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Remedial Design Report No. 4 for the Trailer 5475 Treatment Facilities Lawrence Livermore National Laboratory Livermore Site

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February 1998

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Environmental Protection Department
Environmental Restoration Program and Division

Work performed under the auspices of the U. S. Department of Energy by Lawrence Livermore National Laboratory under Contract W-7405-Eng-48.

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Summary

This is the last of six Remedial Design reports that describe plans for implementing ground water and soil remediation at the Lawrence Livermore National Laboratory's (LLNL's) Livermore Site. The Department of Energy (DOE) and LLNL have prepared these reports over a 5-year period. The remediation plans described in each report are designed to optimize the overall site remediation and be consistent with projected funding levels. The overall remedial approach for the LLNL Livermore Site is explained in the Remedial Action Implementation Plan (Dresen et al., 1993), which can be found in the Information Repositories located at LLNL's Visitors Center and at the Livermore Public Library.

This Remedial Design report is for ground water and soil vapor extraction in the Trailer 5475 area. Ground water and soil contaminants at this location are volatile organic compounds and tritium. As discussed in the Livermore Site's Record of Decision (U.S. DOE, 1992), the remedial approach is to treat volatile organic compounds and keep tritium in the subsurface as much as possible where it will decay naturally. The Remedial Action Implementation Plan stated that DOE/LLNL would evaluate technologies to separate the volatile organic compounds from the tritiated ground water in the subsurface.

After evaluating various technologies (i.e., vacuum vaporizer well, vertical extraction well with horizontal injection well, treatment in a subsurface vault, above ground closed-loop air stripping with reinjection, air sparging, membrane separation, and slurry wall containment), it was determined that catalytic reductive dehalogenation is an appropriate technology to remediate volatile organic compounds in the ground water. The catalytic reductive dehalogenation process rapidly converts chlorinated volatile organic compounds into ethane, ethene, and methane using dissolved hydrogen in the presence of a palladium catalyst. Soil vapor containing volatile organic compounds will be extracted and treated in a closed-loop facility using granular activated carbon to capture the volatile organic compounds, and the vapor containing tritium will be returned to the subsurface to decay naturally.

This report specifies the treatment facilities equipment, and the associated ground water and vadose zone wellfields. The ground water treatment wells will contain a catalytic reductive dehalogenation column to treat ground water *in situ*. Monitor wells and piezometers will be used to monitor contaminant concentrations to evaluate the effectiveness of the treatment wells. Vapor extraction wells will be used to remove soil vapor containing contaminants in the vadose zone. Vadose zone instrumentation will be used to monitor pressure changes and provide information about the size of the area being affected by the vapor extraction wells.

Eight of the nine hydrostratigraphic units defined for the Livermore Site are in the Trailer 5475 area. The highest concentrations of volatile organic compounds and tritium in ground water are in hydrostratigraphic unit 3A. The highest unsaturated zone tritium concentrations are in hydrostratigraphic unit 1B, and the highest unsaturated zone volatile organic compound concentrations are in hydrostratigraphic unit 2. Concentrations of both volatile organic compounds and tritium have been generally declining throughout the area over the past several years.

The first treatment well is scheduled to be fully operational by September 30, 1998. Pilot testing began in the summer of 1997. The soil vapor treatment facility is scheduled to begin operation by June 26, 1999. The estimated total design and construction cost for the ground water treatment system is about $850,000, and about $160,000 for the soil vapor treatment facility.

DOE/LLNL will sample ground water and vapor to monitor the performance of the treatment wells and the soil vapor treatment facility.

1. Introduction

This report is the last of six Remedial Design (RD) reports for Lawrence Livermore National Laboratory's (LLNL's) Livermore Site, located about 40 miles east of San Francisco, California (Fig. 1). This RD report is for the Trailer 5475 (T-5475) (Fig. 2) ground water and vapor treatment facilities (TF5475 and VTF5475, respectively) and corresponding wellfields. The six RD reports have been prepared over a 5-year period according to the schedule in the Remedial Action Implementation Plan (RAIP) (Dresen et al., 1993) for the Livermore Site. As described in the RAIP, the remedial actions presented in the Record of Decision (ROD) for the Livermore Site (U.S. Department of Energy [DOE], 1992) will be phased-in to be consistent with projected funding levels, and to enable determination of the actual, rather than predicted, effectiveness of the planned extraction and treatment systems before proceeding with subsequent phases.

This document was prepared by LLNL for DOE with oversight from the U.S. Environmental Protection Agency (EPA), the Department of Toxic Substances Control (DTSC), and the Regional Water Quality Control Board (RWQCB). The six RD reports are primary documents under the Federal Facility Agreement (FFA) for LLNL's Livermore Site.

The scope and format of this report are based on EPA guidance documents (U.S. EPA, 1989; 1990), an outline provided by the EPA (Gill, 1993), and subsequent discussions with the EPA. As specified in EPA guidance, each RD report contains engineering design specifications for the treatment systems, including piping and instrument diagrams (P&IDs), system descriptions, monitoring and construction schedules, and cost estimates. The RD reports also include a Remedial Action Workplan that contains Quality Assurance/Quality Control (QA/QC) Plans, Health and Safety Plans (HASPs) for operation and maintenance (O&M), and the requirements for offsite shipment of hazardous waste and for project closeout. The QA/QC and HASPs for construction were submitted with the initial Remedial Design Report No. 1 (RD1) (Boegel et al., 1993).

Section 2 of this report presents the hydrostratigraphic analysis, geochemistry, and hydrogeologic model for the T-5474 area. Sections 3 and 4 present the remedial designs for TF5475 and VTF5475, respectively. Section 5 is the Remedial Action Workplan. Appendices A through D present soil and ground water analytical results, O&M QA/QC and HASPs, and sampling procedures for TF5475 and VTF5475.

1.1. Background

The Livermore Site was placed on the EPA's National Priorities List in 1987. In November 1988, DOE, EPA, DTSC, and RWQCB signed a FFA to facilitate compliance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended. As part of the CERCLA process, LLNL's Environmental Restoration Division (ERD) has prepared a series of documents: the Remedial Investigation (RI) (Thorpe et al., 1990) characterized the site hydrogeology and contaminant distribution, the Feasibility Study (FS) (Isherwood et al., 1990) screened and evaluated possible remedial alternatives, the Proposed Remedial Action Plan (Dresen et al., 1991) further evaluated conceptual remedial alternatives

and recommended particular alternatives for ground water and soil remediation, the ROD (U.S. DOE, 1992) codified and bound DOE and EPA to a remedial approach for ground water and soil, and the RAIP (Dresen et al., 1993) presented the remedial approach and a schedule for the remaining remedial actions.

The contaminants of concern at the Livermore Site are volatile organic compounds (VOCs), primarily trichloroethylene (TCE) and perchloroethylene (PCE); tritium; and perhaps chromium. VOCs and tritium are the chemicals of concern in the T-5475 area. The Applicable or Relevant and Appropriate Requirements (ARARs) for the Livermore Site are detailed in the FS (Isherwood et al., 1990) and the ROD (U.S. DOE, 1992).

As discussed in the ROD, the remedial approach is to treat the VOCs and keep tritium in the subsurface as much as possible where it will decay naturally. The RAIP stated that DOE/LLNL would evaluate technologies to separate the VOCs from the tritiated ground water in the subsurface. After evaluating possible technologies (i.e., vacuum vaporizer well, vertical extraction well with horizontal injection well, treatment in a subsurface vault, above ground closed-loop air stripping with reinjection, air sparging, membrane separation, and slurry wall containment), it was determined that catalytic reductive dehalogenation should be an effective technology to remediate VOCs *in situ* in the ground water, while keeping the tritium in the subsurface as much as possible. VOCs in soil vapor in the vadose zone will be extracted and treated with granular activated carbon (GAC), and the vapor containing tritium will be returned to the subsurface to decay naturally.

1.2. Source of Contamination

1.2.1. Trailer 5475 Source Investigations

Since hydrogeologic investigations began in 1980, 68 boreholes have been drilled to characterize potential sources in the T-5475 area. Of these boreholes, 31 were completed in the upper Livermore Formation as monitor wells or piezometers (Fig. 3). Analytical data from these boreholes indicated elevated VOC and tritium concentrations in both the unsaturated and the uppermost saturated sediments. The majority of release(s) of solvents and tritium probably occurred from 1953 to 1976 when LLNL used a portion of the old U.S. Naval Air Station's East Taxi Strip and the adjacent areas of unpaved soil to store and process radioactive solid and liquid wastes and solvents. Prior to 1953, significant releases of solvents undoubtedly occurred from Naval operations.

In 1982 during drilling of a preconstruction borehole at the current location of T-5475, solvent odors and broken glass were noted. An initial 6-ft-deep excavation over an area of approximately 50 × 750 ft uncovered a series of disposal pits (Fig. 3)(Buerer, 1983).

The initial excavation identified four disposal pits requiring further excavation. The largest and deepest of these pits, Pit 1, was discovered beneath the current location of T-5475. Pit 1 was excavated to a depth of 34 ft, and contained sediments with a strong solvent odor and radionuclide concentrations above background. Excavated sediments from Pit 1 contained total VOC concentrations as high as 897 parts per million (ppm). Pit 2, located about 75 ft north of the study area (not shown on Fig. 3), contained sediments not exceeding 0.1 ppm total VOCs,

and was excavated to a depth of 20 ft. Confirmation samples collected from the bottom of Pit 2 indicated total VOC concentrations were less than 0.05 ppm. Pit 3 was excavated to a depth of 13.5 ft. A core sample collected from the bottom of Pit 3 detected only acetone and isopropanol in the parts per billion (ppb) range. Pit 4 was not a disposal pit. No broken bottles or solvent odors were detected as in the other three pits, but some sediments contained radionuclides above background concentrations. Pit 4 was the location of plastic and concrete solar evaporation trays used from 1962 to 1976 to reduce the volume of radioactive liquids. Leakage from these trays is presumably the source of the radionuclides (Buerer, 1983).

The entire area of the 1982–1983 soil excavation (Fig. 3) is considered to be the source of the T-5475 area ground water VOC plumes; however, most of the VOCs probably originated from releases in the vicinity of Pits 1 and 3.

During the fall of 1982, abnormally high rainfall occurred while the pits were being excavated. The rainfall ultimately forced the excavation work to be postponed until the spring of 1983. Prior to the rainy season, a borehole drilled in Pit 1 in December 1982 indicated total VOCs exceeding 2 ppm were in the sediments approximately 5 ft beneath the excavation at a depth of 39 ft (Buerer, 1983). Anecdotal information indicates that the excavated area was partially filled with water during much of the rainy season.

Buerer (1983) reported that approximately 3,000 cubic yards of soil would require disposal. Radioactive contaminated soil was to be shipped to the Federal Nevada Test Site, and the solvent contaminated soil to be disposed at a Class I landfill (either Martinez, Casmalia, or Kettleman City).

Additional releases in the vicinity of T-5475 may have come from various sources. From 1958 until 1979, salvage operations were performed in the southern portion of the T-5475 area, south of Pit 4. The Livermore Site RI (Thorpe et al., 1990) described that reclaimable materials, including solvents, were stored in this area and releases may have occurred from the salvage operations. Aircraft maintenance was performed on the unpaved portion of the East Taxi Strip during World War II that entailed cleaning aircraft with TCE and other solvents (Thorpe et al., 1990). Solvents may have also leached into underlying unsaturated sediments from soil that was stockpiled adjacent to the excavation during the 1982–1983 excavation activities. Additional undocumented releases of solvents may have occurred around T-5475, as suggested by elevated VOC concentrations in unsaturated sediments from boreholes. VOCs found in these sediments generally do not contain carbon tetrachloride (CTET) or chloroform that are usually detected in boreholes drilled within the T-5475 source (pits) area.

1.2.2. Nearby Sources

The area southwest of Building 543 (Fig. 3), called the Eastern Landing Mat (ELM) area, was used by LLNL for the salvage and storage of reclaimable materials including non-radioactive chemicals and oils (Thorpe et al., 1990). A succession of possible releases is suggested by aerial photos taken from 1966 through 1979 that show a gradual darkening of soil over time in the area south of the current location of Building 543. From 1984 through 1990, twenty-one source investigation boreholes were drilled between the ELM area and T-5475. Total VOCs as high as 0.5 ppm were detected in unsaturated sediments from these boreholes. TCE, PCE, 1,1-dichloroethylene (1,1-DCE), trichlorotrifluoroethane (Freon 113) and

1,2-dichloroethylene (1,2-DCE) were detected in the borehole sediments. Few samples contained chloroform, whereas chloroform was detected in most of the boreholes near T-5475. As discussed further in Section 2.2.1, chloroform and CTET are only found in significant concentrations in the T-5475 source area, and in the ground water plumes associated with the T-5475 disposal pits.

A sample from a borehole drilled in the ELM area in 1990, adjacent to the current location of well W-912 (Fig. 3), contained tritium at 94,000 picocuries per liter of soil moisture (pCi/L_{sm}) at a depth of 5 ft. Data from additional boreholes drilled in the area indicated that elevated tritium concentrations diminish with depth, and were localized in an area not exceeding a radius of about 100 ft from the current location of piezometer SIP-543-101 (Fig. 3) (Macdonald et al., 1991). Piezometer SIP-543-101 was drilled in 1995 to the water table. A tritium concentration of 3,000 pCi/L_{sm} was detected in an unsaturated sediment sample collected at 20 ft in the borehole, and all tritium concentrations from other samples collected above the water table were below detection. Ground water tritium concentrations from this piezometer have always been below 1,000 pCi/L.

2. Hydrostratigraphic Analysis, Geochemistry, and Hydrogeologic Model

2.1. Hydrostratigraphic Analysis

The approach for defining hydrostratigraphic units (HSUs) is presented in Section 2.1.1, and individual HSUs in the T-5475 area are discussed in Section 2.1.2.

2.1.1. Defining Hydrostratigraphic Units

HSUs have been defined and used to design the T-5475 soil vapor and ground water extraction wellfields. A similar approach was used for RDs 3, 5, and 6 to design Treatment Facilities D, E, and G (TFD, TFE, and TFG)(Berg et al., 1994a; Berg et al., 1995), and the Building 518 Vapor Treatment Facility (VTF518) wellfields (Berg et al., 1994b). The use of HSUs reflects ongoing work to interpret and synthesize the Livermore Site hydrogeology on a site-wide scale (Blake et al., 1995). This approach is a logical progression from the prior use of borehole-specific water-bearing zones, to a more comprehensive regional interpretation.

HSUs are defined as sedimentary sequences whose permeable layers show evidence of hydraulic communication. Hydraulic communication between HSUs is limited across HSU boundaries.

The Livermore Site subsurface has been subdivided into nine HSUs based on a systematic analysis using multiple, independent data sets to reduce the uncertainty in subsurface correlation. HSUs are based on detailed analyses of chemical, geological, and hydraulic data. The independent data sets used in the hydrostratigraphic analysis include: (1) lithologic core descriptions, (2) borehole geophysical logs, (3) hydraulic test data, (4) ground water elevation

data, (5) VOC and tritium concentrations in sediments and ground water, and (6) plume signatures based on chemical constituent ratios.

Multiple independent data sets were used in an iterative manner to verify or modify initial correlations. Initial subsurface correlations were made using existing geophysical and lithologic data. To facilitate this analysis, 12 detailed cross sections displaying lithologic and geophysical data were constructed for the T-5475 area. These initial cross-sectional interpretations were then checked and further constrained using other independent data sets, primarily chemical, ground water elevation, and hydraulic test data.

In addition to the cross sections, maps were constructed showing VOC distributions, ground water elevations, hydraulic test data, and isopachs (lines of equal thickness) showing the geometry of high-permeability sediments for each HSU. These maps were used to analyze the hydrogeologic factors influencing the distribution and migration of contaminants and to identify data gaps. HSU analysis has proven to be a useful tool for implementing remedial design by improving our ability to identify and target contaminant migration pathways, delineate individual plume geometry, and identify the relationship between plumes and sources. As new data become available, the hydrostratigraphic analysis is updated and revised, as necessary. This method allows better design and optimization of extraction and monitor well locations, ensures adequate hydraulic plume control, and maximizes contaminant mass removal.

2.1.2. Trailer 5475 Area Hydrostratigraphic Units

Figure 3 shows the location of hydrogeochemical cross sections A–A′ and B–B′, which are presented in Figures 4 through 7. Figures 4 and 5 present HSU and VOC data, and Figures 6 and 7 present HSU and tritium data. As seen on Figures 5 and 7, eight of the nine HSUs defined for the Livermore Site are identified in the T-5475 area: HSUs-1B,-2,-3A,-3B,-4,-5,-6, and -7; HSU-1A is absent. Figures 5 and 7 also show the general westward dip of the HSUs. The four primary HSUs of interest in this area are HSUs-1B,-2,-3A, and -5. The defining characteristics of each HSU in the T-5475 area are summarized below.

HSU-1B, the uppermost HSU, outcrops at the ground surface and is completely unsaturated in the T-5475 area. HSU-1B ranges in thickness from about 30 ft under T-5475 to about 50 ft toward the west. It is characterized by several 3- to 7-ft-thick gravel layers separated by silt, which are extensive across much of the T-5475 area. VOC and tritium concentrations in HSU-1B sediments are variable (Figs. 4 through 7), as discussed in Section 2.2.

HSU-2 underlies HSU-1B, and is a 50- to 60-ft-thick sequence that contains 3- to 8-ft-thick sand and gravel layers separated by silt and clay. HSU-2 is partially saturated across the study area. Saturated thicknesses range from less than 1 ft in the east (Figs. 4 and 6) to about 35 ft to the west (Figs. 5 and 7). The hydraulic gradient is generally to the west. The piezometric surface in HSU-2 is about 1 ft and 3 ft higher than HSU-3A and HSU-5, respectively. VOC concentrations greater than 100 ppb in unsaturated sediment are found in HSU-2 in the vicinity of SIP-ETS-207 and SVI-ETS-504 (Figs. 4 and 5), which are located near Pits 1 and 3 (Fig. 3). In the southern part of the T-5475 area, VOC concentrations in unsaturated sediment samples are typically below detection limits (Fig. 4). Tritium concentrations in saturated sediment and ground water samples in HSU-2 are typically less than those observed in HSU-3A (Figs. 6 and

7). Tritium concentrations in HSU-2 ground water samples typically are less than 1,000 pCi/L throughout the T-5475 area.

Nine hydraulic tests were conducted on HSU-2 wells in the T-5475 area. Hydraulic conductivity of the more permeable sediments typically ranges from 10^{-3} to 10^{-4} centimeters per second (cm/s). During a 7-gallon per minute (gpm), 72-hour pumping test on well W-1109, HSU-2 wells within a radius of about 400 ft showed significant response, but no response was observed in wells completed in other HSUs. This indicates little or no hydraulic communication between HSU-2 and other HSUs in the vicinity of well W-1109. Existing data indicate that pumping from HSU-2 at TFE East (Fig. 3) will not significantly impact the flow and transport of VOCs and tritium within HSU-3A.

HSU-3A is 10- to 30-ft thick, consisting mostly of silt and clay with discontinuous sand layers throughout the T-5475 area. The top of HSU-3A ranges from a depth of 80 ft (545 ft above mean sea level [amsl]) near T-5475 to about 110 ft (510 ft amsl) to the west. HSU-3A is found over most of the T-5475 area, but pinches out toward the south and east. In the vicinity of the pits (Fig. 3), HSU-3A overlies HSU-5, but toward the west, HSU-3A is underlain by HSU-3B (Fig. 5). HSU-3A is fully saturated throughout the T-5475 area. The hydraulic gradient is generally to the west. An area of significantly lower hydraulic gradient is observed within the area bounded by wells W-1204, W-363, W-206, and piezometer SIP-ETS-405 (Fig. 3). The piezometric surface of HSU-3A is at least 2-ft higher than HSU-5.

Elevated tritium concentrations are detected in HSU-3A wells in the T-5475 area. Tritium concentrations greater than the 20,000 pCi/L Maximum Contaminant Level (MCL) are found in ground water near the source area (1982–1983 soil excavation; Fig. 3). VOC concentrations in sediments and ground water are also elevated. VOC concentrations in excess of 1,000 ppb are found in ground water in several HSU-3A wells near the T-5475 source area.

Six hydraulic tests have been conducted on HSU-3A wells in the T-5475 area. The hydraulic conductivity of the more permeable sediments typically ranges from 10^{-4} to 10^{-6} cm/s. No long-term hydraulic tests were conducted on HSU-3 wells in the T-5475 area because the extracted ground water would contain both VOCs and tritium and would be difficult to dispose. However, during development of well W-1222, the water level in piezometer SIP-ETS-401 (about 100 ft away) dropped about 0.5 ft, indicating some horizontal communication within HSU-3A.

As shown in Figure 5, HSU-3B pinches out toward the east and is absent east of well W-1117. HSU-3B is not found under the T-5475 source area. HSU-3B is up to 15-ft thick and is found between depths of approximately 125 to 135 ft (500 to 490 ft amsl). The piezometric surface of HSU-3B is about 0.5 to 1 ft higher than HSU-5.

Four hydraulic tests have been conducted on wells completed in HSU-3B in the T-5475 area. Hydraulic conductivities of the more permeable sediments are typically from 10^{-3} to 10^{-4} cm/s. Two multi-day HSU-3B hydraulic tests were conducted in the T-5475/TFE areas. In the most recent of these tests, well W-356 was pumped at about 3 gpm for 72 hours. The water level in HSU-3B well W-364 (about 500 ft away), dropped about 2.5 ft, indicating significant horizontal communication. Approximately 0.8 ft of drawdown was observed in HSU-3A well W-1201, located about 300 ft away. Other HSU-3A wells did not show similar drawdown. These data

indicate that a small area of limited vertical hydraulic communication between HSU-3A and HSU-3B exists in the vicinity of well W-1201.

Similar to HSU-3B, HSU-4 pinches out toward the east, is absent east of well W-566, and is not under the T-5475 source area (Figs. 3 and 5). HSU-4 is a thin, 2- to 5-ft-thick sand unit that is found at a depth of about 150 ft (475 ft amsl). A two-day hydraulic test conducted on HSU-4 well W-354 indicates little or no vertical hydraulic communication with other HSUs in the T-5475 area.

HSU-5 is 40 to 60 ft of interbedded sand and gravel layers separated by silt and clay. The thickest sand and gravel layers are located between wells W-566 and W-1108, and can be traced for several hundred feet north and south of the T-5475 area. The top of HSU-5 ranges from a depth of 120 ft (525 ft amsl) near T-5475 to about 150 ft (470 ft amsl) to the west. Due to HSU-3B and HSU-4 pinching out, HSU-5 is overlain by HSU-3A in most of the T-5475 source area (Fig. 5). The hydraulic gradient is west-northwest. The piezometric surface of HSU-5 is about 2 ft lower than HSU-3A, and the HSU-5 piezometric surface is about 3 ft lower than that in HSU-2. Tritium concentrations are generally less than 1,000 pCi/L in HSU-5 ground water samples.

Four hydraulic tests were conducted on wells completed in HSU-5 in the T-5475 area. Hydraulic conductivity ranged from 10^{-2} to 10^{-3} cm/s. Two multi-day HSU-5 hydraulic tests were conducted. In the most recent of these tests, well W-1108 was pumped at about 8 gpm for 72 hours. HSU-5 wells about 1,000 ft away drew down about 1 ft, indicating significant horizontal communication within HSU-5. The HSU-2 and HSU-3A piezometers, SIP-ETS-402 and SIP-ETS-401, located within 10 ft of the pumping well, did not show any evidence of drawdown while well W-1108 was pumping. However, the water levels in two other HSU-3A wells dropped slightly. Well W-1117 (about 150 ft away), drew down about 0.3 ft, and well W-363 (about 110 ft from the pumping well), drew down about 0.1 ft. Other wells, including the HSU-3A wells in the T-5475 source area, did not show any indication of drawdown. Based on this test, a small area of limited vertical hydraulic communication may exist between HSU-3A and HSU-5 in the vicinity of wells W-1117 and W-363. The lack of response in wells closer to T-5475 indicates this vertical communication does not extend into the T-5475 source area.

HSU-6 is a thick, green clay that forms a regional confining layer under the Livermore Site (Thorpe et al., 1990). HSU-6 is about 25-ft thick in the T-5475 area, and generally thickens to the west. HSU-7 consists of the undifferentiated sediments beneath this layer. No VOCs or tritium have been detected within or below HSU-6 in the T-5475 area. Ground water elevations show a significant drop in the piezometric surface of 10 ft or greater in HSU-6 and HSU-7 compared to HSU-5. Hydraulic testing indicates that no hydraulic communication exists between HSU-6 and HSU-7 and the shallower HSUs.

2.2. VOC and Tritium Distribution

VOC and tritium distribution in the unsaturated zone and ground water are discussed in Sections 2.2.1 and 2.2.2, respectively.

2.2.1. VOC Distribution

In the T-5475 area, the unsaturated zone consists of HSU-1B and part of HSU-2. VOC distribution in the unsaturated zone in the T-5475 area and the adjacent downgradient TFE area are shown on cross sections A-A′ and B-B′ (Figs. 4 and 5, respectively). The highest vadose zone VOC concentrations are in the vicinity of Pits 1 and 3, with total VOC concentrations above 0.1 ppm (Fig. 4). The highest VOC concentrations in the unsaturated zone are reported from depths of about 30 ft (695 ft amsl) to the water table (approximately 80 ft, 550 ft amsl). The VOCs in the unsaturated zone near Pits 1 and 3 are predominately TCE (up to 4.4 ppm), PCE (up to 0.5 ppm), and 1,1-DCE (up to 0.09 ppm). Other VOCs detected, mostly at lower concentrations in unsaturated sediment samples in the 1982–1983 soil excavation area (Fig. 3), include 1,2-DCE, 1,1,1-trichloroethane (1,1,1-TCA), 1,2-dichloroethane (1,2-DCA), chloroform, CTET, and Freon 113.

South of Pits 1 and 3, VOCs in unsaturated sediment samples are generally below the detection limit (Fig. 4). West of Pit 1, VOC concentrations diminish in the vicinity of well W-1117, before increasing to the west (Fig. 5). This western area of higher VOCs (centered around well W-1109; Fig. 5) is part of the ELM source area discussed in Section 1.2.2. Figure 5 shows that the sources in the ELM and T-5475 areas are separate and distinct. 1,2-DCE, 1,1,1-TCA, 1,2-DCA, chloroform, and CTET are not found in significant concentrations in the ELM area.

As shown in Figure 8, relatively high VOC concentrations are found in HSU-2 ground water samples in the vicinity of T-5475. Analytical results from saturated sediment and bailed ground water samples have been used in this figure and subsequent isoconcentration maps to supplement contouring. West of Pit 1, total VOC concentrations in ground water bailed from piezometer SIP-ETS-209 ranged from about 2,000 to 25,000 ppb during 1995–1996. HSU-2 VOC concentrations in ground water are low in the southern part of the T-5475 source area, ranging from about 41 ppb in piezometer SIP-ETS-212 to about 11 ppb in well W-204.

West of T-5475, relatively high VOC concentrations in HSU-2 are observed from sources unrelated to the T-5475 source area (Fig. 8). This area is within the capture area of the TFE East extraction location (Fig. 3) as discussed in RD3 (Berg et al., 1994a). Plumes originating from these separate source areas are differentiated based on VOC signatures and are associated with releases in the ELM area. VOCs in ground water in this area consist only of TCE, PCE, 1,1-DCE, and Freon 113. Ground water affected by the T-5475 source area contains these same four VOCs, but also includes chloroform, 1,1-DCA, 1,2-DCA, and CTET.

High concentrations of VOCs in ground water are observed in HSU-3A throughout the T-5475 area (Fig. 9). In the north, VOC concentrations greater than 5,000 ppb are found in piezometers SIP-ETS-207 and SIP-ETS-204. High concentrations of VOCs extend westward in a narrow band toward well W-1225. In the south, total VOC concentrations greater than 5,000 ppb are found in wells W-206 and W-363. High concentrations of VOCs extend southwestward in a band toward well W-1201. Although most of the VOCs are believed to have originated from Pits 1 and 3, the current areal extent of the VOCs is strongly controlled by the distribution of permeable sediments, which may represent separate channel-like features. The increase in VOC concentrations to the southwest (Fig. 9) is attributed to other sources in this area

that were found by previous source investigations. The VOCs in ground water from well W-1219 and their relative percentages, are more consistent with wells further to the south.

In HSU-5, total VOC concentrations in ground water in excess of 100 ppb occur west of the T-5475 area (Fig. 10). These VOCs may be due to vertical migration from HSU-3A through the area of limited vertical hydraulic communication near wells W-1117 and W-363 (Section 2.1.2). Additional monitor wells, as discussed in RD3 (Berg et al., 1994a), are planned to further define the downgradient extent of this plume. Higher VOC concentrations south of the T-5475 area (Fig. 10) are attributed to other sources that were found in this area during previous source investigations.

2.2.2. Tritium Distribution

The tritium distribution in sediment samples collected throughout the unsaturated zone of the T-5475 area and the adjacent TFE area are shown on Figures 6 and 7. Because of the 1,000 pCi/L_{sm} detection limit for many sediment samples, tritium data less than 1,000 pCi/L_{sm} have not been contoured. As shown on Figure 6, the highest unsaturated sediment tritium concentrations (greater than 100,000 pCi/L_{sm}) are found in the vicinity of Pit 1 (Figs. 3 and 6). The highest tritium concentrations are found in HSU-1B from depths of 0 to 35 ft in the vicinity of the 1982–1983 soil excavation. Except for boreholes drilled in the immediate vicinity of Pits 1 and 3 (Figs. 3, 6, and 7), tritium concentrations in HSU-2 unsaturated sediments are below 10,000 pCi/L_{sm}. Although tritium concentrations greater than 100,000 pCi/L_{sm} are found in shallow unsaturated sediments in piezometer SIP-ETS-213, samples from nearby boreholes are below detection limits. West of Pits 1 and 3, tritium in unsaturated sediment samples is detected only sporadically in the upper 20 ft at concentrations less than 10,000 pCi/L_{sm} (Fig. 7).

Tritium concentrations in HSU-2 ground water in the T-5475 area are typically less than 1,000 pCi/L (Fig. 11). Although high VOC concentrations are observed in piezometer SIP-ETS-209, immediately downgradient of Pit 1, the tritium concentration in this piezometer historically has been less than 1,000 pCi/L, indicating that the T-5475 tritium source area has had little impact on HSU-2. Wells downgradient of SIP-ETS-209 are typically near or below 1,000 pCi/L. No significant trend is evident that indicates how tritium in HSU-2 ground water is linked to the T-5475 source area.

Relatively high tritium concentrations are observed in HSU-3A ground water in the T-5475 area. As shown on Figure 12, the tritium in HSU-3A ground water is distributed into northern and southern plumes. In the north, tritium in concentrations greater than the 20,000 pCi/L MCL are found in piezometers SIP-ETS-207 and SIP-ETS-204. Tritium concentrations of 3,000 pCi/L and greater extend westward in a narrow band toward well W-1225. In the south, tritium concentrations greater than 10,000 pCi/L are found in wells W-206 and W-363, and concentrations greater than 1,000 pCi/L extend southwest in a wider band toward well W-1204. Although most of the tritium in the T-5475 area probably originated from Pits 1 and 3, the current areal extent of these plumes is strongly controlled by the distribution of permeable sediments.

Tritium concentrations in HSU-5 in the vicinity of T-5475 are typically less than 1,000 pCi/L (Fig. 13). The small area of vertical leakage from HSU-3A noted during the well W-1108 hydraulic test does not appear to significantly impact tritium concentrations in HSU-5 ground

water. In well W-1108, downgradient of Pits 1 and 3, tritium concentrations historically have been about 1,000 pCi/L or less. Tritium concentrations in other HSU-5 wells in the T-5475 area are below 1,000 pCi/L, indicating that the T-5475 tritium source area has had little impact on HSU-5.

2.3. Hydrogeologic Model

The data presented in Section 2.2 demonstrate that Pits 1 and 3 appear to be the primary sources of VOCs and tritium in the T-5475 area. In the vicinity of these pits, high VOC and tritium concentrations are found in both the unsaturated (Figs. 4 through 7) and saturated zones (Figs. 8 through 13). As shown in these figures, the ground water in HSU-3A is most significantly impacted by the releases of VOCs and tritium in the vicinity of Pits 1 and 3 (Figs. 9 and 12).

In the unsaturated sediments underlying Pits 1 and 3, tritium concentrations in excess of 100,000 pCi/L_{sm} are found in HSU-1B within 30 to 40 ft of the ground surface (Figs. 6 and 7). The tritium distribution observed in HSU-1B is attributed to migration of rain water, which entered the T-5475 disposal pits (Fig. 3) during wet periods prior to excavation, and seeped as tritiated water into the highly permeable sediments of HSU-1B. As discussed in Section 1.2.1, standing water that accumulated in the excavation during the 1982–1983 rainy season may have further enhanced the transport of tritiated water into HSU-1B. Significantly lower tritium concentrations are found in the unsaturated sediments of HSU-2 in this same area.

In the Pit 4 area (Fig. 3), tritium concentrations exceeding 100,000 pCi/L_{sm} are also found in the upper 35 ft of the subsurface. However, these concentrations diminish to less than 1,000 pCi/L_{sm} about 15 ft above the water table (Fig. 6). Furthermore, no significant VOC concentrations are found in the unsaturated sediments in this area (Fig. 4). The ground water in HSU-2, the first saturated zone beneath Pit 4, contains less than 50 ppb total VOCs, and no tritium (Figs. 8 and 11, respectively). However, in HSU-3A beneath Pit 4, high VOC and tritium concentrations are observed (Figs. 9 and 12, respectively). These data indicate that Pit 4 has not significantly impacted the shallowest underlying ground water, and that the primary sources of VOCs and tritium in ground water in the southern portion of the T-5475 area are Pits 1 and 3 to the north. VOCs and tritium in ground water currently near Pit 4 were likely transported from Pits 1 and 3 through permeable sediments.

In the vicinity of Pits 1 and 3, VOC concentrations in the unsaturated sediments are generally higher in HSU-2 than in HSU-1B (Figs 4 and 5). This VOC distribution may be attributed to non-aqueous phase transport (e.g., vapor and/or unsaturated flow) during the initial releases of VOCs in the vicinity of the pits. Any rain water that entered the pits further enhanced the downward migration of VOCs into HSU-2. In addition, increased hydraulic head from the standing water that accumulated in the excavation during the 1982–1983 rainy season probably further enhanced the downward migration of VOCs.

Downward migrating VOCs and tritium continued through the unsaturated zone until reaching the first saturated permeable sediments. Based on the data presented in Section 2.2, HSU-3A is the most impacted HSU underlying the T-5475 source area. This is especially true for tritium, where concentrations in excess of 10,000 pCi/L are found in HSU-3A, whereas

tritium concentrations of 1,000 pCi/L or less are found in these same areas in HSU-2 and HSU-5 (Figs. 8 through 13). As shown in Figures 11 through 13, most of the tritium is confined to HSU-3A. These observations indicate that HSU-3A was impacted the most by releases from Pits 1 and 3, especially with respect to tritium.

Currently, a thin 5- to 10-ft-thick portion of HSU-2 underlying Pits 1 and 3 is saturated with water; however, most of this interval is low-permeability, fine-grained sediments. Ground water from nearby HSU-2 piezometers SIP-ETS-209 and SIP-ETS-401 contains high VOC concentrations; however, tritium concentrations in these wells are less than 1,000 pCi/L (Figs. 8 and 11). This indicates that HSU-2 was not significantly impacted by tritium from Pits 1 and 3, or other potential sources in this area, possibly due to a lower water table at the time of the releases. High VOC concentrations and low to nondetectable tritium concentrations in unsaturated sediment (Figs. 4 through 7) suggest that other VOC releases occurred in the T-5475 source area independent of tritium.

Once in the saturated zone, VOCs and tritiated water migrated laterally in the permeable HSU-3A sediments. The distribution of permeable sediments within HSU-3A directly controls the distribution and migration of VOCs and tritium, as discussed in Section 2.2. Transport through the vadose zone may have been enhanced by increased hydraulic head from standing water in the 1982–1983 excavation (Fig. 3).

As discussed in Section 2.1.2, hydraulic testing identified areas of limited vertical hydraulic communication from HSU-3A into underlying HSU-3B and HSU-5. Low tritium concentrations in ground water samples from HSU-3B and HSU-5 (near or below 1,000 pCi/L) are attributed to this vertical leakage. VOCs in HSU-3B and HSU-5 are attributed in part to vertical leakage, and in part to other sources, as discussed in Section 2.2.1. The remediation of VOCs in HSU-3B and HSU-5 is addressed by the TFE extraction wellfield design in RD3 (Berg et al., 1994a).

The limited vertical leakage from HSU-3A has resulted in only low tritium concentrations in HSU-3B or HSU-5. As discussed in Section 3.2.1, the design of the TFE and T-5475 ground water wellfields will mitigate the effects of leakage from HSU-3A to HSU-3B and HSU-5 by capturing VOCs and tritium before they reach these areas, and reducing the vertical hydraulic gradient between HSU-3A and the lower HSUs. Additional measures that will be taken at TFE extraction locations to minimize or prevent vertical leakage are discussed Section 3.2.3, and discussed in the Contingency Plan (McKereghan et al., 1996).

3. TF5475 Remedial Design

As discussed in the ROD (U.S. DOE, 1992), the remedial approach is to treat the VOCs and keep the tritium in the subsurface as much as possible where it will decay naturally. Therefore, a treatment method will be used to remediate VOCs in ground water in the T-5475 area *in situ*. The treatment method is based on catalytic reductive dehalogenation of dissolved VOCs by hydrogen (H_2) in the presence of a palladium (Pd) catalyst, and produces rapid, dehalogenation of dissolved VOCs to ethene, ethane, or methane. This method will treat VOCs below ground surface in flow-through treatment columns placed in wells with multiple screened intervals. Rapid reaction rates permit column deployment down-hole for *in situ* ground water treatment.

3.1. Treatability Test

Treatability studies have included laboratory bench-top testing to characterize performance and optimize column design using T-5475 area ground water, and ground water flow and contaminant transport modeling to simulate *in situ* performance. Pilot-scale field testing and demonstration commenced in mid 1997 and initial results are discussed in Section 3.1.3.

3.1.1. Process Testing and Optimization

Catalytic reductive dehalogenation involving microbes or certain metals such as iron has been discussed by Vogel et al. (1987) and Gillham and O'Hannesin (1994). In general, microbial reactions are too slow for practical use in a down-hole flow-through column, and because the depth to ground water in the T-5475 area is about 85–90 ft, treatment walls using materials such as iron filings are not economically feasible.

A new process using dissolved H_2 in the presence of a suitable catalyst such as Pd (Schreier and Reinhard, 1995) has been shown to dehalogenate VOCs very rapidly through the reaction:

$$\text{TCE} + 4H_2 \text{ --> ethane} + 3H^+ + 3Cl^- \qquad (3\text{-}1)$$

Analogous reactions may be written for other halogenated hydrocarbons of interest.

DOE/LLNL have been collaborating with researchers from Stanford University's Department of Civil Engineering to evaluate catalytic reductive dehalogenation reactions in the T-5475 area ground water. Experiments have been conducted to quantify reaction rates for individual VOCs, optimize the treatment column design parameters, including ways to dissolve H_2, and identify any geochemical factors that impact column performance.

3.1.1.1. Bench-Top Testing

Proof-of-principle experiments have been conducted at Stanford University to test the effectiveness of the H_2/Pd process in treating various VOCs in the Livermore Site ground water. Initial batch experiments and flow-through column experiments with injected H_2 gas showed rapid removal rates for PCE, TCE, DCE isomers and CTET, with a somewhat slower reaction rate for chloroform. The catalyst used in these experiments consisted of either 1/8-in. or 1/16-in. alumina (Al_2O_3) pellets coated with 1% Pd metal by weight. The results of the initial test with TCE in T-5475 area ground water are shown on Table 1.

Experiments have been conducted at the Livermore Site to test the efficiency of direct hydrogen generation via the electrolytic separation of water into H_2 and oxygen (O_2). These experiments involved using a two-stage treatment system. The first stage consists of an electrolyzer cell containing two coaxially configured 22-in.-long cylindrical electrodes made of suitable conductive materials (e.g., graphite, titanium coated with ruthenium, or stainless steel plated with a thin layer of gold). H_2 and O_2 are generated on the cathode and anode by the respective reactions:

$$2H_2O + 2e^- \rightarrow H_2 + 2OH^- \quad (3\text{-}2)$$

$$2H_2O \rightarrow O_2 + 4H^+ + 4e^- \quad (3\text{-}3)$$

The second stage of the treatment column consists of a bed of Pd/Al_2O_3 catalyst pellets (1/8-in. diameter with 1% Pd by weight), packed to a porosity of approximately 40%.

The electrolytic treatment column has been undergoing tests at TFD with ground water from well W-351. Using flow rates of 300 milliliters per minute (ml/min), potentials of 8–10 volts have been placed across the electrolyzer cell, yielding electrical current on the order of 4 to 6 amperes (amps), depending on the electrode material used. Polarity is switched every five minutes to prevent calcium carbonate scaling on the cathode.

3.1.1.2. Results of Electrolytic Tests

Typical performance of the two-stage column using ground water from well W-351 at 300 ml/min under 4 amps at 8 volts is shown in Figure 14 for TCE, 1,1-DCE and CTET. As water flows across the catalyst bed, chlorinated hydrocarbon concentrations are reduced by over 95% after approximately 2 minutes. In comparison, prior to entry into the catalyst bed, losses of only 10–15% of the chlorinated hydrocarbons are observed after 6 minutes of residence time within the electrolyzer. These minor losses are probably due to adsorption of the organics onto the graphite electrodes and other materials used in the column construction as well as from volatilization into the minute O_2 and H_2 gas bubbles present in the column under test conditions.

Removal efficiency (RE) is defined based on contaminant concentration differences in the influent and effluent streams:

$$RE = 100\left(1 - \frac{C_{effluent}}{C_{influent}}\right) \quad (3\text{-}4)$$

The observed removal of the chlorinated hydrocarbons is related to the applied electrical current. RE (measured across the catalyst bed only) as a function of current at 300 ml/min is shown in Figure 15 for two different residence times. These results suggest a near-linear relationship between RE and applied current, with maximum efficiency achieved at approximately 4 amps at 8 volts. Once the solution is hydrogen-saturated, higher currents do not improve RE because the additional H_2 generated will partition into the gaseous phase and be unavailable for participation in aqueous-phase reactions (under constant pressure). This is probably the cause of lower RE for the experiment run at 8 amps at 16 volts (Fig. 15).

The percent of TCE remaining with respect to residence time in the catalyst bed is shown on Figure 16 for TCE, with current equal to or greater than 4 amps (applied potential greater than or equal to 8 volts). Shreier and Reinhard (1995) have shown that catalytic reductive dehalogenation of chlorinated ethenes with the H_2/Pd process can be described by a first-order kinetic model with respect to the contaminant. As expected, a first-order kinetic model appears to describe the results of this process as well, with a mean first-order degradation rate for TCE of

approximately 0.02 sec^{-1}, corresponding to half of the remaining TCE degrading approximately every 30 seconds.

Estimated reaction rates for VOCs in well W-351 ground water are shown on Table 2. The first-order degradation rates for PCE, TCE, 1,1-DCE, and CTET are very similar, while chloroform is less than these by a factor of at least two. The transformation of 1,2-DCA also appears to be very slow, with a reaction rate less than 1/20 of PCE, TCE, 1,1-DCE, and CTET.

3.1.1.3. Effect of Dissolved Oxygen

In addition to catalytic reductive dehalogenation processes, an additional reaction that may occur on the catalyst surface is the recombination of the electrolytically derived H_2 and O_2, either in the aqueous or gaseous phase:

$$O_2 + 2H_2 \rightarrow 2H_2O \qquad (3\text{-}5)$$

This reaction is known to occur vigorously in the presence of platinum (CRC Handbook of Chemistry and Physics, 1992) and represents direct competition of O_2 with the chlorinated hydrocarbons for H_2 in order to undergo reduction. The results of the column experiments at TFD attest that this reaction does not occur to any appreciable degree.

Another experiment was conducted with a modified column design using a polypropylene membrane to suppress mechanical mixing of the anodic and cathodic electrolyzer streams. The cathodic stream, enriched in H_2, was fed into the catalyst bed, while the anodic stream, enriched in O_2, bypassed the catalyst altogether. This appeared to double the catalytic reductive dehalogenation rates suggesting that O_2 does compete with TCE for H_2 on the catalyst surface to some degree. Practical engineering considerations preclude modifying the design of a full-scale column to take advantage of this finding. Separation of the two electrolytic streams adds complexity to the design, creates locally extreme pH values, and fails to address the issue of treating the H_2-poor anodic water.

3.1.1.4. Process Deactivation

Influent and effluent TCE concentrations associated with the two-stage column over an extended period of treatment using ground water from well W-351 is shown in Figure 17. Although the removal efficiency initially starts out quite high, effluent concentrations steadily rise over a period of many hours. Similar experiments conducted by Munakata et al. (1997) and M. Reinhard (personal communication, 1997) involving direct injection of hydrogen, rather than electrolytic generation, have exhibited the same deactivation phenomenon, which apparently involves the Pd/Al_2O_3 catalyst itself. Tests have shown that the catalyst recovers most or all of its capacity if soaked in deionized water or ground water over a period of hours to days, and may recover a substantial portion of its capacity if the hydrogen source is taken off-line for several hours. The rate of deactivation also appears dependent on water composition; high concentrations of bicarbonate and possibly other anions appear to increase the problem (Munakata et al., 1997; M. Reinhard personal communication, 1997). Based on the results of

tests conducted at Stanford University and at the Livermore Site on ground water samples from different areas of the Livermore Site (TFD, TFC, T-5475), it appears that TFD ground water is the most significantly affected by deactivation, whereas T-5475 area ground water is impacted the least. Extrapolation of tests with T-5475 area ground water (from well W-1204) suggest that 10% deactivation should occur after approximately 110 hours of continuous operation, after which regeneration treatment would be required.

The precise cause of the deactivation phenomenon is currently under investigation. Nevertheless, periodic soaking of the catalyst in deionized water or ground water restores its effectiveness, particularly when the RE is maintained above 50%. Until the cause is identified and suitably addressed, application of this process to the field-scale flow-through treatment system will require regeneration by periodic soaking of the catalyst with ground water or deionized water with the hydrogen supply shut off.

3.1.2. Analysis of Down-Hole Deployment

The rapid reaction rates characteristic of catalytic reductive dehalogenation will permit small, flow-through column designs suitable for down-hole placement within an extraction well. Well design will consist of a dual-screen over separate permeable strata within a single HSU. Contaminants will be withdrawn from one permeable zone, treated within the well, and then reinjected into another permeable zone (Fig. 18).

3.1.2.1. In Situ Column Performance Simulation

A ground water flow and contaminant transport model was developed to simulate performance of the down-hole column. The model simulates three-dimensional ground water flow around point sources and sinks (extraction and injection locations). The governing equation describing the steady-state distribution of hydraulic head associated with n point sources and sinks may be written as:

$$\nabla^2\phi = -\sum_{i=1}^{n} q_i \delta(x - x_i, y - y_i, z - z_i) \tag{3-6}$$

MacDonald and Kitanidis (1993) proposed a solution to Equation 3-6 of the form:

$$\phi(x, y, z) = \sum_{i=1}^{n} \frac{q_i}{4\pi} \frac{1}{\sqrt{(x - x_i)^2 + (y - y_i)^2 + (z - z_i)^2}} + \phi_0 \tag{3-7}$$

The system is non-dimensionalized according to $x = X/H$, $y = Y/H$, $z = Z^*/H$, $\phi = \Phi/H$, and $q = Q/KH^2$, where H is the saturated HSU thickness, K the hydraulic conductivity, Φ the hydraulic head, Q the pumping rate, and X, Y, and Z the physical coordinates of the location in the subsurface. Vertical anisotropy is addressed by calculating an effective vertical coordinate through the relationship $Z^* = Z\beta$, where:

$$\beta = \sqrt{\frac{K_H}{K_V}} \tag{3-8}$$

and,

$$K = \sqrt{K_H K_V} \tag{3-9}$$

K_H and K_V refer to the horizontal and vertical components of the hydraulic conductivity tensor, respectively.

In the simulation, movement of individual ground water particles is tracked over a set time interval. The time interval is shortened when a particle nears an extraction point. As particles pass within a certain radius of an extraction point, the particle is assumed to be captured and pass through the column. A statistical approach is used to determine whether the given particle survives its passage through the column, based on given reaction rates and residence time within the column as calculated from flow rate, column dimensions, and porosity data. Any particles that survive after passing through the column are reinjected into the HSU at the associated injection point in a random direction.

Preliminary simulations based on various field scenarios have provided insights into which wellfield configurations may be optimal for contaminant removal. For example, all treatment wells can extract from the lower permeable zone in an HSU and reinject into an upper permeable zone, or various treatment wells may be switched to extract from the upper permeable zone and reinject into the lower. A wellfield with all wells pumping in an uniform direction appears optimal where there is strong vertical communication within the HSU. Wellfields where the pumping direction is varied between individual treatment wells may be preferable where vertical communication is minimal or absent. In addition, the model is configured to evaluate optimal flow rates, which factor in column residence time and capture zone size, and will help establish optimal well spacing for a given set of hydrogeologic constraints. The pilot-scale field testing (Section 3.1.3) will help determine hydrogeologic parameters that will be used in the model to optimize the wellfield design.

3.1.2.2. Capture Zone Analysis

Analysis of capture zone size was conducted using Equation 3-7 as a basis for calculating local hydraulic head distribution. Because the flow field is three dimensional, the extent of the capture zone is a function of its vertical location within the HSU. We define the vertical location within the HSU to be at the midpoint of the extraction zone. For example, in a 20-ft-thick HSU with extraction occurring in the bottom portion of the unit and reinjection in the upper portion, an effective capture zone would be calculated at 5 ft above the base of the unit. Using this approach, the capture zone is defined as the distance downgradient of the extraction well (at the extraction midpoint elevation) where there is ground water stagnation (i.e., no flow). This provides a minimum capture zone; a larger capture zone is expected in the direction perpendicular to flow. Thus, the results discussed below are conservative.

Probability analyses were used to determine the likely capture zone associated with a single flow-through treatment well in the T-5475 area. This involved generating multiple steady-state hydraulic head distributions using probability distributions for the parameters in Equation 3-7. These distributions are listed in Table 3. Capture zone extent was quantified by using an algorithm to identify the downgradient stagnation point (where the $\partial\phi/\partial x = 0$ downgradient of the extraction-injection well). Simulations were run entirely using the Crystal Ball add-in package to Microsoft Excel (Decisioneering, Inc., 1996).

After 10,000 probability analyses were generated, the median size of the downgradient capture zone radius was 51.2 ft, with an average value of 52.8 ft and a standard deviation of 13.5 ft. In contrast, the same set of probability analyses of the downgradient capture zone extent (i.e., stagnation point or x_{STAG}) around a conventional extraction well using the same physical parameters and flow rates, as indicated by the relationship:

$$x_{STAG} = \frac{Q}{2\pi K_H H \nabla \phi} \tag{3-10}$$

is about 45 m (148 ft). As expected, the flow-through well concept produces a smaller capture zone than conventional extraction wells, by a factor of approximately three.

Based upon these preliminary calculations, it appears that the effective capture zone of the flow-through column is likely to be on the order of at least 100 ft (approximately 50 ft on both sides of the well). To test the sensitivity of these calculations to the parameters in Table 3, we ranked which parameters had the greatest impact on the size of the capture zone. The results of the sensitivity ranking are presented in Figure 19. By far the most important factor is the ratio of vertical hydraulic conductivity to horizontal hydraulic conductivity. Higher ratio values tend to produce smaller capture zones, an effect associated with short-circuiting of flow when recirculation develops close to the well. HSU thickness may have less of an influence than indicated on Figure 19 because of its correlation with the K_V/K_H ratio. Hydraulic gradient also has some effect on the capture zone size, yielding smaller capture zones as the gradient increases. Flow rate, horizontal hydraulic conductivity, and location show only very minor influences.

3.1.3. Field Implementation

Dual-screen well W-1302 (well EW-14-3F; Fig. 20) was installed immediately downgradient of the T-5475 source area to test the down-hole treatment column. This location was chosen because of the broad suite of contaminants at moderately high concentrations (PCE, TCE, 1,1-DCE, 1,2-DCE, and chloroform that total approximately 2 ppm) as well as favorable hydrogeology (two contaminated sand units, separated by approximately 3 ft of low-permeability silt, all within HSU-3A).

In August 1997, an operational-scale catalytic reductive dehalogenation unit was installed in well W-1302. Well W-1302 is screened from 116 to 121 ft and 126 to 134 ft below ground surface (bgs), with a packer between the screened intervals. The pump intake is at 133.7 ft, and transducers are positioned at approximately 120 and 132 ft bgs. The unit consists of two 17-in.-

long electrolyzer cells in series consisting of parallel graphite plate electrodes. Two catalyst beds, with volumetric capacities of 37 liters (10 gal) and 32 liters (8.5 gal), respectively, receive hydrogenated water from the electrolyzers. The unit specifications are based upon scale-up calculations of the bench-top test results (McNab and Ruiz, 1998). The system is designed to treat flow rates up to 3 gpm; sediments in the vicinity of well W-1302 should produce flow rates on the order of 2 gpm.

The extraction zone in well W-1302 appears to be a fairly narrow sand deposit, which serves as a preferential pathway for plume migration. It is probable, therefore, that operating at low flow rates can capture most of the plume. Analytical solutions yielding capture zone extent based on estimates of hydraulic conductivity and gradient suggest a theoretical capture zone radius on the order of 50–100 ft. Further hydraulic and tracer tests to be conducted in the Spring of 1998 will more precisely delineate the capture zone.

Thirty-four pilot tests have been conducted with the *in situ* unit between August 21, 1997 and December 15, 1997. Results of the first two tests are shown in Table 4. Total VOC removal efficiency was greater than 90% for 30 of the 34 tests. The average total VOC removal efficiency for all of the tests was 95% and the median efficiency was 98%. Four pilot tests had removal efficiencies of 70, 89, 78, and 73 percent. In each of these cases, this was due to either insufficient electrical current at the given flow rate or insufficient hydrogen soaking of the catalyst prior to operation.

The results of one series of tests performed in September 1997 are shown in Table 5 for TCE and PCE, the two VOCs exhibiting the highest concentrations in well W-1302. These tests were conducted using a flow rate of 1 gpm with an applied potential of 8 volts, yielding a current of 50 amperes. The unit operated on a 12-hour/day basis, which should be sustainable when normal operations commence following pilot testing. During the first three days of operation, the two catalyst beds removed essentially all of the influent contaminants. Some deactivation is noted within the first catalyst over the first three days of operation. After purging the system with three pore volumes of ground water under zero applied current (i.e., shutting off the hydrogen), the system was allowed to partially regenerate overnight at the end of the third day. Substantial recovery of removal efficiency was noted following resumption of operation on the fourth day in the first catalyst; an increase in removal efficiency from 83% to 98%. At this level of performance, the polishing step (the second catalyst bed), which exhibited no deactivation, is capable of removing breakthrough contaminants from the first catalyst bed.

Pilot testing will continue to evaluate optimum catalyst regeneration, hydrogen production, treatment efficiency, and hydraulic capture.

3.1.4. Treatability Test Summary

Treatability studies have included laboratory bench-top testing to characterize performance and optimize column design using T-5475 area ground water, and ground water flow and contaminant transport modeling to simulate *in situ* performance. Pilot-scale field testing and demonstration commenced in the summer of 1997.

The results of bench-scale laboratory tests to date indicate:

- Very rapid reaction rates with T-5475 area ground water (contact time about 2–4 minutes) for nearly complete catalytic reductive dehalogenation of PCE, TCE, 1,1-DCE, 1,2-DCE, and CTET, and a somewhat slower removal rate for chloroform. 1,1-DCA and 1,2-DCA are highly resistant to the H_2/Pd process, but these compounds do not constitute significant mass in the T-5475 area (Table 6).
- An adequate continuous supply of dissolved hydrogen can be provided for this process by electrolysis of influent water. Dissolved oxygen, generated as a by-product of electrolysis, does not significantly impair the functionality of the treatment system.
- Slow deactivation of the catalyst occurs over a period of days, possibly associated with carbonate precipitation. The cause of this is currently under investigation, although the catalyst may be largely regenerated simply by soaking with deionized water or ground water.

Ground water flow and contaminant transport modeling is being used to optimize the design of the down-hole flow-through treatment system. Deployment and operational options under consideration include:

- Designing the wellfield using either uniform or varied direction of pumping within the HSU.
- Optimizing well spacing in the wellfield.
- Optimizing pumping rates within each well.

Probability analyses evaluating the extent of the capture zone suggest that a total capture zone width on the order of 100 ft may be achievable. This is approximately three times less than the size achievable with conventional extraction wells, but will be sufficient to treat the VOCs in the T-5475 area, particularly when more than one *in situ* treatment wells are deployed.

Initial results from the field testing indicate that the catalytic reductive dehalogenation unit is effectively treating VOCs in the T-5475 area, and will be able to maintain 90% removal efficiency or higher for total VOCs. The catalyst efficiency is maintained by operating the system for 12 hours followed immediately by regenerating for 12 hours. Further hydraulic and tracer test evaluation will more precisely delineate the capture zone.

3.2. Wellfield Design

The T-5475 ground water treatment wellfield design is described in the following sections.

3.2.1. Ground Water Treatment Wells

Eight ground water treatment wells are currently planned for phased installation in the T-5475 area. Four treatment units are planned to be rotated among the eight wells. The phased approach will help to determine the actual effectiveness, compared to the estimated effectiveness, of the initial planned wells before proceeding with subsequent phases. Because of the low anticipated flow rates from these wells, the hydraulic capture zones are anticipated to be small (Section 3.1.2.2). Design specifications for the T-5475 treatment wells are presented in

Table 7. Treatment well locations are shown on Figure 20, and by HSU on Figures 21 through 23.

HSU-2 treatment well EW-14-2A, located west of T-5475 (Fig. 20), contains high VOC concentrations, ranging from 5,000 to 20,000 ppb, and tritium concentrations typically less than 1,000 pCi/L. Flow rates for this well are not anticipated to exceed 1 gpm because of the thin saturated thickness of HSU-2 in this area. This well may not sustain continuous flow and may require periodically shutting off the pumps to allow ground water elevations to recover, followed by periodically turning the pumps back on (referred to as cyclic pumping). Because of the low tritium concentrations in HSU-2, DOE/LLNL, in conjunction with the regulatory agencies, may consider other conventional treatment technologies such as air stripping or aqueous-phase GAC for this location.

Treatment wells EW-14-3A and EW-14-3B will be located south and west of T-5475 (Fig. 20) and are planned for HSU-3A in the T-5475 source area. HSU-3A in this area contains high VOC concentrations ranging from 5,000 to 20,000 ppb, and tritium concentrations ranging from 10,000 to 30,000 pCi/L. Flow rates for these wells are anticipated to be low, but nearby piezometer SIP-ETS-207 has sustained short-term flow rates of 2 to 3 gpm. Long-term testing is required to determine if these wells will require cyclic pumping.

Treatment well EW-14-3C is planned near existing well W-363. This well is positioned to capture VOCs and tritium before reaching the area of limited vertical hydraulic communication between HSU-3A and HSU-5 (Section 2.1.2).

HSU-3A treatment well EW-14-3D is planned between existing wells SIP-ETS-212 and W-562 (Fig. 20). At this location, HSU-3A has high VOC concentrations ranging from 5,000 to 20,000 ppb, and tritium concentrations ranging from 10,000 to 30,000 pCi/L. The flow rate for this well is anticipated to be between 0.5 and 1 gpm, and thus cyclic pumping may be required.

Treatment well EW-14-3E is planned between existing wells W-1118 and W-1201. This well is positioned to capture VOCs and tritium before reaching the area of vertical hydraulic communication between HSU-3A and HSU-3B, as discussed in Section 2.1.2.

Treatment wells EW-14-3F and EW-14-3G are planned near existing wells W-1222 and W-1225. These wells should sustain a flow rate of about 2 to 3 gpm, and will control the downgradient extent of the HSU-3A plume.

3.2.2. Ground Water Piezometers

Piezometers near treatment wells will monitor contaminant concentrations. The T-5475 piezometer configuration is designed to monitor each hydrostratigraphic unit, rather than individual treatment wells. Therefore, some piezometers will monitor multiple treatment wells.

The T-5475 piezometer locations (Figs. 20 through 23) are based primarily on information from available hydraulic test data. In areas where low sustainable yields are anticipated, piezometers will be located closer to the treatment wells, commonly within about 100 ft. Whenever possible, existing monitor wells were incorporated into the piezometer network. If ground water elevation contour maps indicate inadequate plume capture, DOE/LLNL will, in consultation with the regulatory agencies, adjust flow rates, adjust the number or locations of

treatment wells (McKereghan et al., 1996), or consider extraction from one well, and treatment and injection into another well. If extraction from one well and injection into another is chosen, leak detection will be used for the pipeline.

Twenty-nine piezometers (21 existing and 8 new) are planned for the T-5475 area, and two additional piezometers are planned for the TFE area (extraction location 19 in the RAIP [Dresen et al., 1993]) that were not presented in RD3 (Berg et al., 1994a). Design specifications for the new and existing piezometers are presented in Table 8.

3.2.3. TFE East Extraction Location Considerations

In RD3 (Berg et al., 1994a), treated ground water reinjection was recommended to counter any adverse effects that pumping the TFE extraction wells might have on tritium migration from the T-5475 source area. Further study of the subsurface has shown that the tritium is hydraulically isolated from the proposed TFE extraction wells. Based on hydraulic testing and hydrostratigraphic analysis, pumping from HSU-2 TFE extraction well W-1109 is not anticipated to affect the HSU-3A tritium plume. Tritium and VOC samples will be collected from HSU-2 monitor wells during HSU-2 TFE pumping to monitor changes.

Pumping of TFE extraction well W-566 in HSU-5 will be optimized to decrease any potential effect on the HSU-3A tritium plume. As discussed in Section 2.1.2, there is believed to be a small area of vertical hydraulic communication between HSU-3A and HSU-5 in the vicinity of W-1117 and W-363. To better monitor this area, two additional HSU-5 piezometers, P-19-5E and P-19-5F, are planned for the TFE piezometer network presented in RD3 (Figs. 20 and 23). Design specifications for these piezometers are presented in Table 8. Pumping from HSU-5 extraction wells in the TFE East location will be reduced to minimize the vertical leakage from HSU-3A to HSU-5. Tritium and VOC samples will be collected from HSU-5 monitor wells during HSU-5 pumping to monitor changes.

3.3. Specifications and Design

The specifications, design, controls, and safeguards for *in situ* catalytic reductive dehalogenation of ground water are described in Sections 3.3 through 3.4. Treatability tests indicate that this technology will effectively remediate VOCs in the T-5475 area (Section 3.1). However, if after the operational field test, DOE/LLNL and the regulatory agencies agree not to continue using *in situ* catalytic reductive dehalogenation, DOE/LLNL have already tested ultraviolet/hydrogen peroxide oxidation and a closed-loop aboveground air stripping system as a contingency. The closed-loop air stripper treatability test was discussed in Hoffman et al. (1994). As tritium concentrations decrease over time, conventional treatment such as air stripping or aqueous-phase GAC will be considered with agreement from the regulatory agencies.

As discussed in Section 3.1.3, dual-screen well W-1302 (well EW-14-3F, Figs. 20 and 22) is being used to test the downhole treatment column. This location was chosen because of the broad suite of contaminants at moderately high concentrations as well as favorable hydrogeology. The two screened intervals are separated by a rubber pneumatic packer to prevent cross contamination.

The current downhole treatment column is designed for an 8-in.-diameter well. Ground water from the lower section of a well can be pumped at a rate of about 3 gpm by a variable speed submersible pump, through a 1/2-in.-diameter influent pipe. The untreated water flows through a pipe to a sampling port at the surface then flows down the well and enters two electrolytic chambers above the pneumatic packer to produce hydrogen by electrolysis of the ground water. The electrolytic chambers are custom designed and contain 12 parallel electrode plates, placed at 0.1-in. spacing, through which a 100-amperes direct current passes from a 40-volt power source. Polarity of the electrodes is changed every 5 minutes to prevent calcium carbonate scaling on the cathode. Each electrolytic chamber is composed of a 5-in.-diameter × 17-in.-long, 1/16-in.-wall, Type 316L stainless steel tube. Injection of hydrogen is an alternative to the electrolytic cell, if needed.

The ground water, saturated with hydrogen, then enters the first of two catalytic columns placed in series. Residence time within the columns is about 2 to 4 minutes, depending on the flow rate. The catalytic columns consist of 6-in.-diameter Type 316L stainless steel tubing. The lower column is 11-ft long whereas the upper is 8-ft long, and packed with 1/8-in.-diameter and 1/16-in.-diameter Al_2O_3 pellets coated with 1% Pd, respectively. The upper column performs better due to the increase in the surface area of the catalyst. The smaller pellets cannot be used throughout one long column due to the resulting pressure drop. In these columns, dehalogenation reactions destroys greater than 90% of the VOCs. The treated water is transported through a 1/2-in. pipe to the surface, where it can be sampled prior to being piped back down the well and discharged in the upper section of the HSU.

The columns are designed for continuous operation and the system is monitored by a combination of automatic and manual controls. The design incorporates a back-wash system using deionized water or ground water to reactivate the catalyst. To maintain high catalyst efficiencies, the system is anticipated to operate for 12 hours and regenerate for 12 hours. The catalytic reductive dehalogenation system performance standard will be 90% removal efficiency or higher for total VOCs.

A location plan and P&ID are presented in Drawings 1 and 2, respectively. The equipment specifications are presented in Table 9.

3.4. Controls and Safeguards

TF5475 has been designed to be fail safe. That is, failure of any component, energy source, or loss of control signal will cause the system to shut down safely. For this purpose, the facility will be equipped with built-in safety interlocks. If one of the components listed below malfunctions, the entire system, including the well pumps and electrolytic chamber will automatically shut down. The operator will be notified of a shut down by a visual alarm. The operator must determine and correct the problem before the system can be manually restarted.

A system shutdown involves de-energizing the following equipment:

- Well pump.
- Electrolytic chamber.
- Direct current power supply.

3.5. Schedule and Cost Estimates

Table 10 presents the schedule for activating TF5475. The field test started in August 1997, and the first treatment well will be operational by September 30, 1998.

The estimated cost for design and construction for the first treatment well is about $150,000, and about $850,000 for the entire ground water treatment system (Table 11). Table 11 also shows the estimated O&M costs. Although eight treatment wells and four treatment units are currently proposed for the T-5475 area, actual well installation and activation will be phased-in and the number of treatment wells and treatment units required will be based on field performance.

4. VTF5475 Remedial Design

VTF5475 will be a closed-loop system that extracts vapor containing VOCs and tritium, removes the VOCs from the vapor stream using GAC, and then reinjects vapor containing tritium back into the subsurface to allow the tritium to decay naturally. Details of the VTF5475 treatment system are discussed below.

4.1. Treatability Test

Tests were performed in November 1996 to determine the feasibility of soil vapor extraction in the T-5475 area. A closed-loop system was used to preclude the release of tritiated vapor to the atmosphere. Soil vapor containing tritium and VOCs was extracted from well SVI-ETS-504 (Fig. 24) and passed through two GAC canisters to remove the VOCs. The treated vapor containing tritium was reinjected into well SVI-ETS-505, which is screened in approximately the same interval as SVI-ETS-504.

Nearby wells SEA-ETS-506 and SEA-ETS-507 were equipped with Flexible Liner Underground Technology (FLUTe, formerly called SEAMIST) liners containing vapor ports, temperature sensors and soil-moisture sensors at eight different depths to monitor the tests. Piezometers SIP-ETS-204 and SIP-ETS-205 and all sixteen FLUTe ports were connected to pressure transducers to measure the pressure fields generated in the sediments by both extraction of soil vapor and injection of treated vapor.

4.1.1. Methods and Materials

A schematic diagram of the treatability test is shown in Figure 25. Soil vapor containing VOCs and tritium was extracted from well SVI-ETS-504 using a blower. The extracted vapor passed through a demister, heater, and GAC canisters, and was reinjected into well SVI-ETS-505 located about 100 ft to the north. Soil vapor was heated to temperatures between 96 and 103°F prior to VOC removal by the GAC to reduce humidity. The low-humidity vapor (relative humidity of approximately 50%) results in increased GAC capacity for VOCs, and if the GAC is preheated, prevents condensation of water containing tritium.

Wells SEA-ETS-506 and SEA-ETS-507 were equipped with FLUTe liners, and with straps along the outside of the liners. The FLUTe liners were equipped with vapor sampling ports, and the straps were equipped with one thermistor and one soil moisture block at each of the eight FLUTe liner sensor depths. The vapor ports were used periodically to collect soil vapor samples. The remainder of the time, they were used to measure soil vapor pressure gradients.

