSAL, INC. SUPERFUND SITE

PARAMETERS	SOIL GAS THRESHOLD LIMIT (ppbv)	WELL IDENTIFICATION AND ANALYTICAL RESULTS (ppbv, unless noted)																											
		WDI-VAPOR WELL - PROBE DEPTH (feet)																											
		41-07	41-20	42-10	42-30	43-09	43-19	43-32	44-07	44-16	44-30	45-12	45-22	45-30	46-07	46-15	46-27	47-08	47-18	47-30	48-08	48-17	48-35	49-10	49-18	49-30	50-08	50-18	50-35
Nonmethane Organics as methane/ppm		2.1	57	(2)	(2)	(2)	150	380	78	47	140	(2)	11,000	2,000	(2)	84	86	(2)	110	160	9800	46,000	800	49	100	100	19	40	75
Methane/ppm	12,500	3.4	<0.50				7,300	**24,000**	**27**	1,600	5,700		**61,000**	**32,000**		<0.50	<0.50		680	2,100	**365,000**	**539,000**	**37,000**	2.6	<0.50	<0.50	6.0	5.1	<0.50
Vinyl chloride	25	<1.6	<1.6				**120**	**220**	<3.9	12	**50**		**380**	<49		<1.6	<1.6		<1.6	<1.6	**480**	<1,600	<20	<7.8	<7.8	<7.8	<0.39	<0.39	<0.39
Chloroethane	75,200	<1.5	<1.5				<3.8	<15	<3.8	<1.5	<3.8		<190	<48		<1.5	<1.5		<1.5	<1.5	<380	<1,500	<19	<7.6	<7.6	<7.6	<0.38	<0.38	<0.38
Acetone	31,200	42	2.8				<4.2	<17	100	14	<4.2		<210	100		2.1	11		6.5	14	<420	<1,700	<21	8.6	17	11	28	11	21
trans-1,2-Dichloroethene	3,680	<1.0	<1.0				<2.5	7.2[1]	<2.5	<1.0	<2.5		<130	<32		<1.0	<1.0		<1.0	<1.0	<250	<1,000	<13	<5.0	<5.0	<5.0	<0.25	<0.25	<0.25
1,1-Dichloroethane	25,600	<0.99	<0.99				<2.5	<9.9	4.0	6.7	42		<120	<31		5.8	<0.99		<0.99	<0.99	<250	<990	<12	9.6	<4.9	<4.9	<0.25	<0.25	1.6
cis-1,2-Dichloroethene	1,860	<1.0	<1.0				28	170	<2.5	<1.0	<2.5		1,400	<32		<1.0	0.81[1]		<1.0	<1.0	<250	<1,000	<13	<5.0	<5.0	<5.0	0.26	<0.25	6.5
Chloroform	340	1.1	<0.82				1.9[1]	<8.2	6.4	11	<2.1		<100	<26		1.9	1.3		6.7	<0.82	<200	<820	<10	4.7	3.3[1]	<4.1	2.4	1.3	0.85
1,2-Dichloroethane	360	<0.99	<0.99				<2.5	<9.9	<2.5	1.3	<2.5		<120	<31		2.1	3.2		11	4.9	<250	<990	<12	<4.9	<4.9	<4.9	<0.25	<0.25	<0.25
1,1,1-Trichloroethane	36,800	67	35				7.3	<7.3	250	97	58		<93	<23		99	8.3		6.5	<0.73	<180	<730	<9.2	1,300	570	3.2[1]	57	14	6.6
Benzene	200	<1.3	<1.3				<3.1	14	<3.1	1.0[1]	<3.1		**570**	**380**		<1.3	<1.3		<1.3	<1.3	**2,200**	**6,700**	12[1]	<6.3	<6.3	<6.3	0.28[1]	0.41	<0.31
Carbon Tetrachloride	68	<0.64	<0.64				<1.6	<6.4	<1.6	<0.64	<1.6		<80	<20		<0.64	<0.64		<0.64	<0.64	<160	<640	<8.0	<3.2	<3.2	<3.2	<0.16	<0.16	<0.16
1,2-Dichloropropane	186	<0.87	<0.87				<2.2	<8.7	<2.2	1.1	38		<110	<27		<0.87	<0.87		<0.87	<0.87	<220	<870	<11	<4.3	<4.3	<4.3	<0.22	<0.22	<0.22
Trichloroethene	822	<0.74	<0.74				6.2	<7.4	14	<0.75	<1.9		530	17[1]		15	31		2.5	2.2	<190	<740	<9.3	3.8	16	17	0.63	0.96	4.0
1,1,2-Trichloroethane	440	<0.73	<0.73				<1.8	<7.3	<1.9	<0.74	<1.9		<93	<23		<0.73	<0.73		<0.73	<0.73	<180	<730	<9.2	<3.7	<3.7	<3.7	<0.18	<0.18	<0.18
Toluene	21,200	0.72[1]	<1.1				6.8	<11	<2.7	3.1	<2.7		100[1]	47		1.7	2.1		2.5	3.6	<270	<1,100	9.4[1]	<5.3	<5.3	<5.3	1.7	1.1	0.88
1,2-Dibromoethane	6	<0.52	<0.52				<1.3	<5.2	<1.3	<0.53	<1.3		<66	<16		<0.52	<0.52		<0.52	<0.52	<130	<520	<6.5	<2.6	<2.6	<2.6	<0.13	<0.13	<0.13
Tetrachloroethene	1,064	32	18				7.7	<5.9	23	1.7	<1.5		<75	<19		130	220		9.9	26	<150	<590	18	54	730	900	1.4	2.7	2.8
Ethylbenzene	49,000	0.73[1]	<0.92				3.7	<9.2	<2.3	<0.92	<2.3		230	39		<0.92	<0.92		<0.92	<0.92	170[1]	1,300	17	<4.6	<4.6	<4.6	0.26	0.22[1]	<0.23
m- & p-Xylenes	14,280	2.7	<0.92				12	8.8[1]	<2.3	1.1	<2.3		<120	110		1.9	1.6		1.6	<0.92	280	6,400	32	<4.6	<4.6	<4.6	0.83	0.77	0.47
o-Xylene	14,280	<0.92	<0.92				2.7	<9.2	<2.3	<0.92	<2.3		<120	88		<0.92	<0.92		0.58[1]	<0.92	<230	<920	<12	<4.6	<4.6	<4.6	0.30	0.25	0.14[1]

(1) Detected Below Indicated Reporting Limit
(2) Well not sampled this quarter.
(3) Duplicates may not have been performed on the same sample for each analysis.

ppm = parts per million ppb = parts per billion d = lab duplicate fd = field duplicate **Bold Numbers** = concentrations above threshold limits

TRC

TABLE 4.1

VAPOR WELL ANALYTICAL DATA FOR FEBRUARY 1998
WASTE DISPOSAL, INC. SUPERFUND SITE

PARAMETERS	SOIL GAS THRESHOLD LIMIT (ppbv)	WELL IDENTIFICATION AND ANALYTICAL RESULTS (ppbv, unless noted)																											
		WDI-VAPOR WELL - PROBE DEPTH (feet)																											
		51-18	51-30	BKGRND	BKGRND 2/18	05-29fd	11-35d	12-34d	14-35d	16-34d	17-35d	22-35d	25-35fd	27-19d	27-35d	30-23d	31-10d	32-35d	34-10d	37-10d	40-10d	40-25d	41-20d	43-32fd	43-32fdd	44-30fd	47-18d	48-08fd	49-10fd
Nonmethane Organics as methane/ppm		31,000	2,600	1.6	2.1	85	(3)	58	500	(3)	51	76	10,000	(3)	92	(3)	(3)	68	30	(3)	54	(3)	(3)	420	410	150	(3)	9,500	49
Methane/ppm	12,500	**386,000**	**41,000**	2.2	5.6	12,000		1.1	7,200		<0.50	0.78	**487,000**		<0.50			<0.50	2.4		8,200			**24,000**	**23,000**	5,800		**369,000**	2.4
Vinyl chloride	25	<1.6	**82**	<0.39	<1.6	<1.6	6.5			<1.6			<200	<1.6		<3.9	<0.39			<1.6		<3.9	<1.6	**240**		**46**	<1.6	**520**	<7.8
Chloroethane	75,200	<1.5	<76	<0.38	<1.5	<1.5	<1.9			<1.5			<190	<1.5		<3.8	<0.38			<1.5		<3.8	<1.5	<15		<3.8	<1.5	<380	<7.6
Acetone	31,200	<1.7	<84	13	7.5	4.5	<2.1			2.5			<210	40		<4.2	6.2			8.7		<4.2	3.1	<17		<4.2	5.8	<420	9.9
trans-1,2-Dichloroethene	3,680	<1.0	320	<0.25	<1.0	<1.0	<1.3			<1.0			<130	<1.0		5.4	<0.25			<1.0		<2.5	<1.0	8.2(1)		<2.5	<1.0	<250	<5.0
1,1-Dichloroethane	25,600	<1.00	<50	<0.25	<0.99	<0.99	0.98(1)			0.96(1)			<120	<0.99		<2.5	<0.25			1.3		<2.5	<0.99	<9.9		41	<0.99	<250	9.1
cis-1,2-Dichloroethene	1,860	<1.0	320	<0.25	<1.0	0.73(1)	1.9			<1.0			<130	<1.0		6.6	<0.25			<1.0		<2.5	<1.0	180		<2.5	<1.0	<250	<5.0
Chloroform	340	<0.83	<41	<0.21	<0.82	<0.82	<1.0			1.2			<100	<0.82		<2.0	2.8			1.1		<2.0	<0.82	<8.2		<2.1	6.6	<200	4.5
1,2-Dichloroethane	360	<1.00	<50	<0.25	<0.99	<0.99	<1.2			<0.99			<120	<0.99		<2.5	0.37			<1.0		<2.5	<0.99	<9.9		<2.5	11	<250	<4.9
1,1,1-Trichloroethane	36,800	<0.74	160	0.16(1)	<0.73	<0.73	<0.93			6.2			<92	21		9.3	68			2,900		2.1	35	<7.3		51	6.4	<180	1,300
Benzene	200	11	**310**	0.74	0.93(1)	<1.3	1.6			<1.3			<160	1.1(1)		<3.1	<0.31			9.2		<3.1	<1.3	16		<3.1	<1.3	**2,100**	<6.3
Carbon Tetrachloride	68	<0.64	<32	0.12(1)	<0.64	<0.64	<0.80			<0.64			<80	<0.64		<1.6	<0.16			<0.64		<1.6	<0.64	<6.4		<1.6	<0.64	<160	<3.2
1,2-Dichloropropane	186	<0.87	<44	<0.22	<0.87	<0.87	<1.1			<0.87			<110	<0.87		<2.2	<0.22			<0.87		<2.2	<0.87	<8.7		39	<0.87	<220	<4.3
Trichloroethene	822	<0.75	200	<0.19	<0.74	2.7	7.5			90			<93	<0.74		31	0.45			0.98		5.5	<0.74	<7.4		<1.9	2.4	<190	3.6(1)
1,1,2-Trichloroethane	440	<0.74	<37	<0.19	<0.73	<0.73	<0.93			<0.73			<92	<0.73		<1.8	<0.18			<0.74		<1.8	<0.73	<7.3		<1.9	<0.73	<180	<3.7
Toluene	21,200	<1.1	40(1)	2.0	2.1	<1.1	1.5			1.1			<130	4.3		2.8	0.85			1.8		2.3(1)	<1.1	<11		<2.7	2.6	<270	<5.3
1,2-Dibromoethane	6	<0.53	<26	<0.13	<0.52	<0.52	<0.66			<0.52			<65	<0.52		<1.3	<0.13			<0.53		<1.3	<0.52	<5.2		<1.3	<0.52	<130	<2.6
Tetrachloroethene	1,064	<0.60	<30	1.5	0.57(1)	17	38			1.9			<74	0.80		32	17			0.59(1)		130	18	<5.9		1.8	10	<150	55
Ethylbenzene	49,000	<0.92	69	0.20(1)	<0.92	<0.92	<1.2			<0.92			<120	0.79(1)		<2.3	<0.23			1.1		<2.3	<0.92	<9.2		<2.3	<0.92	160(1)	<4.6
m- & p-Xylenes	14,280	0.59(1)	110	0.68	0.88(1)	0.82(1)	<1.2			<0.92			<120	3.3		2.1(1)	0.42			4.8		2.0(1)	<0.92	9.8		<2.3	1.6	280	<4.6
o-Xylene	14,280	<0.92	<46	0.26	<0.92	<0.92	<1.2			<0.92			<120	0.92		<2.3	<0.23			0.82(1)		<2.3	<0.92	<9.2		<2.3	0.58(1)	<230	<4.6

(1) Detected Below Indicated Reporting Limit
(2) Well not sampled this quarter.
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ppm = parts per million ppb = parts per billion d = lab duplicate fd = field duplicate **Bold Numbers** = concentrations above threshold limits

TRC

TABLE 4.1

VAPOR WELL ANALYTICAL DATA FOR FEBRUARY 1998
WASTE DISPOSAL, INC. SUPERFUND SITE

PARAMETERS	SOIL GAS THRESHOLD LIMIT (ppbv)	WELL IDENTIFICATION AND ANALYTICAL RESULTS			
		WDI-VW			
		50-18d	51-18fd	51-30d	BKGRNDd
Nonmethane Organics as methane/ppm		37	35,000	2,400	1.8
Methane/ppm	12,500	5.2	**450,000**	**42,000**	2.2
Vinyl chloride	25	<0.39	<1.6		<0.39
Chloroethane	75,200	<0.38	<1.5		<0.38
Acetone	31,200	11	<1.7		13
trans-1,2-Dichloroethene	3,680	<0.25	<1.0		<0.25
1,1-Dichloroethane	25,600	<0.25	<1.00		<0.25
cis-1,2-Dichloroethene	1,860	<0.25	<1.0		<0.25
Chloroform	340	1.3	<0 83		<0.21
1,2-Dichloroethane	360	<0.25	<1.00		<0.25
1,1,1-Trichloroethane	36,800	14	<0 74		0.14(1)
Benzene	200	0.41	15		0.72
Carbon Tetrachloride	68	<0.16	<0.64		0.12(1)
1,2-Dichloropropane	186	<0.22	<0.87		<0.22
Trichloroethene	822	0.97	<0.75		<0.19
1,1,2-Trichloroethane	440	<0.18	<0.74		<0.19
Toluene	21,200	1.1	<1.1		2.0
1,2-Dibromoethane	6	<0.13	<0.53		<0.13
Tetrachloroethene	1,064	2.8	<0.60		1.5
Ethylbenzene	49,000	0.22(1)	<0.92		0.17(1)
m- & p-Xylenes	14,280	0.78	0.74(1)		0.62
o-Xylene	14,280	0.27	<0.92		0.23(1)

94-256/Rpts/AnSoVaMoRe (3/15/99/jb)

(1) Detected Below Indicated Reporting Limit
(2) Well not sampled this quarter.
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ppm = parts per million ppb = parts per billion d = lab duplicate fd = field duplicate
Bold Numbers = concentrations above threshold limits

TRC

TABLE 4.2

VAPOR WELL ANALYTICAL DATA FOR APRIL 1998
WASTE DISPOSAL, INC. SUPERFUND SITE

PARAMETERS	SOIL GAS THRESHOLD LIMIT (ppbv)	WELL IDENTIFICATION AND ANALYTICAL RESULTS (ppbv, unless noted)																										
		WDI VAPOR WELL PROBE DEPTH (feet)																										
		01-35	02-35	03 35	04 23	05 29	06 34	08 35	10-35	11 35	12 34	13 31	14-35	16-34	17-35	18-36	20 35	21-36	22-35	23-36	24 35	25 35	26-35	27-09	27-19	27 35	28 10	28-25
Nonmethane Organics as methane/ppm		83	120	200	14,000	69	74	54	150	92	58	180	980	47	50	7,900	71	94	93	150	77	7,400	55	75	10	100	(2)	(2)
Methane/ppm	12,500	10	8,700	**16,200**	**190,000**	540	2,400	10 000	6,700	**15,000**	1 0	**13,400**	8,150	<0 50	<0 50	6 4	<0 50	1 3	340	4 400	<0 50	**334,100**	0 93	700	**1.3**	<0 50		
Vinyl chloride	25	<1 6	<3 9	<20	**280**(1)	<1 6	3 3	17	**120**	5 6	<1 6	**46**	**350**	<7 8	<7 8	<390	<7 8	<7 8	<78	40	<3 9	<390	<1 6	<1 6	<1 6	<1 6		
Chloroethane	75,200	<1 5	<3 8	<19	<380	<1 5	<1 5	<7 6	<7 6	<1 5	<1 5	<1 5	<95	<7 6	<7 6	<380	<7 6	<7 6	<76	<19	<3 8	<380	<1 5	<1 5	<1 5	<1.5		
Acetone	31 200	6 7	<4 2	<21	<420	4 5	<1 7	<8 4	<8 4	<1 7	<1 7	<1 7	<110	6 5(1)	7 7(1)	<420	5 2(1)	11	<84	92	3 4(1)	<420	<1 7	6 4	27	9 5		
trans-1,2 Dichloroethene	3 680	<1 0	<2 5	<13	<250	<1 0	<1 0	<5 0	<5 0	<1 0	<1 0	12	<63	<5 0	<5 0	<250	<5 0	<5 0	<50	42	<2 5	<250	<1 0	<1 0	<1 0	<1 0		
1 1-Dichloroethane	25 600	<0 99	<2.5	<12	<250	<0 99	<0 99	<4 9	85	<0 99	<0 99	0 99	67	<4 9	<4 9	<250	<4 9	<4 9	<49	13	<2.5	<250	1 7	1 2	<0 99	<0 99		
cis-1,2-Dichloroethene	1 860	<1 0	<2.5	<13	<250	<1 0	<1 0	<5 0	90	2 6	<1 0	69	<63	<5 0	<5 0	<250	<5 0	<5 0	<50	130	<2 5	<250	77	<1 0	<1 0	<1 0		
Chloroform	340	<0 82	<2 0	<10	<200	<0 82	<0 82	<4 1	<4 1	<0 82	<0 82	<0 82	<51	3 2(1)	<4 1	<200	<4 1	<4 1	<41	<10	<2 0	<200	0 51(1)	<0 82	0 93	<0 82		
1,2 Dichloroethane	360	<0 99	<2 5	<12	<250	<0 99	<0 99	<4 9	<4 9	<0 99	<0 99	<0 99	<62	<4 9	<4 9	<250	<4 9	<4 9	<49	<12	<2.5	<250	<1 0	<0 99	<0 99	<0 99		
1,1,1-Trichloroethane	36,800	<0 73	<1 8	<9 2	<180	<0 73	<0 73	<3 7	<3 7	<0 73	<0 73	<0 73	<46	8 9	240	<180	<3 7	<3 7	<37	<9 2	<1 8	<180	1 0	4 9	26	<0 73		
Benzene	200	<1 3	<3 1	<16	1 100	<1 3	<1 3	<6 3	<6 3	1 5	<1 3	3 6	<78	<6 3	<6 3	**420**	<6 3	<6 3	<63	<16	<3 1	<310	1 1(1)	<1 3	<1 3	<1 3		
Carbon Tetrachloride	68	<0 64	<1 6	<8 0	<160	<0 64	<0 64	<3 2	<3 2	<0 64	<0 64	<0 64	<40	<3 2	<3 2	<160	<3 2	<3 2	<32	<8 0	<1 6	<160	<0 64	<0 64	<0 64	<0 64		
1,2-Dichloropropane	186	<0 87	<2 2	<11	<220	<0 87	<0 87	<4 3	<4 3	<0 87	<0 87	<0 87	97	<4.3	<4 3	<220	<4 3	<4 3	<43	<11	<2 2	<220	<0 87	<0 87	<0 87	<0 87		
Trichloroethene	822	<0 74	<1 9	<9 3	<190	0 65(1)	0 49(1)	<3 7	<3 7	3 9	1 2	67	<47	280	8 9	<190	4 9	360	**3,200**	**850**	8 3	<190	76	<0 74	<0 74	<0 74		
1,1 2-Trichloroethane	440	<0 73	<1 8	<9 2	<180	<0 73	<0 73	<3 7	<3 7	<0 73	<0 73	<0 73	<46	<3 7	<3 7	<180	<3 7	<3 7	<37	<9 2	<1 8	<180	<0 74	<0 73	<0 73	<0 73		
Toluene	21,200	<1 1	<2 7	<13	<270	<1 1	<1 1	<5 3	<5 3	2 5	2 0	1 9	<66	<5 3	<5 3	190(1)	<5 3	<5 3	<53	<13	<2 7	<270	3.5	<1 1	1 6	<1 1		
1,2 Dibromoethane	6	<0 52	<1 3	<6 5	<130	<0 52	<0 52	<2 6	<2 6	<0 52	<0 52	<0 52	<33	<2 6	<2 6	<130	<2 6	<2 6	<26	<6 5	<1 3	<130	<0.53	<0 52	<0 52	<0 52		
Tetrachloroethene	1 064	6 0	<1 5	28	<150	15	1 1	<3 0	<3 0	16	45	0 95	<37	5	13	<150	250	17	190	23	6 8	<150	28	<0 59	1 7	0 72		
Ethylbenzene	49,000	<0 92	2 4	<12	430	<0 92	<0 92	<4 6	<4 6	<0 92	<0 92	0 66(1)	1 700	<4 6	<4 6	<230	<4 6	<4 6	<46	<12	<2 3	<230	<0 92	<0 92	<0 92	<0 92		
m & p-Xylenes	14,280	<0 92	2 6	<12	<230	<0 92	<0 92	<4 6	<4 6	1 3	<0 92	1 6	1 300	<4 6	<4 6	500	<4 6	<4 6	<46	<12	<2 3	<230	1 2	<0 92	0 88(1)	<0 92		
o-Xylene	14,280	<0 92	<2 3	<12	<230	<0 92	<0 92	<4 6	<4 6	<0 92	<0 92	0 88(1)	910	<4 6	<4 6	<230	<4 6	<4 6	<46	<12	<2 3	<230	<0 92	<0 92	<0 92	<0 92		

(1) Detected Below Indicated Reporting Limit
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ppm = parts per million ppb = parts per billion d = lab duplicate fd = field duplicate **Bold Numbers** = concentrations above laboratory detection limits

TRC

TABLE 4.2

VAPOR WELL ANALYTICAL DATA FOR APRIL 1998
WASTE DISPOSAL, INC. SUPERFUND SITE

PARAMETERS	SOIL GAS THRESHOLD LIMIT (ppbv)	WELL IDENTIFICATION AND ANALYTICAL RESULTS (ppbv unless noted)																										
		WDI VAPOR WELL PROBE DEPTH (feet)																										
		29 10	29 23	29 35	30 07	30 23	30 35	31 10	31 30	32-08	32 18	32 35	33 10	33 35	34 10	34 23	34 40	35 10	35 38	36-10	36 30	37 10	37 30	38 10	38 34	39 07	39 30	40-10	40 25
Nonmethane Organics as methane/ppm		17	47	73	52	180	220	24	72	28	60	93	36	67	39	60	60	27	63	21	67	17	56	29	330	43	59	76	91
Methane/ppm	12 500	1 1	<0 50	<0 50	9 8	12 000	**13,000**	0 69	0 75	0 95	<0 50	<0 50	0 99	1 4	0 70	<0 50	0 77	1 0	3 7	2 0	<0 50	1 4	<0 50	2 7	140	<0.50	0 72	**15,000**	<0 50
Vinyl chloride	25	<1 6	<1 6	<1 6	<1 6	1 3(1)	2 7	<1 6	<1 6	<1 6	<1 6	<1 6	<1 6	<1 6	<1 6	<1 6	<1 6	<3 9	<1 6	<1 6	<1 6	<1 6	<1 6	<2 0	<20	<16	<3 9	<3 9	<1 6
Chloroethane	75 200	<1 5	<1.5	<1 5	<1 5	<1 5	<1 5	<1 5	<1 5	<1 5	<1 5	<1 5	<1 5	<1 5	<1 5	<1 5	<1 5	<3 8	<1 5	<1 5	<1 5	<1 5	<1.5	<1 9	<19	<15	<3 8	<3 8	<1 5
Acetone	31 200	4 2	3 5	8 9	<1 7	<1 7	<1 7	4 7	4 3	8 6	8 4	14	4 7	6 3	4 4	7 1	3 8	6 3	3 4	6 2	3 8	5 4	5	11	<21	<17	11	<4 2	11
trans 1,2 Dichloroethene	3 680	<1 0	<1 0	<1 0	<1 0	5 8	14	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<2 5	<1 0	<1 0	<1 0	<1 0	<1 0	<1 3	<13	<10	<2 5	<2 5	<1 0
1,1 Dichloroethane	25 600	<0 99	<0 99	<0 99	6 0	2 4	0 78(1)	<0 99	<0 99	0 99	<0 99	<0 99	0 97(1)	1 5	<0 99	<0 99	<0 99	<2 5	2 5	<0 99	<0 99	1 6	<0 99	<1 2	<12	<9 9	<2 5	<2.5	<0 99
cis 1,2 Dichloroethene	1 860	<1 0	<1 0	<1 0	<1 0	3 8	11	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	1 9	<1 0	<1 0	<1 0	<2.5	<1 0	<1 0	<1 0	<1 0	<1 0	<1 3	<13	<10	<2 5	<2.5	<1 0
Chloroform	340	0 53(1)	<0 82	2 5	0 68(1)	<0 83	<0 83	<0 82	<0 82	0 99	0 82	2 0	8 9	8 8	<0 82	0 89	2 1	<2 0	50	0 93	3 6	<0 82	<0 82	<1 0	<10	<8 2	<2 0	2 1	<0 82
1 2 Dichloroethane	360	<0 99	<0 99	<0 99	<1 0	<1 0	<1 0	<0 99	<0 99	<0 99	<0 99	<0 99	<0 99	<0 99	<0 99	<0 99	<0 99	<2.5	2.3	<0 99	<0 99	<0 99	<0 99	<1 2	<12	<9 9	<2 5	7 5	<0 99
1,1 1 Trichloroethane	36 800	390	5 1	2 6	1 400	35	1 9	36	6 7	47	8 4	3 0	290	27	470	4 9	2 5	49	11	9 9	<0 73	1 400	9 9	120	12	640	230	17	2 3
Benzene	200	<1 3	<1 3	<1 3	<1 3	<1 3	<1 3	<1 3	<1 3	<1 3	<1 3	<1 3	<1 3	<1 3	<1 3	<1 3	<1 3	<3 1	<1 3	<1 3	<1 3	1 5	<1 3	<1 6	<16	<13	<3 1	18	<1 3
Carbon Tetrachloride	68	<0 64	0 69	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<1 6	<0 64	<0 64	<0 64	<0 64	<0 64	<0 80	<8 0	<6 4	<1 6	<1 6	<0 64
1,2 Dichloropropane	186	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<2 2	<0 87	<0 87	<0 87	<0 87	<0 87	<1 1	<11	<8 7	<2 2	<2 2	<0 87
Trichloroethene	822	<0 74	<0 74	1 4	0 51(1)	21	40	<0 74	6 0	<0 74	<0 74	0 83	0 58(1)	360	0 67(1)	<0 74	6 0	50	**1,500**	<0 74	<0 74	<0 74	<0 74	<0 93	<9 3	<7 4	<1 9	1 2(1)	7 3
1,1,2 Trichloroethane	440	<0 73	<0 73	<0 73	<0 74	<0 74	<0 74	<0 73	<0 73	<0 73	<0 73	<0 73	<0 73	<0 73	<0 73	<0 73	<0 73	<1 8	<0 73	<0 73	<0 73	<0 73	<0 73	<0 92	<9 2	<7 3	<1 8	<1 8	<0 73
Toluene	21 200	1 1	1 1	0 94(1)	1 4	0 72(1)	1 1	1 1	<1 1	0 75(1)	<1 1	<1 1	0 65(1)	<1 1	0 67(1)	<1 1	<1 1	<2 7	<1 1	0 69(1)	<1 1	1 9	<1 1	1 0(1)	<13	<11	1 8(1)	2 7	<1 1
1,2 Dibromoethane	6	<0 52	<0 52	<0 52	<0.53	<0.53	<0 53	<0 52	<0 52	<0.52	<0 52	<0 52	<0 52	<0 52	<0 52	<0 52	<0 52	<1 3	<0 52	<0 52	<0 52	<0 52	<0 52	<0 65	<6 5	<5 2	<1 3	<1 3	<0.52
Tetrachloroethene	1 064	1 5	7 1	17	2 5	27	39	16	35	1 4	1 1	1 2	1 0	21	2 5	11	8 0	2.9	28	0 87	2 1	0 46(1)	2 2	1 2	<7 4	6 8	11	2 7	190
Ethylbenzene	49 000	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<2 3	<0 92	<0 92	<0 92	<0 92	<0 92	<1 2	<12	<9 2	<2 3	<2 3	<0 92
m & p-Xylenes	14,280	0 84(1)	0 58(1)	<0 92	<0 92	<0 92	<0 92	0 68(1)	<0 92	<0 92	0 67(1)	<0 92	<0 92	<0 92	0 66(1)	<0 92	0 90(1)	<2 3	<0 92	<0 92	<0 92	0 61(1)	<0 92	0 81(1)	<12	<9 2	<2 3	2 7	<0 92
o Xylene	14 280	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<2 3	<0 92	<0 92	<0 92	<0 92	<0 92	<1 2	<12	<9 2	<2 3	<2 3	<0 92