VOCs in soil vapor samples were measured with a photoionization detector (PID). Grab samples from each well were taken at least once each day for laboratory analysis to compare to the PID readings.

4.1.2. Results

The vapor extraction system operated on four different days. On November 1, 1996, only atmospheric air was processed by the system. All system components were tested under field conditions to ensure that all parts functioned properly and that there were no leaks in any of the piping or other equipment. After it was determined that the system was functioning correctly, atmospheric air was injected into well SVI-ETS-505 at different rates to establish an air injection curve.

On November 4, 1996, vapor was pumped from well SVI-ETS-504 under a constant vacuum of about 5 in. of mercury (Hg). The air was heated, passed through the GAC, and reinjected into well SVI-ETS-505. A flow rate of about 29 standard cubic feet per minute (scfm) was sustained about two hours after the onset of pumping (Fig. 26).

On November 5, 1996, the blower was operated at four different speeds, and the resulting flow rates and pressures were recorded at piezometer SIP-ETS-205 and wells SEA-ETS-506 and SEA-ETS-507. The extraction curve is shown on Figure 27. Increasing the extraction flow rate from 12 to almost 30 scfm resulted in a decrease of VOC concentrations in soil vapor from 715 to 628 parts per million on a volume-per-volume basis ($ppm_{v/v}$). Regression coefficients were used to estimate VOC concentrations in vapor at several different flow rates.

Additional tests were performed on November 15, 1996. During these tests, atmospheric air was injected into well SVI-ETS-505 for a period of three hours while the vapor temperatures were being raised to 96°F. Ambient air was injected into the soil during the heating process and pressure gradients were measured.

During each of these tests, soil pressure measurements were monitored and logged at wells SIP-ETS-205, SEA-ETS-506, and SEA-ETS-507. November 15, 1996 data are shown on Figure 28. Pressures measured from each FLUTe installation were combined into two groups: Group 1 includes data from all of the ports above the extraction zone (7 to 38 ft in SEA-ETS-506, and 11 to 39 ft in SEA-ETS-507), while Group 2 contains all data from ports in the extraction/reinjection zone (47 to 59 ft in SEA-ETS-506, and 44 to 61 ft in SEA-ETS-507). Figure 28 also presents barometric pressures for the same period.

4.1.3. Discussion and Conclusions

All of the equipment used in these tests worked as planned. The upper performance limits of the vapor extraction system were never reached due to the GAC canister vacuum rating of 5 inches of Hg. The maximum flow rate obtained during vapor extraction was about 34 scfm.

The time-weighted average extracted vapor concentrations in $ppm_{v/v}$ are presented in Table 12. The VOC mass removed in kilograms (kg) is presented in Table 13.

Pressure changes were noted in all observation wells in response to extraction and reinjection. During injection into well SVI-ETS-505, pressure changes were observed about 130-ft away in well SEA-ETS-507. Pressure changes were also observed 70-ft away in well SEA-ETS-507 during extraction from well SVI-ETS-504. The treatability test indicates that soil vapor can be successfully extracted, treated, and reinjected.

4.2. Wellfield Design

Soil vapor extraction wellfield designs are described in the following sections.

4.2.1. Soil Vapor Extraction Wells

Three soil vapor extraction (SVE) wells and one vapor reinjection well are planned for phased installation in the T-5475 area (Fig. 29). The phased approach will help determine the actual effectiveness, compared to the estimated effectiveness, of the planned wells before proceeding with subsequent phases. The SVE wells target the unsaturated portion of HSU-2 due to the high VOC concentrations and lower tritium concentrations than HSU-1B. Vapor extraction well SVI-ETS-504 is currently installed in the area of highest VOC concentrations, and is screened from 42 to 67 ft. Well SVI-ETS-505 is also installed to serve as a vapor reinjection well. The three vapor extraction wells are designed to capture high concentrations of VOCs that were detected in the unsaturated zone near Pits 1 and 3. Design specifications for the T-5475 SVE and vapor reinjection wells are presented in Table 14.

Vapor extraction in the T-5475 area is scheduled to begin at SVI-ETS-504. Vapor flow rates and chemistry data will be collected to evaluate the effectiveness of the planned extraction system.

4.2.2. Vadose Zone Probes

To monitor changes in VOC soil vapor concentrations and vapor pressures during SVE in the T-5475 area, up to seven FLUTe instrumentation and sampling systems are planned for installation (Fig. 29). The FLUTe system is an air-pressure driven, impermeable, everting membrane that can carry soil vapor sampling instrumentation down an uncased borehole (Keller and Lowry, 1991). The membrane effectively lines the borehole like a continuous packer, thereby preventing fluid and vapor flow into the borehole. Once the membrane is emplaced, the FLUTe system may be completed by filling the interior of the membrane with dry sand to prevent borehole collapse.

The FLUTe system will be used to collect vapor pressure and soil vapor VOC and tritium data from various discrete depths. These data, which will be collected periodically during operation of the treatment facility, will be used to: (1) monitor remediation of VOCs, (2) help optimize flow rates at the extraction wells, (3) monitor vapor pressures in both HSU-1B and HSU-2, and (4) help determine when confirmatory sediment and/or vapor samples should be collected. The FLUTe systems will be designed to have eight sampling ports in each borehole, which will provide a vertical profile of pressures and concentrations. The sampling ports will be distributed over HSU-1B and HSU-2. Although no active soil vapor extraction is planned within HSU-1B, these ports will monitor the pressure response and any impact on the tritium in HSU-1B. Three FLUTe systems have currently been installed in the T-5475 area: SEA-ETS-305, SEA-ETS-506, and SEA-ETS-507.

The vadose zone probes will be positioned to measure pressure response and monitor VOC and tritium concentrations in the unsaturated sediment. Design specifications for the potential new and existing vadose zone probes are presented in Table 15.

4.3. Specifications and Design

VTF5475 is designed to treat up to 150 scfm of vapor. However, the treatment facility will operate at substantially lower flow rates. The higher flow capacity will allow future system expansion, if necessary. Vapor will be extracted from well SVI-ETS-504 and reinjected into well SVI-ETS-505 after removal of VOCs. The system will be automated for unattended operation. Average VOC influent concentrations obtained from the treatability test are presented in Table 16.

VTF5475 will be installed north of T-5475 (Drawing 1) on a 10-ft × 8-ft × 6-in. reinforced-concrete pad, with a strength of 3,000 pounds per square inch (psi). To reduce noise and improve visual aesthetics, VTF5475 will be housed in a small building or a screen will be erected around it. The blower will be enclosed in a soundproof enclosure to further reduce noise. With the exception of the electrical heater and control panel, all other equipment is designed to withstand the outdoor environment.

Vapor from the extraction well will first pass through a demister located above the wellhead. The demister will be housed in a 19-in.-long, 6-in.-diameter flanged duct that adapts to the 4-in. extraction well casing. The extracted vapor will be humid and will contain minute water droplets. The relative humidity of the vapor will be almost 100% at the subsurface temperature of about 64°F. The demister mesh is made of a stainless steel sponge-like mesh material that causes minute water droplets or mist to coalesce into larger droplets, and fall out of the vapor stream.

As the vapor enters VTF5475, it will be heated to 100°F by a 4 kilowatt (13,700 British Thermal Units [BTUs] per hour) circulation heater. The heater is part of a closed-loop control, with a temperature sensor and controller. The controller will adjust the power to the heater such that the discharge temperature is constant, independent of flow rate. This allows optimal temperature of the vapor stream prior to passing through the GAC. Because the water vapor in the soil vapor contains tritium, it is necessary to maintain the relative humidity of the influent

vapor at 40% to 50% to prevent the GAC from adsorbing water that contains tritium. Heating influent air to at least 100°F will achieve this objective.

The carbon bed consists of four 170-lb GAC canisters connected in series with 2-in.-diameter flexible polyvinyl chloride (PVC) hose and quick-connect fittings. The flexible connectors will allow easy repositioning of the GAC canisters when they are removed for refill or disposal. Each canister will be equipped with an influent vacuum gauge, sampling port, and temperature gauge, which will provide information about GAC performance. Sampling ports will enable VOC monitoring for determining when contaminant breakthrough occurs. The GAC canisters will be insulated from atmospheric temperature.

Piping downstream from the blower will be carbon steel with pressure gauges and temperature instrumentation. The piping downstream from the blower must be able to withstand temperatures as high as 140 to 200°F, depending on the applied vacuum, reinjection pressure, and flow rate. This treated air stream from the GAC will be routed to the injection well. The discharge piping will require insulation for personnel protection if surface temperatures exceed 140°F.

An averaging pitot tube differential pressure flow sensor will be installed in the discharge line of the circulation heater. Additionally, temperature sensors, vacuum gauges, and pressure gauges will monitor VTF5475 performance. A variable speed drive will be used to control the blower motor speed which, in turn, will determine the inlet vacuum, discharge pressure, and flow rate.

The GAC will be housed in an insulated enclosure with a 2.6 kilowatt (8,900 BTU/hr) industrial space heater. A thermocouple installed in the enclosure will display the enclosure temperature on the VTF5475 control panel. Doors on the enclosure will be provided to facilitate rapid and convenient canister change-out. Treated vapor leaving the final GAC canister will be connected to the inlet of the injection blower with 2-in.-diameter flexible PVC hose connected to rigid PVC pipe.

The blower for VTF5475 will be a Kaeser Omega-Pak BB-68 positive displacement vacuum blower, or equivalent, powered by a 15-horsepower, 208-volt, 3-phase electric motor. This model blower is rated at 150 scfm at 10-in. Hg vacuum. A factory designed sound enclosure will cover the motor and blower.

The equipment specifications are presented in Table 17. A location plan and P&ID are presented on Drawings 1 and 3, respectively.

4.4. Controls and Safeguards

VTF5475 is designed to be fail-safe and will be equipped with an interlock control system. If one of the conditions listed below occurs, the extraction blower will automatically shut down. A lighted lamp on the control panel will indicate where the malfunction occurred. The operator must determine the cause and correct the problem before the system can be manually restarted.

A system-wide shutdown would be initiated by the following interlocks:

- High vacuum at the inlet to VTF5475.

- High differential pressure across the blower.
- High air temperature exiting the process air heater.
- High or low temperature inside the GAC enclosure.
- High air temperature entering the GAC.
- High air temperature exiting the GAC.
- High pressure at blower discharge.
- High air temperature at blower discharge.
- Loss of power to the instrumentation.
- Variable speed drive fault.

All equipment and piping will be inspected during normal work hours each day of system operation.

4.5. Schedule and Cost Estimates

Table 18 presents the schedule for design, construction, and activation of VTF5475. Construction will begin October 1998 and the facility is scheduled to begin operation by June 29, 1999 (Dresen et al., 1993).

The estimated cost for design and construction for VTF5475 is about $165,000, and annual O&M is about $250,000 (Table 19). A six-year O&M cost estimate is presented in Table 19 based on vadose zone cleanup estimates at VTF518 (Berg et al., 1994b).

5. Remedial Action Workplan

The Remedial Action Workplan for TF5475 and VTF5475 includes QA/QC and HASPs for construction, operation, and maintenance. Included also are monitoring programs, requirements for onsite storage and offsite shipment of hazardous waste, and procedures for facility and well closure. DOE/LLNL have updated the Community Relations Plan (CRP) for the post-ROD period. The Revised CRP was issued in July 1993 (Anderson et al., 1993).

5.1. Quality Assurance/Quality Control and Health and Safety Plans

The QA/QC Plan and the HASP for construction are applicable to all treatment facilities and were presented as Appendices B and C of RD1 (Boegel et al., 1993). The QA/QC Plans for O&M of TF5475 and VTF5475 are presented in Appendix B. These plans describe the organizational structure, responsibilities, and authority for O&M QA/QC, and the objectives, quality goals, and QA levels for O&M of TF5475 and VTF5475. Appendix C contains the HASPs for O&M of TF5475 and VTF5475. These plans analyze the hazards and present:

(1) hazard analyses and control measures and training requirements for TF5475 and VTF5475 O&M, and (2) emergency safety procedures.

5.2. Monitoring and Reporting

The following sections discuss planned monitoring and reporting for TF5475 and VTF5475. The programs include ground water sampling, capture zone monitoring, criteria for determining when remediation is complete, and requirements for system closeout.

QA/QC procedures for collection, analysis, and documentation of influent and effluent ground water samples are included in the LLNL Quality Assurance Project Plan (Rice, 1989), which was prepared according to EPA guidance and was approved by EPA. In addition, the procedures for collection, analysis, and documentation of water samples are described in LLNL Standard Operating Procedures (SOPs) (Dibley and Depue, 1997) Nos.: 2.6, Sampling for Volatile Organic Compounds; 4.1, General Instructions for Field Personnel; 4.2, Sample Control and Documentation; 4.3, Sample Containers and Preservation; 4.4, Guide to Handling, Packaging, and Shipping of Samples; 4.6, QA/QC Requirements for Data Generated by Analytical Laboratories; and 4.8, Calibration and Maintenance of Field Instruments Used in Measuring Parameters of Surface and Ground Water and Soils. The procedures for sample collection at TF5475 and VTF5475 are presented in Appendix D.

The Compliance Monitoring Plan (Nichols et al., 1996) describes the data types and interpretive methods to be used for the duration of the remediation. DOE/LLNL prepare ground water contour and capture zone maps, and report flow and mass removal for each treatment facility area in quarterly self-monitoring reports.

5.2.1. Ground Water Monitoring Schedule

Influent and effluent concentrations of total VOCs will be reported quarterly for the pilot treatment unit and subsequent *in situ* treatment units. Influent concentrations will be collected prior to the electrolyzer cell to reflect background ground water concentrations. Effluent concentrations will be measured after the catalyst bed, immediately prior to discharge into the aquifer. VOC concentrations and mass removed will be presented in the Livermore Site Quarterly self-monitoring reports.

5.2.2. Vapor Monitoring Schedule

Because treated vapor will be reinjected into adjacent sediments, no VOCs or other contaminants will be released to atmosphere. As a result, this facility will not require an air permit or Bay Area Air Quality Management District (BAAQMD) reporting requirements. Vapor monitoring will be performed to document the effectiveness of the remediation and maintain efficient operation of VTF5475.

Effluent air will be sampled downstream of the GAC weekly using an organic vapor analyzer/flame ionization detector (OVA/FID). The FID uses a flame to ionize molecules in the vapor sample and measures the organic constituents within the vapor. These instruments can detect compounds with a concentration range of 1 to 100,000 $ppm_{v/v}$. The methane content of

these samples will be determined by comparing samples taken with and without an activated carbon filter tip on the OVA/FID. A calibration adjustment will be made after each startup of the OVA/FID, according to manufactures' specifications.

Four GAC canisters will be used in series. Influent and effluent VOC concentrations from each GAC canister will be measured with an OVA/FID to monitor GAC loading. The first GAC canister in the series will be replaced when the effluent vapor has approximately the same concentration as the influent. Even though effluent will not be discharged to the atmosphere, a new GAC canister will be installed when the effluent from the last GAC canister approaches the BAAQMD discharge limit of 6 $ppm_{v/v}$ of VOCs. GAC consumption is estimated to be about one canister per week after system startup. It is expected that the GAC consumption rate will decrease over time as influent VOC concentrations decrease due to the removal of VOCs from the sediments.

In addition to the samples taken at VTF5475, existing vadose probes and instrumentation will be sampled according to the schedule in Table 20. Planned probes or FLUTe liners will also be monitored after installation.

5.3. Requirements for Onsite Storage and Offsite Shipment of Hazardous Waste

GAC containing sorbed VOCs will be shipped offsite for regeneration or disposal, and will be managed as hazardous waste, if appropriate. LLNL can temporarily store hazardous waste onsite for up to 90 days. Shipment and disposal are in accordance with Department of Transportation (DOT) 49 Code of Federal Regulations (CFR) and EPA 40 CFR, respectively. Additionally, waste shipments are made in accordance with California Code of Regulations, Title 22 requirements. The spent GAC will be packaged and labeled for shipment by LLNL's Hazardous Waste Management Division (HWMD). LLNL's HWMD operates under Interim Status and has submitted a Resource Conservation and Recovery Act (RCRA) Part B permit application to the DTSC. (California is a RCRA-authorized State). Once packaged, the GAC will be shipped to one of several RCRA-permitted facilities for regeneration or disposal. If the GAC contains both VOCs and tritium, then it will be classified as mixed waste and handled by LLNL's HWMD.

When TF5475 and VTF5475 are closed, excess processing equipment will be reused if possible.

5.4. Requirements for Closeout

Decisions regarding when ground water extraction should cease at specific wells, and when a particular treatment facility and extraction wells should be decommissioned, will be based on the progress of remediation as negotiated with the regulatory agencies. Because the size and orientation of capture zones will change over the course of remediation, the vertical and horizontal distribution of the compounds of concern at the time remediation is nearing completion will also be evaluated.

VOC concentrations in ground water may increase in wells after extraction ceases due to slow desorption from fine-grained sediments. Therefore, contaminant concentrations will be monitored for 2 years after pumping ceases. If concentrations rise above cleanup standards, ground water extraction will resume at the appropriate wells until cleanup standards are again achieved. Several iterations of this pumping cycle may be required to achieve the cleanup standards. Cleanup will be considered complete when contaminant concentrations remain below the cleanup standards for 2 years.

Vapor flow rates and chemistry data will be collected to evaluate the effectiveness of the vapor extraction system. Some vapor wells may be periodically shut off to determine if the vapor concentrations increase. Data from ongoing field monitoring will be used to determine when further vapor extraction will not achieve significant additional VOC mass removal or further reduction in vapor-phase VOC concentrations. At that time, DOE/LLNL will determine in conjunction with the regulatory agencies if the vapor extraction system should continue operating.

Completion of ground water and soil cleanup will be determined in conjunction with the regulatory agencies. After concurrence from the regulatory agencies that cleanup is complete, most of the LLNL extraction wells, piezometers, and probes will be sealed and abandoned. These will be sealed by pressure grouting using a grout mixture of 98% Portland cement and 2% bentonite powder by weight, as described in LLNL SOP 1.7 (Dibley and Depue, 1997). A minimal monitoring network, consisting of perhaps 10 to 20% of the existing ground water wells, will remain in place for general quality monitoring. Most of these ground water monitor wells will be located at downgradient plume margins and in former source areas.

TF5475 and VTF5475 will be decontaminated and decommissioned after remediation is complete. The process equipment will be sold or recycled, if possible. Any wash water containing hazardous materials will be collected, sampled, and disposed at one of several RCRA-permitted facilities. The portions of the facilities that contain hazardous materials, such as GAC with sorbed VOCs, will be disposed according to the specifications described in Section 5.3.

6. References

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6.2. References for LLNL Facilities Standards, Specifications, and Guide Documents

6.2.1. General

Designs, construction drawings, and specifications will conform to and comply with the applicable requirements of the latest adopted edition of the references listed herein, which will be considered minimum requirements.

6.2.2. Regulations

U.S. Department of Energy (DOE)

DOE 5480.7A	Fire Protection Program
DOE 6430.1A	General Design Criteria

Code of Federal Regulations (CFR)

10 CFR 435	Energy Conservation Standards
29 CFR 1910	Occupational Safety and Health Standards (OSHA)
29 CFR 1910.7	Definitions and Requirements for a Nationally Recognized Testing Laboratory (NRTL)
47 CFR 15	Telecommunication (FCC Rules, Part 15)

State of California Department of Labor (DOL)

DOL Labor Code	Division 5—Safety in Employment Chapter 9—Miscellaneous Labor Provisions

California Codes of Regulations (CCR)

CCR Title 8	Industrial Relations; Chapter 4, Subchapter 6
CCR Title 20	Public Utilities; Chapter 53—Energy Conservation in New Building Construction

niversity of California, Lawrence Livermore National Laboratory (UCRL)

UCRL 15910	Design and Evaluation Guidelines for Department of Energy Facilities Subjected to Natural Phenomena Hazards
UCRL 15714	Suspended Ceiling System Survey and Seismic Bracing Recommendations

6.2.3. Codes

American Concrete Institute (ACI)

ACI 318	Building Code Requirements for Reinforced Concrete

American Institute of Steel Construction (AISC)

AISC	Steel Construction Manual (Allowable Stress Design)

American National Standards Institute (ANSI)

ANSI A58.1	Building Code Requirements for Minimum Design Loads for Buildings and Other Structures

American Welding Society (AWS)

AWS D 1.1	Structural Welding Code—Steel

International Conference of Building Officials (ICBO)

ICBO UBC	Uniform Building Code
ICBO UMC	Uniform Mechanical Code
ICBO UPC	Uniform Plumbing Code

National Fire Protection Association (NFPA)

NFPA 70	National Electrical Code
NFPA 90A	Installation of Air Conditioning and Ventilating Conditioning Systems

6.2.4. Standards

American Concrete Institute (ACI)

ACI 347	Recommended Practice for Concrete Form Work

American Society for Testing and Materials (ASTM)

American Water Works Association (AWWA)

Construction Specifications Institute (CSI)

National Electric Manufacturers Association (NEMA)

Sheet Metal and Air Conditioning Contractors National Association, Inc. (SMACCNA)

6.2.5. LLNL Manuals and Reports

M-010 LLNL Health and Safety Manual

LLNL Site Development and Facilities Utilization Plan

LLNL Landscape Master Plan and Design Guidelines

7. Acronyms and Abbreviations

1,1,1-TCA	1,1,1-trichloroethane
1,1-DCA	1,1-dichloroethane
1,2-DCA	1,2-dichloroethane
1,1-DCE	1,1-dichloroethylene
1,2-DCE	1,2-dichloroethylene
ACI	American Concrete Institute
AISC	American Institute of Steel Construction
Al_2O_3	alumina
amps	amperes
amsl	above mean sea level
ANSI	American National Standards Institute
ARAR	Applicable or Relevant and Appropriate Requirement
ASTM	American Society for Testing and Materials
AWS	American Welding Society
AWWA	American Water Works Association
B518	Building 518
BAAQMD	Bay Area Air Quality Management District
bgs	below ground surface
BTU	British Thermal Unit
CF	chloroform
CCR	California Code of Regulations
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
cm/s	centimeters per second
CRP	Community Relations Plan
CSI	Construction Specifications Institute
CTET	carbon tetrachloride
DOE	Department of Energy
DOL	Department of Labor
DOT	Department of Transportation
DTSC	Department of Toxic Substances Control
ELM	Eastern Landing Mat
EPA	Environmental Protection Agency
EPD	Environmental Protection Department
ERD	Environmental Restoration Division
ES&H	Environmental Safety & Health
ETC	East Traffic Circle
F	Fahrenheit
F113	trichlorotrifluoroethane
FFA	Federal Facility Agreement
FHC	fuel hydrocarbon
FID	flame ionization detector
FLUTe	Flexible Liner Underground Technology
Freon 113	trichlorotrifluoroethane
FS	Feasibility Study
G&A	General and Administrative
GAC	granular activated carbon
gpm	gallons per minute
H_2	hydrogen
H_2O	water
HASP	Health and Safety Plan
Hg	mercury
HSU	hydrostratigraphic unit
HWMD	Hazardous Waste Management Division
ICBO	International Conference of Building Officials
kg	kilogram(s)

K_h	horizontal hydraulic conductivity
K_v	vertical hydraulic conductivity
LDRD	Laboratory Directed Research and Development
LLNL	Lawrence Livermore National Laboratory
LSPL	Livermore Site Project Leader
MCL	Maximum Contaminant Level
ml/min	milliliters per minute
MPC	Material Procurement Charge
ND	not detected
NEMA	National Electric Manufacturers Association
NFPA	National Fire Protection Association
NRTL	Nationally Recognized Testing Laboratory
O_2	oxygen
O&M	operations and maintenance
OSHA	Occupational Safety and Health Administration
OVA	organic vapor analyzer
P&ID	piping and instrument diagram
PCE	perchloroethylene
Pd	palladium
pCi/L	picocuries per liter
pCi/L_{sm}	picocuries per liter of liquid soil moisture
PID	photoionization detector
PEPM	Plant Engineering Project Manager
PLC	programmable logic controller
ppb	parts per billion
ppm	parts per million
$ppm_{v/v}$	parts per million on a volume-to-volume basis
psi	pounds per square inch
PVC	polyvinyl chloride
QA	quality assurance
QAE	Quality Assurance Engineer
QAMP	Quality Assurance Management Plan
QC	quality control
R	correlation coefficient
RAIP	Remedial Action Implementation Plan
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RD1	Remedial Design Report No. 1
RD3	Remedial Design Report No. 3
RE	removal efficiency
RI	Remedial Investigation
ROD	Record of Decision
RWQCB	Regional Water Quality Control Board
scfm	standard cubic feet per minute
SMACCNA	Sheet Metal and Air Conditioning Contractors National Association, Inc.
SOP	Standard Operating Procedure
SVE	soil vapor extraction
T-5475	Trailer 5475
TBI	to be installed
TCE	trichloroethylene
TF406	Treatment Facility 406
TF5475	Treatment Facility 5475
TFA	Treatment Facility A
TFB	Treatment Facility B
TFC	Treatment Facility C
TFD	Treatment Facility D
TFE	Treatment Facility E
TFF	Treatment Facility F
TFG-1	Treatment Facility G-1
TFG-2	Treatment Facility G-2

TL	Task Leader
TS	Technicians Supervisor
UCRL	University of California Radiation Laboratory (Lawrence Livermore National Laboratory)
VAC	volts alternating current
VOC	volatile organic compound
VTF518	Vapor Treatment Facility 518
VTF5475	Vapor Treatment Facility 5475
WTC	West Traffic Circle

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L. Rodriquez of Weiss Associates oversaw drilling of the vapor treatability test boreholes, and assisted with the installation of the FLUTe liners.

H. Toor of Weiss Associates helped prepare the cross sections.

J. Van Fossen of LLNL built the VTF5475 system for the treatability test.

Figures

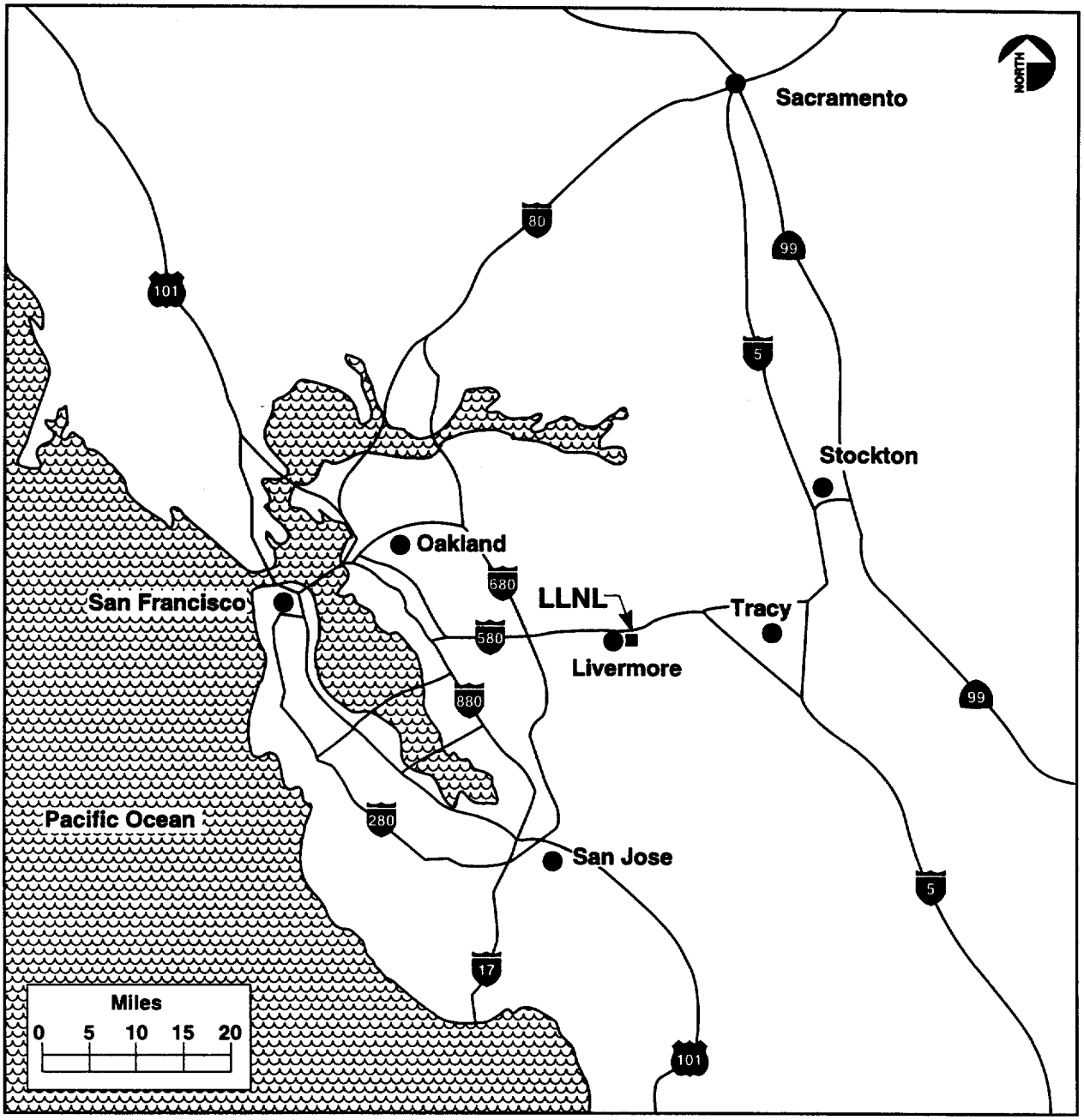

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Figure 1. Location of the LLNL Livermore Site.

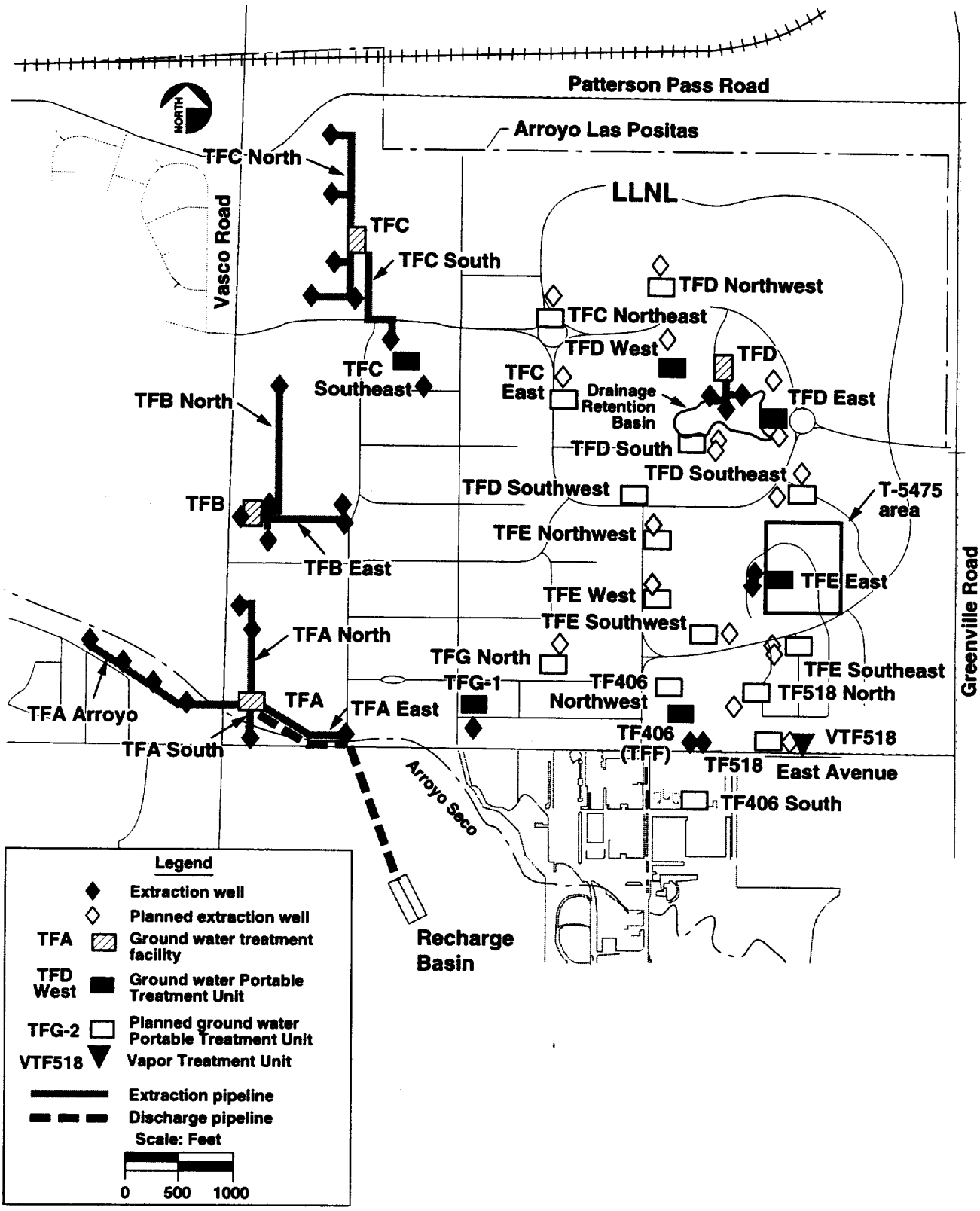

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Figure 2. Planned and existing ground water and soil vapor extraction locations at the LLNL Livermore Site.

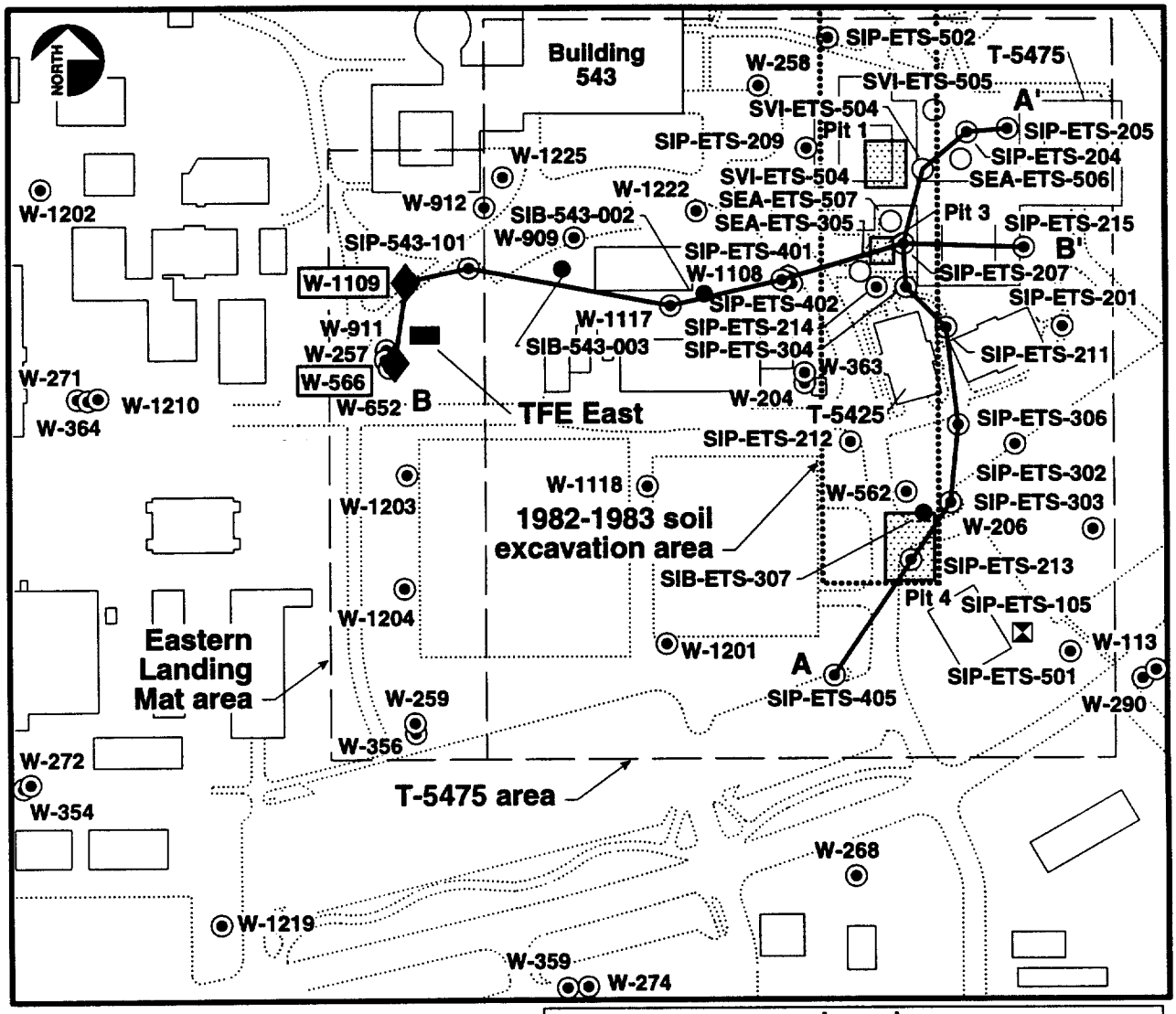

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Figure 3. Source area and well location map for the T-5475 area and vicinity.

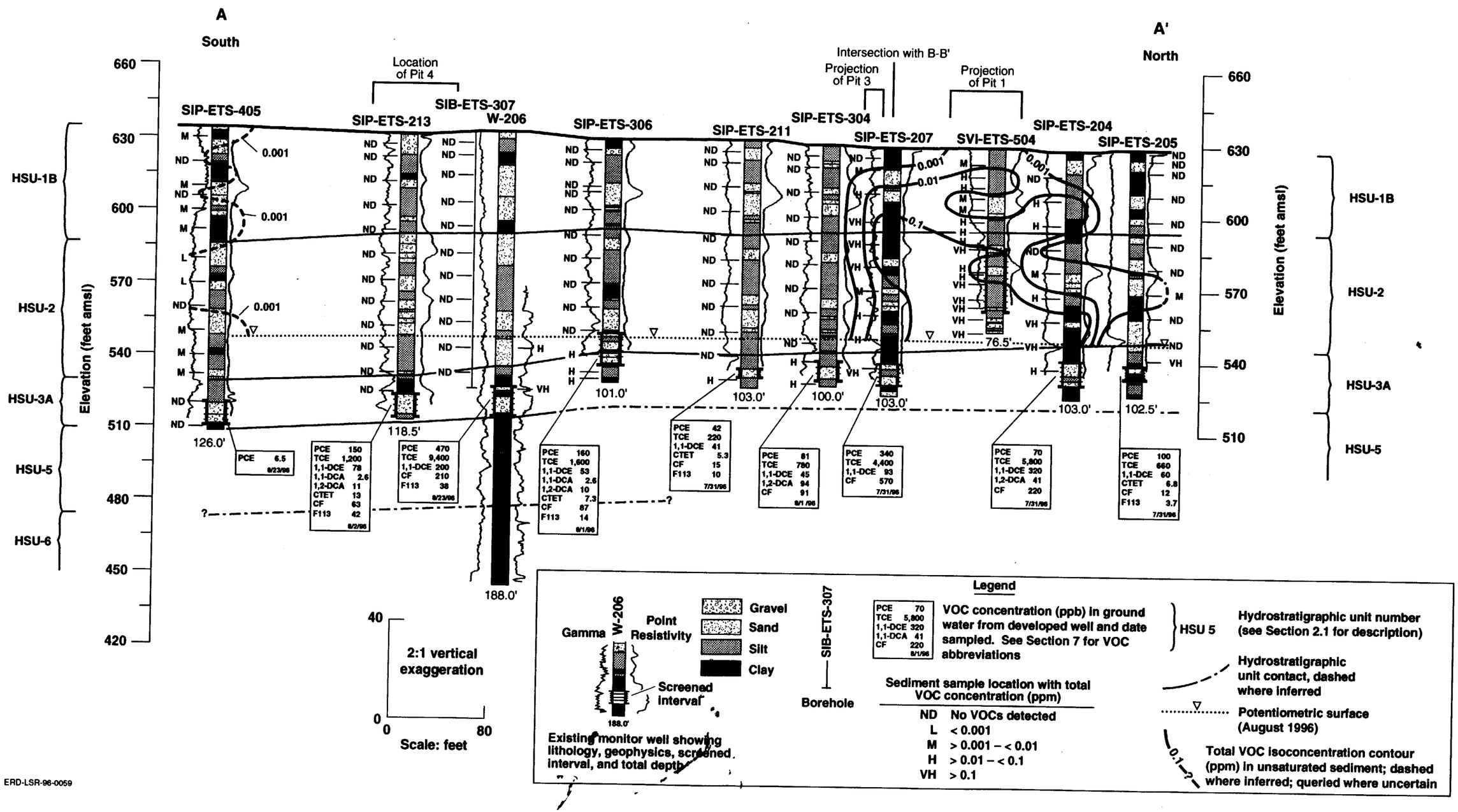


Figure 4. Hydrogeochemical cross section A-A' showing total VOC distribution in the T-5475 area.

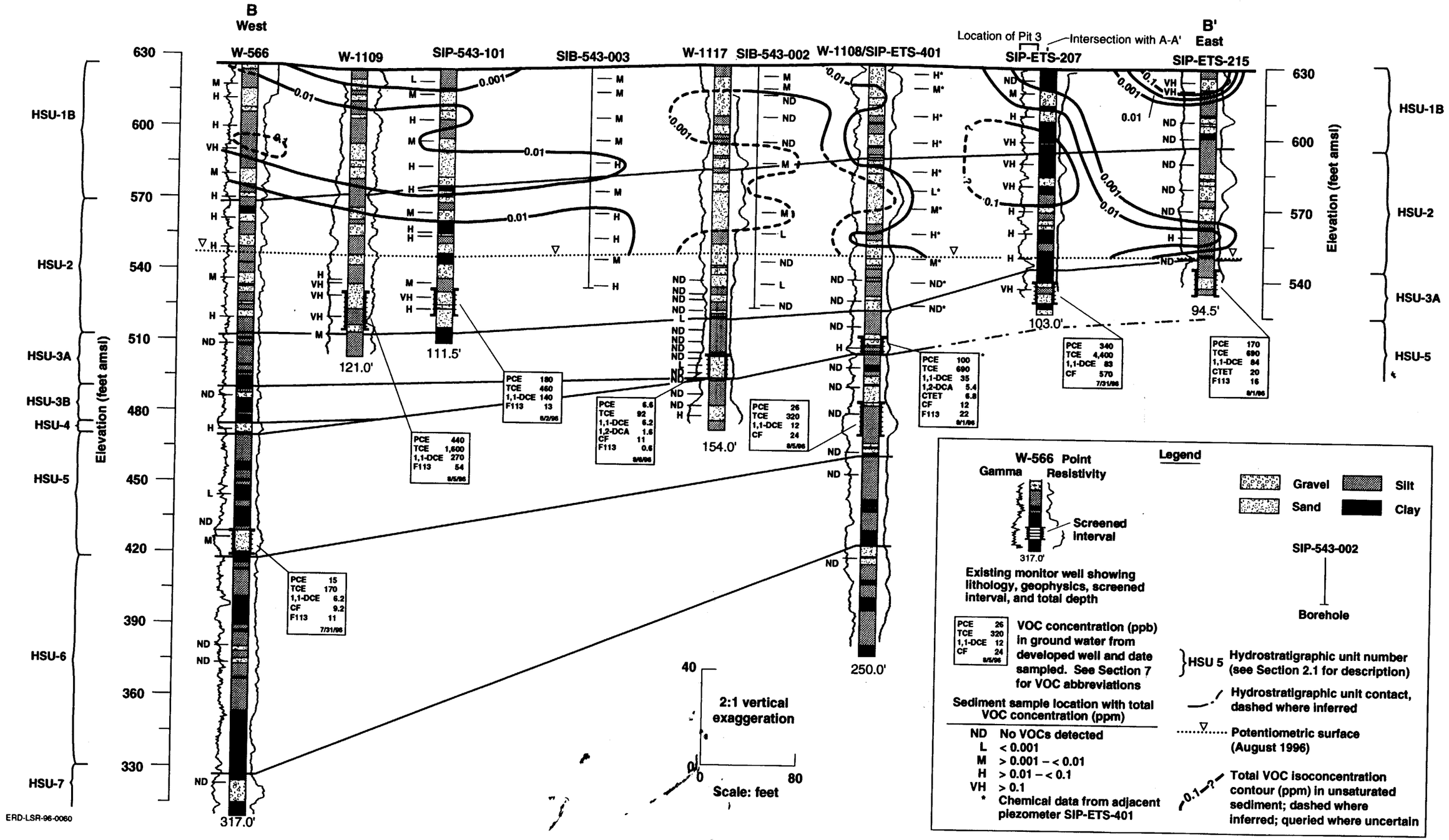


Figure 5. Hydrogeochemical cross section B-B' showing total VOC distribution in the T-5475 area.

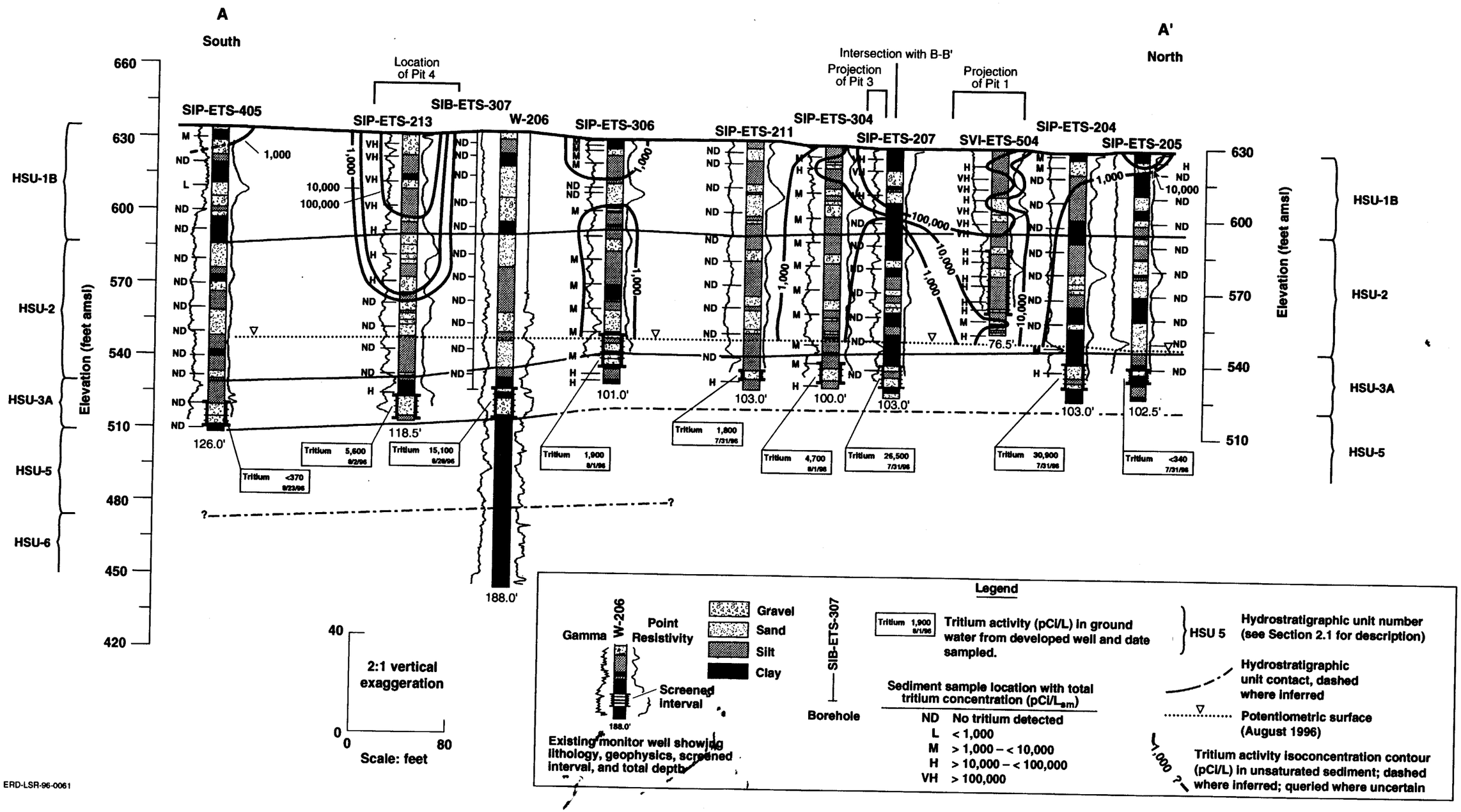


Figure 6. Hydrogeochemical cross section A-A' showing tritium distribution in the T-5475 area.

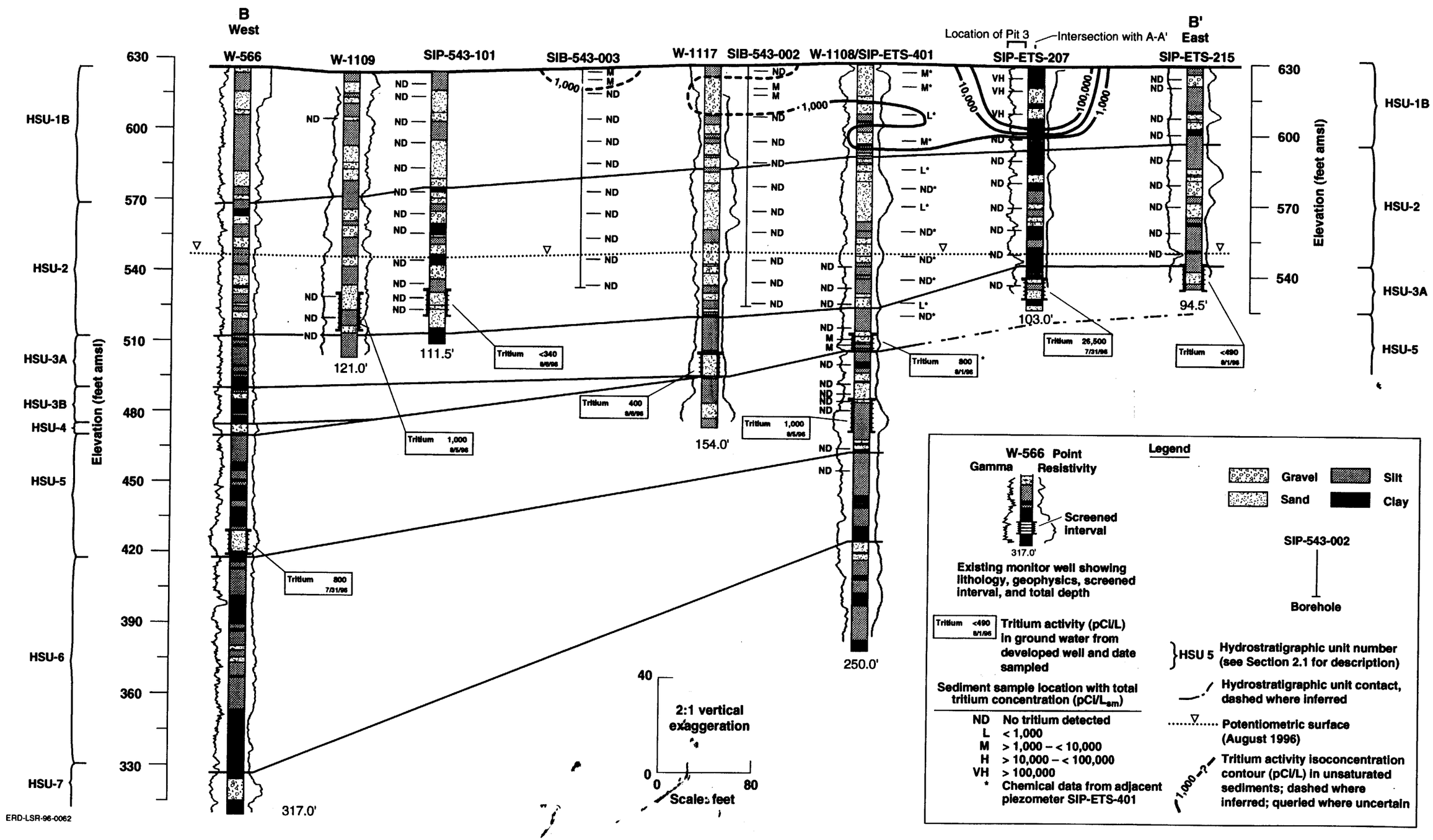
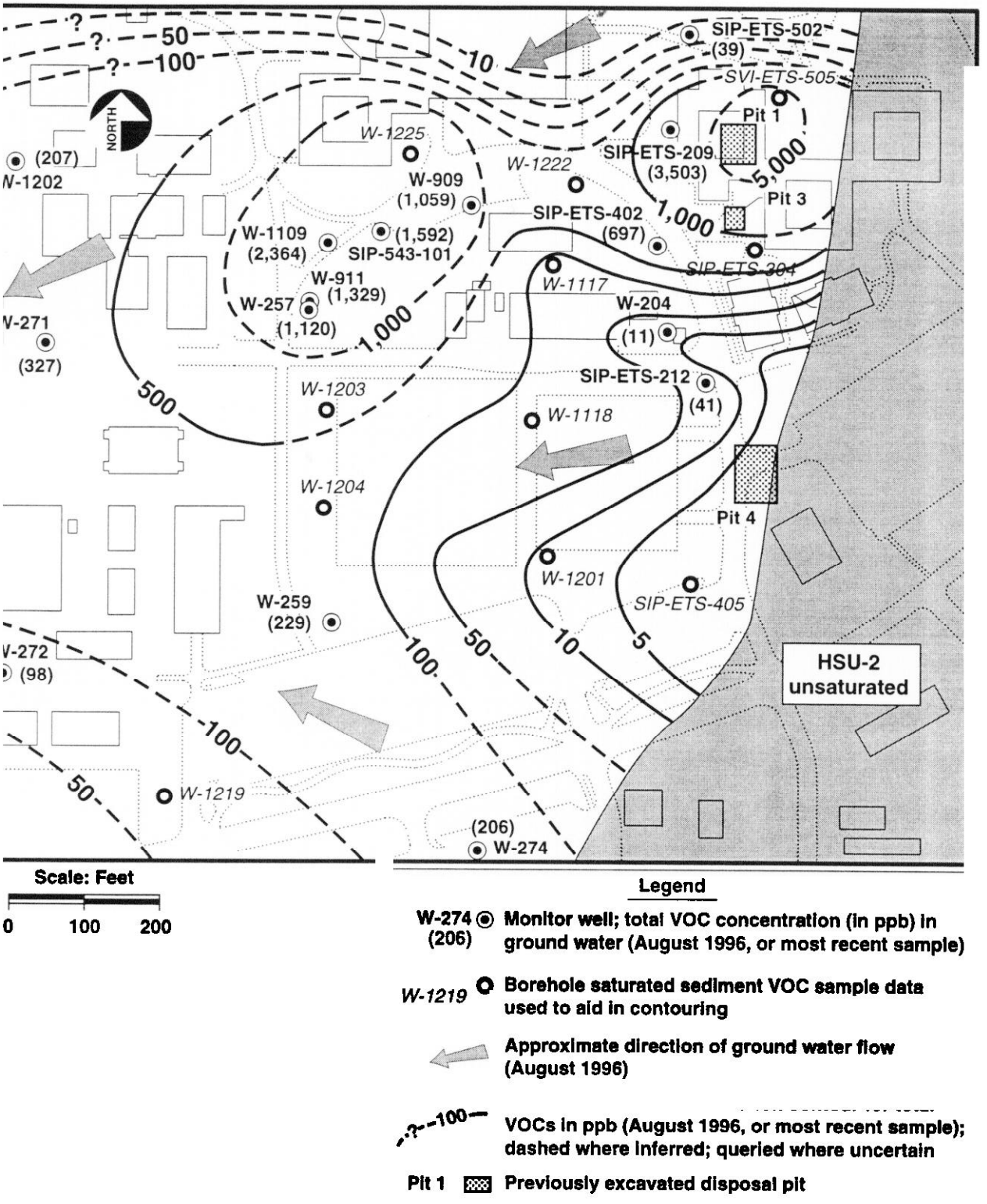


Figure 7. Hydrogeochemical cross section B-B' showing tritium distribution in the T-5475 area.



ERD-LSR-96-0069

Figure 8. Isoconcentration map of total VOCs in HSU-2 ground water in the T-5475 area and vicinity.

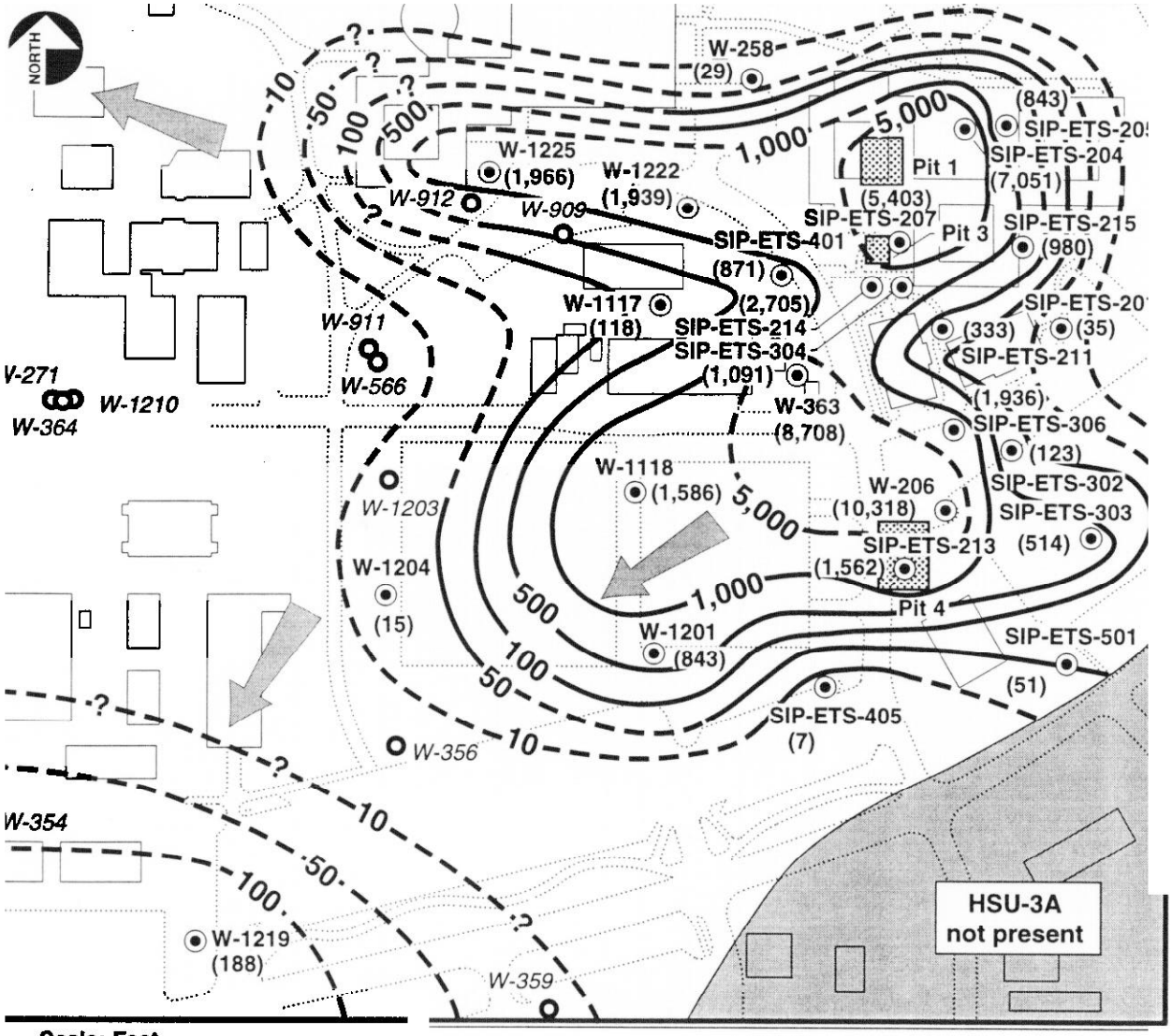
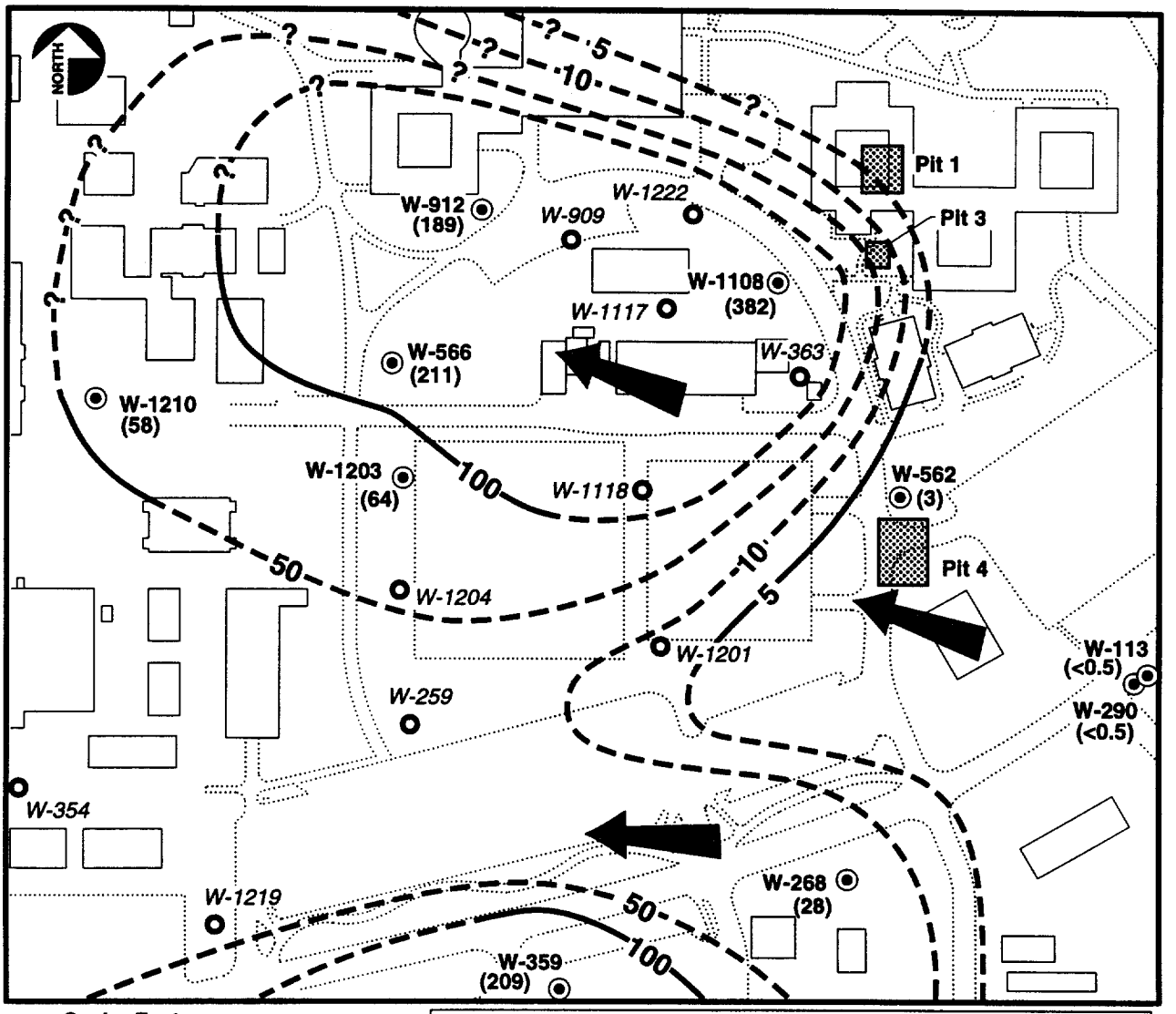


Figure 9. Isoconcentration map of total VOCs in HSU-3A ground water in the T-5475 area and vicinity.



Scale: Feet

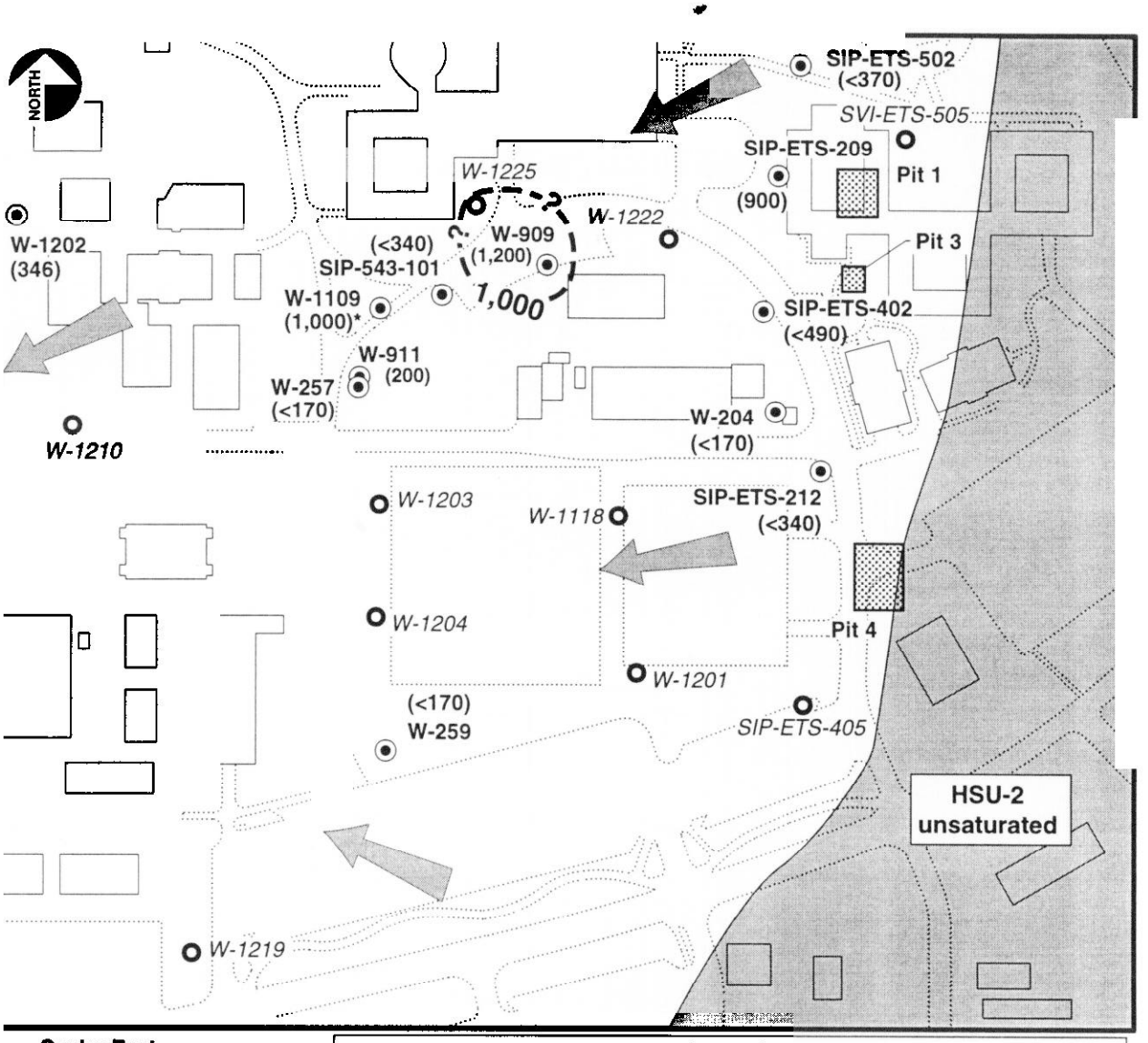
0 100 200

Legend

W-359 (209)	Monitor well; total VOC concentration (in ppb) in ground water (August 1996, or most recent sample)
W-1219	Borehole saturated sediment VOC sample data used to aid in contouring
	Approximate direction of ground water flow (August 1996)
?-100	Ground water isoconcentration contour for total VOCs in ppb (August 1996, or most recent sample); dashed where inferred; queried where uncertain
Pit 1	Previously excavated disposal pit

ERD-LSR-96-0066

Figure 10. Isoconcentration map of total VOCs in HSU-5 ground water in the T-5475 area and vicinity.



Scale: Feet

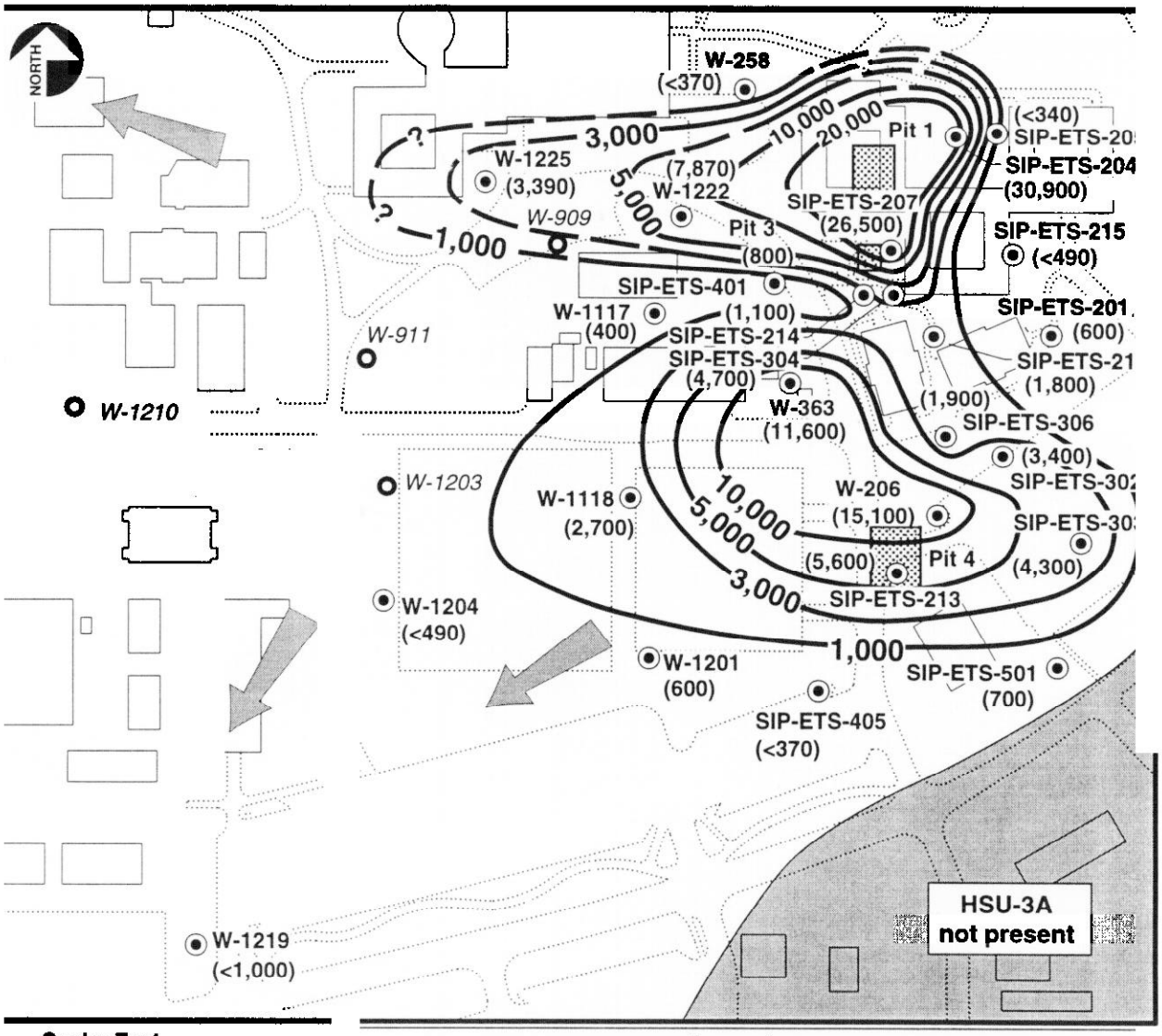
0 100 200

Legend

W-259 (<170)	Monitor well; tritium activity (in pCi/L) in ground water (August 1996, or most recent sample) (* anomalous data not used in contouring)
W-1219	Borehole saturated sediment tritium data used to aid in contouring
-?-1,000-	Ground water isoconcentration contour for tritium (in pCi/L) (August 1996, or most recent sample); dashed where inferred; queried where uncertain
	Approximate direction of ground water flow (August 1996)
Pit 1	Previously excavated disposal pit

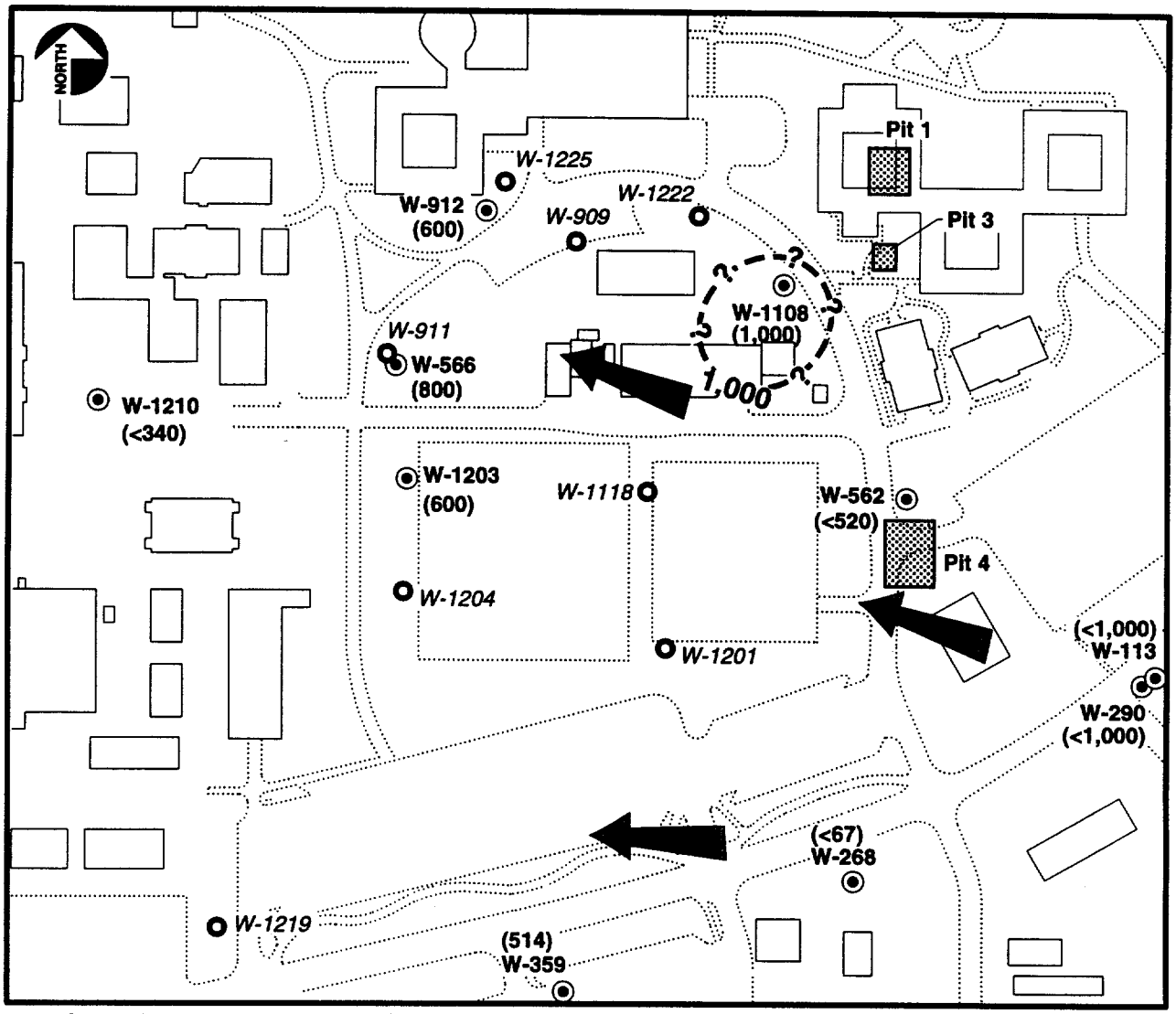
ERD-LSR-96-0072

Figure 11. Isoconcentration map of tritium in HSU-2 ground water in the T-5475 area and vicinity.



ERD-LSR-96-0071

Figure 12. Isoconcentration map of tritium in HSU-3A ground water in the T-5475 area and vicinity.



Scale: Feet

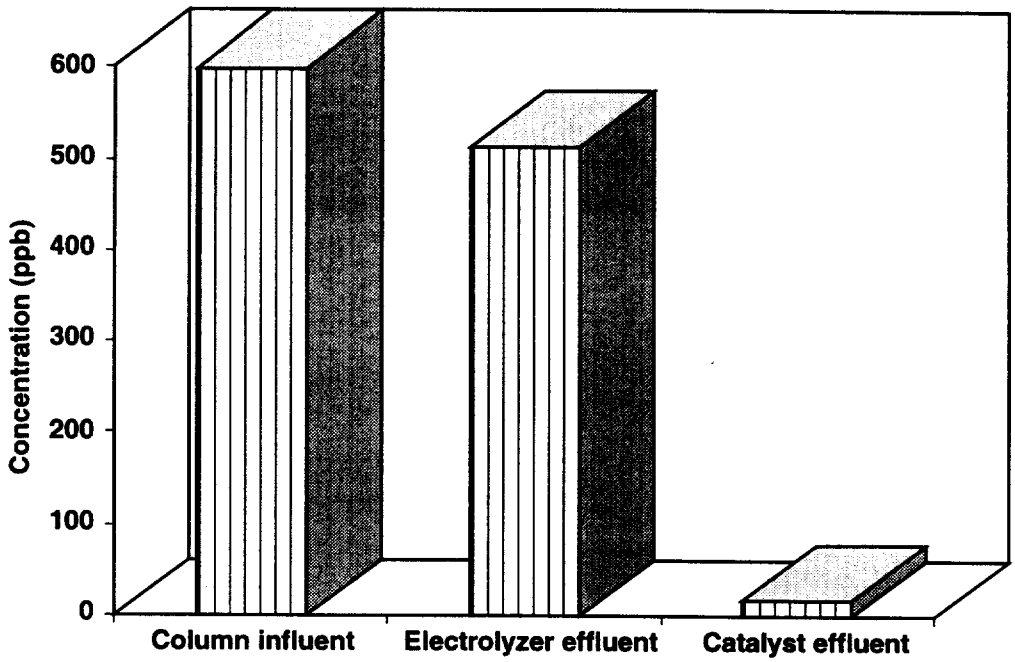
0 100 200

Legend

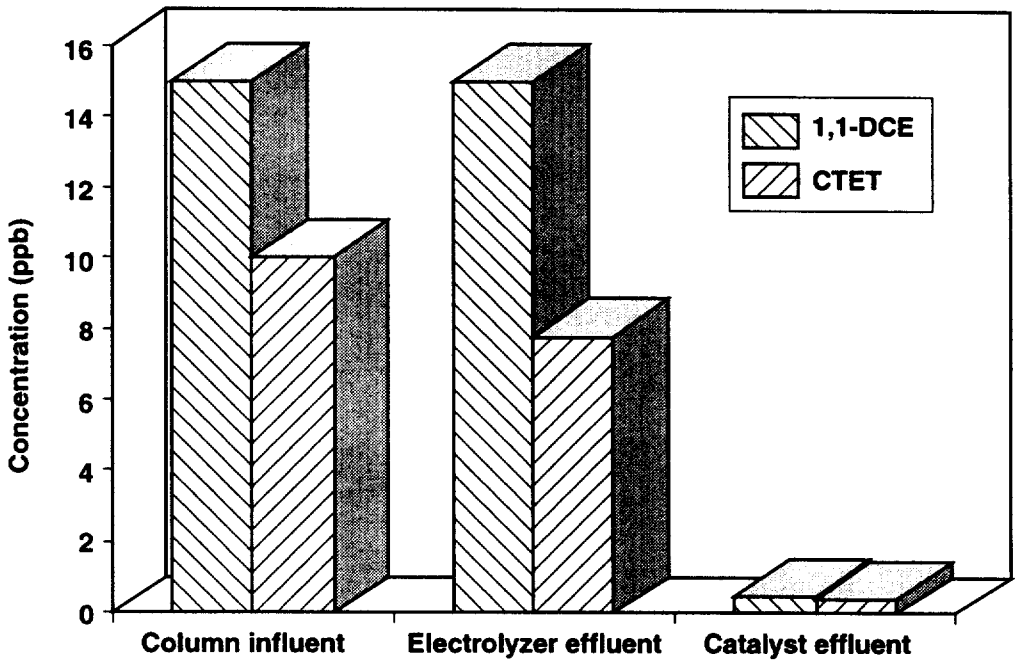
W-359 (514)	Monitor well; tritium activity (in pCi/L) in ground water (August 1996, or most recent sample)
W-1219	Borehole saturated sediment VOC sample data used to aid in contouring
?1,000	Ground water isoconcentration contour for tritium (in pCi/L) (August 1996, or most recent sample); dashed where inferred; queried where uncertain
	Approximate direction of ground water flow (August 1996)
Pit 1	Previously excavated disposal pit

ERD-LSR-96-0070

Figure 13. Isoconcentration map of tritium in HSU-5 ground water in the T-5475 area and vicinity.



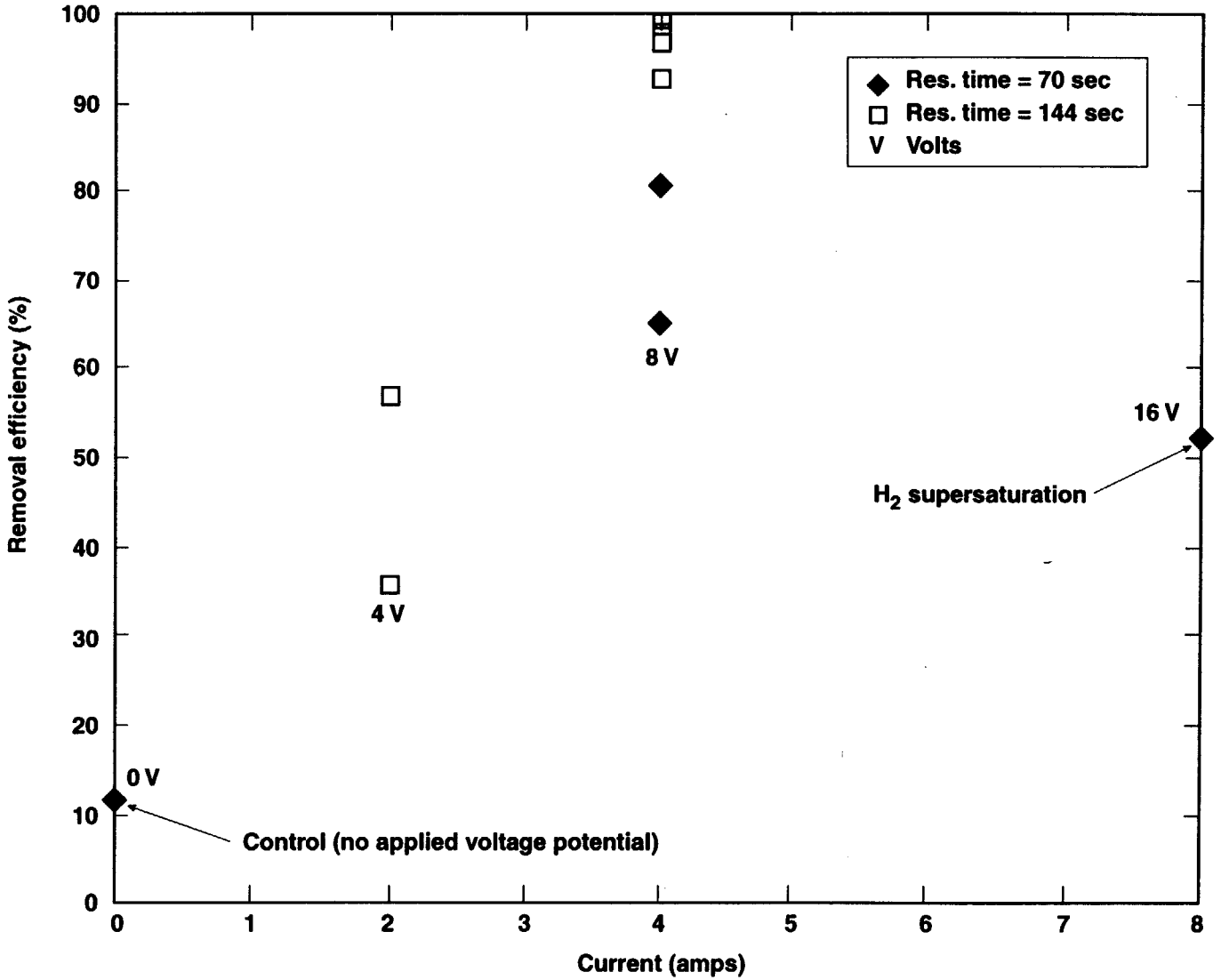
(a) Removal of TCE.



(b) Removal of 1,1-DCE and CTET.

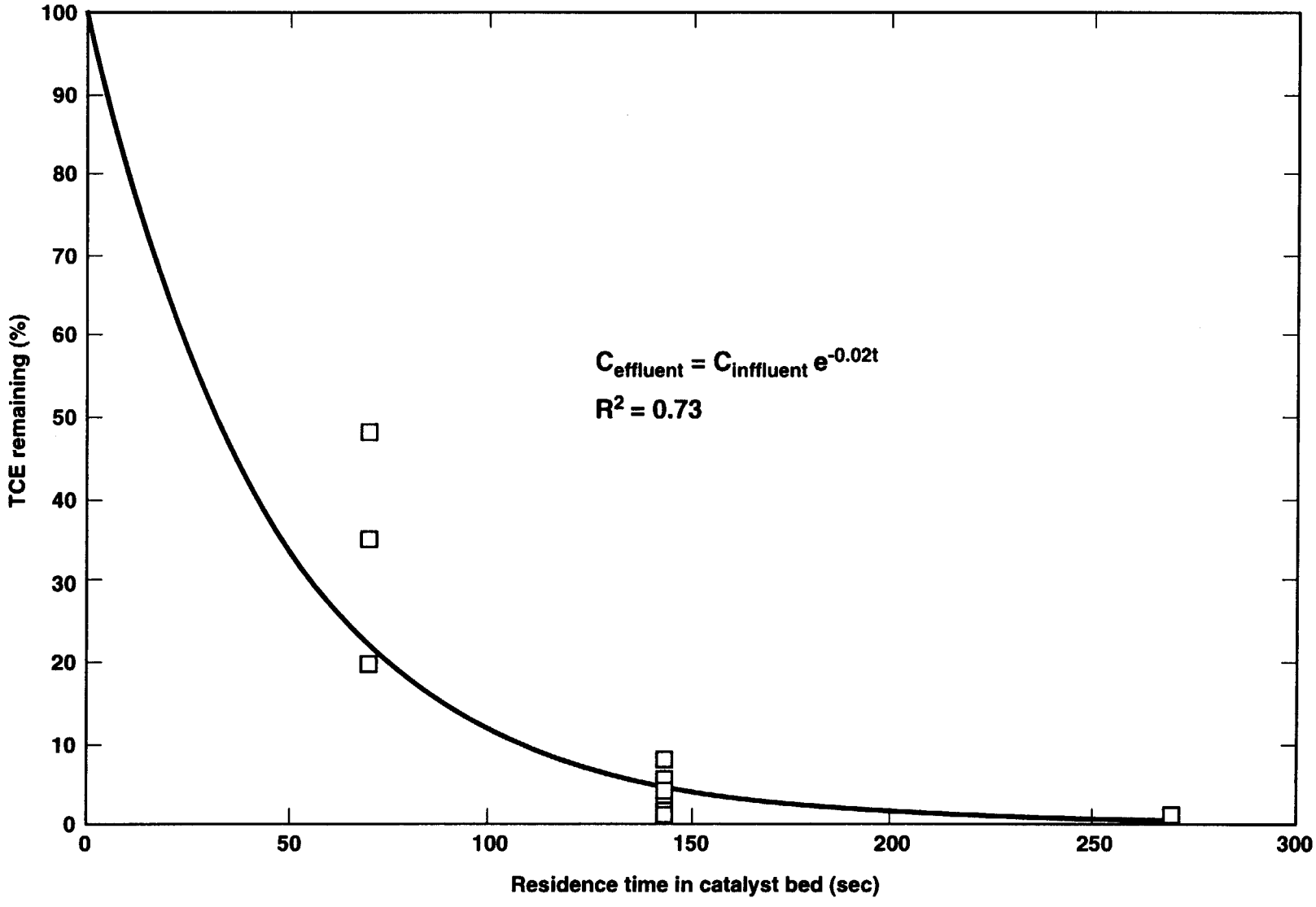
ERD-LSR-97-0039

Figure 14. VOC removal across the two-stage column at 8 volts and 4 amps with a flow rate of 300 ml/min.



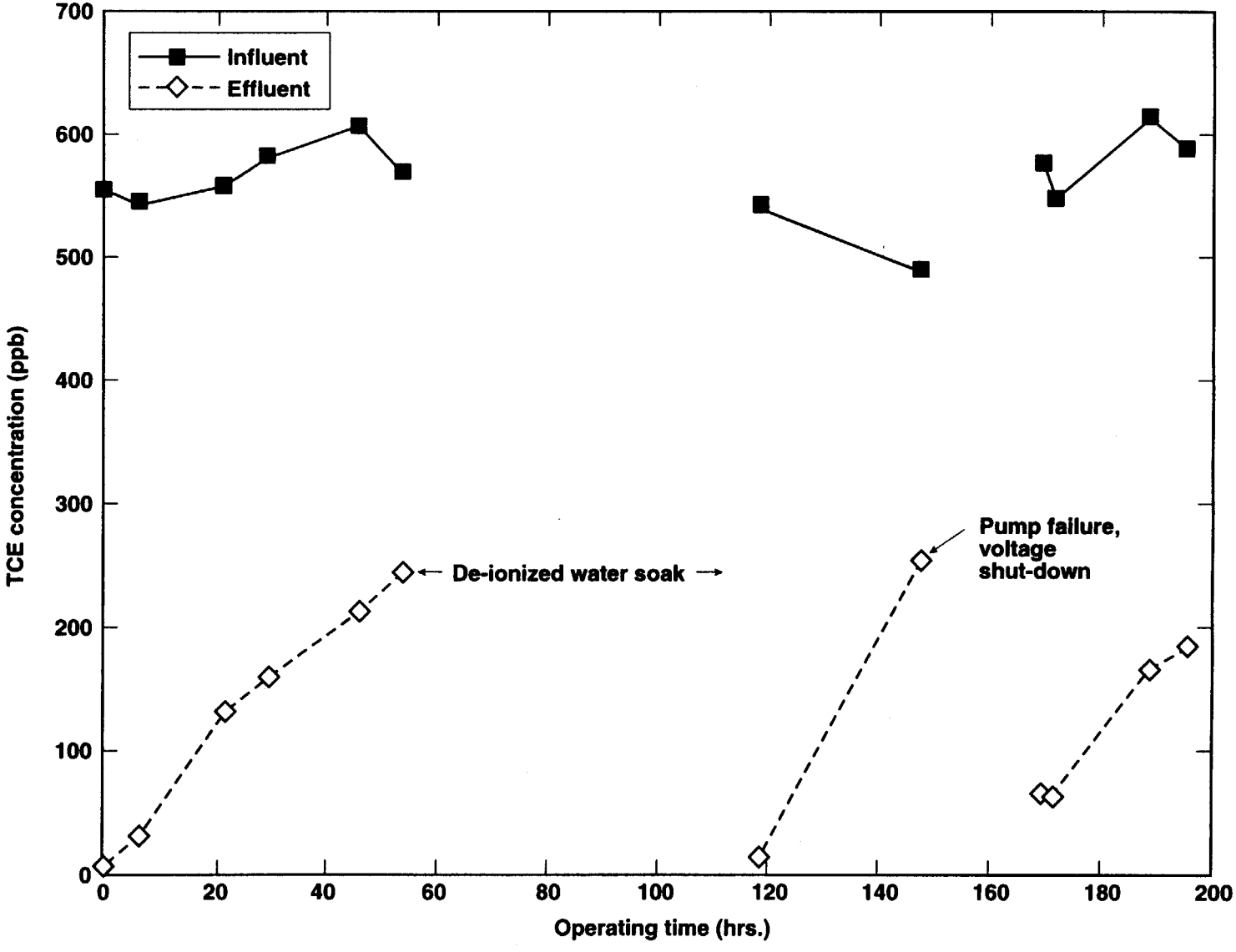
ERD-LSR-97-0040

Figure 15. Removal efficiency of TCE versus electric current.



ERD-LSR-97-0041

Figure 16. Percent of TCE remaining versus catalyst residence time (at 8 volts and 4 amps, or higher).



ERD-LSR-97-0042

Figure 17. Extended performance test of treatment column using ground water from well W-351.

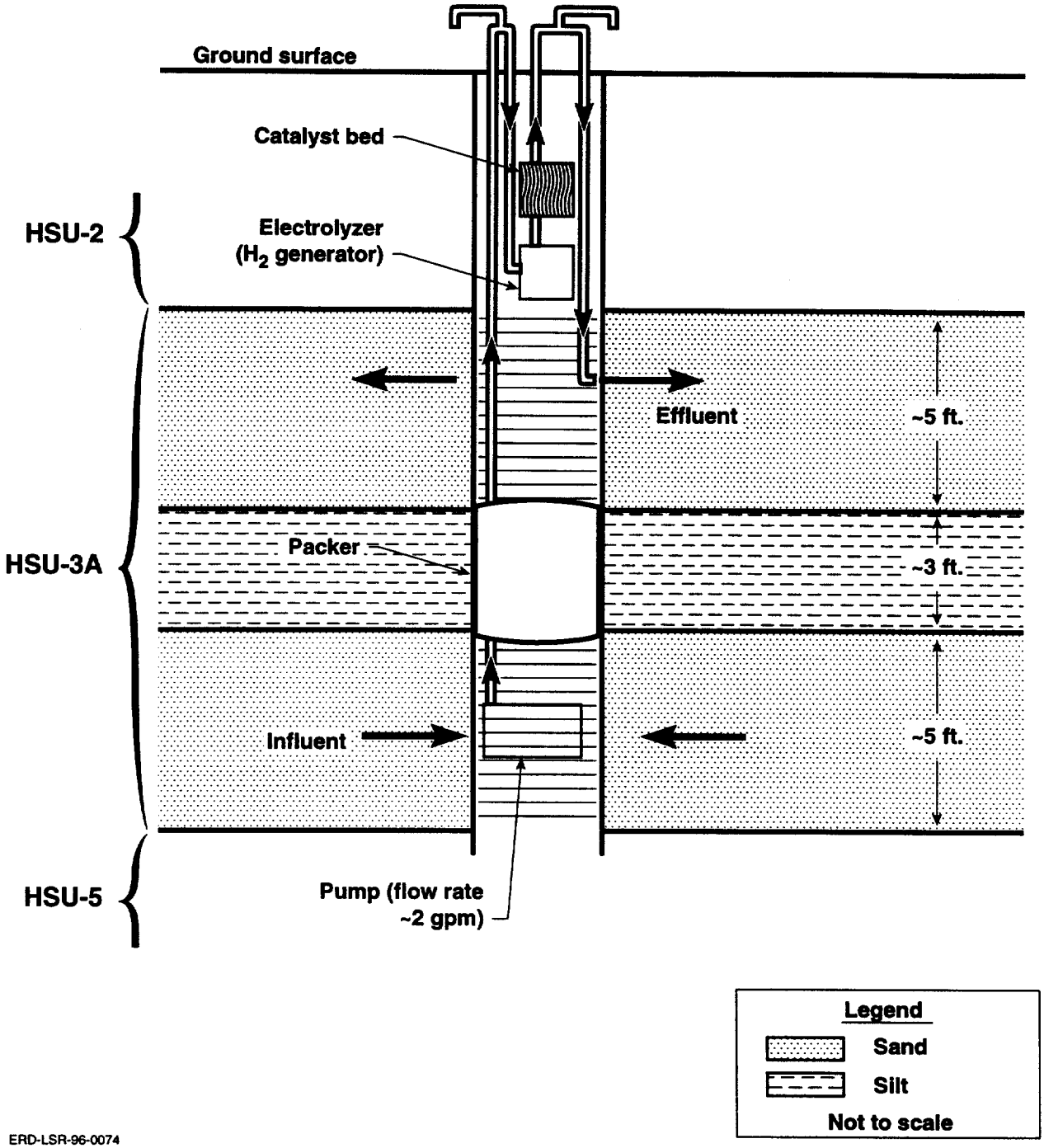
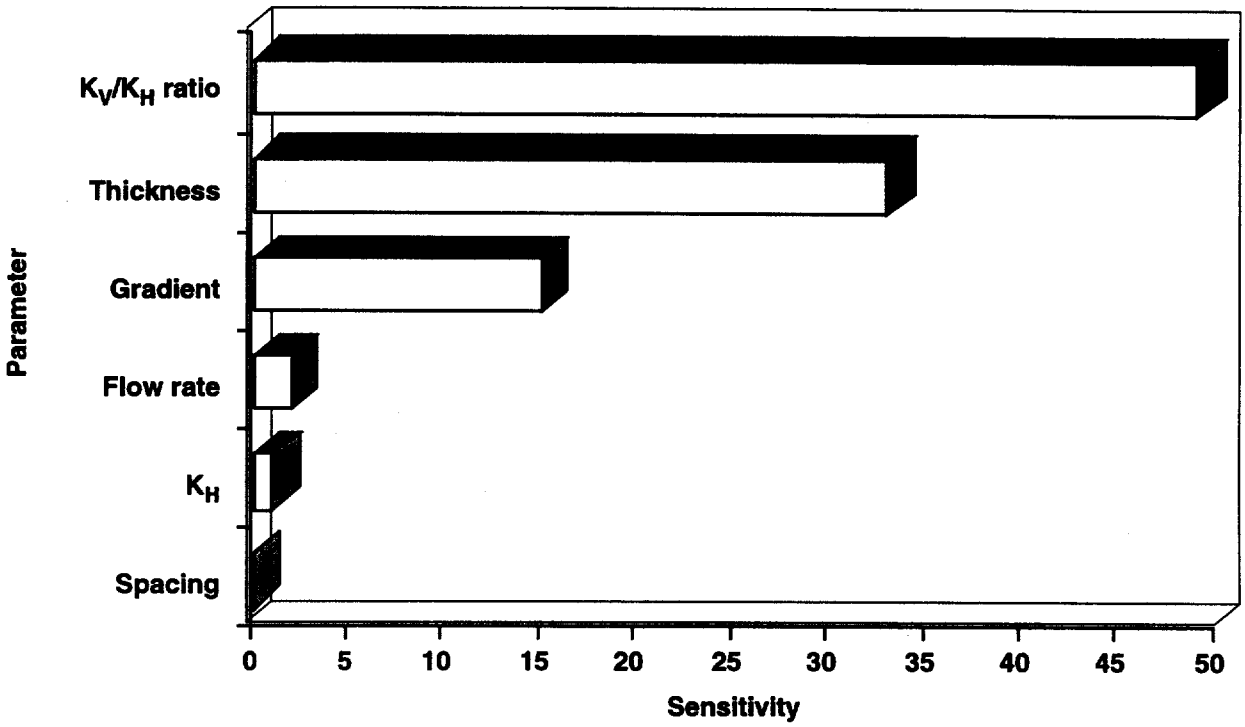


Figure 18. Field design of *in situ* hydrogen/palladium column test.



ERD-LSR-96-0075

Figure 19. Capture zone extent sensitivity.

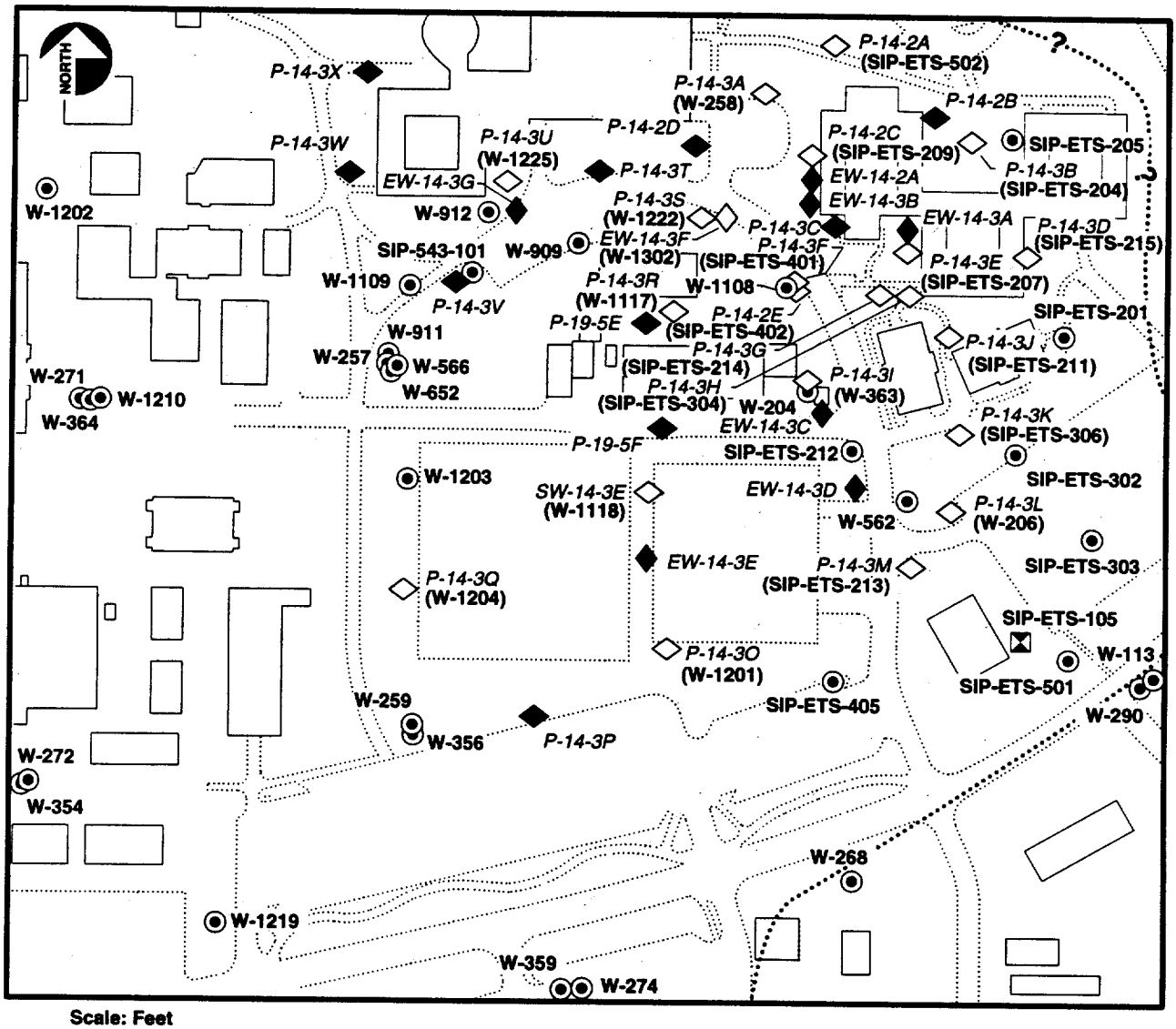
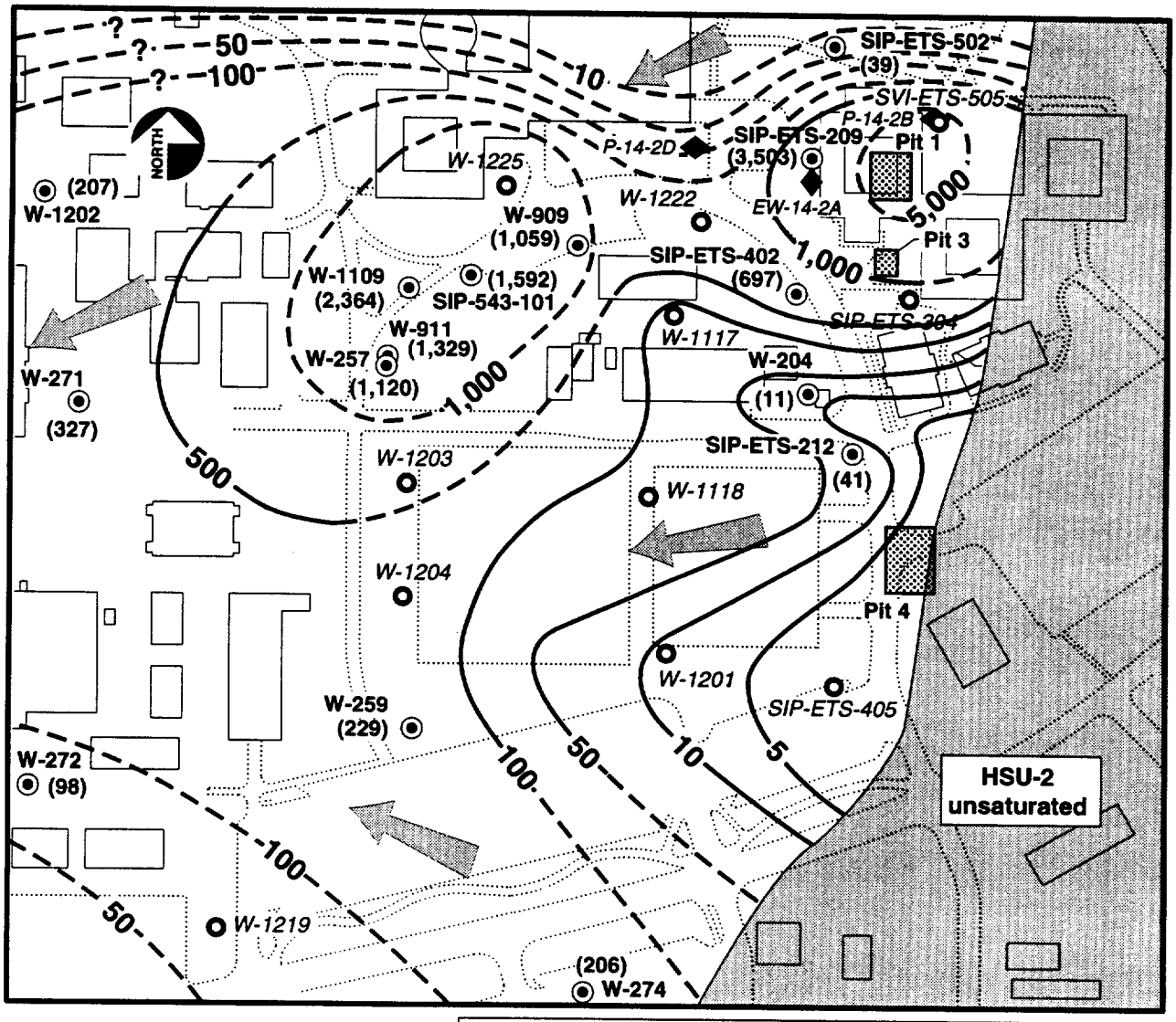


Figure 20. Proposed T-5475 area ground water wellfield design.



Scale: Feet

0 100 200

Legend

W-274 (206)	Monitor well; total VOC concentration (in ppb) in ground water (August 1996, or most recent sample)
W-1219	Borehole saturated sediment VOC sample data used to aid in contouring
EW-14-2A	Planned new extraction well
P-14-2B	Planned new piezometer
	Approximate direction of ground water flow (August 1996)
?-100	Ground water isoconcentration contour for total VOCs in ppb (August 1996, or most recent sample); dashed where inferred; queried where uncertain
Pit 1	Previously excavated disposal pit

ERD-LSR-96-0069

Figure 21. Proposed HSU-2 ground water wellfield design and VOC isoconcentration contours.

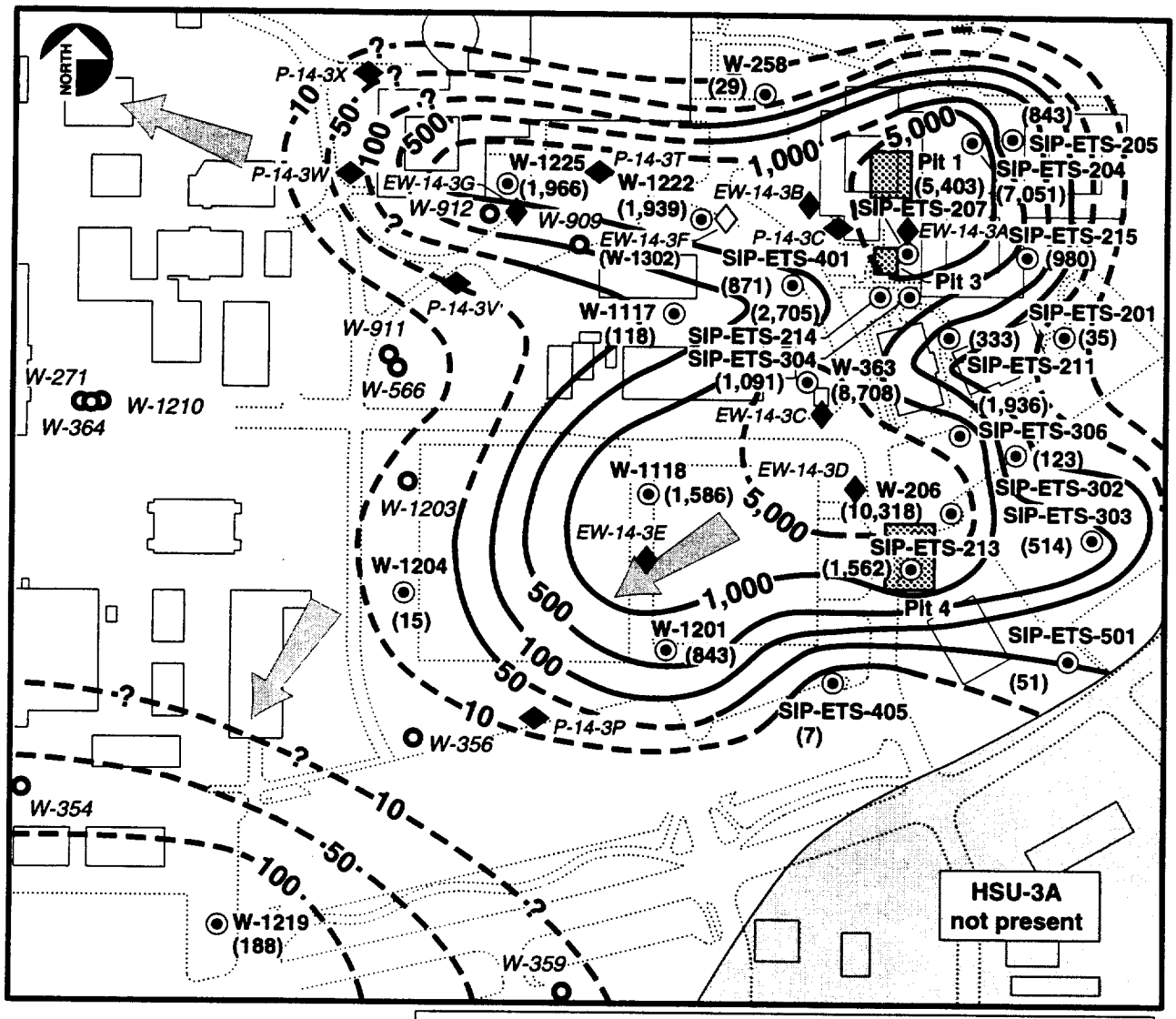


Figure 22. Proposed HSU-3A ground water wellfield design and VOC isoconcentration contours.

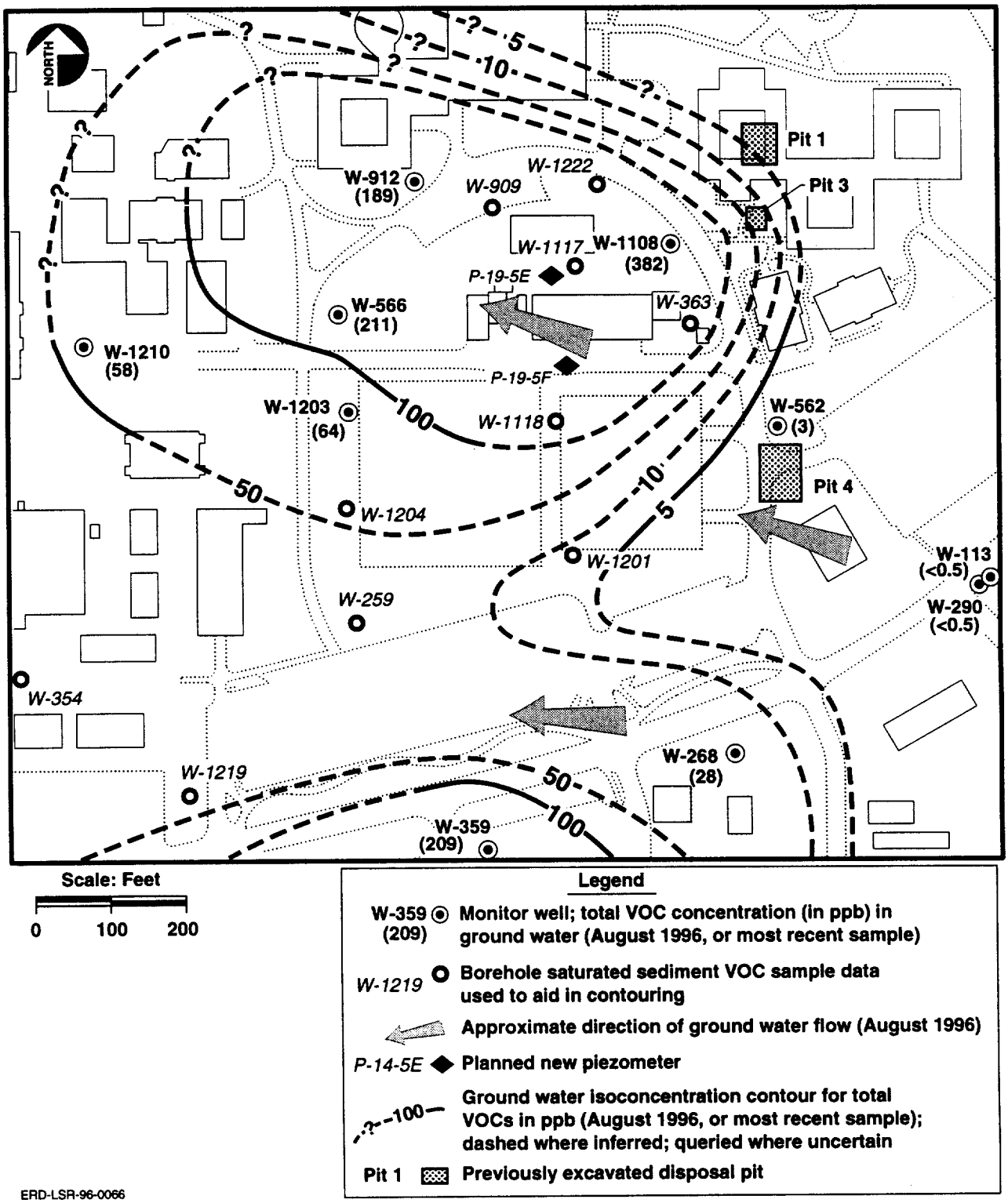
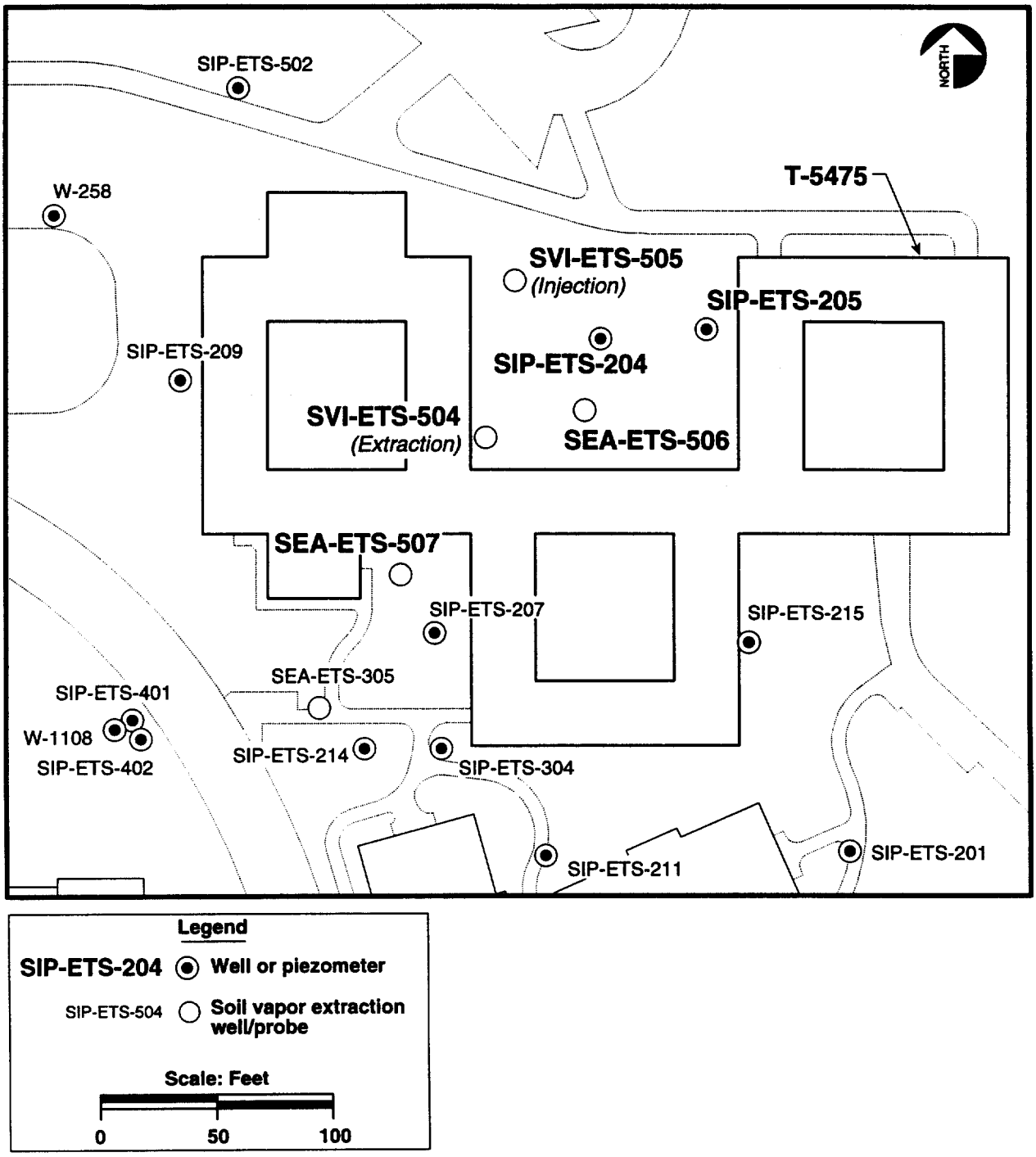
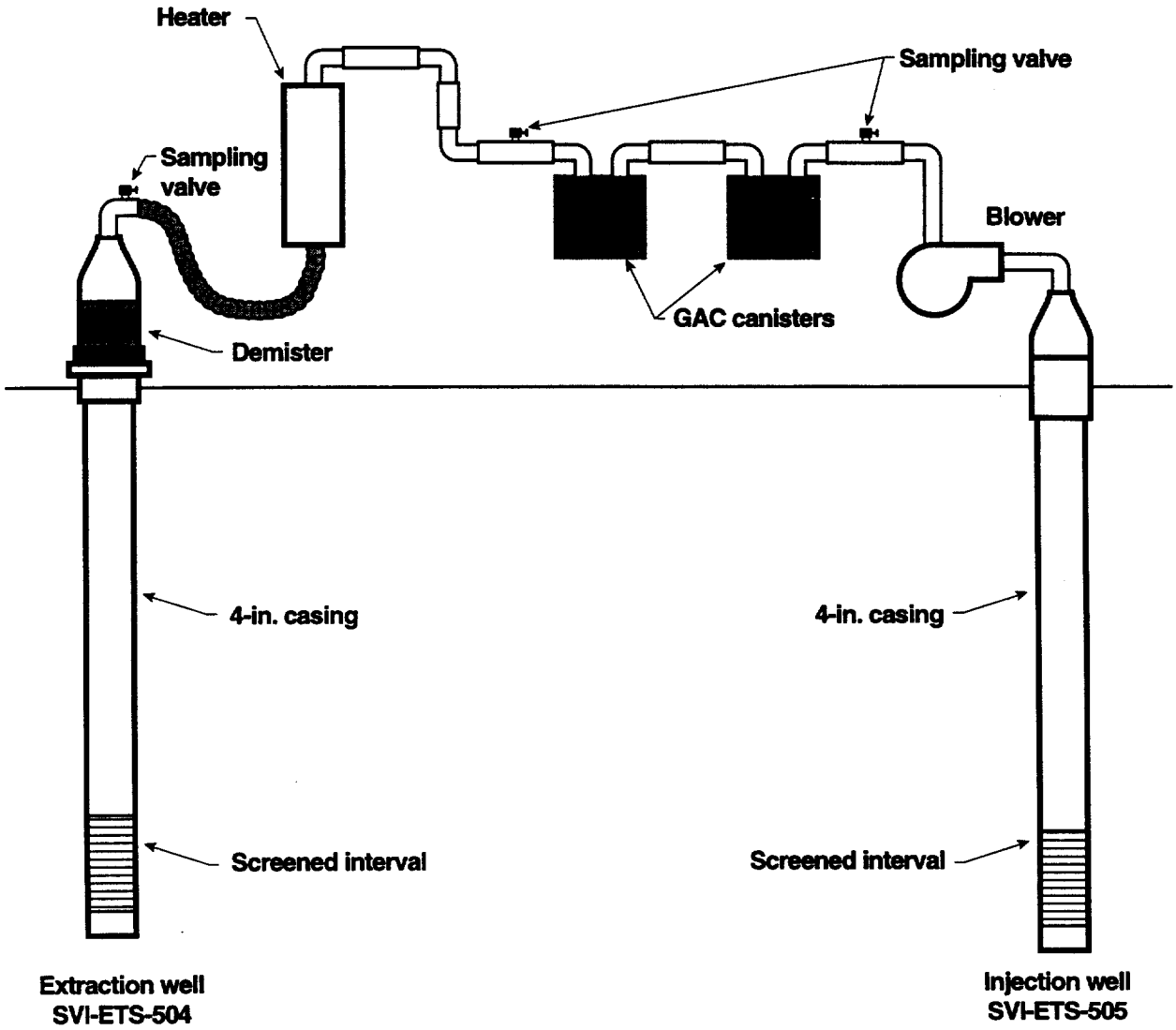


Figure 23. Proposed HSU-5 ground water wellfield design and VOC isoconcentration contours.



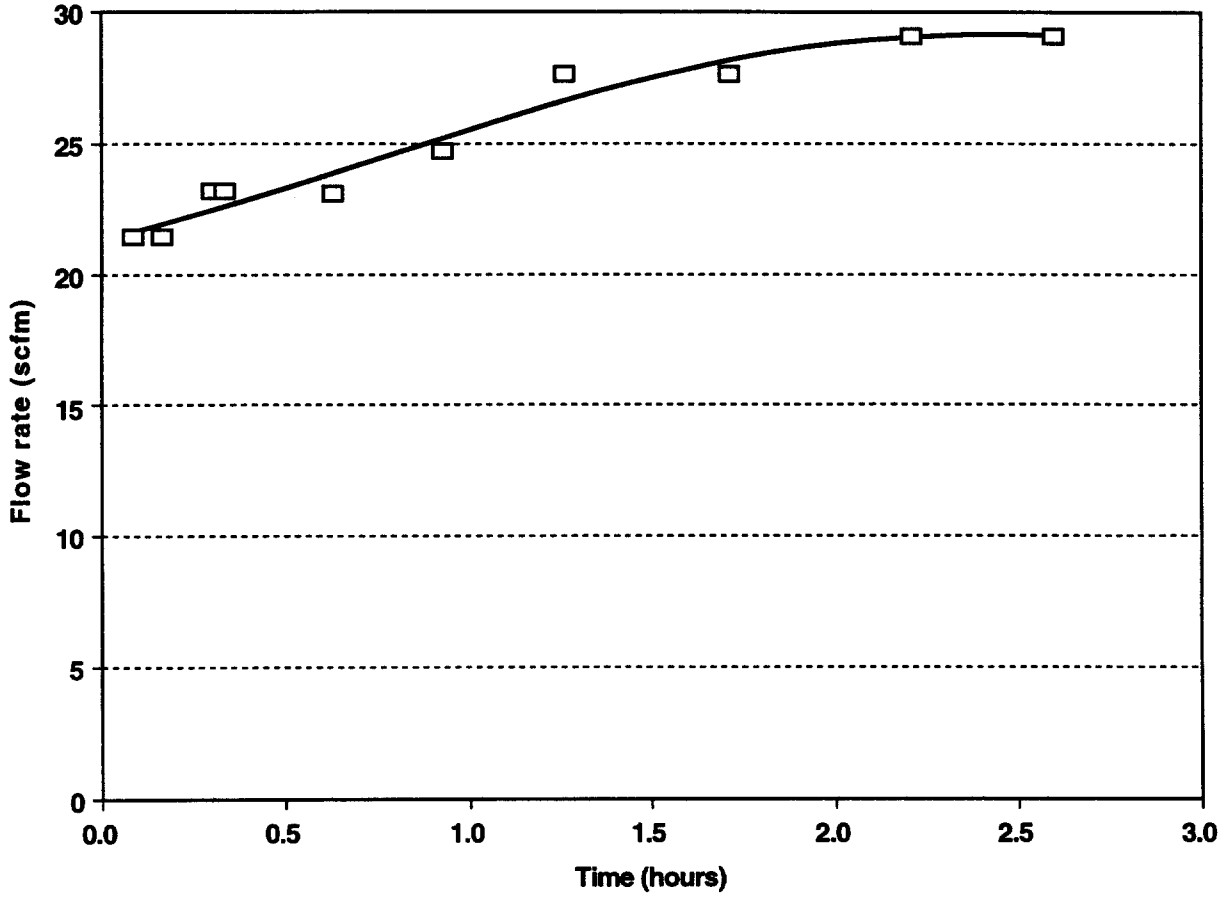
ERD-LSR-96-0090

Figure 24. T-5475 soil vapor treatability test wells and probes. Wells and probes used in the treatability test are shown in large type.



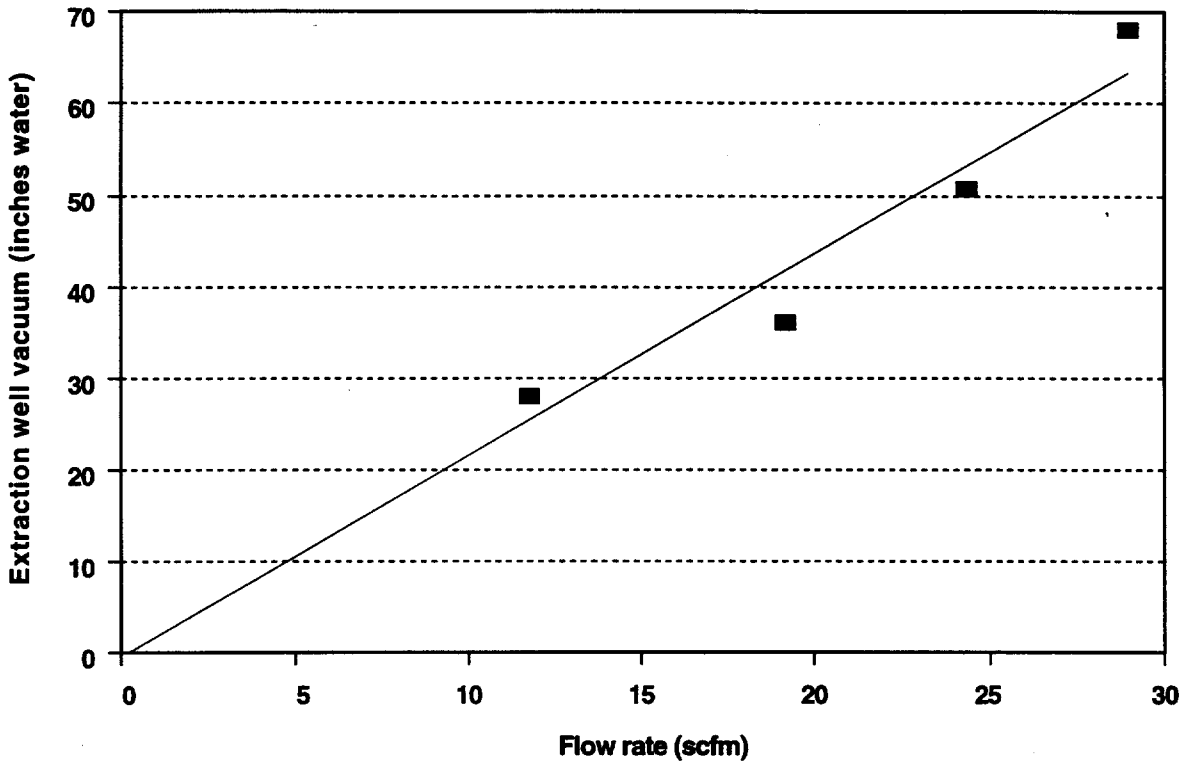
ERD-LSR-96-0100

Figure 25. T-5475 soil vapor extraction test setup.



ERD-LSR-96-0096

Figure 26. Vapor flow rate versus time on November 4, 1996.



ERD-LSR-96-0095

Figure 27. Extraction flow rate versus vacuum for the November 5, 1996 test.

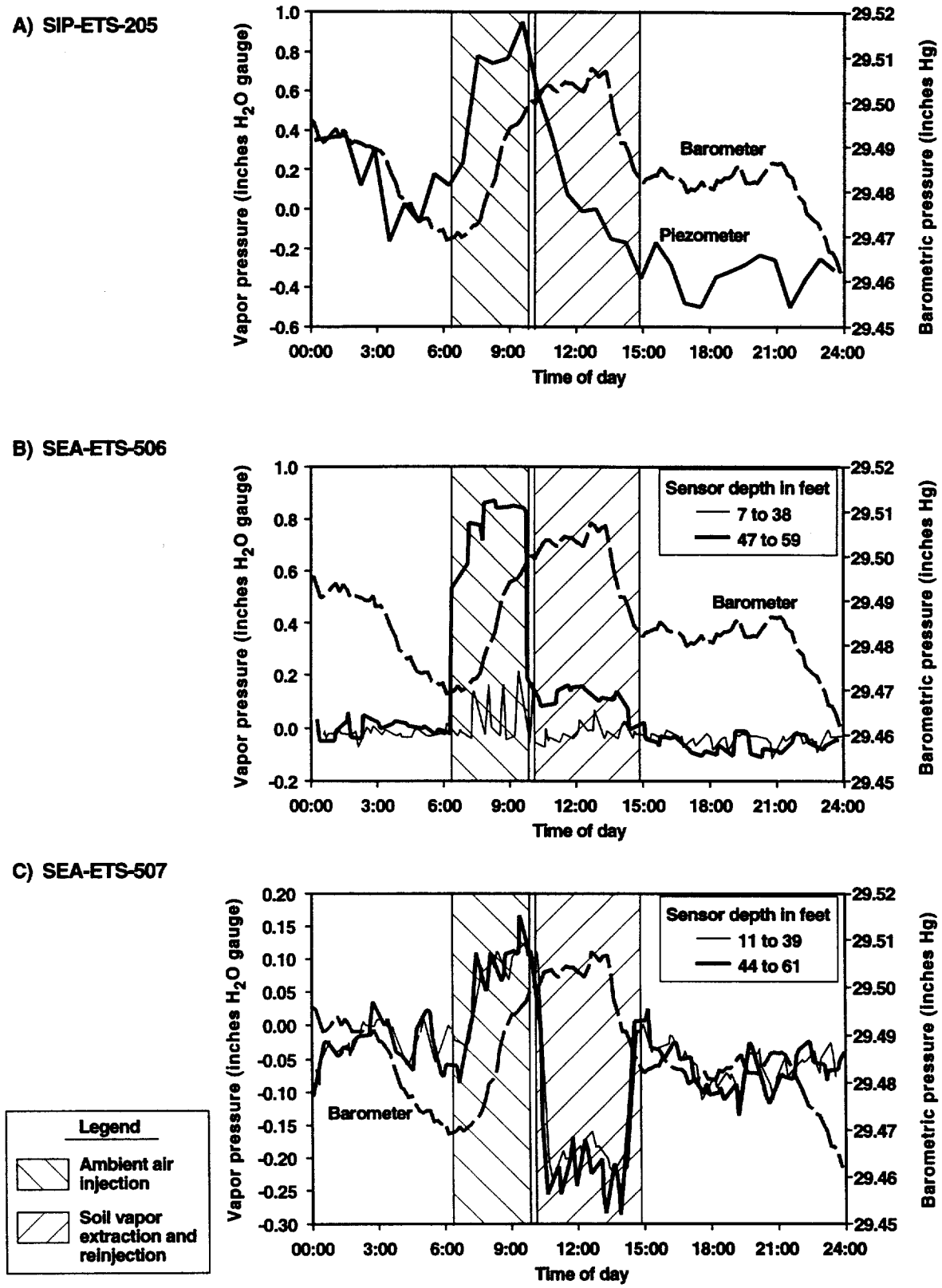
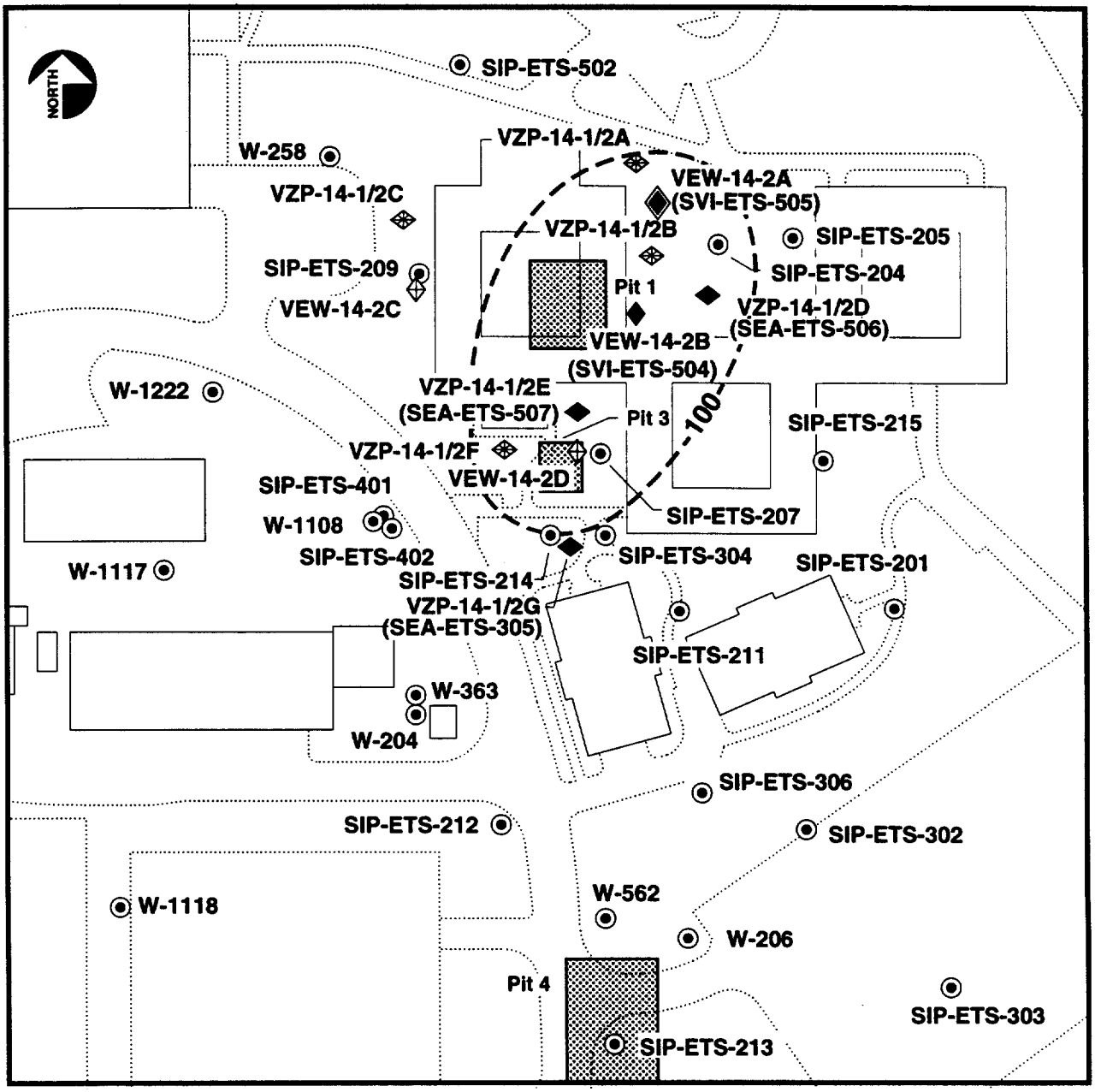


Figure 28. The effect of constant rate ambient air injection, followed by constant rate soil vapor extraction and reinjection on soil vapor pressures in piezometer SIP-ETS-205, and wells SEA-ETS-506 and SEA-ETS-507.