(1) Detected Below Indicated Reporting Limit.
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ppm = parts per million ppb = parts per billion d = lab duplicate fd = field duplicate **Bold Numbers** = concentrations above laboratory detection limits

TRC

TABLE 4.2

VAPOR WELL ANALYTICAL DATA FOR APRIL 1998
WASTE DISPOSAL, INC. SUPERFUND SITE

PARAMETERS	SOIL GAS THRESHOLD LIMIT (ppbv)	WELL IDENTIFICATION AND ANALYTICAL RESULTS (ppbv, unless noted)																											
		WDI VAPOR WELL - PROBE DEPTH (feet)																											
		41-07	41-20	42-10	42 30	43-09	43-19	43 32	44-07	44-16	44-30	45 12	45 22	45-30	46-07	46-15	46-27	47 08	47-18	47-30	48-08	48 17	48-35	49-10	49 18	49-30	50-08	50-18	50-35
Nonmethane Organics as methane/ppm		48	76	(2)	(2)	61	270	280	87	47	120	(2)	11,000	370	(2)	100	100	33	89	50	(2)	28,000	590	58	75	76	23	48	91
Methane/parts per million (ppm)	12 500	<0 50	<0 50			160	**15,100**	**20,500**	880	2,000	8,000		**63,100**	**14,300**		<0 50	<0 50	3 9	2,900	1,600		**441,000**	**31,600**	9 2	<0 50	<0 50	4 1	0 93	<0 50
Vinyl chloride	25	<1 6	<1 6			2 5	**430**	**230**	<3 9	7 2(1)	47		**6,500**	<20		<1 6	<1 6	<1 6	<7 8	<7 8		<1 600	<20	<7 8	<7 8	<39	<3 9	<3 9	<1 6
Chloroethane	75 200	<1 5	<1 5			<1 5	1 4(1)	<1 5	<3 8	<7 6	<1 5		<380	<19		<1 5	<1 5	<1 5	<7 6	<7 6		<1,500	<19	<7 6	<7 6	<38	<3 8	<3 8	<1 5
Acetone	31 200	5 3	5 8			<1 7	<1 7	<1 7	<4 2	<8 4	<1 7		<420	<21		8 8	6 0	4 8	<8 4	<8 4		<1,700	<21	<8 4	<8 4	28(1)	17	10	6 2
trans-1,2-Dichloroethene	3,680	<1 0	<1 0			<1 0	11	8 6	<2 5	<5 0	<1 0		4,700	<13		<1 0	<1 0	<1 0	<5 0	<5 0		<1 000	<13	<5 0	<5 0	<25	<2.5	<2 5	<1 0
1,1-Dichloroethane	25 600	<0 99	<0 99			<0 99	<0 99	1 4	1 8(1)	4 0(1)	25		<250	<12		3 6	<0 99	<0 99	<4 9	<4 9		<990	<12	49	<4 9	<25	<2.5	<2 5	0 84(1)
cis-1,2-Dichloroethene	1 860	<1 0	<1 0			6 5	98	190	<2 5	<5 0	<1 0		**8,000**	<13		<1 0	<1 0	<1 0	<5 0	<5 0		<1 000	<13	<5 0	<5 0	<25	<2 5	<2 5	1 4
Chloroform	340	<0 82	<0 82			<0 82	0 64(1)	<0 82	1 8(1)	<4 1	<0 82		<200	<10		1 1	1 1	0 81(1)	<4 1	<4 1		<820	<10	<4 1	<4 1	<20	<2 0	<2 0	0 59(1)
1,2-Dichloroethane	360	<0 99	<0 99			<0 99	4 2	<0 99	<2 5	<4 9	<0 99		180(1)	<12		<0 99	<0 99	<0 99	8 0	<4 9		<990	<12	<4 9	<4 9	<25	<2 5	<2 5	<0 99
1,1,1-Trichloroethane	36,800	34	22			3 2	3 2	<0 73	51	110	5.5		<180	<9 2		83	7 0	1 1	<3 7	<3 7		<730	<9 2	410	6.5	<18	110	210	13
Benzene	200	<1 3	<1 3			0 90(1)	12	15	2 3(1)	<6 3	<1 3		**2,800**	41		<1 3	<1 3	<1 3	<6 3	<6 3		**4,100**	<16	<6 3	<6 3	<31	<3 1	<3 1	<1 3
Carbon Tetrachloride	68	<0 64	<0 64			<0 64	<0 64	<0 64	<1 6	<3 2	<0 64		<160	<8 0		<0 64	<0 64	<0 64	<3.2	<3 2		<640	<8 0	<3 2	<3 2	<16	<1 6	<1 6	<0 64
1,2-Dichloropropane	186	<0 87	<0 87			<0 87	0 79(1)	<0 87	<2 2	<4 3	19		<220	<11		<0 87	<0 87	<0 87	<4 3	<4 3		<870	<11	<4 3	<4 3	<22	<2 2	<2 2	<0 87
Trichloroethene	822	<0 74	<0 74			21	6 4	1 2	<1 9	<3 7	<0 74		240	<9 3		16	28	<0 74	<3 7	<3 7		<740	6 2(1)	4 9	5 7	16(1)	<1 9	<1 9	2 9
1,1,2-Trichloroethane	440	<0 73	<0 73			<0 73	<0 73	<0 73	<1 8	<3 7	<0 73		<180	<9 2		<0 73	<0 73	<0 73	<3 7	<3 7		<730	<9 2	<3 7	<3 7	<18	<1 8	<1 8	<0 73
Toluene	21 200	<1 1	0 75(1)			0 92(1)	5 6	1 8	5 7	<5 3	1 6		770	<13		<1 1	<1 1	<1 1	<5 3	<5 3		<1,100	<13	<5 3	<5 3	<27	<2 7	<2.7	<1 1
1,2-Dibromoethane	6	<0 52	<0 52			<0 52	<0 52	<0 52	<1 3	<2 6	<0 52		<130	<6 5		<0 52	<0 52	<0 52	<2 6	<2 6		<520	<6 5	<2 6	<2 6	<13	<1 3	<1 3	<0.52
Tetrachloroethene	1,064	35	14			15	7 5	0.57(1)	1 1(1)	<3 0	<0 59		<150	<7 4		160	230	1 0	5 7	6 5		<590	21	50	360	930	1 1(1)	1 9	2.8
Ethylbenzene	49 000	<0 92	<0 92			<0 92	2 9	3 9	<2 3	<4 6	<0 92		210(1)	<12		<0 92	<0 92	<0 92	<4 6	<4 6		3,100	<12	<4 6	<4 6	<23	<2 3	<2 3	<0 92
m- & p-Xylenes	14,280	<0 92	0.57(1)			<0 92	2 8	7 0	1 8(1)	<4 6	2 1		350	<12		<0 92	<0 92	<0 92	<4 6	<4 6		1,400	<12	<4 6	<4 6	<23	<2 3	<2.3	<0 92
o-Xylene	14,280	<0 92	<0 92			<0 92	3 3	0 78(1)	1 6(1)	<4 6	0 90(1)		300	<12		<0 92	<0 92	<0 92	<4 6	<4 6		<920	<12	<4 6	<4 6	<23	<2 3	<2 3	<0 92

(1) Detected Below Indicated Reporting Limit
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TABLE 4.2

VAPOR WELL ANALYTICAL DATA FOR APRIL 1998
WASTE DISPOSAL, INC. SUPERFUND SITE

PARAMETERS	SOIL GAS THRESHOLD LIMIT (ppbv)	WELL IDENTIFICATION AND ANALYTICAL RESULTS (ppbv, unless noted)																											
		WDI VW																											
		51 18	51-30	MP 1 05	MP-1 15	MP 2 05	MP-2-15	AMB 4/23	01 35d	01-35fd	05 29d	18 36fd	21-36d	21-36fd	22 35d	26 35d	27-09d	29-10d	30 07d	30-35fd	31-10d	32-08d	32-18d	34-23d	36 30fd	38 10d	39-07d	41 20d	41-20fd
Nonmethane Organics as methane/ppm		22,000	1,800	77	2,200	53	66,000	5 2	78	73	72	7 800	(3)	92	95	(3)	71	(3)	51	220	(3)	(3)	59	(3)	66	29	42	75	76
Methane/ppm	12,500	**234,000**	**38,100**	<0 50	**73,700**	<0 50	**644,000**	1 6	10	10	556	6 3		1 2	330		690		9 7	**13,000**			<0 50		<0.50	30	<0 50	<0 50	<0.50
Vinyl chloride	25	<780	**65**(1)	<1 6	<160	<1 6	<1 600	<1 6		<1 6		<390	<7 8	<7 8	<78	<1 6		<1 6		**2.9**	<1.6	<1 6	<1 6	<1 6	<1 6				<3 9
Chloroethane	75,200	<760	<76	<1 5	<150	<1 5	<1,500	<1 5		5 9		<380	<7 6	<7 6	<76	<1 5		<1.5		<1.5	<1 5	<1 5	<1 5	<1 5	<1.5				<3 8
Acetone	31,200	<840	<84	4 4	<170	3 7	<1,700	4 0		6 7		<420	9 7	8 8	<84	<1 7		3 5		<1 7	4 0	8 8	6.8	6 3	4 2				5 9
trans 1,2 Dichloroethene	3 680	<500	190	<1 0	<100	<1 0	<1 000	<1 0		<1 0		<250	<5 0	<5 0	<50	<1 0		<1 0		14	<1 0	<1 0	<1 0	<1 0	<1 0				<2 5
1,1-Dichloroethane	25 600	<490	<49	<0 99	<99	<0 99	<990	<0 99		<0 99		<250	<4 9	<4 9	<49	1 7		<0 99		0 82(1)	<0 99	0 97(1)	<0 99	<0 99	<0 99				<2 5
cis-1,2-Dichloroethene	1,860	<500	210	<1 0	<100	<1 0	<1 000	<1 0		<1 0		<250	<5 0	<5 0	<50	77		<1 0		11	<1 0	<1 0	<1 0	<1 0	<1 0				<2.5
Chloroform	340	<410	<41	<0 82	<82	<0 82	<820	<0 82		<0 82		<200	<4 1	<4 1	<41	0 53(1)		0 54(1)		<0.83	<0 82	0 98	0 83	0 91	3 9				<2 0
1,2-Dichloroethane	360	<490	<49	<0 99	<99	<0 99	<990	<0 99		<0 99		<250	<4 9	<4 9	<49	<1 0		<0 99		<1 0	<0 99	<0 99	<0 99	<0 99	<0 99				<2 5
1,1,1-Trichloroethane	36,800	<370	<37	6 4	<73	<0 73	<730	<0 73		<0 73		<180	<3 7	<3 7	<37	1 0		390		1 9	36	46	8 1	4 9	<0 73				22
Benzene	200	**1,200**	86	<1 3	120(1)	<1 3	**60,000**	<1 3		<1 3		**470**	<6 3	<6 3	<63	0 94(1)		<1 3		<1 3	<1 3	<1 3	<1 3	<1 3	<1 3				<3 1
Carbon Tetrachloride	68	<320	<32	<0 64	<64	<0 64	<640	<0 64		<0 64		<160	<3 2	<3 2	<32	<0 64		<0 64		<0 64	<0 64	<0 64	<0 64	<0 64	<0 64				<1 6
1,2-Dichloropropane	186	<430	<43	<0 87	<87	<0 87	<870	<0 87		<0 87		<220	<4 3	<4 3	<43	<0 87		<0 87		<0 87	<0 87	<0 87	<0 87	<0 87	<0 87				<2 2
Trichloroethene	822	<370	130	<0 74	<74	4 2	<740	<0 74		<0 74		<190	360	360	**3,100**	73		<0 74		42	<0 74	<0 74	<0 74	<0 74	<0 74				<1 9
1,1,2-Trichloroethane	440	<370	<37	<0 73	<73	<0 73	<730	<0 73		<0 73		<180	<3 7	<3 7	<37	<0 74		<0 73		<0 74	<0 73	<0 73	<0 73	<0 73	<0 73				<1 8
Toluene	21,200	<530	<53	<1 1	<110	<1 1	1 600	1 3		<1 1		<270	<5 3	<5 3	<53	3 1		1 1		1 1	1 1	0 71(1)	<1 1	<1 1	<1 1				<2.7
1,2-Dibromoethane	6	<260	<26	<0 52	<52	<0 52	<520	<0 52		<0 52		<130	<2 6	<2 6	<26	<0 53		<0 52		<0 53	<0.52	<0 52	<0 52	<0 52	<0.52				<1 3
Tetrachloroethene	1,064	<300	<30	3 8	<59	130	<590	<0 59		6 0		<150	17	17	190	26		1.5		41	16	1 4	1 1	11	2 0				16
Ethylbenzene	49,000	<460	<46	<0 92	<92	<0 92	680(1)	<0 92		<0 92		<230	<4 6	<4 6	<46	<0 92		<0 92		<0 92	<0 92	<0 92	<0 92	<0 92	<0 92				<2 3
m- & p-Xylenes	14,280	<460	<46	<0 92	<92	<0 92	5 200	<0 92		<0 92		480	<4 6	<4 6	<46	1 1		0 82(1)		<0 92	0 68(1)	<0 92	<0 92	<0 92	<0 92				<2 3
o-Xylene	14 280	<460	<46	<0 92	<92	<0 92	<920	<0 92		<0 92		<230	<4 6	<4 6	<46	<0 92		<0 92		<0 92	<0 92	<0 92	<0 92	<0 92	<0 92				<2 3

(1) Detected Below Indicated Reporting Limit
(2) Well not sampled this quarter
(3) Duplicates may not have been performed on the same sample for each analysis

ppm = parts per million ppb = parts per billion d = lab duplicate fd = field duplicate **Bold Numbers** = concentrations above laboratory detection limits

TRC

TABLE 4.2

VAPOR WELL ANALYTICAL DATA FOR APRIL 1998
WASTE DISPOSAL, INC. SUPERFUND SITE

PARAMETERS	SOIL GAS THRESHOLD LIMIT (ppbv)	WELL IDENTIFICATION AND WDI-VW					
		44-07d	51-30fd	51-30fdd	MP-2-05d	MP-2-15d	AMB 4/23
Nonmethane Organics as methane/ppm		(3)	**1,900**	**1,900**	**52**	(3)	(3)
Methane/ppm	12,500		**38,300**	**38,000**	<0.50		
Vinyl chloride	25	<3.9	**74**(1)			<1,600	<1.6
Chloroethane	75,200	<3.8	<76			<1,500	<1.5
Acetone	31,200	<4.2	<84			<1,700	3.8
trans-1,2-Dichloroethene	3,680	<2.5	200			<1,000	<1.0
1,1-Dichloroethane	25,600	1.7(1)	<49			<990	<0.99
cis-1,2-Dichloroethene	1,860	<2.5	210			<1,000	<1.0
Chloroform	340	1.6(1)	<41			<820	<0 82
1,2-Dichloroethane	360	<2.5	<49			<990	<0.99
1,1,1-Trichloroethane	36,800	51	<37			<730	<0.73
Benzene	200	2.3(1)	88			**59,000**	<1.3
Carbon Tetrachloride	68	<1.6	<32			<640	<0.64
1,2-Dichloropropane	186	<2.2	<43			<870	<0.87
Trichloroethene	822	<1.9	140			<740	<0.74
1,1,2-Trichloroethane	440	<1 8	<37			<730	<0.73
Toluene	21,200	5.5	<53			1,600	1.2
1,2-Dibromoethane	6	<1.3	<26			<520	<0.52
Tetrachloroethene	1,064	1.1(1)	<30			<590	<0.59
Ethylbenzene	49,000	<2.3	<46			680(1)	<0.92
m- & p-Xylenes	14,280	1.8(1)	<46			5,100	<0.92
o-Xylene	14,280	1.6(1)	<46			<920	<0.92

94-256/Rpts/AnSoVaMoRc(3/15/99/jb)

(1) Detected Below Indicated Reporting Limit.
(2) Well not sampled this quarter.
(3) Duplicates may not have been performed on the same sample for each analysis.

ppm = parts per million ppb = parts per billion d = lab duplicate fd = field duplicate
Bold Numbers = concentrations above laboratory detection limits

TRC

TABLE 4.3

VAPOR WELL ANALYTICAL DATA FOR JULY 1998
WASTE DISPOSAL, INC. SUPERFUND SITE

PARAMETERS	SOIL GAS THRESHOLD LIMIT (ppbv)	WELL IDENTIFICATION AND ANALYTICAL RESULTS (ppbv, unless noted)																												
		WDI VAPOR WELL - PROBE DEPTH (feet)																												
		29 10	29-23	29 35	30 07	30-23	30-35	31 10	31 30	32-08	32-18	32-35	33 10	33 35	34-10	34-23	34-40	35 10	35 38	36 10	36-30	37-10	37-30	38 10	38 34	39 07	39-30	40-10	40 25
Nonmethane Organics as methane/ppm		47	52	83	100	140	150	64	88	44	93	100	110	32	80	110	110	67	95	59	98	50	100	71	740	78	83	78	79
Methane/ppm	12 500	1 2	<0 50	0 71	1 5	1,300	3,300	<0 50	<0 50	1 5	<0 50	<0 50	2 1	3 0	1 3	3 1	1 4	1 0	7 8	2 0	<0 50	3 9	950	2 6	260	1 0	0 85	**18,300**	**<0 50**
Vinyl chloride	25	<1 6	<1 6	<1 6	<1 6	<1 6	1 3(1)	<1 6	<1 6	<1 6	<1 6	<1 6	<1 6	<1 6	<1 6	<1 6	<1 6	<1 6	<1 6	<1 6	<1 6	<1 6	3 7	<1 6	<7 9	<7 9	<1 6	<1 6	<1 6
Chloroethane	75,200	<1 5	<1 5	<1 5	<1 5	<1.5	<1.5	<1 5	<1 5	<1 5	<1 5	<1 5	<1 5	<1 5	<1 5	<1 5	<1 5	<1 5	<1 5	<1 5	<1 5	1 3(1)	<1 5	<1 5	<7 6	<7 6	<1 5	<1 5	<1 5
Acetone	31 200	<1 7	2 2	2 4	2 6	<1 7	<1 7	<1 7	<1 7	3 5	1 8	2 4	3 1	6 8	4 6	2 7	3 4	5 1	2 3	5 0	2 0	8 6	<1 7	6 1	<8 4	6 5(1)	4 5	<1 7	5 0
trans 1,2-Dichloroethene	3,680	<1 0	<1 0	<1 0	<1 0	1 3	6 6	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<5 1	<5 1	<1 0	<1 0	<1 0
1,1-Dichloroethane	25 600	<0 99	<0 99	<0 99	2 6	<1 0	<1 0	<1 0	<1 0	<0 99	<0 99	<0 99	<0 99	<0 99	<0 99	<0 99	<0 99	<1 0	2 1	<1 0	<1 0	1 3	<1 0	<1 0	<5 0	17	0 95(1)	2 4	<0 99
cis-1,2-Dichloroethene	1 860	<1 0	<1 0	<1 0	<1 0	4 0	12	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<5 1	<5 1	<1 0	1 9	<1 0
Chloroform	340	<0 82	<0 82	1 5	0.54(1)	<0 83	<0 83	<0 83	<0 83	0 50(1)	0 51(1)	1 8	2 3	<0 82	<0 82	1 1	2 0	0 67(1)	43	<0 83	3 2	<0 83	<0 83	<0 83	<4 1	<4 1	<0 83	0 76(1)	<0 82
1,2-Dichloroethane	360	<0 99	<0 99	<0 99	<1 0	<1 0	<1 0	<1 0	<1 0	<0 99	<0 99	<0 99	<0 99	<0 99	<0 99	<0 99	<0 99	<1 0	3.5	2 1	<1 0	<1 0	<1 0	<1 0	<5 0	<5 0	<1 0	4 1	<0 99
1,1,1-Trichloroethane	36 800	48	<0 73	<0 73	360	1 9	<0 74	2 0	0 55(1)	9 4	5 6	2 8	120	1 8	130	4 7	0.53(1)	19	4 9	3 1	<0 74	320	1 9	68	<3 7	240	50	18	2 1
Benzene	200	<1 3	<1 3	<1 3	<1 3	<1 3	<1 3	<1 3	<1 3	<1 3	<1 3	<1 3	<1 3	<1 3	<1 3	<1 3	<1 3	<1 3	1 6	0 94(1)	<1 3	1 6	0 80(1)	0 84(1)	<6 3	<6 3	0 91(1)	28	<1 3
Carbon Tetrachloride	68	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<3 2	<3 2	<0 64	<0 64	<0 64
1,2-Dichloropropane	186	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<4 4	<4 4	<0 87	<0 87	<0 87
Trichloroethene	822	<0 74	<0 74	<0 74	1 0	10	23	<0 75	4 9	<0 74	<0 74	0 65(1)	0 94	16	<0 74	<0 74	4 1	67	1 200	<0 75	<0 75	<0 75	<0 75	<0 75	<3 8	<3 8	<0 75	1 1	4 6
1,1,2-Trichloroethane	440	<0 73	<0 73	<0 73	<0 74	<0 74	<0 74	<0 74	<0 74	<0 73	<0 73	<0 73	<0 73	<0 73	<0 73	<0 73	<0 73	<0 74	<0 74	<0 74	<0 74	<0 74	<0 74	<0 74	<3 7	<3 7	<0 74	<0 73	<0 73
Toluene	21 200	3 3	2 4	2 6	2 2	2 0	2 2	4 7	3 3	1 6	1 2	1 1	2 1	1 7	3 0	2 4	2 7	3 7	2 6	5 6	3 4	7 3	3 5	5 3	3 6(1)	4 1(1)	7 2	4 1	3 5
1,2 Dibromoethane	6	<0 52	<0 52	<0 52	<0 53	<0.53	<0 53	<0.53	<0 53	<0 52	<0.52	<0 52	<0 52	<0 52	<0.52	<0.52	<0 52	<0 53	<0 53	<0 53	<0 53	<0 53	<0 53	<0 53	<2 6	<2 6	<0.53	<0 52	<0 52
Tetrachloroethene	1,064	1 9	4 8	11	3 1	55	67	16	32	0 72	0 97	1 0	1 5	2 1	2 3	9.2	6 3	3 6	42	1 3	2 1	0 60	1 3	1 5	3 0	9 5	9.5	3 9	150
Ethylbenzene	49 000	<0 92	<0 92	<0 92	<0 92	0 91(1)	<0 92	0 93	0 64(1)	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	1 1	0 65(1)	0 96	0 57(1)	0 97(1)	<4 6	<4 6	1 2	1 2	<0 92
m- & p-Xylenes	14,280	1 7	1 1	1 4	1 2	3 9	1 3	4 1	2 8	1 2	0 93	0 77	1 3	1 3	1 6	0 91(1)	1 4	1 4	1 2	4 6	2 8	3 7	2 2	3 9	<4 6	<4 6	4 8	4 6	2 5
o-Xylene	14,280	<0 92	<0 92	<0 92	<0 92	1 8	<0 92	1 9	1 2	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	2 1	1 3	1 3	0 87(1)	1 6	<4 6	<4 6	2 0	2 1	1 1

(1) Detected Below Indicated Reporting Limit.
(2) Well 50 not sampled this quarter
(3) Duplicates may not have been performed on the same sample for each analysis

ppm = parts per million ppb = parts per billion d = lab duplicate fd = field duplicate **Bold Numbers** = concentrations above laboratory detection limits

TRC

TABLE 4.3

VAPOR WELL ANALYTICAL DATA FOR JULY 1998
WASTE DISPOSAL, INC. SUPERFUND SITE

PARAMETERS	SOIL GAS THRESHOLD LIMIT (ppbv)	WELL IDENTIFICATION AND ANALYTICAL RESULTS (ppbv, unless noted)																											
		WDI VAPOR WELL PROBE DEPTH (feet)																											
		41 08	41 20	42 10	42 30	43 09	43 19	43 32	44-07	44 16	44-30	45-12	45-22	45 30	46 07	46 15	46 27	47-08	47 18	47 30	48-08	48 17	48 35	49-10	49-18	49-30	50-08	50-18	50-35
Nonmethane Organics as methane/ppm		110	98	45	89	45	410	440	140	79	150	34,000	14 000	18 000	93	95	110	57	180	130	9,300	40 000	840	120	150	160	(2)	(2)	(2)
Methane/ppm	12,500	<0 50	<0 50	2 0	<0 50	2 9	**22,000**	**23,000**	4 200	1 600	7 260	**213,000**	**90,200**	**27,800**	**17,200**	<0 50	<0 50	1 9	5,000	2 300	**258,000**	**592,000**	**27,500**	5 4	20	10			
Vinyl chloride	25	<1 6	<1 6	<1 6	<1 6	<1 6	**240**	**280**	<3 9	1 7	59	**55**	**87**	<39	2 6	<1 6	<1 6	<1 6	<1 6	<1 6	**750**	<780	<20	<1 6	<1 6	<1 6			
Chloroethane	75,200	<1.5	<1 5	<1 5	<1 5	<1 5	<7 6	<7 6	<3 8	<1 5	<3 8	<0 76	<0 38	<38	4 6	<1 5	<1 5	<1 5	<1 5	<1 5	<190	<760	<19	<1 5	1 0[1]	<1 5			
Acetone	31 200	3 4	1 9	7 7	3 4	2 9	<8 4	<8 4	<4 2	<1 7	<4 2	<0 84	<0 42	<42	<1 7	4 1	2 3	11	<1 7	6 5	<210	<840	<21	8 4	5 7	4 7			
trans 1 2 Dichloroethene	3 680	<1 0	<1 0	<1 0	<1 0	<1 0	4 7[1]	5 1	<2 5	<1 0	<2 5	10	5 6	<25	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<130	<500	<13	<1 0	<1 0	<1 0			
1 1 Dichloroethane	25 600	<0 99	<0 99	<0 99	<0 99	<1 0	<5 0	<5 0	3 4	3 4	25	<0 50	<0 25	<25	190	2 9	<0 99	<0 99	<0 99	<0 99	<120	<490	<12	10	0 78[1]	0 66[1]			
cis-1 2-Dichloroethene	1 860	<1 0	<1 0	<1 0	<1 0	<1 0	71	180	<2 5	<1 0	<2.5	11	1 4	<25	4 4	<1 0	<1 0	<1 0	<1 0	<1 0	100[1]	<500	<13	0 99[1]	<1 0	<1 0			
Chloroform	340	<0 82	<0 82	38	<0 82	0 85	<4 1	<4 1	<2 1	<0 83	<2 1	<0 41	<0 21	<21	<0 83	0 87	1 1	0 55[1]	<0 82	<0 82	<100	<410	<10	<0 82	<0 82	<0 82			
1 2 Dichloroethane	360	<0 99	<0 99	<0 99	<0 99	<1 0	<5 0	<5 0	<2 5	<1 0	<2 5	<0.50	<0 25	<25	3 4	<0 99	<0 99	<0 99	3 6	<0 99	<120	<490	<12	<0 99	<0 99	<0 99			
1,1 1-Trichloroethane	36 800	23	15	<0 73	<0 73	6 7	<3 7	<3 7	78	64	<1 9	<0 37	<0 19	<19	280	68	6 9	<0 73	<0 73	<0 73	<92	<370	<9 2	42	5 1	<0 73			
Benzene	200	<1 3	<1 3	<1 3	<1 3	<1 3	12	11	<3 1	0 98[1]	<3 1	9 9	4 7	<31	7 1	<1 3	<1 3	<1 3	1 2[1]	<1 3	**820**	**4,200**	<16	1.5	0 93[1]	<1 3			
Carbon Tetrachloride	68	<0 64	<0 64	<0 64	<0 64	<0 64	<3 2	<3 2	<1 6	<0 64	<1 6	<0.32	<0 16	<16	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<80	<320	<8 0	<0 64	<0 64	<0 64			
1,2 Dichloropropane	186	<0 87	<0 87	<0 87	<0 87	<0 87	<4 4	<4 4	<2 2	<0 87	18	<0 44	<0 22	<22	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<110	<430	<11	<0 87	<0 87	<0 87			
Trichloroethene	822	<0 74	<0 74	<0 74	<0 74	3 8	3 1[1]	<3 8	<1 9	<0 75	<1 9	0 26[1]	<0 19	<19	0 86	16	21	<0 74	1 2	1 7	<93	<370	<9 3	4 9	13	7 7			
1,1 2-Trichloroethane	440	<0 73	<0 73	<0 73	<0 73	<0 74	<3 7	<3 7	<1 9	<0 74	<1 9	<0 37	<0 19	<19	<0 73	<0 73	<0 73	<0 73	<0 73	<0 73	<92	<370	<9 2	<0 73	<0 73	<0 73			
Toluene	21 200	2 5	1 8	3 1	2 9	3 3	7 8	3 7[1]	6 9	5 0	3 0	7 2	0 72	<27	11	2 8	2 6	4 2	3 1	3 3	<130	<530	<13	4 7	2 8	3 1			
1 2 Dibromoethane	6	<0 52	<0 52	<0 52	<0 52	<0 53	<2 6	<2 6	<1 3	<0 53	<1 3	<0 26	<0 13	<13	<0 52	<0 52	<0 52	<0 52	<0 52	<0 52	<65	<260	<6.5	<0 52	<0 52	<0 52			
Tetrachloroethene	1 064	34	14	6 2	9 3	16	4 9	<3 0	1 3[1]	<0 60	<1 5	<0 30	<0 15	<15	1 5	160	190	1 4	3 8	21	<74	<300	15	110	350	290			
Ethylbenzene	49 000	<0 92	<0 92	<0 92	<0 92	<0 92	<4 6	<4 6	<2 3	0 76[1]	<2.3	0 97	<0 23	<23	5 2	<0 92	<0 92	0 61[1]	<0 92	0 68[1]	120	5 400	7.5[1]	0 70[1]	<0 92	<0 92			
m & p-Xylenes	14 280	0 99	1 1	2 3	2 3	2 3	3 6[1]	4 6[1]	3 9	3 1	<2 3	6 0	<0 23	<23	9 0	1.5	1 4	2 2	1 9	2 6	<120	1 800	<12	3 1	2 1	2 3			
o-Xylene	14,280	<0 92	<0 92	0 91[1]	1 0	0 93	<4 6	<4 6	4 2	4 1	<2 3	2 6	0 52	<23	3 8	<0 92	<0 92	0 78[1]	0 79[1]	1 1	<120	<460	<12	1 3	0 95	0 93			