Legend

VEW-14-2A (SVI-ETS-505)	Existing vapor reinjection well
VEW-14-2B (SVI-ETS-504)	Existing vapor extraction well
VEW-14-2D	Planned vapor extraction well
VZP-14-1/2G (SIP-ETS-305)	Existing vadose zone probe or FLUTe instrumentation borehole
VZP-14-1/2F	Planned vadose zone probe or FLUTe instrumentation borehole
W-1118	Monitor well
100	Isoconcentration contour for total VOC concentrations (in ppb) in unsaturated sediment samples
Pit 1	Previously excavated disposal pit

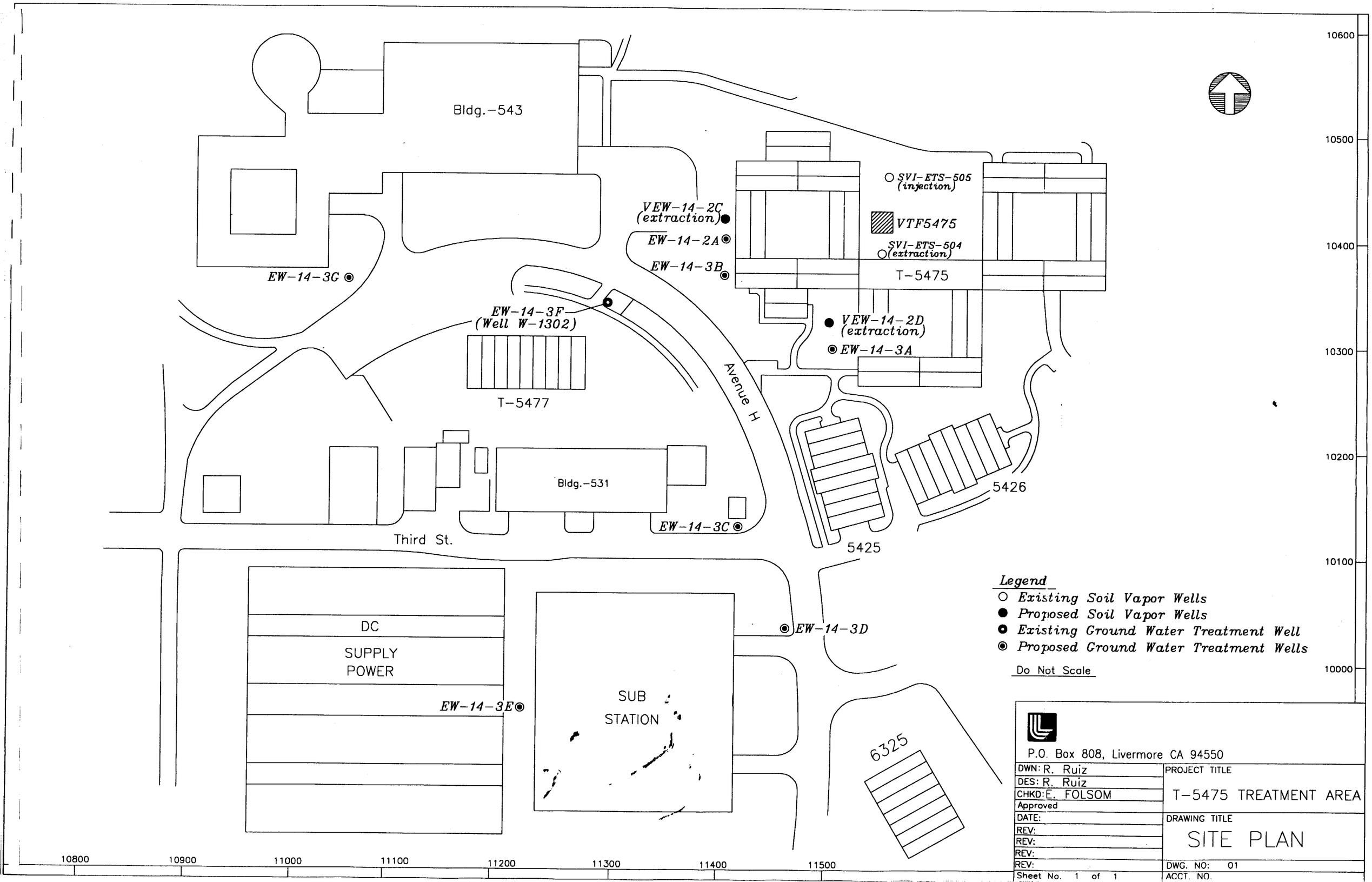
Scale: Feet

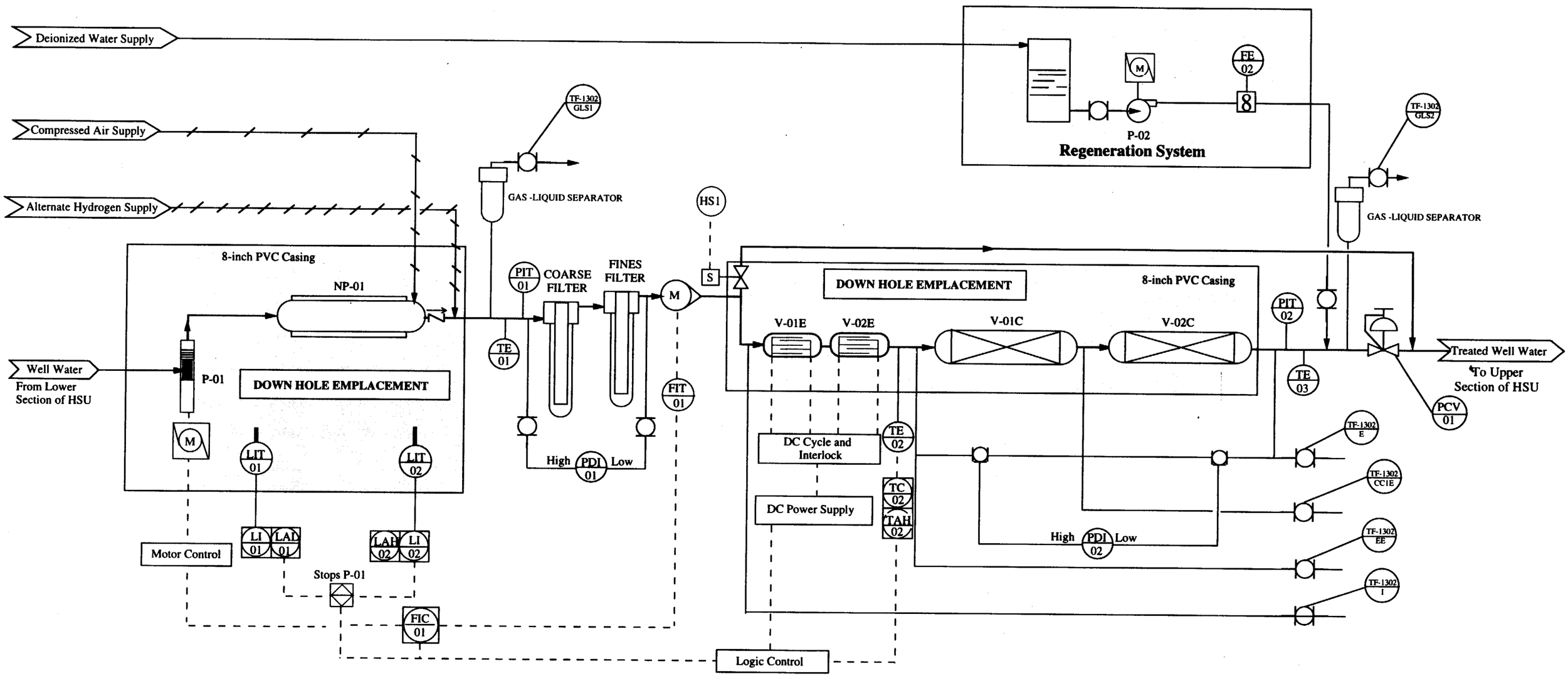
0 50 100

ERD-LSR-96-0065

Figure 29. Proposed T-5475 area soil vapor wellfield design.

Drawings


Bldg.-543
EW-14-3G
VEW-14-2C
(extraction)
EW-14-2A
EW-14-3B
SVI-ETS-505
(injection)
VTF5475
SVI-ETS-504
(extraction)
T-5475
VEW-14-2D
(extraction)
EW-14-3A
EW-14-3F
(Well W-1302)
T-5477
Avenue H
Bldg.-531
EW-14-3C
Third St.
5426
5425
EW-14-3D
DC
SUPPLY
POWER
EW-14-3E
SUB
STATION
6325
10600
10500
10400
10300
10200
10100
10000
10800
10900
11000
11100
11200
11300
11400
11500
Legend
Existing Soil Vapor Wells
Proposed Soil Vapor Wells
Existing Ground Water Treatment Well
Proposed Ground Water Treatment Wells
Do Not Scale
P.O. Box 808, Livermore CA 94550
DWN: R. Ruiz
DES: R. Ruiz
CHKD: E. FOLSOM
Approved
DATE:
REV:
REV:
REV:
REV:
Sheet No. 1 of 1
PROJECT TITLE
T-5475 TREATMENT AREA
DRAWING TITLE
SITE PLAN
DWG. NO: 01
ACCT. NO.



TF-1302- I	Influent Sampling Valve
TF-1302-EE	Electrolyzer Effluent Sampling Valve
TF-1302-CC1E	First Catalyst Effluent Sampling Valve
TF-1302-GLS1	Gas Sampling Valve
TF-1302-GLS2	Gas Sampling Valve
TF-1302-E	Effluent Sampling Valve
PCV-01	20 to 100 psig back pressure valve

P-01	Submersible Pump Variable Speed 2 to 12 gpm
P-02	Centrifugal Pump Variable Speed 3 to 15 gpm
NP-01	Pneumatic Packer

V-01C
Packed Bed Catalyst Column
Palladium on 1/8-in. diameter Alumina Spheres
6-in. diameter Stainless Steel Vessel
Catalyst Weight: 34 kg

V-02C
Packed Bed Catalyst Column
Palladium on 1/16-in. diameter Alumina Spheres
6-in. diameter Stainless Steel Vessel
Catalyst Weight: 23 kg

V-01E
V-02E
Electrolyzer-Hydrogen Generators

DIV/GROUP
ORIGINATORS R. Ruiz / K. Williams
DRAWN Roberto Ruiz
CHECKED Ken Williams
APPROVED Ed Folsom
REV.

Lawrence Livermore National Laboratory
University of California / Livermore, California

TITLE
TF5475 PIPING AND INSTRUMENT DIAGRAM

SIZE	DRAWING NUMBER	REV
B	02	01-1197

SCALE
SHEET 1 OF 2

INSTRUMENTATION SYMBOLS

- LIT 01 — LEVEL INDICATING TRANSDUCER
- LI 01 — LEVEL INDICATOR
- LAH 02 — LEVEL ALARM HIGH
- LAL 01 — LEVEL ALARM LOW
- TAH 01 — TEMPERATURE ALARM HIGH
- TC 01 — TEMPERATURE CONTROLLER
- PCV 01 — PRESSURE CONTROL VALVE
- TE 03 — TEMPERATURE ELEMENT
- PIT 01 — PRESSURE INDICATING TRANSDUCER
- PDI 02 — PRESSURE DIFFERENTIAL INDICATING TRANSDUCER
- FIC 01 — FLOW INDICATING CONTROLLER
- FIT 01 — FLOW INDICATING TRANSDUCER
- 8 — FE 02 — FLOW METER, TOTALIZING, TURBINE OR PADDLE
- PROGRAMMABLE LOGIC CONTROL
- HS1 — HAND SWITCH
- S — SOLENOID

EQUIPMENT SYMBOLS

- M — MASS FLOW METER
- GAS -LIQUID SEPARATOR
- REGULATOR, SELF CONTAINED
- PUMP, CENTRIFUGAL
- MULTI-STAGE, SUBMERSIBLE CENTRIFUGAL PUMP
- M — ELECTRIC MOTOR
- SEDIMENT FILTER
- PACKED COLUMN

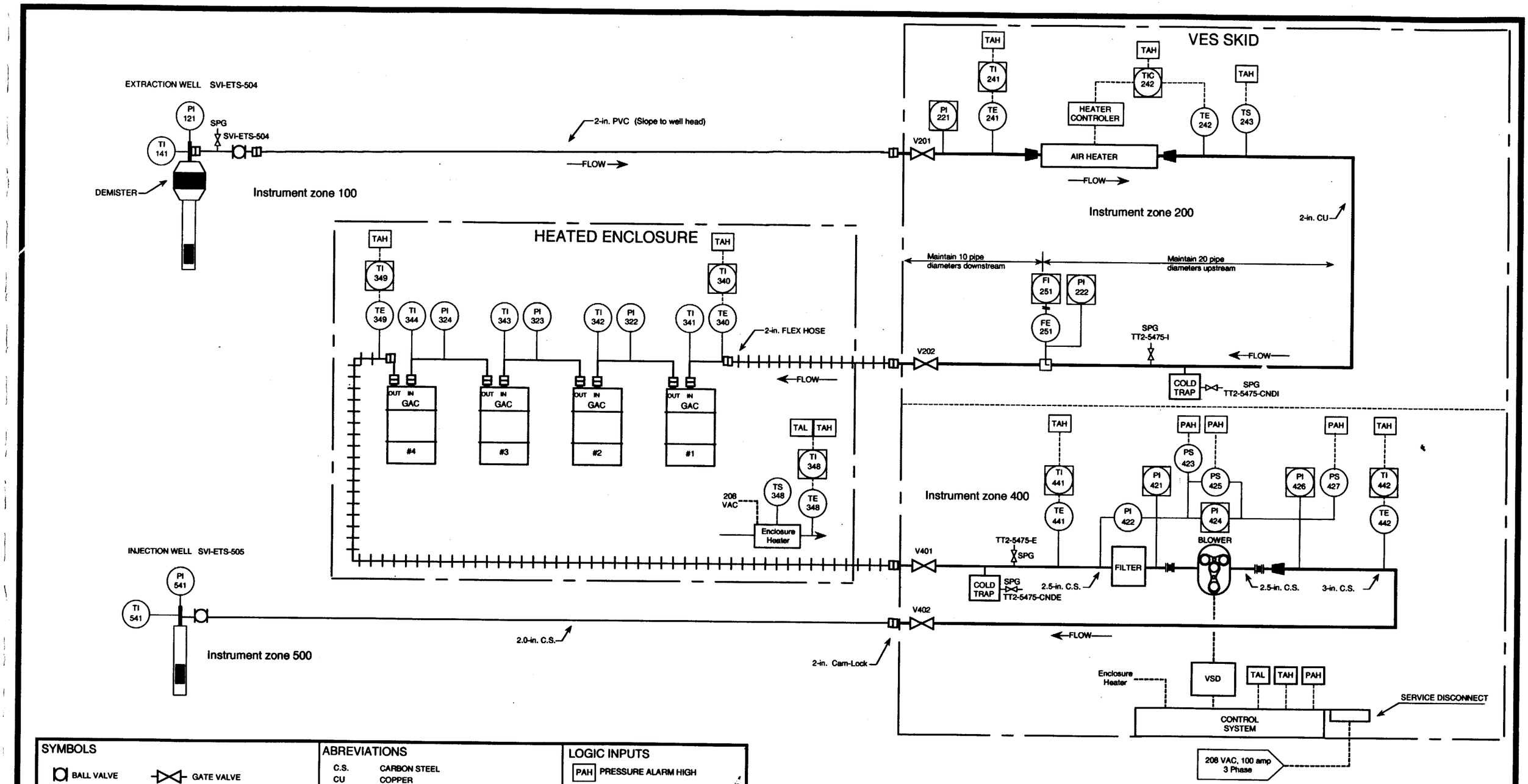
LINE SYMBOLS

- PROCESS PIPING
- PROCESS PIPING, SECONDARY
- GAS SUPPLY LINE
- ELECTRONIC SIGNAL

VALVE SYMBOLS

- BALL VALVE
- S — PILOT OPERATED SOLENOID VALVE
- CHECK VALVE

DIV/GROUP	Lawrence Livermore National Laboratory *University of California / Livermore, California*
ORIGINATORS R. Ruiz	TITLE
DRAWN Roberto Ruiz	TF5475 PIPING AND INSTRUMENT DIAGRAM
CHECKED Ken Williams	
APPROVED Ed Foisom	SIZE B / DRAWING NUMBER 02 / REV -
REV.	SCALE / SHEET 2 OF 2



SYMBOLS

- BALL VALVE
- GATE VALVE
- SPG GAS SAMPLE VALVE
- EXPANSION JOINT
- INSTRUMENT DESIGNATOR
- CONCENTRIC REDUCER
- FRONT PANEL DISPLAY

ABREVIATIONS

C.S.	CARBON STEEL
CU	COPPER
FE	FLOW ELEMENT
FI	FLOW INDICATOR
MI	MOISTURE TRANSMITTER
MT	MOISTURE TRANSMITTER
PI	VACUUM / PRESSURE INDICATOR
PS	PRESSURE SWITCH
TE	TEMPERATURE ELEMENT
TI	TEMPERATURE INDICATOR
TIC	TEMPERATURE INDICATING CONTROLLER
TS	TEMPERATURE SWITCH
VSD	VARIABLE SPEED DRIVE

LOGIC INPUTS

PAH	PRESSURE ALARM HIGH
TAL	TEMPERATURE ALARM LOW
TAH	TEMPERATURE ALARM HIGH

DIV/GROUP	EPD/ERD	
ORIGINATOR	G.A. METZGER	08/19/96
DRAWN	G.A. METZGER	05/08/97
CHECKED		
APPROVED		
CADD INFO	MacDraw Pro	

Lawrence Livermore National Laboratory
University of California / Livermore, California

TITLE
VTF5475
PIPING AND INSTRUMENT DIAGRAM

SIZE	DRAWING NUMBER	REV
B	Drawing 3	-
SCALE		SHEET 1 OF 1

Tables

Table 1. Initial catalytic reductive dehalogenation laboratory-scale experimental results using T-5475 ground water.[a]

Operation time (hours)	Spiked influent TCE (ppb)	Effluent TCE (ppb)	Removal eficiency (%)
8	4,600	8	99.8
23.5	3,700	18	99.5
32.25	3,700	12	99.7
49.25	4,200	37	99.1
60	3,700	52	98.6
73	3,400	72	97.9

[a] Residence time is about 15 seconds.

Table 2. Estimated first-order reaction coefficients for VOCs in catalyst bed.

Species	Rate constant (sec^{-1})[a]
PCE	≥0.02
TCE	0.021 ± 0.005
1,1-DCE	0.019 ± 0.002
CTET	≥0.02
Chloroform	≤0.009
1,2-DCA	≤0.0009

[a] High analytical detection limits relative to concentrations of PCE, CTET, chloroform, and 1,2-DCA precluded more precise estimates. When given, errors refer to standard deviations.

Table 3. Probability distributions used in capture zone extent analysis.

Parameter	Distribution
K_H	Log normal, mean = 0.48 m/day (1.6 ft/day), standard deviation = 1.35 m/day (4.43 ft/day). Correlated with flow rate (correlation coefficient, R = 1.0); also inversely correlated with gradient (R = -0.5).
K_V/K_H ratio	Log normal, mean = 0.18, standard deviation = 9.4×10^{-2}. Inversely correlated with HSU thickness (R = -0.70).
Hydraulic gradient	Log normal, mean = 1.3×10^{-2}, standard deviation = 5.3×10^{-3}. Correlated with K_H (R = -0.5).
HSU thickness	Uniform distribution, 4.5 m to 7.6 m (15 to 25 ft). Inversely correlated with K_V/K_H ratio (R = -0.70).
Spacing between extraction and injection points (normalized by HSU thickness)	Normal distribution, mean = 0.80, standard deviation = 0.10; constrained to be less than or equal to 1.0.
Flow rate	Log normal distribution, mean = 9.0 m^3/day (318 ft^3/day), standard deviation = 22.4 m^3/day (791 ft^3/day). Correlated with K_H (correlation coefficient, R = 1.0); calculated values reflect near-maximum flow rates, below which dewatering would not occur at given K_H values.

Table 4. *In situ* unit performance during the first two pilot tests in the T-5475 area.

Date	Sample no.	Freon 113	1,1-DCE	cis-1,2-DCE	CHCl3	1,1,1-TCA	CTET	1,2-DCA	TCE	PCE	Total VOCs	Removal efficiency for total VOCs (%)
		<----------				µg/L					---------->	
Test-1[a]												
8/21/97	TF1302I-T1	<25	190	<25	270	<25	<25	83	4,300	490	5,333	
	TF1302E-T1	<25	35	<25	160	<25	<25	92	1,100	160	1,547	71
Test-2[b]												
8/27/97	TF1302I-T2	128	<0.4	<0.4	240	20	<0.4	72	3,480	440	4,380	
	TF1302E-T2	1.5	<0.4	<0.4	18	0.6	<0.4	77	41	10	148.1	97

Notes:

1, 1-DCA = 1,1-dichloroethane.
1, 2-DCA = 1,2-dichloroethane.
1,1-DCE = 1,1-dichloroethylene.
1,2-DCE = 1,2-dichloroethylene.
1,1,1-TCA = ,1,1-trichloroethane.
CHCl3 = chloroform.
CTET = carbon tetrachloride.
PCE = tetrachloroethylene.
T1 = test 1.
T2 = test 2.
TCE = trichloroethylene.
TF1302I = influent.
TF1302E = effluent.
VOC = volatile organic compound.

[a] Analyzed by offsite certified laboratory.

[b] Analyzed by onsite (uncertified) laboratory.

Table 5. ***In situ*** **unit performance during pilot tests conducted September 8–11, 1997.**

		TCE			PCE		
		Influent	Catalyst #1[a]	Catalyst #2[a]	Influent	Catalyst #1[a]	Catalyst #2[a]
Day	Time	<----------parts per billion[b]---------->					
1	6:30	3,034	242	242	309	48	47
1	10:30	3,288	1	<0.4	342	<0.4	<0.4
1	14:30	3,263	7.8	0.6	341	1.4	<0.4
1	18:30	3,078	27.7	<0.4	304	4.4	<0.4
12-hour shutdown without purging							
2	6:30	3,275	1.9	<0.4	337	1.7	<0.4
2	10:30	3,152	93	<0.4	321	15	<0.4
2	14:30	3,448	219	<0.4	357	38	<0.4
2	18:30	3,282	354	0.5	329	66	<0.4
12-hour shutdown without purging							
3	6:30	3,477	358	<0.4	358	72	<0.4
3	10:30	3,348	573	<0.4	339	119	<0.4
3 pore volume purge followed by 14-hour shutdown							
4	8:00	3,255	60	<0.4	327	30	<0.4

[a] Catalyst #1 and Catalyst #2 refer to effluent concentrations from thefirst and second catalyst beds, respectively. High effluent concentrations from Catalyst #2 for the first sample are the result of sampling prior to hydrogen loading during startup.

[b] Analyzed by onsite (uncertified) laboratory.

Table 6. VOC concentrations in wells and piezometers in the T-5475 area (third quarter 1996).[a]

Well name[b]	PCE	TCE	1,1-DCE	1,2-DCE	1,1-DCA	1,2-DCA	CTET	Chloro-form	Freon 113	Total VOCs	% 1,1-DCA of total	% 1,2-DCA of total
SIP-ETS-209	260	3,100	110	<25	<25	<25	<25	33	<25	3,503	<0.71	<0.71
SIP-ETS-207	340	4,400	93	<50	<50	<50	<50	570	<50	5,403	<0.93	<0.93
W-363	350	7,800	120	<25	<25	64	<25	340	34	8,708	<0.29	0.73
W-206	470	9,400	200	<25	<25	<25	<25	210	38	10,318	<0.24	<0.24
W-1118	130	1,300	59	<10	<10	<10	<10	55	42	1,586	<0.63	<0.63
W-1222	390	3,800	180	<1	6.4	96	29	250	41	4,792	0.13	2.00
W-1225	200	1,600	86	<2.5	2.7	6.7	9.1	50	12	1,967	<0.14	0.34

[a] All concentrations in parts per billion.

[b] Well locations shown on Figure 3.

Table 7. TF5475 ground water treatment well specifications.

Well name	Extraction well name[a]	Date completed	Borehole depth (ft)	Casing depth (ft)	Perforated interval (ft)[b]	Sand-pack interval (ft)[b]	Hydro-stratigraphic unit[c]	Estimated maximum long-term steady state yield (gpm)[d]	Pump intake depth (ft)	Activation priority[e]
TBI	EW-14-2A	–	(90)	(85)	(65-70; 80-85)	(63-72; 78-87)	2	(0.5)	(83)	4
TBI	EW-14-3A	–	(115)	(115)	(95-100; 110-115)	(93-102; 108-117)	3A	(1)	(113)	2
TBI	EW-14-3B	–	(115)	(115)	(95-100; 110-115)	(93-102; 108-117)	3A	(1)	(113)	3
TBI	EW-14-3C	–	(130)	(130)	(110-115; 125-130)	(108-117; 123-132)	3A	(0.5)	(128)	5
TBI	EW-14-3D	–	(120)	(120)	(100-105; 115-120)	(98-107; 113-122)	3A	(1)	(118)	6
TBI	EW-14-3E	–	(130)	(130)	(110-115; 125-130)	(108-117; 123-132)	3A	(1)	(128)	7
W-1302	EW-14-3F	1/21/97	145	139	116-121; 126-134	115-122; 125-140	3A	6	133.7	1
TBI	EW-14-3G	–	(135)	(135)	(115-120; 130-135)	(113-122; 128-137)	3A	(2)	(133)	8

Notes:

TBI = To be installed.

Estimates are shown in parentheses.

[a] Extraction well name indicates: 1) location as presented in the RAIP (Dresen et al., 1993) (i.e., EW-14-2A is at extraction location 14), and 2) the hydrostratigraphic unit monitored (i.e., EW-14-2A is screened in HSU-2). Letters following the unit designation indicate that mutiple extraction wells are screened in the same hydrostratigraphic unit (i.e., EW-14-3A, EW-14-3B, etc.). Figure 20 shows planned extraction well locations.

[b] Well designs specify two perforated and sand packed zones separated by an annular seal. The well will be designed to extract from one perforated zone and reinject treated water into another. All extraction and reinjection will be within the same HSU.

[c] Numbered consecutively downward from ground surface at each extraction location. A hydrostratigraphic unit is defined as sediments grouped together on the basis of hydraulic properties, and geologic, geophysical, and/or chemical data.

[d] Estimates of sustainable flow rates are based on the flow rates from nearby wells screened in similar zones and/or the thickness and estimated hydraulic conductivity of sediments in the area.

[e] Activation priority is the estimated order that ground water treatment wells will be activated. Activation priority is based on engineering design and cost, and the known or anticipated VOC concentration in ground water at the extraction locations.

Table 8. TF5475 piezometer specifications.

Well name	Piezometer name[a]	Date completed	Borehole depth (ft)	Casing depth (ft)	Perforated interval[b] (ft)	Sand-pack interval (ft)	Hydro-stratigraphic unit	Approximate flow rate (gpm)	Installation priority[c]
SIP-ETS-502	P-14-2A	12/05/95	95	88	80-88	78-88.5	2	0.5	15
TBI	P-14-2B	–	(95)	(85)	(75-85)	(73-85)	2	(0.5)	18
SIP-ETS-209	P-14-2C	07/25/91	96.5	92.5	79.5-89.5	77.5-89	2	0.5	16
TBI	P-14-2D	–	(100)	(95)	(85-95)	(83-95)	2	(1)	19
SIP-ETS-402	P-14-2E	08/08/95	110	107	97-107	97-107	2	0.5	17
W-258	P-14-3A	01/31/86	157	121.5	116.5-121.5	114-121.5	3A	0.5	20
SIP-ETS-204	P-14-3B	05/07/91	102.5	97	87-97	85-97	3A	0.5	10
TBI	P-14-3C	–	(120)	(120)	(110-120)	(108-120)	3A	(1)	11
SIP-ETS-215	P-14-3D	12/03/91	94.5	94.5	84.5-94.5	82-94.5	3A	0.5	9
SIP-ETS-207	P-14-3E	07/11/91	103	98.5	90-98.5	88-99	3A	0.5	6
SIP-ETS-401	P-14-3F	07/27/95	122	121	116-121	114-121	3A	0.5	5
SIP-ETS-214	P-14-3G	11/22/91	101	101	86-101	84-101	3A	0.5	7
SIP-ETS-304	P-14-3H	08/27/92	100	97	90-97	88-100	3A	0.5	8
W-363	P-14-3I	03/24/87	195	129	117-129	114-129	3A	6	21
SIP-ETS-211	P-14-3J	08/06/91	103	98.5	95-98.5	93-99	3A	0.5	22
SIP-ETS-306	P-14-3K	09/11/92	101	94	80.5-93	78.5-94	3A	0.5	23
W-206	P-14-3L	12/19/85	188	118	106-118	105-118	3A	0.5	24
SIP-ETS-213	P-14-3M	11/15/91	118.5	116.5	108.5-116.5	106-116.5	3A	0.5	25
W-1118	P-14-3N	09/20/95	225	125	115-125	113-126	3A	3.5	26
W-1201	P-14-3O	10/18/95	225	133	125-133	121-134	3A	1	27
TBI	P-14-3P	–	(150)	(125)	(115-125)	(113-125)	3A	(2)	28
W-1204	P-14-3Q	11/20/96	225	126	118-126	114-128	3A	2.5	29
W-1117	P-14-3R	08/31/95	154	132	122-132	120-132.5	3A	1	2
W-1222	P-14-3S	06/26/96	175	125	115-125	113-126	3A	6	1
TBI	P-14-3T	–	(130)	(125)	(115-125)	(113-125)	3A	(2)	3
W-1225	P-14-3U	08/06/96	150	121	113-121	111-121	3A	2	4
TBI	P-14-3V	–	(150)	(125)	(115-125)	(113-126)	3A	(2)	12
TBI	P-14-3W	–	(175)	(125)	(115-125)	(113-126)	3A	(2)	13
TBI	P-14-3X	–	(200)	(135)	(125-135)	(123-136)	3A	(2)	14

Table 8. (Continued)

Well name	Piezometer name[a]	Date completed	Borehole depth (ft)	Casing depth (ft)	Perforated interval[b] (ft)	Sand-pack interval (ft)	Hydro-stratigraphic unit	Approximate flow rate (gpm)	Installation priority[c]
Extraction location 19 (additional piezometers to those in RD3)									
TBI	P-19-5E	–	(175)	(165)	(155-165)	(153-166)	5	(10)	30
TBI	P-19-5F	–	(175)	(165)	(155-165)	(153-166)	5	(10)	31

Notes:

TBI = To be installed.

Estimates are shown in parentheses.

[a] Piezometer names indicate: 1) their location as presented in the RAIP (Dresen et al., 1993) (i.e., P-14-2A is at extraction location 14), and 2) the hydrostratigraphic unit monitored (i.e., P-14-2A is screened in HSU-2). Letters following the unit designation indicate that multiple piezometers are screened in that unit (i.e., P-14-2A, P-14-2B, etc.). Figure 20 shows planned piezometer locations.

[b] The perforated interval listed for piezometers not yet installed is the perforated interval of the ground water treatment well they are designed to monitor. These estimates are shown in parentheses. The actual perforated interval will be based on the hydrostratigraphy and chemistry encountered during drilling.

[c] Piezometer installation is prioritized according to the activation of the associated ground water treatment well(s).

Table 9. Equipment specifications for TF5475 ground water treatment wells.

Equipment	Specification
Submersible pump	Goulds model No. 10GN10, variable speed, 1,500 to 3,450 revolutions per minute motor, 1 horsepower, 3 phase, 230 volt alternating current, with Baldor variable speed control, or equivalent.
Pneumatic packer	Ardvark model No. 9319, 5-in. to 11-in. diameter assembly with 3-in. diameter center tube, or equivalent.
Electrolytic chamber	5-in.-diameter × 17-in.-long Type 316L stainless steel with coaxial electrodes, 100 amperes direct current, 40 volts, or equivalent.
Catalytic columns (two units in series)	6-in.-diameter × 11-ft-long Type 316L stainless steel tubing packed with 1/8-in. alumina pellets coated with 1% palladium. 6-in.-diameter × 8-ft long Type 316L stainless steel tubing packed with 1/16-in. alumina pellets coated with 1% palladium, or equivalent.
Water flow meter	Rosemont model 8732C, 0.3 to 3 gallons per minute (gpm), 4 to 20 milliamp output, or equivalent.
Level transducer	INW model PS9000, 25 to 50 pounds per square inch (psi), 4 to 20 milliamp output, or equivalent.
Nitrogen	High pressure cylinder, 2,000 pounds per square inch gauge (psig), Type E, 200 standard ft^3, or equivalent. Low pressure supply regulated from 0 to 100 psig.
Gas-liquid separator	ITT Model No. 79, or equivalent.
Sediment filters	Filtrex, 5- and 10-micron cellulose cartridge or equivalent, stainless steel, 150 psi maximum allowable working pressure.
Backflush system	Shurflo model 2088 pump, 0 to 2.5 gpm, or equivalent.

Table 10. TF5475 design and construction schedule.

Item	Start	End
TF5475 design	2/97	5/97
TF5475 construction	5/97	6/97
TF5475 pilot testing	8/97	8/98
TF5475 activation	9/98	9/30/98

Table 11. TF5475 cost summary.

Item	1 well, 1 treatment unit		8 wells, 4 treatment units		
	Cost[a]	Annual O&M[a]	Cost[a]	Annual O&M[a]	53-year cleanup O&M
Construction, and process equipment	$62,000	–	$248,000	–	–
Site preparation, mechanical and electrical utilities	20,000	–	160,000	–	–
Treatment well	35,000		280,000		
Activation cost	10,000		40,000		
10% MPC[b]	12,700	–	72,800	–	–
Subtotal	*139,700*	–	*800,800*	–	–
Operation & Maintenance:					
Labor:					
ERD personnel[c]	–	$200,000	–	$250,000	$7,875,000
LLNL Hazardous Waste Management	–	1,000	–	4,000	212,000
Plant support	–	2,000	–	8,000	424,000
54% G&A/OPC[d]	–	109,620	–	141,480	4,595,940
Subtotal	–	*312,620*	–	*403,480*	13,106,940
Materials:					
Catalyst	–	5,000	–	20,000	1,060,000
Electrolyzer	–	2,000	–	8,000	424,000
Pumps	–	300	–	1,200	63,600
Filters	–	500	–	2,000	106,000
Miscellaneous piping	–	1,000	–	4,000	212,000
Miscellaneous electronics	–	2,000	–	8,000	424,000
Sample analyses[e]	–	1,500	–	6,000	318,000
10% MPC[b]	–	1,230	–	4,920	260,760
Subtotal	–	*13,530*	–	*54,120*	2,868,360
6.38% LDRD[f] charge	8,913	20,808	51,091	29,195	1,019,224
Total cost[a]	$148,613	$346,958	$851,891	$486,795	$16,994,524

a Estimated cost is in Fiscal Year 97 dollars and does not include yearly escalation.
b Material Procurement Charge.
c ERD personnel labor estimates include hydrogeologist, chemist, engineer, technician, and analyst time to meet the requirements in the ROD and milestones in the RAIP. The 53-year cleanup cost reflects time for these staff to maintain and improve treatment systems, effectively manage the wellfield as conditions change over the life of the cleanup, and evaluate and potentially implement new cleanup technologies as they are developed in the future. The estimated cost for ERD personnel is based on a constant level of effort for the first 5 years of cleanup, about 83% of that effort for years 6 through 10, about 67% of that effort for years 11 through 15, and half the initial effort for years 16 through 53.
d General and Administrative/Organizational Personnel Charge.
e Monthly influent and effluent VOC analyses, plus annual radiological analysis.
f Laboratory Directed Research and Development cost.

Table 12. Average VOC concentrations in vapor extracted during the T-5475 treatability tests.

Date	1,1-DCE	TCE	PCE	Freon 113	Chloroform	Total
	<----------Average concentration ($ppm_{v/v}$)---------->					
November 4, 1996	70	411	67	19	20	587
November 5, 1996	41	489	80	15	22	647
November 15, 1996	55	476	51	_[a]	_[a]	582

[a] Not analyzed.

Table 13. VOC mass removed during the T-5475 soil vapor extraction treatability tests.

Date	1,1-DCE	TCE	PCE	Freon 113	Chloroform	Total
	<----------Average mass (kg)---------->					
November 4, 1996	0.033	0.260	0.054	0.017	0.011	0.375
November 5, 1996	0.018	0.287	0.059	0.012	0.011	0.387
November 15, 1996	0.044	0.512	0.070	_a	_a	0.626
Total						1.388

[a] Not analyzed.

Table 14. VTF5475 SVE and vapor reinjection well specifications.

Well name	Extraction well name[a]	Date completed	Borehole depth (ft)	Casing depth (ft)	Perforated interval (ft)	Sand-pack interval (ft)	Hydrostratigraphic unit[b]	Activation priority[c]
SVI-ETS-505	VEW-14-2A	7/18/96	80.5	77.5	45-75	39.5-77.5	2	2
SVI-ETS-504	VEW-14-2B	7/09/96	76.5	67	42-67	39.5-68	2	1
TBI	VEW-14-2C	–	(75)	(70)	(45-70)	(42-72)	2	4
TBI	VEW-14-2D	–	(75)	(70)	(45-70)	(42-72)	2	3

Notes:

TBI = To be installed.

Estimates are shown in parentheses.

a Extraction well name indicates the hydrostratigraphic unit monitored (i.e., VEW-14-2A is screened in HSU-2). Letters following the unit designation indicate that multiple extraction wells are screened in the same stratigraphic unit (i.e., VEW-14-2A, VEW-14-2B, etc.). Figure 29 shows existing and planned extraction well locations.

b An unsaturated hydrostratigraphic unit is defined as a sequence of sediments grouped together on the basis of geologic, geophysical, and/or chemical data.

c Activation priority is the planned order for connection to the treatment system. Activation priority is based on engineering design and cost, and the known or anticipated VOC concentrations in soil at the extraction locations.

Table 15. VTF5475 vadose zone probe specifications (using FLUTe instrumentation).

Well name	Vadose zone probe name[a]	Date completed	Borehole depth (ft)	FLUTe membrane length (ft)	Sampling port depths (ft)	Activation priority[b]
TBI	VZP-14-1/2A	–	(70)	(65)	(10, 20, 30, 40, 45, 50, 55, 60)	6
TBI	VZP-14-1/2B	–	(70)	(65)	(10, 20, 30, 40, 45, 50, 55, 60)	4
TBI	VZP-14-1/2C	–	(70)	(65)	(10, 20, 30, 40, 45, 50, 55, 60)	7
SEA-ETS-506	VZP-14-1/2D	07/24/96	75	66	7, 20, 25, 32, 38, 47, 52, 59	1
SEA-ETS-507	VZP-14-1/2E	07/30/96	75	66	11, 25, 34, 39, 44, 48, 54, 61	2
TBI	VZP-14-1/2F	–	(70)	(65)	(10, 20, 30, 40, 45, 50, 55, 60)	5
SEA-ETS-305	VZP-14-1/2G	09/03/92	85	85	3, 5, 8, 15, 26, 36, 46, 61, 71, 81	3

Notes:

TBI = To be installed.

Estimates are shown in parentheses.

[a] Vadose zone probe names indicate the hydrostratigraphic unit monitored (i.e., VZP-14-1/2A monitors both HSU-1 and HSU-2). Letters following the unit designation (e.g., VZP-14-1/2A) indicate that multiple probes monitor that unit. Figure 29 shows planned probe locations.

[b] Vadose zone probe activation is prioritized according to the activation of the associated extraction well(s).

Table 16. VTF5475 design influent concentrations (November 1996 data).

Constituent	Average influent concentration ($ppm_{v/v}$)
TCE	450
PCE	74
1,1-DCE	56
Chloroform	21
Freon 113	74
Total	617

Note:

$ppm_{v/v}$ = parts per million on a volume-to-volume basis.

Table 17. Equipment specifications for VTF5475.

Equipment	Specification
Wellhead demister	4-in. flanged ends, 19-in. long, 6-in.-diameter enlarged section with Koch Engineering Co. demisting mesh, or equivalent.
Vacuum and pressure gauges	Dwyer differential pressure gauges, or equivalent. Depending on flow rate and pressure these will range from 0 to 0.5 in. water (H_2O) and 0 to 200 in. H_2O.
Temperature sensors	Type K thermocouple sensors with grounded junctions.
Temperature indicators	Digital display with alarm setpoint capability and compatible with type K thermocouples. Yokagawa UM04, or equivalent.
Air flow sensor	Pitot-tube differential pressure flow sensor, 2.5 in.
Process air heater	Chromalox circulation heater, 4 kilowatts, No. GCH-3405E4, or equivalent.
GAC	Carbtrol Model G-2, 170-pound carbon, 300 standard cubic feet per minute (scfm) nominal flow rating, 5-in. mercury vacuum rating, or equivalent.
Vapor extraction blower	Rotary lobe blower powered by a 15 horsepower, 208 volt alternating current, 3-phase electric motor. Performance: 150 scfm at 10-in. mercury vacuum at the inlet, and 5 pounds per square inch gauge pressure at the discharge. Package to be equipped with air intake piping silencer and sound enclosure. Kaeser Omega-Pak BB 68, or equivalent.
Programmable Logic Controller	Digital input, digital output programmable logic controller with 32 direct current inputs and 32 isolated relay outputs. Mitsubishi FX-32, or equivalent.

Table 18. VTF5475 design and construction schedule.

Item	Start	End
VTF5475 design	2/97	12/97
VTF5475 construction	10/98	3/99
VTF5475 activation	4/99	6/29/99

Table 19. VTF5475 cost summary.

Item	Cost[a]	Annual O&M[a]	6-year O&M[a,b]
Facility (including design, construction, piping, and power)	$60,000	–	–
Process equipment	25,000	–	–
Extraction and injection wells	40,000		
Activation cost	15,000		
10% MPC[c]	14,000	–	–
Subtotal	*154,000*	–	–
Operation & Maintenance:			
Labor:			
ERD personnel[d]	–	$100,000	$600,000
LLNL Hazardous Waste Management	–	20,000	120,000
Plant support	–	10,000	60,000
54% G&A/OPC[e]	–	70,200	421,200
Subtotal	–	*200,200*	*1,201,200*
Materials:			
GAC	–	20,000	120,000
Blower	–	500	3,000
Miscellaneous piping	–	1,000	6,000
Miscellaneous electronics	–	2,000	12,000
Sample analyses	–	5,000	30,000
10% MPC[c]	–	2,850	17,100
Subtotal	–	*31,350*	*188,100*
6.38% LDRD[f] charge	9,825	14,773	88,637
Total	$163,825	$246,323	$1,477,937

[a] Estimated cost is in Fiscal Year 97 dollars and does not include yearly escalation.

[b] Six-year O&M is based on cleanup estimates for vapor extraction at VTF518 (Berg et al., 1994b).

[c] Material Procurement Charge.

[d] ERD personnel labor estimates include hydrogeologist, chemist, engineer, technician, and analyst time to meet the requirements in the ROD and milestones in the RAIP. The 6-year cleanup cost reflects time for these staff to maintain and improve treatment systems, effectively manage the wellfield as conditions change over the life of the cleanup, and evaluate and potentially implement new cleanup technologies as they are developed.

[e] General and Administrative/Organizational Personnel Charge.

[f] Laboratory Directed Research and Development cost.

Table 20. Sampling schedule for VTF5475 vadose zone probes and borehole instrumentation.

Well name	Analyses	Frequency
SVI-ETS-505	OVA/FID	Q[a]
SEA-ETS-506	OVA/FID	Q[a]
SEA-ETS-507	OVA/FID	Q[a]

Notes:

OVA/FID = Organic vapor analyzer/flame ionization detector.

Q = Quarterly, planned in March, June, September, December.

[a] Weekly monitoring will be conducted for the first 3 months of initial operation, after which monitoring will be conducted quarterly.

Appendix A

Soil and Ground Water Analytical Data

Rads in ground water (pCi/L), LLNL wells
04-nov-1996
gemini2

LS-stdrad-well.04nov96

Radiological analyses in ground water (pCi/L), in the Trailer 5475 Area
Results recorded by 31-oct-1996.

Location Date	Lab	Note	Val.	Gross Alpha	Gross Beta	Tritium
Monitor Wells and Piezometers						
W-113						
10-jun-85	BC	a	U	-	-	<1000 P
10-jun-85	BC	a	U	0.7 +/- 1.2P	2 +/- 7.8P	-
03-apr-89	TM	a	U	<1 P	2 +/- 1P	<1000 P
31-jul-89	TM	a	U	-	-	<1000 P
W-204						
04-feb-86	BC	a	U	-	-	<1000 P
04-feb-86	BC	a	U	3 +/- 1.9P	<1 +/- 9P	-
03-feb-89	TM	ah	U	<2 P	<5 P	<1000 P
08-feb-89	TM	ah	U	<2 P	<5 P	<1000 P
19-sep-89	TM	a	U	-	-	1100 +/- 500P
18-jul-90	TM	a	U	-	-	<200 P
19-feb-91	TM	a	U	-	-	<200 P
09-nov-94	IT	a	V	-	-	<92.2 +/- 27.5U
18-jul-95	LH	a	V	-	-	300 +/- 250B
14-sep-95	LH	a	V	-	-	<170 +/- 140U
07-nov-95	LH	a	V	-	-	<150 +/- 120U
07-dec-95	LH	a	V	-	-	<160 +/- 120U
31-jan-96	LH	a	V	-	-	<170 +/- 130U
W-206						
04-feb-86	BC	a	U	-	-	40000 +/- 2000P
04-feb-86	BC	a	U	4 +/- 1.8P	<1 +/- 7P	-
03-jun-88	TM	a	U	<3	<3	28000 +/- 1000
05-may-89	TM	a	U	-	-	25000 +/- 1000P
01-dec-89	TM	a	U	-	-	25900 +/- 900P
01-dec-89	TM	a	U	-	-	28000 +/- 900P
04-dec-89	TM	a	U	-	-	25900 +/- 900P
18-dec-89	TM	a	U	-	-	30900 +/- 800P
18-dec-89	TM	a	U	-	-	26400 +/- 700P
06-feb-90	TM	a	U	-	-	31500 +/- 900P
13-apr-90	TM	a	U	-	-	33100 +/- 1100P
18-jul-90	TM	a	U	-	-	28700 +/- 1200P
11-oct-90	TM	a	U	-	-	28500 +/- 2100P
25-feb-91	TM	a	U	-	-	30300 +/- 1800P
20-may-91	TM	a	U	-	-	32200 +/- 1700P
18-jul-91	TM	a	U	-	-	31600 +/- 1600P
31-oct-91	TM	a	U	-	-	28000 +/- 1400P
04-feb-92	TM	a	U	-	-	27000 +/- 1400P
16-jul-92	TM	a	U	-	-	23400 +/- 1200P
14-jan-93	TM	a	U	-	-	29000 +/- 1500P
20-sep-93	ES	a	N	-	-	22000 +/- 5%
27-mar-95	IT	a	V	-	-	25000 +/- 396
11-may-95	IT	a	V	-	-	25100 +/- 264
18-jul-95	LH	a	V	-	-	28500 +/- 1500
14-sep-95	LH	a	V	<3.3 +/- 1.4ULOS	<3.7 +/- 2.3U	24600 +/- 1100
06-nov-95	LH	a	V	-	-	26300 +/- 1100
05-dec-95	LH	a	V	-	-	20520 +/- 960
22-jan-96	LH	a	V	-	-	22000 +/- 1000
30-apr-96	FG	a	V	-	-	18300 +/- 600
30-apr-96	MA	a	N	-	-	17789 +/- 356
28-aug-96	FG	a	V	-	-	15100 +/- 400
W-257						
18-feb-86	BC	a	U	-	-	<1000 P
18-feb-86	BC	a	U	<1 +/- 1.2P	1 +/- 7P	-
10-aug-88	TM	a	U	<6	23 +/- 5	<1000
15-aug-89	TM	a	U	6 +/- 5P	4 +/- 4P	911 +/- 500P
31-jan-94	IT	a	V	-	-	<85.9 +/- 26.1U
12-aug-94	IT	a	V	-	-	<86 +/- 25.4U
08-aug-95	LH	a	V	-	-	<280 +/- 210OU
05-feb-96	LH	a	V	-	-	<170 +/- 130U
W-258						
18-mar-86	BC	a	U	-	-	<1000 P
18-mar-86	BC	a	U	<1 +/- 1P	<1 +/- 6P	-

Radiological analyses in ground water (pCi/L), in the Trailer 5475 Area
Results recorded by 31-oct-1996.

Location Date	Lab	Note	Val.	Gross Alpha	Gross Beta	Tritium
Monitor Wells and Piezometers (continued)						
W-258 (continued)						
07-feb-89	TM	ah	U	<11 P	<6 P	<1000 P
09-feb-89	TM	ah	U	<7 P	7 +/- 5P	<1000 P
09-feb-95	IT	a	V	-	-	<83.6 +/- 25.2U
21-apr-95	IT	a	V	-	-	<87.9 +/- 26.3U
18-jul-95	LH	a	V	-	-	<270 +/- 240U
14-sep-95	LH	a	V	-	-	<170 +/- 140U
06-nov-95	LH	a	V	-	-	<160 +/- 110U
05-dec-95	LH	a	V	-	-	<160 +/- 120U
22-jan-96	LH	a	V	-	-	<170 +/- 130U
23-may-96	FG	ah	V	-	-	<330 +/- 200U
23-may-96	FG	aeh	V	-	-	<330 +/- 200U
20-aug-96	FG	a	V	-	-	<370 +/- 200U
W-259						
19-mar-86	BC	a	U	-	-	<1000 P
19-mar-86	BC	a	U	<1 +/- 1P	1 +/- 7P	-
12-sep-88	TM	a	U	<3	<3	<1000
15-aug-89	TM	a	U	-	-	<500 P
31-jan-94	IT	a	V	-	-	<91.6 +/- 28.3U
25-jan-95	IT	a	V	-	-	<83.6 +/- 25.3U
05-feb-96	LH	a	V	-	-	<170 +/- 130U
W-268						
16-jun-86	BC	a	U	-	-	<1000 P
16-jun-86	BC	a	U	<1 +/- 1.9P	<1 +/- 12P	-
10-aug-88	TM	a	U	<6	<5	<1000
19-sep-89	TM	a	U	-	-	<1000 P
12-aug-94	IT	a	V	-	-	<95 +/- 28U
20-jun-95	ME	a	V	-	-	<50.2 +/- 100% U
08-sep-95	ME	a	V	-	-	<67.8 +/- 100% U
W-271						
28-jul-86	BC	a	U	-	-	<1000 P
28-jul-86	BC	a	U	1 +/- 1.6P	<1 +/- 10P	-
W-272						
06-aug-86	BC	a	U	-	-	<1000 P
06-aug-86	BC	a	U	<1 +/- 1.4P	<1 +/- 10P	-
W-274						
30-sep-86	BC	a	U	-	-	<1000 P
30-sep-86	BC	a	U	<1 +/- 1.3P	<1 +/- 10P	-
W-290						
10-oct-86	BC	a	U	-	-	<1000 P
10-oct-86	BC	a	U	2 +/- 2P	<1 +/- 17P	-
03-apr-89	TM	a	U	4 +/- 2P	2 +/- 1P	<1000 P
31-jul-89	TM	a	U	-	-	<1000 P
W-354						
12-dec-86	BC	a	U	-	-	<1000 P
12-dec-86	BC	a	U	2 +/- 1.8P	<1 +/- 7.5P	-
26-jul-96	FG	a	V	-	-	600 +/- 200
W-356						
12-jan-87	BC	a	U	-	-	<1000 P
12-jan-87	BC	a	U	2 +/- 1.5P	5 +/- 8P	-
24-oct-89	TM	a	U	-	-	<500 P
07-nov-94	IT	a	V	-	-	781 +/- 34
13-apr-95	IT	a	V	-	-	974 +/- 34
05-feb-96	LH	a	V	-	-	960 +/- 190
29-apr-96	FG	a	V	-	-	1200 +/- 300
16-jul-96	FG	a	V	-	-	1300 +/- 200
19-jul-96	FG	a	V	-	-	1000 +/- 200

Radiological analyses in ground water (pCi/L), in the Trailer 5475 Area
Results recorded by 31-oct-1996.

Location Date	Lab	Note	Val.	Gross Alpha	Gross Beta	Tritium
Monitor Wells and Piezometers (continued)						
W-359						
23-feb-89	TM	a	U	<1 P	<4 P	<1000 P
23-sep-93	IT	a	V	-	-	<90.2 +/- 27.9U
20-jun-95	ME	aeh	V	-	-	410 +/- 15.3%
20-jun-95	ME	ah	V	-	-	306 +/- 19.4%
05-sep-95	ME	a	V	-	-	514 +/- 16.1%
W-363						
16-aug-88	TM	a	U	<3	<3	21000 +/- 1000
03-apr-89	TM	a	U	-	-	18000 +/- 1000P
19-may-89	TM	a	U	-	-	16800 +/- 700P
19-sep-89	TM	a	U	-	-	16700 +/- 700P
24-oct-89	TM	a	U	-	-	18000 +/- 1000P
18-dec-89	TM	a	U	-	-	15600 +/- 600P
18-dec-89	TM	a	U	-	-	15400 +/- 600P
23-feb-90	TM	a	U	-	-	22000 +/- 800P
15-may-90	TM	a	U	-	-	19200 +/- 800P
16-jul-90	TM	a	U	-	-	17900 +/- 900P
11-oct-90	TM	a	U	-	-	16600 +/- 1300P
25-feb-91	TM	a	U	-	-	14700 +/- 900P
21-may-91	TM	a	U	-	-	15100 +/- 800P
18-jul-91	TM	ah	U	-	-	13800 +/- 700P
18-jul-91	TM	ah	U	-	-	14000 +/- 700P
31-oct-91	TM	a	U	-	-	10700 +/- 600P
04-feb-92	TM	a	U	-	-	9300 +/- 500P
17-jul-92	TM	a	U	-	-	7560 +/- 410P
14-jan-93	TM	a	U	-	-	6000 +/- 400P
07-dec-93	IT	a	V	-	-	<2420 +/- 588U
27-mar-95	IT	a	V	-	-	12600 +/- 209
04-may-95	IT	a	V	-	-	8830 +/- 101
18-jul-95	LH	a	V	-	-	11240 +/- 840
14-sep-95	LH	a	V	<2.8 +/- 1.5ULOS	2.5 +/- 1.4	12800 +/- 660
06-nov-95	LH	a	V	-	-	12520 +/- 640
05-dec-95	LH	a	V	-	-	11630 +/- 630
22-jan-96	LH	a	V	-	-	11930 +/- 640
29-apr-96	FG	a	V	-	-	12400 +/- 500
20-aug-96	FG	a	V	-	-	11600 +/- 300
W-364						
26-jul-96	FG	a	V	-	-	600 +/- 200
W-562						
21-feb-91	TM	a	U	2 +/- 3P	3 +/- 2P	<200 P
18-jul-91	TM	a	U	-	-	<125 P
26-apr-94	IT	a	V	-	-	<77.1 +/- 23U
27-mar-95	IT	a	V	-	-	<95.6 +/- 28.3U
18-jul-95	LH	a	V	-	-	<270 +/- 230U
14-sep-95	LH	a	V	-	-	<170 +/- 140U
01-nov-95	LH	a	V	-	-	<160 +/- 130U
04-dec-95	LH	a	V	-	-	<160 +/- 130U
19-jan-96	LH	a	V	-	-	<160 +/- 130U
22-apr-96	FG	a	V	-	-	<520 +/- 300U
W-566						
01-apr-93	ES	a	U	-	-	<900 U
31-jan-94	IT	a	V	-	-	1140 +/- 37
16-oct-95	IT	b	V	-	-	735 +/- 30
22-jan-96	LH	a	V	-	-	590 +/- 170
30-apr-96	FG	ah	V	-	-	<520 +/- 300U
30-apr-96	FG	aeh	V	-	-	<520 +/- 300U
31-jul-96	FG	a	V	-	-	800 +/- 200
W-652						
21-mar-90	TM	a	U	1 +/- 2P	4 +/- 2P	<500 P
31-jan-94	IT	a	V	-	-	100 +/- 29
03-feb-95	IT	a	V	-	-	<83.6 +/- 25.1U
22-jan-96	LH	a	V	-	-	<170 +/- 130U

Radiological analyses in ground water (pCi/L), in the Trailer 5475 Area
Results recorded by 31-oct-1996.

Location Date	Lab	Note	Val.	Gross Alpha	Gross Beta	Tritium
Monitor Wells and Piezometers (continued)						
W-909						
10-oct-95	LH	a	V	-	-	1140 +/- 180
10-oct-95	LH	a	V	<2.7 +/- 1.5U	3.5 +/- 1.5	-
07-nov-95	LH	a	V	-	-	1320 +/- 190
05-dec-95	LH	a	V	-	-	1250 +/- 200
22-jan-96	LH	a	V	-	-	1430 +/- 210
29-apr-96	FG	a	V	-	-	1600 +/- 300
05-aug-96	FG	a	V	-	-	1200 +/- 300
W-911						
01-feb-96	LH	a	V	<3.4 +/- 1.5U	3.3 +/- 1.8	200 +/- 140
W-912						
10-oct-95	LH	a	V	-	-	660 +/- 150
10-oct-95	LH	a	V	<3.7 +/- 2.1U	3.2 +/- 1.6	-
05-dec-95	LH	a	V	-	-	800 +/- 180
23-jan-96	LH	a	V	-	-	670 +/- 180
30-apr-96	FG	a	V	-	-	600 +/- 300
05-aug-96	FG	a	V	-	-	600 +/- 200
W-1108						
15-sep-95	LH	a	V	-	-	610 +/- 170
05-dec-95	LH	a	V	-	-	570 +/- 160
23-jan-96	LH	a	V	-	-	640 +/- 170
01-may-96	FG	a	V	-	-	<520 +/- 300U
25-jun-96	FG	a	V	-	-	1000 +/- 200
28-jun-96	FG	a	V	-	-	2200 +/- 200
05-aug-96	FG	a	V	-	-	1000 +/- 200
W-1109						
23-jun-95	LH	a	V	<3 +/- 2U	3 +/- 1.9	450 +/- 230
29-apr-96	FG	a	V	-	-	<520 +/- 300U
04-jun-96	FG	a	V	-	-	400 +/- 200
07-jun-96	FG	a	V	-	-	400 +/- 200
05-aug-96	FG	a	V	-	-	1000 +/- 200
W-1117						
07-nov-95	LH	a	V	-	-	<160 +/- 130U
07-dec-95	LH	a	V	-	-	<160 +/- 130U
29-feb-96	LH	a	V	-	-	250 +/- 130
01-may-96	FG	a	V	-	-	<520 +/- 300U
06-aug-96	FG	a	V	-	-	400 +/- 200
22-aug-96	LH	a	V	<3.7 +/- 2U	<3.6 +/- 2.2U	-
22-aug-96	LH	a	V	-	-	770 +/- 110
W-1118						
06-dec-95	LH	a	V	-	-	3090 +/- 290
17-jan-96	LH	a	V	<2.9 +/- 1.6UO	<2.3 +/- 1.5U	2840 +/- 280O
01-may-96	FG	a	V	-	-	2400 +/- 400
06-aug-96	FG	a	V	-	-	2700 +/- 200
W-1201						
06-dec-95	LH	a	V	-	-	1750 +/- 230
13-mar-96	LH	a	V	-	-	1760 +/- 220
28-aug-96	FG	a	V	-	-	600 +/- 200
W-1202						
19-aug-96	LH	a	V	<5.8 +/- 3.2U	<4.6 +/- 2.8U	-
19-aug-96	LH	a	V	-	-	346 +/- 80
W-1203						
08-dec-95	LH	a	V	-	-	<160 +/- 120U
12-mar-96	LH	a	V	-	-	<180 +/- 110U
28-mar-96	FG	a	V	<2.6 +/- 2U	<4.8 +/- 3U	-
30-apr-96	FG	a	V	-	-	<520 +/- 300U
05-aug-96	FG	a	V	-	-	600 +/- 200

Results recorded by 31-oct-1996.

1,1,1 TCA	1,1 DCA	1,2 DCA	Carbon Tetra-chloride	Chloro-form	Freon 11	Freon 113	Location Date
							B-356
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	10-dec-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	10-dec-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	11-dec-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0008 P	<0.0002 P	<0.0002 P	11-dec-86
							B-359
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0002 P	<0.0002 P	<0.0002 P	04-feb-87
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	04-feb-87
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0007 P	<0.0002 P	<0.0002 P	04-feb-87
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0003 P	<0.0002 P	<0.0002 P	05-feb-87
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	05-feb-87
<0.0002 P	<0.0002 P	<0.0002 P	0.0003 P	0.001 P	<0.0002 P	<0.0002 P	05-feb-87
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	05-feb-87
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0003 P	<0.0002 P	<0.0002 P	05-feb-87
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	06-feb-87
							B-363
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	16-mar-87
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0012 P	<0.0002 P	0.0014 P	18-mar-87
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0012 P	18-mar-87
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0007 P	18-mar-87
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	18-mar-87
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0004 P	<0.0002 P	0.0021 P	18-mar-87
0.0019 P	0.0009 P	0.0037 P	0.0009 P	0.019 P	<0.0002 P	0.0015 P	19-mar-87
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0019 P	<0.0002 P	<0.0002 P	19-mar-87
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	19-mar-87
							B-364
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	26-mar-87
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0002 P	<0.0002 P	<0.0002 P	27-mar-87
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0013 P	<0.0002 P	<0.0002 P	27-mar-87
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0002 P	<0.0002 P	<0.0002 P	27-mar-87
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0013 P	<0.0002 P	<0.0002 P	27-mar-87
							B-562
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0023 P	<0.0002 P	0.0004 P	27-feb-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0012 P	<0.0002 P	0.0003 P	27-feb-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0024 P	<0.0002 P	0.0005 P	27-feb-89
<0.0002 P	<0.0002 P	<0.0002 P	0.0002 P	0.0037 P	<0.0002 P	0.0011 P	27-feb-89
<0.0002 P	<0.0002 P	<0.0002 P	0.0011 P	0.0043 P	<0.0002 P	0.0046 P	27-feb-89
<0.0002 P	<0.0002 P	<0.0002 P	0.0004 P	0.0021 P	<0.0002 P	0.0016 P	28-feb-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0003 P	<0.0002 P	0.0003 P	28-feb-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0002 P	<0.0002 P	0.0025 P	28-feb-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0003 P	<0.0002 P	0.0004 P	28-feb-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0006 P	<0.0002 P	0.0004 P	28-feb-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	01-mar-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	01-mar-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	01-mar-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	02-mar-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	02-mar-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	03-mar-89
							B-566
0.0005 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0005 P	<0.0002 P	<0.0002 P	10-apr-89
0.0032 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0011 P	<0.0002 P	0.0006 P	10-apr-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	10-apr-89
0.0018 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0006 P	<0.0002 P	0.0012 P	10-apr-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	10-apr-89
0.0004 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0007 P	10-apr-89
0.0003 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0006 P	10-apr-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0002 P	<0.0002 P	0.0003 P	10-apr-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0003 P	11-apr-89
0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	11-apr-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	11-apr-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	11-apr-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	12-apr-89
0.0003 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	12-apr-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	12-apr-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0004 P	<0.0002 P	<0.0002 P	12-apr-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0006 P	<0.0002 P	<0.0002 P	12-apr-89

Radiological analyses in ground water (pCi/L), in the Trailer 5475 Area
Results recorded by 31-oct-1996.

Location Date	Lab	Note	Val.	Gross Alpha	Gross Beta	Tritium
Monitor Wells and Piezometers (continued)						
SIP-ETS-211						
06-aug-91	TM	a	U	-	-	8300 +/- 900P
08-nov-93	ES	a	N	-	-	7000 +/- 10%
11-aug-95	LH	a	V	-	-	<290 +/- 2200U
09-sep-95	LH	a	V	<1.9 +/- 1ULO	<2.2 +/- 1.4U	580 +/- 170
03-nov-95	LH	a	V	-	-	1870 +/- 220
04-dec-95	LH	a	V	-	-	1340 +/- 200
17-jan-96	LH	a	V	-	-	1470 +/- 210
14-may-96	FG	a	V	-	-	1700 +/- 200
31-jul-96	FG	a	V	-	-	1800 +/- 200
SIP-ETS-212						
05-nov-93	ES	a	N	-	-	1000 +/- 74%
11-aug-95	LH	a	V	-	-	<290 +/- 2000U
09-sep-95	LH	a	V	<2.5 +/- 1.6ULOS	3.4 +/- 1.5	<160 +/- 140U
01-nov-95	LH	a	V	-	-	<170 +/- 140U
04-dec-95	LH	a	V	-	-	<150 +/- 120U
17-jan-96	LH	a	V	-	-	<160 +/- 130U
14-may-96	FG	a	V	-	-	600 +/- 200
31-jul-96	FG	a	V	-	-	<340 +/- 200U
SIP-ETS-213						
20-sep-93	ES	a	N	-	-	19000 +/- 6%
08-nov-93	ES	a	N	-	-	14000 +/- 6%
11-aug-95	LH	a	V	-	-	6720 +/- 6400
14-sep-95	LH	a	V	<4.4 +/- 2.4ULOS	6.4 +/- 2.5	7700 +/- 470
06-nov-95	LH	a	V	-	-	6780 +/- 430
08-dec-95	LH	a	V	-	-	6060 +/- 410
17-jan-96	LH	a	V	-	-	6440 +/- 430
14-may-96	FG	a	V	-	-	16300 +/- 400
02-aug-96	FG	a	V	-	-	5600 +/- 300
SIP-ETS-214						
28-jan-92	ES	a	U	-	-	4000 +/- 27%
22-sep-93	ES	a	N	-	-	2000 +/- 31%
08-nov-93	ES	a	N	-	-	5000 +/- 14%
11-aug-95	LH	a	V	-	-	1750 +/- 3700
09-sep-95	LH	a	V	<2.7 +/- 1.9ULOS	7.5 +/- 1.8	1900 +/- 240
01-nov-95	LH	a	V	-	-	1620 +/- 230
04-dec-95	LH	a	V	-	-	1470 +/- 210
17-jan-96	LH	a	V	-	-	1300 +/- 210
14-may-96	FG	a	V	-	-	<330 +/- 200U
01-aug-96	FG	a	V	-	-	1100 +/- 200
SIP-ETS-215						
08-nov-93	ES	a	N	-	-	<900 U
23-may-94	ES	a	N	-	-	<900 +/- 900U
11-aug-95	LH	a	V	-	-	360 +/- 2500
09-sep-95	LH	a	V	-	-	520 +/- 170
01-nov-95	LH	a	V	-	-	430 +/- 160
04-dec-95	LH	a	V	-	-	340 +/- 140
16-jan-96	LH	a	V	-	-	190 +/- 140
14-may-96	FG	a	V	-	-	500 +/- 200
01-aug-96	FG	a	V	-	-	<490 +/- 200U
SIP-ETS-302						
08-nov-93	ES	a	N	-	-	4000 +/- 17%
23-may-94	ES	a	H	-	-	6000 +/- 12%
11-aug-95	LH	a	V	-	-	2220 +/- 4000
09-sep-95	LH	a	V	<3.8 +/- 1.8ULOS	15.6 +/- 2.8	3310 +/- 290
01-nov-95	LH	a	V	-	-	4110 +/- 340
04-dec-95	LH	a	V	-	-	3560 +/- 310
17-jan-96	LH	a	V	-	-	3610 +/- 310
15-may-96	FG	a	V	-	-	2300 +/- 200
01-aug-96	FG	a	V	-	-	3400 +/- 300

Results recorded by 31-oct-1996.

1,1,1 TCA	1,1 DCA	1,2 DCA	Carbon Tetra-chloride	Chloro-form	Freon 11	Freon 113	Location Date
							(continued) B-566
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	13-apr-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	13-apr-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	13-apr-89
							B-652
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0007 P	<0.0002 P	<0.0002 P	28-feb-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	28-feb-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	28-feb-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0023 P	<0.0002 P	<0.0002 P	01-mar-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	01-mar-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	01-mar-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0007 P	<0.0002 P	<0.0002 P	02-mar-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0074 P	<0.0002 P	<0.0002 P	02-mar-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	02-mar-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	02-mar-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	02-mar-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	05-mar-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	05-mar-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	05-mar-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	05-mar-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	05-mar-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	05-mar-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	06-mar-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	06-mar-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	06-mar-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	06-mar-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	07-mar-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	07-mar-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	07-mar-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	07-mar-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	07-mar-90
							B-909
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	07-sep-93
0.0011	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	07-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	07-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	07-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	08-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	08-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	08-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	08-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	08-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0019	<0.0005 U	<0.0005 U	08-sep-93
0.0012	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	08-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	08-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	08-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	08-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	09-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	09-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	09-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	09-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	09-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	09-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	09-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	10-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	10-sep-93
							B-911
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0078	15-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0011	15-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	15-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	16-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	16-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	16-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.001	<0.0005 U	0.0043	16-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0043	16-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	17-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	17-sep-93

Radiological analyses in ground water (pCi/L), in the Trailer 5475 Area
Results recorded by 31-oct-1996.