(1) Detected Below Indicated Reporting Limit.
(2) Well 50 not sampled this quarter
(3) Duplicates may not have been performed on the same sample for each analysis

ppm = parts per million ppb = parts per billion d = lab duplicate fd = field duplicate **Bold Numbers** = concentrations above laboratory detection limits

TRC

TABLE 4.3

VAPOR WELL ANALYTICAL DATA FOR JULY 1998
WASTE DISPOSAL, INC. SUPERFUND SITE

PARAMETERS	SOIL GAS THRESHOLD LIMIT (ppbv)	WELL IDENTIFICATION AND ANALYTICAL RESULTS (ppbv, unless noted)																										
		WDI-VAPOR WELL PROBE DEPTH (feet)																										
		01-35	02 35	03 35	04-23	05 29	06 34	08 35	10-35	11-35	12-34	13 31	14-35	16-34	17-35	18 36	20-35	21 36	22 35	23-36	24-35	25 35	26 35	27-09	27-19	27-35	28 10	28 25
Nonmethane Organics as methane/ppm		110	120	160	21,000	72	84	48	180	190	63	240	490	79	94	780	91	120	81	160	110	5,300	82	130	28	98	42	65
Methane/ppm	12 500	0 76	130	9 050	**173,000**	<0 50	1,300	2 9	7 060	**15,100**	<0 50	7 500	110	0 63	<0 50	2 4	1 4	6 9	2 1	2,100	<0 50	**65,000**	1 3	8 6	2 7	<0 50	0 85	<0 50
Vinyl chloride	25	<1 6	<1 6	<3 9	<390	<1 6	<1 6	<1 6	**160**	6 6	<1 6	**37**	<39	<1 6	<1 6	<16	<1 6	<1 6	<1 6	**26**	<1 6	<99	<1 6	<1 6	<1 6	<1 6	<1 6	<1 6
Chloroethane	75 200	<1 5	<1 5	<3 8	<380	<1 5	<1 5	<1 5	<3 8	<3 8	<1 5	<3 8	<38	<1 5	<1 5	<15	<1 5	<1.5	<1 5	<1 5	<1.5	<96	<1 5	<1 5	2 7	<1 5	<1 5	<1 5
Acetone	31 200	2 8	<1 7	<4 2	<420	3 1	<1 7	3 4	<4 2	<4 2	<1 7	<4 2	<42	2 2	<1 7	<17	8 8	1 9	4 8	<1 7	2 5	<110	2 6	5 1	9 3	2.5	2 7	1 5[1]
trans 1,2-Dichloroethene	3 680	<1 0	<1 0	<2 5	<250	<1 0	<1 0	<1 0	<2 5	<2 5	<1 0	10	<25	<1 0	<1 0	<10	<1 0	<1 0	<1 0	38	<1 0	<64	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0
1,1-Dichloroethane	25,600	<0 99	<0 99	<2 5	<250	<0 99	<1 0	<0 99	90	<2 5	<1 0	<2 5	17[1]	3 1	<1 0	<10	<0 99	<0 99	3 1	15	<0 99	<62	2 3	2 1	<0 99	<0 99	<0 99	<0 99
cis-1,2-Dichloroethene	1 860	<1 0	<1 0	<2 5	<250	<1 0	<1 0	<1 0	110	<2 5	<1 0	52	<25	<1 0	<1 0	<10	<1 0	1 1	5 6	130	<1 0	<64	47	<1 0	<1 0	<1 0	<1 0	<1 0
Chloroform	340	<0 82	<0 82	<2 0	<200	<0 82	<0 83	<0 82	<2 0	<2 1	<0 83	<2 0	<20	4 5	<0 83	<8 3	<0 82	1 8	6 6	1 4	<0 82	<52	<0 83	<0 82	<0 82	<0 82	1 7	1 4
1,2 Dichloroethane	360	<0 99	<0 99	<2 5	<250	<0 99	<1 0	<0 99	<2 5	<2 5	<1 0	<2 5	<25	<1 0	<1 0	<10	<0 99	<0 99	<0 99	<0 99	<0 99	<62	<1 0	<0 99	<0 99	<0 99	<0 99	<0 99
1,1,1-Trichloroethane	36 800	<0 73	<0 73	<1 8	<180	<0 73	<0 74	<0 73	<1 8	<1 9	2 6	<1 8	<18	8 4	310	13	<0 73	1 7	5.3	0 95	<0 73	<46	0 71[1]	4 2	23	<0 73	24	0 62[1]
Benzene	200	<1 3	<1 3	3 4	890	<1 3	0 87[1]	<1 3	<3 1	<3 1	<1 3	3 7	<31	0 83[1]	<1 3	110	<1 3	<1 3	<1 3	1 1[1]	<1 3	<78	0 94[1]	<1 3	<1 3	<1 3	<1 3	<1 3
Carbon Tetrachloride	68	<0 64	<0 64	<1 6	<160	<0 64	<0 64	<0 64	<1 6	<1 6	<0 64	<1 6	<16	<0 64	<0 64	<6 4	<0 64	<0 64	<0 64	<0 64	<0 64	<40	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64
1,2-Dichloropropane	186	<0 87	<0 87	<2 2	<220	<0 87	<0 87	<0 87	<2 2	<2 2	<0 87	<2 2	17[1]	<0 87	<0 87	<8 7	<0 87	<0 87	<0 87	<0 87	<0 87	<55	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87
Trichloroethene	822	<0 74	<0 74	4 2	<190	2 9	<0 75	1 1	<1 9	<1 9	1 3	66	<19	270	9 1	<7 5	3 4	350	**850**	690	4 4	<47	33	<0 74	<0 74	<0 74	0 78	<0 74
1,1,2-Trichloroethane	440	<0 73	<0 73	<1 8	<180	<0 73	<0 74	<0 73	<1 8	<1 9	<0 74	<1 8	<18	<0 74	<0 74	<7 4	<0 73	<0 73	<0 73	<0 73	<0 73	<46	<0 74	<0 73	<0 73	<0 73	<0 73	<0 73
Toluene	21 200	4 6	2 3	2 3[1]	<270	2 3	4 0	5 2	7 7	4 6	15	4 4	<27	4 8	6 0	6 4[1]	3 2	4 3	3 5	5 7	2 4	<66	6 7	1 9	2 6	1 3	3 1	2 4
1,2-Dibromoethane	6	<0 52	<0 52	<1 3	<130	<0 52	<0 53	<0 52	<1 3	<1 3	<0 53	<1 3	<13	<0 53	<0 53	<5 3	<0 52	<0 52	<0 52	<0 52	<0.52	<33	<0 53	<0 52	<0 52	<0 52	<0 52	<0 52
Tetrachloroethene	1 064	7 4	0 86	26	<150	19	1 7	2 6	1 1[1]	3 3	28	1 3[1]	40	6 6	14	4 1[1]	100	17	83	24	7 2	<37	13	<0 59	0 68	1 7	7 3	19
Ethylbenzene	49 000	<0 92	<0 92	<2 3	<230	<0 92	<0 92	0 74[1]	<2 3	<2 3	1 1	<2 3	390	<0 92	0 93	45	0 59[1]	0 78[1]	<0 92	1 2	<0 92	51[1]	1 2	<0 92	<0 92	<0 92	<0 92	<0 92
m- & p-Xylenes	14 280	1 2	1 6	2 4	<230	1 3	2 0	3 1	3 8	2 1[1]	4 9	2 9	530	2 0	3 9	190	2 6	3 3	1 9	4 7	1 7	<58	5 4	1 2	1 3	0 71[1]	2 4	1 8
o-Xylene	14,280	<0 92	0 66[1]	<2 3	<230	<0 92	0 89[1]	1 3	1 9[1]	<2 3	2 8	1 4[1]	890	0 81[1]	1 7	<9 2	1 1	1 5	0 84[1]	2 1	0 69[1]	<58	2 4	<0 92	<0 92	<0 92	1 1	0 73[1]

(1) Detected Below Indicated Reporting Limit
(2) Well 50 not sampled this quarter
(3) Duplicates may not have been performed on the same sample for each analysis

ppm = parts per million ppb = parts per billion d = lab duplicate fd = field duplicate **Bold Numbers** = concentrations above laboratory detection limits

TRC

TABLE 4.3

VAPOR WELL ANALYTICAL DATA FOR JULY 1998
WASTE DISPOSAL, INC. SUPERFUND SITE

PARAMETERS	SOIL GAS THRESHOLD LIMIT (ppbv)	WELL IDENTIFICATION AND ANALYTICAL RESULTS (ppbv, unless noted)																												
		WDI-VAPOR WELL PROBE DEPTH (feet)																												
		51-18	51-30	52-10	52 19	52-30	53 10	53 20	53 30	MP-1-05	MP-1-15	MP-2-05	MP 2-15	03-35d	04-23fd	06 34fd	06-34d	08-30d	10-35fb	11-35fd	13-31fd	13-31d	14 35d	16-34fb	17-35d	20-35d	24-35fd	26-35d	27-35fb
Nonmethane Organics as *methane/ppm*		1,900	390	240	120	98	660	190	140	100	2,200	70	7,400	170	21,000	80	88	(3)	6 4	180	220	250	470	<1 0	87	(3)	110	76	<1 0
Methane/ppm	12,500	**241,000**	78	32	<0 50	<0 50	8,400	2,100	910	2 3	**680,000**	4 0	**743,000**		**170,000**	1 300	1,300		<0.50	**14,800**	7,400	7,480	110	<0 50	<0 50		<0 50	1 3	<0 50
Vinyl chloride	25	<200	4 4	<7 8	<1 6	<1 6	14(1)	21	7 0(1)	<2 6	<470	<1 6	<780		<390	<1 6	<1 6	<1 6	<1 6	6 5	36			<1 6		<1 6	<1 6	<1 6	<1 6
Chloroethane	75,200	<190	<3 8	<7 6	<1 5	<1 5	<10	<7 6	<7 6	<2 5	<450	<1 5	<760		<380	<1 5	<1 5	<1 5	<1 5	<3 8	<3 8			<1 5		<1 5	<1 5	<1 5	<1 5
Acetone	31,200	<210	<4 2	14	6 0	4 1	<17	<8 4	<8 4	2 6(1)	<510	1 9	<840		<420	<1 7	<1 7	3 3	3 9	<4 2	<4 2			4 0		8 5	2 0	2 5	2 6
trans-1,2-Dichloroethene	3 680	<130	73	<5 0	<1 0	<1 0	9 7(1)	56	18	<1 7	<300	<1 0	<500		<250	<1 0	<1 0	<1 0	<1 0	<2 5	9 8			<1 0		<1 0	<1 0	<1 0	<1 0
1,1-Dichloroethane	25 600	<120	15	40	140	27	13	27	23	<1 6	<300	<0 99	<490		<250	<1 0	<1 0	<0 99	<0 99	<2 5	<2 5			<1 0		<0 99	<0 99	2 3	<0 99
cis-1,2-Dichloroethene	1 860	<130	160	<5 0	3 9	<1 0	88	160	82	<1 7	<300	<1 0	<500		<250	<1 0	<1 0	<1 0	<1 0	<2 5	50			<1 0		<1 0	<1 0	46	<1 0
Chloroform	340	<100	<2 0	<4 1	<0 82	0 76(1)	<8 3	<4 1	3 6(1)	<1 4	<250	<0 82	<410		<200	<0 83	<0 83	<0 82	<0 82	<2 1	<2 0			<0 83		<0 82	<0 82	<0 83	<0 82
1,2-Dichloroethane	360	<120	<2 5	<4 9	<0 99	<0 99	<10 0	<5 0	<5 0	<1 6	<300	<0 99	<490		<250	<1 0	<1 0	<0 99	<0 99	<2 5	<2 5			<1 0		<0 99	<0 99	<1 0	<0 99
1,1,1-Trichloroethane	*36 800*	<92	<1 8	<3 7	0 70(1)	0 49(1)	7 1(1)	<3 7	<3 7	12	<220	<0 73	<370		<180	<0 74	<0 74	<0 73	<0 73	<1 9	<1 8			<0 74		<0 73	<0 73	0 70(1)	<0 73
Benzene	200	**2,900**	27	<6 3	2 4	<1 3	16	<6 3	<6 3	<2 1	**410**	<1 3	**20,000**		**850**	0 92(1)	0 90(1)	<1 3	7 4	<3 1	3 5			15		<1 3	<1.3	0 96(1)	32
Carbon Tetrachloride	68	<80	<1 6	<3 2	<0 64	<0 64	<6 4	<3 2	<3 2	<1 1	<190	<0 64	<320		<160	<0 64	<0 64	<0 64	<0 64	<1 6	<1 6			<0 64		<0 64	<0 64	<0 64	<0 64
1,2-Dichloropropane	186	<110	<2 2	12	94	9 4	<8 7	<4 4	<4 4	<1 4	<260	<0 87	<430		<220	<0 87	<0 87	<0 87	<0 87	<2 2	<2 2			<0 87		<0 87	<0 87	<0 87	<0 87
Trichloroethene	822	<93	300	<3 7	5 6	3 5	34	**1,000**	790	<1 2	<220	4 7	<370		<190	<0 75	<0 75	1 1	<0 74	1 2(1)	64			<0 75		3 5	4 2	33	<0 74
1,1,2-Trichloroethane	440	<92	<1 8	<3 7	<0 73	<0 73	<7 4	<3 7	<3 7	<1 2	<220	<0 73	<370		<180	<0 74	<0 74	<0 73	<0 73	<1 9	<1 8			<0 74		<0 73	<0 73	<0 74	<0 73
Toluene	21 200	<130	1 9(1)	5 3	3 4	1 7	<11	<5 3	<5 3	2 0	<320	1 3	<530		<270	3 5	3 5	5 2	2 7	4 3	4 6			1 3		3 3	2 5	6 7	1 4
1,2-Dibromoethane	6	<65	<1.3	<2 6	<0 52	<0 52	<5 3	<2 6	<2 6	<0 87	<160	<0 52	<260		<130	<0 53	<0 53	<0 52	<0 52	<1 3	<1 3			<0 53		<0 52	<0 52	<0 53	<0 52
Tetrachloroethene	1,064	<74	**1,400**	2 8(1)	99	89	<6 0	34	33	7 1	<180	150	<300		<150	1 5	1 5	2 6	<0 59	3 4	0 95(1)			<0 60		99	7 4	13	<0 59
Ethylbenzene	49 000	810	<2 3	<4 6	0 68(1)	<0 92	<9 2	<4 6	<4 6	<1 5	<280	<0 92	<460		<230	0 66(1)	0 69(1)	0 71(1)	0 65(1)	<2.3	<2 3			0 48(1)		0 61(1)	<0 92	1 3	<0 92
m- & p-Xylenes	14,280	410	1 8(1)	<4 6	2 5	1 3	<9 2	3 8(1)	<4 6	1 1(1)	<280	0 84(1)	<460		<230	2 8	2 8	3 1	2 5	1 9(1)	3 3			1 7		2 6	2 0	5 4	1 3
o-Xylene	14,280	190	<2 3	<4 6	0 99	<0 92	<9 2	<4 6	<4 6	<1 5	<280	<0 92	<460		<230	1 3	1 2	1 3	1 2	<2 3	1 6(1)			0 90(1)		1 1	0 84(1)	2 4	0 75(1)

(1) Detected Below Indicated Reporting Limit.
(2) Well 50 not sampled this quarter
(3) Duplicates may not have been performed on the same sample for each analysis

ppm = parts per million ppb = parts per billion d = lab duplicate fd = field duplicate **Bold Numbers** = concentrations above laboratory detection limits

TRC

TABLE 4.3

VAPOR WELL ANALYTICAL DATA FOR JULY 1998
WASTE DISPOSAL, INC. SUPERFUND SITE

PARAMETERS	SOIL GAS THRESHOLD LIMIT (ppbv)	WELL IDENTIFICATION AND ANALYTICAL RESULTS (ppbv, unless noted)																							
		WDI-VAPOR WELL PROBE DEPTH (feet)																							
		28-10d	29 23d	30-23d	33-35d	34-40fb	34-40d	35-10d	36-10d	37 30fd	37-30d	40-25d	41 20d	45 12d	46-07d	47-08d	49 18fd	49-18d	51-30fd	51-30fb	52-10d	53 20d	53-30d	53-30fb	MP-1-5d
Nonmethane Organics as methane/ppm		(3)	(3)	140	(3)	<1 0	(3)	(3)	52	100	(3)	87	(3)	33,000	(3)	62	180	140	400	<1 0	230	(3)	140	<1 0	100
Methane/ppm	12,500			1,200		<0 50			4 1	950		<0 50		**220,000**		2 0	4,900	20	79	<0 50	31		900	<0 50	2.2
Vinyl chloride	25	<1 6	<1 6		<1 6	<1 6	<1 6	<1 6	<1 6	3 8	3 7		<1 6		2 5		<1 6		4 6	<1 6	<7 8	18		<1 6	
Chloroethane	75 200	<1 5	<1 5		<1 5	<1 5	<1 5	<1 5	<1 5	<1 5	<1 5		<1 5		4 8		<1 5		<3 8	<1.5	<7 6	<7 6		1 3(1)	
Acetone	31 200	2 8	2 0		7 2	3 6	3 2	4 9	4 4	<1 7	<1 7		2 0		<1 7		13		<4 2	2 8	14	<8 4		<1 7	
trans-1,2-Dichloroethene	3 680	<1 0	<1 0		<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0		<1 0		<1 0		<1 0		73	<1 0	<5 0	57		<1 0	
1,1-Dichloroethane	25 600	<0 99	<0 99		<0 99	<0 99	<0 99	<1 0	<1 0	<1 0	<1 0		<0 99		190		<0 99		16	<0 99	39	28		<1 0	
cis 1 2 Dichloroethene	1 860	<1 0	<1 0		<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0		<1 0		4 2		<1 0		170	<1 0	<5 0	160		<1 0	
Chloroform	340	1 7	<0 82		<0 82	<0 82	2 0	0 64(1)	<0 83	<0 83	<0 83		<0 82		<0 82		<0 82		<2 0	<0 82	<4 1	<4 1		<0 83	
1,2-Dichloroethane	360	<0 99	<0 99		<0 99	<0 99	<0 99	<1 0	2 2	<1 0	<1 0		<0 99		2 5		3 6		<2 5	<0 99	<4 9	<5 0		<1 0	
1,1,1-Trichloroethane	36,800	23	<0 73		1 7	<0 73	0 50(1)	19	3 0	1 9	1 9		15		280		<0 73		<1 8	<0 73	<3 7	<3 7		<0 74	
Benzene	200	<1.3	<1 3		<1 3	90	<1 3	<1 3	0 94(1)	0 84(1)	0 79(1)		<1 3		7 0		1 2(1)		28	6 8	<6 3	<6 3		10	
Carbon Tetrachloride	68	<0 64	<0 64		<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64		<0 64		<0 64		<0 64		<1 6	<0 64	<3 2	<3 2		<0 64	
1,2-Dichloropropane	186	<0 87	<0 87		<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87		<0 87		<0 87		<0 87		<2 2	<0 87	<4 3	<4 4		<0 87	
Trichloroethene	822	0 65(1)	<0 74		16	<0 74	4 1	66	<0 75	<0 75	<0 75		<0 74		0 83		1 1		300	<0 74	<3 7	**1,000**		<0 75	
1,1,2-Trichloroethane	440	<0 73	<0 73		<0 73	<0 73	<0 73	<0 74	<0 74	<0 74	<0 74		<0 73		<0 73		<0 73		<1 8	<0 73	<3 7	<3 7		<0 74	
Toluene	21,200	3 1	2 5		1 7	1 9	2 7	3 7	5 6	2 7	3 4		1 7		11		3 8		1 7(1)	1 7	5 1(1)	<5 3		0 99(1)	
1,2-Dibromoethane	6	<0 52	<0 52		<0 52	<0 52	<0 53	<0 53	<0 53	<0 53	<0 53		<0 52		<0.52		<0 52		<1 3	<0.52	<2 6	<2 6		<0 53	
Tetrachloroethene	1 064	7 1	4 8		2 2	<0 59	6 2	3 4	1 3	1 4	1 3		14		1.5		3 8		**1,400**	<0.59	2 1(1)	36		<0 60	
Ethylbenzene	49 000	<0 92	<0 92		<0 92	0 65(1)	<0 92	<0 92	1 1	<0 92	0 54(1)		<0 92		5 2		0 87(1)		<2 3	<0 92	<4 6	<4 6		<0 92	
m- & p-Xylenes	14,280	2 5	1 1		1 3	2 0	1 4	1 4	4 6	1 6	2 2		1 1		8 9		2 7		1 9(1)	1 6	<4 6	4 1(1)		<0 92	
o-Xylene	14,280	1 1	<0 92		<0 92	1 1	<0 92	<0 92	2 1	0 57(1)	0 85(1)		<0 92		3 8		1 3		<2 3	0 79(1)	<4 6	<4 6		<0 92	

(1) Detected Below Indicated Reporting Limit.
(2) Well 50 not sampled this quarter
(3) Duplicates may not have been performed on the same sample for each analysis

94-256/Rpts/AnSoVaMoRe (3/10/99/ks)

ppm = parts per million ppb = parts per billion d = lab duplicate fd = field duplicate **Bold Numbers** = concentrations above laboratory detection limits

TRC

TABLE 4.4

VAPOR WELL ANALYTICAL DATA FOR OCTOBER 1998
WASTE DISPOSAL, INC. SUPERFUND SITE

PARAMETERS	SOIL GAS THRESHOLD LIMIT (ppbv)	WELL IDENTIFICATION AND ANALYTICAL RESULTS (ppbv, unless noted)																										
		WDI VAPOR WELL PROBE DEPTH (feet)																										
		01-35	02 35	03-35	04-23	05-29	06-34	08-35	10 35	11-35	12 34	13-31	14 35	16-34	17 35	18-36	20-35	21-36	22-35	23-36	24-35	25-35	26-35	27-09	27-19	27-35	28-10	28-25
Nonmethane Organics as methane/ppm		29	150	53	850	90	13	41	90	200	11	330	370	61	63	9,000	21	110	79	120	94	7,500	7 2	93	17	94	42	61
Methane/ppm	12,500	18	890	2,200	**101,000**	<0.50	1 9	1 3	1 2	1 1	1 1	**13,800**	220	0.55	<0.50	6 8	2 2	2 6	0 72	330	2 6	**155,000**	0 80	23	<0 50	<0 50	0 85	<0 50
Vinyl chloride	25	<1 6	<3 9	<1 6	**82**	<3 9	<1 6	<1 6	1 6[1]	<7 8	<1 6	**56**	14	<4 9	<3 9	<200	<3 9	<7 8	<20	<20	<1 6	<200	<3 9	<1 6	<1 6	<1 6	<1 6	<1 6
Chloroethane	75,200	<1 5	<3 8	<1 5	<76	<3 8	<1 5	<1 5	<1 9	<7 6	<1 5	<15	5 1	<4 7	<3 8	<190	<3 8	<7 6	<19	<19	<1 5	<190	<3 8	<1 5	<1 5	<1 5	<1 5	<1 5
Acetone	31 200	4 6	<4 2	<1 7	<84	13	2 5	2 8	<2 1	<8 4	4 8	<17	55	9 8	11	<210	5 5	370	<21	<21	11	280	26	<1 7	9 7	13	5 0	7 7
trans-1,2-Dichloroethene	3,680	<1 0	<2 5	<1 0	<51	<2 5	<1 0	<1 0	<1 3	<5 0	<1 0	18	<2 5	<3 2	<2 5	<130	<2 5	<5 0	<13	<13	<1 0	<130	<2 5	<1 0	<1 0	<1 0	<1 0	<1 0
1,1-Dichloroethane	25 600	<1 0	<2 5	<1 0	<50	<2 5	<0 99	<0 99	93	5 5	<0 99	<9 9	190	2 3[1]	<2 5	<120	<2 5	<4 9	<12	11[1]	<0 99	<120	2.5	<1 00	<1 00	<1 00	<0 99	<0 99
cis-1,2-Dichloroethene	1 860	<1 0	<2 5	<1 0	<51	<2 5	<1 0	<1 0	32	<5 0	<1 0	120	12	<3 2	<2 5	<130	<2 5	<5 0	<13	27	<1 0	<130	210	<1 0	<1 0	<1 0	<1 0	<1 0
Chloroform	340	0 53[1]	<2 0	<0 83	<41	<2 0	<0 82	<0 82	<1 0	<4 1	<0 82	<8 2	2 7	3 1	<2 0	<100	<2 0	<4 1	<10	<10	0 97	<100	<2 0	<0 83	<0 83	<0 83	2 6	1 4
1,2-Dichloroethane	360	<1 0	<2 5	<1 0	<50	<2 5	<0 99	<0 99	<1 2	<4 9	<0 99	<9 9	<2 5	<3 1	<2.5	<120	<2 5	<4 9	<12	<12	<0 99	<120	<2 5	<1 00	<1 00	<1 00	<0 99	<0 99
1,1,1-Trichloroethane	36 800	<0 74	<1 8	<0 74	<37	<1 8	<0 73	<0 73	<0 92	<3 7	<0 73	<7 3	<1 9	6 1	150	<93	<1 8	<3 7	<9 2	<9 2	<0 73	<92	1 6[1]	<0 74	1 9	<0 74	4 0	0 91
Benzene	200	<1 3	<3 1	2 8	**450**	<3 1	<1 3	<1 3	1 8	<6 3	<1 3	<13	12	<3 9	<3 1	740	<3 1	<6 3	<16	<16	<1 3	<160	<3 1	<1 3	1 6	1 8	<1 3	<1.3
Carbon Tetrachloride	68	<0 64	<1 6	<0 64	<32	<1 6	<0 64	<0 64	<0 80	<3 2	<0 64	<6 4	<1 9	<2 0	<1 6	<80	<1 6	<3 2	<8 0	<8 0	<0 64	<80	<1 6	<0 64	<0 64	<0 64	<0 64	<0 64
1,2 Dichloropropane	186	<0 87	<2.2	<0 87	<44	<2 2	<0 87	<0 87	<1 1	<4 3	<0 87	<8 7	370	<2 7	<2 2	<110	<2 2	<4 3	<11	<11	<0 87	<110	<2 2	<0 87	<0 87	<0 87	<0 87	<0 87
Trichloroethene	822	<0 75	<1 9	4 3	<38	2 5	<0 74	2 1	0 70[1]	<3 7	1 0	90	18	300	17	<94	3 7	340	**2,000**	590	31	<93	2 6	<0 75	<0 75	<0 75	0 57[1]	<0 74
1,1,2-Trichloroethane	440	<0 74	<1 8	<0 74	<37	<1 8	<0 73	<0 73	<0 92	<3 7	<0 73	<7 3	<1 9	<2 3	<1 8	<93	<1 8	<3 7	<9 2	<9 2	<0 73	<92	<1 8	<0 74	<0 74	<0 74	<0 73	<0 73
Toluene	21,200	3 3	<2 7	5 6	<53	<2 7	<1 1	1 5	4 6	<5 3	1 5	<11	3 0	<3 3	<2 7	<130	<2 7	<5 3	<13	<13	<1 1	94[1]	<2 7	5 8	3 0	13	2 1	0 92[1]
1,2-Dibromoethane	6	<0.53	<1 3	<0 53	<26	<1.3	<0 52	<0 52	<0 65	<2 6	<0 52	<5 2	<1 3	<1 6	<1.3	<66	<1.3	<2 6	<6.5	<6.5	<0 52	<65	<1 3	<0.53	<0 53	<0.53	<0 52	<0.52
Tetrachloroethene	1,064	9 3	1 0[1]	110	<30	30	0 98	11	4 2	7 4	36	<5 9	89	5 8	21	<75	130	16	110	34	8 2	<74	27	1 9	2 2	2 3	10	24
Ethylbenzene	49,000	<0 92	<2 3	1 0	240	<2 3	<0 92	<0 92	0 93[1]	<4 6	<0 92	<9 2	13	<2 9	<2 3	<120	<2 3	<4 6	<12	<12	<0 92	330	<2 3	1 9	<0 92	8 7	<0 92	<0 92
m- & p-Xylenes	14,280	1.5	1 8[1]	4 2	51	1.5[1]	<0 92	0 91[1]	4 1	<4 6	<0 92	<9 2	23	<2 9	<2 3	<120	<2 3	<4 6	<12	<12	<0 92	91[1]	<2 3	4 4	1 4	49	2 1	<0 92
o-Xylene	14,280	<0 92	<2 3	1 0	<46	<2 3	<0 92	<0 92	1 6	<4 6	<0 92	<9 2	59	<2 9	<2 3	<120	<2 3	<4 6	<12	<12	<0 92	<120	<2 3	1 7	<0 92	21	1 1	<0 92

(1) Detected Below Indicated Reporting Limit
(2) Well 50 not sampled this quarter
(3) Duplicates may not have been performed on the same sample for each analysis

ppm = parts per million ppb = parts per billion d = lab duplicate fd = field duplicate **Bold Numbers** = concentrations above laboratory detection limits

TRC

TABLE 4.4

VAPOR WELL ANALYTICAL DATA FOR OCTOBER 1998
WASTE DISPOSAL, INC. SUPERFUND SITE

PARAMETERS	SOIL GAS THRESHOLD LIMIT (ppbv)	WELL IDENTIFICATION AND ANALYTICAL RESULTS (ppbv, unless noted)																											
		WDI VAPOR WELL - PROBE DEPTH (feet)																											
		29 10	29 23	29 35	30 07	30-23	30-35	31-10	31-30	32-08	32-18	32-35	33-10	33 35	34-10	34-23	34-40	35-10	35 38	36-10	36 30	37-10	37-30	38-10	38-34	39 07	39-30	40-10	40-25
Nonmethane Organics as methane/ppm		28	47	68	12	32	36	3 5	14	<1 0	5 1	5 4	62	89	44	85	91	50	86	34	81	3 6	<1 0	13	1,300	33	72	140	85
Methane/ppm	12,500	0 99	<0 50	1 3	1 1	14	290	<0 50	0 55	2 0	<0 50	0 93	1 4	1 4	1 5	0 93	1 2	0 53	7 8	1 7	<0 50	2 1	<0 50	2 8	82	2 2	0 67	5,840	<0 50
Vinyl chloride	25	<1 6	<1 6	<1 6	<1 6	<1 6	<1 6	<1 6	<1 6	<1 6	<1 6	<1 6	<1 6	<7 8	<1 6	<1 6	<1 6	<3 9	<16	<1 6	<3 9	<1 6	<1 6	<1 6	<7 9	<1 6	<1 6	<1 6	<2 6
Chloroethane	75,200	<1 5	<1 5	<1 5	<1 5	<1 5	<1 5	<1 5	<1 5	<1 5	<1 5	<1 5	<1.5	<7 6	<1 5	<1 5	<1 5	<3 8	<15	<1 5	<3 8	<1 5	<1 5	<1 5	<7 6	<1 5	<1 5	<1 5	<2 5
Acetone	31,200	5 4	8 9	2 8	3 6	<1 7	<1 7	12	9 2	<1 7	16	9 8	<1 7	7 6(1)	<1 7	<1 7	5 7	14	<17	6 1	37	14	4 1	2 8	<8 4	<1 7	<1 7	<1 7	13
trans-1,2-Dichloroethene	3 680	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<5 0	<1 0	<1 0	<1 0	<2 5	<10	<1 0	<2 5	<1 0	<1 0	<1 0	<5 1	<1 0	<1 0	<1 0	<1 7
1,1-Dichloroethane	25 600	<0 99	<0 99	<0 99	2 0	<1 00	<1 00	<0 99	<0 99	<0 99	<0 99	<0 99	<0 99	<4 9	<0 99	<0 99	<0 99	<2 5	<9 9	<0 99	<2 5	<0 99	<0 99	0 70(1)	<5 0	13	<0 99	1.5	<1 6
cis-1,2-Dichloroethene	1,860	<1 0	<1 0	<1 0	<1 0	<1 0	0 81(1)	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<5 0	<1 0	<1 0	<1 0	<2 5	<10	<1 0	<2 5	<1 0	<1 0	<1 0	<5 1	<1 0	<1 0	1 7	<1 7
Chloroform	340	<0 82	<0 82	3 2	<0 83	0.59(1)	0 70(1)	<0 82	3 2	<0 82	<0 82	1 00	0 65(1)	5 4	<0 82	1 4	1 7	<2 0	23	<0 82	1 7(1)	<0 82	<0 82	<0 83	<4 1	<0 82	<0 82	<0 82	<1 4
1,2-Dichloroethane	360	<0 99	<0 99	<0 99	<1 00	<1 00	<1 00	<0 99	<0 99	<0 99	<0 99	<0 99	<0 99	<4 9	<0 99	<0 99	<0 99	<2.5	<9 9	<0 99	<2 5	<0 99	<0 99	<1 00	<5 0	<0 99	<0 99	<0 99	<1 6
1,1,1-Trichloroethane	36,800	9 3	0.51(1)	0 51(1)	50	<0 74	<0 74	<0 73	<0 73	0 72(1)	3 0	7 6	43	2 9(1)	17	0 98	<0 73	12	<7 3	0 54(1)	<1 8	51	<0 73	35	<3 7	84	7 8	15	1 4
Benzene	200	<1 3	<1 3	<1 3	<1 3	<1 3	<1 3	<1 3	<1 3	<1 3	<1 3	<1 3	<1 3	<6 3	0 79(1)	<1 3	<1 3	<3 1	<13	1 1(1)	<3 1	12	<1 3	<1 3	<6 3	<1 3	<1 3	27	<2 1
Carbon Tetrachloride	68	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<3 2	<0 64	<0 64	<0 64	<1 6	<6 4	<0 64	<1 6	<0 64	<0 64	<0 64	<3 2	<0 64	<0 64	<0 64	<1 1
1,2-Dichloropropane	186	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<4 3	<0 87	<0 87	<0 87	<2 2	<8 7	<0 87	<2 2	<0 87	<0 87	<0 87	3 7(1)	<0 87	<0 87	<0 87	<1 4
Trichloroethene	822	<0 74	<0 74	0 91	<0 75	6 6	17	<0 74	6 3	<0 74	<0 74	1 2	<0 74	250	<0 74	<0 74	3 2	66	**1,700**	<0 74	<1 9	<0 74	<0 74	<0 75	<3 8	<0 74	<0 74	<0 74	2 2
1,1,2-Trichloroethane	440	<0 73	<0 73	<0 73	<0 74	<0 74	<0 74	<0 73	<0 73	<0 73	<0 73	<0 73	<0 73	<3 7	<0 73	<0 73	<0 73	<1 8	<7 3	<0 73	<1 8	<0 73	<0 73	<0 74	<3 7	<0 73	<0 73	<0 73	<1 2
Toluene	21,200	2 1	0 75(1)	0 65(1)	1 7	0 97(1)	1 1	<1 1	<1 1	<1 1	<1 1	<1 1	<1 1	<5 3	1 5	0 88(1)	0 77(1)	<2 7	<11	2 3	11	43	<1 1	1 4	<5 3	<1 1	<1 1	1 3	1 4(1)
1,2-Dibromoethane	6	<0 52	<0.52	<0 52	<0 53	<0.53	<0 53	<0 52	<0 52	<0 52	<0.52	<0.52	<0 52	<2 6	<0 52	<0.52	<0 52	<1 3	<5 2	<0 52	<1 3	<0 52	<0.52	<0.53	<2 6	<0 52	<0 52	<0.52	<0 87
Tetrachloroethene	1,064	2 5	7 3	19	2 7	220	250	15	41	0 45(1)	0 46(1)	1 7	1 3	13	1 8	9 2	4 6	4 8	34	1 2	3 1	0 52(1)	1 4	3 3	18	5 2	11	4 0	93
Ethylbenzene	49,000	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<4 6	<0 92	<0 92	<0 92	<2 3	<9 2	<0 92	3 6	3 7	<0 92	<0.92	<4 6	<0 92	<0 92	<0 92	<1.5
m- & p-Xylenes	14,280	1 1	<0 92	<0 92	0 84(1)	0 62(1)	0 70(1)	<0 92	<0 92	<0 92	<0 92	<0 92	0 60(1)	<4 6	1 7	1 7	0 69(1)	<2 3	<9 2	1 7	17	31	<0 92	1 3	<4 6	<0 92	<0 92	1 9	<1.5
o-Xylene	14,280	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<4 6	0 59(1)	0 94	<0 92	<2 3	<9 2	0 63(1)	7 1	9 6	<0 92	<0 92	<4 6	<0 92	<0 92	<0 92	<1 5

(1) Detected Below Indicated Reporting Limit
(2) Well 50 not sampled this quarter
(3) Duplicates may not have been performed on the same sample for each analysis

ppm = parts per million ppb = parts per billion d = lab duplicate fd = field duplicate **Bold Numbers** = concentrations above laboratory detection limits

TRC

TABLE 4.4

VAPOR WELL ANALYTICAL DATA FOR OCTOBER 1998
WASTE DISPOSAL, INC. SUPERFUND SITE

PARAMETERS	SOIL GAS THRESHOLD LIMIT (ppbv)	WELL IDENTIFICATION AND ANALYTICAL RESULTS (ppbv, unless noted)																											
		WDI VAPOR WELL PROBE DEPTH (feet)																											
		41 08	41 20	42-10	42 30	43 09	43-19	43 32	44-07	44-16	44-30	45-12	45 22	45 30	46-07	46-15	46-27	47 08	47-18	47 30	48 08	48-17	48-35	49-10	49 18	49-30	50 08	50 18	50-35
Nonmethane Organics as methane/ppm		22	12	41	76	43	460	450	110	55	120	64 000	13 000	910	150	35	32	37	100	110	9,200	50,000	710	82	82	84	3 4	7 4	24
Methane/ppm	12,500	0.59	<0 50	1 3	<0 50	40	**18,100**	**14,100**	1,200	3 1	2 8	**260,000**	**101,000**	11 200	**46,500**	<0.50	<0 50	1 6	4 0	0 58	**155,000**	**517,000**	**16,600**	15	1 4	1 0	1 2	<0.50	<0 50
Vinyl chloride	25	<1 6	<1 6	<1 6	<1 6	<1 6	**430**	**530**	<3 9	<3 9	<20	**140,000**	**38,000**	**99**	4 8	<1 6	<1 6	<1 6	<3 9	<3 9	**490**	<2 200	<20	<3 9	<3 9	<3 9	<1 6	<1 6	<1 6
Chloroethane	75 200	<1.5	<1 5	<1 5	<1 5	<1 5	<15	<15	<3 8	<3 8	<19	<3 800	<760	<38	1 7	<1 5	<1 5	<1 5	<3 8	<3 8	<380	<1,900	<19	<3 8	<3 8	<3 8	<1 5	<1 5	<1 5
Acetone	31 200	34	3 0	7 1	5 8	2 7	<17	<17	42	13	<21	<4 200	<840	<42	<1 7	14	6 4	3 5	8 6	6 1	<420	<2,100	<21	9 8	7 9	35	4 4	27	3 4
trans-1,2-Dichloroethene	3 680	<1 0	<1 0	<1 0	<1 0	<1 0	8 6[1]	8 2[1]	<2 5	<2 5	<13	**9,700**	2 800	<25	<1 0	<1 0	<1 0	<1 0	<2 5	<2 5	<250	<1,300	<13	<2 5	<2 5	<2 5	<1 0	<1 0	<1 0
1,1 Dichloroethane	25 600	<0 99	<0 99	<0 99	<0 99	<0 99	<10	<9 9	<2 5	2 7	79	<2 500	<490	<25	93	3 2	<1 00	<0 99	<2 5	<2 5	<250	<1 200	<12	2 5	<2 5	<2 5	<1 0	<1 0	1 1
cis-1,2-Dichloroethene	1,860	<1 0	<1 0	<1 0	<1 0	<1 0	<10	340	<2 5	<2 5	<13	**7,700**	1 300	<25	13	<1 0	<1 0	<1 0	<2 5	<2 5	<250	<1 300	<13	3 7	4 1	<2.5	<1 0	<1 0	6 5
Chloroform	340	<0 82	<0 82	5 0	<0 82	<0 82	<8 2	<8 2	<2 0	<2 0	<10	<2 000	<410	<20	<0 83	1 0	1 3	<0 82	3.3	<2 0	<200	<1,000	<10	<2 1	<2 1	<2 1	<0 83	<0 83	1 2
1,2 Dichloroethane	360	<0 99	<0 99	<0 99	<0 99	<0 99	<9 9	<9 9	<2 5	<2 5	<12	<2 500	<490	<25	<1 00	<1 00	<1 00	<0 99	<2 5	<2 5	<250	<1,200	<12	<2.5	<2 5	<2.5	<1 0	<1 0	<1 0
1,1,1-Trichloroethane	36 800	17	16	<0 73	<0 73	0 87	<7 3	<7 3	7 2	78	690	<1 800	<370	<18	23	78	7 4	<0 73	<1 8	<1 8	<180	<920	<9 2	7 2	<1 9	<1 9	8 9	3 0	1 9
Benzene	200	<1 3	<1 3	1 7	4 3	<1 3	11[1]	23	<3 1	<3 1	<16	**32,000**	**1,800**	32	11	<1 3	<1 3	<1 3	<3 1	<3 1	**1,300**	**4,200**	<16	<3 1	<3 1	<3 1	<1 3	<1 3	<1 3
Carbon Tetrachloride	68	<0 64	<0 64	<0 64	<0 64	<0 64	<6 4	<6 4	<1 6	<1 6	<8 0	<1 600	<320	<16	<0 64	<0 64	<0 64	<0 64	<1 6	<1 6	<160	<800	<8 0	<1 6	<1 6	<1 6	<0 64	<0 64	<0 64
1,2-Dichloropropane	186	<0 87	<0 87	<0 87	<0 87	<0 87	<8 7	<8 7	<2.2	<2 2	<11	<2 200	<430	<22	<0 87	<0 87	<0 87	<0 87	<2 2	<2 2	<220	<1 100	<11	<2 2	<2 2	<2 2	<0 87	<0 87	<0 87
Trichloroethene	822	<0 74	<0 74	<0 74	0 93	6 1	<7 4	<7 4	<1 9	<1 9	<9 3	<1,900	<370	<19	<0 75	22	29	<0 74	<1 9	1 2[1]	<190	<930	15	38	52	31	<0 75	<0 75	6 3
1,1,2-Trichloroethane	440	<0 73	<0 73	<0 73	<0 73	<0 73	<7 3	<7 3	<1 8	<1 8	<9 2	<1,800	<370	<18	<0 74	<0 74	<0 74	<0 73	<1 8	<1 8	<180	<920	<9 2	<1 9	<1 9	<1 9	<0 74	<0 74	<0 74
Toluene	21,200	<1 1	<1 1	3 8	25	<1 1	8 6[1]	<11	3 7	3 8	<13	**39,000**	600	<27	15	2 0	1 4	<1 1	<2 7	<2.7	<270	<1,300	<13	2 2[1]	2 4[1]	2 0[1]	1 7	1 5	0 85[1]
1,2-Dibromoethane	6	<0 52	<0 52	<0 52	<0 52	<0.52	<5 2	<5 2	<1 3	<1 3	<6.5	<1,300	<260	<13	<0 53	<0.53	<0 53	<0 52	<1.3	<1 3	<130	<650	<6.5	<1 3	<1.3	<1 3	<0.53	<0 53	<0 53
Tetrachloroethene	1,064	62	27	8 5	13	18	7 0	<5 9	1 7	1 7	<7 4	<1 500	<300	24	<0 60	210	230	2 0	75	13	<150	<740	52	210	540	530	2 3	2 8	10
Ethylbenzene	49 000	<0 92	<0 92	<0 92	2 5	<0 92	<9 2	<9 2	<2 3	<2 3	<12	6 000	<460	<23	12	<0 92	<0 92	<0 92	<2 3	<2 3	<230	6,500	<12	<2 3	<2 3	2 0[1]	<0 92	0 65[1]	<0 92
m & p-Xylenes	14,280	<0 92	<0 92	2 5	11	<0 92	7 7[1]	6 1[1]	2 1[1]	<2 3	<12	**23,000**	570	21[1]	23	1 4	0 70[1]	<0 92	<2 3	<2 3	<230	3,900	<12	2 4	<2 3	11	1 0	1 3	<0 92
o-Xylene	14,280	<0 92	<0 92	0 70[1]	3 2	<0 92	<9 2	<9 2	<2 3	<2 3	<12	6,800	360[1]	<23	8 4	<0 92	<0 92	<0 92	<2 3	<2 3	<230	<1,200	<12	<2 3	<2 3	1 6[1]	<0 92	<0 92	<0 92

(1) Detected Below Indicated Reporting Limit
(2) Well 50 not sampled this quarter
(3) Duplicates may not have been performed on the same sample for each analysis

ppm = parts per million ppb = parts per billion d = lab duplicate fd = field duplicate **Bold Numbers** = concentrations above laboratory detection limits

TRC

TABLE 4.4

VAPOR WELL ANALYTICAL DATA FOR OCTOBER 1998
WASTE DISPOSAL, INC. SUPERFUND SITE

PARAMETERS	SOIL GAS THRESHOLD LIMIT (ppbv)	WELL IDENTIFICATION AND ANALYTICAL RESULTS (ppbv, unless noted)																											
		WDI VAPOR WELL PROBE DEPTH (feet)																											
		51 18	51 30	52-10	52-19	52 30	53 10	53 20	53-30	54-12	54-20	54 30	55-05	55-18	55 29	56 08	56 17	56 28	57-07	57-18	57 26	58 08	58-18	58-29	59 07	59 17	59 27	60-10	60-18
Nonmethane Organics as methane/ppm		19 000	1 000	180	32	24	2,400	42	110	9 5	48	16	2 100	770	400	37	37	40	2 1	33	35	26	110	100	7 3	22	29	4 9	23
Methane/ppm	12,500	**328,000**	**13,300**	140	0 70	<0 50	7 700	18	31	62	8,350	4,900	**119,000**	9 930	8,760	20	3 1	1 8	39	11	13	1 3	<0 50	0 53	5 8	1 0	1 7	1 9	0 54
Vinyl chloride	25	<790	16(1)	<3 9	<1 6	<1 6	<78	<3 9	<16	<1 6	<1 6	<1 6	<78	**87**	**82**	18	<1 6	<1 6	<1 6	<1 6	<1 6	<1 6	<3 9	<3 9	<1 6	<1 6	<1 6	<1 6	<1 6
Chloroethane	75 200	<760	<19	6 2	<1.5	<1 5	<76	<3 8	<15	<1 5	<1 5	<1 5	<76	<19	<15	<1 5	<1 5	<1 5	<1 5	<1 5	<1 5	<1 5	<3 8	<3 8	<1 5	<1 5	<1.5	<1 5	<1 5
Acetone	31,200	<840	<21	15	100	6 3	<84	<4 2	<17	<1 7	<1 7	38	<84	<21	<17	<1 7	4 1	5 0	13	<1 7	<1 7	4 5	6 6	7 6	12	12	8 1	5 8	11
trans-1,2-Dichloroethene	3,680	<510	110	<2 5	<1 0	<1 0	<50	<2.5	<10	<1 0	<1 0	<1 0	<50	63	61	15	1 3	<1 0	<1 0	<1 0	<1 0	<1 0	5 2	<2 5	<1 0	<1 0	<1 0	<1 0	<1 0
1,1-Dichloroethane	25 600	<500	12(1)	69	74	85	<49	3 6	12	<0 99	<0 99	<0 99	<49	9 6(1)	7 6(1)	10	8 4	9 1	<1 00	6 8	11	<1 00	1 8(1)	1 9(1)	<0 99	<0 99	<0 99	<0 99	4 1
cis-1 2-Dichloroethene	1,860	<510	180	<2 5	5 4	4 1	71	9 5	7 4(1)	<1 0	8 8	2 7	<50	230	250	320	36	18	<1 0	3 0	2 8	<1 0	3 0	1 9(1)	<1 0	<1 0	<1 0	<1 0	<1 0
Chloroform	340	<410	<10	<2 1	3 4	9 0	<41	<2 0	<8 2	<0 82	<0 82	<0 82	<41	<10	<8 2	<0 83	15	19	<0 83	2 1	4 4	4 9	9 4	8 9	<0 82	<0 82	<0 82	<0 82	<0 82
1,2-Dichloroethane	360	<500	<12	<2 5	<1 00	<1 00	<49	<2.5	<9 9	<0 99	<0 99	<0 99	<49	<12	<9 9	<1 00	<1 00	<1 00	<1 00	<1 00	<1 00	<1 00	<2 5	<2 5	<0 99	<0 99	<0 99	<0 99	<0 99
1,1,1-Trichloroethane	36 800	<370	<9 3	<1 9	1 9	2 4	<37	<1 8	<7 3	<0 73	<0 73	<0 73	<37	<9 2	<7 3	<0 74	1 8	2 3	<0 74	4 2	7 2	41	37	22	<0 73	<0 73	<0 73	1 9	0 85
Benzene	200	**6,500**	36	3 1(1)	1 1(1)	<1 3	<63	<3 1	<13	<1 3	2 2	4 4	<63	20	8 7(1)	26	1 7	1 3	1 2(1)	0 97(1)	1 3	0 85(1)	<3 1	<3 1	<1 3	<1 3	1 7	<1 3	<1 3
Carbon Tetrachloride	68	<320	<8 0	<1 6	<0 64	<0 64	<32	<1 6	<6 4	<0 64	<0 64	<0 64	<32	<8 0	<6 4	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<0 64	<1 6	<1 6	<0 64	<0 64	<0 64	<0 64	<0 64
1,2-Dichloropropane	186	<440	<11	27	110	**510**	<43	<2 2	<8 7	<0 87	<0 87	<0 87	<43	<11	<8 7	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<0 87	<2 2	<2 2	<0 87	<0 87	<0 87	<0 87	<0 87
Trichloroethene	822	<380	400	1 8(1)	16	23	<37	180	840	0 61(1)	4 9	1 3	<37	740	650	140	670	710	10	660	**890**	**3,200**	**5,400**	**4,100**	<0 74	4 4	9 4	4 6	1 1
1,1,2-Trichloroethane	440	<370	<9 3	<1 9	<0 74	<0 74	<37	<1 8	<7 3	<0 73	<0 73	<0 73	<37	<9 2	<7 3	<0 74	<0 74	<0 74	<0 74	<0 74	<0 74	<0 74	<1 9	<1 9	<0 73	<0 73	<0 73	<0 73	<0 73
Toluene	21,200	<530	<13	7 3	0 93(1)	<1 1	<53	<2 7	<11	1 5	1 7	6 3	<53	<13	<11	1 7	<1 1	0 93(1)	1 2	<1 1	<1 1	1 1	3 7	<2 7	2 1	<1 1	7 6	1 1	<1 1
1,2-Dibromoethane	6	<260	<6 6	<1 3	<0 53	<0 53	<26	<1 3	<5 2	<0 52	<0 52	<0 52	<26	<6 5	<5 2	<0 53	<0 53	<0.53	<0 53	<0 53	<0 53	<0 53	<1 3	<1 3	<0 52	<0 52	<0 52	<0 52	<0.52
Tetrachloroethene	1,064	<300	420	9 8	180	190	<30	9 6	55	1 6	<0 59	<0.59	<30	8 4	9 9	52	29	37	3 8	170	210	26	210	190	2 4	35	66	200	47
Ethylbenzene	49 000	1,500	<12	<2 3	<0 92	<0 92	<46	<2 3	<9 2	<0 92	<0 92	<0 92	<46	<12	<9 2	0 84(1)	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	<2 3	<2 3	<0 92	<0 92	1 3	<0 92	<0 92
m- & p-Xylenes	14 280	850	<12	4 0	<0 92	<0 92	<46	<2 3	<9 2	0 69(1)	0 64(1)	1 2	<46	<12	<9 2	3 2	<0 92	<0 92	<0 92	<0 92	<0 92	0 76(1)	4 1	<2 3	1 1	<0 92	13	0 75(1)	<0 92
o-Xylene	14,280	<460	<12	<2 3	<0 92	<0 92	<46	<2 3	<9 2	<0 92	<0 92	<0 92	<46	<12	<9 2	0 86(1)	<0 92	<0 92	<0 92	<0 92	<0 92	<0 92	1 9(1)	<2 3	<0 92	<0 92	4 4	<0 92	<0 92

(1) Detected Below Indicated Reporting Limit.
(2) Well 50 not sampled this quarter
(3) Duplicates may not have been performed on the same sample for each analysis

ppm = parts per million ppb = parts per billion d = lab duplicate fd = field duplicate **Bold Numbers** = concentrations above laboratory detection limits