Location Date	Lab	Note	Val.	Gross Alpha	Gross Beta	Tritium
Monitor Wells and Piezometers (continued)						
SIP-ETS-502						
05-dec-95	IT	aj	V	-	-	<87.3 +/- 26.6U
03-jun-96	FG	a	V	-	-	900 +/- 200
23-aug-96	FG	a	V	-	-	<370 +/- 200U

See following page for notes

Radiological analyses in ground water (pCi/L), in the Trailer 5475 Area
Results recorded by 31-oct-1996.

Notes:

- Indicates no analysis performed for this compound

Footnotes:

a ERD data
b ORAD WGMG data
c Analytical results for this sample are suspect
d Sample collected during hydraulic testing
e Blind sample, sent to lab without well identity
f Sample dilution necessary for analysis; detection limits increased
g Interlaboratory collocated sample
h Intralaboratory collocated sample
i Sample collected as part of pilot study
j Note field may contain important information regarding this sample
k Pre-development sample
l Norm month, norm quarter or norm year inconsistent with sample date
m Confirmation sample
n Sample analyzed after standard holding time
o Sample comprised of partial composite
p Alpha spectroscopy analysis of uranium isotopes
q Gamma spectroscopy analysis of uranium isotopes

Lab Codes:

BC Brown and Caldwell, Emeryville, CA
ES Environmental Science Scanning Facility, LLNL, Livermore, CA
FG Fruit Growers Laboratory, Inc., Santa Paula, CA
IT International Technology Corp.
LH Lockheed Analytical Services, Las Vegas, NV
MA Maxwell Laboratories, San Diego, CA
ME LLNL C&MS Environmental Services
TM Thermo Analytical Inc., Richmond, CA

Validation Codes:

V Validated
N Not validated (default value)
U Undeclared
H Historical comparison only

CLP flags: (follow result)

B Analyte detected in method blank
C Analytical results for this sample are not in agreement with the intra or interlaboratory collocated sample results and the historical data
D Analysis performed at a secondary dilution or concentration (i.e., vapor)
E Concentration exceeds calibration range
F Analyte detected in field blank
H Sample analyzed outside of the holding time; sample results should be rejected
J Analyte was postively identified; the associated numerical value is the approximate concentration of the analyte
L Spike accuracy not within control limits
O Duplicate spike precision not within control limits
P Absence of a data qualifier flag does not mean that the data does not need qualification, but that the addition of electronic data qualifier flags was not yet implemented
R Sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria; the presence or absence of the analyte cannot be verified
S Analytical results for this sample are suspect
T Analyte is tentatively identified as this compound; result is approximate
U Compound was analyzed for, but not detected above detection limit

Soil analyses (mg/kg) for Volatile Organic Compounds (VOCs), in the Trailer 5475 Area
Results recorded by 31-oct-1996.

VOCs in Soil, LLNL Boreholes
04-nov-1996
gemini2

LS-voc-BHL.04nov96
LS-voc-BHR.04nov96

Soil analyses (mg/kg) for Volatile Organic Compounds (VOCs), in the Trailer 5475 Area

Location Date	Lab	Note	Val.	Depth (ft)	PCE	TCE	1,1 DCE	cis-1,2 DCE	trans-1,2 DCE	Total 1,2 DCE
B-206										
13-dec-85	BC	a	U	90.5	<0.0002 P	0.025 P	<0.0002 P	-	-	<0.0002 P
16-dec-85	BC	a	U	107.5	0.3 P	0.097 P	<0.0002 P	-	-	<0.0002 P
B-257										
10-jan-86	BC	a	U	84.5	0.07 P	0.31 P	0.052 P	-	-	<0.0002 P
10-jan-86	BC	a	U	89.5	0.074 P	0.22 P	0.022 P	-	-	<0.0002 P
10-jan-86	BC	a	U	93.8	0.027 P	0.12 P	0.0073 P	-	-	<0.0002 P
13-jan-86	BC	a	U	104.5	0.016 P	0.043 P	<0.0002 P	-	-	<0.0002 P
13-jan-86	BC	a	U	140.0	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
14-jan-86	BC	a	U	157.0	<0.0002 P	0.047 P	<0.0002 P	-	-	<0.0002 P
14-jan-86	BC	a	U	175.0	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
15-jan-86#	BC	a	U	193.5	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
B-258										
24-jan-86#	BC	a	U	77.2	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
24-jan-86	BC	a	U	83.5	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
27-jan-86	BC	a	U	97.5	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
27-jan-86	BC	a	U	102.5	<0.0002 P	0.003 P	<0.0002 P	-	-	<0.0002 P
27-jan-86	BC	a	U	120.0	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
28-jan-86	BC	a	U	137.3	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
28-jan-86	BC	a	U	145.7	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
B-259										
05-feb-86	BC	a	U	88.5	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
05-feb-86	BC	a	U	96.0	<0.0002 P	0.032 P	<0.0002 P	-	-	<0.0002 P
06-feb-86	BC	a	U	119.7	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
06-feb-86	BC	a	U	135.0	<0.0002 P	0.0012 P	<0.0002 P	-	-	<0.0002 P
07-feb-86	BC	a	U	192.5	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
B-268										
27-may-86	BC	a	U	95.5	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
27-may-86	BC	a	U	111.7	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
29-may-86	BC	a	U	155.5	<0.0002 P	0.0005 P	<0.0002 P	-	-	<0.0002 P
02-jun-86	BC	a	U	203.0	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
B-271										
02-jul-86	BC	a	U	95.0	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
02-jul-86	BC	a	U	107.5	0.0012 P	0.011 P	0.0005 P	-	-	<0.0002 P
02-jul-86	BC	a	U	128.0	<0.0002 P	0.0008 P	<0.0002 P	-	-	<0.0002 P
02-jul-86	BC	a	U	134.0	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
03-jul-86	BC	a	U	144.5	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
03-jul-86	BC	a	U	147.5	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
03-jul-86	BC	a	U	154.0	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
03-jul-86	BC	a	U	155.5	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
03-jul-86	BC	a	U	160.2	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
03-jul-86	BC	a	U	161.0	<0.0002 P	0.0016 P	<0.0002 P	-	-	<0.0002 P
07-jul-86	BC	a	U	162.8	<0.0002 P	0.0007 P	<0.0002 P	-	-	<0.0002 P
B-272										
14-jul-86	BC	a	U	86.0	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
14-jul-86	BC	a	U	97.0	<0.0002 P	0.0014 P	0.0015 P	-	-	0.0005 P
14-jul-86	BC	a	U	100.5	0.0003 P	0.0063 P	0.0014 P	-	-	0.0018 P
14-jul-86	BC	a	U	108.5	<0.0002 P	0.0056 P	0.0018 P	-	-	0.0022 P
14-jul-86	BC	a	U	131.5	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
15-jul-86	BC	a	U	145.0	<0.0002 P	0.0034 P	0.0009 P	-	-	0.0003 P
B-274										
15-aug-86	BC	a	U	93.5	<0.0002 P	0.028 P	<0.0002 P	-	-	<0.0002 P
19-aug-86	BC	a	U	180.5	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
B-290										
30-jun-86	BC	a	U	99.8	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
01-jul-86	BC	a	U	113.8	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
01-jul-86	BC	a	U	123.7	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
02-jul-86	BC	a	U	140.6	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
B-354										
19-nov-86	BC	a	U	132.0	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
19-nov-86	BC	a	U	139.0	<0.0002 P	0.0066 P	<0.0002 P	-	-	<0.0002 P
20-nov-86	BC	a	U	175.8	<0.0002 P	0.007 P	<0.0002 P	-	-	<0.0002 P

Results recorded by 31-oct-1996.

1,1,1 TCA	1,1 DCA	1,2 DCA	Carbon Tetra-chloride	Chloro-form	Freon 11	Freon 113	Location Date
							B-206
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	-	13-dec-85
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	-	16-dec-85
							B-257
<0.0002 P	<0.0002 P	0.012 P	<0.0002 P	<0.0002 P	<0.0002 P	-	10-jan-86
<0.0002 P	<0.0002 P	0.0022 P	<0.0002 P	<0.0002 P	<0.0002 P	-	10-jan-86
<0.0002 P	<0.0002 P	0.0009 P	<0.0002 P	<0.0002 P	<0.0002 P	-	10-jan-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	-	13-jan-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	-	13-jan-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	-	14-jan-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	-	14-jan-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	-	15-jan-86
							B-258
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	-	24-jan-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	-	24-jan-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	-	27-jan-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	-	27-jan-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	-	27-jan-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	-	28-jan-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	-	28-jan-86
							B-259
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	-	05-feb-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	-	05-feb-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	-	06-feb-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	-	06-feb-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	-	07-feb-86
							B-268
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0026 P	<0.0002 P	<0.0002 P	27-may-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	27-may-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0067 P	<0.0002 P	<0.0002 P	29-may-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.015 P	<0.0002 P	<0.0002 P	02-jun-86
							B-271
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	02-jul-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.002 P	<0.0002 P	<0.0002 P	02-jul-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0003 P	<0.0002 P	<0.0002 P	02-jul-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	02-jul-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	03-jul-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	03-jul-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0021 P	<0.0002 P	<0.0002 P	03-jul-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.002 P	<0.0002 P	<0.0002 P	03-jul-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0008 P	<0.0002 P	<0.0002 P	03-jul-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0003 P	<0.0002 P	<0.0002 P	03-jul-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0063 P	<0.0002 P	<0.0002 P	07-jul-86
							B-272
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	14-jul-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	14-jul-86
0.0007 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0008 P	<0.0002 P	<0.0002 P	14-jul-86
0.0005 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0006 P	<0.0002 P	<0.0002 P	14-jul-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	14-jul-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0008 P	<0.0002 P	<0.0002 P	15-jul-86
							B-274
<0.0002 P	<0.0002 P	<0.0002 P	0.0005 P	<0.0002 P	<0.0002 P	<0.0002 P	15-aug-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	19-aug-86
							B-290
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	30-jun-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	01-jul-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	01-jul-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	02-jul-86
							B-354
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	19-nov-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0003 P	<0.0002 P	<0.0002 P	19-nov-86
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	20-nov-86

Soil analyses (mg/kg) for Volatile Organic Compounds (VOCs), in the Trailer 5475 Area

Location Date	Lab	Note	Val.	Depth (ft)	PCE	TCE	1,1 DCE	cis-1,2 DCE	trans-1,2 DCE	Total 1,2 DCE
B-356										
10-dec-86#	BC	a	U	91.5	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
10-dec-86	BC	a	U	113.0	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
11-dec-86	BC	a	U	124.5	<0.0002 P	<0.0002 P	0.0003 P	-	-	<0.0002 P
11-dec-86	BC	a	U	134.0	<0.0002 P	0.0002 P	<0.0002 P	-	-	<0.0002 P
B-359										
04-feb-87#	BC	a	U	8.7	<0.0002 P	0.0018 P	<0.0002 P	-	-	<0.0002 P
04-feb-87#	BC	a	U	35.7	<0.0002 P	0.0005 P	<0.0002 P	-	-	<0.0002 P
04-feb-87#	BC	a	U	60.5	<0.0002 P	0.0047 P	<0.0002 P	-	-	<0.0002 P
05-feb-87#	BC	a	U	70.7	<0.0002 P	0.0038 P	<0.0002 P	-	-	<0.0002 P
05-feb-87#	BC	a	U	81.7	<0.0002 P	0.0054 P	<0.0002 P	-	-	<0.0002 P
05-feb-87	BC	a	U	93.3	<0.0002 P	0.0037 P	<0.0002 P	-	-	<0.0002 P
05-feb-87	BC	a	U	115.7	<0.0002 P	0.0034 P	<0.0002 P	-	-	<0.0002 P
05-feb-87	BC	a	U	141.7	<0.0002 P	0.026 P	<0.0002 P	-	-	<0.0002 P
06-feb-87	BC	a	U	182.4	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
B-363										
16-mar-87#	BC	a	U	32.7	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
18-mar-87#	BC	a	U	47.7	<0.0002 P	<0.0002 P	0.0002 P	-	-	<0.0002 P
18-mar-87#	BC	a	U	56.7	<0.0002 P	0.0002 P	0.0003 P	-	-	<0.0002 P
18-mar-87#	BC	a	U	70.8	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
18-mar-87#	BC	a	U	81.7	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
18-mar-87	BC	a	U	88.3	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
19-mar-87	BC	a	U	120.2	0.024 P	0.29 P	0.0083 P	-	-	<0.0002 P
19-mar-87	BC	a	U	147.4	0.0009 P	0.008 P	0.0003 P	-	-	<0.0002 P
19-mar-87	BC	a	U	180.3	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
B-364										
26-mar-87	BC	a	U	124.2	<0.0002 P	0.0009 P	<0.0002 P	-	-	<0.0002 P
27-mar-87	BC	a	U	145.0	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
27-mar-87	BC	a	U	156.8	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
27-mar-87	BC	a	U	176.5	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
27-mar-87	BC	a	U	182.5	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
B-562										
27-feb-89#	BC	a	U	12.3	0.0003 P	0.0016 P	<0.0002 P	-	-	<0.0002 P
27-feb-89#	BC	a	U	21.5	0.0004 P	0.0022 P	<0.0002 P	-	-	<0.0002 P
27-feb-89#	BC	a	U	31.0	<0.0002 P	0.0013 P	<0.0002 P	-	-	<0.0002 P
27-feb-89#	BC	a	U	41.5	<0.0002 P	0.0023 P	<0.0002 P	-	-	<0.0002 P
27-feb-89#	BC	a	U	50.5	0.0032 P	0.032 P	<0.0002 P	-	-	<0.0002 P
28-feb-89#	BC	a	U	61.3	0.0008 P	0.0072 P	<0.0002 P	-	-	<0.0002 P
28-feb-89#	BC	a	U	71.5	<0.0002 P	0.001 P	<0.0002 P	-	-	<0.0002 P
28-feb-89#	BC	a	U	81.5	<0.0002 P	0.0005 P	<0.0002 P	-	-	<0.0002 P
28-feb-89	BC	a	U	96.3	0.0002 P	0.0022 P	<0.0002 P	-	-	<0.0002 P
28-feb-89	BC	a	U	103.5	0.0008 P	0.012 P	<0.0002 P	-	-	<0.0002 P
01-mar-89	BC	a	U	133.8	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
01-mar-89	BC	a	U	148.0	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
01-mar-89	BC	a	U	152.8	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
02-mar-89	BC	a	U	196.5	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
02-mar-89	BC	a	U	231.5	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
03-mar-89	BC	a	U	253.0	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
B-566										
10-apr-89#	BC	a	U	8.3	0.0036 P	0.0024 P	0.0006 P	-	-	<0.0002 P
10-apr-89#	BC	a	U	14.8	0.022 P	0.018 P	0.004 P	-	-	<0.0002 P
10-apr-89#	BC	a	U	26.3	0.022 P	0.0005 P	0.0002 P	-	-	<0.0002 P
10-apr-89#	BC	a	U	35.8	0.044 P	0.046 P	0.017 P	-	-	<0.0002 P
10-apr-89#	BC	a	U	45.8	0.0041 P	0.0028 P	0.0014 P	-	-	<0.0002 P
10-apr-89#	BC	a	U	55.5	0.017 P	0.011 P	0.0088 P	-	-	<0.0002 P
10-apr-89#	BC	a	U	65.3	0.014 P	0.0094 P	0.0059 P	-	-	<0.0002 P
10-apr-89#	BC	a	U	75.8	0.017 P	0.037 P	0.004 P	-	-	<0.0002 P
11-apr-89	BC	a	U	89.5	<0.0002 P	0.0006 P	0.0002 P	-	-	<0.0002 P
11-apr-89	BC	a	U	106.3	0.0057 P	0.016 P	0.0005 P	-	-	<0.0002 P
11-apr-89	BC	a	U	117.5	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
11-apr-89	BC	a	U	140.3	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
12-apr-89	BC	a	U	153.5	<0.0002 P	0.013 P	<0.0002 P	-	-	<0.0002 P
12-apr-89	BC	a	U	182.0	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
12-apr-89	BC	a	U	197.3	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
12-apr-89	BC	a	U	199.5	0.0004 P	0.011 P	<0.0002 P	-	-	<0.0002 P
12-apr-89	BC	a	U	199.8	0.0002 P	0.0097 P	<0.0002 P	-	-	<0.0002 P

Radiological analyses in ground water (pCi/L), in the Trailer 5475 Area
Results recorded by 31-oct-1996.

Location Date	Lab	Note	Val.	Gross Alpha	Gross Beta	Tritium
Monitor Wells and Piezometers (continued)						
W-1204						
07-dec-95	LH	a	V	-	-	<160 +/- 120U
16-feb-96	LH	a	V	<2.5 +/- 1.3UO	2.4 +/- 1.4	<170 +/- 130U
30-apr-96	FG	a	V	-	-	<520 +/- 300U
05-aug-96	FG	a	V	-	-	<490 +/- 200U
W-1210						
29-may-96	FG	a	V	<3.4 +/- 1U	<6 +/- 3U	-
29-may-96	FG	a	V	-	-	<370 +/- 200U
26-jul-96	FG	a	V	-	-	<340 +/- 200U
W-1225						
19-aug-96	LH	aj	V	-	-	3390 +/- 250
SIP-543-101						
03-nov-95	LH	a	V	-	-	<160 +/- 130U
04-dec-95	LH	a	V	-	-	<160 +/- 130U
19-jan-96	LH	a	V	-	-	<170 +/- 130U
28-may-96	FG	a	V	-	-	800 +/- 200
02-aug-96	FG	a	V	-	-	<340 +/- 200U
SIP-ETS-105						
08-nov-93	ES	a	N	-	-	1000 +/- 64%
SIP-ETS-204						
10-jun-91	ES	a	U	-	-	24000 +/- 9%
10-jun-91	TM	a	U	5 +/- 4P	7 +/- 2P	25680 +/- 1680P
08-nov-93	ES	a	N	-	-	34000 +/- 4%
11-aug-95	LH	a	V	-	-	16800 +/- 1100O
09-sep-95	LH	a	V	<1.9 +/- 0.89ULO	4 +/- 1.5	22300 +/- 1000
03-nov-95	LH	a	V	-	-	26100 +/- 1100
04-dec-95	LH	a	V	-	-	24400 +/- 1100
16-jan-96	LH	a	V	-	-	24700 +/- 1100
14-may-96	FG	a	V	-	-	23700 +/- 400
31-jul-96	FG	a	V	-	-	30900 +/- 500
SIP-ETS-205						
05-nov-93	ES	a	N	-	-	1000 +/- 85%
11-aug-95	LH	a	V	-	-	<290 +/- 220OU
09-sep-95	LH	a	V	-	-	190 +/- 150
01-nov-95	LH	a	V	-	-	310 +/- 150
04-dec-95	LH	a	V	-	-	220 +/- 140
16-jan-96	LH	a	V	-	-	250 +/- 150
14-may-96	FG	a	V	-	-	<330 +/- 200U
31-jul-96	FG	a	V	-	-	<340 +/- 200U
SIP-ETS-207						
10-jul-91	TM	a	U	-	-	25570 +/- 1290P
20-sep-93	ES	a	N	-	-	52000 +/- 3%
11-aug-95	LH	a	V	-	-	15600 +/- 1000O
09-sep-95	LH	a	V	<2.4 +/- 1.2ULOS	17.9 +/- 2.4	20430 +/- 940
03-nov-95	LH	a	V	-	-	20450 +/- 930
04-dec-95	LH	a	V	-	-	21900 +/- 1000
17-jan-96	LH	a	V	-	-	18650 +/- 890
14-may-96	CX	a	V	-	-	24373.3 +/- 148.6
14-may-96	FG	a	V	-	-	24200 +/- 400
31-jul-96	FG	a	V	-	-	26500 +/- 500
SIP-ETS-209						
05-nov-93	ES	a	N	-	-	1000 +/- 39%
11-aug-95	LH	a	V	-	-	740 +/- 280O
09-sep-95	LH	a	V	-	-	640 +/- 170
01-nov-95	LH	a	V	-	-	890 +/- 190
04-dec-95	LH	a	V	-	-	660 +/- 170
16-jan-96	LH	a	V	-	-	630 +/- 170
28-may-96	FG	a	V	-	-	600 +/- 200
31-jul-96	FG	a	V	-	-	900 +/- 200

Soil analyses (mg/kg) for Volatile Organic Compounds (VOCs), in the Trailer 5475 Area

Location Date	Lab	Note	Val.	Depth (ft)	PCE	TCE	1,1 DCE	cis-1,2 DCE	trans-1,2 DCE	Total 1,2 DCE
B-566 (continued)										
13-apr-89	BC	a	U	246.3	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002
13-apr-89	BC	a	U	252.6	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002
13-apr-89	BC	a	U	303.3	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002
B-652										
28-feb-90#	BC	a	U	10.3	0.0012 P	0.0003 P	<0.0002 P	-	-	<0.0002
28-feb-90#	BC	a	U	20.5	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002
28-feb-90#	BC	a	U	40.6	0.0041 P	0.0022 P	<0.0002 P	-	-	<0.0002
01-mar-90#	BC	a	U	75.6	0.011 P	0.0063 P	0.0032 P	-	-	<0.0002
01-mar-90	BC	a	U	85.0	<0.0002 P	0.0002 P	<0.0002 P	-	-	<0.0002
01-mar-90	BC	a	U	97.0	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002
02-mar-90	BC	a	U	107.3	0.013 P	0.031 P	0.0045 P	-	-	<0.0002
02-mar-90	BC	a	U	117.0	0.0004 P	0.0017 P	<0.0002 P	-	-	<0.0002
02-mar-90	BC	a	U	117.3	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002
02-mar-90	BC	a	U	132.3	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002
02-mar-90	BC	a	U	145.7	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002
05-mar-90	BC	a	U	151.3	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002
05-mar-90	BC	a	U	157.0	<0.0002 P	0.015 P	<0.0002 P	-	-	<0.0002
05-mar-90	BC	a	U	166.5	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002
05-mar-90	BC	a	U	175.9	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002
05-mar-90	BC	a	U	186.6	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002
05-mar-90	BC	a	U	197.3	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002
05-mar-90	BC	a	U	203.3	<0.0002 P	0.011 P	<0.0002 P	-	-	<0.0002
06-mar-90	BC	a	U	220.3	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002
06-mar-90	BC	a	U	231.5	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002
06-mar-90	BC	a	U	251.3	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002
06-mar-90	BC	a	U	255.0	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002
07-mar-90	BC	a	U	267.3	<0.0002 P	0.0006 P	<0.0002 P	-	-	<0.0002
07-mar-90	BC	a	U	277.3	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002
07-mar-90	BC	a	U	291.3	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002
07-mar-90	BC	a	U	303.0	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002
07-mar-90	BC	a	U	310.0	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002
B-909										
07-sep-93#	CS	a	V	62.1	0.015	0.016	0.0039	-	-	<0.0005
07-sep-93#	CS	a	V	74.0	0.027	0.036	0.02	-	-	<0.0005
07-sep-93#	CS	a	V	85.5	0.023	0.03	0.0088	-	-	<0.0005
07-sep-93#	CS	a	V	88.8	0.0035	0.005	0.0022	-	-	<0.0005
08-sep-93	CS	a	V	93.0	<0.0005 U	0.0007	<0.0005 U	-	-	<0.0005
08-sep-93	CS	a	V	101.0	0.0014	0.0036	0.0026	-	-	<0.0005
08-sep-93	CS	a	V	107.5	0.0033	0.012	0.003	-	-	<0.0005
08-sep-93	CS	a	V	116.8	0.006	0.033	0.0028	-	-	<0.0005
08-sep-93	CS	a	V	122.5	0.0038	0.016	0.0029	-	-	<0.0005
08-sep-93	CS	a	V	128.0	0.0056	0.024	0.0032	-	-	<0.0005
08-sep-93	CS	a	V	133.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005
08-sep-93	CS	a	V	135.0	0.0011	0.014	<0.0005 U	-	-	<0.0005
08-sep-93	CS	a	V	141.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005
08-sep-93	CS	a	V	156.8	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005
09-sep-93	CS	a	V	169.1	<0.0005 U	0.0037	<0.0005 U	-	-	<0.0005
09-sep-93	CS	a	V	171.8	<0.0005 U	0.0012	<0.0005 U	-	-	<0.0005
09-sep-93	CS	a	V	182.1	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005
09-sep-93	CS	a	V	185.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005
09-sep-93	CS	a	V	189.7	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005
09-sep-93	CS	a	V	205.5	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005
09-sep-93	CS	a	V	218.3	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005
10-sep-93	CS	a	V	231.9	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005
10-sep-93	CS	a	V	242.8	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005
B-911										
15-sep-93	CS	a	U	84.5	0.043	0.11	0.017	-	-	<0.0005
15-sep-93	CS	a	U	88.7	0.0065	0.025	0.0022	-	-	<0.0005
15-sep-93	CS	a	U	93.0	0.001	0.003	<0.0005 U	-	-	<0.0005
16-sep-93	CS	a	V	106.2	0.017	0.054	0.019	-	-	<0.0005
16-sep-93	CS	a	V	118.9	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005
16-sep-93	CS	a	V	131.5	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005
16-sep-93	CS	a	V	142.1	<0.0005 U	0.0048	<0.0005 U	-	-	<0.0005
16-sep-93	CS	a	V	156.0	<0.0005 U	0.011	<0.0005 U	-	-	<0.0005
17-sep-93	CS	a	V	169.9	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005
17-sep-93	CS	a	V	178.5	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005

Radiological analyses in ground water (pCi/L), in the Trailer 5475 Area
Results recorded by 31-oct-1996.

Location Date	Lab	Note	Val.	Gross Alpha	Gross Beta	Tritium
Monitor Wells and Piezometers (continued)						
SIP-ETS-303						
08-nov-93	ES	a	N	-	-	9000 +/- 9%
11-aug-95	LH	a	V	-	-	4750 +/- 5500
09-sep-95	LH	a	V	<2 +/- 0.94ULO	2.9 +/- 1.4	5450 +/- 380
03-nov-95	LH	a	V	-	-	5690 +/- 380
04-dec-95	LH	a	V	-	-	6420 +/- 430
17-jan-96	LH	a	V	-	-	850 +/- 180
28-may-96	FG	a	V	-	-	2900 +/- 200
01-aug-96	FG	a	V	-	-	4300 +/- 300
SIP-ETS-304						
22-sep-93	ES	a	N	-	-	9000 +/- 9%
08-nov-93	ES	a	N	-	-	9000 +/- 9%
11-aug-95	LH	a	V	-	-	7390 +/- 6800
09-sep-95	LH	a	V	<2.8 +/- 1.4ULOS	42.2 +/- 3.7	8250 +/- 500
03-nov-95	LH	a	V	-	-	9830 +/- 550
03-nov-95	LH	a	V	<2.9 +/- 1.4U	47.9 +/- 40	-
04-dec-95	LH	a	V	<3.6 +/- 1.8U	49.8 +/- 4.1	-
04-dec-95	LH	a	V	-	-	9110 +/- 540
17-jan-96	LH	a	V	-	-	8970 +/- 530
17-jan-96	LH	a	V	<3.5 +/- 1.9ULO	47.7 +/- 4.3	-
15-may-96	FG	a	V	<2.3 +/- 1LOU	42 +/- 3	-
15-may-96	FG	a	V	-	-	8300 +/- 300
01-aug-96	FG	a	V	-	-	4700 +/- 300
SIP-ETS-306						
08-nov-93	ES	a	N	-	-	4000 +/- 17%
23-may-94	ES	a	H	-	-	4000 +/- 17%
11-aug-95	LH	a	V	-	-	2700 +/- 4300
09-sep-95	LH	a	V	16.8 +/- 7.5LOS	21.2 +/- 5.1LOS	2960 +/- 280
03-nov-95	LH	a	V	-	-	3090 +/- 280
03-nov-95	LH	a	V	<5.9 +/- 4.1U	11.7 +/- 3.20	-
04-dec-95	LH	a	V	-	-	2590 +/- 270
04-dec-95	LH	a	V	88 +/- 34	70 +/- 17	-
17-jan-96	LH	a	V	-	-	2620 +/- 270
17-jan-96	LH	a	V	12 +/- 8.1LO	20.3 +/- 5.5	-
15-may-96	FG	a	V	<2.2 +/- 1LOU	<3.1 +/- 2U	-
15-may-96	FG	a	V	-	-	3600 +/- 200
01-aug-96	FG	a	V	-	-	1900 +/- 300
SIP-ETS-401						
15-sep-95	LH	a	V	<2.9 +/- 1.3ULOS	4.7 +/- 1.5	6510 +/- 430
06-nov-95	LH	a	V	-	-	3390 +/- 310
05-dec-95	LH	a	V	-	-	1210 +/- 200
19-jan-96	LH	a	V	-	-	380 +/- 150
28-may-96	FG	a	V	-	-	400 +/- 200
01-aug-96	FG	a	V	-	-	800 +/- 200
SIP-ETS-402						
15-sep-95	LH	a	V	-	-	<170 +/- 140U
03-nov-95	LH	a	V	-	-	<160 +/- 120U
05-dec-95	LH	a	V	-	-	<160 +/- 130U
19-jan-96	LH	a	V	-	-	<160 +/- 130U
28-may-96	FG	a	V	-	-	<330 +/- 200U
01-aug-96	FG	a	V	-	-	<490 +/- 200U
SIP-ETS-405						
31-aug-95	LH	a	V	<3.5 +/- 1.9U	4.4 +/- 2.1	<310 +/- 240U
07-nov-95	LH	a	V	-	-	<160 +/- 120U
11-dec-95	LH	a	V	-	-	300 +/- 140
23-jan-96	LH	a	V	-	-	<170 +/- 130U
31-may-96	FG	a	V	-	-	<330 +/- 200U
23-aug-96	FG	a	V	-	-	<370 +/- 200U
SIP-ETS-501						
22-nov-95	IT	aj	V	-	-	721 +/- 30
28-may-96	FG	a	V	-	-	400 +/- 200
02-aug-96	FG	a	V	-	-	700 +/- 200

Soil analyses (mg/kg) for Volatile Organic Compounds (VOCs), in the Trailer 5475 Area

Location Date	Lab	Note	Val.	Depth (ft)	PCE	TCE	1,1 DCE	cis-1,2 DCE	trans-1,2 DCE	Total 1,2 DCE
B-912										
22-sep-93#	CS	af	V	80.2	0.06 D	0.078 D	0.0017	-	-	<0.0005 U
22-sep-93	CS	af	V	90.0	0.0078	0.059 D	0.0053	-	-	<0.0005 U
22-sep-93	CS	a	V	102.5	<0.0005 U	0.015	<0.0005 U	-	-	<0.0005 U
23-sep-93	CS	a	V	118.5	<0.0005 U	0.0006	<0.0005 U	-	-	<0.0005 U
23-sep-93	CS	a	V	128.7	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
23-sep-93	CS	a	V	138.8	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
23-sep-93	CS	a	V	144.2	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
23-sep-93	CS	a	V	150.5	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
23-sep-93	CS	a	V	155.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
23-sep-93	CS	a	V	162.1	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
23-sep-93	CS	a	V	165.8	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
23-sep-93	CS	a	V	168.7	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
23-sep-93	CS	a	V	172.1	<0.0005 U	0.0022	<0.0005 U	-	-	<0.0005 U
24-sep-93	CS	a	V	195.8	<0.0005 U	0.001	<0.0005 U	-	-	<0.0005 U
24-sep-93	CS	a	V	198.4	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
24-sep-93	CS	a	V	204.3	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
24-sep-93	CS	a	V	222.4	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
24-sep-93	CS	a	V	234.7	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
B-1108										
13-feb-95	CH	a	N	86.0	<0.0004 DU	<0.0004 DU	<0.0004 DU	<0.0004 DU	-	-
13-feb-95	CH	a	N	100.0	<0.0004 DU	<0.0004 DU	<0.0004 DU	<0.0004 DU	-	-
13-feb-95	CH	a	N	111.8	<0.0004 DU	<0.0004 DU	<0.0004 DU	<0.0004 DU	-	-
13-feb-95	CH	a	N	119.0	0.0014 D	0.0156 D	<0.0004 DU	<0.0004 DU	-	-
13-feb-95	CH	a	N	128.3	<0.0004 DU	<0.0004 DU	<0.0004 DU	<0.0004 DU	-	-
13-feb-95	CH	a	N	135.5	<0.0004 DU	<0.0004 DU	<0.0004 DU	<0.0004 DU	-	-
13-feb-95	CH	a	N	143.0	<0.0004 DU	<0.0004 DU	<0.0004 DU	<0.0004 DU	-	-
14-feb-95	CH	a	N	147.5	<0.0004 DU	<0.0004 DU	<0.0004 DU	<0.0004 DU	-	-
14-feb-95	CH	a	N	164.3	<0.0004 DU	<0.0004 DU	<0.0004 DU	<0.0004 DU	-	-
14-feb-95	CH	a	N	173.3	<0.0004 DU	<0.0004 DU	<0.0004 DU	<0.0004 DU	-	-
15-feb-95	CH	a	N	209.0	<0.0004 DU	<0.0004 DU	<0.0004 DU	<0.0004 DU	-	-
B-1109										
05-apr-95	CH	a	N	85.5	0.009	0.0294	0.0031	<0.0004 U	-	-
05-apr-95	CH	a	N	89.0	0.047	0.0782	0.0023	<0.0004 U	-	-
05-apr-95	CH	a	N	95.0	0.2337	0.3713	0.0515	<0.0004 U	-	-
05-apr-95	CH	a	N	104.0	0.0175	0.1088	0.0068	<0.0004 U	-	-
05-apr-95	CH	a	N	111.5	0.0053	0.0007	<0.0004 U	<0.0004 U	-	-
B-1117										
30-aug-95	CS	a	V	90.5	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
30-aug-95	CS	a	V	95.5	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
30-aug-95	CS	a	V	98.5	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
30-aug-95	CS	a	V	103.3	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
30-aug-95	CS	a	V	106.3	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
31-aug-95	CS	a	V	112.3	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
31-aug-95	CS	a	V	116.5	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
31-aug-95	CS	a	V	121.3	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
31-aug-95	CS	a	V	123.8	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
31-aug-95	CS	a	V	126.0	<0.0005 U	0.00088	<0.0005 U	-	-	<0.0005 U
31-aug-95	CS	a	V	127.3	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
31-aug-95	CS	a	V	129.5	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
31-aug-95	CS	a	V	132.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
31-aug-95	CS	a	V	138.3	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
31-aug-95	CS	a	V	142.3	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
31-aug-95	CS	a	V	147.3	0.0012	0.016	0.0007	-	-	<0.0005 U
B-1118										
18-sep-95	CS	a	V	93.0	<0.0005 U	<0.0005 ULO	<0.0005 U	-	-	<0.0005 U
18-sep-95	CS	a	V	96.5	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
18-sep-95	CS	a	V	108.3	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
18-sep-95	CS	a	V	113.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
18-sep-95	CS	a	V	121.0	0.0059	0.045 LO	0.0026	-	-	<0.0005 U
19-sep-95	CS	af	V	124.3	0.01	0.058 D	0.0036	-	-	<0.0005 U
19-sep-95	CS	a	V	133.5	0.0013	0.017 LO	<0.0005 U	-	-	<0.0005 U
19-sep-95	CS	a	V	139.5	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
19-sep-95	CS	a	V	142.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
19-sep-95	CS	a	V	155.5	0.0017	0.019	0.00055	-	-	<0.0005 U
19-sep-95	CS	a	V	162.0	<0.0005 U	0.0011	<0.0005 U	-	-	<0.0005 U
19-sep-95	CS	a	V	174.3	<0.0005 U	0.0016	<0.0005 U	-	-	<0.0005 U

Results recorded by 31-oct-1996.

1,1,1 TCA	1,1 DCA	1,2 DCA	Carbon Tetra-chloride	Chloro-form	Freon 11	Freon 113	Location Date
							B-912
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	22-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	22-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	22-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	23-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	23-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	23-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	23-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	23-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	23-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	23-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	23-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	23-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	24-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	24-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	24-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	24-sep-93
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	24-sep-93
							B-1108
<0.0004 DU	-	<0.0004 DU	<0.0004 DU	<0.0004 DU	-	-	13-feb-95
<0.0004 DU	-	<0.0004 DU	<0.0004 DU	<0.0004 DU	-	-	13-feb-95
<0.0004 DU	-	<0.0004 DU	<0.0004 DU	<0.0004 DU	-	-	13-feb-95
<0.0004 DU	-	0.0016 D	<0.0004 DU	0.0029 D	-	-	13-feb-95
<0.0004 DU	-	<0.0004 DU	<0.0004 DU	<0.0004 DU	-	-	13-feb-95
<0.0004 DU	-	<0.0004 DU	<0.0004 DU	<0.0004 DU	-	-	13-feb-95
<0.0004 DU	-	<0.0004 DU	<0.0004 DU	<0.0004 DU	-	-	13-feb-95
<0.0004 DU	-	<0.0004 DU	<0.0004 DU	<0.0004 DU	-	-	14-feb-95
<0.0004 DU	-	<0.0004 DU	<0.0004 DU	<0.0004 DU	-	-	14-feb-95
<0.0004 DU	-	<0.0004 DU	<0.0004 DU	<0.0004 DU	-	-	14-feb-95
<0.0004 DU	-	<0.0004 DU	<0.0004 DU	<0.0004 DU	-	-	15-feb-95
							B-1109
<0.0004 U	-	<0.0004 U	<0.0004 U	<0.0004 U	-	-	05-apr-95
<0.0004 U	-	<0.0004 U	<0.0004 U	<0.0004 U	-	-	05-apr-95
<0.0004 U	-	<0.0004 U	<0.0004 U	<0.0004 U	-	-	05-apr-95
<0.0004 U	-	<0.0004 U	<0.0004 U	<0.0004 U	-	-	05-apr-95
<0.0004 U	-	<0.0004 U	<0.0004 U	<0.0004 U	-	-	05-apr-95
							B-1117
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	30-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	30-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	30-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	30-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.00056	<0.0005 U	<0.0005 U	30-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	31-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	31-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	31-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	31-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	31-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	31-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	31-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	31-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0022	<0.0005 U	<0.0005 U	31-aug-95
							B-1118
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	18-sep-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	18-sep-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	18-sep-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	18-sep-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.004	<0.0005 U	0.0026	18-sep-95
<0.0005 U	<0.0005 U	0.00057	<0.0005 U	0.0074	<0.0005 U	0.0028	19-sep-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0016	<0.0005 U	<0.0005 U	19-sep-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.00087	<0.0005 U	<0.0005 U	19-sep-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	19-sep-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0059	<0.0005 U	<0.0005 U	19-sep-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.00059	<0.0005 U	<0.0005 U	19-sep-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	19-sep-95

Soil analyses (mg/kg) for Volatile Organic Compounds (VOCs), in the Trailer 5475 Area

Location Date	Lab	Note	Val.	Depth (ft)	PCE	TCE	1,1 DCE	cis-1,2 DCE	trans-1,2 DCE	Total 1,2 DCE
B-1118 (continued)										
19-sep-95	CS a		V	179.5	0.00091	0.0048	<0.0005 U	-	-	<0.0005 U
20-sep-95	CS a		V	184.0	<0.0005 U	0.0013	<0.0005 U	-	-	<0.0005 U
20-sep-95	CS a		V	196.3	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
20-sep-95	CS a		V	204.3	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
B-1201										
04-oct-95	CS a		V	94.6	0.00051	0.0042	<0.0005 U	-	-	<0.0005 U
04-oct-95	CS a		V	105.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
04-oct-95	CS a		V	113.0	<0.0005 U	0.0025	<0.0005 U	-	-	<0.0005 U
05-oct-95	CS a		V	120.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
05-oct-95	CS a		V	126.0	<0.0005 U	0.0029	<0.0005 U	-	-	<0.0005 U
05-oct-95	CS a		V	131.6	0.0045	0.032	0.0013	-	-	<0.0005 U
09-oct-95	CS a		N	140.0	<0.0005 U	0.00078	<0.0005 U	-	-	<0.0005 U
09-oct-95	CS a		V	154.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
09-oct-95	CS a		V	168.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
09-oct-95	CS a		V	184.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
10-oct-95	CS a		V	187.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
10-oct-95	CS a		V	195.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
10-oct-95	CS a		V	206.3	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
B-1202										
24-oct-95	CS a		V	78.0	<0.0005 U	0.00061	<0.0005 U	-	-	<0.0005 U
24-oct-95	CS a		V	82.0	<0.0005 U	0.0022	<0.0005 U	-	-	<0.0005 U
24-oct-95#	CS a		V	83.8	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
24-oct-95	CS a		V	85.0	0.001	0.0071	<0.0005 U	-	-	<0.0005 U
24-oct-95	CS a		V	87.0	<0.0005 U	0.0013	<0.0005 U	-	-	<0.0005 U
24-oct-95	CS a		V	96.8	0.0013	0.01	0.00089	-	-	<0.0005 U
B-1203										
26-oct-95	CS a		V	80.0	0.0025	0.0013 LO	0.0032 LO	-	-	<0.0005 U
26-oct-95	CS a		V	93.3	0.0068	0.025	0.007	-	-	<0.0005 U
26-oct-95	CS af		V	105.5	0.017	0.091 D	0.016	-	-	<0.0005 U
26-oct-95	CS a		V	118.3	0.0016	0.0059	0.0013	-	-	<0.0005 U
26-oct-95	CS a		V	125.3	<0.0005 U	0.0038	<0.0005 U	-	-	<0.0005 U
26-oct-95	CS a		V	131.0	0.0013	0.017	0.0019	-	-	<0.0005 U
26-oct-95	CS a		V	141.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
26-oct-95	CS a		V	146.3	<0.0005 U	0.005	<0.0005 U	-	-	<0.0005 U
30-oct-95	CS a		V	155.0	<0.0005 U	0.02	<0.0005 U	-	-	<0.0005 U
30-oct-95	CS a		V	184.0	<0.0005 U	0.002	<0.0005 U	-	-	<0.0005 U
30-oct-95	CS a		V	194.5	<0.0005 U	0.0023	<0.0005 U	-	-	<0.0005 U
30-oct-95	CS a		V	200.5	<0.0005 U	0.00082	<0.0005 U	-	-	<0.0005 U
B-1204										
13-nov-95	CS a		V	90.5	<0.0005 U	<0.0005 U	0.001	-	-	<0.0005 U
13-nov-95	CS a		V	111.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
13-nov-95	CS a		V	119.5	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
13-nov-95	CS a		V	121.3	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
13-nov-95	CS a		V	125.5	<0.0005 U	0.00057	<0.0005 U	-	-	<0.0005 U
13-nov-95	CS a		V	141.5	<0.0005 U	0.00066	<0.0005 U	-	-	<0.0005 U
14-nov-95	CS a		V	150.3	<0.0005 U	0.0025	<0.0005 U	-	-	<0.0005 U
14-nov-95	CS a		V	166.0	<0.0005 U	0.029	<0.0005 U	-	-	<0.0005 U
14-nov-95	CS a		V	183.0	0.0013	0.033	<0.0005 U	-	-	<0.0005 U
14-nov-95	CS a		V	201.5	<0.0005 U	0.0027	<0.0005 U	-	-	<0.0005 U
B-1210										
01-feb-96	CS a		V	104.5	0.0022	0.0079	0.00092	-	-	<0.0005 U
01-feb-96	CS a		V	106.0	0.0024	0.0066	0.0009	-	-	<0.0005 U
01-feb-96	CS a		V	111.5	<0.0005 U	0.0013	0.00059	-	-	<0.0005 U
01-feb-96	CS a		V	116.3	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
01-feb-96	CS a		V	124.3	0.0042	0.024	0.0025	-	-	<0.0005 U
01-feb-96	CS af		V	128.0	0.018	0.017 D	0.0065	-	-	<0.0005 U
01-feb-96	CS a		V	138.5	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
05-feb-96	CS a		V	145.5	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
05-feb-96	CS a		V	157.3	<0.0005 U	0.0023	<0.0005 U	-	-	<0.0005 U
05-feb-96	CS a		V	163.5	0.00082	0.012	<0.0005 U	-	-	<0.0005 U
05-feb-96	CS a		V	177.5	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
05-feb-96	CS a		V	198.5	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
06-feb-96	CS a		V	218.8	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
06-feb-96	CS a		V	220.8	<0.0005 U	0.0014	<0.0005 U	-	-	<0.0005 U
06-feb-96	CS a		V	235.3	<0.0005 U	0.0089	<0.0005 U	-	-	<0.0005 U

Results recorded by 31-oct-1996.

1,1,1 TCA	1,1 DCA	1,2 DCA	Carbon Tetra-chloride	Chloro-form	Freon 11	Freon 113	Location Date
							(continued) B-1118
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.00081	<0.0005 U	<0.0005 U	19-sep-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	20-sep-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	20-sep-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	20-sep-95
							B-1201
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0021	<0.0005 U	<0.0005 U	04-oct-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	04-oct-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	04-oct-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0042	<0.0005 U	<0.0005 U	05-oct-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	05-oct-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0022	<0.0005 U	0.00081	05-oct-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0023	<0.0005 U	<0.0005 U	09-oct-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	09-oct-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	09-oct-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	09-oct-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	10-oct-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0007	<0.0005 U	<0.0005 U	10-oct-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	10-oct-95
							B-1202
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	24-oct-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	24-oct-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	24-oct-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	24-oct-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	24-oct-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	24-oct-95
							B-1203
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.00057	<0.0005 U	<0.0005 U	26-oct-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0019	26-oct-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.002	26-oct-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	26-oct-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.00066	<0.0005 U	<0.0005 U	26-oct-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0018	<0.0005 U	<0.0005 U	26-oct-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	26-oct-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	26-oct-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.00063	<0.0005 U	<0.0005 U	30-oct-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	30-oct-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	30-oct-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	30-oct-95
							B-1204
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.00077	<0.0005 U	0.0012	13-nov-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	13-nov-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	13-nov-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	13-nov-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.00076	<0.0005 U	<0.0005 U	13-nov-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	13-nov-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0025	<0.0005 U	<0.0005 U	14-nov-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	14-nov-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0012	<0.0005 U	<0.0005 U	14-nov-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0013	<0.0005 U	0.0012	14-nov-95
							B-1210
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.00079	<0.0005 U	<0.0005 U	01-feb-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0022	<0.0005 U	<0.0005 U	01-feb-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	01-feb-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	01-feb-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	01-feb-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0012	01-feb-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	01-feb-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	05-feb-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	05-feb-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.00085	<0.0005 U	<0.0005 U	05-feb-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	05-feb-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	05-feb-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	06-feb-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	06-feb-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0022	06-feb-96

Soil analyses (mg/kg) for Volatile Organic Compounds (VOCs), in the Trailer 5475 Area

Location Date	Lab	Note	Val.	Depth (ft)	PCE	TCE	1,1 DCE	cis-1,2 DCE	trans-1,2 DCE	Total 1,2 DCE
B-1219										
16-may-96#	CS	a	V	2.5	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	-
16-may-96#	CS	a	V	5.0	<0.0005 U	0.0042	<0.0005 U	<0.0005 U	<0.0005 U	-
16-may-96#	CS	a	V	10.0	<0.0005 U	0.001	<0.0005 U	<0.0005 U	<0.0005 U	-
16-may-96#	CS	a	V	20.0	<0.0005 U	0.0015	<0.0005 U	<0.0005 U	<0.0005 U	-
20-may-96#	CS	a	N	30.0	0.00068	0.015	0.00058	<0.0005 U	<0.0005 U	-
20-may-96#	CS	a	N	40.0	<0.0005 U	0.0072	<0.0005 U	<0.0005 U	<0.0005 U	-
20-may-96#	CS	a	N	50.0	<0.0005 U	0.01	<0.0005 U	<0.0005 U	<0.0005 U	-
20-may-96#	CS	a	N	59.5	<0.0005 U	0.028	<0.0005 U	<0.0005 U	<0.0005 U	-
20-may-96#	CS	a	N	70.0	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	-
21-may-96#	CS	a	V	79.0	<0.0005 U	0.00058	<0.0005 U	<0.0005 U	<0.0005 U	-
21-may-96#	CS	a	V	89.7	<0.0005 U	0.0049	0.0011	0.002	<0.0005 U	-
22-may-96	CS	a	V	90.7	<0.0005 U	0.0043	<0.0005 U	0.003	<0.0005 U	-
23-may-96	CS	a	V	95.5	<0.0005 U	0.002	<0.0005 U	0.0014	<0.0005 U	-
23-may-96	CS	a	V	97.3	<0.0005 U	0.0019	<0.0005 U	0.002	<0.0005 U	-
23-may-96	CS	a	V	103.3	<0.0005 U	0.0041	<0.0005 U	0.0026	<0.0005 U	-
23-may-96	CS	a	V	105.0	<0.0005 U	0.0052	<0.0005 U	0.0027	<0.0005 U	-
23-may-96	CS	a	V	106.0	<0.0005 U	0.0032	<0.0005 U	0.0018	<0.0005 U	-
23-may-96	CS	a	V	110.5	<0.0005 U	0.0062	0.0012	0.0033	<0.0005 U	-
23-may-96	CS	a	V	114.8	<0.0005 U	0.00098	<0.0005 U	<0.0005 U	<0.0005 U	-
23-may-96	CS	a	V	118.8	<0.0005 U	0.0019	<0.0005 U	0.0011	<0.0005 U	-
23-may-96	CS	a	V	121.0	<0.0005 U	0.0027	<0.0005 U	0.00072	<0.0005 U	-
23-may-96	CS	a	V	123.3	<0.0005 U	0.0049	<0.0005 U	0.0013	<0.0005 U	-
23-may-96	CS	a	V	125.3	<0.0005 U	0.0015	<0.0005 U	<0.0005 U	<0.0005 U	-
23-may-96	CS	a	V	129.3	<0.0005 U	0.004	<0.0005 U	0.0017	<0.0005 U	-
23-may-96	CS	a	V	130.5	<0.0005 U	0.0079	0.00084	0.0025	<0.0005 U	-
23-may-96	CS	a	V	131.3	<0.0005 U	0.0062	0.00055	0.0021	<0.0005 U	-
28-may-96	CS	a	V	140.0	<0.0005 U	0.0071	<0.0005 ULO	0.00064	<0.0005 U	-
28-may-96	BB	a	V	140.3	<0.0009 U	0.02	0.0008	0.001	<0.0005 U	-
28-may-96	CS	a	V	142.7	<0.0005 U	0.018	<0.0005 ULO	0.00064	<0.0005 U	-
28-may-96	CS	a	V	145.5	<0.0005 U	0.059 D	<0.0005 ULO	<0.0005 U	<0.0005 U	-
28-may-96	CS	a	V	151.8	<0.0005 U	0.029	<0.0005 ULO	<0.0005 U	<0.0005 U	-
28-may-96	BB	a	V	152.0	<0.0009 U	0.022	<0.0004 U	<0.0005 U	<0.0005 U	-
28-may-96	CS	a	V	154.0	<0.0005 U	0.016	<0.0005 ULO	<0.0005 U	<0.0005 U	-
28-may-96	CS	a	V	158.0	<0.0005 U	0.025	<0.0005 ULO	<0.0005 U	<0.0005 U	-
28-may-96	CS	a	V	161.0	<0.0005 U	<0.0005 U	<0.0005 ULO	<0.0005 U	<0.0005 U	-
28-may-96	CS	a	V	171.0	<0.0005 U	<0.0005 U	<0.0005 ULO	<0.0005 U	<0.0005 U	-
29-may-96	CS	a	V	181.3	<0.0005 U	<0.0005 ULO	<0.0005 U	<0.0005 U	<0.0005 U	-
29-may-96	BB	a	V	181.5	<0.0009 U	<0.00037 U	<0.0004 U	<0.0005 U	<0.0005 U	-
29-may-96	CS	a	V	190.2	<0.0005 U	<0.0005 ULO	<0.0005 U	<0.0005 U	<0.0005 U	-
29-may-96	BB	a	V	190.6	<0.0009 U	<0.00037 U	<0.0004 U	<0.0005 U	<0.0005 U	-
B-1222										
19-jun-96	CS	a	V	86.0	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	-
19-jun-96	CS	a	V	102.0	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	-
19-jun-96	CS	a	V	105.0	<0.0005 U	0.0021	<0.0005 U	<0.0005 U	<0.0005 U	-
19-jun-96	CS	a	V	108.0	0.0037	0.033	<0.0005 U	<0.0005 U	<0.0005 U	-
19-jun-96	CS	a	V	111.5	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	-
19-jun-96	CS	a	V	117.7	0.0082	0.025 D	0.0025	<0.0005 U	<0.0005 U	-
19-jun-96	CS	a	V	120.0	0.022	0.24 D	0.0085	<0.0005 U	<0.0005 U	-
19-jun-96	CS	a	V	121.7	0.048	0.11 D	0.014	<0.0005 U	<0.0005 U	-
19-jun-96	CS	a	V	123.0	0.003	0.032	0.00072	<0.0005 U	<0.0005 U	-
19-jun-96	CS	a	V	125.3	0.003	0.034	0.0014	<0.0005 U	<0.0005 U	-
19-jun-96	CS	a	V	133.3	0.013	0.065 D	0.0043	<0.0005 U	<0.0005 U	-
19-jun-96	CS	a	V	135.0	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	-
19-jun-96	CS	a	V	136.0	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	-
19-jun-96	CS	a	V	144.0	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	-
20-jun-96	CS	a	V	146.0	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	-
20-jun-96	BB	a	V	148.7	<0.0009 U	<0.00037 U	<0.0004 U	<0.0005 U	<0.0005 U	-
20-jun-96	CS	a	V	149.0	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	-
20-jun-96	CS	a	V	153.0	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	-
20-jun-96	CS	a	V	160.7	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	-
20-jun-96	CS	a	V	166.0	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	-
20-jun-96	CS	a	V	169.0	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	-
20-jun-96	BB	a	V	169.3	<0.0009 U	<0.00037 U	<0.0004 U	<0.0005 U	<0.0005 U	-
20-jun-96	CS	a	V	173.5	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	-
B-1225										
31-jul-96#	CS	a	V	5.0	<0.0005 U	0.00079	<0.0005 U	<0.0005 U	<0.0005 U	-
31-jul-96#	CS	a	V	10.0	<0.0005 U	0.0011	<0.0005 U	<0.0005 U	<0.0005 U	-
31-jul-96#	CS	a	V	20.0	0.00077	0.016	<0.0005 U	<0.0005 U	<0.0005 U	-

Results recorded by 31-oct-1996.

1,1,1 TCA	1,1 DCA	1,2 DCA	Carbon Tetra-chloride	Chloro-form	Freon 11	Freon 113	Location Date
							B-1219
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	16-may-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	16-may-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	16-may-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	16-may-96
<0.0005 U	<0.0005 U	0.0014	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	20-may-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	20-may-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.00059	<0.0005 U	<0.0005 U	20-may-96
<0.0005 U	<0.0005 U	<0.0005 U	0.0017	<0.0005 U	<0.0005 U	<0.0005 U	20-may-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	20-may-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	21-may-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	21-may-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.00051	<0.0005 U	<0.0005 U	22-may-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	23-may-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	23-may-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	23-may-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	23-may-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.00057	<0.0005 U	<0.0005 U	23-may-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	23-may-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	23-may-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	23-may-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0015	<0.0005 U	<0.0005 U	23-may-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	23-may-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	23-may-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	23-may-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	23-may-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	23-may-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.00087	<0.0005 U	0.00059	28-may-96
<0.0006 U	<0.0006 U	<0.0005 U	0.0006	<0.0007 U	<0.0005 U	<0.0005 U	28-may-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	28-may-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	28-may-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.00075	28-may-96
<0.0006 U	<0.0006 U	<0.0005 U	<0.0002 U	<0.0007 U	<0.0005 U	<0.0005 U	28-may-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.00073	28-may-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.00066	28-may-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0012	28-may-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0011	28-may-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	29-may-96
<0.0006 U	<0.0006 U	<0.0005 U	<0.0002 U	<0.0007 U	<0.0005 U	<0.0005 U	29-may-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	29-may-96
<0.0006 U	<0.0006 U	<0.0005 U	<0.0002 U	<0.0007 U	<0.0005 U	<0.0005 U	29-may-96
							B-1222
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0016	<0.0005 U	0.0015	19-jun-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	19-jun-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	19-jun-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.00065	<0.0005 U	<0.0005 U	19-jun-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	19-jun-96
<0.0005 U	<0.0005 U	0.0045	<0.0005 U	0.0097	<0.0005 U	<0.0005 U	19-jun-96
<0.0005 U	<0.0005 U	0.0059	0.0009	0.013	<0.0005 U	0.0014	19-jun-96
<0.0005 U	<0.0005 U	0.016	0.0018	0.038	<0.0005 U	0.0015	19-jun-96
<0.0005 U	<0.0005 U	0.0015	<0.0005 U	0.0033	<0.0005 U	<0.0005 U	19-jun-96
<0.0005 U	<0.0005 U	0.00079	<0.0005 U	0.0022	<0.0005 U	<0.0005 U	19-jun-96
<0.0005 U	<0.0005 U	0.0019	0.00057	0.0083	<0.0005 U	0.00095	19-jun-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	19-jun-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	19-jun-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	19-jun-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	20-jun-96
<0.0006 U	<0.0006 U	<0.0005 U	<0.0002 U	<0.0007 U	<0.0005 U	<0.0005 U	20-jun-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	20-jun-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.00093	<0.0005 U	<0.0005 U	20-jun-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	20-jun-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	20-jun-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	20-jun-96
<0.0006 U	<0.0006 U	<0.0005 U	<0.0002 U	<0.0007 U	<0.0005 U	<0.0005 U	20-jun-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	20-jun-96
							B-1225
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	31-jul-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	31-jul-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	31-jul-96

Soil analyses (mg/kg) for Volatile Organic Compounds (VOCs), in the Trailer 5475 Area

Location Date	Lab	Note	Val.	Depth (ft)	PCE	TCE	1,1 DCE	cis-1,2 DCE	trans-1,2 DCE	Total 1,2 DCE
B-1225 (continued)										
01-aug-96#	CS	a	V	30.5	0.00055	0.01	<0.0005 U	<0.0005 U	<0.0005 U	-
01-aug-96#	CS	a	V	40.5	<0.0005 U	0.0032	<0.0005 U	<0.0005 U	<0.0005 U	-
01-aug-96#	CS	a	V	51.0	0.0053	0.043	<0.0005 U	<0.0005 U	<0.0005 U	-
01-aug-96#	BB	a	N	51.2	<0.0009 U	0.0081	<0.0004 U	<0.0005 U	<0.0005 U	-
01-aug-96#	CS	af	V	60.5	0.021	0.022 D	<0.0005 U	<0.0005 U	<0.0005 U	-
05-aug-96#	CS	af	V	70.5	0.011 D	0.06 DLO	0.0061	<0.0005 U	<0.0005 U	-
05-aug-96	CS	af	V	80.5	0.01 D	0.021 DLO	0.0067	<0.0005 U	<0.0005 U	-
07-aug-96	CS	af	V	82.5	0.005	0.088 D	0.007	<0.0005 U	<0.0005 U	-
07-aug-96	CS	a	V	87.5	0.0026	0.046	0.002	<0.0005 U	<0.0005 U	-
07-aug-96	CS	a	V	95.5	<0.0005 U	0.012	0.001	<0.0005 U	<0.0005 U	-
07-aug-96	CS	a	V	100.8	<0.0005 U	0.00093	<0.0005 U	<0.0005 U	<0.0005 U	-
07-aug-96	CS	a	V	113.3	0.0048	0.041	0.0037	<0.0005 U	<0.0005 U	-
08-aug-96	CS	af	V	120.5	0.0095	0.055 D	0.0031	<0.0005 U	<0.0005 U	-
08-aug-96#	CS	a	V	123.5	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	-
08-aug-96#	CS	a	V	127.5	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	-
08-aug-96	CS	a	V	130.5	0.0023	0.031	0.00096	<0.0005 U	<0.0005 U	-
08-aug-96	CS	a	V	134.5	0.0057	0.04	0.0011	<0.0005 U	<0.0005 U	-
08-aug-96	CS	af	V	137.5	0.0038	0.026 D	0.0018	<0.0005 U	<0.0005 U	-
08-aug-96	CS	a	V	140.5	<0.0005 U	0.00058	<0.0005 U	<0.0005 U	<0.0005 U	-
08-aug-96#	CS	a	V	146.5	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	-
SIB-543-001										
21-sep-90#	BC	a	U	1.8	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
25-sep-90#	BC	a	U	5.5	0.0003 P	0.0002 P	0.001 P	0.002 P	<0.0002 P	0.002 P
21-sep-90#	BC	a	U	10.8	<0.0002 P	<0.0002 P	0.0005 P	0.0005 P	<0.0002 P	0.0005 P
21-sep-90#	BC	a	U	20.5	<0.0002 P	<0.0002 P	<0.0002 P	0.0002 P	<0.0002 P	0.0002 P
21-sep-90#	BC	a	U	30.5	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
23-sep-90#	BC	a	U	41.3	<0.0002 P	<0.0002 P	<0.0002 P	0.0005 P	<0.0002 P	0.0005 P
23-sep-90#	BC	a	U	50.8	0.0034 P	0.0062 P	0.0007 P	<0.0002 P	<0.0002 P	<0.0002 P
23-sep-90#	BC	a	U	60.3	0.0045 P	0.0081 P	0.0009 P	0.0005 P	<0.0002 P	0.0005 P
23-sep-90#	BC	a	U	70.8	<0.0002 P	<0.0002 P	0.0003 P	0.0004 P	<0.0002 P	0.0004 P
23-sep-90#	BC	a	U	80.8	<0.0002 P	<0.0002 P	<0.0002 P	0.0012 P	<0.0002 P	0.0012 P
23-sep-90#	BC	a	U	90.8	<0.0002 P	<0.0002 P	<0.0002 P	0.0004 P	<0.0002 P	0.0004 P
23-sep-90	BC	a	U	100.8	<0.0002 P	<0.0002 P	<0.0002 P	0.0004 P	<0.0002 P	0.0004 P
SIB-543-002										
26-sep-90#	BC	a	U	3.8	<0.0002 P	<0.0002 P	<0.0002 P	0.0002 P	<0.0002 P	0.0002 P
26-sep-90#	BC	a	U	7.3	<0.0002 P	<0.0002 P	<0.0002 P	0.0002 P	<0.0002 P	0.0002 P
26-sep-90#	BC	a	U	11.3	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
26-sep-90#	BC	a	U	21.3	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
26-sep-90#	BC	a	U	31.3	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
26-sep-90#	BC	a	U	41.3	0.0006 P	<0.0002 P	0.0014 P	<0.0002 P	<0.0002 P	<0.0002 P
26-sep-90#	BC	a	U	60.3	0.0026 P	<0.0002 P	0.0046 P	<0.0002 P	<0.0002 P	<0.0002 P
26-sep-90#	BC	a	U	71.3	<0.0002 P	<0.0002 P	0.0004 P	<0.0002 P	<0.0002 P	<0.0002 P
26-sep-90#	BC	a	U	81.3	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
26-sep-90#	BC	a	U	91.3	<0.0002 P	<0.0002 P	<0.0002 P	0.0002 P	<0.0002 P	0.0002 P
26-sep-90	BC	a	U	101.8	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
SIB-543-003										
27-sep-90#	BC	a	U	5.5	<0.0002 P	<0.0002 P	<0.0002 P	0.0003 P	<0.0002 P	0.0003 P
27-sep-90#	BC	a	U	10.5	<0.0002 P	<0.0002 P	0.0005 P	<0.0002 P	<0.0002 P	<0.0002 P
27-sep-90#	BC	a	U	41.0	0.0061 P	0.0027 P	0.0046 P	<0.0002 P	<0.0002 P	<0.0002 P
28-sep-90#	BC	a	U	51.3	0.003 P	0.0013 P	0.001 P	<0.0002 P	<0.0002 P	<0.0002 P
28-sep-90#	BC	a	U	60.5	0.03 P	0.02 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P
28-sep-90#	BC	a	U	71.3	0.02 P	0.02 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P
28-sep-90#	BC	a	U	80.8	0.0011 P	0.002 P	0.0006 P	<0.0002 P	<0.0002 P	<0.0002 P
28-sep-90	BC	a	U	90.8	0.0056 P	0.006 P	0.0032 P	<0.0002 P	<0.0002 P	<0.0002 P
SIB-543-004										
01-oct-90#	BC	a	U	1.8	0.01 P	0.04 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P
01-oct-90#	BC	a	U	4.8	0.02 P	0.08 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P
01-oct-90#	BC	a	U	11.3	0.01 P	0.03 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P
01-oct-90#	BC	a	U	20.5	0.1 P	0.27 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P
01-oct-90#	BC	a	U	31.3	0.0031 P	0.0055 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
01-oct-90#	BC	a	U	41.3	<0.01 P	0.021 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P
01-oct-90#	BC	a	U	50.8	0.1 P	0.15 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P
01-oct-90#	BC	a	U	60.8	0.02 P	0.02 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P
01-oct-90#	BC	a	U	71.3	0.01 P	0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P
01-oct-90	BC	a	U	81.3	0.03 P	0.11 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P

Results recorded by 31-oct-1996.