TRC

TABLE 4.4

VAPOR WELL ANALYTICAL DATA FOR OCTOBER 1998
WASTE DISPOSAL, INC. SUPERFUND SITE

PARAMETERS	SOIL GAS THRESHOLD LIMIT (ppbv)	WFLI IDENTIFICATION AND ANALYTICAL RESULTS (ppbv, unless noted)																											
		WDI VAPOR WELL PROBE DEPTH (feet)																											
		60-28	61-08	61-19	61-30	62-08	62-18	62-29	63-08	63-18	63-28	MP-1-05	MP-1-15	MP-2 05	MP 2-15	01-35d	01-35fd	02-35d	03-35d	05-29d	08 35d	10-35fd	10 35fdd	14-35d	23 36d	25-35fd	25-35fdd	26-35d	27-35d
Nonmethane Organics as methane/ppm		24	47	320	120	230	98	99	47	36	26	19	47,000	9 6	76,000	28	28	160	(3)	91	40	86	90	360	110	7,200	(3)	6 7	(3)
Methane/ppm	12,500	<0.50	2 2	160	44	**28,600**	1 400	2,200	4,900	<0 50	<0 50	90	**851,000**	4 6	**840,000**	18	18	900		<0 50	1 3	1 6	1 6	220	310	**148,000**		0 82	
Vinyl chloride	25	<1 6	<1 6	55	<3 9	6 9	14	24	5 1	<1 6	<1 6	<1 6	<2,300	<1 6	<1 600		<1 6		<1 6			<7 8				<200	<200		<1 6
Chloroethane	75,200	<1 5	<1.5	<7 6	<3 8	1 6	<3 8	<3 8	<1 5	<1 5	<1 5	<1.5	<2 300	<1 5	<1 500		<1 5		<1 5			<7 6				<190	<190		<1 5
Acetone	31 200	34	12	<8 4	<4 2	7 6	11	5 8	60	8 2	13	<1 7	<2 500	12	<1 700		3 8		<1 7			<8 4				330	210(1)		12
trans-1,2-Dichloroethene	3,680	<1 0	<1 0	<5 0	<2 5	<1 0	<2 5	<2 5	<1 0	<1 0	<1 0	<1 0	<1,500	<1 0	<1,000		<1 0		<1 0			<5 0				<130	<130		<1 0
1,1-Dichloroethane	25,600	5 1	0 67(1)	38	39	<1 00	<2 5	<2 5	<1 00	<1 00	<1 00	<0 99	<1 500	<0 99	<990		<1 00		<1 00			91				<120	<120		<1 00
cis-1,2-Dichloroethene	1,860	<1 0	<1 0	6 5	<2 5	0 92(1)	<2 5	4 4	<1 0	<1 0	<1 0	<1 0	<1,500	<1 0	<1 000		<1 0		<1 0			33				<130	<130		<1 0
Chloroform	340	<0 82	1 3	<4 1	<2 0	<0 83	<2 1	<2 1	<0 83	0 61(1)	0 96	<0 82	<1,200	<0 82	<820		0 54(1)		<0 83			<4 1				<100	<100		<0 83
1,2-Dichloroethane	360	<0 99	<0 99	<4 9	<2 5	<1 00	<2 5	<2 5	<1 00	<1 00	<1 00	<0 99	<1,500	<0 99	<990		<1 00		<1 00			<4 9				<120	<120		<1 00
1,1,1-Trichloroethane	36,800	0 98	1 6	6 8	20	<0 74	<1 9	<1 9	1 1	0 74	1 3	8 5	<1 100	<0 73	<730		<0 74		<0 74			<3 7				<92	<92		<0 74
Benzene	200	<1 3	<1 3	13	<3 1	4 9	<3 1	<3 1	1 1(1)	<1 3	<1 3	<1 3	<1,900	<1 3	**1,300**		<1 3		3 0			<6 3				<160	<160		1 9
Carbon Tetrachloride	68	<0 64	<0 64	<3 2	<1 6	<0 64	<1 6	<1 6	<0 64	<0 64	<0 64	<0 64	<950	<0 64	<640		<0 64		<0 64			<3 2				<80	<80		<0 64
1,2-Dichloropropane	186	<0 87	<0 87	57	24	<0 87	<2 2	<2 2	<0 87	<0 87	<0 87	<0 87	<1,300	<0 87	<870		<0 87		<0 87			<4 3				<110	<110		<0 87
Trichloroethene	822	1 2	2.5	<3 7	2 2	<0 75	<1 9	<1 9	2 4	9 0	18	<0 74	<1,100	<74	<740		<0 75		4 5			<3 7				<93	<93		<0 75
1,1,2-Trichloroethane	440	<0 73	<0 73	<3 7	<1 8	<0 74	<1 9	<1 9	<0 74	<0 74	<0 74	<0 73	<1,100	<0 73	<730		<0 74		<0 74			<3 7				<92	<92		<0 74
Toluene	21 200	<1 1	<1 1	5 7	<2 7	2 7	<2 7	<2 7	1 6	<1 1	<1 1	<1 1	<1,600	<1 1	<1,100		3 0		5 9			<5 3				<130	<130		13
1,2-Dibromoethane	6	<0 52	<0.52	<2 6	<1 3	<0 53	<1 3	<1 3	<0 53	<0 53	<0 53	<0 52	<780	<0.52	<520		<0 53		<0.53			<2 6				<65	<65		<0.53
Tetrachloroethene	1,064	50	38	26	47	<0 60	1 7	<1 5	1 6	93	170	6 6	<890	160	<590		9 3		100			4 0				<74	<74		2 4
Ethylbenzene	49,000	<0 92	<0 92	6 5	<2 3	<0 94	<2 3	<2 3	<0 92	<0 92	<0 92	<0 92	<1,400	<0 92	<920		<0 92		1 1			<4 6				350	300		9 4
m- & p-Xylenes	14,280	0.58(1)	<0 92	15	<2 3	4.5	<2 3	<2 3	1 3	<0 92	<0 92	<0 92	<1,400	<0 92	<920		1 4		4 7			<4 6				<120	<120		51
o-Xylene	14,280	<0 92	<0 92	<4 6	<2 3	1 3	<2 3	<2 3	<0 92	<0 92	<0 92	<0 92	<1,400	<0 92	<920		<0 92		1 1			<4 6				<120	<120		22

(1) Detected Below Indicated Reporting Limit.
(2) Well 50 not sampled this quarter
(3) Duplicates may not have been performed on the same sample for each analysis

ppm = parts per million ppb = parts per billion d = lab duplicate fd = field duplicate **Bold Numbers** = concentrations above laboratory detection limits

TRC

TABLE 4.4

VAPOR WELL ANALYTICAL DATA FOR OCTOBER 1998
WASTE DISPOSAL, INC. SUPERFUND SITE

PARAMETERS	SOIL GAS THRESHOLD LIMIT (ppbv)	WELL IDENTIFICATION AND ANALYTICAL RESULTS (ppbv, unless noted)																											
		WDI VAPOR WELL PROBE DEPTH (feet)																											
		30 35d	30-35fd	31-10fd	31 10d	33 10d	34-10fd	35-10d	35-38d	41 20d	42-10d	43-19d	44-30	45 30fd	47-30d	48 08d	48-35fd	51-30d	52-10fd	53-30d	54-12d	55-29d	56-08d	57-07d	59-07fd	59-27d	60-10d	61-19d	MP-1d
Nonmethane Organics as methane/ppm		33	35	5 1	(3)	65	37	(3)	85	(3)	40	(3)	(3)	860	(3)	9 000	750	(3)	170	(3)	9 4	(3)	37	(3)	6 7	30	(3)	320	17
Methane/ppm	12 500	280	290	<0 50		1 3	1 2		8 1		1 5			11 100			**16,700**		140		65		19		5 5	1 3		150	85
Vinyl chloride	25		<1 6	<1 6	<1 6	<1 6	<1 6	<3 9		<1 6		**430**	<70	77	<3 9		<20	15(1)	<3 9	<16		**85**	18	<1 6	<1 6		<1 6		
Chloroethane	75 200		<1 5	<1 5	<1 5	<1 5	<1 5	<3 8		<1 5		<15	<19	<38	<3 8		<19	<19	12	<15		<15	<1 5	<1 5	<1 5		<1 5		
Acetone	31 200		<1 7	9 6	11	<1 7	<1 7	21		2 7		<17	<21	<42	6 3		<21	<21	20	<17		<17	<1 7	12	17		6 0		
trans 1,2-Dichloroethene	3,680		<1 0	<1 0	<1 0	<1 0	<1 0	<2 5		<1 0		8 3(1)	<13	<25	<2 5		<13	110	<2 5	<10		60	16	<1 0	<1 0		<1 0		
1,1-Dichloroethane	25 600		<1 00	<0 99	<0 99	<0 99	<0 99	<2.5		<0 99		<9 9	62	<25	<2.5		<12	14	73	11		8 1(1)	9 7	<1 00	<0 99		<0 99		
cis-1,2-Dichloroethene	1 860		0 85(1)	<1 0	<1 0	<1 0	<1 0	<2.5		<1 0		<10	<13	<25	<2 5		<13	180	<2 5	7 8(1)		250	300	<1 0	<1 0		<1 0		
Chloroform	340		0 64(1)	<0 82	<0 82	0 75(1)	<0 82	<2 0		<0 82		<8 2	<10	<20	<2 0		<10	<10	<2 1	<8 2		<8 2	<0 83	<0 83	<0 82		<0 82		
1,2-Dichloroethane	360		<1 00	<0 99	<0 99	<0 99	<0 99	<2.5		<0 99		<9 9	<12	<25	<2.5		<12	<12	<2.5	<9 9		<9 9	<1 00	<1 00	<0 99		<0 99		
1,1,1-Trichloroethane	36 800		<0 74	<0 73	<0 73	44	31	12		16		<7 3	670	<18	<1 8		<9 2	<9 3	<1 9	<7 3		<7 3	<0 74	<0 74	<0 73		1 9		
Benzene	200		<1 3	<1 3	<1 3	<1 3	1 3	<3 1		<1 3		12(1)	<16	30(1)	<3 1		<16	39	2 8(1)	<13		8 3(1)	24	1 1(1)	<1 3		<1 3		
Carbon Tetrachloride	68		<0 64	<0 64	<0 64	<0 64	<0 64	<1 6		<0 64		<6 4	<8 0	<16	<1 6		<8 0	<8 0	<1 6	<6 4		<6 4	<0 64	<0 64	<0 64		<0 64		
1,2-Dichloropropane	186		<0 87	<0 87	<0 87	<0 87	<0 87	<2 2		<0 87		<8 7	<11	<22	<2 2		<11	<11	29	<8 7		<8 7	<0 87	<0 87	<0 87		<0 87		
Trichloroethene	822		17	<0 74	<0 74	<0 74	<0 74	66		<0 74		<7 4	<9 3	<19	1 3(1)		<9 3	420	1 9(1)	**910**		640	140	9 6	<0 74		4 5		
1,1,2-Trichloroethane	440		<0 74	<0 73	<0 73	<0 73	<0 73	<1 8		<0 73		<7 3	<9 2	<18	<1 8		<9 2	<9 3	<1 9	<7 3		<7 3	<0 74	<0 74	<0 73		<0 73		
Toluene	21,200		1 8	<1 1	<1 1	<1 1	0 88(1)	<2 7		<1 1		8 6(1)	<13	<27	<2 7		<13	<13	6 8	<11		<11	1.5	1 2	<1 1		1 1		
1,2-Dibromoethane	6		<0 53	<0 52	<0 52	<0 52	<0.52	<1 3		<0 52		<5 2	<6.5	<13	<1 3		<6.5	<6 6	<1 3	<5 2		<5 2	<0 53	<0.53	<0 52		<0.52		
Tetrachloroethene	1 064		240	14	15	1 3	2 1	4 9		27		7 3	<7 4	29	13		31	460	7 7	57		9 4	47	3 6	2.5		170		
Ethylbenzene	49 000		<0 92	<0 92	<0 92	<0 92	<0 92	<2 3		<0 92		<9 2	<12	<23	<2 3		<12	<12	<2 3	<9 2		<9 2	0 71(1)	<0 92	<0 92		<0 92		
m- & p-Xylenes	14 280		1 1	0 71(1)	<0 92	0.56(1)	0 64(1)	<2 3		<0 92		7 7(1)	<12	21(1)	<2 3		<12	<12	3 8	<9 2		<9 2	2 7	<0 92	<0 92		0 76(1)		
o-Xylene	14,280		<0 92	<0 92	<0 92	<0 92	<0 92	<2 3		<0 92		<9 2	<12	<23	<2 3		<12	<12	<2 3	<9 2		<9 2	0 73(1)	<0 92	<0 92		<0 92		

(1) Detected Below Indicated Reporting Limit.
(2) Well 50 not sampled this quarter
(3) Duplicates may not have been performed on the same sample for each analysis

ppm = parts per million ppb = parts per billion d = lab duplicate fd = field duplicate **Bold Numbers** = concentrations above laboratory detection limits

TRC

TABLE 4.4

VAPOR WELL ANALYTICAL DATA FOR OCTOBER 1998
WASTE DISPOSAL, INC. SUPERFUND SITE

PARAMETERS	SOIL GAS THRESHOLD LIMIT (ppbv)	WELL IDENTIFICATION AND ANALYTICAL RESULTS (ppbv, unless noted)		
		WDI VAPOR WELL - PROBE DEPTH (feet)		
		62-29d	62-29fd	62-29fdd
Nonmethane Organics as methane/ppm		110	110	110
Methane/ppm	12,500	2,200	2,300	2,300
Vinyl chloride	25		24	
Chloroethane	75,200		<3.8	
Acetone	31,200		6.3	
trans-1,2-Dichloroethene	3,680		<2.5	
1,1-Dichloroethane	25,600		<2.5	
cis-1,2-Dichloroethene	1,860		4.2	
Chloroform	340		<2.1	
1,2-Dichloroethane	360		<2.5	
1,1,1-Trichloroethane	36,800		<1.9	
Benzene	200		<3.1	
Carbon Tetrachloride	68		<1.6	
1,2-Dichloropropane	186		<2.2	
Trichloroethene	822		<1.9	
1,1,2-Trichloroethane	440		<1.9	
Toluene	21,200		<2.7	
1,2-Dibromoethane	6		<1.3	
Tetrachloroethene	1,064		<1.5	
Ethylbenzene	49,000		<2.3	
m- & p-Xylenes	14,280		<2.3	
o-Xylene	14,280		<2.3	

94-256/Rpts/AnSoVaMoRe (3/10/99/mc)

(1) Detected Below Indicated Reporting Limit.
(2) Well 50 not sampled this quarter.
(3) Duplicates may not have been performed on the same sample for each analysis.

ppm = parts per million ppb = parts per billion d = lab duplicate fd = field duplicate
Bold Numbers = concentrations above laboratory detection limits

TRC

TABLE 4.5

CHEMICALS OF CONCERN WHICH EXCEED SOIL GAS INTERIM THRESHOLD LIMITS VAPOR WELL MONITORING WASTE DISPOSAL, INC. SUPERFUND SITE

AREA	VAPOR WELL #	DEPTH OF SAMPLE	WELL TYPE	MATERIAL TYPE(1)	DATE OF SAMPLE	CONSTITUENT	THRESHOLD LIMIT	CONCENTRATION
1	VW-40	Shallow	Perimeter	F	Apr-98	Methane	12,500 ppm	15,000 ppm
					Jul-98	Methane	12,500 ppm	18,300 ppm
	VW-46	Shallow	Interior	F	Jul-98	Methane	12,500 ppm	17,200 ppm
					Oct-98	Methane	12,500 ppm	46,500 ppm
	VW-62	Shallow	Interior	N	Oct-98	Methane	12,500 ppm	28,600 ppm
	VW-10	Deep	Interior	A	Feb-98	Vinyl chloride	25 ppb	150 ppb
					Apr-98	Vinyl chloride	25 ppb	120 ppb
					Jul-98	Vinyl chloride	25 ppb	160 ppb
	VW-11	Deep	Interior	A	Feb-98	Methane	12,500 ppm	18,000 ppm
					Apr-98	Methane	12,500 ppm	15,000 ppm
					Jul-98	Methane	12,500 ppm	15,100 ppm
	VW-18	Deep	Interior	A	Feb-98	Benzene	200 ppb	1,600 ppb
					Apr-98	Benzene	200 ppb	420 ppb
					Oct-98	Benzene	200 ppb	740 ppb
	VW-35	Deep	Perimeter	N	Feb-98	TCE	822 ppb	1,600 ppb
					Apr-98	TCE	822 ppb	1,500 ppb
					Jul-98	TCE	822 ppb	1,200 ppb
					Oct-98	TCE	822 ppb	1,700 ppb
	VW-44	Deep	Interior	N	Feb-98	Vinyl Chloride	25 ppb	50 ppb
					Apr-98	Vinyl Chloride	25 ppb	47 ppb
					Jul-98	Vinyl Chloride	25 ppb	59 ppb
2	VW-45	Shallow	Interior	F	Jul-98	Methane	12,500 ppm	213,000 ppm
					Oct-98	Methane	12,500 ppm	260,000 ppm
					Jul-98	Vinyl Chloride	25 ppb	55 ppb
					Oct-98	Vinyl Chloride	25 ppb	140,000 ppb
					Oct-98	t-1,2 dce	3,680 ppb	9,700 ppb
					Oct-98	c-1,2 dce	1,860 ppb	7,700 ppb
					Oct-98	Benzene	200 ppb	32,000 ppb
					Oct-98	Toluene	21,200 ppb	39,000 ppb
					Oct-98	m & p-xylene	14,280 ppb	23,000 ppb
	VW-48	Shallow	Interior	F	Feb-98	Methane	12,500 ppm	365,000 ppm
					Jul-98	Methane	12,500 ppm	258,000 ppm
					Oct-98	Methane	12,500 ppm	155,000 ppm
					Feb-98	Vinyl chloride	25 ppb	480 ppb
					Jul-98	Vinyl chloride	25 ppb	750 ppb
					Oct-98	Vinyl chloride	25 ppb	490 ppb
					Feb-98	Benzene	200 ppb	2,200 ppb
					Jul-98	Benzene	200 ppb	820 ppb
					Oct-98	Benzene	200 ppb	1,300 ppb

ppm = parts per million
ppb = parts per billion

(1) Material Types:
F = Fill Material
S = Sump Material
N = Native Material
A = All Material

TRC

TABLE 4.5

CHEMICALS OF CONCERN WHICH EXCEED SOIL GAS INTERIM THRESHOLD LIMITS VAPOR WELL MONITORING WASTE DISPOSAL, INC. SUPERFUND SITE (Continued)

AREA	VAPOR WELL #	DEPTH OF SAMPLE	WELL TYPE	MATERIAL TYPE(1)	DATE OF SAMPLE	CONSTITUENT	THRESHOLD LIMIT	CONCENTRATION
2 (cont'd)	VW-43	Intermediate	Interior	N	Apr-98	Methane	12,500 ppm	15,100 ppm
					Jul-98	Methane	12,500 ppm	22,000 ppm
					Oct-98	Methane	12,500 ppm	18,100 ppm
					Feb-98	Vinyl Chloride	25 ppb	120 ppb
					Apr-98	Vinyl Chloride	25 ppb	430 ppb
					Jul-98	Vinyl Chloride	25 ppb	240 ppb
					Oct-98	Vinyl Chloride	25 ppb	430 ppb
	VW-45	Intermediate	Interior	N	Feb-98	Methane	12,500 ppm	61,000 ppm
					Apr-98	Methane	12,500 ppm	63,100 ppm
					Jul-98	Methane	12,500 ppm	90,200 ppm
					Oct-98	Methane	12,500 ppm	101,000 ppm
					Feb-98	Vinyl Chloride	25 ppb	380 ppb
					Apr-98	Vinyl Chloride	25 ppb	6,500 ppb
					Jul-98	Vinyl Chloride	25 ppb	87 ppb
					Oct-98	Vinyl Chloride	25 ppb	38,000 ppb
					Apr-98	t-1,2 dce	3,680 ppb	4,700 ppb
					Apr-98	c-1,2 dce	1,860 ppb	8,000 ppb
					Feb-98	Benzene	200 ppb	570 ppb
					Apr-98	Benzene	200 ppb	2,800 ppb
					Oct-98	Benzene	200 ppb	1,800 ppb
	VW-48	Intermediate	Interior	N	Feb-98	Methane	12,500 ppm	539,000 ppm
					Apr-98	Methane	12,500 ppm	441,000 ppm
					Jul-98	Methane	12,500 ppm	592,000 ppm
					Oct-98	Methane	12,500 ppm	517,000 ppm
					Feb-98	Benzene	200 ppb	6,700 ppb
					Apr-98	Benzene	200 ppb	4,100 ppb
					Jul-98	Benzene	200 ppb	4,200 ppb
					Oct-98	Benzene	200 ppb	4,200 ppb
	VW-02	Deep	Interior	A	Feb-98	Methane	12,500 ppm	33,000 ppm
	VW-03	Deep	Interior	A	Feb-98	Methane	12,500 ppm	14,000 ppm
					Feb-98	Methane	12,500 ppm	16,200 ppm
	VW-04	Deep	Interior	A	Feb-98	Methane	12,500 ppm	130,000 ppm
					Apr-98	Methane	12,500 ppm	190,000 ppm
					Jul-98	Methane	12,500 ppm	173,000 ppm
					Oct-98	Methane	12,500 ppm	101,000 ppm
					Apr-98	Vinyl Chloride	25 ppb	280 ppb
					Oct-98	Vinyl Chloride	25 ppb	82 ppb
					Feb-98	Benzene	200 ppb	830 ppb

ppm = parts per million
ppb = parts per billion

(1) Material Types:
F = Fill Material
S = Sump Material
N = Native Material
A = All Material

TRC

TABLE 4.5

CHEMICALS OF CONCERN WHICH EXCEED SOIL GAS INTERIM THRESHOLD LIMITS VAPOR WELL MONITORING WASTE DISPOSAL, INC. SUPERFUND SITE (Continued)

AREA	VAPOR WELL #	DEPTH OF SAMPLE	WELL TYPE	MATERIAL TYPE(1)	DATE OF SAMPLE	CONSTITUENT	THRESHOLD LIMIT	CONCENTRATION
2 (cont'd)	VW-04 (cont'd)	Deep			Apr-98	Benzene	200 ppb	1,100 ppb
					Jul-98	Benzene	200 ppb	890 ppb
					Oct-98	Benzene	200 ppb	450 ppb
	VW-43	Deep	Interior	N	Feb-98	Methane	12,500 ppm	24,000 ppm
					Apr-98	Methane	12,500 ppm	20,500 ppm
					Jul-98	Methane	12,500 ppm	23,000 ppm
					Oct-98	Methane	12,500 ppm	14,100 ppm
					Feb-98	Vinyl Chloride	25 ppb	220 ppb
					Apr-98	Vinyl Chloride	25 ppb	230 ppb
					Jul-98	Vinyl Chloride	25 ppb	280 ppb
					Oct-98	Vinyl Chloride	25 ppb	530 ppb
	VW-45	Deep	Interior	N	Feb-98	Methane	12,500 ppm	32,000 ppm
					Apr-98	Methane	12,500 ppm	14,300 ppm
					Jul-98	Methane	12,500 ppm	27,800 ppm
					Feb-98	Benzene	200 ppb	380 ppb
	VW-48	Deep	Interior	N	Feb-98	Methane	12,500 ppm	37,000 ppm
					Apr-98	Methane	12,500 ppm	31,600 ppm
					Jul-98	Methane	12,500 ppm	27,500 ppm
					Oct-98	Methane	12,500 ppm	16,600 ppm
3	VW-06	Deep			Feb-98	Methane	12,500 ppm	53,000 ppm
					Feb-98	Vinyl Chloride	25 ppb	55 ppb
5	VW-51	Intermediate	Interior	S	Feb-98	Methane	12,500 ppm	386,000 ppm
					Apr-98	Methane	12,500 ppm	234,000 ppm
					Jul-98	Methane	12,500 ppm	241,000 ppm
					Oct-98	Methane	12,500 ppm	328,000 ppm
					Apr-98	Benzene	200 ppb	1,200 ppb
					Jul-98	Benzene	200 ppb	2,900 ppb
					Oct-98	Benzene	200 ppb	6,500 ppb
	MP-1	Intermediate	Interior	–	Apr-98	Methane	12,500 ppm	73,700 ppm
					Jul-98	Methane	12,500 ppm	680,000 ppm
					Oct-98	Methane	12,500 ppm	851,000 ppm
					Jul-98	Benzene	200 ppb	410 ppb
	MP-2	Intermediate	Interior	–	Jul-98	Methane	12,500 ppm	743,000 ppm
					Apr-98	Methane	12,500 ppm	644,000 ppm
					Oct-98	Methane	12,500 ppm	840,000 ppm
					Apr-98	Benzene	200 ppb	60,000 ppb
					Jul-98	Benzene	200 ppb	20,000 ppb
					Oct-98	Benzene	200 ppb	1,300 ppb

ppm = parts per million
ppb = parts per billion

(1) Material Types:
F = Fill Material
S = Sump Material
N = Native Material
A = All Material

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TABLE 4.5

CHEMICALS OF CONCERN WHICH EXCEED SOIL GAS INTERIM THRESHOLD LIMITS VAPOR WELL MONITORING WASTE DISPOSAL, INC. SUPERFUND SITE (Continued)

AREA	VAPOR WELL #	DEPTH OF SAMPLE	WELL TYPE	MATERIAL TYPE(1)	DATE OF SAMPLE	CONSTITUENT	THRESHOLD LIMIT	CONCENTRATION
5 (cont'd)	VW-30	Deep	Perimeter	N	Apr-98	Methane	12,500 ppm	13,000 ppm
	VW-51	Deep	Interior	N	Feb-98	Methane	12,500 ppm	41,000 ppm
					Apr-98	Methane	12,500 ppm	38,100 ppm
					Oct-98	Methane	12,500 ppm	327,000 ppm
					Feb-98	Vinyl Chloride	25 ppb	82 ppb
					Apr-98	Vinyl Chloride	25 ppb	65 ppb
					Feb-98	Benzene	200 ppb	310 ppb
					Jul-98	PCE	1,064 ppb	1,400 ppb
7	VW-25	Deep	Interior		Feb-98	Methane	12,500 ppm	507,000 ppm
					Apr-98	Methane	12,500 ppm	334,000 ppm
					Jul-98	Methane	12,500 ppm	65,000 ppm
					Oct-98	Methane	12,500 ppm	155,000 ppm
8	VW-55	Shallow	Interior	F, S	Oct-98	Methane	12,500 ppm	119,000 ppm
	VW-58	Shallow	Interior	F	Oct-98	TCE	822 ppb	3,200 ppb
	VW-53	Intermediate	Interior	N	Jul-98	TCE	822 ppb	1,000 ppb
	VW-58	Intermediate	Interior	N	Oct-98	TCE	822 ppb	5,400 ppb
	VW-13	Deep	Interior	A	Feb-98	Methane	12,500 ppm	13,000 ppm
					Apr-98	Methane	12,500 ppm	13,400 ppm
					Oct-98	Methane	12,500 ppm	13,800 ppm
					Feb-98	Vinyl Chloride	25 ppb	29 ppb
					Apr-98	Vinyl Chloride	25 ppb	46 ppb
					Jul-98	Vinyl Chloride	25 ppb	37 ppb
					Oct-98	Vinyl Chloride	25 ppb	56 ppb
	VW-14	Deep	Interior	A	Feb-98	Vinyl Chloride	25 ppb	370 ppb
					Apr-98	Vinyl Chloride	25 ppb	350 ppb
					Oct-98	1,2-Dichloropropane	186 ppb	370 ppb
	VW-22	Deep	Interior	A	Feb-98	TCE	822 ppb	1,400 ppb
					Apr-98	TCE	822 ppb	3,200 ppb
					Jul-98	TCE	822 ppb	850 ppb
					Oct-98	TCE	822 ppb	2,000 ppb
	VW-23	Deep	Interior	A	Feb-98	Vinyl Chloride	25 ppb	35 ppb
					Apr-98	Vinyl Chloride	25 ppb	40 ppb
					Jul-98	Vinyl Chloride	25 ppb	26 ppb
					Feb-98	TCE	822 ppb	910 ppb
					Apr-98	TCE	822 ppb	850 ppb
	VW-52	Deep	Interior	N	Oct-98	1,2-Dichloropropane	186 ppb	510 ppb
	VW-53	Deep	Interior	N	Oct-98	TCE	822 ppb	840 ppb
	VW-55	Deep	Interior	N	Oct-98	Vinyl Chloride	25 ppb	82 ppb
	VW-57	Deep	Interior	N	Oct-98	TCE	822 ppb	890 ppb
	VW-58	Deep	Interior	N	Oct-98	TCE	822 ppb	4,100 ppb

94-256/Rpts/AnSoVaMoRe (3/15/99/mc)

ppm = parts per million
ppb = parts per billion

(1) Material Types:
F = Fill Material
S = Sump Material
N = Native Material
A = All Material

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TABLE 5.1

DATA QUALITY OBJECTIVES DEVELOPMENT PROCESS WASTE DISPOSAL, INC. SUPERFUND SITE

ACTIVITY	SUBSURFACE GAS MONITORING	SHALLOW SUBSURFACE GAS MONITORING
Objectives	See Workplan Section 3.2.2	See Workplan Section 3.2.2
Intended Data Use	Risk assessment, compliance monitoring	Evaluation of shallow soil gas migration and risk assessment
Required Analytical Methods of DQO Levels	VOCs (TO-14) Methane (SCAQMD 25.1)	VOCs (TO-14) Methane (SCAQMD 25.1)
	DQO Level 3	DQO Level 2
Contaminants of Concern	VOCs Methane	VOCs Methane
Required Detection Levels	VOCs(1) Methane	VOCs(2) Methane
Action Levels/ Regulatory Standards	• CIWMB Methane Standard • EPA Interim Action Levels for Benzene and Vinyl Chloride(3)	• CIWMB Methane Standard • EPA Interim Action Levels for Benzene and Vinyl Chloride(3)
Sampling Points	• All existing vapor wells • All planned new vapor wells • SVE extraction wells and observation probes	• Shallow soil probes to be located based on vapor well results, if appropriate.
Critical Sampling	Site Perimeter and wells nearest to existing building	Adjacent to vapor wells

94-256/Rpts/AnSoGaMoRe (3/5/99/im)

(1) Required detection limits are provided in Table B.3 of the Revised QAPP.
(2) Required detection limits are provided in Table B.4 of the Revised QAPP.
(3) EPA interim action levels (EPA, 1997a and EPA, 1997b).

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TABLE 5.2

FIELD COLLECTION QUALITY ASSURANCE REQUIREMENTS
WASTE DISPOSAL, INC. SUPERFUND SITE

ANALYSIS	TRIP BLANK	FIELD BLANK(1)	FIELD DUPLICATE(2)	MATRIX SPIKE AND MATRIX SPIKE DUPLICATES(3)
Vapor Wells				
Organics	None. One background air sample will be collected daily.	1 per 20 samples. Field blank will be an ambient air sample.	1 per 10 samples or 1 per day, whichever is greater	1 per 20 samples or 1 per sample shipment, whichever is greater

94-256/Rpts/AnSoGaMoRe (3/5/99/im)

(1) Field blanks will be collected during ground water and surface water sampling procedures only when nondedicated sampling equipment is used. Field blanks require an additional sample volume (see Tables B.3 and B.4 of the revised QAPP). Note that field blanks will be labeled so the laboratory cannot determine that the sample is a field blank.

(2) Field duplicates require an additional sample volume (see Tables B.3 and B.4 of the revised QAPP). Note that field duplicates will be labeled so the laboratory cannot determine that the sample is a field duplicate. Field duplicates will be collected as split samples from the actual sample collected.

(3) MS/MSD samples require two additional sample volumes for organic analysis. Matrix spike samples require an additional sample volume for inorganic analyses (see Table B.3 of the revised QAPP).

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TABLE 5.3

SOIL GAS ANALYSES AND QUALITY CONTROL OBJECTIVES
WASTE DISPOSAL, INC. SUPERFUND SITE

PARAMETERS	ANALYTICAL PROCEDURE (EPA METHOD NUMBER)	LABORATORY SPECIFIC MEASUREMENT QUALITY OBJECTIVES (MQOs)				TYPE OF CONTAINER	PRESERVATIVE	ANALYTICAL HOLDING TIMES	REMARKS
		Detection Limit (ppbv)	Accuracy(1) (%)	Precision(2) (%)	Completeness (%)				
VOLATILE ORGANIC COMPOUNDS (VOCs)	TO-14					Stainless Steel Summa Canister	None	14 Days	
• 1,1,1-Trichloroethane(3)		10.0	71 - 132	± 30	90				
• 1,1,2,2-Tetrachloroethane		10.0	76 - 136	± 30	90				
• 1,1,2-Trichloroethane		10.0	67 - 133	± 30	90				
• 1,1-Dichloroethane		10.0	49 - 135	± 30	90				
• 1,1-Dichloroethene		10.0	48 - 146	± 30	90				
• 1,2-Dichloroethane(3)		10.0	68 - 129	± 30	90				
• 1,2-Dichloropropane		10.0	42 - 131	± 30	90				
• 2-Butanone		10.0	50 - 153	± 30	90				
• 2-Chloroethyl Vinyl Ether		10.0	40 - 214	± 30	90				
• 2-Hexanone		10.0	20 - 149	± 30	90				
• 4-Methyl-2-pentanone		10.0	40 - 125	± 30	90				
• Acetone		10.0	32 - 176	± 30	90				
• Benzene(3)		5.0	72 - 124	± 30	90				
• Bromodichloromethane		10.0	69 - 132	± 30	90				
• Bromoform		10.0	53 - 148	± 30	90				
• Bromomethane		10.0	55 - 146	± 30	90				
• Carbon Disulfide		10.0	37 - 140	± 30	90				
• Carbon Tetrachloride(3)		10.0	70 - 140	± 30	90				
• Chloroethane		10.0	52 - 137	± 30	90				
• Chloroform(3)		10.0	77 - 128	± 30	90				
• Chloromethane		10.0	37 - 129	± 30	90				
• cis-1,3-Dichloropropene		10.0	66 - 129	± 30	90				
• 1,2-Dibromoethane (3)		10.0	56 - 142	± 30	90				
• Methylene Chloride(3)		10.0	51 - 139	± 30	90				
• Tetrachloroethene		10.0	67 - 145	± 30	90				
• trans-1.2-Dichloroethene		10.0	48 - 134	± 30	90				
• trans-1,3-Dichloropropene		10.0	66 - 130	± 30	90				
• Trichloroethene(3)		10.0	71 - 135	± 30	90				
• Vinyl Acetate		10.0	24 - 143	± 30	90				
• Vinyl Chloride(3)		5.0	48 - 140	± 30	90				
METHANE	SCAQMD-25.1	0.02%	80 - 120	± 30	90	Stainless Steel Summa Canister	None	14 Days	

94-256/Rpts/AnSoVaMoRe (3/3/99/rmm)

(1) Based on matrix spike percent recovery.
(2) Based on duplicate samples.
(3) Calderon list constituents will be used as performance indicators.

TABLE 5.4

LABORATORY QUALITY ASSURANCE REQUIREMENTS
VAPOR WELL GAS ANALYSES
WASTE DISPOSAL, INC. SUPERFUND SITE

PARAMETER GROUP	CALIBRATION METHOD	CALIBRATION/QC SAMPLING FREQUENCY	ACCEPTANCE CRITERIA
Volatile Organic Compounds (TO-14)	Calibration Curve	At start of analysis or when continuing calibration verification standard is out of control	20 percent relative standard deviation if average response factor is used.
	Initial Calibration Verification Standard	After calibration and before sample analysis	±15 percent of true value
	Calibration Blank	Every 10 samples	<Method reporting limit
	Continuing Calibration Verification Standard	Every 10 samples	±15 percent of true value
	Instrument Blank	1 every 10 samples	<Method reporting limit
	Method Blank	1 every 20 samples	<Method reporting limit
	MS/MSD and LCS	1 every 20 samples	Precision (%): 30 percent recovery Accuracy (%): 50 to 125 percent recovery Completeness (%): 90 percent recovery
	Surrogate Compound	Every sample	4-bromofluorobenzene: 59 to 139 percent recovery α, α, α-trifluorotoluene: 58 to 146 percent recovery

94-250/Rpts/AnSoVaMoRe (3/3/99/rmm)

NOTE: MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample.

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TABLE 5.5

SUMMARY OF QA/QC EVALUATIONS
WASTE DISPOSAL, INC. SUPERFUND SITE

REQUIREMENTS (TABLE 4.4)	REMARKS
Detection Limits	Detection limits were generally achieved for the samples. In some cases, elevated methane levels increased the detection limits for some constituents such as vinyl chloride.
Accuracy	Data generally achieved the required levels of accuracy based on the results of laboratory spikes and matrix spikes.
Precision	Data generally achieved the required levels of precision as shown by the results of duplicate samples.
Completeness	All samples achieved the required 90% completeness requirements.
Container Type	All samples were collected using the required stainless steel Summa Canister.
Preservative	No preservatives were used.
Analytical Holding Times	All samples were analyzed within the required 14 day holding times.

94-256/Rpts/AnSoVaMoRe (3/3/99/rmm)

TABLE 5.6

SUMMARY OF SOIL GAS ANALYTICAL DATA QUALIFIERS
WASTE DISPOSAL, INC. SUPERFUND SITE

COMPOUND	LABORATORY DATA BATCH	DATA QUALIFIER Sample(s) With Results Qualified as "Not Detected" ("U")
Acetone	P9800208	WDI-VW50-18-01, WDI-VW32-8-01, WDI-VW32-18-01, WDI-VW32-35-01, WDI-VW26-35-01, WDI-VW31-10-01, WDI-VW31-30-01, WDI-VW12-34-01, WDI-VW24-35-01, WDI-VW33-10-01, and WDI-VW33-35-01
	P9800233	WDI-VW36-10-01, WDI-VW36-30-01, WDI-VW35-10-01, WDI-VW35-38-01, WDI-VW44-07-01, and WDI-VW44-16-01
	P9800313	WDI-VW41-21-01
	P9800659	WDI-VW47-07-02, WDI-VW29-10-02, WDI-VW29-23-02, WDI-VW29-35-02, WDI-MP2-05-02B, WDI-MPI-05-02B WDI-VW01-35-02, WDI-VWFD01-35-02, and WDI-VWAMB 4/23
Benzene	P9800233	WDI-VW36-10-01 and WDI-VW44-16-01
	P9800653	WDI-VW44-07-02 and WDI-VW11-35-02
	P9800659	WDI-VW45-30-02
	P9800667	WDI-VW37-10-02, WDI-VW40-10-02
	P9800673	WDI-VW43-09-02, WDI-VW43-19-02, WDI-VW43-32-02, WDI-VW13-31-02, WDI-VW51-30-02, and WDI-VWFD51-30-02
2-Butanone	P9800208	WDI-VW50-8-01, WDI-VW50-18-01, WDI-VW50-35-01, WDI-VW32-18-01, WDI-VW26-35-01, WDI-VW31-10-01, WDI-VW31-30-01, WDI-VW24-35-01, WDI-VW33-10-01, and WDI-VW33-35-01
	P9800233	WDI-VW36-10-01 and WDI-VW44-07-01
	P9800313	WDI-VW41-07-01
	P9800659	WDI-VW47-30-02, WDI-MP1-05-02B, WDI-VW01-35-02, and WDI-VWFD01-35-02
Carbon Disulfide	P9800313	WDI-VW41-07-01 and WDI-VW41-21-01
Carbon Tetrachloride	P9800233	WDI-VW36-10-01
Chloromethane	P9800233	WDI-VW36-10-01, and WDI-VW44-16-01
Ethylbenze	P9800208	WDI-VW50-8-01, WDI-VW50-18-01, WDI-VW12-34-01, WDI-VW24-35-01, WDI-VW23-36-01, and WDI-VW33-10-01
	P9800233	WDI-VW36-10-01
Methane	P9800208	WDI-VW50-08-01, WDI-VW50-18-01, WDI-VW32-08-01, WDI-VW26-35-01, WDI-VW31-10-01, WDI-VW31-30-01, WDI-VW12-34-01, WDI-VW33-10-01, and WDI-VW33-35-01
	P9800233	WDI-VW36-10-01, WDI-VW35-10-01. and WDI-VW35-38-01

TABLE 5.6

SUMMARY OF SOIL GAS ANALYTICAL DATA QUALIFIERS
WASTE DISPOSAL, INC. SUPERFUND SITE
(Continued)

COMPOUND	LABORATORY DATA BATCH	DATA QUALIFIER
		Sample(s) With Results Qualified as "Not Detected" ("U")
Methane (continued)	P9800245	WDI-VW01-35-01
	P9800313	WDI-VW41-07-01
	P9800653	WDI-VW38-10-02, WDI-VW21-36-02, WDI-VWFD21-36-02, WDI-VW39-30-02, WDI-VW49-10-02, and WDI-VW36-10-02
	P9800659	WDI-VW47-07-02, WDI-VW29-10-02, WDI-VW01-35-02, WDI-VWFD01-35-02, and WDI-VWAMB 4/23
Methylene Chloride	P9800233	WDI-VW36-10-01, WDI-VW36-30-01, WDI-VW35-10-01, WDI-VW44-07-01, and WDI-VW44-16-01
Methyl Tert-butyl Ether	P9800233	WDI-VW36-10-01, WDI-VW36-30-01, and WDI-VW44-16-01
M/p-xylene	P9800208	WDI-VW50-8-01, WDI-VW50-18-01, WDI-VW50-35-01, WDI-VW32-18-01, WDI-VW32-35-01, WDI-VW26-35-01, WDI-VW31-10-01, WDI-VW31-30-01, WDI-VW12-34-01, WDI-VW24-35-01, WDI-VW23-36-01, WDI-VW33-10-01, and WDI-VW33-35-01
	P9800233	WDI-VW36-10-01, WDI-VW36-30-01, and WDI-VW44-16-01
	P9800313	WDI-VW41-07-01
	P9800659	WDI-VW29-10-02 and WDI-VW29-23-02
O-xylene	P9800208	WDI-VW50-8-01, WDI-VW50-18-01, WDI-VW50-35-01, WDI-VW32-35-01, WDI-VW31-30-01, WDI-VW12-34-01, WDI-VW24-35-01, WDI-VW23-36-01, and WDI-VW33-10-01
	P9800233	WDI-VW36-10-01 and WDI-VW36-30-01
Tetrachloroethene	P9800225	WDI-VW10-35-01 and WDI-VW16-34-01
	P9800233	WDI-VW36-10-01, WDI-VW36-30-01, WDI-VW35-10-01, WDI-VW44-16-01, and WDI-VWFD44-30-01
Toluene	P9800208	WDI-VW50-8-01, WDI-VW50-18-01, WDI-VW50-35-01, WDI-VW32-18-01, WDI-VW32-35-01, WDI-VW26-35-01, WDI-VW31-10-01, WDI-VW31-30-01, WDI-VW12-34-01, WDI-VW24-35-01, WDI-VW23-36-01, WDI-VW33-10-01, and WDI-VW33-35-01
	P9800233	WDI-VW36-10-01, WDI-VW36-30-01, and WDI-VW44-16-01
	P9800245	WDI-VW08-35-01, WDI-VW47-18-01, and WDI-VW01-35-01
	P9800313	WDI-VW43-19-01 and WDI-VW41-07-01
	P9800659	WDI-VW29-10-02, WDI-VW29-23-02, WDI-VW29-35-02, and WDI-VWAMB 4/23

TABLE 5.6

SUMMARY OF SOIL GAS ANALYTICAL DATA QUALIFIERS
WASTE DISPOSAL, INC. SUPERFUND SITE
(Continued)

COMPOUND	LABORATORY DATA BATCH	DATA QUALIFIER Sample(s) With Results Qualified as "Not Detected" ("U")
Total Non-Methane Organics	P9800313	WDI-VW41-07-01
	P9800653	WDI-VW38-10-02, WDI-VW17-35-02, WDI-VW16-34-02, WDI-VW24-35-02, WDI-VW22-35-02, WDI-VW21-36-02, WDI-VWFD21-36-02, WDI-VW39-07-02, WDI-VW39-30-02, WDI-VW49-10-02, WDI-VW49-18-02, WDI-VW49-30-02, WDI-VW20-35-02, WDI-VW06-34-02, WDI-VW05-29-02, WDI-VW36-30-02, WDI-VWFD36-30-02, WDI-VW36-10-02, WDI-VW44-07-02, WDI-VW11-35-02, and WDI-VW44-16-02
	P9800659	WDI-VWAMB 4/23
1,1,1-Trichloroethane	P9800225	WDI-VW22-35-01, WDI-VW49-30-01, and WDI-VW16-34-01
Trichloroethene	P9800225	WDI-VW20-35-01, WDI-VW49-10-01, WDI-VWFD49-10-01, WDI-VW49-18-01, and WDI-VW-30-01
	P9800233	WDI-VW36-10-01
	P9800245	WDI-VW14-35-01, WDI-VW05-29-01, WDI-VWFD05-29-01, WDI-VW47-18-01, and WDI-VW47-30-01
	P9800313	WDI-VW43-19-01
	P9800653	WDI-VW17-35-02, WDI-VW24-35-02, WDI-VW49-10-02, WDI-VW49-18-02, WDI-VW49-30-02, WDI-VW20-35-02, WDI-VW06-34-02, WDI-VW05-29-02, WDI-VW48-35-02, and WDI-VW-11-35-02
	P9800659	WDI-VW29-35-02 and WDI-MP2-05-02B
	P9800667	WDI-VW35-10-02, WDI-VW34-10-02, WDI-VW34-40-02, WDI-VW33-10-02, WDI-VW40-10-02, WDI-VW40-25-02, WDI-VW46-15-02, and WDI-VW46-27-02
	P9800673	WDI-VW43-09-02, WDI-VW43-19-02, WDI-VW43-32-02, WDI-VW13-31-02, WDI-VW32-33-02, WDI-VW50-35-02, WDI-VW31-30-02, WDI-VW12-34-02, WDI-VW51-30-02, and WDI-VWFD51-30-02
Trichlorofluoromethane	P9800233	WDI-VW36-10-01, WDI-VW36-30-01, WDI-VW35-10-01, and WDI-VW44-16-01
Trichlorotrifluoroethane	P9800233	WDI-VW36-10-01 and WDI-VW44-16-01

TABLE 5.6

SUMMARY OF SOIL GAS ANALYTICAL DATA QUALIFIERS
WASTE DISPOSAL, INC. SUPERFUND SITE
(Continued)

COMPOUND	LABORATORY DATA BATCH	DATA QUALIFIER
		Sample(s) With Estimated Positive Results
Trichlorofluoromethane	P9800208	WDI-VW50-18-01

COMPOUND	LABORATORY DATA BATCH	DATA QUALIFIER
		Compound(s) With Estimated Positive Results "F"
Trichlorofluoromethane	P9800208	WDI-VW50-18-01
Methane	P9800314	WDI-VW45-22-01, WDI-VW51-30-01

94-256/Rpts/AnSoGaMoRe (3/10/99/rmm)

TABLE 5.7

SUMMARY OF FIELD DUPLICATE QA/QC EVALUATION
WASTE DISPOSAL, INC. SUPERFUND SITE

SAMPLE I.D.	FIELD DUPLICATE I.D.	LABORATORY DATA BATCH I.D.	COMPOUND	SAMPLE RESULT (ppb)	FIELD DUPLICATE RESULT (ppb)
WDI-VW25-35-01	WDI-VWFD25-35-01	P9800208	Toluene	4,700	ND
			Ethylbenzene	610	ND
			M/p-xylene	1,800	ND
			O-xylene	550	ND
WDI-VW05-29-01	WDI-VWFD05-29-01	P9800245	Acetone	ND	4.5
WDI-VW51-18-01	WDI-VWFD51-18-01	P9800314	Benzene	11	15
WDI-VW01-35-02	WDI-VWFD01-35-02	P9800659	Carbon Disulfide	6.5	1.6
WDI-VW41-20-02	WDI-VWFD41-20-02	P9800667	Carbon Disulfide	7.4	2.3

94-256/Rpts/AnSoGaMoRe (3/5/99/im)

ppb = parts per billion
ND = Nondetect

TRC

TABLE 6.1

AREA 1
CHEMICALS OF CONCERN WHICH EXCEED SOIL GAS INTERIM THRESHOLD LIMITS VAPOR WELL MONITORING WASTE DISPOSAL, INC. SUPERFUND SITE

AREA	VAPOR WELL #	WELL TYPE	WELL LOCATION(1)	MATERIAL TYPE(2)	CONSTITUENT	CONCENTRATION	THRESHOLD LIMIT	DATE OF SAMPLE
1	VW-40	Shallow	P	F	Methane	15,000 ppm	12,500 ppm	Apr-98
					Methane	18,300 ppm	12,500 ppm	Jul-98
	VW-46	Shallow	I	F	Methane	17,200 ppm	12,500 ppm	Jul-98
					Methane	46,500 ppm	12,500 ppm	Oct-98
	VW-62	Shallow	I	F	Methane	28,600 ppm	12,500 ppm	Oct-98
	VW-10	Deep	I	A	Vinyl chloride	150 ppb	25 ppb	Feb-98
					Vinyl chloride	120 ppb	25 ppb	Apr-98
					Vinyl chloride	160 ppb	25 ppb	Jul-98
	VW-11	Deep	I	A	Methane	18,000 ppm	12,500 ppm	Feb-98
					Methane	15,000 ppm	12,500 ppm	Apr-98
					Methane	15,100 ppm	12,500 ppm	Jul-98
	VW-18	Deep	I	A	Benzene	1,600 ppb	200 ppb	Feb-98
					Benzene	420 ppb	200 ppb	Apr-98
					Benzene	740 ppb	200 ppb	Oct-98
	VW-35	Deep	P	N	TCE	1,600 ppb	822 ppb	Feb-98
					TCE	1,500 ppb	822 ppb	Apr-98
					TCE	1,200 ppb	822 ppb	Jul-98
					TCE	1,700 ppb	822 ppb	Oct-98
	VW-44	Deep	I	N	Vinyl Chloride	50 ppb	25 ppb	Feb-98
					Vinyl Chloride	47 ppb	25 ppb	Apr-98
					Vinyl Chloride	59 ppb	25 ppb	Jul-98

94-256/Rpts/AnSoGaMoRe (3/10/99/mc)

(1) Well Location:
P = Perimeter
I = Interior

(2) Material Type:
F = Fill Material
S = Sump Material
N = Native Material
A = All Material

ppm = parts per million
ppb = parts per billion

RI = Remedial Investigation Well

TRC

TABLE 6.2

AREA 2
CHEMICALS OF CONCERN WHICH
EXCEED SOIL GAS INTERIM THRESHOLD LIMITS
VAPOR WELL MONITORING
WASTE DISPOSAL, INC. SUPERFUND SITE

AREA	VAPOR WELL #	WELL TYPE	WELL LOCATION(1)	MATERIAL TYPE(2)	CONSTITUENT	CONCENTRATION	THRESHOLD LIMIT	DATE OF SAMPLE
2	VW-45	Shallow	I	F	Methane	213,000 ppm	12,500 ppm	Jul-98
					Methane	260,000 ppm	12,500 ppm	Oct-98
					Vinyl Chloride	55 ppb	25 ppb	Jul-98
					Vinyl Chloride	140,000 ppb	25 ppb	Oct-98
					t-1,2 dce	9,700 ppb	3,680 ppb	Oct-98
					c-1,2 dce	7,700 ppb	1,860 ppb	Oct-98
					Benzene	32,000 ppb	200 ppb	Oct-98
					Toluene	39,000 ppb	21,200 ppb	Oct-98
					m & p-xylene	23,000 ppb	14,280 ppb	Oct-98
	VW-48	Shallow	I	F	Methane	365,000 ppm	12,500 ppm	Feb-98
					Methane	258,000 ppm	12,500 ppm	Jul-98
					Methane	155,000 ppm	12,500 ppm	Oct-98
					Vinyl chloride	480 ppb	25 ppb	Feb-98
					Vinyl chloride	750 ppb	25 ppb	Jul-98
					Vinyl chloride	490 ppb	25 ppb	Oct-98
					Benzene	2,200 ppb	200 ppb	Feb-98
					Benzene	820 ppb	200 ppb	Jul-98
					Benzene	1,300 ppb	200 ppb	Oct-98

(1) Well Location:
P = Perimeter
I = Interior

(2) Material Type:
F = Fill Material
S = Sump Material
N = Native Material
A = All Material

ppm = parts per million
ppb = parts per billion

RI = Remedial Investigation Well

TRC

TABLE 6.2

AREA 2
CHEMICALS OF CONCERN WHICH
EXCEED SOIL GAS INTERIM THRESHOLD LIMITS
VAPOR WELL MONITORING
WASTE DISPOSAL, INC. SUPERFUND SITE
(Continued)

AREA	VAPOR WELL #	WELL TYPE	WELL LOCATION(1)	MATERIAL TYPE(2)	CONSTITUENT	CONCENTRATION	THRESHOLD LIMIT	DATE OF SAMPLE
2 (cont'd)	VW-43	Intermediate	I	N	Methane	15,100 ppm	12,500 ppm	Apr-98
					Methane	22,000 ppm	12,500 ppm	Jul-98
					Methane	18,100 ppm	12,500 ppm	Oct-98
					Vinyl Chloride	120 ppb	25 ppb	Feb-98
					Vinyl Chloride	430 ppb	25 ppb	Apr-98
					Vinyl Chloride	240 ppb	25 ppb	Jul-98
					Vinyl Chloride	430 ppb	25 ppb	Oct-98
	VW-45	Intermediate	I	N	Methane	61,000 ppm	12,500 ppm	Feb-98
					Methane	63,100 ppm	12,500 ppm	Apr-98
					Methane	90,200 ppm	12,500 ppm	Jul-98
					Methane	101,000 ppm	12,500 ppm	Oct-98
					Vinyl Chloride	380 ppb	25 ppb	Feb-98
					Vinyl Chloride	6,500 ppb	25 ppb	Apr-98
					Vinyl Chloride	87 ppb	25 ppb	Jul-98
					Vinyl Chloride	38,000 ppb	25 ppb	Oct-98
					t-1,2 dce	4,700 ppb	3,680 ppb	Apr-98
					c-1,2 dce	8,000 ppb	1,860 ppb	Apr-98
					Benzene	570 ppb	200 ppb	Feb-98
					Benzene	2,800 ppb	200 ppb	Apr-98
					Benzene	1,800 ppb	200 ppb	Oct-98

(1) Well Location:
P = Perimeter
I = Interior

(2) Material Type:
F = Fill Material
S = Sump Material
N = Native Material
A = All Material

ppm = parts per million
ppb = parts per billion

RI = Remedial Investigation Well

TRC

TABLE 6.2

AREA 2
CHEMICALS OF CONCERN WHICH EXCEED SOIL GAS INTERIM THRESHOLD LIMITS VAPOR WELL MONITORING WASTE DISPOSAL, INC. SUPERFUND SITE
(Continued)

AREA	VAPOR WELL #	WELL TYPE	WELL LOCATION(1)	MATERIAL TYPE(2)	CONSTITUENT	CONCENTRATION	THRESHOLD LIMIT	DATE OF SAMPLE
2 (cont'd)	VW-48	Intermediate	I	S	Methane	539,000 ppm	12,500 ppm	Feb-98
					Methane	441,000 ppm	12,500 ppm	Apr-98
					Methane	592,000 ppm	12,500 ppm	Jul-98
					Methane	517,000 ppm	12,500 ppm	Oct-98
					Benzene	6,700 ppb	200 ppb	Feb-98
					Benzene	4,100 ppb	200 ppb	Apr-98
					Benzene	4,200 ppb	200 ppb	Jul-98
					Benzene	4,200 ppb	200 ppb	Oct-98
	VW-02	RI	I		Methane	33,000 ppm	12,500 ppm	Feb-98
	VW-03	RI Deep	I		Methane	14,000 ppm	12,500 ppm	Feb-98
					Methane	16,200 ppm	12,500 ppm	Feb-98
	VW-04	RI	I	A	Methane	130,000 ppm	12,500 ppm	Feb-98
					Methane	190,000 ppm	12,500 ppm	Apr-98
					Methane	173,000 ppm	12,500 ppm	Jul-98
					Methane	101,000 ppm	12,500 ppm	Oct-98
					Vinyl Chloride	280 ppb	25 ppb	Apr-98
					Vinyl Chloride	82 ppb	25 ppb	Oct-98
					Benzene	830 ppb	200 ppb	Feb-98
					Benzene	1,100 ppb	200 ppb	Apr-98
					Benzene	890 ppb	200 ppb	Jul-98
					Benzene	450 ppb	200 ppb	Oct-98

(1) Well Location:
P = Perimeter
I = Interior

(2) Material Type:
F = Fill Material
S = Sump Material
N = Native Material
A = All Material

ppm = parts per million
ppb = parts per billion

RI = Remedial Investigation Well

TRC

TABLE 6.2

AREA 2
CHEMICALS OF CONCERN WHICH EXCEED SOIL GAS INTERIM THRESHOLD LIMITS
VAPOR WELL MONITORING
WASTE DISPOSAL, INC. SUPERFUND SITE
(Continued)

AREA	VAPOR WELL #	WELL TYPE	WELL LOCATION(1)	MATERIAL TYPE(2)	CONSTITUENT	CONCENTRATION	THRESHOLD LIMIT	DATE OF SAMPLE
2 (cont'd)	VW-43	Deep	I	N	Methane	24,000 ppm	12,500 ppm	Feb-98
					Methane	20,500 ppm	12,500 ppm	Apr-98
					Methane	23,000 ppm	12,500 ppm	Jul-98
					Methane	14,100 ppm	12,500 ppm	Oct-98
					Vinyl Chloride	220 ppb	25 ppb	Feb-98
					Vinyl Chloride	230 ppb	25 ppb	Apr-98
					Vinyl Chloride	280 ppb	25 ppb	Jul-98
					Vinyl Chloride	530 ppb	25 ppb	Oct-98
	VW-45	Deep	I	N	Methane	32,000 ppm	12,500 ppm	Feb-98
					Methane	14,300 ppm	12,500 ppm	Apr-98
					Methane	27,800 ppm	12,500 ppm	Jul-98
					Benzene	380 ppb	200 ppb	Feb-98
	VW-48	Deep	I	N	Methane	37,000 ppm	12,500 ppm	Feb-98
					Methane	31,600 ppm	12,500 ppm	Apr-98
					Methane	27,500 ppm	12,500 ppm	Jul-98
					Methane	16,600 ppm	12,500 ppm	Oct-98

94-256/Rpts/AnSoGaMoRe (3/15/99/mc)

(1) Well Location:
P = Perimeter
I = Interior

(2) Material Type:
F = Fill Material
S = Sump Material
N = Native Material
A = All Material

ppm = parts per million
ppb = parts per billion

RI = Remedial Investigation Well

TRC

TABLE 6.3

AREAS 3, 4 AND 5
CHEMICALS OF CONCERN WHICH
EXCEED SOIL GAS INTERIM THRESHOLD LIMITS
VAPOR WELL MONITORING
WASTE DISPOSAL, INC. SUPERFUND SITE