1,1,1 TCA	1,1 DCA	1,2 DCA	Carbon Tetra-chloride	Chloro-form	Freon 11	Freon 113	Location Date
							(continued) B-1225
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	01-aug-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	01-aug-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	01-aug-96
<0.0006 U	<0.0006 U	<0.0005 U	<0.0002 U	<0.0007 U	<0.0005 U	<0.0005 U	01-aug-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	01-aug-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	05-aug-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0031	05-aug-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0012	07-aug-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0013	07-aug-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0016	07-aug-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0017	07-aug-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0009	<0.0005 U	0.0023	07-aug-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0037	<0.0005 U	<0.0005 U	08-aug-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	08-aug-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	08-aug-96
<0.0005 U	<0.0005 U	0.00075	<0.0005 U	0.0026	<0.0005 U	<0.0005 U	08-aug-96
<0.0005 U	<0.0005 U	0.00063	<0.0005 U	0.0032	<0.0005 U	<0.0005 U	08-aug-96
<0.0005 U	<0.0005 U	0.0033	<0.0005 U	0.0093	<0.0005 U	<0.0005 U	08-aug-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	08-aug-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	08-aug-96
							SIB-543-001
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	21-sep-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0005 P	25-sep-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0006 P	21-sep-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	21-sep-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	21-sep-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	23-sep-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	23-sep-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	23-sep-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0009 P	23-sep-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	23-sep-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	23-sep-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	23-sep-90
							SIB-543-002
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0012 P	26-sep-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0023 P	26-sep-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	26-sep-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	26-sep-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	26-sep-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0003 P	26-sep-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0009 P	26-sep-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	26-sep-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	26-sep-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	26-sep-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	26-sep-90
							SIB-543-003
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0017 P	27-sep-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0016 P	27-sep-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.001 P	27-sep-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	28-sep-90
<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	28-sep-90
<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	28-sep-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	28-sep-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.002 P	28-sep-90
							SIB-543-004
<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	01-oct-90
<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	01-oct-90
<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	01-oct-90
<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	01-oct-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	01-oct-90
<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	01-oct-90
<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	01-oct-90
<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	01-oct-90
<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	01-oct-90
<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	0.1 P	01-oct-90

Soil analyses (mg/kg) for Volatile Organic Compounds (VOCs), in the Trailer 5475 Area

Location Date	Lab	Note	Val.	Depth (ft)	PCE	TCE	1,1 DCE	cis-1,2 DCE	trans-1,2 DCE	Total 1,2 DCE
SIB-543-101										
20-jan-95#	CS	a	V	5.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
20-jan-95#	CS	a	V	10.3	<0.0005 U	0.00055	<0.0005 U	-	-	<0.0005 U
23-jan-95#	CS	a	V	20.3	0.013	0.01	0.0015	-	-	<0.0005 U
23-jan-95#	CS	a	V	30.3	0.00069	0.002	<0.0005 U	-	-	<0.0005 U
23-jan-95#	CS	a	V	40.3	0.01	0.0091	0.0012	-	-	<0.0005 U
23-jan-95#	CS	a	V	50.3	0.031	0.023	0.0045	-	-	<0.0005 U
23-jan-95#	CS	a	V	60.3	0.0046	0.0032	0.00052	-	-	<0.0005 U
24-jan-95#	CS	a	V	67.5	0.016	0.0083	0.0017	-	-	<0.0005 U
24-jan-95#	CS	af	V	70.3	0.027 D	0.026	0.011	-	-	<0.0005 U
24-jan-95#	CS	af	V	80.3	0.022 D	0.03 D	0.011	-	-	<0.0005 U
24-jan-95#	CS	a	V	90.3	0.0031	0.0054	0.00079	-	-	<0.0005 U
25-jan-95	CS	af	V	95.3	0.018	0.071 D	0.011	-	-	<0.0005 U
25-jan-95	CS	af	V	100.3	0.01	0.04 D	0.0062	-	-	<0.0005 U
SIB-543-102										
01-feb-95#	CS	a	V	5.3	0.00074	<0.0005 U	<0.0005 U	-	-	<0.0005 U
01-feb-95#	CS	a	V	10.3	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
01-feb-95#	CS	a	V	20.3	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
01-feb-95#	CS	a	V	30.3	0.0041	0.0036	0.0006	-	-	<0.0005 U
02-feb-95#	CS	a	V	40.3	0.0044	0.0029	0.00081	-	-	<0.0005 U
02-feb-95#	CS	a	V	50.3	0.00094	0.00068	<0.0005 U	-	-	<0.0005 U
02-feb-95#	CS	a	V	60.3	0.031	0.019	0.0088	-	-	<0.0005 U
02-feb-95#	CS	a	V	70.3	0.0074	0.0041	0.0015	-	-	<0.0005 U
02-feb-95#	CS	a	V	80.3	0.021	0.024	0.027	-	-	<0.0005 U
02-feb-95#	CS	af	V	90.3	0.0091 D	0.03	0.024	-	-	<0.0005 U
03-feb-95	CS	a	V	95.3	0.0034	0.013	0.0025	-	-	<0.0005 U
SIB-543-103										
09-feb-95#	CS	a	V	5.3	0.003	0.0033	0.0012	-	-	<0.0005 U
09-feb-95#	CS	a	V	10.3	0.0024	0.0018	<0.0005 U	-	-	<0.0005 U
09-feb-95#	CS	a	V	20.3	0.001	0.0018	<0.0005 U	-	-	<0.0005 U
09-feb-95	CS	a	V	30.3	0.0053	0.0063	0.0024	-	-	<0.0005 U
14-feb-95#	CS	a	V	40.3	0.011	0.0075	0.00081	-	-	<0.0005 U
14-feb-95#	CS	a	V	50.3	<0.0005 U	<0.0005 U	0.0019	-	-	<0.0005 U
14-feb-95#	CS	a	V	60.3	0.012	0.01	0.0055	-	-	<0.0005 U
14-feb-95#	CS	a	V	70.3	0.0069	0.0076	0.003	-	-	<0.0005 U
14-feb-95#	CS	a	V	80.3	0.026	0.037	0.0076	-	-	<0.0005 U
15-feb-95#	CS	af	V	90.3	0.024	0.044 D	0.0085	-	-	<0.0005 U
15-feb-95	CS	af	V	95.3	0.032 D	0.09 D	0.016	-	-	0.0005
15-feb-95	CS	af	V	103.3	0.063 D	0.14 D	0.017 D	-	-	<0.0005 U
SIB-ELM-001										
22-may-89#	BC	a	U	6.0	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
22-may-89#	BC	a	U	10.3	<0.005 P	<0.005 P	<0.005 P	-	-	<0.005 P
22-may-89#	BC	a	U	21.3	<0.005 P	<0.005 P	<0.005 P	-	-	<0.005 P
22-may-89#	BC	a	U	31.3	<0.005 P	<0.005 P	<0.005 P	-	-	<0.005 P
26-may-89#	CT	a	U	41.3	<0.005 P	<0.005 P	<0.005 P	-	-	<0.005 P
26-may-89#	CT	a	U	51.3	<0.005 P	<0.005 P	<0.005 P	-	-	<0.005 P
26-may-89#	CT	a	U	61.3	<0.005 P	<0.005 P	<0.005 P	-	-	<0.005 P
26-may-89#	CT	a	U	71.3	<0.005 P	<0.005 P	<0.005 P	-	-	<0.005 P
26-may-89#	CT	a	U	81.3	<0.005 P	<0.005 P	<0.005 P	-	-	<0.005 P
26-may-89	CT	a	U	86.3	<0.005 P	<0.005 P	<0.005 P	-	-	<0.005 P
SIB-ELM-101										
29-mar-90#	BC	a	U	5.0	0.34 P	0.04 P	<0.0002 P	-	-	<0.0002 P
29-mar-90#	BC	a	U	10.0	0.2 P	0.041 P	<0.0002 P	-	-	<0.0002 P
29-mar-90#	BC	a	U	20.5	0.077 P	0.028 P	<0.0002 P	-	-	<0.0002 P
29-mar-90#	BC	a	U	30.0	0.017 P	0.0074 P	<0.0002 P	-	-	<0.0002 P
29-mar-90#	BC	a	U	40.5	0.0045 P	0.0025 P	<0.0002 P	-	-	<0.0002 P
29-mar-90#	BC	a	U	50.5	0.069 P	0.53 P	0.0009 P	-	-	<0.0002 P
30-mar-90#	BC	a	U	60.5	0.037 P	0.025 P	0.0006 P	-	-	<0.0002 P
30-mar-90#	BC	a	U	70.5	0.029 P	0.021 P	0.0008 P	-	-	<0.0002 P
30-mar-90	BC	a	U	80.5	0.0053 P	0.022 P	0.0004 P	-	-	<0.0002 P
SIB-ELM-102										
04-apr-90#	BC	a	U	5.8	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
04-apr-90#	BC	a	U	10.3	<0.0002 P	0.0009 P	<0.0002 P	-	-	<0.0002 P
04-apr-90#	BC	a	U	15.5	<0.0002 P	0.0007 P	<0.0002 P	-	-	<0.0002 P
04-apr-90#	BC	a	U	21.0	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P

Results recorded by 31-oct-1996.

1,1,1 TCA	1,1 DCA	1,2 DCA	Carbon Tetra-chloride	Chloro-form	Freon 11	Freon 113	Location Date
							SIB-543-101
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.00073	20-jan-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0005	20-jan-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.00066	23-jan-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.00065	23-jan-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.00082	23-jan-95
<0.0005 U	<0.0005 U	0.00058	<0.0005 U	<0.0005 U	<0.0005 U	0.0013	23-jan-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.001	23-jan-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	24-jan-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0029	24-jan-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.00065	24-jan-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	24-jan-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0027	25-jan-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0021	25-jan-95
							SIB-543-102
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	01-feb-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	01-feb-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	01-feb-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	01-feb-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	02-feb-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	02-feb-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	02-feb-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	02-feb-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0022	02-feb-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0071	02-feb-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0026	03-feb-95
							SIB-543-103
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	09-feb-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	09-feb-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	09-feb-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	09-feb-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	14-feb-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	14-feb-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0007	14-feb-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0018	14-feb-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0036	14-feb-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.00088	0.0048	15-feb-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.001	0.0074	15-feb-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.001	0.02	15-feb-95
							SIB-ELM-001
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0004 P	<0.0002 P	<0.0002 P	22-may-89
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	22-may-89
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	22-may-89
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	22-may-89
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	26-may-89
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	26-may-89
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	26-may-89
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	26-may-89
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	26-may-89
							SIB-ELM-101
0.0014 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	29-mar-90
0.0015 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	29-mar-90
0.0005 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	29-mar-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	29-mar-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	29-mar-90
0.0003 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	29-mar-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	30-mar-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	30-mar-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	30-mar-90
							SIB-ELM-102
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	04-apr-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	04-apr-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	04-apr-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	04-apr-90

Soil analyses (mg/kg) for Volatile Organic Compounds (VOCs), in the Trailer 5475 Area

Location Date	Lab	Note	Val.	Depth (ft)	PCE	TCE	1,1 DCE	cis-1,2 DCE	trans-1,2 DCE	Total 1,2 DCE
SIB-ELM-103										
07-jun-90#	BC	a	U	5.8	<0.2 P	<0.2 P	<1 P	<1 P	<1 P	<1 P
07-jun-90#	BC	a	U	10.8	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
SIB-ELM-104										
11-jun-90#	BC	a	U	5.8	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
11-jun-90#	BC	a	U	10.5	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
SIB-ELM-105										
08-jun-90#	BC	a	U	5.5	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
08-jun-90#	BC	a	U	10.8	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
SIB-ELM-106										
11-jun-90#	BC	a	U	5.3	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
SIB-ELM-108										
11-jun-90#	BC	a	U	5.5	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
11-jun-90#	BC	a	U	10.5	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
11-jun-90#	CT	a	U	10.8	<0.005 P	<0.005 P	<0.005 P	-	-	<0.005 P
11-jun-90#	BC	a	U	15.5	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
SIB-ELM-109										
11-jun-90#	BC	a	U	5.5	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
11-jun-90#	CT	a	U	5.8	<0.005 P	<0.005 P	<0.005 P	-	-	<0.005 P
11-jun-90#	BC	a	U	10.5	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
SIB-ELM-110										
12-jun-90#	BC	a	U	5.5	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
12-jun-90#	BC	a	U	10.5	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
SIB-ELM-111										
08-jun-90#	BC	a	U	5.5	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
08-jun-90#	BC	a	U	10.5	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
SIB-ELM-112										
11-jun-90#	BC	a	U	5.5	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
11-jun-90#	BC	a	U	10.5	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
SIB-ELM-201										
04-apr-91#	BC	a	U	1.8	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
04-apr-91#	BC	a	U	6.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
04-apr-91#	BC	a	U	10.8	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
04-apr-91#	BC	a	U	20.8	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
04-apr-91#	BC	a	U	30.8	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
04-apr-91#	BC	a	U	40.8	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
05-apr-91#	BC	a	U	51.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
05-apr-91#	BC	a	U	61.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
05-apr-91#	BC	a	U	70.8	0.007 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
05-apr-91#	BC	a	U	80.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
05-apr-91#	BC	a	U	90.8	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
05-apr-91	BC	a	U	101.3	0.019 P	0.044 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
SIB-ETS-001										
02-may-89#	BC	a	U	20.5	<0.0002 P	0.001 P	<0.0002 P	-	-	<0.0002 P
02-may-89#	BC	a	U	30.4	0.0003 P	0.0017 P	<0.0002 P	-	-	<0.0002 P
02-may-89#	BC	a	U	40.8	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
02-may-89#	BC	a	U	50.5	<0.0002 P	0.0005 P	<0.0002 P	-	-	<0.0002 P
02-may-89#	BC	a	U	60.5	0.0003 P	0.0017 P	<0.0002 P	-	-	<0.0002 P
03-may-89#	BC	a	U	70.8	0.0002 P	0.0007 P	<0.0002 P	-	-	<0.0002 P
03-may-89#	BC	a	U	80.5	0.0005 P	0.0022 P	<0.0002 P	-	-	<0.0002 P
03-may-89#	BC	a	U	91.0	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
03-may-89	BC	a	U	97.8	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
SIB-ETS-002										
04-may-89#	BC	a	U	6.0	0.0073 P	0.026 P	0.021 P	-	-	<0.0002 P
04-may-89#	BC	a	U	11.0	0.0006 P	0.0011 P	0.0007 P	-	-	<0.0002 P
04-may-89#	BC	a	U	21.0	0.0021 P	0.0045 P	0.0013 P	-	-	<0.0002 P
04-may-89#	BC	a	U	31.0	0.0011 P	0.0026 P	0.0014 P	-	-	<0.0002 P
04-may-89#	BC	a	U	41.0	0.0005 P	0.0015 P	0.0004 P	-	-	<0.0002 P
04-may-89#	BC	a	U	50.8	0.0006 P	<0.0002 P	0.0013 P	-	-	<0.0002 P
04-may-89#	BC	a	U	61.0	0.0016 P	0.0084 P	0.001 P	-	-	<0.0002 P

Results recorded by 31-oct-1996.

1,1,1 TCA	1,1 DCA	1,2 DCA	Carbon Tetra-chloride	Chloro-form	Freon 11	Freon 113	Location Date
							SIB-ELM-103
<0.2 P	<1 P	<0.2 P	<0.2 P	<1 P	<1 P	-	07-jun-90
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	07-jun-90
							SIB-ELM-104
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	11-jun-90
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	11-jun-90
							SIB-ELM-105
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	08-jun-90
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	08-jun-90
							SIB-ELM-106
<0.2 P	<0.2 P.	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	11-jun-90
							SIB-ELM-108
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	11-jun-90
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	11-jun-90
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	11-jun-90
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	11-jun-90
							SIB-ELM-109
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	11-jun-90
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	11-jun-90
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	11-jun-90
							SIB-ELM-110
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	12-jun-90
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	12-jun-90
							SIB-ELM-111
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	08-jun-90
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	08-jun-90
							SIB-ELM-112
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	11-jun-90
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	11-jun-90
							SIB-ELM-201
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	04-apr-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	04-apr-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	04-apr-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	04-apr-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	04-apr-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	04-apr-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	05-apr-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	05-apr-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	05-apr-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	0.013 P	05-apr-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	05-apr-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	05-apr-91
							SIB-ETS-001
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	02-may-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	02-may-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	02-may-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	02-may-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0036 P	02-may-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0011 P	03-may-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0009 P	0.0053 P	03-may-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	03-may-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	03-may-89
							SIB-ETS-002
0.0003 P	<0.0002 P	<0.0002 P	0.0019 P	0.0033 P	<0.0002 P	0.0063 P	04-may-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0003 P	<0.0002 P	0.0003 P	04-may-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0002 P	<0.0002 P	0.0004 P	04-may-89
<0.0002 P	<0.0002 P	<0.0002 P	0.0002 P	0.0004 P	<0.0002 P	0.0008 P	04-may-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	04-may-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0004 P	<0.0002 P	0.0003 P	04-may-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	04-may-89

Soil analyses (mg/kg) for Volatile Organic Compounds (VOCs), in the Trailer 5475 Area

Location Date	Lab	Note	Val.	Depth (ft)	PCE	TCE	1,1 DCE	cis-1,2 DCE	trans-1,2 DCE	Total 1,2 DCE
SIB-ETS-002 (continued)										
04-may-89#	BC	a	U	71.0	0.02 P	0.059 P	0.0031 P	-	-	<0.0002 P
04-may-89#	BC	a	U	80.0	0.0065 P	0.013 P	0.0003 P	-	-	<0.0002 P
04-may-89	BC	a	U	86.5	0.021 P	0.13 P	0.0067 P	-	-	<0.0002 P
SIB-ETS-003										
05-may-89#	BC	a	U	6.0	0.007 P	0.015 P	0.0043 P	-	-	<0.0002 P
05-may-89#	BC	a	U	10.0	0.02 P	0.051 P	0.017 P	-	-	<0.0002 P
05-may-89#	BC	a	U	20.0	0.0011 P	0.0044 P	0.0003 P	-	-	<0.0002 P
05-may-89#	BC	a	U	30.8	0.0082 P	0.024 P	0.0021 P	-	-	<0.0002 P
05-may-89#	BC	a	U	40.5	0.0003 P	0.0033 P	<0.0002 P	-	-	<0.0002 P
05-may-89#	BC	a	U	50.4	0.0038 P	0.016 P	0.0049 P	-	-	<0.0002 P
05-may-89#	BC	a	U	61.0	0.0015 P	0.0064 P	0.0017 P	-	-	<0.0002 P
08-may-89#	BC	a	U	71.0	0.0061 P	0.023 P	0.0019 P	-	-	<0.0002 P
08-may-89#	BC	a	U	81.0	0.0004 P	0.0011 P	0.0007 P	-	-	<0.0002 P
08-may-89	BC	a	U	86.0	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
SIB-ETS-004										
08-may-89#	BC	a	U	6.0	0.0084 P	0.037 P	0.0004 P	-	-	<0.0002 P
08-may-89#	BC	a	U	11.0	0.0064 P	0.053 P	0.0009 P	-	-	<0.0002 P
08-may-89#	BC	a	U	21.0	<0.0002 P	0.0016 P	<0.0002 P	-	-	<0.0002 P
08-may-89#	BC	a	U	31.0	<0.0002 P	0.001 P	<0.0002 P	-	-	<0.0002 P
08-may-89#	BC	a	U	41.0	<0.0002 P	0.0007 P	<0.0002 P	-	-	<0.0002 P
08-may-89#	BC	a	U	51.3	<0.0002 P	0.0004 P	0.0003 P	-	-	<0.0002 P
08-may-89#	BC	a	U	61.0	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
08-may-89#	BC	a	U	70.5	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
08-may-89#	BC	a	U	81.0	0.0003 P	0.0003 P	<0.0002 P	-	-	<0.0002 P
08-may-89#	BC	a	U	90.8	<0.0002 P	0.0009 P	<0.0002 P	-	-	<0.0002 P
08-may-89#	BC	a	U	100.5	0.0034 P	0.061 P	0.0011 P	-	-	<0.0002 P
SIB-ETS-101										
12-jun-90#	BC	a	U	5.5	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
12-jun-90#	BC	a	U	10.5	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
12-jun-90#	BC	a	U	20.5	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
12-jun-90#	BC	a	U	30.5	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
12-jun-90#	BC	a	U	40.5	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
12-jun-90#	BC	a	U	50.3	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
12-jun-90#	CT	a	U	51.8	<0.005 P	<0.005 P	<0.005 P	-	-	<0.005 P
12-jun-90#	BC	a	U	60.5	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
12-jun-90#	BC	a	U	70.5	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
13-jun-90#	BC	a	U	80.5	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
SIB-ETS-102										
13-jun-90#	BC	a	U	5.3	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
13-jun-90#	BC	a	U	10.5	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
13-jun-90#	BC	a	U	20.5	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
13-jun-90#	BC	a	U	30.5	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
13-jun-90#	BC	a	U	40.5	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
14-jun-90#	BC	a	U	50.3	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
14-jun-90#	BC	a	U	60.5	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
14-jun-90#	BC	a	U	70.5	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
14-jun-90#	BC	a	U	80.5	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
14-jun-90#	BC	a	U	90.5	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
SIB-ETS-103										
19-jul-90#	BC	a	U	5.5	0.024 P	0.063 P	0.0003 P	<0.0002 P	<0.0002 P	<0.0002 P
20-jul-90#	BC	a	U	10.0	0.0028 P	0.014 P	0.0003 P	<0.0002 P	<0.0002 P	<0.0002 P
20-jul-90#	BC	a	U	20.5	0.007 P	0.033 P	0.0008 P	<0.0002 P	<0.0002 P	<0.0002 P
20-jul-90#	BC	a	U	30.8	0.001 P	0.012 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
20-jul-90#	BC	a	U	40.5	0.0023 P	0.019 P	0.0004 P	<0.0002 P	<0.0002 P	<0.0002 P
20-jul-90#	BC	a	U	48.5	0.036 P	0.2 P	0.0021 P	<0.0002 P	<0.0002 P	<0.0002 P
20-jul-90#	CT	a	U	51.3	<0.005 P	<0.005 P	<0.005 P	-	-	<0.005 P
20-jul-90#	BC	a	U	60.0	<0.008 P	0.054 P	<0.008 P	<0.008 P	<0.008 P	<0.008 P
20-jul-90#	BC	a	U	60.8	0.012 P	0.097 P	<0.008 P	<0.008 P	<0.008 P	<0.008 P
20-jul-90#	BC	a	U	70.3	<0.008 P	0.027 P	<0.008 P	<0.008 P	<0.008 P	<0.008 P
20-jul-90	BC	a	U	80.0	0.042 P	0.48 P	<0.008 P	<0.008 P	<0.008 P	<0.008 P
SIB-ETS-104										
08-oct-90#	BC	a	U	1.8	0.011 P	0.006 P	<0.0002 P	0.0008 P	<0.0002 P	0.0008 P
08-oct-90#	BC	a	U	6.3	0.02 P	0.03 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P
08-oct-90#	BC	a	U	11.3	0.0003 P	0.0006 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P

Results recorded by 31-oct-1996.

1,1,1 TCA	1,1 DCA	1,2 DCA	Carbon Tetra-chloride	Chloro-form	Freon 11	Freon 113	Location Date
						(continued)	SIB-ETS-002
<0.0002 P	<0.0002 P	<0.0002 P	0.0003 P	0.0002 P	<0.0002 P	0.0008 P	04-may-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	04-may-89
<0.0002 P	<0.0002 P	<0.0002 P	0.0009 P	0.0012 P	<0.0002 P	0.0028 P	04-may-89
							SIB-ETS-003
<0.0002 P	<0.0002 P	<0.0002 P	0.0012 P	0.0002 P	<0.0002 P	0.0003 P	05-may-89
0.0005 P	<0.0002 P	<0.0002 P	0.0033 P	0.0012 P	<0.0002 P	0.0013 P	05-may-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	05-may-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0003 P	<0.0002 P	<0.0002 P	05-may-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	05-may-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0006 P	<0.0002 P	<0.0002 P	05-may-89
<0.0002 P	<0.0002 P	<0.0002 P	0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	05-may-89
<0.0002 P	<0.0002 P	<0.0002 P	0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	08-may-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	08-may-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	08-may-89
							SIB-ETS-004
0.0014 P	<0.0002 P	<0.0002 P	0.0002 P	<0.0002 P	<0.0002 P	0.011 P	08-may-89
0.0011 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0082 P	08-may-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	08-may-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0009 P	08-may-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0019 P	08-may-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0022 P	08-may-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0002 P	08-may-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0004 P	08-may-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0008 P	08-may-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0025 P	08-may-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0041 P	<0.0002 P	0.0052 P	08-may-89
							SIB-ETS-101
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	12-jun-90
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	12-jun-90
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	12-jun-90
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	12-jun-90
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	12-jun-90
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	12-jun-90
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	12-jun-90
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	12-jun-90
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	12-jun-90
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	13-jun-90
							SIB-ETS-102
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	13-jun-90
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	13-jun-90
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	13-jun-90
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	13-jun-90
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	13-jun-90
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	14-jun-90
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	14-jun-90
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	14-jun-90
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	14-jun-90
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-	14-jun-90
							SIB-ETS-103
0.0003 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0009 P	<0.0002 P	<0.0002 P	19-jul-90
<0.0002 P	<0.0002 P	0.0005 P	<0.0002 P	0.0018 P	<0.0002 P	<0.0002 P	20-jul-90
0.0003 P	<0.0002 P	0.0025 P	<0.0002 P	0.0031 P	<0.0002 P	<0.0002 P	20-jul-90
<0.0002 P	<0.0002 P	0.0063 P	<0.0002 P	0.0037 P	<0.0002 P	<0.0002 P	20-jul-90
0.0002 P	<0.0002 P	0.02 P	<0.0002 P	0.0083 P	<0.0002 P	<0.0002 P	20-jul-90
0.0005 P	<0.0002 P	0.0087 P	0.0002 P	0.0055 P	<0.0002 P	<0.0002 P	20-jul-90
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	20-jul-90
<0.008 P	<0.008 P	0.014 P	<0.008 P	0.009 P	<0.008 P	<0.008 P	20-jul-90
<0.008 P	<0.008 P	0.019 P	<0.008 P	0.012 P	<0.008 P	<0.008 P	20-jul-90
<0.008 P	<0.008 P	<0.008 P	<0.008 P	<0.008 P	<0.008 P	<0.008 P	20-jul-90
<0.008 P	<0.008 P	<0.008 P	<0.008 P	0.029 P	<0.008 P	<0.008 P	20-jul-90
							SIB-ETS-104
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0002 P	0.0002 P	0.0011 P	08-oct-90
<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	08-oct-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	08-oct-90

Soil analyses (mg/kg) for Volatile Organic Compounds (VOCs), in the Trailer 5475 Area

Location Date	Lab	Val. Note	Depth (ft)	PCE	TCE	1,1 DCE	cis-1,2 DCE	trans-1,2 DCE	Total 1,2 DCE
SIB-ETS-104 (continued)									
08-oct-90#	BC a	U	21.3	0.0021 P	0.0036 P	0.0014 P	<0.0002 P	<0.0002 P	<0.0002 P
08-oct-90#	BC a	U	31.3	0.0002 P	0.0007 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
09-oct-90#	BC a	U	41.3	0.0017 P	0.0053 P	0.0005 P	<0.0002 P	<0.0002 P	<0.0002 P
09-oct-90#	BC a	U	51.3	0.01 P	0.03 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P
09-oct-90#	BC a	U	61.3	0.01 P	0.06 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P
09-oct-90#	BC a	U	71.3	0.0025 P	0.023 P	0.0009 P	<0.0002 P	<0.0002 P	<0.0002 P
09-oct-90#	BC a	U	81.3	0.001 P	0.0081 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
09-oct-90#	BC a	U	90.8	0.0034 P	0.014 P	0.0005 P	<0.0002 P	<0.0002 P	<0.0002 P
09-oct-90	BC a	U	100.3	0.0027 P	0.016 P	0.0007 P	<0.0002 P	<0.0002 P	<0.0002 P
SIB-ETS-105									
06-dec-90#	BC a	U	1.8	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
06-dec-90#	BC a	U	6.3	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
06-dec-90#	BC a	U	11.3	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
06-dec-90#	BC a	U	21.3	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
06-dec-90#	BC a	U	31.3	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
06-dec-90#	BC a	U	41.3	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
06-dec-90#	BC a	U	50.8	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
06-dec-90#	BC a	U	61.3	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
07-dec-90#	BC a	U	71.3	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
07-dec-90#	BC a	U	81.3	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
07-dec-90#	BC a	U	91.3	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
SIB-ETS-201									
04-feb-91#	BC a	U	3.3	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
04-feb-91#	BC a	U	6.3	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
04-feb-91#	BC a	U	11.3	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
04-feb-91#	BC a	U	21.3	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
04-feb-91#	BC a	U	31.3	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
04-feb-91#	BC a	U	41.3	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
05-feb-91#	BC a	U	51.3	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
05-feb-91#	BC a	U	61.3	0.0002 P	0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
05-feb-91#	BC a	U	71.0	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
05-feb-91#	BC a	U	81.3	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
05-feb-91	BC a	U	89.8	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
SIB-ETS-202									
07-feb-91#	BC a	U	1.8	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
07-feb-91#	BC a	U	7.8	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
07-feb-91#	BC a	U	11.3	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
07-feb-91#	BC a	U	21.3	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
07-feb-91#	BC a	U	31.3	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
07-feb-91#	BC a	U	41.3	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
07-feb-91#	BC a	U	51.3	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
07-feb-91#	BC a	U	61.3	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
07-feb-91#	BC a	U	70.8	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
07-feb-91#	BC a	U	80.8	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
07-feb-91#	BC a	U	91.3	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P
SIB-ETS-203									
29-apr-91#	BC a	U	19.3	<0.005 P	0.008 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
29-apr-91#	BC a	U	29.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
29-apr-91#	BC a	U	39.3	<0.005 P	0.006 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
29-apr-91#	BC a	U	39.3	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-
29-apr-91#	BC a	U	49.3	<0.005 P	0.007 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
29-apr-91#	BC a	U	49.3	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-
30-apr-91#	BC a	U	59.0	0.03 P	0.22 P	0.011 P	<0.005 P	<0.005 P	<0.005 P
30-apr-91#	BC a	U	59.0	<0.2 P	0.2 P	<0.2 P	<0.2 P	<0.2 P	-
30-apr-91#	BC a	U	69.3	<0.005 P	0.03 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
30-apr-91#	BC a	U	69.3	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-
30-apr-91#	BC a	U	78.3	<0.005 P	0.008 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
30-apr-91#	BC a	U	78.3	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	-
30-apr-91#	BC a	U	89.3	0.5 P	4.4 P	<0.2 P	<0.2 P	<0.2 P	-
01-may-91#	BC a	U	98.8	0.016 P	0.35 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
01-may-91#	BC a	1 U	98.8	<0.2 P	0.2 P	<0.2 P	<0.2 P	<0.2 P	-
01-may-91#	BC a	U	108.8	0.2 P	2.3 P	<0.2 P	<0.2 P	<0.2 P	-
01-may-91	BC a	U	115.3	<0.2 P	0.5 P	<0.2 P	<0.2 P	<0.2 P	-

Results recorded by 31-oct-1996.

1,1,1 TCA	1,1 DCA	1,2 DCA	Carbon Tetra-chloride	Chloro-form	Freon 11	Freon 113	Location Date
						(continued)	SIB-ETS-104
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	08-oct-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	08-oct-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	09-oct-90
<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	09-oct-90
<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	<0.01 P	09-oct-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0004 P	<0.0002 P	<0.0002 P	09-oct-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0006 P	<0.0002 P	<0.0002 P	09-oct-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0002 P	<0.0002 P	<0.0002 P	09-oct-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0005 P	<0.0002 P	<0.0002 P	09-oct-90
							SIB-ETS-105
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0003 P	06-dec-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	06-dec-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0002 P	06-dec-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	06-dec-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	06-dec-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0002 P	06-dec-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	06-dec-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	06-dec-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	07-dec-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	07-dec-90
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	07-dec-90
							SIB-ETS-201
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	04-feb-91
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	04-feb-91
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	04-feb-91
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	04-feb-91
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	04-feb-91
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	04-feb-91
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	05-feb-91
<0.0002 P	<0.0002 P	0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	05-feb-91
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	05-feb-91
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	05-feb-91
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	05-feb-91
							SIB-ETS-202
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	07-feb-91
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	07-feb-91
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	07-feb-91
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	07-feb-91
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	07-feb-91
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	07-feb-91
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	07-feb-91
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	07-feb-91
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0036 P	07-feb-91
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	07-feb-91
							SIB-ETS-203
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	29-apr-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	29-apr-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	29-apr-91
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	29-apr-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	0.006 P	<0.005 P	<0.005 P	29-apr-91
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	29-apr-91
<0.005 P	<0.005 P	0.01 P	<0.005 P	0.036 P	<0.005 P	<0.005 P	30-apr-91
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	30-apr-91
<0.005 P	<0.005 P	0.018 P	<0.005 P	0.034 P	<0.005 P	<0.005 P	30-apr-91
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	30-apr-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	0.008 P	<0.005 P	<0.005 P	30-apr-91
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	30-apr-91
<0.2 P	<0.2 P	<0.2 P	<0.2 P	1.9 P	<0.2 P	<0.2 P	30-apr-91
<0.005 P	<0.005 P	0.013 P	<0.005 P	0.27 P	<0.005 P	<0.005 P	01-may-91
<0.2 P	<0.2 P	<0.2 P	<0.2 P	0.3 P	<0.2 P	<0.2 P	01-may-91
<0.2 P	<0.2 P	<0.2 P	<0.2 P	0.3 P	<0.2 P	<0.2 P	01-may-91
<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	01-may-91

Soil analyses (mg/kg) for Volatile Organic Compounds (VOCs), in the Trailer 5475 Area

Location Date	Lab	Note	Val.	Depth (ft)	PCE	TCE	1,1 DCE	cis-1,2 DCE	trans-1,2 DCE	Total 1,2 DCE
SIB-ETS-204										
06-may-91#	BC	a	U	11.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
06-may-91#	BC	a	U	21.3	<0.005 P	0.016 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
06-may-91#	BC	a	U	31.3	<0.005 P	0.028 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
06-may-91#	BC	a	U	41.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
06-may-91#	BC	a	U	50.8	<0.005 P	0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
06-may-91#	BC	a	U	61.3	<0.005 P	0.021 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
06-may-91#	BC	a	U	71.3	0.027 P	0.26 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
06-may-91#	BC	a	U	81.3	0.02 P	0.1 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
06-may-91	BC	a	U	91.3	0.006 P	0.043 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
SIB-ETS-205										
13-jun-91#	CL	a	U	2.0	<0.004 P	<0.004 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P
13-jun-91#	CL	a	U	5.0	<0.004 P	<0.004 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P
13-jun-91#	CL	a	U	10.0	<0.004 P	<0.004 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P
13-jun-91#	CL	a	U	20.0	<0.004 P	<0.004 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P
13-jun-91#	CL	a	U	30.0	<0.004 P	<0.004 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P
13-jun-91#	CL	a	U	40.0	<0.004 P	<0.004 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P
14-jun-91#	CL	a	U	50.0	<0.004 P	<0.004 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P
14-jun-91#	CL	a	U	60.0	<0.004 P	0.006 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P
14-jun-91#	CL	a	U	70.0	<0.004 P	<0.004 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P
14-jun-91#	CL	a	U	80.0	<0.004 P	<0.004 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P
17-jun-91	CL	a	U	88.0	<0.004 P	10 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P
SIB-ETS-206										
21-jun-91#	CL	a	U	5.5	<0.004 P	<0.004 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P
21-jun-91#	CL	a	U	15.0	<0.004 P	<0.004 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P
21-jun-91#	CL	a	U	19.8	<0.004 P	<0.004 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P
24-jun-91#	CL	a	U	30.5	<0.004 P	<0.004 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P
24-jun-91#	CL	a	U	40.0	<0.004 P	<0.004 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P
24-jun-91#	CL	a	U	50.5	<0.004 P	<0.004 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P
25-jun-91#	BC	a	U	60.5	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
25-jun-91#	BC	a	U	70.0	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
25-jun-91#	BC	a	U	80.0	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
25-jun-91	BC	a	U	89.0	<0.005 P	0.041 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
SIB-ETS-207										
02-jul-91#	BC	a	U	5.0	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
03-jul-91#	BC	a	U	10.0	0.008 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
03-jul-91#	BC	a	U	19.8	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
03-jul-91#	BC	a	U	31.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
03-jul-91#	BC	a	U	40.8	<0.005 P	0.007 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
09-jul-91#	BC	a	U	50.0	<0.005 P	0.046 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
09-jul-91#	BC	a	U	60.0	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
09-jul-91#	BC	a	U	70.0	<0.005 P	0.03 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
09-jul-91#	BC	a	U	80.0	<0.005 P	0.044 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
09-jul-91	BC	a	U	92.0	0.031 P	0.29 P	0.006 P	<0.005 P	<0.005 P	<0.005 P
SIB-ETS-208										
11-jul-91#	BC	a	U	10.0	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
12-jul-91#	BC	a	U	20.0	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
12-jul-91#	BC	a	U	30.0	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
12-jul-91#	BC	a	U	40.0	<0.02 P	<0.02 P	<0.02 P	<0.02 P	<0.02 P	<0.02 P
12-jul-91#	BC	a	U	50.0	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
12-jul-91#	BC	a	U	60.0	0.062 P	0.53 P	<0.02 P	<0.02 P	<0.02 P	<0.02 P
15-jul-91#	BC	a	U	70.0	<0.005 P	0.028 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
15-jul-91#	BC	a	U	80.0	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
15-jul-91#	BC	a	U	85.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
SIB-ETS-209										
22-jul-91#	BC	a	U	5.0	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
22-jul-91#	BC	a	U	10.0	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
22-jul-91#	BC	a	U	19.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
22-jul-91#	BC	a	U	30.0	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
22-jul-91#	BC	a	U	40.0	<0.005 P	0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
22-jul-91#	BC	a	U	50.0	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
23-jul-91#	BC	a	U	60.0	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
23-jul-91#	BC	a	U	70.0	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
23-jul-91#	BC	a	U	80.0	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
23-jul-91	BC	a	U	85.0	<0.005 P	0.014 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P

Results recorded by 31-oct-1996.

1,1,1 TCA	1,1 DCA	1,2 DCA	Carbon Tetra-chloride	Chloro-form	Freon 11	Freon 113	Location Date
							SIB-ETS-204
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	06-may-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	06-may-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	0.005 P	<0.005 P	<0.005 P	06-may-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	06-may-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	06-may-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	06-may-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	0.02 P	<0.005 P	<0.005 P	06-may-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	0.005 P	<0.005 P	<0.005 P	06-may-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	06-may-91
							SIB-ETS-205
<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	13-jun-91
<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	13-jun-91
<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	13-jun-91
<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	13-jun-91
<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	13-jun-91
<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	13-jun-91
<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	14-jun-91
<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	14-jun-91
<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	14-jun-91
<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	14-jun-91
<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	17-jun-91
							SIB-ETS-206
<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	21-jun-91
<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	21-jun-91
<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	21-jun-91
<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	24-jun-91
<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	24-jun-91
<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	24-jun-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	25-jun-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	25-jun-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	25-jun-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	25-jun-91
							SIB-ETS-207
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	02-jul-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	03-jul-91
<0.005 P	<0.005 P	0.054 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	03-jul-91
<0.005 P	<0.005 P	0.52 P	<0.005 P	0.014 P	<0.005 P	<0.005 P	03-jul-91
<0.005 P	<0.005 P	0.2 P	<0.005 P	0.033 P	<0.005 P	<0.005 P	03-jul-91
<0.005 P	<0.005 P	0.077 P	<0.005 P	0.082 P	<0.005 P	<0.005 P	09-jul-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	0.018 P	<0.005 P	<0.005 P	09-jul-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	0.026 P	<0.005 P	<0.005 P	09-jul-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	0.014 P	<0.005 P	<0.005 P	09-jul-91
<0.005 P	<0.005 P	0.006 P	<0.005 P	0.027 P	<0.005 P	<0.005 P	09-jul-91
							SIB-ETS-208
<0.005 P	<0.005 P	0.068 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	11-jul-91
<0.005 P	<0.005 P	0.42 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	12-jul-91
<0.005 P	<0.005 P	1.2 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	12-jul-91
<0.02 P	<0.02 P	0.14 P	<0.02 P	<0.02 P	<0.02 P	<0.02 P	12-jul-91
<0.005 P	<0.005 P	0.038 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	12-jul-91
<0.02 P	<0.02 P	0.072 P	<0.02 P	0.031 P	<0.02 P	<0.02 P	12-jul-91
<0.005 P	<0.005 P	0.009 P	<0.005 P	0.009 P	<0.005 P	<0.005 P	15-jul-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	15-jul-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	15-jul-91
							SIB-ETS-209
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	22-jul-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	22-jul-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	22-jul-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	22-jul-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	22-jul-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	22-jul-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	23-jul-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	23-jul-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	23-jul-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	23-jul-91

Soil analyses (mg/kg) for Volatile Organic Compounds (VOCs), in the Trailer 5475 Area

Location Date	Lab	Val. Note	Depth (ft)	PCE	TCE	1,1 DCE	cis-1,2 DCE	trans-1,2 DCE	Total 1,2 DCE
SIB-ETS-210									
26-jul-91#	CL	a U	4.5	<0.004 P	0.005 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P
26-jul-91#	CL	a U	10.0	<0.004 P	<0.004 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P
26-jul-91#	CL	a U	19.0	<0.004 P	<0.004 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P
26-jul-91#	CL	a U	30.0	<0.004 P	<0.004 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P
26-jul-91#	CL	a U	39.5	<0.004 P	<0.004 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P
29-jul-91#	BC	a U	50.0	<0.005 P	0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
29-jul-91#	BC	a U	61.0	<0.005 P	0.012 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
29-jul-91#	BC	a U	71.0	0.019 P	0.14 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
29-jul-91#	BC	a U	80.0	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
29-jul-91	BC	a U	91.3	<0.005 P	0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
29-jul-91	BC	a U	100.0	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
30-jul-91	BC	a U	110.5	<0.005 P	0.006 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
SIB-ETS-211									
02-aug-91#	BC	a U	5.5	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
02-aug-91#	BC	a U	10.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
02-aug-91#	BC	a U	20.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
02-aug-91#	BC	a U	30.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
02-aug-91#	BC	a U	40.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
05-aug-91#	BC	a U	50.5	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
05-aug-91#	BC	a U	60.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
05-aug-91#	BC	a U	69.8	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
05-aug-91#	BC	a U	80.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
06-aug-91#	BC	a U	90.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
06-aug-91	BC	a U	100.3	<0.005 P	0.011 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
SIB-ETS-212									
12-aug-91#	BC	a U	5.5	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
12-aug-91#	BC	a U	10.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
12-aug-91#	BC	a U	20.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
12-aug-91#	BC	a U	30.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
12-aug-91#	BC	a U	40.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
12-aug-91#	BC	a U	49.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
13-aug-91#	BC	a U	60.5	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
13-aug-91#	BC	a U	71.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
13-aug-91#	BC	a U	81.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
14-aug-91	BC	a U	90.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
14-aug-91	BC	a U	100.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
SIB-ETS-213									
16-aug-91#	BC	a U	5.0	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
16-aug-91#	BC	a U	10.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
14-nov-91#	BC	a U	20.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
14-nov-91#	BC	a U	30.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
14-nov-91#	BC	a U	40.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
14-nov-91#	BC	a U	50.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
14-nov-91#	BC	a U	61.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
15-nov-91#	BC	a U	70.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
15-nov-91#	BC	a U	80.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
15-nov-91#	BC	a U	89.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
15-nov-91#	BC	a U	99.5	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
15-nov-91#	BC	a U	107.5	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
SIB-ETS-214									
19-nov-91#	BC	a U	0.0	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
19-nov-91#	BC	a U	5.5	<0.005 P	<0.005 P	0.054 P	<0.005 P	<0.005 P	<0.005 P
19-nov-91#	BC	a U	20.0	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
19-nov-91#	BC	a U	30.0	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
20-nov-91#	BC	a U	40.0	<0.005 P	<0.005 P	0.023 P	<0.005 P	<0.005 P	<0.005 P
20-nov-91#	BC	a U	50.0	<0.005 P	<0.005 P	0.021 P	<0.005 P	<0.005 P	<0.005 P
20-nov-91#	BC	a U	60.0	<0.005 P	<0.005 P	0.038 P	<0.005 P	<0.005 P	<0.005 P
21-nov-91#	BC	a U	70.0	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
21-nov-91#	BC	a U	80.0	<0.005 P	<0.005 P	0.01 P	<0.005 P	<0.005 P	<0.005 P
21-nov-91#	BC	a U	88.5	<0.005 P	0.015 P	0.013 P	<0.005 P	<0.005 P	<0.005 P
SIB-ETS-215									
25-nov-91#	BC	a U	5.5	<0.005 P	<0.005 P	0.009 P	<0.005 P	<0.005 P	<0.005 P
25-nov-91#	BC	a U	10.0	<0.005 P	<0.005 P	0.038 P	<0.005 P	<0.005 P	<0.005 P
27-nov-91#	BC	a U	21.8	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
27-nov-91#	BC	a U	30.0	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P

Results recorded by 31-oct-1996.

1,1,1 TCA	1,1 DCA	1,2 DCA	Carbon Tetra-chloride	Chloro-form	Freon 11	Freon 113	Location Date
							SIB-ETS-210
<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	26-jul-91
<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	26-jul-91
<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	26-jul-91
<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	26-jul-91
<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	<0.003 P	26-jul-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	29-jul-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	29-jul-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	0.014 P	<0.005 P	<0.005 P	29-jul-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	29-jul-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	29-jul-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	29-jul-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	30-jul-91
							SIB-ETS-211
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	02-aug-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	02-aug-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	02-aug-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	02-aug-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	02-aug-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	05-aug-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	05-aug-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	05-aug-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	05-aug-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	06-aug-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	0.005 P	<0.005 P	<0.005 P	06-aug-91
							SIB-ETS-212
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	12-aug-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	12-aug-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	12-aug-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	12-aug-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	12-aug-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	12-aug-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	13-aug-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	13-aug-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	13-aug-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	14-aug-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	14-aug-91
							SIB-ETS-213
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	16-aug-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	16-aug-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	14-nov-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	14-nov-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	14-nov-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	14-nov-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	14-nov-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	15-nov-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	15-nov-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	15-nov-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	15-nov-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	15-nov-91
							SIB-ETS-214
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	19-nov-91
1.2 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	19-nov-91
<0.005 P	<0.005 P	0.013 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	19-nov-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	0.006 P	<0.005 P	<0.005 P	19-nov-91
0.58 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	20-nov-91
1.1 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	20-nov-91
1.8 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	20-nov-91
0.063 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	21-nov-91
14 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	21-nov-91
23 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	21-nov-91
							SIB-ETS-215
0.51 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	25-nov-91
0.49 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	25-nov-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	27-nov-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	27-nov-91

Soil analyses (mg/kg) for Volatile Organic Compounds (VOCs), in the Trailer 5475 Area

Location Date	Lab	Val. Note	Depth (ft)	PCE	TCE	1,1 DCE	cis-1,2 DCE	trans-1,2 DCE	Total 1,2 DCE
SIB-ETS-215 (continued)									
27-nov-91#	BC a	U	40.0	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
02-dec-91#	BC a	U	50.0	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
03-dec-91#	BC a	U	60.0	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
03-dec-91#	BC a	U	70.0	<0.005 P	0.029 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
03-dec-91#	BC a	U	80.0	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
SIB-ETS-301									
18-mar-92#	BC a	U	5.1	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
18-mar-92#	BC a	U	11.9	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
18-mar-92#	BC a	U	21.0	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
18-mar-92#	BC a	U	31.1	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
18-mar-92#	BC a	U	41.1	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
19-mar-92#	BC a	U	50.9	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
19-mar-92#	BC a	U	60.8	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
19-mar-92#	BC a	U	69.9	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
19-mar-92#	BC a	U	78.0	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
19-mar-92#	BC a	U	89.8	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
20-mar-92	BC a	U	93.6	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
20-mar-92	BC a	U	99.7	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
20-mar-92	BC a	U	109.6	<0.005 P	0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
20-mar-92	BC a	U	119.7	<0.005 P	0.029 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
SIB-ETS-302									
25-mar-92#	BC a	U	5.8	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
25-mar-92#	BC a	U	11.1	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
25-mar-92#	BC a	U	21.0	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
25-mar-92#	BC a	U	29.1	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
25-mar-92#	BC a	U	41.1	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
25-mar-92#	BC a	U	50.6	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
26-mar-92#	BC a	U	62.1	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
26-mar-92#	BC a	U	68.6	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
26-mar-92#	BC a	U	78.6	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
26-mar-92#	BC a	U	88.9	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
26-mar-92	BC a	U	99.1	<0.005 P	0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
27-mar-92	BC a	U	110.0	<0.005 P	0.018 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
27-mar-92	BC a	U	116.9	<0.005 P	0.009 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
SIB-ETS-303									
01-apr-92#	CL a	U	5.6	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
01-apr-92#	CL a	U	10.6	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
01-apr-92#	CL a	U	20.6	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
01-apr-92#	CL a	U	28.4	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
01-apr-92#	CL a	U	36.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
01-apr-92#	CL a	U	38.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
01-apr-92#	CL a	U	50.6	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
01-apr-92#	CL a	U	61.2	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
01-apr-92#	CL a	U	69.1	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
02-apr-92#	CL a	U	79.1	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
02-apr-92#	CL a	U	89.9	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
02-apr-92	CL a	U	100.1	0.007 P	0.074 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
02-apr-92	CL a	U	110.0	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
SIB-ETS-304									
25-aug-92#	BC a	U	5.2	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
25-aug-92#	BC a	U	10.1	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
25-aug-92#	BC a	U	20.2	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
25-aug-92#	BC a	U	30.7	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
26-aug-92#	BC a	U	40.4	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
26-aug-92#	BC a	U	50.1	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
26-aug-92#	BC a	U	60.1	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
26-aug-92	BC a	U	70.1	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
27-aug-92#	BC a	U	82.8	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
27-aug-92	BC a	U	90.6	<0.005 P	0.008 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
27-aug-92	BC a	U	99.9	<0.005 P	0.024 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
SIB-ETS-305									
31-aug-92#	CL a	U	1.9	<0.05 P	<0.03 P	<0.03 P	<0.04 P	<0.04 P	<0.04 P
31-aug-92#	CL a	U	4.1	<0.05 P	<0.03 P	<0.03 P	<0.04 P	<0.04 P	<0.04 P
31-aug-92#	CL a	U	6.0	<0.05 P	<0.03 P	<0.03 P	<0.04 P	<0.04 P	<0.04 P
31-aug-92#	CL a	U	8.0	<0.05 P	<0.03 P	<0.03 P	<0.04 P	<0.04 P	<0.04 P

Results recorded by 31-oct-1996.

1,1,1 TCA	1,1 DCA	1,2 DCA	Carbon Tetra-chloride	Chloro-form	Freon 11	Freon 113	Location Date
						(continued)	SIB-ETS-215
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	27-nov-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	02-dec-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	03-dec-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	03-dec-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	03-dec-91
							SIB-ETS-301
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	18-mar-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	18-mar-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	18-mar-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	18-mar-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	18-mar-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	19-mar-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	19-mar-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	19-mar-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	19-mar-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	19-mar-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	20-mar-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	20-mar-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	20-mar-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	20-mar-92
							SIB-ETS-302
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	25-mar-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	25-mar-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	25-mar-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	25-mar-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	25-mar-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	25-mar-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	26-mar-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	26-mar-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	26-mar-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	26-mar-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	26-mar-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	27-mar-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	27-mar-92
							SIB-ETS-303
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	01-apr-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	01-apr-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	01-apr-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	01-apr-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	01-apr-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	01-apr-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	01-apr-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	01-apr-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	02-apr-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	02-apr-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	0.008 P	<0.005 P	<0.005 P	02-apr-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	02-apr-92
							SIB-ETS-304
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	25-aug-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	25-aug-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	25-aug-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	25-aug-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	26-aug-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	26-aug-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	26-aug-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	26-aug-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	27-aug-92
<0.005 P	<0.005 P	0.007 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	27-aug-92
<0.005 P	<0.005 P	0.018 P	<0.005 P	0.013 P	<0.005 P	<0.005 P	27-aug-92
							SIB-ETS-305
<0.05 P	<0.04 P	<0.03 P	<0.06 P	<0.05 P	<0.04 P	<0.06 P	31-aug-92
<0.05 P	<0.04 P	<0.03 P	<0.06 P	<0.05 P	<0.04 P	<0.06 P	31-aug-92
<0.05 P	<0.04 P	<0.03 P	<0.06 P	<0.05 P	<0.04 P	<0.06 P	31-aug-92
<0.05 P	<0.04 P	<0.03 P	<0.06 P	<0.05 P	<0.04 P	<0.06 P	31-aug-92

Soil analyses (mg/kg) for Volatile Organic Compounds (VOCs), in the Trailer 5475 Area

Location Date	Lab	Note	Val.	Depth (ft)	PCE	TCE	1,1 DCE	cis-1,2 DCE	trans-1,2 DCE	Total 1,2 DCE
SIB-ETS-305 (continued)										
31-aug-92#	CL	a	U	10.8	<0.05 P	<0.03 P	<0.03 P	<0.04 P	<0.04 P	<0.04 P
31-aug-92#	CL	a	U	12.2	<0.05 P	<0.03 P	<0.03 P	<0.04 P	<0.04 P	<0.04 P
31-aug-92#	CL	a	U	14.0	<0.05 P	<0.03 P	<0.03 P	<0.04 P	<0.04 P	<0.04 P
31-aug-92#	CL	a	U	16.0	<0.05 P	<0.03 P	<0.03 P	<0.04 P	<0.04 P	<0.04 P
31-aug-92#	CL	a	U	18.1	<0.05 P	<0.03 P	<0.03 P	<0.04 P	<0.04 P	<0.04 P
31-aug-92#	CL	a	U	20.3	<0.05 P	<0.03 P	0.09 P	<0.04 P	<0.04 P	<0.04 P
01-sep-92#	CL	a	U	22.0	<0.05 P	<0.03 P	<0.03 P	<0.04 P	<0.04 P	<0.04 P
01-sep-92#	CL	a	U	25.0	<0.05 P	<0.03 P	<0.03 P	<0.04 P	<0.04 P	<0.04 P
01-sep-92#	CL	a	U	30.8	<0.05 P	<0.03 P	<0.03 P	<0.04 P	<0.04 P	<0.04 P
01-sep-92	CL	a	U	35.5	<0.05 P	<0.03 P	<0.03 P	<0.04 P	<0.04 P	<0.04 P
01-sep-92#	CL	a	U	40.5	<0.05 P	<0.03 P	<0.03 P	<0.04 P	<0.04 P	<0.04 P
01-sep-92#	CL	a	U	45.0	<0.05 P	<0.03 P	<0.03 P	<0.04 P	<0.04 P	<0.04 P
01-sep-92#	CL	a	U	48.0	<0.05 P	<0.03 P	<0.03 P	<0.04 P	<0.04 P	<0.04 P
01-sep-92#	CL	a	U	50.3	<0.05 P	<0.03 P	<0.03 P	<0.04 P	<0.04 P	<0.04 P
02-sep-92#	CL	a	U	52.4	<0.05 P	<0.03 P	<0.03 P	<0.04 P	<0.04 P	<0.04 P
02-sep-92#	CL	a	U	55.6	<0.05 P	<0.03 P	<0.03 P	<0.04 P	<0.04 P	<0.04 P
02-sep-92#	CL	a	U	57.7	<0.05 P	<0.03 P	<0.03 P	<0.04 P	<0.04 P	<0.04 P
02-sep-92#	CL	a	U	60.5	<0.05 P	<0.03 P	<0.03 P	<0.04 P	<0.04 P	<0.04 P
02-sep-92#	CL	a	U	62.5	<0.05 P	<0.03 P	<0.03 P	<0.04 P	<0.04 P	<0.04 P
02-sep-92#	CL	a	U	64.5	<0.05 P	<0.03 P	<0.03 P	<0.04 P	<0.04 P	<0.04 P
02-sep-92#	CL	a	U	69.5	<0.05 P	<0.03 P	<0.03 P	<0.04 P	<0.04 P	<0.04 P
02-sep-92#	CL	a	U	70.5	<0.05 P	<0.03 P	<0.03 P	<0.04 P	<0.04 P	<0.04 P
02-sep-92#	CL	a	U	75.3	<0.05 P	<0.03 P	<0.03 P	<0.04 P	<0.04 P	<0.04 P
02-sep-92#	CL	a	U	77.0	<0.05 P	<0.03 P	<0.03 P	<0.04 P	<0.04 P	<0.04 P
02-sep-92#	CL	a	U	78.3	<0.05 P	<0.03 P	<0.03 P	<0.04 P	<0.04 P	<0.04 P
02-sep-92#	CL	a	U	80.6	<0.05 P	<0.03 P	<0.03 P	<0.04 P	<0.04 P	<0.04 P
02-sep-92#	CL	a	U	82.7	<0.05 P	<0.03 P	<0.03 P	<0.04 P	<0.04 P	<0.04 P
SIB-ETS-306										
09-sep-92#	CL	a	U	5.2	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
09-sep-92#	CL	a	U	10.4	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
09-sep-92#	CL	a	U	20.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
09-sep-92#	CL	a	U	22.5	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
09-sep-92#	CL	a	U	30.1	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
09-sep-92#	CL	a	U	40.5	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
09-sep-92#	CL	a	U	50.0	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
10-sep-92#	CL	a	U	60.4	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
10-sep-92#	CL	a	U	70.5	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
10-sep-92#	CL	a	U	80.2	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
10-sep-92	CL	a	U	90.0	0.012 P	0.063 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
10-sep-92	CL	a	U	97.3	<0.005 P	0.011 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
10-sep-92	CL	a	U	100.0	<0.005 P	0.03 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
SIB-ETS-307										
30-nov-92#	BC	a	U	5.5	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
01-dec-92#	BC	a	U	10.2	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
01-dec-92#	BC	a	U	20.2	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
01-dec-92#	BC	a	U	30.2	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
01-dec-92#	BC	a	U	40.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
02-dec-92#	BC	a	U	50.5	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
04-dec-92#	BC	a	U	60.2	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
04-dec-92#	BC	a	U	70.2	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
07-dec-92#	BC	a	U	80.1	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
07-dec-92#	BC	a	U	90.6	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
08-dec-92	BC	a	U	100.1	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
SIB-ETS-401										
24-jul-95#	CS	a	V	4.0	0.003	0.0021	0.0026	-	-	<0.0005 U
24-jul-95#	CS	a	V	8.7	0.00068	0.0005	<0.0005 U	-	-	<0.0005 U
25-jul-95#	CS	a	V	22.5	0.0018	0.0037	0.0038	-	-	<0.0005 U
25-jul-95#	CS	a	V	32.7	0.0021	0.0054	0.0026	-	-	<0.0005 U
25-jul-95#	CS	a	V	42.5	0.0039	0.011	0.0047	-	-	<0.0005 U
26-jul-95#	CS	a	V	52.8	<0.0005 U	0.00053	<0.0005 U	-	-	<0.0005 U
26-jul-95#	CS	a	V	61.5	0.00066	0.0042	<0.0005 U	-	-	<0.0005 U
26-jul-95#	CS	a	V	71.5	0.0071	0.02	0.015	-	-	<0.0005 U
26-jul-95#	CS	a	V	81.0	<0.0005 U	<0.0005 U	0.0021	-	-	<0.0005 U
27-jul-95#	CS	a	V	91.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
27-jul-95#	CS	a	V	101.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U

Results recorded by 31-oct-1996.

1,1,1 TCA	1,1 DCA	1,2 DCA	Carbon Tetra-chloride	Chloro-form	Freon 11	Freon 113	Location Date
						(continued)	SIB-ETS-305
<0.05 P	<0.04 P	<0.03 P	<0.06 P	<0.05 P	<0.04 P	<0.06 P	31-aug-92
<0.05 P	<0.04 P	<0.03 P	<0.06 P	<0.05 P	<0.04 P	<0.06 P	31-aug-92
<0.05 P	<0.04 P	<0.03 P	<0.06 P	<0.05 P	<0.04 P	<0.06 P	31-aug-92
<0.05 P	<0.04 P	<0.03 P	<0.06 P	<0.05 P	<0.04 P	<0.06 P	31-aug-92
<0.05 P	<0.04 P	<0.03 P	<0.06 P	<0.05 P	<0.04 P	<0.06 P	31-aug-92
<0.05 P	<0.04 P	<0.03 P	<0.06 P	<0.05 P	<0.04 P	0.11 P	31-aug-92
<0.05 P	<0.04 P	<0.03 P	<0.06 P	<0.05 P	<0.04 P	<0.06 P	01-sep-92
<0.05 P	<0.04 P	<0.03 P	<0.06 P	<0.05 P	<0.04 P	<0.06 P	01-sep-92
<0.05 P	<0.04 P	<0.03 P	<0.06 P	<0.05 P	<0.04 P	<0.06 P	01-sep-92
<0.05 P	<0.04 P	<0.03 P	<0.06 P	<0.05 P	<0.04 P	<0.06 P	01-sep-92
<0.05 P	<0.04 P	<0.03 P	<0.06 P	<0.05 P	<0.04 P	<0.06 P	01-sep-92
<0.05 P	<0.04 P	<0.03 P	<0.06 P	<0.05 P	<0.04 P	<0.06 P	01-sep-92
<0.05 P	<0.04 P	<0.03 P	<0.06 P	<0.05 P	<0.04 P	<0.06 P	01-sep-92
<0.05 P	<0.04 P	<0.03 P	<0.06 P	<0.05 P	<0.04 P	<0.06 P	02-sep-92
<0.05 P	<0.04 P	<0.03 P	<0.06 P	<0.05 P	<0.04 P	<0.06 P	02-sep-92
<0.05 P	<0.04 P	<0.03 P	<0.06 P	<0.05 P	<0.04 P	<0.06 P	02-sep-92
<0.05 P	<0.04 P	<0.03 P	<0.06 P	<0.05 P	<0.04 P	<0.06 P	02-sep-92
<0.05 P	<0.04 P	<0.03 P	<0.06 P	<0.05 P	<0.04 P	<0.06 P	02-sep-92
<0.05 P	<0.04 P	<0.03 P	<0.06 P	<0.05 P	<0.04 P	<0.06 P	02-sep-92
<0.05 P	<0.04 P	<0.03 P	<0.06 P	<0.05 P	<0.04 P	<0.06 P	02-sep-92
<0.05 P	<0.04 P	<0.03 P	<0.06 P	<0.05 P	<0.04 P	<0.06 P	02-sep-92
<0.05 P	<0.04 P	<0.03 P	<0.06 P	<0.05 P	<0.04 P	<0.06 P	02-sep-92
<0.05 P	<0.04 P	<0.03 P	<0.06 P	<0.05 P	<0.04 P	<0.06 P	02-sep-92
<0.05 P	<0.04 P	<0.03 P	<0.06 P	<0.05 P	<0.04 P	<0.06 P	02-sep-92
							SIB-ETS-306
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	09-sep-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	09-sep-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	09-sep-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	09-sep-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	09-sep-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	09-sep-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	09-sep-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	10-sep-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	10-sep-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	10-sep-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	0.007 P	<0.005 P	<0.005 P	10-sep-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	0.007 P	<0.005 P	<0.005 P	10-sep-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	0.007 P	<0.005 P	<0.005 P	10-sep-92
							SIB-ETS-307
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	30-nov-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	01-dec-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	01-dec-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	01-dec-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	01-dec-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	02-dec-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	04-dec-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	04-dec-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	07-dec-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	07-dec-92
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	08-dec-92
							SIB-ETS-401
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0046	24-jul-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	24-jul-95
<0.0005 U	<0.0005 U	<0.0005 U	0.0005	<0.0005 U	<0.0005 U	0.0037	25-jul-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0016	25-jul-95
<0.0005 U	<0.0005 U	<0.0005 U	0.00056	<0.0005 U	<0.0005 U	0.0014	25-jul-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	26-jul-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	26-jul-95
<0.0005 U	<0.0005 U	<0.0005 U	0.0021	<0.0005 U	<0.0005 U	0.0098	26-jul-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.006	26-jul-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	27-jul-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	27-jul-95

Soil analyses (mg/kg) for Volatile Organic Compounds (VOCs), in the Trailer 5475 Area

Location Date	Lab	Note	Val.	Depth (ft)	PCE	TCE	1,1 DCE	cis-1,2 DCE	trans-1,2 DCE	Total 1,2 DCE
SIB-ETS-402										
02-aug-95#	CS	a	V	2.9	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
02-aug-95#	CS	a	V	9.8	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
02-aug-95#	CS	a	V	19.9	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
02-aug-95#	CS	a	V	29.9	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
02-aug-95#	CS	a	V	39.7	<0.0005 U	0.00058	<0.0005 U	-	-	<0.0005 U
03-aug-95#	CS	a	V	53.0	<0.0005 U	0.00097	<0.0005 U	-	-	<0.0005 U
03-aug-95#	CS	a	V	62.9	<0.0005 U	0.0025	<0.0005 U	-	-	<0.0005 U
03-aug-95#	CS	a	V	71.4	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
03-aug-95#	CS	a	V	81.4	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
08-aug-95#	CS	a	V	89.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
08-aug-95#	CS	a	V	89.1	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
08-aug-95#	CS	a	V	101.2	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
08-aug-95#	CS	a	V	101.3	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
SIB-ETS-403										
09-aug-95#	CS	a	V	6.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
09-aug-95#	CS	a	V	11.5	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
09-aug-95#	CS	a	V	24.2	<0.0005 U	0.0035	<0.0005 U	-	-	<0.0005 U
09-aug-95#	CS	a	V	32.5	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
10-aug-95#	CS	a	V	43.5	<0.0005 U	0.0012	<0.0005 U	-	-	<0.0005 U
10-aug-95#	CS	a	V	52.5	<0.0005 U	0.0013	<0.0005 U	-	-	<0.0005 U
10-aug-95#	CS	a	V	62.5	<0.0005 U	0.0013	<0.0005 U	-	-	<0.0005 U
10-aug-95#	CS	a	V	72.0	<0.0005 U	0.0013	<0.0005 U	-	-	<0.0005 U
14-aug-95#	CS	a	V	82.0	<0.0005 U	0.0029	<0.0005 U	-	-	<0.0005 U
14-aug-95	CS	a	V	92.3	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
SIB-ETS-405										
23-aug-95#	CS	a	N	5.0	0.0011	<0.0005 U	<0.0005 U	-	-	<0.0005 U
23-aug-95#	CS	a	V	15.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
23-aug-95#	CS	a	V	25.0	0.0005	0.0015	<0.0005 U	-	-	<0.0005 U
23-aug-95#	CS	a	V	29.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
23-aug-95#	CS	a	V	35.0	0.00055	0.0018	<0.0005 U	-	-	<0.0005 U
24-aug-95#	CS	a	V	43.0	0.00066	0.0024	<0.0005 U	-	-	<0.0005 U
24-aug-95#	CS	a	V	55.0	<0.0005 U	0.00072	<0.0005 U	-	-	<0.0005 U
24-aug-95#	CS	a	V	65.0	<0.0005 U	0.00065	<0.0005 U	-	-	<0.0005 U
24-aug-95#	CS	a	V	75.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
28-aug-95#	CS	a	V	85.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
28-aug-95#	CS	a	V	95.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
28-aug-95	CS	a	V	103.0	<0.0005 U	0.0023	<0.0005 U	-	-	<0.0005 U
28-aug-95	CS	a	V	115.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
28-aug-95	CS	a	V	125.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
SIB-ETS-501										
13-nov-95	CS	a	V	5.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
13-nov-95	CS	a	V	10.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
13-nov-95	CS	a	V	20.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
13-nov-95	CS	a	V	30.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
14-nov-95#	CS	a	V	40.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
14-nov-95#	CS	a	V	55.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
14-nov-95#	CS	a	V	60.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
14-nov-95#	CS	a	V	70.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
15-nov-95#	CS	a	V	80.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
15-nov-95#	CS	a	V	90.2	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
15-nov-95#	CS	a	V	100.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
15-nov-95	CS	a	V	105.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
SIB-ETS-502										
29-nov-95#	CS	a	V	5.0	<0.0005 U	0.0022	<0.0005 U	-	-	<0.0005 U
29-nov-95#	CS	a	V	10.0	<0.0005 U	0.0013	<0.0005 U	-	-	<0.0005 U
29-nov-95#	CS	a	V	20.0	<0.0005 U	0.0014	0.00063	-	-	<0.0005 U
29-nov-95#	CS	a	V	30.0	<0.0005 U	0.00085	<0.0005 U	-	-	<0.0005 U
29-nov-95#	CS	a	V	40.0	0.0015	0.0046	0.0012	-	-	<0.0005 U
30-nov-95#	CS	a	V	50.0	<0.0005 U	0.0032	<0.0005 U	-	-	<0.0005 U
30-nov-95#	CS	a	V	60.0	0.0013	0.0077	0.0029	-	-	<0.0005 U
30-nov-95#	CS	a	V	70.0	<0.0005 U	0.0034	<0.0005 U	-	-	<0.0005 U
04-dec-95#	CS	a	V	80.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U
04-dec-95	CS	a	V	90.0	<0.0005 U	<0.0005 U	<0.0005 U	-	-	<0.0005 U

Results recorded by 31-oct-1996.