AREA	VAPOR WELL #	WELL TYPE	WELL LOCATION(1)	MATERIAL TYPE(2)	CONSTITUENT	CONCENTRATION	THRESHOLD LIMIT	DATE OF SAMPLE
4	VW-06	RI	I	A	Methane	53,000 ppm	12,500 ppm	Feb-98
					Vinyl Chloride	55 ppb	25 ppb	Feb-98
5	VW-51	Intermediate	I	S	Methane	386,000 ppm	12,500 ppm	Feb-98
					Methane	234,000 ppm	12,500 ppm	Apr-98
					Methane	241,000 ppm	12,500 ppm	Jul-98
					Methane	328,000 ppm	12,500 ppm	Oct-98
					Benzene	1,200 ppb	200 ppb	Apr-98
					Benzene	2,900 ppb	200 ppb	Jul-98
					Benzene	6,500 ppb	200 ppb	Oct-98
	MP-1	Intermediate	I	A	Methane	73,700 ppm	12,500 ppm	Apr-98
					Methane	680,000 ppm	12,500 ppm	Jul-98
					Methane	851,000 ppm	12,500 ppm	Oct-98
					Benzene	410 ppb	200 ppb	Jul-98
	MP-2	Intermediate	I	A	Methane	743,000 ppm	12,500 ppm	Jul-98
					Methane	644,000 ppm	12,500 ppm	Apr-98
					Methane	840,000 ppm	12,500 ppm	Oct-98
					Benzene	60,000 ppb	200 ppb	Apr-98
					Benzene	20,000 ppb	200 ppb	Jul-98
					Benzene	1,300 ppb	200 ppb	Oct-98
	VW-30	Deep	P	N	Methane	13,000 ppm	12,500 ppm	Apr-98
	VW-51	Deep	I	N	Methane	41,000 ppm	12,500 ppm	Feb-98
					Methane	38,100 ppm	12,500 ppm	Apr-98
					Methane	327,000 ppm	12,500 ppm	Oct-98
					Vinyl Chloride	82 ppb	25 ppb	Feb-98
					Vinyl Chloride	65 ppb	25 ppb	Apr-98
					Benzene	310 ppb	200 ppb	Feb-98
					PCE	1,400 ppb	1,064 ppb	Jul-98

94-256/Rpts/AnSoGaMoRe (3/10/99/dh)

(1) Well Location:
P = Perimeter
I = Interior

(2) Material Type:
F = Fill Material
S = Sump Material
N = Native Material
A = All Material

ppm = parts per million
ppb = parts per billion

RI = Remedial Investigation Well

TABLE 6.4

AREAS 7 AND 8
CHEMICALS OF CONCERN WHICH
EXCEED SOIL GAS INTERIM THRESHOLD LIMITS
VAPOR WELL MONITORING
WASTE DISPOSAL, INC. SUPERFUND SITE

AREA	VAPOR WELL #	WELL TYPE	WELL LOCATION(1)	MATERIAL TYPE(2)	CONSTITUENT	CONCENTRATION	THRESHOLD LIMIT	DATE OF SAMPLE
7	VW-25	Deep	I	N	Methane	507,000 ppm	12,500 ppm	Feb-98
					Methane	334,000 ppm	12,500 ppm	Apr-98
					Methane	65,000 ppm	12,500 ppm	Jul-98
					Methane	155,000 ppm	12,500 ppm	Oct-98
8	VW-55	Shallow	I	F, S	Methane	119,000 ppm	12,500 ppm	Oct-98
	VW-58	Shallow	I	F	TCE	3,200 ppb	822 ppb	Oct-98
	VW-53	Intermediate	I	N	TCE	1,000 ppb	822 ppb	Jul-98
	VW-58	Intermediate	I	N	TCE	5,400 ppb	822 ppb	Oct-98
	VW-13	RI	I	A	Methane	13,000 ppm	12,500 ppm	Feb-98
					Methane	13,400 ppm	12,500 ppm	Apr-98
					Methane	13,800 ppm	12,500 ppm	Oct-98
					Vinyl Chloride	29 ppb	25 ppb	Feb-98
					Vinyl Chloride	46 ppb	25 ppb	Apr-98
					Vinyl Chloride	37 ppb	25 ppb	Jul-98
					Vinyl Chloride	56 ppb	25 ppb	Oct-98
	VW-14	RI	I	A	Vinyl Chloride	370 ppb	25 ppb	Feb-98
					Vinyl Chloride	350 ppb	25 ppb	Apr-98
					1,2-Dichloropropane	370 ppb	186 ppb	Oct-98
	VW-22	RI	I	A	TCE	1,400 ppb	822 ppb	Feb-98
					TCE	3,200 ppb	822 ppb	Apr-98
					TCE	850 ppb	822 ppb	Jul-98
					TCE	2,000 ppb	822 ppb	Oct-98

(1) Well Location:
P = Perimeter
I = Interior

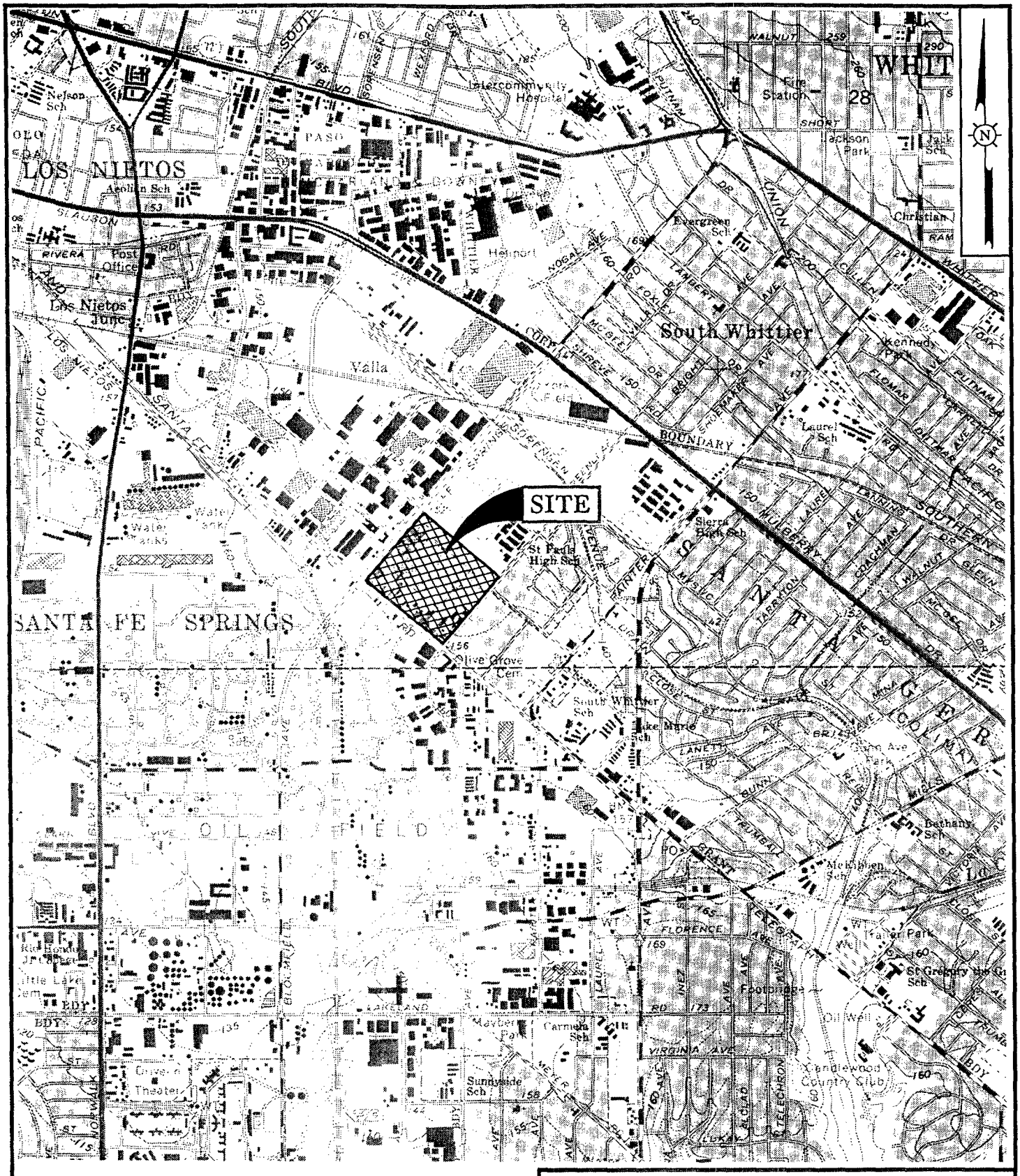
(2) Material Type:
F = Fill Material
S = Sump Material
N = Native Material
A = All Material

ppm = parts per million
ppb = parts per billion

RI = Remedial Investigation Well

Figures

94-256SVW REV. 3/16/99



0 2,000 4,000 FEET

SCALE

REFERENCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP OF WHITTIER, CALIFORNIA, DATED 1981.

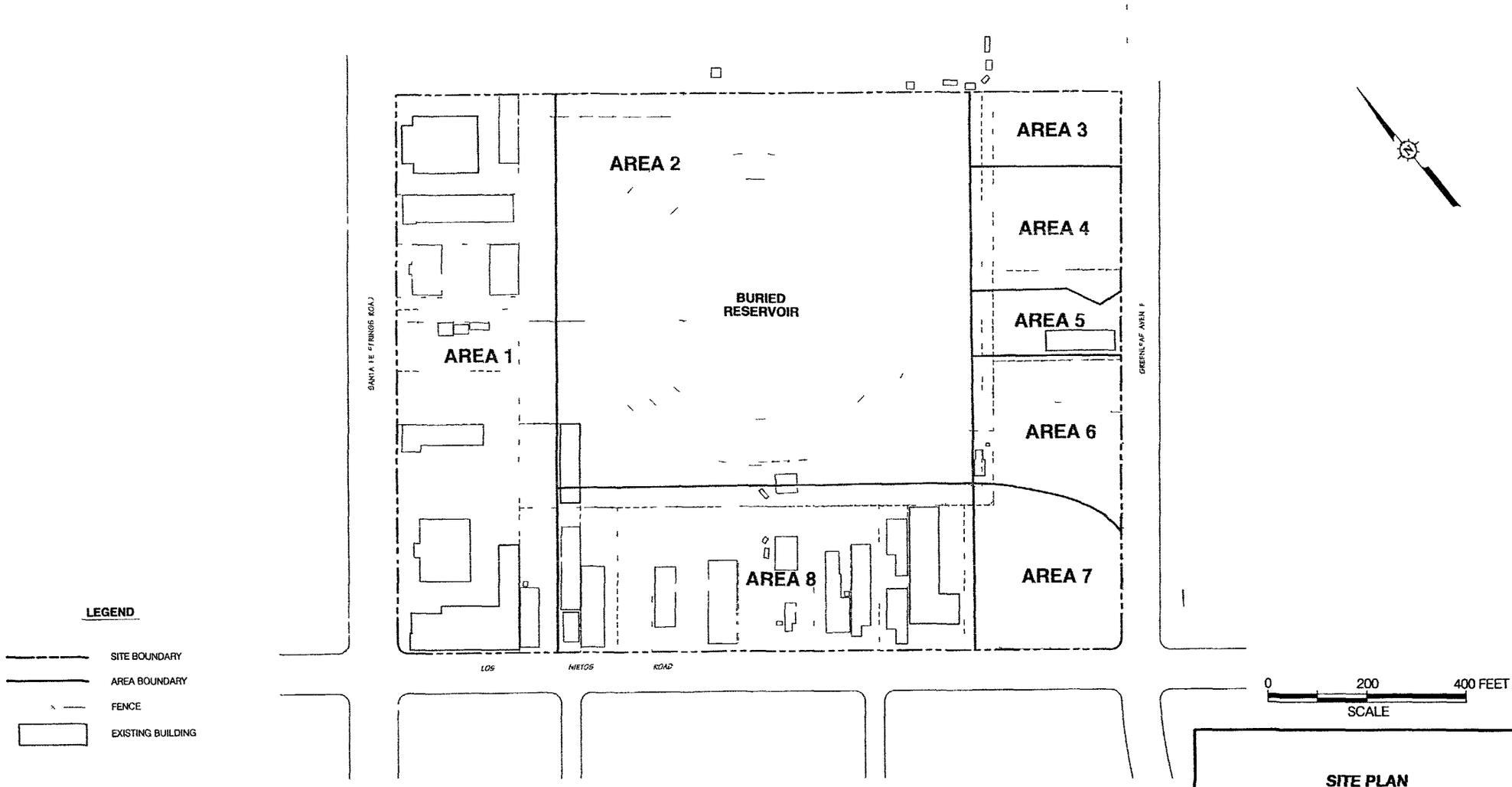
SITE LOCATION MAP

WASTE DISPOSAL, INC.
SANTA FE SPRINGS, CALIFORNIA

TRC

FIGURE 2.1

94 2565VW 11 REV 03/09/99



REFERENCE NUNEZ ENGINEERING SURVEY DRAWING NE 97187 OCT 31 1997

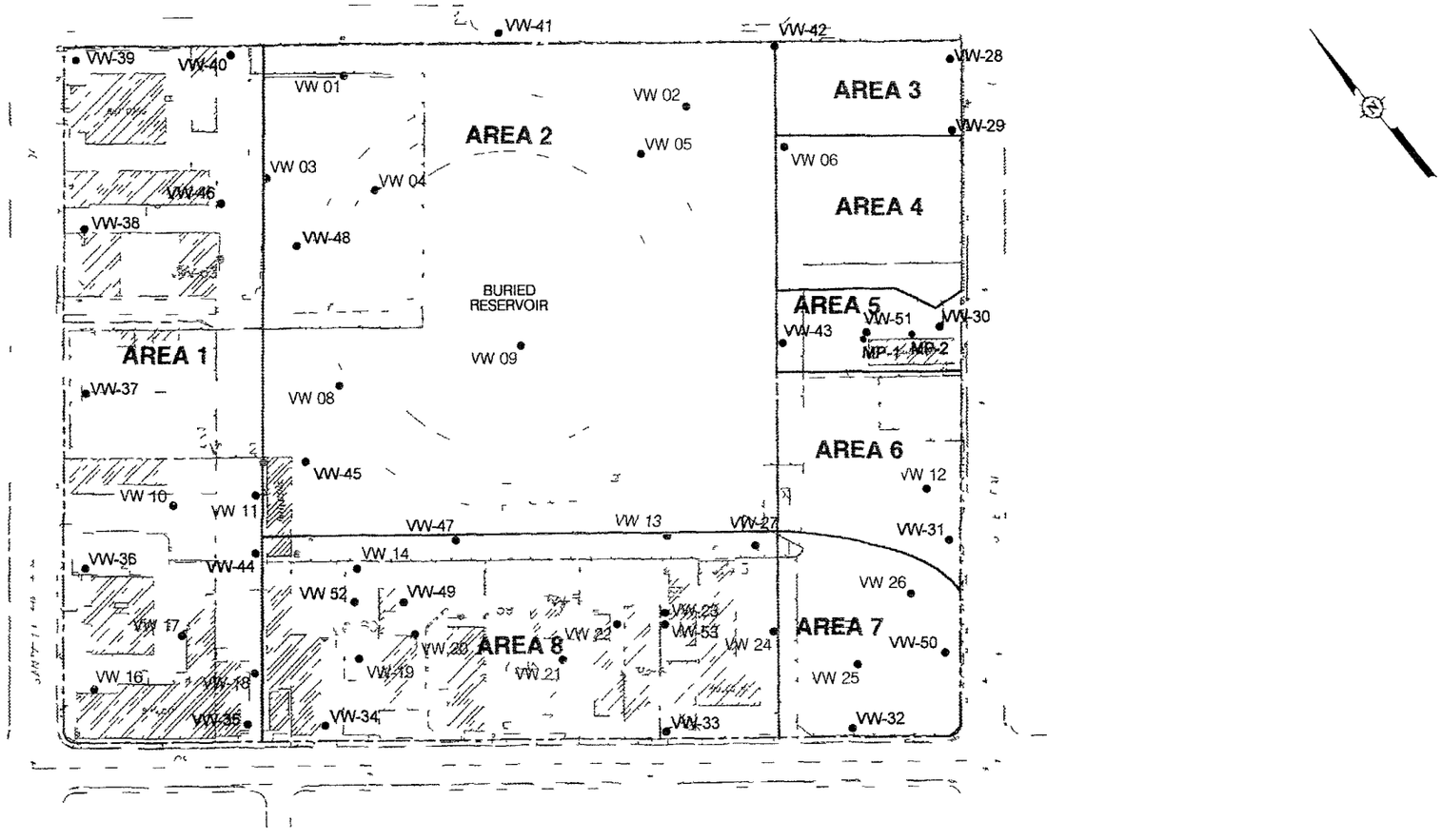
SITE PLAN

WASTE DISPOSAL INC
SANTA FE SPRINGS CALIFORNIA

TRC

FIGURE 2.2

94 256SVW 10REV 03/09/99



LEGEND

- SITE BOUNDARY
- AREA BOUNDARY
- MP 1 ● MONITORING PROBE
- VW 16 ● RI/FS VAPOR WELLS
- VW-36 ● WDIG VAPOR WELL
- EPA VAPOR WELL
- – NOT TESTED
- (1) ELEVATED DETECTION LIMIT
- (2) CHECK

0 200 400 FEET
SCALE

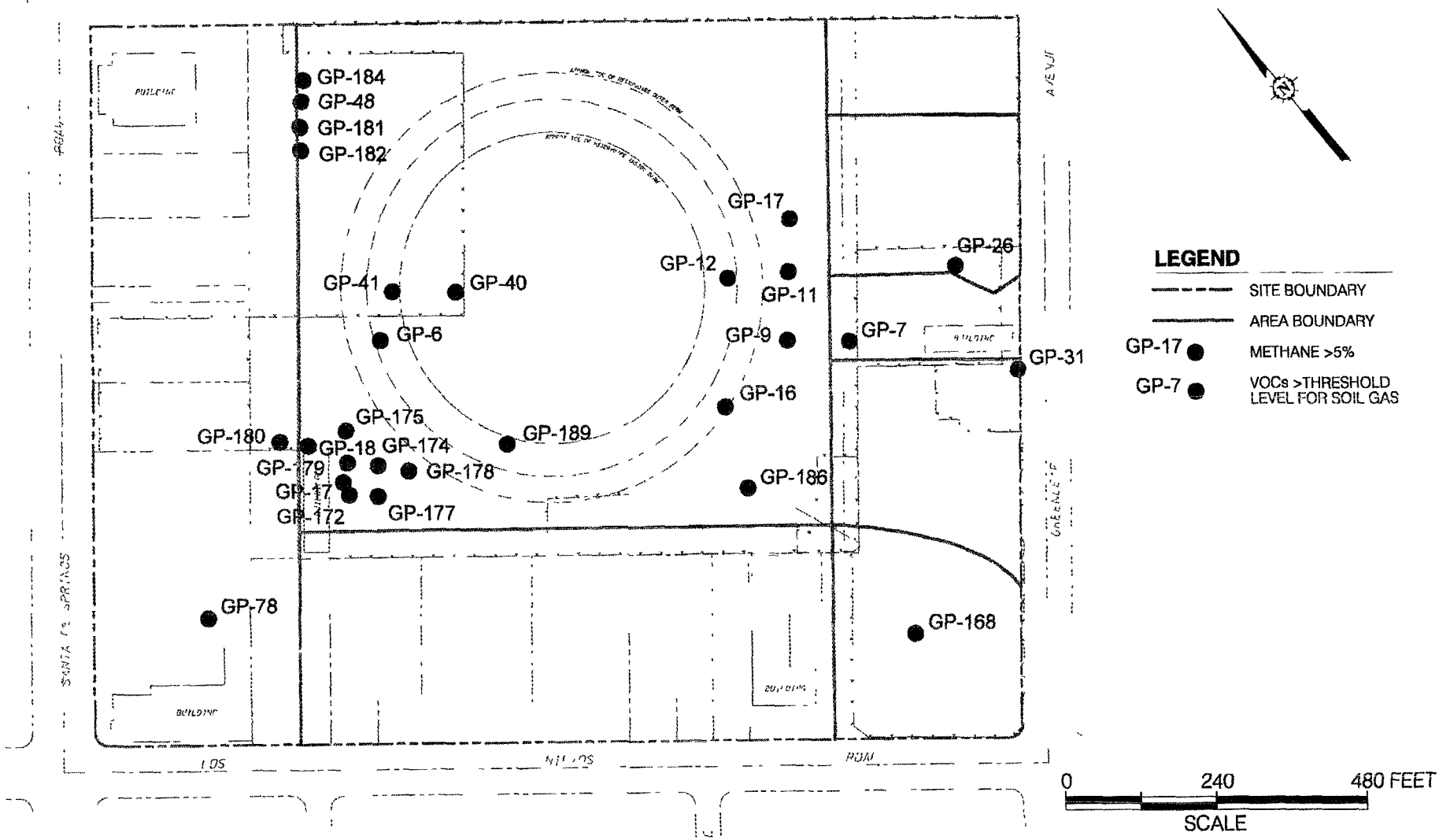
REFERENCE NUNEZ ENGINEERING SURVEY DRAWING NE 97187 OCT 31 1997

CURRENT VAPOR WELL NETWORK

WASTE DISPOSAL INC
SANTA FE SPRINGS CALIFORNIA

TRC

FIGURE 2.3



EPA GEOPROBE INVESTIGATION LOCATION OF EXCEEDENCES OF INTERIM THRESHOLD SCREENING LEVELS

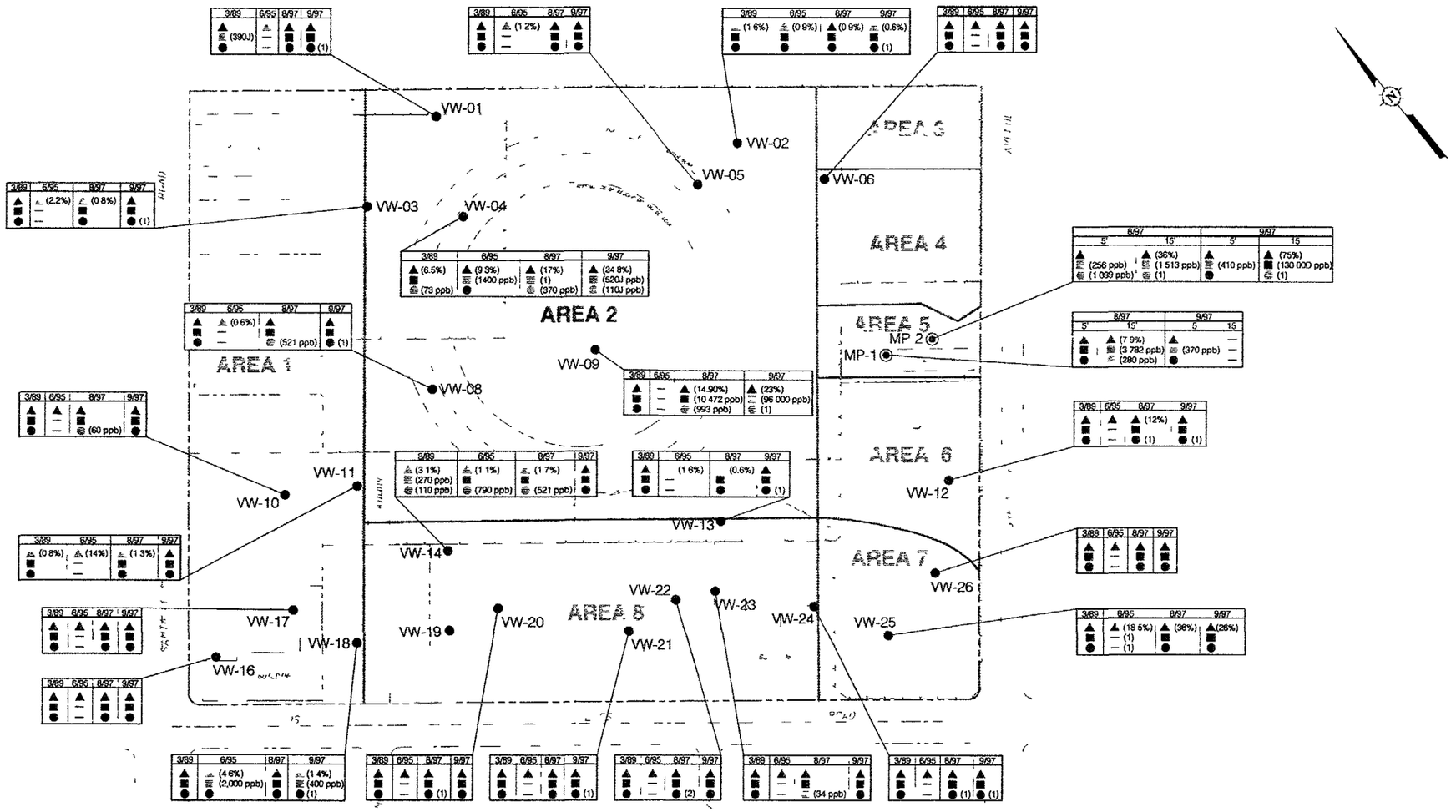
WASTE DISPOSAL, INC.
SANTA FE SPRINGS, CALIFORNIA

TRC

FIGURE 2.4

SOURCE FIGURE 5-1, "LOCATION OF EXCEEDENCES OF THRESHOLD LEVELS," CDM FEDERAL PROGRAMS CORPORATION, 11/20/98.

94 256SVW-08REV 03/09/99



LEGEND

SITE BOUNDARY	METHANE	<0.5%	>5%
AREA BOUNDARY	BENZENE	<200 ppb	>10 000 ppb
RI/FS VAPOR WELLS	VINYL CHLORIDE	<25 ppb	>5,000 ppb
MONITORING POINTS INSTALLED BY OTHERS			
NOT TESTED			
(1) ELEVATED DETECTION LIMIT			
(2) CHECK			

NOTE
1 DIFFERENTIATING CRITERIA IS BASED ON IWMB METHANE STANDARD AND EPA INTERIM ACTIVE LEVELS FOR BENZENE AND VINYL CHLORIDE

0 200 400 FEET
SCALE

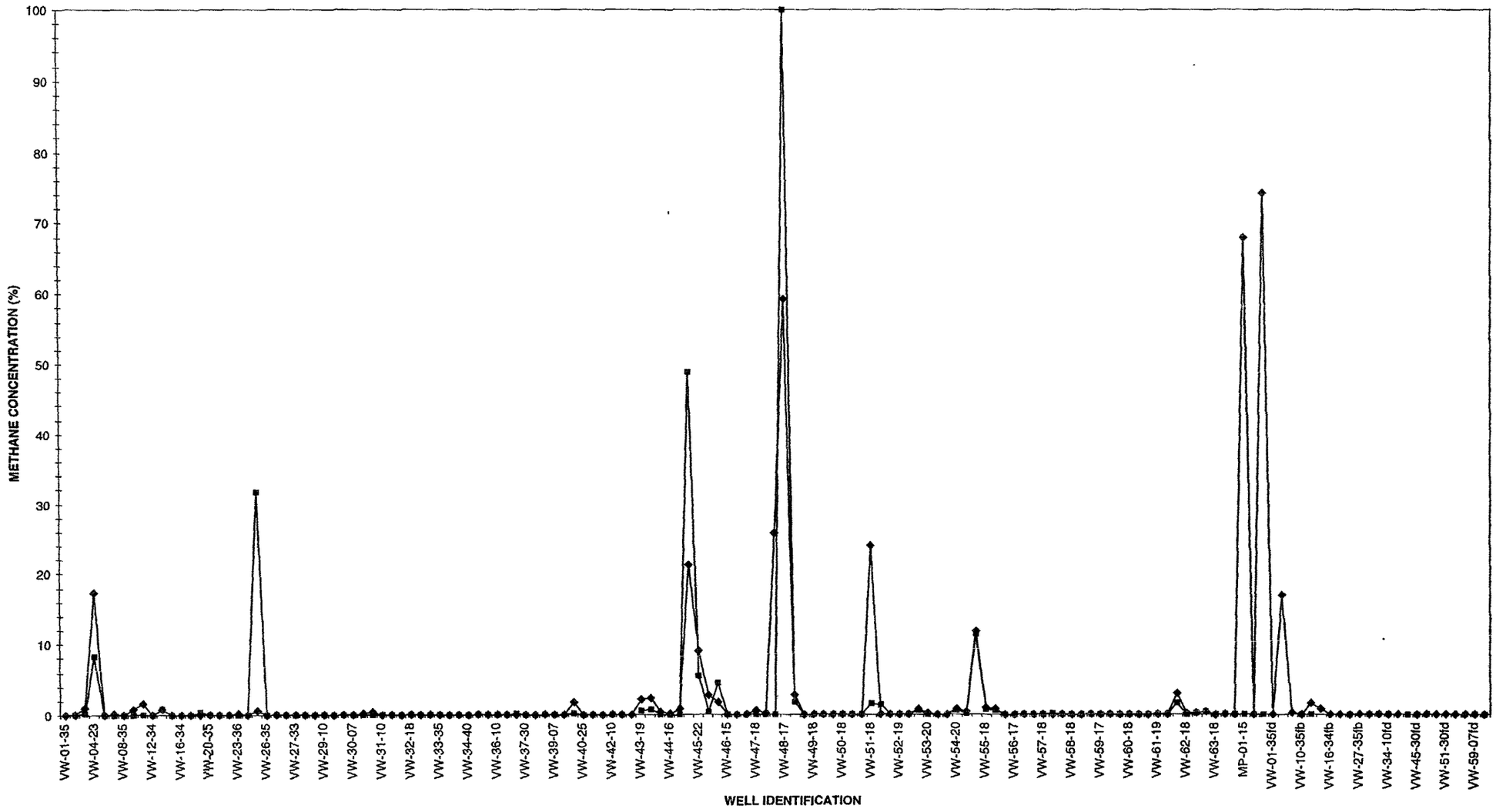
REMEDIAL INVESTIGATION VAPOR WELL MONITORING RESULTS

WASTE DISPOSAL, INC
SANTA FE SPRINGS, CALIFORNIA

TRC

FIGURE 2.5

94-256SVW-06 REV.03/09/99



LEGEND

—◆— Laboratory Results

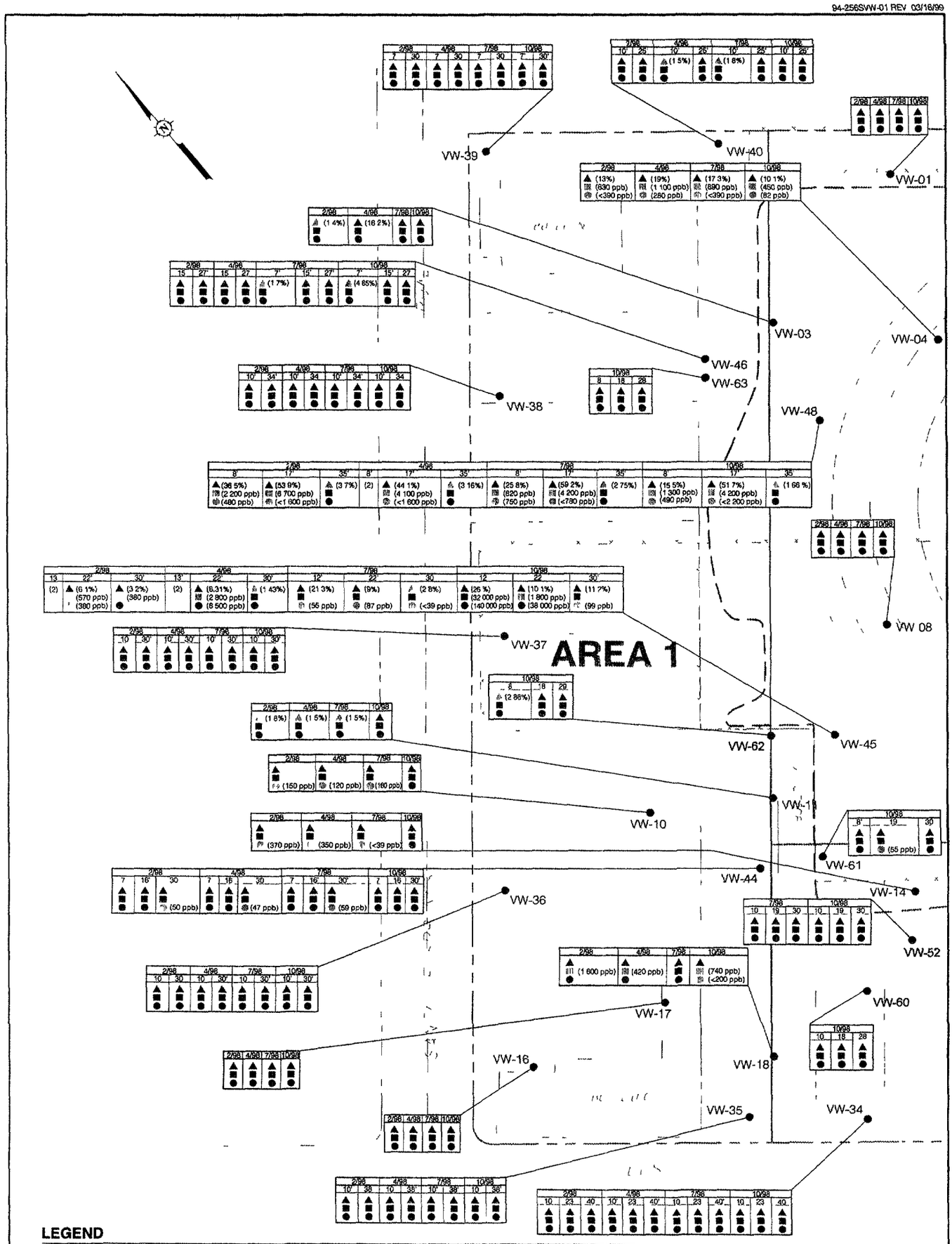
—■— Field Results

OCTOBER 1998 FIELD VERSUS LABORATORY METHANE CONCENTRATIONS

WASTE DISPOSAL, INC.
SANTA FE SPRINGS, CALIFORNIA

TRC | FIGURE 4.1

94-256SVW-01 REV 03/16/99



LEGEND

SITE BOUNDARY	METHANE	<1 25%		>5%
AREA BOUNDARY	BENZENE	<200 ppb		>10 000 ppb
SUMP-LIKE DELINEATION	VINYL CHLORIDE	<25 ppb		>5 000 ppb
RI/FS VAPOR WELLS				
VAPOR WELLS INSTALLED BY OTHERS				
NOT TESTED				
(1) ELEVATED DETECTION LIMIT				
(2) NOT SAMPLED DUE TO HIGH LIQUID LEVELS				

0 100 200 FEET
SCALE

NOTE
1 DIFFERENTIATING CRITERIA IS BASED ON IWMB METHANE STANDARD AND EPA INTERIM ACTIVE LEVELS FOR BENZENE AND VINYL CHLORIDE

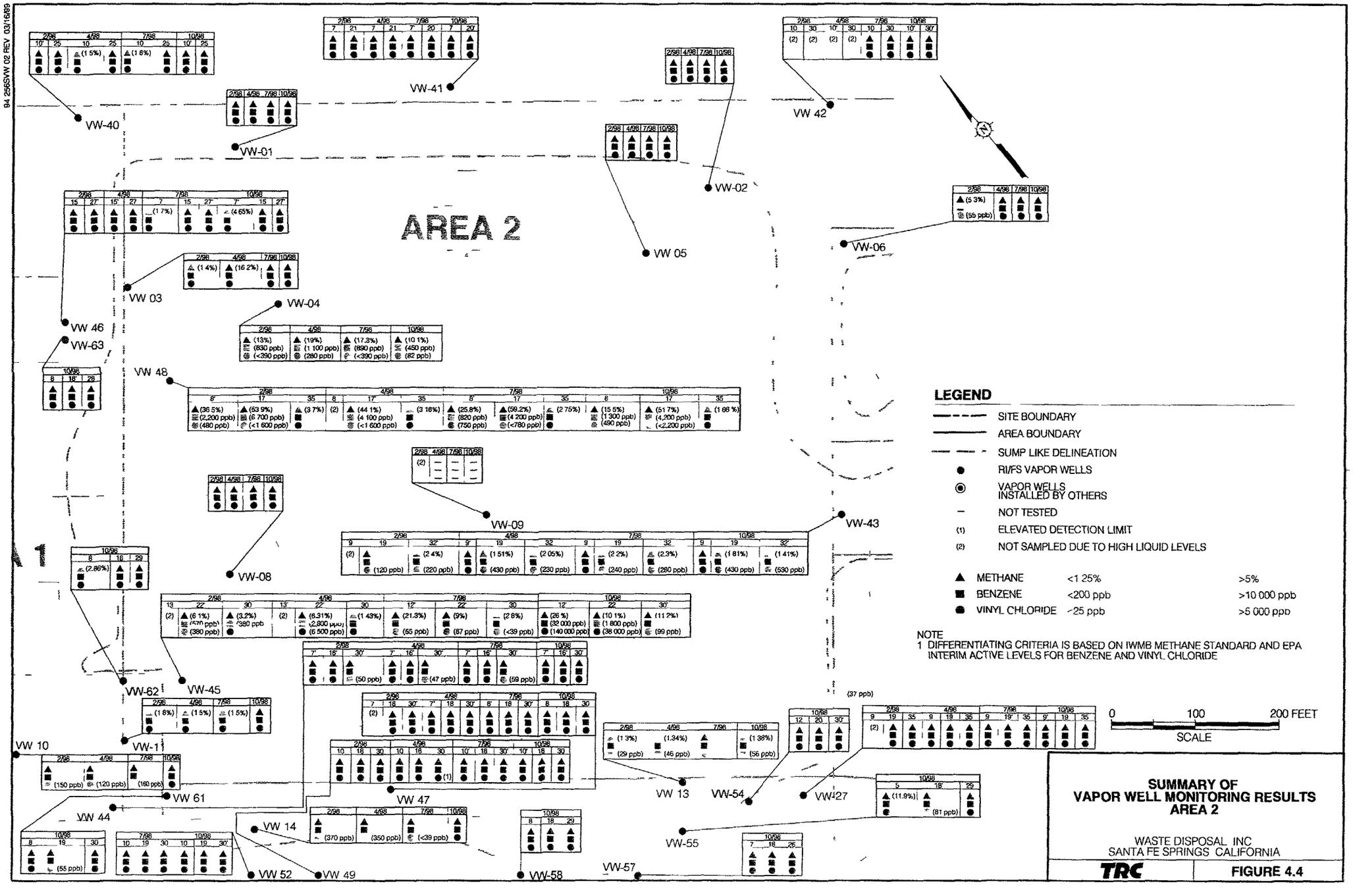
SUMMARY OF VAPOR WELL MONITORING RESULTS AREA 1

WASTE DISPOSAL INC
SANTA FE SPRINGS CALIFORNIA

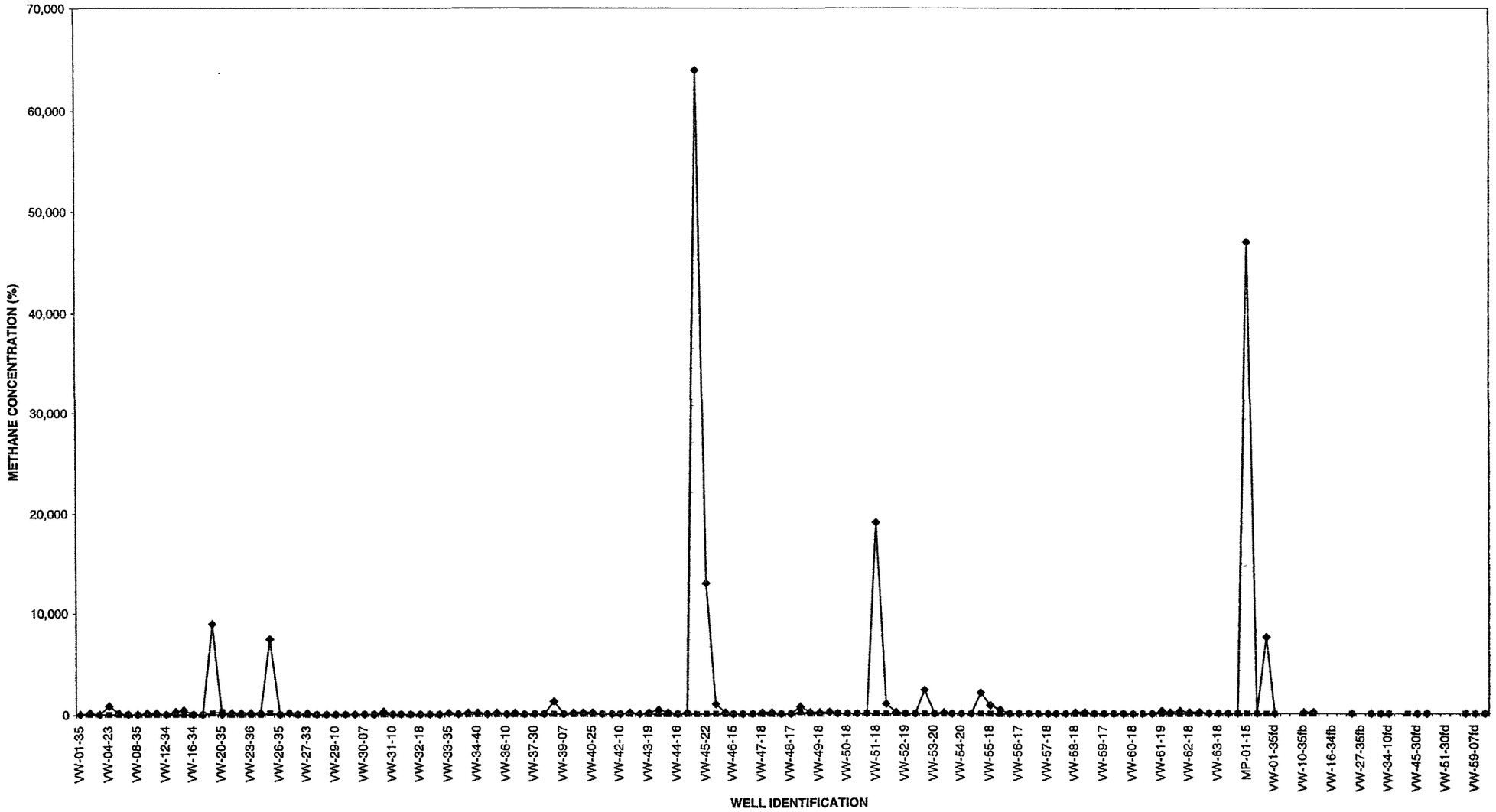
TRC

FIGURE 4.3

94 256SVW 02 REV 03/16/99



94-256SVW-07 REV.03/09/99



LEGEND

—◆— Laboratory Results

—■— Field Results

OCTOBER 1998 FIELD VERSUS LABORATORY TOTAL VOLATILE ORGANIC CONCENTRATIONS

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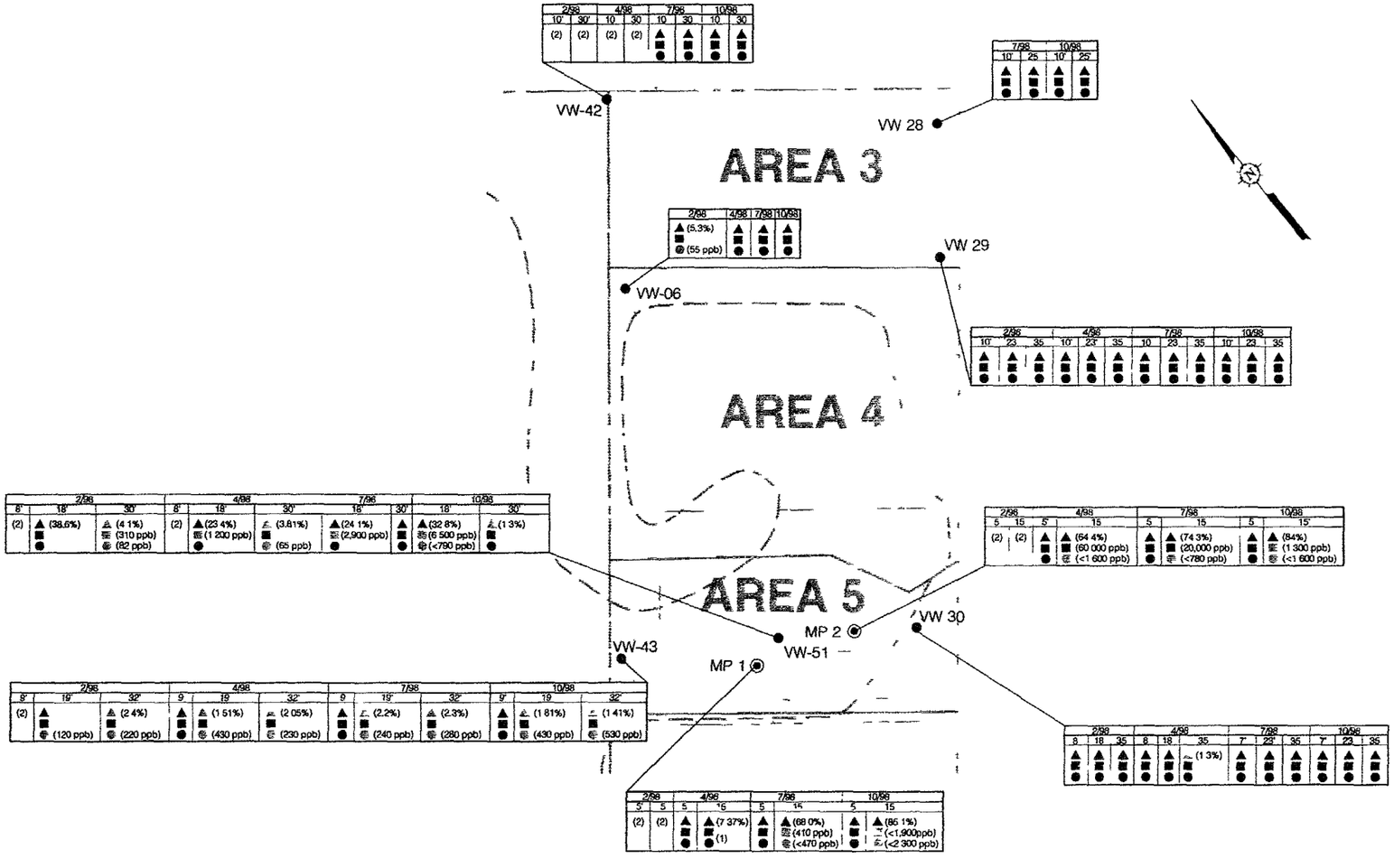
FIGURE 4.2

94 256SVW D3 REV 03/16/99



LEGEND

SITE BOUNDARY	▲ METHANE	<1 25%	>5%
AREA BOUNDARY	■ BENZENE	<200 ppb	>10 000 ppb
SUMP LIKE DELINEATION	● VINYL CHLORIDE	<25 ppb	>5 000 ppb
● RI/FS VAPOR WELLS			
◉ VAPOR WELLS INSTALLED BY OTHERS			
– NOT TESTED			
(1) ELEVATED DETECTION LIMIT			
(2) NOT SAMPLED DUE TO HIGH LIQUID LEVELS			

NOTE.
1 DIFFERENTIATING CRITERIA IS BASED ON IWMB METHANE STANDARD AND EPA INTERIM ACTIVE LEVELS FOR BENZENE AND VINYL CHLORIDE

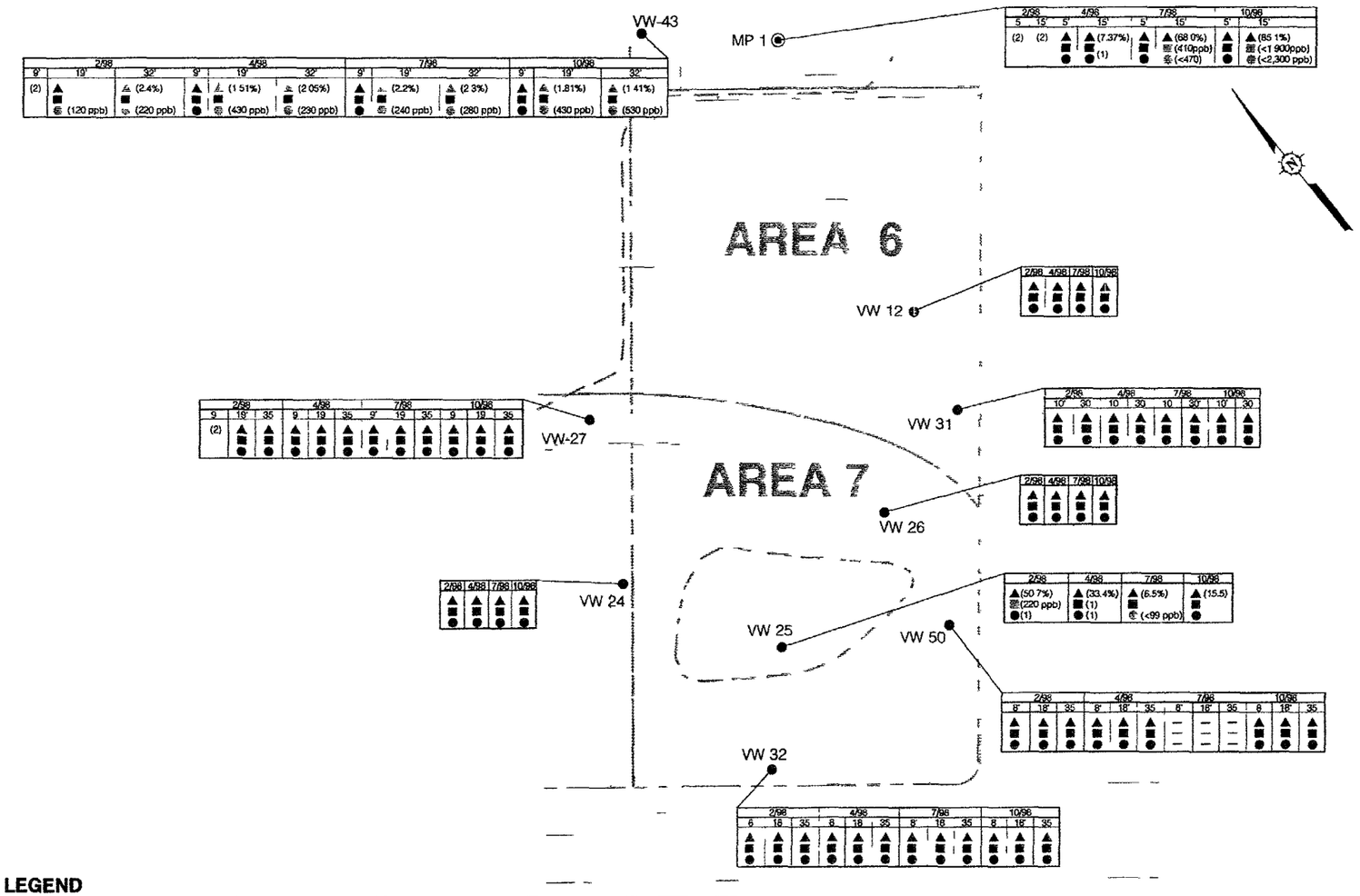
0 100 200 FEET
SCALE

SUMMARY OF VAPOR WELL MONITORING RESULTS AREAS 3, 4 & 5

WASTE DISPOSAL INC
SANTA FE SPRINGS CALIFORNIA

TRC

FIGURE 4.5



LEGEND

SITE BOUNDARY	METHANE	<1 25%	>5%
AREA BOUNDARY	BENZENE	<200 ppb	>10 000 ppb
SUMP LIKE DELINEATION	VINYL CHLORIDE	<25 ppb	>5 000 ppb
RI/FS VAPOR WELLS			
VAPOR WELLS INSTALLED BY OTHERS			
NOT TESTED			
(1) ELEVATED DETECTION LIMIT			
(2) NOT SAMPLED DUE TO HIGH LIQUID LEVELS			

NOTE
1 DIFFERENTIATING CRITERIA IS BASED ON IWMB METHANE STANDARD AND EPA INTERIM ACTIVE LEVELS FOR BENZENE AND VINYL CHLORIDE

0 100 200 FEET
SCALE

SUMMARY OF VAPOR WELL MONITORING RESULTS AREAS 6 & 7

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SANTA FE SPRINGS CALIFORNIA

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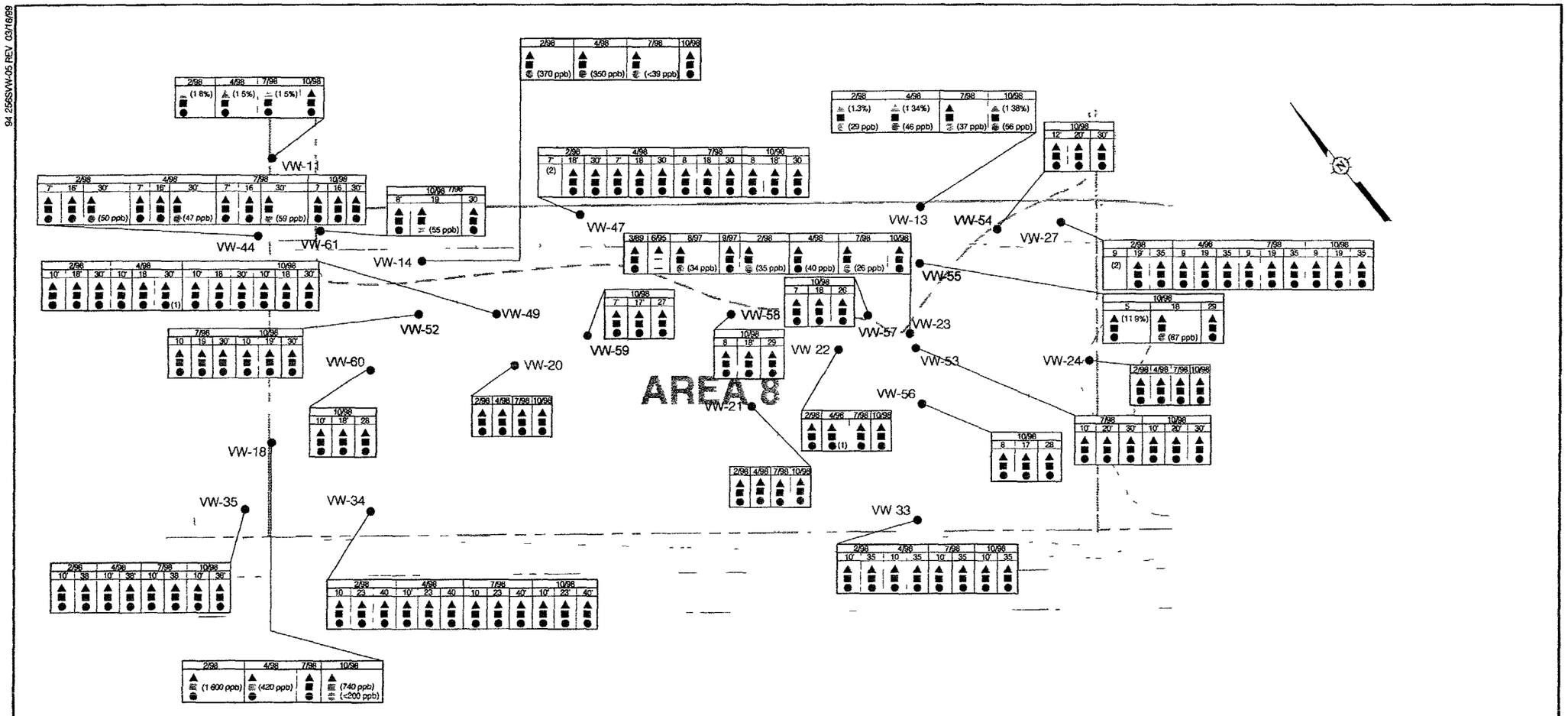
FIGURE 4.6

94-2565VW-04 REV 03/16/99

94 258SVW-05 REV 03/16/99



LEGEND

SITE BOUNDARY	▲ METHANE	<1 25%	[illegible]	>5%
AREA BOUNDARY	■ BENZENE	<200 ppb	[illegible]	>10 000 ppb
SUMP-LIKE DELINEATION	● VINYL CHLORIDE	<25 ppb	[illegible]	>5 000 ppb
● RI/FS VAPOR WELLS				
◉ VAPOR WELLS INSTALLED BY OTHERS				
– NOT TESTED				
(1) ELEVATED DETECTION LIMIT				
(2) NOT SAMPLED DUE TO HIGH LIQUID LEVELS				

NOTE
1 DIFFERENTIATING CRITERIA IS BASED ON IWMB METHANE STANDARD AND EPA INTERIM ACTIVE LEVELS FOR BENZENE AND VINYL CHLORIDE

0 100 200 FEET
SCALE

SUMMARY OF VAPOR WELL MONITORING RESULTS AREA 8

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TRC

FIGURE 4.7

APPENDICES
(Provided on CD-Rom)

- Appendix A: Boring Logs and Vapor Well Construction Details
- Appendix B: Soil Monitoring Field Notes
- Appendix C: Laboratory Data and QA Documentation
- Appendix D: Data Validation Reports