1,1,1 TCA	1,1 DCA	1,2 DCA	Carbon Tetra-chloride	Chloro-form	Freon 11	Freon 113	Location Date
							SIB-ETS-402
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	02-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	02-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	02-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	02-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	02-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	03-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	03-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	03-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	03-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	08-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	08-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	08-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	08-aug-95
							SIB-ETS-403
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	09-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	09-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	09-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	09-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	10-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	10-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	10-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	10-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.002	14-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	14-aug-95
							SIB-ETS-405
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	23-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	23-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	23-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	23-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	23-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	24-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	24-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	24-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	24-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0015	28-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0014	28-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0018	28-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	28-aug-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	28-aug-95
							SIB-ETS-501
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	13-nov-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	13-nov-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.012	13-nov-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	13-nov-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	14-nov-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0024	14-nov-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0012	14-nov-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	14-nov-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	15-nov-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	15-nov-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	15-nov-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	15-nov-95
							SIB-ETS-502
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.00085 B	29-nov-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0008	29-nov-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0013	29-nov-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.00075	29-nov-95
<0.0005 U	<0.0005 U	<0.0005 U	0.0011	<0.0005 U	<0.0005 U	0.0014	29-nov-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.00064	30-nov-95
<0.0005 U	<0.0005 U	<0.0005 U	0.0025	<0.0005 U	<0.0005 U	0.0019	30-nov-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	30-nov-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	04-dec-95
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	04-dec-95

Soil analyses (mg/kg) for Volatile Organic Compounds (VOCs), in the Trailer 5475 Area

Location Date	Lab	Val. Note	Depth (ft)	PCE	TCE	1,1 DCE	cis-1,2 DCE	trans-1,2 DCE	Total 1,2 DCE
SIB-ETS-503									
12-jun-96#	CS a	V	4.5	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	-
12-jun-96#	CS a	V	10.5	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	-
12-jun-96#	CS a	V	20.0	<0.0005 U	<0.0005 U	0.00056	<0.0005 U	<0.0005 U	-
12-jun-96#	CS a	V	30.0	<0.0005 U	<0.0005 U	0.0022	<0.0005 U	<0.0005 U	-
12-jun-96#	CS a	V	40.0	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	-
12-jun-96#	CS a	V	50.0	<0.0005 U	<0.0005 U	0.0033	<0.0005 U	<0.0005 U	-
13-jun-96#	CS a	V	60.0	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	-
13-jun-96#	CS a	V	70.0	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	-
13-jun-96#	CS a	V	80.0	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	-
13-jun-96#	CS a	V	90.0	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	-
13-jun-96	BB a	V	100.0	<0.0009 U	<0.00037 U	<0.0004 U	<0.0005 U	<0.0005 U	-
13-jun-96#	CS a	V	100.0	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	-
SIB-ETS-504									
02-jul-96#	CS a	V	6.0	0.003	0.0045	<0.0005 U	<0.0005 U	<0.0005 U	-
02-jul-96#	CS a	V	10.3	0.0064	0.027	0.00067	<0.0005 U	<0.0005 U	-
02-jul-96#	CS a	V	15.3	0.0044	0.038	<0.0005 U	<0.0005 U	<0.0005 U	-
02-jul-96#	CS a	V	20.3	<0.0005 U	0.0023	<0.0005 U	<0.0005 U	<0.0005 U	-
02-jul-96#	CS a	V	25.3	0.00057	0.003	<0.0005 U	<0.0005 U	<0.0005 U	-
03-jul-96#	CS a	V	30.3	0.002	0.026	0.0011	<0.0005 U	<0.0005 U	-
03-jul-96#	CS af	V	35.3	0.0044	0.069 D	<0.0005 U	<0.0005 U	<0.0005 U	-
03-jul-96#	CS af	V	40.3	0.013	0.04 D	0.0044	<0.0005 U	<0.0005 U	-
03-jul-96#	BB a	V	41.0	0.011	0.082	0.0023	<0.0005 U	<0.0005 U	-
03-jul-96#	CS a	V	45.0	0.0019	0.022	0.00056	<0.0005 U	<0.0005 U	-
03-jul-96#	CS af	V	52.0	0.0061	0.055 D	0.002	<0.0005 U	<0.0005 U	-
03-jul-96#	BB a	V	52.3	0.0028	0.029	<0.0004 U	<0.0005 U	<0.0005 U	-
03-jul-96#	CS af	V	55.5	0.14 D	0.34 D	0.0063	<0.0005 U	<0.0005 U	-
03-jul-96#	CS af	V	62.3	0.069 D	0.21 D	0.018	<0.0005 U	<0.0005 U	-
03-jul-96#	CS af	V	65.7	0.043 D	0.33 D	0.013	<0.0005 U	<0.0005 U	-
03-jul-96#	BB a	V	70.3	0.013	0.11	0.0008	<0.0005 U	<0.0005 U	-
03-jul-96#	CS af	V	70.6	0.024 D	0.15 D	0.013	<0.0005 U	<0.0005 U	-
03-jul-96#	CS af	V	76.0	0.009	0.17 D	0.0029	<0.0005 U	<0.0005 U	-
SIB-ETS-505									
11-jul-96#	CS a	V	5.5	0.0078	0.038	0.0023	<0.0005 U	<0.0005 U	-
11-jul-96#	CS a	V	10.3	0.0072	0.043	0.002	<0.0005 U	<0.0005 U	-
11-jul-96#	CS a	V	15.5	0.0025	0.02	<0.0005 U	<0.0005 U	<0.0005 U	-
11-jul-96#	CS a	V	20.3	0.0027	0.024	<0.0005 U	<0.0005 U	<0.0005 U	-
11-jul-96#	CS af	V	25.0	0.0071	0.14 D	0.0023	<0.0005 U	<0.0005 U	-
11-jul-96#	CS af	V	30.3	0.025	0.14 D	0.0087	<0.0005 U	<0.0005 U	-
11-jul-96#	CS af	V	35.5	0.014	0.13 D	0.0038	<0.0005 U	<0.0005 U	-
11-jul-96#	CS af	V	41.0	0.039	0.1 D	0.014	<0.0005 U	<0.0005 U	-
15-jul-96#	CS af	V	45.7	0.0063	0.027 DLO	0.0021	<0.0005 U	<0.0005 U	-
15-jul-96#	CS a	V	51.5	0.0053	0.015 LO	<0.0005 U	<0.0005 U	<0.0005 U	-
15-jul-96#	CS af	V	55.3	0.022	0.16 DLO	0.011	<0.0005 U	<0.0005 U	-
15-jul-96#	CS af	V	61.3	0.03	0.13 DLO	0.013	<0.0005 U	<0.0005 U	-
15-jul-96#	CS af	V	65.3	0.012	0.17 DLO	0.006	<0.0005 U	<0.0005 U	-
15-jul-96#	CS af	V	72.0	0.0091 D	0.24 DLO	0.025	<0.0005 U	<0.0005 U	-
15-jul-96	BB a	N	72.5	0.038	0.14	<0.0004 U	<0.0005 U	<0.0005 U	-
15-jul-96#	CS af	V	76.5	0.076 D	0.74 DLO	0.025 D	<0.005 DU	<0.005 DU	-
16-jul-96	CS af	V	80.0	0.034	0.11 D	0.015	<0.0005 U	<0.0005 U	-
SIB-ETS-506									
22-jul-96#	CS a	V	1.0	<0.0005 U	<0.0005 ULO	<0.0005 U	<0.0005 U	<0.0005 U	-
22-jul-96#	CS a	V	5.0	0.0021	0.0089 LO	<0.0005 U	<0.0005 U	<0.0005 U	-
22-jul-96#	CS a	V	10.0	0.0015	0.013 LO	<0.0005 U	<0.0005 U	<0.0005 U	-
22-jul-96#	CS a	V	15.0	0.0027	0.013 LO	<0.0005 U	<0.0005 U	<0.0005 U	-
23-jul-96#	CS af	V	20.0	0.033	0.018 D	0.0018	<0.0005 U	<0.0005 U	-
23-jul-96#	CS a	V	25.0	0.00078	0.0058	<0.0005 U	<0.0005 U	<0.0005 U	-
23-jul-96#	CS a	V	30.0	0.00094	0.0089	<0.0005 U	<0.0005 U	<0.0005 U	-
23-jul-96#	CS af	V	35.0	0.0079	0.075 D	0.0013	<0.0005 U	<0.0005 U	-
23-jul-96#	CS af	V	41.0	0.015	0.042 D	0.0017	<0.0005 U	<0.0005 U	-
23-jul-96#	CS a	V	45.0	0.00082	0.023	0.00057	<0.0005 U	<0.0005 U	-
23-jul-96#	CS a	V	51.0	0.00069	0.017	<0.0005 U	<0.0005 U	<0.0005 U	-
23-jul-96#	CS a	V	55.0	0.0015	0.035	0.001	<0.0005 U	<0.0005 U	-
23-jul-96#	CS af	V	61.0	0.0042	0.068 D	0.0009	<0.0005 U	<0.0005 U	-
23-jul-96#	CS af	V	65.0	0.021 D	0.11 D	0.0085	<0.0005 U	<0.0005 U	-
23-jul-96#	CS af	V	71.0	0.018	0.21 D	0.0061	<0.0005 U	<0.0005 U	-
23-jul-96#	CS af	V	74.0	0.061 D	0.44 D	0.013	<0.0005 U	<0.0005 U	-

Results recorded by 31-oct-1996.

1,1,1 TCA	1,1 DCA	1,2 DCA	Carbon Tetra-chloride	Chloro-form	Freon 11	Freon 113	Location Date
							SIB-ETS-503
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	12-jun-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	12-jun-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0015	12-jun-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.02	12-jun-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	12-jun-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0023	12-jun-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	13-jun-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	13-jun-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	13-jun-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	13-jun-96
<0.0006 U	<0.0006 U	<0.0005 U	<0.0002 U	<0.0007 U	<0.0005 U	<0.0005 U	13-jun-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	13-jun-96
							SIB-ETS-504
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	02-jul-96
<0.0005 U	<0.0005 U	0.0011	<0.0005 U	0.0038	<0.0005 U	<0.0005 U	02-jul-96
<0.0005 U	0.0012	0.0039	<0.0005 U	0.0064	<0.0005 U	<0.0005 U	02-jul-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	02-jul-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	02-jul-96
<0.0005 U	<0.0005 U	0.00052	<0.0005 U	0.0047	<0.0005 U	<0.0005 U	03-jul-96
<0.0005 U	<0.0005 U	0.00054	<0.0005 U	0.0057	<0.0005 U	<0.0005 U	03-jul-96
<0.0005 U	<0.0005 U	0.002	<0.0005 U	0.017	<0.0005 U	<0.0005 U	03-jul-96
<0.0006 U	<0.0006 U	0.0027	<0.0002 U	0.015	<0.0005 U	<0.0005 U	03-jul-96
<0.0005 U	<0.0005 U	0.0075	<0.0005 U	0.0067	<0.0005 U	<0.0005 U	03-jul-96
<0.0005 U	<0.0005 U	0.0048	<0.0005 U	0.0092	<0.0005 U	<0.0005 U	03-jul-96
<0.0006 U	<0.0006 U	0.005	<0.0002 U	0.0067	<0.0005 U	<0.0005 U	03-jul-96
<0.0005 U	0.00074	0.013	0.00081	0.034	<0.0005 U	<0.0005 U	03-jul-96
<0.0005 U	0.0015	0.013	0.0016	0.071 D	<0.0005 U	<0.0005 U	03-jul-96
<0.0005 U	0.001	0.0089	0.0011	0.037 D	<0.0005 U	<0.0005 U	03-jul-96
<0.0006 U	<0.0006 U	0.0018	<0.0002 U	0.016	<0.0005 U	<0.0005 U	03-jul-96
<0.0005 U	0.0012	0.0069	<0.0005 U	0.026 D	<0.0005 U	0.0019	03-jul-96
<0.0005 U	0.00094	0.01	<0.0005 U	0.0049 D	<0.0005 U	<0.0005 U	03-jul-96
							SIB-ETS-505
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0012	<0.0005 U	<0.0005 U	11-jul-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0016	<0.0005 U	<0.0005 U	11-jul-96
<0.0005 U	<0.0005 U	0.00065	<0.0005 U	0.0012	<0.0005 U	<0.0005 U	11-jul-96
<0.0005 U	<0.0005 U	0.0013	<0.0005 U	0.0014	<0.0005 U	<0.0005 U	11-jul-96
<0.0005 U	<0.0005 U	0.0018	<0.0005 U	0.0025	<0.0005 U	<0.0005 U	11-jul-96
<0.0005 U	<0.0005 U	0.0048	0.00068	0.0087	<0.0005 U	<0.0005 U	11-jul-96
<0.0005 U	<0.0005 U	0.0028	<0.0005 U	0.0057	<0.0005 U	<0.0005 U	11-jul-96
<0.0005 U	0.00081	0.0031	0.0011	0.013	<0.0005 U	<0.0005 U	11-jul-96
<0.0005 U	<0.0005 U	0.0018	<0.0005 U	0.0071	<0.0005 U	<0.0005 U	15-jul-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	15-jul-96
<0.0005 U	0.0012	0.0023	0.00069	0.02	<0.0005 U	<0.0005 U	15-jul-96
<0.0005 U	0.0015	0.00081	0.00077	0.025	<0.0005 U	<0.0005 U	15-jul-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.012	<0.0005 U	<0.0005 U	15-jul-96
<0.0005 U	0.0035	0.0025	0.0019	0.022 D	<0.0005 U	<0.0005 U	15-jul-96
<0.0006 U	<0.0006 U	<0.0005 U	<0.0002 U	0.013	<0.0005 U	<0.0005 U	15-jul-96
<0.005 DU	<0.005 DU	<0.005 DU	<0.005 DU	0.051 D	<0.005 DU	<0.005 DU	15-jul-96
<0.0005 U	0.0011	0.0018	0.00082	0.021	<0.0005 U	0.00095	16-jul-96
							SIB-ETS-506
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	22-jul-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0015	<0.0005 U	<0.0005 U	22-jul-96
<0.0005 U	<0.0005 U	0.0021	<0.0005 U	0.003	<0.0005 U	<0.0005 U	22-jul-96
<0.0005 U	<0.0005 U	0.0009	<0.0005 U	0.0018	<0.0005 U	<0.0005 U	22-jul-96
<0.0005 U	<0.0005 U	0.0082	0.00073	0.013	<0.0005 U	<0.0005 U	23-jul-96
<0.0005 U	<0.0005 U	0.0025	<0.0005 U	0.0014	<0.0005 U	<0.0005 U	23-jul-96
<0.0005 U	<0.0005 U	0.0043	<0.0005 U	0.0025	<0.0005 U	<0.0005 U	23-jul-96
<0.0005 U	<0.0005 U	0.0093	<0.0005 U	0.0095	<0.0005 U	<0.0005 U	23-jul-96
<0.0005 U	<0.0005 U	0.0059	<0.0005 U	0.018	<0.0005 U	<0.0005 U	23-jul-96
<0.0005 U	<0.0005 U	0.0035	<0.0005 U	0.0068	<0.0005 U	<0.0005 U	23-jul-96
<0.0005 U	<0.0005 U	0.0016	<0.0005 U	0.0047	<0.0005 U	<0.0005 U	23-jul-96
<0.0005 U	<0.0005 U	0.002	<0.0005 U	0.0089	<0.0005 U	<0.0005 U	23-jul-96
<0.0005 U	<0.0005 U	0.00054	<0.0005 U	0.011	<0.0005 U	<0.0005 U	23-jul-96
<0.0005 U	0.00079	0.0017	0.0016	0.026	<0.0005 U	<0.0005 U	23-jul-96
<0.0005 U	0.0014	0.00078	<0.0005 U	0.037	<0.0005 U	<0.0005 U	23-jul-96
<0.0005 U	0.0025	0.0015	0.0012	0.044 D	<0.0005 U	<0.0005 U	23-jul-96

Soil analyses (mg/kg) for Volatile Organic Compounds (VOCs), in the Trailer 5475 Area

Location Date	Lab	Note	Val.	Depth (ft)	PCE	TCE	1,1 DCE	cis-1,2 DCE	trans-1,2 DCE	Total 1,2 DCE
SIB-ETS-507										
25-jul-96#	CS	a	V	1.0	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	-
25-jul-96#	CS	a	V	5.0	0.00083	0.00062	<0.0005 U	<0.0005 U	<0.0005 U	-
25-jul-96#	CS	a	V	10.0	0.00078	0.00073	<0.0005 U	<0.0005 U	<0.0005 U	-
25-jul-96#	CS	a	V	15.0	0.0019	0.0045	<0.0005 U	<0.0005 U	<0.0005 U	-
25-jul-96#	CS	a	V	20.0	0.0014	0.007	<0.0005 U	<0.0005 U	<0.0005 U	-
25-jul-96#	CS	a	V	25.0	0.012	0.035	<0.0005 U	<0.0005 U	<0.0005 U	-
25-jul-96#	CS	af	V	30.0	0.023	0.072 D	0.0012	<0.0005 U	<0.0005 U	-
25-jul-96#	CS	af	V	35.0	0.12 D	0.82 D	<0.005 DU	<0.005 DU	<0.005 DU	-
29-jul-96#	CS	af	V	41.0	0.008	0.025 D	0.0011	<0.0005 U	<0.0005 U	-
29-jul-96#	BB	a	V	41.3	<0.0009 U	0.0038	<0.0004 U	<0.0005 U	<0.0005 U	-
29-jul-96#	CS	a	V	45.0	0.0019	0.016	<0.0005 U	<0.0005 U	<0.0005 U	-
29-jul-96#	CS	af	V	51.8	0.013	0.073 D	0.0023	<0.0005 U	<0.0005 U	-
29-jul-96#	CS	af	V	55.0	0.064 D	0.28 D	0.0034	<0.0005 U	<0.0005 U	-
29-jul-96#	CS	af	V	61.0	0.034	0.062 D	0.00079	<0.0005 U	<0.0005 U	-
29-jul-96#	CS	a	V	65.2	0.007	0.047	<0.0005 U	<0.0005 U	<0.0005 U	-
29-jul-96#	CS	af	V	72.0	0.017	0.11 D	0.0024	<0.0005 U	<0.0005 U	-
29-jul-96#	BB	a	V	72.2	0.0014	0.014	<0.0004 U	<0.0005 U	<0.0005 U	-
29-jul-96#	CS	af	V	74.0	0.16 D	0.74 D	0.011	<0.0005 U	<0.0005 U	-
SIB-OSY-001										
09-jun-89#	BC	a	U	6.3	0.0005 P	0.0003 P	<0.0002 P	-	-	<0.0002 P
09-jun-89#	BC	a	U	10.8	0.0017 P	0.0018 P	<0.0002 P	-	-	<0.0002 P
09-jun-89#	BC	a	U	16.3	0.0012 P	0.0028 P	<0.0002 P	-	-	<0.0002 P
09-jun-89#	BC	a	U	20.8	<0.0002 P	0.0005 P	<0.0002 P	-	-	<0.0002 P
09-jun-89#	BC	a	U	31.3	0.0002 P	0.0049 P	<0.0002 P	-	-	<0.0002 P
09-jun-89#	BC	a	U	41.3	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
09-jun-89#	BC	a	U	50.8	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
09-jun-89#	BC	a	U	61.3	<0.0002 P	<0.0002 P	<0.0002 P	-	-	<0.0002 P
12-jun-89#	BC	a	U	71.3	<0.0002 P	0.0002 P	<0.0002 P	-	-	<0.0002 P
12-jun-89#	BC	a	U	81.3	0.0002 P	0.0014 P	<0.0002 P	-	-	<0.0002 P
12-jun-89	BC	a	U	91.3	<0.0002 P	0.0002 P	<0.0002 P	-	-	<0.0002 P
SIB-OSY-002										
12-jun-89#	BC	a	U	5.3	<0.0002 P	0.0048 P	<0.0002 P	-	-	<0.0002 P
12-jun-89#	BC	a	U	10.0	<0.0002 P	0.018 P	<0.0002 P	-	-	<0.0002 P
12-jun-89#	BC	a	U	20.3	<0.0002 P	0.0026 P	<0.0002 P	-	-	<0.0002 P
12-jun-89#	BC	a	U	30.5	<0.0002 P	0.018 P	<0.0002 P	-	-	<0.0002 P
12-jun-89#	BC	a	U	40.5	<0.0002 P	0.007 P	<0.0002 P	-	-	<0.0002 P
12-jun-89#	BC	a	U	50.5	<0.0002 P	0.0023 P	<0.0002 P	-	-	<0.0002 P
12-jun-89#	BC	a	U	60.5	<0.0002 P	0.0031 P	<0.0002 P	-	-	<0.0002 P
12-jun-89#	BC	a	U	70.8	<0.0002 P	0.0015 P	<0.0002 P	-	-	<0.0002 P
12-jun-89#	BC	a	U	81.3	<0.0002 P	0.0005 P	<0.0002 P	-	-	<0.0002 P
12-jun-89#	BC	a	U	91.3	<0.0002 P	0.0004 P	<0.0002 P	-	-	<0.0002 P
SIB-OSY-201										
09-may-91#	BC	a	U	6.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
09-may-91#	BC	a	U	11.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
SIB-OSY-202										
09-may-91#	BC	a	U	6.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
09-may-91#	BC	a	U	11.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
SIB-OSY-203										
09-may-91#	BC	a	U	6.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
09-may-91#	BC	a	U	11.3	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P
C-OSY-1										
09-feb-84#	BC	a	U	3.0	<0.001 P	0.01 P	-	-	-	-
09-feb-84#	BC	a	U	5.9	<0.001 P	<0.001 P	-	-	-	-
09-feb-84#	BC	a	U	11.0	<0.001 P	<0.001 P	-	-	-	-
C-OSY-2										
09-feb-84#	BC	a	U	3.0	0.02 P	0.02 P	-	-	-	-
09-feb-84#	BC	a	U	5.8	0.003 P	0.006 P	-	-	-	-
09-feb-84#	BC	a	U	11.5	<0.001 P	0.001 P	-	-	-	-
C-OSY-3										
09-feb-84#	BC	a	U	3.0	<0.001 P	0.02 P	-	-	-	-
09-feb-84#	BC	a	U	6.0	<0.001 P	0.009 P	-	-	-	-
09-feb-84#	BC	a	U	10.5	<0.001 P	0.14 P	-	-	-	-

Results recorded by 31-oct-1996.

1,1,1 TCA	1,1 DCA	1,2 DCA	Carbon Tetra-chloride	Chloro-form	Freon 11	Freon 113	Location Date
							SIB-ETS-507
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	25-jul-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	25-jul-96
<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	25-jul-96
<0.0005 U	<0.0005 U	0.0011	<0.0005 U	0.0014	<0.0005 U	<0.0005 U	25-jul-96
<0.0005 U	<0.0005 U	0.0017	<0.0005 U	0.0043	<0.0005 U	<0.0005 U	25-jul-96
<0.0005 U	<0.0005 U	0.004	<0.0005 U	0.042	<0.0005 U	<0.0005 U	25-jul-96
<0.0005 U	<0.0005 U	0.075 D	<0.0005 U	0.22 D	<0.0005 U	<0.0005 U	25-jul-96
<0.005 DU	<0.005 DU	0.072 D	<0.005 DU	1.2 D	<0.005 DU	<0.005 DU	25-jul-96
<0.0005 U	<0.0005 U	0.013	0.001	0.1 D	<0.0005 U	<0.0005 U	29-jul-96
<0.0006 U	<0.0006 U	0.0059	<0.0002 U	0.088	<0.0005 U	<0.0005 U	29-jul-96
<0.0005 U	<0.0005 U	0.0049	<0.0005 U	0.046	<0.0005 U	<0.0005 U	29-jul-96
<0.0005 U	0.0008	0.012	0.0018	0.2 D	<0.0005 U	<0.0005 U	29-jul-96
<0.0005 U	0.00055	0.012	0.0016	0.21 D	<0.0005 U	0.0015	29-jul-96
<0.0005 U	<0.0005 U	0.0044	<0.0005 U	0.1 D	<0.0005 U	<0.0005 U	29-jul-96
<0.0005 U	<0.0005 U	0.0011	<0.0005 U	0.025	<0.0005 U	<0.0005 U	29-jul-96
<0.0005 U	0.00051	0.00061	0.00088	0.076 D	<0.0005 U	<0.0005 U	29-jul-96
<0.0006 U	<0.0006 U	<0.0005 U	<0.0002 U	0.0059	<0.0005 U	<0.0005 U	29-jul-96
<0.0005 U	0.0019	0.0067	0.0031	0.41 D	<0.0005 U	<0.0005 U	29-jul-96
							SIB-OSY-001
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	09-jun-89
<0.0002 P	<0.0002 P	<0.0002 P	0.0003 P	<0.0002 P	<0.0002 P	0.0006 P	09-jun-89
<0.0002 P	<0.0002 P	<0.0002 P	0.0003 P	<0.0002 P	<0.0002 P	0.0003 P	09-jun-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0003 P	09-jun-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0005 P	09-jun-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0002 P	09-jun-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0003 P	09-jun-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0004 P	09-jun-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	12-jun-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	12-jun-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	12-jun-89
							SIB-OSY-002
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	12-jun-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	12-jun-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	12-jun-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	12-jun-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	12-jun-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0003 P	12-jun-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	12-jun-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	12-jun-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0003 P	12-jun-89
<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	<0.0002 P	0.0002 P	12-jun-89
							SIB-OSY-201
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	09-may-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	09-may-91
							SIB-OSY-202
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	09-may-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	09-may-91
							SIB-OSY-203
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	09-may-91
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	09-may-91
							C-OSY-1
<0.001 P	-	-	-	-	-	<0.005 P	09-feb-84
<0.001 P	-	-	-	-	-	<0.005 P	09-feb-84
<0.001 P	-	-	-	-	-	<0.005 P	09-feb-84
							C-OSY-2
<0.001 P	-	-	-	-	-	<0.005 P	09-feb-84
<0.001 P	-	-	-	-	-	<0.005 P	09-feb-84
<0.001 P	-	-	-	-	-	<0.005 P	09-feb-84
							C-OSY-3
<0.001 P	-	-	-	-	-	<0.005 P	09-feb-84
<0.001 P	-	-	-	-	-	<0.005 P	09-feb-84
<0.001 P	-	-	-	-	-	<0.005 P	09-feb-84

Soil analyses (mg/kg) for Volatile Organic Compounds (VOCs), in the Trailer 5475 Area

Location Date	Lab	Note	Val.	Depth (ft)	PCE	TCE	1,1 DCE	cis-1,2 DCE	trans-1,2 DCE	Total 1,2 DCE
C-OSY-3 (continued)										
10-feb-84#	BC	a	U	16.0	<0.005 P	0.3 P	<0.005 P	-	-	<0.005 P
C-OSY-4										
10-feb-84#	BC	a	U	2.7	<0.001 P	<0.001 P	-	-	-	-
10-feb-84#	BC	a	U	6.0	<0.001 P	<0.001 P	-	-	-	-
10-feb-84#	BC	a	U	11.0	<0.001 P	<0.001 P	-	-	-	-
C-OSY-5										
13-feb-84#	BC	a	U	3.0	<0.001 P	<0.001 P	-	-	-	-
13-feb-84#	BC	a	U	6.0	<0.001 P	<0.001 P	-	-	-	-
13-feb-84#	BC	a	U	11.0	<0.001 P	<0.001 P	-	-	-	-

Results recorded by 31-oct-1996.

1,1,1 TCA	1,1 DCA	1,2 DCA	Carbon Tetra-chloride	Chloro-form	Freon 11	Freon 113	Location Date
							(continued) C-OSY-3
<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	<0.005 P	-	10-feb-84
							C-OSY-4
<0.001 P	-	-	-	-	-	<0.005 P	10-feb-84
<0.001 P	-	-	-	-	-	<0.005 P	10-feb-84
<0.001 P	-	-	-	-	-	<0.005 P	10-feb-84
							C-OSY-5
<0.001 P	-	-	-	-	-	0.005 P	13-feb-84
<0.001 P	-	-	-	-	-	0.02 P	13-feb-84
<0.001 P	-	-	-	-	-	<0.005 P	13-feb-84

See following page for notes

Soil analyses (mg/kg) for Volatile Organic Compounds (VOCs), in the Trailer 5475 Area
Results recorded by 31-oct-1996.

Notes:

- Indicates no analysis performed for this compound

Val. = Validation code

# Indicates this is an unsaturated soil sample

Footnotes:

a ERD data
b ORAD WGMG data
c Analytical results for this sample are suspect
d Sample collected during hydraulic testing
e Blind sample, sent to lab without well identity
f Sample dilution necessary for analysis; detection limits increased
g Interlaboratory collocated sample
h Intralaboratory collocated sample
i Sample collected as part of pilot study
j Note field may contain important information regarding this sample
k Pre-development sample
l Norm month, norm quarter or norm year inconsistent with sample date
m Confirmation sample
n Sample analyzed after standard holding time
o Sample comprised of partial composite
p Alpha spectroscopy analysis of uranium isotopes
q Gamma spectroscopy analysis of uranium isotopes

Lab Codes:

BB BC Laboratories, Inc., Bakersfield, CA
BC Brown and Caldwell, Emeryville, CA
CH Characterization Labs-Chemistry, LLNL, Livermore, CA
CL Clayton Environmental Consultants, Pleasanton, CA
CS California Laboratory Services, Rancho Cordova, CA
CT Curtis & Tompkins, Ltd

Validation Codes:

V Validated
N Not validated (default value)
U Undeclared
H Historical comparison only

CLP flags: (follow result)

B Analyte detected in method blank
C Analytical results for this sample are not in agreement with the intra or interlaboratory collocated sample results and the historical data
D Analysis performed at a secondary dilution or concentration (i.e., vapor)
E Concentration exceeds calibration range
F Analyte detected in field blank
H Sample analyzed outside of the holding time; sample results should be rejected
J Analyte was postively identified; the associated numerical value is the approximate concentration of the analyte
L Spike accuracy not within control limits
O Duplicate spike precision not within control limits
P Absence of a data qualifier flag does not mean that the data does not need qualification, but that the addition of electronic data qualifier flags was not yet implemented
R Sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria; the presence or absence of the analyte cannot be verified
S Analytical results for this sample are suspect
T Analyte is tentatively identified as this compound; result is approximate
U Compound was analyzed for, but not detected above detection limit

VOCs in Ground Water, LLNL wells
04-nov-1996
gemini2

LS-voc-WellsL.04nov96
LS-voc-WellsR.04nov96

Ground water analyses (ug/L) for Volatile Organic Compounds (VOCs) in the Trailer 5475 Area

Location Date	Lab	Note	Val.	PCE	TCE	1,1 DCE	cis-1,2 DCE	trans-1,2 DCE	Total 1,2 DCE
Monitor Wells and Piezometers									
W-113									
10-jun-85	BC	a	U	<1 P	<1 P	<1 P	-	-	<1 P
09-sep-85	BC	a	U	1.2 P	1.5 P	<0.5 P	-	-	<0.5 P
26-nov-85	BC	a	U	1 P	<0.5 P	<0.5 P	-	-	<0.5 P
20-feb-86	BC	a	U	<0.5 P	<0.5 P	<0.5 P	-	-	<0.5 P
14-may-86	BC	a	U	<0.5 P	<0.5 P	<0.5 P	-	-	<0.5 P
06-aug-86	BC	a	U	<0.5 P	<0.5 P	<0.5 P	-	-	<0.5 P
29-oct-86	BC	a	U	0.5 P	<0.5 P	<0.5 P	-	-	<0.5 P
16-apr-87	BC	a	U	0.6 P	<0.5 P	<0.5 P	-	-	<0.5 P
07-aug-87	BC	a	U	0.7 P	2.2 P	<0.5 P	-	-	<0.5 P
03-nov-87	BC	ag	U	<0.5 P	0.8 P	<0.5 P	-	-	<0.5 P
03-nov-87	CL	ag	U	<0.5 P	0.6 P	<0.2 P	-	<0.4 P	<0.4 P
12-feb-88	BC	a	U	<0.5	1.3	<0.5	-	-	<0.5
16-may-88	BC	a	U	<0.5 P	2.7 P	<0.5 P	-	-	<0.5 P
09-sep-88	BC	a	U	<0.5 P	1.8 P	<0.5 P	-	-	<0.5 P
02-nov-88	BC	a	U	<0.5 P	2.8 P	<0.5 P	-	-	<0.5 P
06-mar-89	BC	a	U	<0.5 P	4.6 P	<0.5 P	-	-	<0.5 P
01-may-89	BC	ah	U	<0.5 P	2.7 P	<0.5 P	-	-	<0.5 P
01-may-89	BC	ah	U	<0.5 P	2.8 P	<0.5 P	-	-	<0.5 P
31-jul-89	BC	a	U	<0.5 P	4.6 P	<0.5 P	-	-	<0.5 P
17-nov-89	BC	a	U	<0.5 P	3.2 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
02-feb-90	BC	a	U	<0.5 P	2.6 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
13-apr-90	BC	a	U	<0.5 P	1.6 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
26-jul-90	BC	a	U	<0.5 P	1.8 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
08-nov-90	BC	a	U	<0.5 P	6.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
15-feb-91	BC	a	U	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
18-apr-91	BC	a	U	<0.5 P	0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
24-jul-91	BC	a	U	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
31-oct-91	BC	a	U	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
03-sep-92	BC	a	U	<0.5 P	1.6 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
07-sep-93	CS	a	V	<0.5 U	<0.5 U	<0.5 U	-	-	<0.5 U
27-oct-94	CS	a	V	<0.5 U	<0.5 U	<0.5 U	-	-	<0.5 U
13-nov-95	CS	a	V	<0.5 U	<0.5 U	<0.5 U	-	-	<0.5 U
W-204									
04-feb-86	BC	a	U	<1 P	10 P	<1 P	-	-	<1 P
12-may-86	BC	a	U	2 P	11 P	<0.5 P	-	-	<0.5 P
15-aug-86	BC	a	U	1.3 P	7.8 P	<0.5 P	-	-	<0.5 P
30-oct-86	BC	a	U	<0.5 P	4.2 P	<0.5 P	-	-	<0.5 P
04-feb-87	BC	a	U	1.9 P	2.8 P	<0.5 P	-	-	0.8 P
17-apr-87	BC	a	U	<0.5 P	2.1 P	<0.5 P	-	-	<0.5 P
21-dec-87	BC	a	U	<0.5 P	6 P	1 P	-	-	<0.5 P
15-aug-88	BC	a	U	<0.5 P	2.1 P	0.6 P	-	-	<0.5 P
03-feb-89	BC	ah	U	<0.5 P	1.2 P	0.5 P	-	-	<0.5 P
03-feb-89	BC	ah	U	<0.5 P	1.3 P	0.6 P	-	-	<0.5 P
01-sep-89	BC	a	U	<0.5 P	0.8 P	<0.5 P	-	-	<0.5 P
30-jan-90	BC	ag	U	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
30-jan-90	CL	ag	U	<0.5 P	0.4 P	0.6 P	<0.4 P	<0.4 P	<0.4 P
16-jul-90	BC	a	U	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
20-feb-91	BC	a	U	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
18-jul-91	BC	a	U	<0.5 P	0.6 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
10-aug-92	BC	a	U	<0.5 P	0.57 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
07-dec-93	CS	a	V	<0.5 U	0.8	<0.5 U	-	-	<0.5 U
09-nov-94	CS	a	V	1.8	2.1	1.3	-	-	<0.5 U
18-jul-95	CS	a	V	1.8	5.3	3	-	-	<0.5 U
14-sep-95	CS	a	V	<0.5 U	1.8	2.1	-	-	<0.5 U
07-nov-95	CS	a	V	<0.5 U	3.1	2.7	-	-	<0.5 U
07-dec-95	CS	a	V	<0.5 U	1.1	1	-	-	<0.5 U
31-jan-96	CS	a	V	<0.5 U	1.1	1	-	-	<0.5 U
W-206									
04-feb-86	BC	a	U	410 P	4400 P	120 P	-	-	<1 P
03-mar-86	BC	af	U	730 P	5300 P	210 P	-	-	<25 P
09-may-86	BC	af	U	560 P	3800 P	<25 P	-	-	<25 P
13-aug-86	BC	afgh	U	390 P	5700 P	130 P	-	-	<25 P
13-aug-86	BC	afgh	U	390 P	5800 P	120 P	-	-	<25 P
13-aug-86	MC	ag	U	180 P	2200 P	74 P	-	<0.42 P	<0.4 P
30-oct-86	BC	af	U	210 P	760 P	61 P	-	-	<5 P

Results recorded by 31-oct-1996.

1,1,1 TCA	1,1 DCA	1,2 DCA	Carbon Tetra-chloride	Chloro-form	Freon 11	Freon 113	Location Date
							Monitor Wells and Piezometers
							W-113
<1 P	<1 P	<1 P	<1 P	<1 P	<1 P	-	10-jun-85
<0.5 P	<0.5 P	<0.5 P	<0.5 P	13 P	<0.5 P	-	09-sep-85
2.8 P	<0.5 P	<0.5 P	<0.5 P	15 P	<0.5 P	<0.5 P	26-nov-85
2.1 P	<0.5 P	<0.5 P	<0.5 P	11 P	<0.5 P	-	20-feb-86
<0.5 P	<0.5 P	<0.5 P	<0.5 P	9.6 P	<0.5 P	<0.5 P	14-may-86
<0.5 P	<0.5 P	<0.5 P	<0.5 P	5.5 P	<0.5 P	<0.5 P	06-aug-86
<0.5 P	<0.5 P	<0.5 P	<0.5 P	7.6 P	<0.5 P	<0.5 P	29-oct-86
<0.5 P	<0.5 P	<0.5 P	<0.5 P	4.9 P	<0.5 P	<0.5 P	16-apr-87
0.5 P	<0.5 P	<0.5 P	<0.5 P	5.3 P	<0.5 P	<0.5 P	07-aug-87
<0.5 P	<0.5 P	<0.5 P	<0.5 P	2.9 P	<0.5 P	<0.5 P	03-nov-87
<0.5 P	<0.4 P	<0.3 P	<0.6 P	2.5 P	<0.4 P	<0.6 P	03-nov-87
0.7	<0.5	<0.5	<0.5	1.1	<0.5	0.7 B	12-feb-88
<0.5 P	<0.5 P	<0.5 P	<0.5 P	2.1 P	<0.5 P	<0.5 P	16-may-88
<0.5 P	<0.5 P	<0.5 P	<0.5 P	2.3 P	<0.5 P	<0.5 P	09-sep-88
<0.5 P	<0.5 P	<0.5 P	<0.5 P	2 P	<0.5 P	1.1 P	02-nov-88
<0.5 P	<0.5 P	<0.5 P	<0.5 P	1.3 P	<0.5 P	<0.5 P	06-mar-89
<0.5 P	<0.5 P	<0.5 P	<0.5 P	0.9 P	<0.5 P	<0.5 P	01-may-89
<0.5 P	<0.5 P	<0.5 P	<0.5 P	1.1 P	<0.5 P	<0.5 P	01-may-89
<0.5 P	<0.5 P	<0.5 P	<0.5 P	1 P	<0.5 P	<0.5 P	31-jul-89
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	17-nov-89
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	02-feb-90
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	13-apr-90
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	26-jul-90
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	08-nov-90
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	15-feb-91
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	18-apr-91
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	24-jul-91
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	31-oct-91
<0.5 P	<0.5 P	<0.5 P	<0.5 P	0.7 P	<0.5 P	<0.5 P	03-sep-92
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	07-sep-93
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	27-oct-94
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	13-nov-95
							W-204
<1 P	<1 P	<1 P	<1 P	15 P	<1 P	2 P	04-feb-86
<0.5 P	<0.5 P	2 P	<0.5 P	6.4 P	<0.5 P	5.6 P	12-may-86
<0.5 P	<0.5 P	<0.5 P	<0.5 P	4.6 P	<0.5 P	12 P	15-aug-86
<0.5 P	<0.5 P	<0.5 P	<0.5 P	3.1 P	<0.5 P	8.7 P	30-oct-86
<0.5 P	<0.5 P	<0.5 P	<0.5 P	6.9 P	<0.5 P	7.4 P	04-feb-87
<0.5 P	<0.5 P	<0.5 P	0.6 P	10 P	<0.5 P	17 P	17-apr-87
<0.5 P	<0.5 P	<0.5 P	1 P	7 P	<0.5 P	40 P	21-dec-87
0.5 P	<0.5 P	<0.5 P	0.9 P	1.9 P	<0.5 P	23 P	15-aug-88
<0.5 P	<0.5 P	<0.5 P	0.8 P	0.9 P	<0.5 P	17 P	03-feb-89
<0.5 P	<0.5 P	<0.5 P	0.9 P	1.1 P	<0.5 P	21 P	03-feb-89
<0.5 P	<0.5 P	<0.5 P	<0.5 P	0.5 P	<0.5 P	30 P	01-sep-89
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	21 P	30-jan-90
<0.5 P	<0.4 P	<0.3 P	0.6 P	<0.5 P	<0.4 P	14 P	30-jan-90
<0.5 P	<0.5 P	<0.5 P	0.6 P	<0.5 P	<0.5 P	24 P	16-jul-90
<0.5 P	<0.5 P	<0.5 P	0.8 P	<0.5 P	<0.5 P	27 P	20-feb-91
<0.5 P	<0.5 P	<0.5 P	0.7 P	<0.5 P	<0.5 P	39 P	18-jul-91
<0.5 P	<0.5 P	<0.5 P	1.4 P	<0.5 P	<0.5 P	22 P	10-aug-92
<0.5 U	<0.5 U	<0.5 U	1.2	<0.5 U	<0.5 U	34	07-dec-93
<0.5 U	<0.5 U	<0.5 U	1.4	<0.5 U	<0.5 U	22	09-nov-94
<0.5 U	<0.5 U	<0.5 U	1.8	<0.5 U	<0.5 U	44	18-jul-95
<0.5 U	<0.5 U	<0.5 U	1.1	<0.5 U	<0.5 U	15	14-sep-95
<0.5 U	<0.5 U	<0.5 U	1.2	<0.5 U	<0.5 U	6.6	07-nov-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	7.8	07-dec-95
<0.5 U	<0.5 U	<0.5 U	0.54	<0.5 U	<0.5 U	8.8	31-jan-96
							W-206
47 P	9 P	60 P	11 P	270 P	<1 P	58 P	04-feb-86
<25 P	<25 P	170 P	<25 P	<25 P	<25 P	350 P	03-mar-86
120 P	<25 P	<25 P	<25 P	<25 P	<25 P	<25 P	09-may-86
<25 P	<25 P	120 P	<25 P	280 P	<25 P	170 P	13-aug-86
<25 P	<25 P	140 P	<25 P	270 P	<25 P	170 P	13-aug-86
30 P	9.2 P	46 P	30 P	140 P	<1.3 P	61 P	13-aug-86
22 P	8.1 P	59 P	18 P	120 P	<5 P	77 P	30-oct-86

Ground water analyses (ug/L) for Volatile Organic Compounds (VOCs) in the Trailer 5475 Area

Location Date	Lab	Note	Val.	PCE	TCE	1.1 DCE	cis-1.2 DCE	trans-1.2 DCE	Total 1.2 DCE
Monitor Wells and Piezometers (continued)									
W-206 (continued)									
09-feb-87	BC	af	U	210 P	2600 P	79 P	-	-	<25 P
04-may-87	BC	afg	U	140 P	3100 P	75 P	-	-	<25 P
04-may-87	CL	ag	U	310 P	2600 P	76 P	-	0.45 P	0.45 P
22-dec-87	BC	af	U	160 P	1200 P	69 P	-	-	<10 P
03-jun-88	BC	af	U	330 P	4500 P	180 P	-	-	<25 P
05-aug-88	BC	a	U	330 P	6100 P	200 P	-	-	<50 P
09-sep-88	BC	ae	U	170 P	2600 P	90 P	-	-	<25 P
18-oct-88	BC	a	U	200 P	3000 P	130 P	-	-	<12 P
21-dec-88	BC	af	U	310 P	4400 P	160 P	-	-	<25 P
08-feb-89	CL	aef	U	50 P	1800 P	100 P	-	<8 P	<8 P
17-apr-89	BC	af	U	410 P	5200 P	140 P	-	-	<25 P
03-aug-89	BC	aef	U	62 P	1400 P	51 P	-	-	<10 P
01-sep-89	BC	af	U	450 P	7400 P	140 P	-	-	<50 P
04-dec-89	BC	aefh	U	100 P	1600 P	84 P	<10 P	<10 P	<10 P
04-dec-89	BC	afh	U	660 P	7100 P	210 P	<50 P	<50 P	<50 P
06-feb-90	BC	afh	U	380 P	4100 P	100 P	<20 P	<20 P	<20 P
06-feb-90	BC	afh	U	460 P	4300 P	140 P	<20 P	<20 P	<20 P
13-apr-90	BC	af	U	340 P	3800 P	120 P	<20 P	<20 P	<20 P
16-jul-90	BC	af	U	290 P	3000 P	70 P	<20 P	<20 P	<20 P
11-oct-90	BC	af	U	400 P	3600 P	140 P	<20 P	<20 P	<20 P
25-feb-91	BC	af	U	430 P	4800 P	200 P	<20 P	<20 P	<20 P
20-may-91	BC	af	U	550 P	6900 P	90 P	<50 P	<50 P	<50 P
18-jul-91	BC	af	U	690 P	7300 P	200 P	<50 P	<50 P	<50 P
31-oct-91	BC	af	U	760 P	9300 P	140 P	<50 P	<50 P	<50 P
04-feb-92	BC	af	U	900 P	8400 P	240 P	<50 P	<50 P	<50 P
27-apr-92	BC	af	U	1200 P	13000 P	450 P	<50 P	<50 P	<50 P
16-jul-92	BC	af	U	490 P	10000 P	<100 P	<100 P	<100 P	<100 P
26-oct-92	BC	af	U	590 P	7000 P	100 P	<50 P	<50 P	<50 P
14-jan-93	BC	af	U	660 P	6500 P	200 P	<50 P	<50 P	<50 P
27-mar-95	CS	af	V	470 D	5000 D	260 D	-	-	<25 DU
27-mar-95	GT	a	V	500	6000 J	200 LJ	<1 U	<1 U	-
11-may-95	CS	af	V	500 D	4600 D	250 D	-	-	<25 DU
18-jul-95	CS	af	V	420 D	14000 D	190 D	-	-	<50 DU
14-sep-95	CS	af	V	430 D	4200 D	180 D	-	-	<25 DU
06-nov-95	CS	af	V	550 D	6200 D	260 D	-	-	<25 DU
05-dec-95	CS	af	V	440 D	4100 D	210 D	-	-	<25 DU
22-jan-96	CS	af	V	470 D	5200 D	220 D	-	-	<25 DU
30-apr-96	CL	a	V	370 D	3000 ODS	220 OD	<10 DU	<10 DU	<20 DU
28-aug-96	CS	ah	N	470 D	9400 D	200 D	<25 DU	<25 DU	-
28-aug-96	CS	aeh	N	370 D	5900 D	160 D	<13 DU	<13 DU	-
W-257									
18-feb-86	BC	a	U	21 P	150 P	25 P	-	-	<1 P
20-may-86	BC	af	U	34 P	410 P	54 P	-	-	<2 P
19-aug-86	BC	a	U	-	-	-	-	-	-
19-aug-86	BC	a	U	110 P	760 P	89 P	-	-	<1 P
04-nov-86	BC	ag	U	61 P	620 P	37 P	-	-	1.6 P
04-nov-86	MC	ag	U	200 P	990 P	410 P	-	<0.42 P	<0.4 P
10-feb-87	BC	afg	U	200 P	1500 P	220 P	-	-	<10 P
10-feb-87	CL	ag	U	640 P	1300 P	170 P	-	3.3 P	3.3 P
30-apr-87	CL	ag	U	400 P	1200 P	300 P	-	<0.42 P	<0.4 P
30-apr-87	BC	afg	U	220 P	1600 P	390 P	-	-	<10 P
05-jan-88	BC	af	U	1900 P	6400 P	550 P	-	-	<25 P
04-feb-88	BC	afg	U	830 P	2500 P	350 P	-	-	<25 P
04-feb-88	CL	afg	U	820 P	2300 P	410 P	-	<4 P	<4 P
10-aug-88	BC	af	U	1800 P	4100 P	640 P	-	-	<50 P
09-feb-89	BC	af	U	1600 P	4300 P	580 P	-	-	<25 P
15-aug-89	BC	af	U	1700 P	3600 P	440 P	-	-	<20 P
24-oct-89	BC	af	U	1700 P	3700 P	430 P	<25 P	<25 P	<25 P
02-feb-90	BC	af	U	770 P	1000 P	300 P	<5 P	<5 P	<5 P
14-jun-90	BC	af	U	1000 P	2500 P	340 P	<20 P	<20 P	<20 P
16-jul-90	BC	afh	U	1000 P	1800 P	320 P	<10 P	<10 P	<10 P
16-jul-90	BC	afh	U	1100 P	1900 P	360 P	<10 P	<10 P	<10 P
19-oct-90	BC	af	U	800 P	1100 P	320 P	<5 P	<5 P	<5 P
22-jan-91	BC	af	U	820 P	1400 P	370 P	<10 P	<10 P	<10 P
18-apr-91	BC	af	U	900 P	2500 P	250 P	<20 P	<20 P	<20 P
31-jul-91	BC	af	U	1100 P	2200 P	430 P	<20 P	<20 P	<20 P
30-oct-91	BC	af	U	1200 P	2700 P	310 P	<20 P	<20 P	<20 P

Results recorded by 31-oct-1996.

1,1,1 TCA	1,1 DCA	1,2 DCA	Carbon Tetra-chloride	Chloro-form	Freon 11	Freon 113	Location Date
							(continued) Monitor Wells and Piezometers
							(continued) W-206
<25 P	<25 P	48 P	<25 P	140 P	<25 P	85 P	09-feb-87
<25 P	<25 P	<25 P	<25 P	160 P	<25 P	200 P	04-may-87
20 P	8.9 P	40 P	13 P	96 P	<1.3 P	60 P	04-may-87
12 P	<10 P	38 P	<10 P	170 P	<10 P	64 P	22-dec-87
<25 P	<25 P	96 P	<25 P	340 P	<25 P	120 P	03-jun-88
59 P	<50 P	120 P	<50 P	380 P	<50 P	<50 P	05-aug-88
<25 P	<25 P	81 P	<25 P	310 P	<25 P	<25 P	09-sep-88
25 P	15 P	83 P	18 P	360 P	<12 P	<12 P	18-oct-88
<25 P	<25 P	92 P	<25 P	290 P	<25 P	120 P	21-dec-88
<10 P	<8 P	32 P	<10 P	250 P	<8 P	<10 P	08-feb-89
<25 P	<25 P	120 P	28 P	270 P	<25 P	110 P	17-apr-89
10 P	<10 P	85 P	11 P	370 P	<10 P	<10 P	03-aug-89
<50 P	<50 P	100 P	<50 P	330 P	<50 P	<50 P	01-sep-89
22 P	<10 P	64 P	<10 P	300 P	<10 P	21 P	04-dec-89
59 P	<50 P	98 P	<50 P	350 P	<50 P	50 P	04-dec-89
20 P	<20 P	50 P	<20 P	190 P	<20 P	<20 P	06-feb-90
20 P	<20 P	57 P	<20 P	240 P	<20 P	<20 P	06-feb-90
<20 P	<20 P	50 P	<20 P	210 P	<20 P	<20 P	13-apr-90
<20 P	<20 P	30 P	<20 P	180 P	<20 P	<20 P	16-jul-90
<20 P	<20 P	50 P	<20 P	240 P	<20 P	<20 P	11-oct-90
<20 P	<20 P	52 P	<20 P	270 P	<20 P	56 P	25-feb-91
<50 P	<50 P	<50 P	<50 P	220 P	<50 P	<50 P	20-may-91
<50 P	<50 P	<50 P	<50 P	360 P	<50 P	<50 P	18-jul-91
<50 P	<50 P	60 P	<50 P	310 P	<50 P	<50 P	31-oct-91
<50 P	<50 P	100 P	<50 P	390 P	<50 P	50 P	04-feb-92
80 P	<50 P	<50 P	<50 P	660 P	<50 P	<50 P	27-apr-92
<100 P	<100 P	<100 P	<100 P	<100 P	<100 P	<100 P	16-jul-92
<50 P	<50 P	<50 P	<50 P	260 P	<50 P	<50 P	26-oct-92
<50 P	<50 P	77 P	<50 P	360 P	<50 P	<50 P	14-jan-93
<25 DU	<25 DU	51 D	<25 DU	340 D	<25 DU	59 D	27-mar-95
<1 U	<1 U	45	<1 U	300 ULJ	<1 U	24	27-mar-95
26 D	<25 DU	44 D	<25 DU	340 D	<25 DU	59 D	11-may-95
<50 DU	<50 DU	68 D	<50 DU	310 D	<50 DU	<50 DU	18-jul-95
<25 DU	<25 DU	39 D	<25 DU	270 D	<25 DU	<25 DU	14-sep-95
<25 DU	<25 DU	61 D	<25 DU	400 D	<25 DU	40 D	06-nov-95
<25 DU	<25 DU	37 D	<25 DU	250 D	<25 DU	39 D	05-dec-95
<25 DU	<25 DU	44 D	<25 DU	290 D	<25 DU	40 D	22-jan-96
<10 DU	<10 DU	30 D	10 D	190 D	<10 DU	50 D	30-apr-96
<25 DU	<25 DU	<25 DU	<25 DU	210 D	<25 DU	38 D	28-aug-96
<13 DU	<13 DU	28 D	13 D	180 D	<13 DU	28 D	28-aug-96
							W-257
<1 P	<1 P	<1 P	<1 P	5 P	<1 P	10 P	18-feb-86
<2 P	4.9 P	<2 P	78 P	5.5 P	<2 P	<2 P	20-may-86
-	-	-	-	-	-	31 P	19-aug-86
4 P	1.7 P	<1 P	<1 P	3.1 P	<1 P	32 P	19-aug-86
6.8 P	1.6 P	<0.5 P	<0.5 P	18 P	1.9 P	46 P	04-nov-86
1.8 P	<0.44 P	<0.31 P	<0.55 P	21 P	<1.3 P	120 P	04-nov-86
15 P	<10 P	<10 P	<10 P	<10 P	<10 P	130 P	10-feb-87
17 P	<0.44 P	<0.31 P	<0.55 P	<0.49 P	<1.3 P	110 P	10-feb-87
7.8 P	<0.44 P	<0.31 P	<0.55 P	<0.49 P	<1.3 P	100 P	30-apr-87
28 P	<10 P	<10 P	<10 P	<10 P	<10 P	230 P	30-apr-87
32 P	<25 P	<25 P	<25 P	76 P	<25 P	210 P	05-jan-88
<25 P	<25 P	<25 P	<25 P	<25 P	<25 P	120 P	04-feb-88
11 P	<4 P	<3 P	<6 P	<5 P	<4 P	140 P	04-feb-88
<50 P	<50 P	<50 P	<50 P	<50 P	<50 P	290 P	10-aug-88
<25 P	<25 P	<25 P	<25 P	<25 P	<25 P	240 P	09-feb-89
<20 P	<20 P	<20 P	<20 P	<20 P	<20 P	100 P	15-aug-89
<25 P	<25 P	<25 P	<25 P	<25 P	<25 P	<25 P	24-oct-89
<5 P	<5 P	<5 P	<5 P	<5 P	<5 P	95 P	02-feb-90
<20 P	<20 P	<20 P	<20 P	<20 P	<20 P	100 P	14-jun-90
<10 P	<10 P	<10 P	<10 P	<10 P	<10 P	120 P	16-jul-90
<10 P	<10 P	<10 P	<10 P	<10 P	<10 P	150 P	16-jul-90
<5 P	<5 P	<5 P	<5 P	<5 P	<5 P	210 P	19-oct-90
<10 P	<10 P	<10 P	<10 P	<10 P	<10 P	170 P	22-jan-91
<20 P	<20 P	<20 P	<20 P	<20 P	<20 P	<20 P	18-apr-91
<20 P	<20 P	<20 P	<20 P	<20 P	<20 P	160 P	31-jul-91
<20 P	<20 P	<20 P	<20 P	<20 P	<20 P	80 P	30-oct-91

Ground water analyses (ug/L) for Volatile Organic Compounds (VOCs) in the Trailer 5475 Area

Location Date	Lab	Note	Val.	PCE	TCE	1,1 DCE	cis-1,2 DCE	trans-1,2 DCE	Total 1,2 DCE
Monitor Wells and Piezometers (continued)									
W-257 (continued)									
04-feb-92	BC	af	U	1500 P	3400 P	490 P	<20 P	<20 P	<20 P
24-apr-92	BC	af	U	1800 P	2900 P	700 P	<10 P	<10 P	<10 P
28-jul-92	BC	af	U	1200 P	3300 P	350 P	<20 P	<20 P	<20 P
03-nov-92	BC	af	U	630 P	1500 P	300 P	<10 P	<10 P	<10 P
27-jan-93	BC	af	U	760 P	1400 P	340 P	<10 P	<10 P	<10 P
15-jun-93	CL	af	U	230 D	520 D	280	<8 UD	<8 UD	<8 UD
24-nov-93	CS	af	V	160 D	340 D	180 D	-	-	<25 DU
12-aug-94	CS	af	V	210 D	440 D	300 D	-	-	<1 DU
16-nov-94	CS	af	V	250 D	320 D	340 D	-	-	<5 DU
16-feb-95	CS	af	V	260 D	440 D	470 D	-	-	<5 DU
13-apr-95	CS	af	V	260 D	390 D	460 D	-	-	<5 DU
08-aug-95	CS	af	V	260 D	410 D	450 D	-	-	<5 DU
16-oct-95	CS	af	V	400 D	930 D	330 D	-	-	<2.5 DU
05-feb-96	CS	af	V	300 D	420 D	420 D	-	-	<5 DU
30-apr-96	CL	a	V	230	230 OS	510 O	<0.5 U	<0.5 U	<1 U
31-jul-96	CS	af	V	250 D	290 D	440 D	<5 DU	<5 DU	-
W-258									
18-mar-86	BC	a	U	<1 P	<1 P	<1 P	-	-	<1 P
13-jun-86	BC	a	U	<0.5 P	15 P	<0.5 P	-	-	<0.5 P
19-aug-86	BC	a	U	0.9 P	26 P	4 P	-	-	<0.5 P
19-aug-86	BC	a	U	0.9 P	29 P	4.3 P	-	-	<0.5 P
11-nov-86	BC	a	U	<0.5 P	12 P	1.1 P	-	-	<0.5 P
10-mar-87	BC	a	U	<0.5 P	12 P	1 P	-	-	<0.5 P
01-may-87	BC	a	U	<0.5 P	15 P	1.2 P	-	-	<0.5 P
18-aug-87	BC	a	U	<0.5 P	5.2 P	0.5 P	-	-	<0.5 P
23-nov-87	BC	a	U	<0.5	6.3	0.6	-	-	<0.5
22-feb-88	BC	a	U	<0.5 P	2.7 P	<0.5 P	-	-	<0.5 P
13-may-88	BC	a	U	<0.5 P	4.3 P	<0.5 P	-	-	<0.5 P
09-aug-88	BC	a	U	<0.5 P	2.9 P	<0.5 P	-	-	<0.5 P
19-oct-88	BC	a	U	<0.5 P	2.6 P	<0.5 P	-	-	<0.5 P
07-feb-89	BC	a	U	<0.5 P	5.1 P	<0.5 P	-	-	<0.5 P
04-may-89	BC	a	U	<0.5 P	2.7 P	<0.5 P	-	-	<0.5 P
31-jul-89	BC	a	U	<0.5 P	5.5 P	<0.5 P	-	-	<0.5 P
15-nov-89	BC	a	U	<0.5 P	4.2 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
30-jan-90	BC	ag	U	<0.5 P	1.3 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
30-jan-90	CL	ag	U	<0.5 P	1.3 P	<0.2 P	<0.4 P	<0.4 P	<0.4 P
22-may-90	BC	a	U	<0.5 P	10 P	0.5 P	<0.5 P	<0.5 P	<0.5 P
16-jul-90	BC	a	U	<0.5 P	7 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
11-oct-90	BC	a	U	<0.5 P	18 P	1.5 P	<0.5 P	<0.5 P	<0.5 P
17-jan-91	BC	a	U	0.6 P	11 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
11-jul-91	BC	a	U	<0.5 P	16 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
04-feb-92	BC	a	U	0.6 P	36 P	2 P	<0.5 P	<0.5 P	<0.5 P
16-jul-92	BC	a	U	<0.5 P	24 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
27-jan-93	BC	a	U	1.1 P	33 P	2.9 P	<0.5 P	<0.5 P	<0.5 P
30-sep-93	CS	a	V	<0.5 U	14	1.2	-	-	<0.5 U
09-aug-94	CS	a	V	0.77	38	2.8	-	-	<0.5 U
09-feb-95	CS	a	V	0.96	35	2.9	-	-	<0.5 U
21-apr-95	CS	a	V	0.93	29	2.8	-	-	<0.5 U
18-jul-95	CS	a	V	1.2	35	2.9	-	-	<0.5 U
14-sep-95	CS	a	V	0.73	26	2.2	-	-	<0.5 U
06-nov-95	CS	a	V	1	26	2	-	-	<0.5 U
05-dec-95	CS	a	V	0.89	23	2.1	-	-	<0.5 U
22-jan-96	CS	a	V	0.65	20	1.6	-	-	<0.5 U
23-may-96	CS	a	V	0.79	26	2.4	<0.5 U	<0.5 U	-
W-259									
19-mar-86	BC	a	U	1 P	430 P	2 P	-	-	<1 P
17-jun-86	BC	af	U	<2 P	440 P	<2 P	-	-	<2 P
20-aug-86	BC	af	U	<2 P	290 P	<2 P	-	-	<2 P
04-nov-86	BC	afg	U	<2 P	630 P	<2 P	-	-	<2 P
04-nov-86	MC	ag	U	0.52 P	420 P	<0.28 P	-	<0.42 P	<0.4 P
09-feb-87	BC	afg	U	<5 P	280 P	<5 P	-	-	<5 P
09-feb-87	CL	agh	U	<0.54 P	140 P	<0.28 P	-	<0.42 P	<0.4 P
09-feb-87	CL	agh	U	<0.54 P	150 P	<0.28 P	-	<0.42 P	<0.4 P
24-apr-87	BC	af	U	<2.5 P	400 P	12 P	-	-	<2.5 P
05-jan-88	BC	af	U	<5 P	820 P	<5 P	-	-	<5 P
12-sep-88	BC	afg	U	<2.5 P	420 P	<2.5 P	-	-	<2.5 P

Results recorded by 31-oct-1996.

1,1,1 TCA	1,1 DCA	1,2 DCA	Carbon Tetra-chloride	Chloro-form	Freon 11	Freon 113	Location Date
				(continued) Monitor Wells and Piezometers			
							(continued) W-257
<20 P	<20 P	<20 P	<20 P	<20 P	<20 P	160 P	04-feb-92
<10 P	<10 P	<10 P	<10 P	<10 P	<10 P	320 P	24-apr-92
<20 P	<20 P	<20 P	<20 P	<20 P	<20 P	38 P	28-jul-92
<10 P	<10 P	<10 P	<10 P	<10 P	<10 P	43 P	03-nov-92
<10 P	<10 P	<10 P	<10 P	<10 P	<10 P	110 P	27-jan-93
<10 UD	<8 UD	<6 UD	<10 UD	<10 UD	<8 UD	70 D	15-jun-93
<25 DU	<25 DU	<25 DU	<25 DU	<25 DU	<25 DU	<25 DU	24-nov-93
<1 DU	<1 DU	<1 DU	<1 DU	<1 DU	<1 DU	100 D	12-aug-94
<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	140 D	16-nov-94
<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	120 D	16-feb-95
<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	110 D	13-apr-95
<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	110 D	08-aug-95
<2.5 DU	<2.5 DU	<2.5 DU	<2.5 DU	<2.5 DU	<2.5 DU	58 D	16-oct-95
<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	100 D	05-feb-96
0.9	1.6	<0.5 U	<0.5 U	<0.5 U	2.7	160	30-apr-96
<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	140 D	31-jul-96
							W-258
<1 P	<1 P	<1 P	<1 P	4 P	<1 P	-	18-mar-86
<0.5 P	<0.5 P	<0.5 P	<0.5 P	5.6 P	<0.5 P	<0.5 P	13-jun-86
<0.5 P	<0.5 P	<0.5 P	<0.5 P	3.3 P	<0.5 P	<0.5 P	19-aug-86
<0.5 P	<0.5 P	<0.5 P	<0.5 P	2.9 P	<0.5 P	<0.5 P	19-aug-86
<0.5 P	<0.5 P	<0.5 P	<0.5 P	22 P	<0.5 P	<0.5 P	11-nov-86
<0.5 P	<0.5 P	<0.5 P	<0.5 P	3.6 P	<0.5 P	<0.5 P	10-mar-87
<0.5 P	<0.5 P	<0.5 P	<0.5 P	2.5 P	<0.5 P	<0.5 P	01-may-87
<0.5 P	<0.5 P	<0.5 P	<0.5 P	0.5 P	<0.5 P	<0.5 P	18-aug-87
<0.5	<0.5	<0.5	<0.5	0.7	<0.5	0.5 B	23-nov-87
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	22-feb-88
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	13-may-88
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	09-aug-88
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	19-oct-88
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	07-feb-89
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	04-may-89
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	31-jul-89
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	15-nov-89
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	30-jan-90
<0.5 P	<0.4 P	<0.3 P	<0.6 P	<0.5 P	<0.4 P	<0.6 P	30-jan-90
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	22-may-90
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	16-jul-90
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	11-oct-90
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	17-jan-91
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	11-jul-91
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	04-feb-92
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	16-jul-92
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	27-jan-93
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	30-sep-93
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	09-aug-94
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	09-feb-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	21-apr-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	18-jul-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	14-sep-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	06-nov-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	05-dec-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	22-jan-96
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	23-may-96
							W-259
<1 P	<1 P	<1 P	<1 P	2 P	<1 P	-	19-mar-86
<2 P	<2 P	<2 P	<2 P	<2 P	<2 P	<2 P	17-jun-86
<2 P	<2 P	<2 P	<2 P	<2 P	<2 P	<2 P	20-aug-86
<2 P	<2 P	<2 P	<2 P	<2 P	<2 P	<2 P	04-nov-86
<0.45 P	<0.44 P	<0.31 P	<0.55 P	<0.49 P	<1.3 P	<0.62 P	04-nov-86
<5 P	<5 P	<5 P	<5 P	<5 P	<5 P	<5 P	09-feb-87
<0.45 P	<0.44 P	<0.31 P	<0.55 P	<0.49 P	<1.3 P	<0.62 P	09-feb-87
<0.45 P	<0.44 P	<0.31 P	<0.55 P	<0.49 P	<1.3 P	<0.62 P	09-feb-87
<2.5 P	<2.5 P	<2.5 P	<2.5 P	<2.5 P	<2.5 P	<2.5 P	24-apr-87
<5 P	<5 P	<5 P	<5 P	<5 P	<5 P	<5 P	05-jan-88
<2.5 P	<2.5 P	<2.5 P	<2.5 P	<2.5 P	<2.5 P	<2.5 P	12-sep-88

Ground water analyses (ug/L) for Volatile Organic Compounds (VOCs) in the Trailer 5475 Area

Location Date	Lab	Note	Val.	PCE	TCE	1,1 DCE	cis-1,2 DCE	trans-1,2 DCE	Total 1,2 DCE
Monitor Wells and Piezometers (continued)									
W-259 (continued)									
12-sep-88	CL	ag	U	2.5 P	380 P	0.5 P	-	<0.4 P	<0.4 P
21-mar-89	BC	af	U	<5 P	510 P	<5 P	-	-	<5 P
15-aug-89	BC	af	U	<5 P	580 P	<5 P	-	-	<5 P
06-feb-90	BC	af	U	<5 P	400 P	<5 P	<5 P	<5 P	<5 P
26-jul-90	BC	af	U	<2 P	320 P	<2 P	<2 P	<2 P	<2 P
20-feb-91	BC	af	U	<2 P	260 P	<2 P	<2 P	<2 P	<2 P
24-jul-91	BC	af	U	<2 P	400 P	<2 P	<2 P	<2 P	<2 P
19-feb-92	BC	af	U	4 P	540 P	<2 P	<2 P	<2 P	<2 P
10-aug-92	BC	af	U	<3 P	340 P	<3 P	<3 P	<3 P	<3 P
22-jan-93	BC	af	U	<3 P	320 P	<3 P	<3 P	<3 P	<3 P
09-jun-93	CL	af	U	34 D	170 D	5 D	<4 UD	<4 UD	<4 UD
24-nov-93	CS	af	V	<12 DU	310 D	<12 DU	-	-	<12 DU
12-aug-94	CS	af	V	<1 DU	220 D	<1 DU	-	-	<1 DU
08-nov-94	CS	af	V	0.77	160 D	<0.5 U	-	-	<0.5 U
25-jan-95	CS	af	V	1.2	190 D	2.1	-	-	<0.5 U
04-may-95	CS	af	V	3 D	180 D	<2.5 DU	-	-	<2.5 DU
15-aug-95	CS	af	V	2.1	130 D	<0.5 U	-	-	<0.5 U
31-oct-95	CS	af	V	4.3	140 D	<0.5 U	-	-	<0.5 U
05-feb-96	CS	af	V	6.3 D	170 D	<2.5 DU	-	-	<2.5 DU
29-apr-96	BB	a	V	9.8 D	140 D	<5 DU	-	-	<5 DU
29-apr-96	CL	a	V	4.7	87 S	<0.5 U	<0.5 U	<0.5 U	<1 U
28-aug-96	CS	ah	N	14	210 D	1	<0.5 U	<0.5 U	-
28-aug-96	CS	aeh	N	12	190 D	0.87	<0.5 U	<0.5 U	-
W-268									
16-jun-86	BC	a	U	<1 P	62 P	<1 P	-	-	<1 P
15-aug-86	BC	a	U	<0.5 P	80 P	<0.5 P	-	-	<0.5 P
04-nov-86	BC	a	U	<0.5 P	30 P	<0.5 P	-	-	<0.5 P
06-feb-87	BC	a	U	<0.5 P	31 P	<0.5 P	-	-	<0.5 P
08-may-87	BC	a	U	<0.5 P	32 P	<0.5 P	-	-	<0.5 P
22-dec-87	BC	a	U	<0.5 P	53 P	<0.5 P	-	-	<0.5 P
10-aug-88	CL	ag	U	<0.5 P	9.7 P	<0.2 P	-	<0.4 P	<0.4 P
10-aug-88	BC	ag	U	<0.5 P	13 P	<0.5 P	-	-	<0.5 P
09-feb-89	BC	a	U	<0.5 P	11 P	<0.5 P	-	-	<0.5 P
03-aug-89	BC	a	U	<0.5 P	11 P	<0.5 P	-	-	<0.5 P
24-oct-89	BC	ah	U	<0.5 P	5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
24-oct-89	BC	ah	U	<0.5 P	12 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
02-feb-90	BC	a	U	<0.5 P	6.1 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
14-may-90	BC	a	U	<0.5 P	7.7 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
26-jul-90	BC	a	U	<0.5 P	5.2 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
19-oct-90	BC	a	U	<0.5 P	5.6 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
07-feb-91	BC	a	U	<0.5 P	6 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
18-apr-91	BC	a	U	<0.5 P	4.8 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
24-jul-91	BC	a	U	<0.5 P	3.9 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
23-oct-91	BC	a	U	<0.5 P	3.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
28-jul-92	BC	a	U	<0.5 P	4.8 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
28-sep-93	CS	a	V	<0.5 U	1.6	<0.5 U	-	-	<0.5 U
12-aug-94	CS	af	V	<0.5 U	1	<0.5 U	-	-	<0.5 U
17-mar-95	CS	aen	V	0.75	2.4	1.5	-	-	<0.5 U
17-mar-95	CS	ah	V	0.78	1.9	<0.5 U	-	-	<0.5 U
20-jun-95	CS	a	V	<0.5 U	1.1	1.2	-	-	<0.5 U
20-jun-95	GT	ag	V	<1 U	1.3	<1 U	<1 U	<1 U	-
08-sep-95	CS	a	V	<0.5 U	0.86	1.2	-	-	<0.5 U
28-nov-95	CS	ah	V	<0.5 U	0.95	1.4	-	-	<0.5 U
28-nov-95	CS	aeh	V	<0.5 U	1.2	1.4	-	-	<0.5 U
W-271									
28-jul-86	BC	a	U	39 P	200 P	27 P	-	-	<1 P
04-nov-86	BC	ag	U	26 P	170 P	13 P	-	-	<1 P
04-nov-86	MC	ag	U	8.6 P	110 P	13 P	-	<0.42 P	<0.4 P
09-feb-87	BC	ag	U	31 P	120 P	14 P	-	-	<1 P
09-feb-87	CL	ag	U	28 P	58 P	8.9 P	-	<0.42 P	<0.4 P
20-apr-87	BC	a	U	26 P	120 P	21 P	-	-	<1 P
23-dec-87	BC	a	U	15 P	76 P	32 P	-	-	<1 P
11-aug-88	BC	a	U	20 P	94 P	51 P	-	-	0.8 P
09-feb-89	BC	a	U	33 P	140 P	56 P	-	-	0.9 P
27-jul-89	BC	a	U	29 P	92 P	49 P	-	-	<0.5 P
24-oct-89	BC	a	U	17 P	61 P	47 P	<0.5 P	<0.5 P	<0.5 P

Results recorded by 31-oct-1996.

1,1,1 TCA	1,1 DCA	1,2 DCA	Carbon Tetra-chloride	Chloro-form	Freon 11	Freon 113	Location Date
				(continued) Monitor Wells and Piezometers			
							(continued) W-259
<0.5 P	<0.4 P	<0.3 P	<0.6 P	0.8 P	<0.4 P	<0.6 P	12-sep-88
<5 P	<5 P	<5 P	<5 P	<5 P	<5 P	<5 P	21-mar-89
<5 P	<5 P	<5 P	<5 P	<5 P	<5 P	<5 P	15-aug-89
<5 P	<5 P	<5 P	<5 P	<5 P	<5 P	<5 P	06-feb-90
<2 P	<2 P	<2 P	<2 P	<2 P	<2 P	<2 P	26-jul-90
<2 P	<2 P	<2 P	<2 P	<2 P	<2 P	<2 P	20-feb-91
<2 P	<2 P	<2 P	<2 P	<2 P	<2 P	<2 P	24-jul-91
<2 P	<2 P	<2 P	<2 P	<2 P	<2 P	<2 P	19-feb-92
<3 P	<3 P	<3 P	<3 P	<3 P	<3 P	<3 P	10-aug-92
<3 P	<3 P	<3 P	<3 P	<3 P	<3 P	<3 P	22-jan-93
10 D	<4 UD	<3 UD	<6 UD	<5 UD	<4 UD	<6 UD	09-jun-93
<12 DU	<12 DU	<12 DU	<12 DU	<12 DU	<12 DU	<12 DU	24-nov-93
<1 DU	<1 DU	<1 DU	<1 DU	<1 DU	<1 DU	<1 DU	12-aug-94
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	08-nov-94
<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.72	<0.5 U	<0.5 U	25-jan-95
<2.5 DU	<2.5 DU	<2.5 DU	<2.5 DU	<2.5 DU	<2.5 DU	<2.5 DU	04-may-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	1.4	<0.5 U	<0.5 U	15-aug-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	1.7	<0.5 U	<0.5 U	31-oct-95
<2.5 DU	<2.5 DU	<2.5 DU	<2.5 DU	<2.5 DU	<2.5 DU	<2.5 DU	05-feb-96
<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	-	29-apr-96
<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.9	<0.5 U	<0.5 U	29-apr-96
<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.91	<0.5 U	3.2	28-aug-96
<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.89	<0.5 U	1.1	28-aug-96
							W-268
<1 P	<1 P	<1 P	<1 P	<1 P	<1 P	10 P	16-jun-86
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	15 P	15-aug-86
0.6 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	11 P	04-nov-86
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	28 P	06-feb-87
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	14 P	08-may-87
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	37 P	22-dec-87
<0.5 P	<0.4 P	<0.3 P	<0.6 P	<0.5 P	<0.4 P	22 P	10-aug-88
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	40 P	10-aug-88
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	41 P	09-feb-89
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	56 P	03-aug-89
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	34 P	24-oct-89
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	82 P	24-oct-89
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	36 P	02-feb-90
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	45 P	14-may-90
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	32 P	26-jul-90
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	52 P	19-oct-90
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	59 P	07-feb-91
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	36 P	18-apr-91
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	53 P	24-jul-91
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	47 P	23-oct-91
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	49 P	28-jul-92
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	23	28-sep-93
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	44 D	12-aug-94
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	24	17-mar-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	22	17-mar-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	29	20-jun-95
<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	44	20-jun-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	21	08-sep-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	27	28-nov-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	25	28-nov-95
							W-271
<1 P	<1 P	<1 P	<1 P	<1 P	<1 P	9 P	28-jul-86
<1 P	<1 P	<1 P	<1 P	<1 P	<1 P	5.4 P	04-nov-86
<0.45 P	<0.44 P	<0.31 P	<0.55 P	<0.49 P	<1.3 P	0.92 P	04-nov-86
<1 P	<1 P	<1 P	<1 P	<1 P	<1 P	6 P	09-feb-87
<0.45 P	<0.44 P	<0.31 P	<0.55 P	<0.49 P	<1.3 P	<0.62 P	09-feb-87
<1 P	<1 P	<1 P	<1 P	<1 P	<1 P	9.3 P	20-apr-87
<1 P	<1 P	<1 P	<1 P	1.1 P	<1 P	9.8 P	23-dec-87
2 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	15 P	11-aug-88
1.8 P	0.9 P	<0.5 P	<0.5 P	<0.5 P	0.5 P	20 P	09-feb-89
1.2 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	21 P	27-jul-89
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	17 P	24-oct-89

Ground water analyses (ug/L) for Volatile Organic Compounds (VOCs) in the Trailer 5475 Area

Location Date	Lab	Note	Val.	PCE	TCE	1,1 DCE	cis-1,2 DCE	trans-1,2 DCE	Total 1,2 DCE
Monitor Wells and Piezometers (continued)									
W-271 (continued)									
06-mar-90	BC	af	U	52 P	160 P	51 P	<1 P	<1 P	<1 P
27-apr-90	BC	af	U	67 P	160 P	60 P	<1 P	<1 P	<1 P
16-jul-90	BC	af	U	78 P	190 P	60 P	<1 P	<1 P	<1 P
11-oct-90	BC	af	U	62 P	160 P	62 P	<1 P	<1 P	<1 P
22-jan-91	BC	af	U	56 P	160 P	59 P	<1 P	<1 P	<1 P
31-jul-91	BC	afh	U	190 P	470 P	83 P	<2 P	<2 P	<2 P
31-jul-91	BC	afh	U	190 P	490 P	86 P	<2 P	<2 P	<2 P
05-feb-92	CL	af	U	140 P	470 P	60 P	<4 P	<4 P	<4 P
27-apr-92	BC	af	U	200 P	640 P	100 P	<5 P	<5 P	<5 P
17-jul-92	BC	af	U	290 P	1300 P	120 P	<10 P	<10 P	<10 P
03-nov-92	BC	af	U	240 P	920 P	110 P	<5 P	<5 P	<5 P
14-jan-93	BC	af	U	210 P	1100 P	94 P	1.6 P	<1 P	1.6 P
22-apr-93	BC	af	U	210 D	850 D	100 D	<3 DU	<3 DU	<3 DU
23-sep-93	CS	af	V	170 D	760 D	78 D	-	-	<0.5 U
03-dec-93	CS	af	V	220 D	750 D	120 D	-	-	<50 DU
25-jan-94	CS	af	V	220 D	780 D	140 D	-	-	<25 DU
22-apr-94	CS	af	V	240 D	930 D	120 D	-	-	<25 DU
12-aug-94	CS	af	V	220 D	770 D	150 D	-	-	<5 DU
08-nov-94	CS	af	V	220 D	800 D	120 D	-	-	<5 DU
25-jan-95	CS	af	V	240 D	920 D	160 D	-	-	<5 DU
13-apr-95	CS	af	V	190 D	700 D	130 D	-	-	<5 DU
31-jul-95	CS	af	V	180 D	750 D	120 D	-	-	<5 DU
27-oct-95	CS	af	V	140 D	500 D	89 D	-	-	0.69
29-feb-96	CS	af	V	140 D	500 D	110 D	-	-	<5 DU
29-apr-96	CL	a	V	85	190 S	100	<0.5 U	<0.5 U	<1 U
26-jul-96	CS	af	V	58 D	170 D	74 D	<2.5 DU	<2.5 DU	-
W-272									
06-aug-86	BC	a	U	<1 P	40 P	22 P	-	-	20 P
10-nov-86	BC	a	U	<0.5 P	35 P	20 P	-	-	18 P
09-feb-87	BC	a	U	1.1 P	48 P	21 P	-	-	15 P
29-apr-87	BC	a	U	<1 P	75 P	77 P	-	-	55 P
18-sep-87	BC	a	U	1 P	48 P	21 P	-	-	17 P
11-may-88	BC	a	U	1 P	67 P	36 P	-	-	20 P
11-nov-88	BC	a	U	1 P	50 P	23 P	-	-	5 P
10-may-89	BC	a	U	2 P	62 P	20 P	-	-	12 P
24-oct-89	BC	a	U	2 P	64 P	16 P	-	-	<1 P
08-may-90	BC	a	U	3 P	73 P	19 P	10 P	<0.5 P	10 P
19-oct-90	BC	a	U	4.5 P	74 P	18 P	8.2 P	<0.5 P	8.2 P
19-apr-91	BC	a	U	3.3 P	51 P	11 P	8.1 P	<0.5 P	8.1 P
05-nov-91	BC	a	U	18 P	240 P	39 P	15 P	<1 P	15 P
13-feb-92	BC	a	U	13 P	150 P	29 P	9.3 P	<0.5 P	9.3 P
17-jul-92	BC	a	U	9.5 P	110 P	19 P	7.1 P	<0.5 P	<0.5 P
22-jan-93	BC	a	U	9.4 P	140 P	18 P	5.4 P	<1 P	5.4 P
22-apr-93	BC	a	U	7.1	86	10	5.1	<1 U	5.1
23-sep-93	CS	a	V	9 H	77 H	19 H	-	-	<1 HU
24-nov-93	CS	a	V	8	100	14	-	-	<1 U
11-aug-94	CS	af	V	9.6	71 D	18	-	-	3.8
25-jan-95	CS	af	V	9.2	75 D	13	-	-	3.1
31-jul-95	CS	a	V	7.2	73	12	-	-	2.7
26-jul-96	CS	af	V	6	71 D	9.9	2.9	<0.5 U	-
W-274									
30-sep-86	BC	af	U	<2 P	720 P	<2 P	-	-	<2 P
30-sep-86	BC	af	U	<10 P	950 P	<10 P	-	-	<10 P
19-nov-86	BC	af	U	<5 P	790 P	<5 P	-	-	<5 P
19-feb-87	BC	af	U	<5 P	610 P	<5 P	-	-	<5 P
08-may-87	BC	af	U	<5 P	1300 P	<5 P	-	-	<5 P
18-sep-87	BC	af	U	<10 P	660 P	<10 P	-	-	<10 P
22-apr-88	BC	af	U	<5 P	910 P	<5 P	-	-	<5 P
28-oct-88	CL	afg	U	<4 P	470 P	<3 P	-	-	<3 P
28-oct-88	BC	ag	U	<1 P	460 P	<1 P	-	-	<1 P
11-may-89	BC	af	U	<5 P	670 P	<5 P	-	-	<5 P
29-nov-89	BC	afh	U	<5 P	670 P	<5 P	-	-	<5 P
29-nov-89	BC	afh	U	<5 P	540 P	<5 P	-	-	<5 P
27-apr-90	BC	a	U	<0.5	370	1.2	<0.5	<0.5	<0.5
19-oct-90	BC	af	U	<5 P	810 P	<5 P	<5 P	<5 P	<5 P
30-apr-91	BC	af	U	<10 P	1000 P	<10 P	<10 P	<10 P	<10 P

Results recorded by 31-oct-1996.

1,1,1 TCA	1,1 DCA	1,2 DCA	Carbon Tetra-chloride	Chloro-form	Freon 11	Freon 113	Location Date
							(continued) Monitor Wells and Piezometers
							(continued) W-271
<1 P	<1 P	<1 P	<1 P	<1 P	<1 P	14 P	06-mar-90
<1 P	<1 P	<1 P	<1 P	<1 P	<1 P	12 P	27-apr-90
<1 P	<1 P	<1 P	<1 P	<1 P	<1 P	21 P	16-jul-90
<1 P	<1 P	<1 P	<1 P	<1 P	<1 P	26 P	11-oct-90
<1 P	<1 P	<1 P	<1 P	<1 P	<1 P	23 P	22-jan-91
<2 P	<2 P	<2 P	<2 P	<2 P	<2 P	10 P	31-jul-91
<2 P	<2 P	<2 P	<2 P	<2 P	<2 P	8 P	31-jul-91
<5 P	<4 P	<3 P	<6 P	<5 P	<4 P	<6 P	05-feb-92
<5 P	<5 P	<5 P	<5 P	<5 P	<5 P	16 P	27-apr-92
<10 P	<10 P	<10 P	<10 P	<10 P	<10 P	<10 P	17-jul-92
<5 P	<5 P	<5 P	<5 P	<5 P	<5 P	<5 P	03-nov-92
1.9 P	<1 P	<1 P	<1 P	1.3 P	<1 P	24 P	14-jan-93
<3 DU	<3 DU	<3 DU	<3 DU	<3 DU	<3 DU	21 D	22-apr-93
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	23-sep-93
<50 DU	<50 DU	<50 DU	<50 DU	<50 DU	<50 DU	<50 DU	03-dec-93
<25 DU	<25 DU	<25 DU	<25 DU	<25 DU	<25 DU	33 D	25-jan-94
<25 DU	<25 DU	<25 DU	<25 DU	<25 DU	<25 DU	35 D	22-apr-94
<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	29 D	12-aug-94
<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	20 D	08-nov-94
<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	47 D	25-jan-95
<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	27 D	13-apr-95
<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	35 D	31-jul-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.89	<0.5 U	29	27-oct-95
<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	28 D	29-feb-96
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	36	29-apr-96
<2.5 DU	<2.5 DU	<2.5 DU	<2.5 DU	<2.5 DU	<2.5 DU	25 D	26-jul-96
							W-272
5 P	<1 P	<1 P	<1 P	4 P	<1 P	-	06-aug-86
10 P	2.9 P	<0.5 P	<0.5 P	2.7 P	<0.5 P	<0.5 P	10-nov-86
14 P	4.6 P	<0.5 P	<0.5 P	5 P	<0.5 P	<0.5 P	09-feb-87
10 P	3 P	<1 P	<1 P	1 P	<1 P	<1 P	29-apr-87
6 P	1 P	<1 P	<1 P	<1 P	<1 P	2 P	18-sep-87
6 P	<1 P	<1 P	<1 P	1 P	<1 P	2 P	11-may-88
4 P	2 P	<1 P	<1 P	1 P	1 P	2 P	11-nov-88
3 P	<1 P	<1 P	<1 P	<1 P	<1 P	2 P	10-may-89
<1 P	-	<20 P	<1 P	2 P	<1 P	13 P	24-oct-89
1.6 P	1 P	<0.5 P	<0.5 P	1 P	0.6 P	3.6 P	08-may-90
1.2 P	0.9 P	<0.5 P	<0.5 P	0.9 P	<0.5 P	4.7 P	19-oct-90
1.1 P	0.9 P	0.9 P	3 P	1.6 P	1.1 P	2.7 P	19-apr-91
11 P	1 P	<1 P	<1 P	2 P	<1 P	20 P	05-nov-91
1.2 P	0.8 P	<0.5 P	<0.5 P	1.3 P	2.1 P	12 P	13-feb-92
0.8 P	0.7 P	<0.5 P	<0.5 P	1.3 P	0.9 P	<0.5 P	17-jul-92
<1 P	<1 P	<1 P	<1 P	1 P	<1 P	10 P	22-jan-93
<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	1.3	22-apr-93
<1 HU	<1 HU	<1 HU	<1 HU	1 H	<1 HU	12 H	23-sep-93
<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	9	24-nov-93
<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	12	11-aug-94
<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	13	25-jan-95
<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	16	31-jul-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.73	<0.5 U	7.7	26-jul-96
							W-274
<2 P	<2 P	<2 P	7.1 P	<2 P	<2 P	<2 P	30-sep-86
<10 P	<10 P	<10 P	<10 P	<10 P	<10 P	-	30-sep-86
<5 P	<5 P	<5 P	<5 P	<5 P	<5 P	<5 P	19-nov-86
<5 P	<5 P	<5 P	<5 P	<5 P	<5 P	<5 P	19-feb-87
<5 P	<5 P	<5 P	15 P	<5 P	<5 P	<5 P	08-may-87
<10 P	<10 P	<10 P	<10 P	<10 P	<10 P	-	18-sep-87
<5 P	<5 P	<5 P	10 P	<5 P	<5 P	-	22-apr-88
<3 P	<3 P	<3 P	7 P	2 P	<3 P	<3 P	28-oct-88
<1 P	<1 P	<1 P	7 P	2 P	<1 P	-	28-oct-88
<5 P	<5 P	<5 P	<5 P	<5 P	<5 P	<5 P	11-may-89
<5 P	<5 P	<5 P	5 P	<5 P	<5 P	<5 P	29-nov-89
<5 P	<5 P	<5 P	<5 P	<5 P	<5 P	<5 P	29-nov-89
<0.5	<0.5	<0.5	12	1.7	1	0.5 B	27-apr-90
<5 P	<5 P	<5 P	5 P	<5 P	<5 P	<5 P	19-oct-90
<10 P	<10 P	<10 P	10 P	<10 P	<10 P	<10 P	30-apr-91

Ground water analyses (ug/L) for Volatile Organic Compounds (VOCs) in the Trailer 5475 Area

Location Date	Lab	Note	Val.	PCE	TCE	1,1 DCE	cis-1,2 DCE	trans-1,2 DCE	Total 1,2 DCE
Monitor Wells and Piezometers (continued)									
W-274 (continued)									
10-jan-94	CS	af	V	<1 U	570 D	<1 U	-	-	<1 U
22-apr-94	CS	af	V	<1 U	500 D	1.8	-	-	<1 U
29-nov-94	CS	af	V	<1 U	240 DLO	1.1	-	-	<1 U
25-jan-95	CS	af	V	<1 U	420 D	1.6	-	-	<1 U
13-apr-95	CS	af	V	<1 U	510 D	<1 U	-	-	<1 U
26-jul-95	CS	af	V	<25 DU	810 BD	<25 DU	-	-	<25 DU
31-oct-95	CS	af	V	<1 U	670 D	4	-	-	<1 U
16-jan-96	CS	af	V	<5 DU	760 D	<5 DU	-	-	<5 DU
17-apr-96	CL	a	V	2.5	300 F	1.2	<0.5 U	<0.5 U	<1 U
20-aug-96	CS	a	V	1.2	200 D	<0.5 U	<0.5 U	<0.5 U	-
W-290									
10-oct-86	BC	a	U	<0.5 P	<0.5 P	<0.5 P	-	-	<0.5 P
10-oct-86	BC	a	U	<1 P	<1 P	<1 P	-	-	<1 P
19-nov-86	BC	a	U	<0.5 P	<0.5 P	<0.5 P	-	-	<0.5 P
06-feb-87	BC	a	U	<0.5 P	<0.5 P	<0.5 P	-	-	<0.5 P
29-apr-87	BC	a	U	<1 P	<1 P	<1 P	-	-	<1 P
09-sep-87	BC	a	U	<0.5 P	<0.5 P	<0.5 P	-	-	<0.5 P
24-nov-87	BC	a	U	<0.5 P	<0.5 P	<0.5 P	-	-	<0.5 P
23-feb-88	BC	a	U	<0.5 P	<0.5 P	<0.5 P	-	-	<0.5 P
31-may-88	BC	a	U	<0.5 P	<0.5 P	<0.5 P	-	-	<0.5 P
15-sep-88	BC	a	U	<0.5 P	<0.5 P	<0.5 P	-	-	<0.5 P
27-oct-88	BC	a	U	<0.5 P	<0.5 P	<0.5 P	-	-	<0.5 P
06-mar-89	BC	a	U	<0.5 P	<0.5 P	<0.5 P	-	-	<0.5 P
01-may-89	BC	a	U	<0.5 P	<0.5 P	<0.5 P	-	-	<0.5 P
31-jul-89	BC	a	U	<0.5 P	<0.5 P	<0.5 P	-	-	<0.5 P
13-feb-90	BC	a	U	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
26-jul-90	BC	a	U	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
15-feb-91	BC	a	U	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
24-jul-91	BC	a	U	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
03-sep-92	BC	a	U	<0.5 P	0.89 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
23-aug-93	CS	a	V	<0.5 U	<0.5 U	<0.5 U	-	-	<0.5 U
09-nov-94	CS	a	V	<0.5 U	<0.5 U	<0.5 U	-	-	<0.5 U
13-nov-95	CS	a	V	<0.5 U	<0.5 U	<0.5 U	-	-	<0.5 U
W-354									
12-dec-86	BC	af	U	<2 P	170 P	3.6 P	-	-	3.1 P
12-dec-86	BC	a	U	<1 P	140 P	3 P	-	-	4 P
09-feb-87	BC	af	U	<1 P	200 P	3.7 P	-	-	3.1 P
29-apr-87	BC	af	U	<1 P	150 P	7 P	-	-	7 P
19-nov-87	BC	af	U	<1 P	91 P	3.4 P	-	-	3 P
11-may-88	BC	af	U	<1 P	190 P	3.1 P	-	-	5.1 P
23-nov-88	BC	af	U	<1 P	190 P	3.7 P	-	-	6.4 P
10-may-89	BC	af	U	<2.5 P	140 P	2.8 P	-	-	3.7 P
25-oct-89	BC	af	U	<1 P	200 P	1 P	4 P	<1 P	4 P
30-apr-90	BC	af	U	<1 P	150 P	2 P	6 P	<1 P	6 P
19-oct-90	BC	af	U	7 P	150 P	6 P	7 P	<1 P	7 P
19-apr-91	BC	af	U	<1 P	220 P	2 P	10 P	<1 P	10 P
05-aug-91	BC	af	U	<1 P	210 P	2 P	6 P	<1 P	6 P
05-nov-91	BC	af	U	<1 P	260 P	3 P	13 P	<1 P	13 P
13-feb-92	BC	af	U	<2 P	310 P	<2 P	9 P	<2 P	9 P
27-apr-92	BC	af	U	<2 P	180 P	<2 P	<2 P	<2 P	<2 P
17-jul-92	BC	af	U	<2 P	380 P	<2 P	<2 P	<2 P	<2 P
03-nov-92	BC	af	U	<3 P	300 P	<3 P	<3 P	<3 P	<3 P
22-jan-93	BC	af	U	<3 P	250 P	3.1 P	6.8 P	<3 P	6.8 P
22-apr-93	BC	af	U	<3 DU	280 D	3.1 D	6.2 D	<3 DU	6.2 D
23-sep-93	CS	af	V	<0.5 U	210 D	<0.5 U	-	-	<0.5 U
24-nov-93	CS	af	V	<25 DU	220 D	<25 DU	-	-	<25 DU
25-jan-94	CS	a	V	<5 U	250	5.4	-	-	<5 U
22-apr-94	CS	af	V	<5 DU	260 D	<5 DU	-	-	<5 DU
11-aug-94	CS	af	V	<1 DU	280 D	3.3 D	-	-	3.8 D
25-jan-95	CS	af	V	<0.5 U	250 D	6	-	-	4.1
31-jul-95	CS	af	V	0.51	250 D	6.4	-	-	4.2
05-feb-96	CS	af	V	<2.5 DU	210 D	6.7 D	-	-	3.8 D
26-jul-96	CS	af	V	<1 DU	210 D	6.4 D	2.7 D	<1 DU	-

Results recorded by 31-oct-1996.

1,1,1 TCA	1,1 DCA	1,2 DCA	Carbon Tetra-chloride	Chloro-form	Freon 11	Freon 113	Location Date
					(continued) Monitor Wells and Piezometers		
							(continued) W-274
<1 U	<1 U	<1 U	5	1	1	<1 U	10-jan-94
<1 U	<1 U	<1 U	4.1	<1 U	<1 U	<1 U	22-apr-94
<1 U	<1 U	<1 U	1.7	<1 U	<1 U	<1 U	29-nov-94
<1 U	<1 U	<1 U	2.7	<1 U	<1 U	<1 U	25-jan-95
<1 U	<1 U	<1 U	3.5	<1 U	<1 U	<1 U	13-apr-95
<25 DU	<25 DU	<25 DU	<25 DU	<25 DU	<25 DU	<25 DU	26-jul-95
<1 U	<1 U	<1 U	8.8	1.2	1.9	<1 U	31-oct-95
<5 DU	<5 DU	<5 DU	8.3 D	<5 DU	<5 DU	<5 DU	16-jan-96
<0.5 U	<0.5 U	<0.5 U	3.9	1.2	<0.5 U	<0.5 U	17-apr-96
<0.5 U	<0.5 U	<0.5 U	3.9	0.65	<0.5 U	<0.5 U	20-aug-96
							W-290
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	10-oct-86
<1 P	<1 P	<1 P	<1 P	<1 P	<1 P	-	10-oct-86
<0.5 P	<0.5 P	<0.5 P	<0.5 P	0.8 P	<0.5 P	<0.5 P	19-nov-86
<0.5 P	<0.5 P	<0.5 P	<0.5 P	0.9 P	<0.5 P	<0.5 P	06-feb-87
<1 P	<1 P	<1 P	<1 P	<1 P	<1 P	<1 P	29-apr-87
<0.5 P	<0.5 P	<0.5 P	<0.5 P	8.5 P	<0.5 P	<0.5 P	09-sep-87
<0.5 P	<0.5 P	<0.5 P	<0.5 P	6.2 P	<0.5 P	<0.5 P	24-nov-87
<0.5 P	<0.5 P	<0.5 P	<0.5 P	1.7 P	<0.5 P	<0.5 P	23-feb-88
<0.5 P	<0.5 P	<0.5 P	<0.5 P	1 P	<0.5 P	<0.5 P	31-may-88
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	15-sep-88
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	27-oct-88
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	06-mar-89
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	01-may-89
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	31-jul-89
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	13-feb-90
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	26-jul-90
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	15-feb-91
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	24-jul-91
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	03-sep-92
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	23-aug-93
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	09-nov-94
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	13-nov-95
							W-354
<2 P	<2 P	<2 P	7.3 P	7.5 P	<2 P	<2 P	12-dec-86
<1 P	<1 P	<1 P	5 P	<1 P	<1 P	-	12-dec-86
<1 P	<1 P	<1 P	8.4 P	8.6 P	<1 P	<1 P	09-feb-87
<1 P	<1 P	<1 P	3 P	4 P	<1 P	<1 P	29-apr-87
<1 P	<1 P	<1 P	3.8 P	3.5 P	<1 P	<1 P	19-nov-87
<1 P	<1 P	<1 P	4.8 P	6.7 P	<1 P	<1 P	11-may-88
<1 P	<1 P	<1 P	4.9 P	9.3 P	<1 P	<1 P	23-nov-88
<2.5 P	<2.5 P	<2.5 P	<2.5 P	5.2 P	<2.5 P	<2.5 P	10-may-89
<1 P	<1 P	<1 P	4 P	6 P	<1 P	<1 P	25-oct-89
<1 P	<1 P	<1 P	4 P	5 P	<1 P	<1 P	30-apr-90
<1 P	<1 P	<1 P	3 P	5 P	<1 P	<1 P	19-oct-90
<1 P	<1 P	<1 P	3 P	7 P	<1 P	<1 P	19-apr-91
<1 P	<1 P	<1 P	5 P	6 P	<1 P	<1 P	05-aug-91
<1 P	<1 P	<1 P	6 P	8 P	<1 P	<1 P	05-nov-91
<2 P	<2 P	<2 P	7 P	<2 P	<2 P	<2 P	13-feb-92
<2 P	<2 P	<2 P	<2 P	4 P	<2 P	<2 P	27-apr-92
<2 P	<2 P	<2 P	<2 P	<2 P	<2 P	<2 P	17-jul-92
<3 P	<3 P	<3 P	<3 P	<3 P	<3 P	<3 P	03-nov-92
<3 P	<3 P	<3 P	5.2 P	4.4 P	<3 P	<3 P	22-jan-93
<3 DU	<3 DU	<3 DU	3.6 D	3.6 D	<3 DU	<5 DU	22-apr-93
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	23-sep-93
<25 DU	<25 DU	<25 DU	<25 DU	<25 DU	<25 DU	<25 DU	24-nov-93
<5 U	<5 U	<5 U	5.2	<5 U	<5 U	<5 U	25-jan-94
<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	22-apr-94
<1 DU	<1 DU	<1 DU	3.2 D	2.7 D	<1 DU	<1 DU	11-aug-94
<0.5 U	<0.5 U	<0.5 U	3.8	2.8	<0.5 U	<0.5 U	25-jan-95
<0.5 U	<0.5 U	<0.5 U	3.5	2.6	<0.5 U	<0.5 U	31-jul-95
<2.5 DU	<2.5 DU	<2.5 DU	3.5 D	2.8 D	<2.5 DU	<2.5 DU	05-feb-96
<1 DU	<1 DU	<1 DU	3.2 D	2.1 D	<1 DU	<1 DU	26-jul-96

Ground water analyses (ug/L) for Volatile Organic Compounds (VOCs) in the Trailer 5475 Area

Location Date	Lab	Note	Val.	PCE	TCE	1,1 DCE	cis-1,2 DCE	trans-1,2 DCE	Total 1,2 DCE
Monitor Wells and Piezometers (continued)									
W-356									
12-jan-87	BC	af	U	<2.5 P	49 P	12 P	-	-	2.9 P
12-jan-87	BC	a	U	<1 P	50 P	14 P	-	-	3 P
21-jul-87	BC	a	U	<0.5 P	81 P	8.9 P	-	-	4.8 P
20-nov-87	BC	a	U	<0.5 P	58 P	9.7 P	-	-	2 P
12-may-88	BC	a	U	0.8 P	65 P	7.5 P	-	-	1.6 P
08-nov-88	BC	a	U	1 P	78 P	5.3 P	-	-	1.5 P
04-may-89	BC	ah	U	3.3 P	120 P	5.4 P	-	-	0.6 P
04-may-89	BC	ah	U	3.4 P	120 P	5.1 P	-	-	0.7 P
24-oct-89	BC	af	U	2 P	150 P	1 P	<1 P	<1 P	<1 P
30-apr-90	BC	af	U	4 P	130 P	2 P	<1 P	<1 P	<1 P
19-oct-90	BC	af	U	4 P	110 P	2 P	<1 P	<1 P	<1 P
18-apr-91	BC	af	U	4 P	160 P	<1 P	<1 P	<1 P	<1 P
24-jul-91	BC	af	U	6 P	160 P	<1 P	<1 P	<1 P	<1 P
05-nov-91	BC	af	U	10 P	160 P	4 P	<1 P	<1 P	<1 P
19-feb-92	BC	af	U	12 P	200 P	4 P	<1 P	<1 P	<1 P
01-may-92	BC	af	U	9 P	190 P	6 P	<1 P	<1 P	<1 P
10-aug-92	BC	af	U	9.9 P	180 P	5.1 P	<1 P	<1 P	<1 P
03-nov-92	BC	af	U	9.2 P	200 P	3.9 P	<1 P	<1 P	<1 P
22-jan-93	BC	af	U	12 P	180 P	5.2 P	<1 P	<1 P	<1 P
28-sep-93	CS	af	V	9.7 D	140 D	<0.5 U	-	-	<0.5 U
24-nov-93	CS	af	V	<12 DU	210 D	<12 DU	-	-	<12 DU
07-nov-94	CS	af	V	28 D	400 D	9.9 D	-	-	<2.5 DU
25-jan-95	CS	af	V	27 D	360 D	16	-	-	0.67
13-apr-95	CS	af	V	36	350 D	17	-	-	<0.5 U
15-aug-95	CS	af	V	38 D	460 D	16 D	-	-	<2.5 DU
31-oct-95	CS	af	V	41 D	480 D	24	-	-	<0.5 U
05-feb-96	CS	af	V	44 D	360 D	19	-	-	<0.5 U
29-apr-96	CL	a	V	39	320 S	25	<0.5 U	<0.5 U	<1 U
16-jul-96	CS	af	V	47 D	540 D	15 D	<5 DU	<5 DU	-
19-jul-96	CS	af	V	35 D	490 D	14 D	<5 DU	<5 DU	-
20-aug-96	CS	a	V	34 D	850 D	12 D	<5 DU	<5 DU	-
W-359									
30-mar-87	BC	a	U	1 P	730 P	3 P	-	-	<1 P
16-nov-87	BC	afg	U	5.6 P	780 P	6.9 P	-	-	<2.5 P
16-nov-87	CL	ag	U	2.8 P	330 P	2.9 P	-	<0.4 P	<0.4 P
17-feb-88	BC	af	U	<10 P	630 P	<10 P	-	-	<10 P
22-apr-88	BC	af	U	6.8 P	440 P	5.7 P	-	-	<2.5 P
10-aug-88	BC	af	U	16 P	570 P	9.5 P	-	-	<5 P
28-oct-88	BC	af	U	16 P	560 P	8.8 P	-	-	<5 P
23-feb-89	BC	af	U	9.1 P	670 P	<5 P	-	-	<5 P
11-may-89	CL	afg	U	3 P	380 P	8 P	-	<2 P	<2 P
11-may-89	BC	afg	U	16 P	450 P	8.8 P	-	-	<2.5 P
03-aug-89	BC	afh	U	23 P	500 P	13 P	-	-	<5 P
03-aug-89	BC	afh	U	23 P	540 P	14 P	-	-	<5 P
06-feb-90	BC	af	U	14 P	440 P	9 P	<5 P	<5 P	<5 P
15-aug-90	BC	af	U	16 P	310 P	9.7 P	<2 P	<2 P	<2 P
15-feb-91	BC	af	U	17 P	280 P	12 P	<2 P	<2 P	<2 P
24-jul-91	BC	af	U	26 P	430 P	17 P	<2 P	<2 P	<2 P
13-feb-92	BC	af	U	28 P	540 P	10 P	<5 P	<5 P	<5 P
01-may-92	BC	af	U	22 P	460 P	14 P	<2 P	<2 P	<2 P
17-jul-92	BC	af	U	20 P	460 P	15 P	<2 P	<2 P	<2 P
26-oct-92	BC	af	U	19 P	300 P	9.6 P	<3 P	<3 P	<3 P
22-jan-93	BC	af	U	21 P	300 P	8.9 P	<3 P	<3 P	<3 P
22-apr-93	BC	af	U	16 D	300 D	12 D	<3 DU	<3 DU	<3 DU
19-aug-93	CS	a	V	20	230	13	-	-	<5 U
22-nov-93	CS	af	V	<25 DU	210 D	<25 DU	-	-	<25 DU
10-jan-94	CS	af	V	16 D	160 D	<12 DU	-	-	<12 DU
22-apr-94	CS	af	V	19 D	260 D	11 D	-	-	<10 DU
25-jan-95	CS	af	V	12	160 D	7.1	-	-	<0.5 U
15-mar-95	CS	af	V	13	180 D	6.7	-	-	<0.5 U
20-jun-95	CS	aefh	V	9.9	120 D	18	-	-	<0.5 U
20-jun-95	CS	afh	V	10	120 D	7.1	-	-	<0.5 U
20-jun-95	GT	afegh	V	91 D	150 D	<10 DU	<10 DU	<10 DU	-
20-jun-95	GT	afgh	V	91 D	150 D	<10 DU	<10 DU	<10 DU	-
05-sep-95	CS	af	V	9.9	140 DLO	5.6	-	-	<0.5 U
28-nov-95	CS	af	V	10	130 D	6.1	-	-	<0.5 U
06-feb-96	CS	afh	V	11	130 D	7.2	-	-	<0.5 U

Results recorded by 31-oct-1996.

1,1,1 TCA	1,1 DCA	1,2 DCA	Carbon Tetra-chloride	Chloro-form	Freon 11	Freon 113	Location Date
				(continued) Monitor Wells and Piezometers			
							W-356
<2.5 P	<2.5 P	<2.5 P	<2.5 P	<2.5 P	<2.5 P	3.2 P	12-jan-87
<1 P	<1 P	<1 P	<1 P	<1 P	<1 P	-	12-jan-87
<0.5 P	1.1 P	<0.5 P	<0.5 P	0.9 P	<0.5 P	<0.5 P	21-jul-87
<0.5 P	0.6 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	20-nov-87
<0.5 P	<0.5 P	<0.5 P	<0.5 P	0.8 P	<0.5 P	<0.5 P	12-may-88
<0.5 P	<0.5 P	<0.5 P	<0.5 P	0.8 P	<0.5 P	<0.5 P	08-nov-88
<0.5 P	<0.5 P	<0.5 P	<0.5 P	0.7 P	<0.5 P	<0.5 P	04-may-89
<0.5 P	<0.5 P	<0.5 P	0.6 P	0.8 P	<0.5 P	<0.5 P	04-may-89
<1 P	<1 P	<1 P	<1 P	<1 P	<1 P	<1 P	24-oct-89
<1 P	<1 P	<1 P	<1 P	<1 P	<1 P	<1 P	30-apr-90
<1 P	<1 P	<1 P	<1 P	2 P	<1 P	<1 P	19-oct-90
<1 P	<1 P	<1 P	<1 P	5 P	<1 P	<1 P	18-apr-91
<1 P	<1 P	<1 P	<1 P	6 P	<1 P	<1 P	24-jul-91
<1 P	<1 P	2 P	<1 P	7 P	<1 P	<1 P	05-nov-91
<1 P	<1 P	2 P	1 P	10 P	<1 P	<1 P	19-feb-92
<1 P	<1 P	<1 P	<1 P	7 P	<1 P	<1 P	01-may-92
<1 P	<1 P	<1 P	<1 P	8.6 P	<1 P	1.4 P	10-aug-92
<1 P	<1 P	<1 P	<1 P	7.2 P	<1 P	<1 P	03-nov-92
<1 P	<1 P	1.3 P	1.2 P	9.2 P	<1 P	2 P	22-jan-93
<0.5 U	<0.5 U	<0.5 U	<0.5 U	7.9 D	<0.5 U	<0.5 U	28-sep-93
<12 DU	<12 DU	<12 DU	<12 DU	<12 DU	<12 DU	<12 DU	24-nov-93
<2.5 DU	<2.5 DU	<2.5 DU	<2.5 DU	11 D	<2.5 DU	3 D	07-nov-94
<0.5 U	0.74	2.9	2.3	22	<0.5 U	10	25-jan-95
<0.5 U	0.79	3.3	2.5	21	<0.5 U	12	13-apr-95
<2.5 DU	<2.5 DU	3.6 D	<2.5 DU	21 D	<2.5 DU	5 D	15-aug-95
<0.5 U	1.1	4.7	3.5	32	<0.5 U	15	31-oct-95
<0.5 U	0.85	3.4	2.4	21	<0.5 U	13	05-feb-96
<0.5 U	0.6	3.2	2.4	20	<0.5 U	17	29-apr-96
<5 DU	<5 DU	<5 DU	<5 DU	22 D	<5 DU	7.8 D	16-jul-96
<5 DU	<5 DU	<5 DU	<5 DU	19 D	<5 DU	11 D	19-jul-96
<5 DU	<5 DU	<5 DU	<5 DU	21 D	<5 DU	6.4 D	20-aug-96
							W-359
1 P	<1 P	<1 P	4 P	10 P	<1 P	5 P	30-mar-87
<2.5 P	<2.5 P	4.9 P	2.9 P	25 P	<2.5 P	11 P	16-nov-87
<0.5 P	<0.4 P	2.6 P	1.6 P	14 P	<0.4 P	4.9 P	16-nov-87
<10 P	<10 P	<10 P	<10 P	23 P	<10 P	15 P	17-feb-88
<2.5 P	<2.5 P	3.3 P	<2.5 P	21 P	<2.5 P	10 P	22-apr-88
<5 P	<5 P	6.3 P	<5 P	25 P	<5 P	26 P	10-aug-88
<5 P	<5 P	5.2 P	<5 P	29 P	<5 P	23 P	28-oct-88
<5 P	<5 P	<5 P	<5 P	15 P	<5 P	27 P	23-feb-89
<3 P	<2 P	4 P	4 P	30 P	<2 P	25 P	11-may-89
<2.5 P	<2.5 P	32 P	<2.5 P	20 P	<2.5 P	24 P	11-may-89
<5 P	<5 P	<5 P	<5 P	26 P	<5 P	12 P	03-aug-89
<5 P	<5 P	<5 P	<5 P	28 P	<5 P	14 P	03-aug-89
<5 P	<5 P	<5 P	<5 P	12 P	<5 P	8 P	06-feb-90
<2 P	<2 P	1.7 P	<2 P	15 P	<2 P	13 P	15-aug-90
<2 P	<2 P	2 P	<2 P	15 P	<2 P	20 P	15-feb-91
<2 P	<2 P	3 P	<2 P	17 P	<2 P	28 P	24-jul-91
<5 P	<5 P	<5 P	<5 P	14 P	<5 P	29 P	13-feb-92
<2 P	<2 P	3 P	3 P	14 P	<2 P	33 P	01-may-92
<2 P	<2 P	<2 P	<2 P	7 P	<2 P	13 P	17-jul-92
<3 P	<3 P	<3 P	<3 P	12 P	<3 P	30 P	26-oct-92
<3 P	<3 P	<3 P	<3 P	13 P	<3 P	30 P	22-jan-93
<3 DU	<3 DU	<3 DU	<3 DU	8.7 D	<3 DU	19 D	22-apr-93
<5 U	<5 U	<5 U	<5 U	11	<5 U	35	19-aug-93
<25 DU	<25 DU	<25 DU	<25 DU	<25 DU	<25 DU	<25 DU	22-nov-93
<12 DU	<12 DU	<12 DU	<12 DU	<12 DU	<12 DU	27 D	10-jan-94
<10 DU	<10 DU	<10 DU	<10 DU	10 D	<10 DU	32 D	22-apr-94
<0.5 U	<0.5 U	1	1.2	6.5	<0.5 U	38	25-jan-95
<0.5 U	<0.5 U	1	1.2	6.1	<0.5 U	31	15-mar-95
<0.5 U	<0.5 U	0.95	<0.5 U	6.3	<0.5 U	<0.5 U	20-jun-95
<0.5 U	<0.5 U	0.88	1.2	6.5	<0.5 U	34	20-jun-95
<10 DU	<10 DU	<10 DU	<10 DU	<10 DU	<10 DU	35 D	20-jun-95
<10 DU	<10 DU	<10 DU	<10 DU	<10 DU	<10 DU	29 D	20-jun-95
<0.5 U	<0.5 U	0.81	0.86	4	<0.5 U	27	05-sep-95
<0.5 U	<0.5 U	0.94	0.83	5	<0.5 U	29	28-nov-95
<0.5 U	<0.5 U	0.97	1	5.5	<0.5 U	33	06-feb-96

Ground water analyses (ug/L) for Volatile Organic Compounds (VOCs) in the Trailer 5475 Area

Location Date	Lab	Note	Val.	PCE	TCE	1,1 DCE	cis-1,2 DCE	trans-1,2 DCE	Total 1,2 DCE
Monitor Wells and Piezometers (continued)									
W-359 (continued)									
06-feb-96	CS	afh	V	12	130 D	6.8	-	-	<0.5 U
17-apr-96	CL	a	V	10	130 F	6.8	<0.5 U	<0.5 U	<1 U
20-aug-96	CS	a	V	9.1 D	160 D	5.8 D	<2.5 DU	<2.5 DU	-
W-363									
16-apr-87	BC	a	U	130 P	2000 P	53 P	-	-	<1 P
23-nov-87	CL	afg	U	240 P	3100 P	<20 P	-	<40 P	<40 P
23-nov-87	BC	afg	U	220 P	2500 P	73 P	-	-	<25 P
02-mar-88	BC	af	U	240 P	3200 P	110 P	-	-	<25 P
13-may-88	BC	af	U	320 P	4500 P	120 P	-	-	<25 P
16-aug-88	BC	af	U	350 P	4000 P	130 P	-	-	<25 P
21-dec-88	BC	af	U	410 P	5100 P	170 P	-	-	<25 P
21-mar-89	BC	af	U	390 P	4700 P	110 P	-	-	<25 P
17-may-89	BC	af	U	410 P	4900 P	160 P	-	-	<25 P
01-sep-89	BC	af	U	440 P	4600 P	100 P	-	-	<50 P
24-oct-89	BC	afh	U	520 P	5900 P	53 P	<50 P	<50 P	<50 P
24-oct-89	BC	afh	U	530 P	5800 P	55 P	<50 P	<50 P	<50 P
23-feb-90	BC	af	U	500 P	4100 P	90 P	<20 P	<20 P	<20 P
15-may-90	BC	af	U	380 P	3600 P	80 P	<20 P	<20 P	<20 P
16-jul-90	BC	af	U	270 P	2600 P	50 P	<20 P	<20 P	<20 P
11-oct-90	BC	af	U	300 P	3000 P	90 P	<20 P	<20 P	<20 P
25-feb-91	BC	af	U	280 P	3400 P	110 P	<20 P	<20 P	<20 P
21-may-91	BC	af	U	400 P	4600 P	50 P	<20 P	<20 P	<20 P
18-jul-91	BC	af	U	290 P	3400 P	60 P	<20 P	<20 P	<20 P
31-oct-91	BC	af	U	230 P	3200 P	30 P	90 P	<20 P	90 P
04-feb-92	BC	af	U	340 P	3600 P	<20 P	<20 P	<20 P	<20 P
27-apr-92	BC	af	U	460 P	4700 P	110 P	<20 P	<20 P	<20 P
17-jul-92	BC	af	U	260 P	3800 P	<20 P	<20 P	<20 P	<20 P
26-oct-92	BC	af	U	220 P	2700 P	<30 P	<30 P	<30 P	<30 P
14-jan-93	BC	af	U	210 P	2000 P	50 P	<30 P	<30 P	<30 P
07-dec-93	CS	af	V	640 D	4000 D	160 D	-	-	<130 DU
27-mar-95	CS	af	V	320 D	3600 D	130 D	-	-	<10 DU
27-mar-95	GT	a	V	<1 U	1700 J	<1 ULJ	<1 U	<1 U	-
04-may-95	CS	af	V	240 D	2400 D	97 D	-	-	<13 DU
18-jul-95	CS	af	V	240 D	5000 D	93 D	-	-	<25 DU
14-sep-95	CS	af	V	290 D	3000 D	110 D	-	-	<13 DU
06-nov-95	CS	af	V	370 D	4700 D	140 D	-	-	<25 DU
05-dec-95	CS	af	V	410 D	3700 D	170 D	-	-	<25 DU
22-jan-96	CS	af	V	320 D	3600 D	110 D	-	-	<13 DU
29-apr-96	CL	a	V	350	2200 S	180	<0.5 U	<0.5 U	<1 U
20-aug-96	CS	a	V	350 D	7800 D	120 D	<25 DU	<25 DU	-
W-364									
20-apr-87	BC	a	U	<1 P	53 P	4 P	-	-	<1 P
11-sep-87	BC	a	U	<0.5 P	78 P	4.8 P	-	-	2.8 P
19-nov-87	BC	a	U	<0.5 P	37 P	6.5 P	-	-	1.9 P
23-feb-88	BC	a	U	<0.5 P	63 P	6.1 P	-	-	1.5 P
17-may-88	BC	a	U	<0.5 P	59 P	4.4 P	-	-	1.2 P
11-aug-88	BC	a	U	<0.5 P	85 P	6.7 P	-	-	1.7 P
04-nov-88	BC	a	U	<0.5 P	74 P	4.8 P	-	-	1.7 P
09-feb-89	BC	a	U	<0.5 P	90 P	4.9 P	-	-	1.2 P
04-may-89	BC	a	U	<0.5 P	68 P	4.1 P	-	-	1 P
27-jul-89	BC	ah	U	<0.5 P	84 P	4.2 P	-	-	0.8 P
27-jul-89	BC	ah	U	<0.5 P	80 P	3.7 P	-	-	0.7 P
06-mar-90	BC	a	U	<0.5 P	74 P	2.6 P	0.5 P	<0.5 P	0.5 P
16-jul-90	BC	a	U	<0.5 P	59 P	1.8 P	<0.5 P	<0.5 P	<0.5 P
22-jan-91	BC	a	U	<0.5 P	70 P	2.3 P	<0.5 P	<0.5 P	<0.5 P
25-feb-91	BC	a	U	0.5 P	72 P	3.5 P	0.5 P	<0.5 P	0.5 P
31-jul-91	BC	a	U	0.9 P	70 P	1.9 P	<0.5 P	<0.5 P	<0.5 P
05-feb-92	CL	a	U	2.2 P	92 P	3 P	<0.4 P	<0.4 P	<0.4 P
14-jan-93	BC	a	U	5.7	100	3.6	0.53	<0.5	0.53
28-sep-93	CS	a	V	<0.5 U	11	<0.5 U	-	-	<0.5 U
08-nov-94	CS	a	V	1.7	31	0.64	-	-	<0.5 U
25-jan-95	CS	af	V	11	200 D	6.5	-	-	<0.5 U
31-jul-95	CS	af	V	13	180 D	7	-	-	<0.5 U
27-oct-95	CS	af	V	14	190 D	8	-	-	<0.5 U
29-feb-96	CS	af	V	20	250 D	10	-	-	<0.5 U
29-apr-96	BB	a	V	23 D	200 D	6.3 D	-	-	<5 DU

Results recorded by 31-oct-1996.

1,1,1 TCA	1,1 DCA	1,2 DCA	Carbon Tetra-chloride	Chloro-form	Freon 11	Freon 113	Location Date
				(continued) Monitor Wells and Piezometers			
							(continued) W-359
<0.5 U	<0.5 U	0.98	1	5.4	<0.5 U	30	06-feb-96
<0.5 U	<0.5 U	0.9	0.6	5.1	<0.5 U	39	17-apr-96
<2.5 DU	<2.5 DU	<2.5 DU	<2.5 DU	4.7 D	<2.5 DU	29 D	20-aug-96
							W-363
11 P	2 P	29 P	8 P	140 P	<1 P	7 P	16-apr-87
<50 P	<40 P	<30 P	<60 P	140 P	<40 P	<60 P	23-nov-87
<25 P	<25 P	52 P	<25 P	170 P	<25 P	<25 P	23-nov-87
<25 P	<25 P	<25 P	<25 P	240 P	<25 P	<25 P	02-mar-88
<25 P	<25 P	49 P	<25 P	250 P	<25 P	32 P	13-may-88
<25 P	<25 P	58 P	<25 P	250 P	<25 P	<25 P	16-aug-88
<25 P	<25 P	81 P	<25 P	340 P	<25 P	<25 P	21-dec-88
<25 P	<25 P	74 P	28 P	260 P	<25 P	45 P	21-mar-89
<25 P	<25 P	56 P	<25 P	300 P	<25 P	27 P	17-may-89
<50 P	<50 P	<50 P	<50 P	290 P	<50 P	<50 P	01-sep-89
<50 P	<50 P	<50 P	<50 P	240 P	<50 P	<50 P	24-oct-89
<50 P	<50 P	<50 P	<50 P	220 P	<50 P	<50 P	24-oct-89
<20 P	<20 P	<20 P	<20 P	300 P	<20 P	<20 P	23-feb-90
<20 P	<20 P	<20 P	<20 P	220 P	<20 P	<20 P	15-may-90
<20 P	<20 P	30 P	<20 P	180 P	<20 P	<20 P	16-jul-90
<20 P	<20 P	50 P	<20 P	200 P	<20 P	<20 P	11-oct-90
<20 P	<20 P	45 P	<20 P	190 P	<20 P	26 P	25-feb-91
<20 P	<20 P	40 P	<20 P	220 P	<20 P	<20 P	21-may-91
<20 P	<20 P	40 P	<20 P	200 P	<20 P	<20 P	18-jul-91
<20 P	<20 P	40 P	<20 P	170 P	<20 P	<20 P	31-oct-91
<20 P	<20 P	60 P	<20 P	230 P	<20 P	<20 P	04-feb-92
<20 P	<20 P	120 P	<20 P	270 P	<20 P	<20 P	27-apr-92
<20 P	<20 P	30 P	<20 P	100 P	<20 P	<20 P	17-jul-92
<30 P	<30 P	<30 P	<30 P	130 P	<30 P	<30 P	26-oct-92
<30 P	<30 P	<30 P	<30 P	120 P	<30 P	<30 P	14-jan-93
<130 DU	<130 DU	<130 DU	<130 DU	320 D	<130 DU	<130 DU	07-dec-93
<10 DU	<10 DU	49 D	13 D	250 D	<10 DU	38 D	27-mar-95
<1 U	<1 U	<1 U	50	<1 ULJ	<1 U	<0.5 U	27-mar-95
<13 DU	<13 DU	43 D	<13 DU	200 D	<13 DU	30 D	04-may-95
<25 DU	<25 DU	64 D	<25 DU	240 D	<25 DU	<25 DU	18-jul-95
<13 DU	<13 DU	53 D	<13 DU	260 D	<13 DU	<13 DU	14-sep-95
<25 DU	<25 DU	57 D	<25 DU	300 D	<25 DU	<25 DU	06-nov-95
<25 DU	<25 DU	59 D	<25 DU	320 D	<25 DU	42 D	05-dec-95
<13 DU	<13 DU	54 D	<13 DU	280 D	<13 DU	23 D	22-jan-96
<0.5 U	6.2	64	19	310	<0.5 U	49	29-apr-96
<25 DU	<25 DU	64 D	<25 DU	340 D	<25 DU	34 D	20-aug-96
							W-364
<1 P	<1 P	<1 P	<1 P	<1 P	<1 P	-	20-apr-87
<0.5 P	0.8 P	<0.5 P	<0.5 P	0.7 P	<0.5 P	2.2 P	11-sep-87
0.5 P	<0.5 P	<0.5 P	<0.5 P	0.6 P	<0.5 P	2.4 P	19-nov-87
<0.5 P	<0.5 P	<0.5 P	<0.5 P	0.6 P	<0.5 P	<0.5 P	23-feb-88
<0.5 P	<0.5 P	<0.5 P	<0.5 P	0.6 P	<0.5 P	<0.5 P	17-may-88
<0.5 P	<0.5 P	<0.5 P	<0.5 P	0.6 P	<0.5 P	<0.5 P	11-aug-88
<0.5 P	<0.5 P	<0.5 P	<0.5 P	0.8 P	<0.5 P	<0.5 P	04-nov-88
<0.5 P	<0.5 P	<0.5 P	<0.5 P	0.6 P	<0.5 P	<0.5 P	09-feb-89
<0.5 P	<0.5 P	<0.5 P	<0.5 P	0.7 P	<0.5 P	<0.5 P	04-may-89
<0.5 P	<0.5 P	<0.5 P	<0.5 P	0.6 P	<0.5 P	<0.5 P	27-jul-89
<0.5 P	<0.5 P	<0.5 P	<0.5 P	0.6 P	<0.5 P	<0.5 P	27-jul-89
<0.5 P	<0.5 P	<0.5 P	<0.5 P	0.5 P	<0.5 P	<0.5 P	06-mar-90
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	16-jul-90
<0.5 P	<0.5 P	<0.5 P	<0.5 P	1 P	<0.5 P	<0.5 P	22-jan-91
<0.5 P	<0.5 P	<0.5 P	<0.5 P	1 P	<0.5 P	<0.5 P	25-feb-91
<0.5 P	<0.5 P	<0.5 P	<0.5 P	1.2 P	<0.5 P	<0.5 P	31-jul-91
<0.5 P	<0.4 P	<0.3 P	<0.6 P	2.7 P	<0.4 P	<0.6 P	05-feb-92
<0.5	<0.5	0.83	0.73	6	<0.5	0.72 B	14-jan-93
<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.6	<0.5 U	<0.5 U	28-sep-93
<0.5 U	<0.5 U	<0.5 U	<0.5 U	1.1	<0.5 U	<0.5 U	08-nov-94
<0.5 U	<0.5 U	1.2	1	9.3	<0.5 U	4.4	25-jan-95
<0.5 U	<0.5 U	1.3	1	9	<0.5 U	4.9	31-jul-95
<0.5 U	<0.5 U	1.6	1	11	<0.5 U	4.5	27-oct-95
<0.5 U	<0.5 U	1.9	1.2	13	<0.5 U	5.2	29-feb-96
<5 DU	<5 DU	<5 DU	<5 DU	9.6 D	<5 DU	-	29-apr-96

Ground water analyses (ug/L) for Volatile Organic Compounds (VOCs) in the Trailer 5475 Area

Location Date	Lab	Note	Val.	PCE	TCE	1,1 DCE	cis-1,2 DCE	trans-1,2 DCE	Total 1,2 DCE
Monitor Wells and Piezometers (continued)									
W-364 (continued)									
29-apr-96	CL	a	V	13	130 S	8.2	<0.5 U	<0.5 U	<1 U
26-jul-96	CS	af	V	16	210 D	8.7	<0.5 U	<0.5 U	-
W-562									
24-mar-89	BC	a	U	<1 P	<1 P	<1 P	-	-	<1 P
17-may-89	BC	a	U	<0.5 P	2 P	<0.5 P	-	-	<0.5 P
01-sep-89	BC	a	U	<0.5 P	4.8 P	<0.5 P	-	-	<0.5 P
15-nov-89	BC	a	U	<0.5 P	7.3 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
23-feb-90	BC	a	U	<0.5 P	12 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
17-may-90	BC	ag	U	<0.5 P	11 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
17-may-90	CL	ag	U	<0.5 P	7.2 P	<0.2 P	<0.4 P	<0.4 P	<0.4 P
16-jul-90	BC	a	U	<0.5 P	11 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
08-nov-90	BC	a	U	<0.5 P	18 P	0.5 P	<0.5 P	<0.5 P	<0.5 P
21-feb-91	BC	a	U	0.5 P	14 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
18-apr-91	BC	a	U	<0.5 P	21 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
18-jul-91	BC	ag	U	0.7 P	27 P	0.6 P	<0.5 P	<0.5 P	<0.5 P
18-jul-91	CL	ag	U	1.1 P	17 P	0.8 P	<0.4 P	<0.4 P	<0.4 P
13-nov-91	BC	a	U	<0.5 P	23 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
16-jul-92	BC	a	U	<0.5 P	45 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
19-jan-93	BC	a	U	0.79	15	<0.5	<0.5	<0.5	<0.5
07-dec-93	CS	a	V	0.7	2.5	<0.5 U	-	-	<0.5 U
15-nov-94	CS	a	V	<0.5 U	<0.5 U	<0.5 U	-	-	<0.5 U
27-mar-95	CS	a	V	<0.5 U	<0.5 U	<0.5 U	-	-	<0.5 U
27-mar-95	GT	a	V	<0.5 U	<0.5 UJ	<0.5 ULJ	<0.5 U	<0.5 U	-
18-jul-95	CS	a	V	<0.5 U	<0.5 U	<0.5 U	-	-	<0.5 U
14-sep-95	CS	a	V	<0.5 U	4.8	<0.5 U	-	-	<0.5 U
01-nov-95	CS	a	V	<0.5 U	4.9	<0.5 U	-	-	<0.5 U
04-dec-95	CS	a	V	<0.5 U	6.3 O	<0.5 U	-	-	<0.5 U
19-jan-96	CS	a	V	<0.5 U	5.4	<0.5 U	-	-	<0.5 U
22-apr-96	CL	a	V	<0.5 U	2.2 S	<0.5 U	<0.5 U	<0.5 U	<1 U
W-566									
01-may-89	BC	a	U	3 P	120 P	5 P	-	-	<1 P
05-sep-89	CL	ag	U	3 P	88 P	6.7 P	<0.4 P	<0.4 P	<0.4 P
05-sep-89	BC	afg	U	<2 P	190 P	<2 P	-	-	<2 P
24-oct-89	BC	af	U	4 P	260 P	<2 P	<2 P	<2 P	<2 P
02-feb-90	BC	af	U	6 P	160 P	5 P	<1 P	<1 P	<1 P
27-apr-90	BC	af	U	8 P	160 P	7 P	<1 P	<1 P	<1 P
16-jul-90	BC	af	U	10 P	190 P	6 P	<1 P	<1 P	<1 P
19-oct-90	BC	af	U	12 P	180 P	8 P	<1 P	<1 P	<1 P
22-jan-91	BC	af	U	14 P	180 P	12 P	<1 P	<1 P	<1 P
18-apr-91	BC	af	U	15 P	200 P	6 P	<1 P	<1 P	<1 P
31-jul-91	BC	af	U	15 P	200 P	9 P	<1 P	<1 P	<1 P
30-oct-91	BC	af	U	22 P	310 P	10 P	<1 P	<1 P	<1 P
04-feb-92	BC	af	U	30 P	440 P	12 P	<2 P	<2 P	<2 P
28-jul-92	BC	af	U	35 P	560 P	13 P	<2 P	<2 P	<2 P
27-jan-93	BC	af	U	25 P	320 P	11 P	<3 P	<3 P	<3 P
01-apr-93	CH	a	U	13.5	244	6.3	-	-	-
15-jun-93	CL	a	U	20	240	12	<0.4 U	<0.4 U	<0.4 U
13-jul-93	CH	a	U	20	245	4	-	-	-
24-nov-93	CS	af	V	<25 DU	260 D	<25 DU	-	-	<25 DU
12-aug-94	CS	af	V	25 D	280 D	14 D	-	-	<2.5 DU
09-nov-94	CS	af	V	20 D	250 D	7.3 D	-	-	<2.5 DU
16-oct-95	CS	af	V	19	210 D	9.7	-	-	<0.5 U
22-jan-96	CS	af	V	22 D	190 D	9.3 D	-	-	<1 DU
30-apr-96	CL	a	V	15	130 OS	8.2 O	<0.5 U	<0.5 U	<1 U
31-jul-96	CS	af	V	15 D	170 D	6.2 D	<2.5 DU	<2.5 DU	-
W-652									
15-mar-90	BC	a	U	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
21-mar-90	BC	a	U	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
21-mar-90	BC	a	U	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P	<0.2 P
16-jul-90	BC	a	U	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
19-oct-90	BC	a	U	<0.5 P	1.9 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
20-feb-91	BC	ag	U	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
20-feb-91	CL	ag	U	<0.5 P	<0.3 P	<0.2 P	<0.4 P	<0.4 P	<0.4 P
18-apr-91	BC	a	U	<0.5 P	0.7 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
31-jul-91	BC	a	U	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P

Results recorded by 31-oct-1996.

1,1,1 TCA	1,1 DCA	1,2 DCA	Carbon Tetra-chloride	Chloro-form	Freon 11	Freon 113	Location Date
				(continued) Monitor Wells and Piezometers			
							(continued) W-364
<0.5 U	<0.5 U	1.7	0.7	10	<0.5 U	2.9	29-apr-96
<0.5 U	<0.5 U	1.7	1.2	12	<0.5 U	5	26-jul-96
							W-562
<1 P	<1 P	<1 P	<1 P	3 P	<1 P	-	24-mar-89
<0.5 P	<0.5 P	<0.5 P	<0.5 P	1.1 P	<0.5 P	<0.5 P	17-may-89
<0.5 P	<0.5 P	<0.5 P	<0.5 P	0.8 P	<0.5 P	<0.5 P	01-sep-89
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	15-nov-89
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	23-feb-90
<0.5 P	<0.5 P	<0.5 P	<0.5 P	0.6 P	<0.5 P	<0.5 P	17-may-90
<0.5 P	<0.4 P	<0.3 P	<0.6 P	0.7 P	<0.4 P	<0.6 P	17-may-90
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	16-jul-90
<0.5 P	<0.5 P	<0.5 P	<0.5 P	0.7 P	<0.5 P	<0.5 P	08-nov-90
<0.5 P	<0.5 P	<0.5 P	<0.5 P	1 P	<0.5 P	1 P	21-feb-91
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	18-apr-91
<0.5 P	<0.5 P	<0.5 P	<0.5 P	1 P	<0.5 P	<0.5 P	18-jul-91
<0.5 P	<0.4 P	<0.3 P	<0.6 P	1.1 P	<0.4 P	<0.6 P	18-jul-91
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	13-nov-91
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	16-jul-92
<0.5	<0.5	<0.5	<0.5	0.88	<0.5	0.91 B	19-jan-93
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.8	07-dec-93
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	15-nov-94
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	1	27-mar-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 ULJ	<0.5 U	<0.5 U	27-mar-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.95	18-jul-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.75	14-sep-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.72	01-nov-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	1.6	04-dec-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	1.1	19-jan-96
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	1.2	22-apr-96
							W-566
<1 P	<1 P	<1 P	<1 P	16 P	<1 P	2 P	01-may-89
<0.5 P	<0.4 P	2.5 P	1 P	17 P	<0.4 P	<0.6 P	05-sep-89
<2 P	<2 P	<2 P	<2 P	24 P	<2 P	<2 P	05-sep-89
<2 P	<2 P	<2 P	<2 P	20 P	<2 P	<2 P	24-oct-89
<1 P	<1 P	2 P	<1 P	17 P	<1 P	<1 P	02-feb-90
<1 P	<1 P	3 P	<1 P	21 P	<1 P	<1 P	27-apr-90
<1 P	<1 P	3 P	<1 P	21 P	<1 P	2 P	16-jul-90
<1 P	<1 P	3 P	<1 P	23 P	<1 P	4 P	19-oct-90
<1 P	<1 P	2 P	<1 P	21 P	<1 P	4 P	22-jan-91
<1 P	<1 P	5 P	<1 P	29 P	<1 P	<1 P	18-apr-91
<1 P	<1 P	4 P	<1 P	24 P	<1 P	4 P	31-jul-91
<1 P	<1 P	6 P	2 P	30 P	<1 P	6 P	30-oct-91
<2 P	<2 P	8 P	<2 P	33 P	<2 P	7 P	04-feb-92
<2 P	<2 P	6 P	<2 P	30 P	<2 P	<2 P	28-jul-92
<3 P	<3 P	5.8 P	3.6 P	32 P	<3 P	11 P	27-jan-93
-	-	2.2	1.2	17	-	6.6	01-apr-93
<0.5 U	<0.4 U	1.3	4	23	<0.4 U	13	15-jun-93
-	-	2.4	<0.4 U	17	-	9.5	13-jul-93
<25 DU	<25 DU	<25 DU	<25 DU	<25 DU	<25 DU	<25 DU	24-nov-93
<2.5 DU	<2.5 DU	2.8 D	<2.5 DU	17 D	<2.5 DU	6.7 D	12-aug-94
<2.5 DU	<2.5 DU	<2.5 DU	<2.5 DU	15 D	<2.5 DU	6.4 D	09-nov-94
<0.5 U	<0.5 U	2.2	0.94	12	<0.5 U	13	16-oct-95
<1 DU	<1 DU	2.1 D	<1 DU	12 D	<1 DU	12 D	22-jan-96
<0.5 U	<0.5 U	1.4	0.7	8.5	<0.5 U	15	30-apr-96
<2.5 DU	<2.5 DU	<2.5 DU	<2.5 DU	9.2 D	<2.5 DU	11 D	31-jul-96
							W-652
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	15-mar-90
<0.5 P	<0.5 P	<0.5 P	<0.5 P	1.2 P	<0.5 P	<0.5 P	21-mar-90
<0.2 P	<0.2 P	<0.2 P	<0.2 P	2.3 P	<0.2 P	<0.2 P	21-mar-90
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	16-jul-90
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	19-oct-90
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	20-feb-91
<0.5 P	<0.4 P	<0.3 P	<0.6 P	<0.5 P	<0.4 P	<0.6 P	20-feb-91
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	18-apr-91
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	31-jul-91

Ground water analyses (ug/L) for Volatile Organic Compounds (VOCs) in the Trailer 5475 Area

Location Date	Lab	Note	Val.	PCE	TCE	1,1 DCE	cis-1,2 DCE	trans-1,2 DCE	Total 1,2 DCE
Monitor Wells and Piezometers (continued)									
W-652 (continued)									
30-oct-91	BC	a	U	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
04-feb-92	BC	a	U	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
28-jul-92	BC	a	U	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
27-jan-93	BC	a	U	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P
03-feb-95	CS	a	V	<0.5 U	<0.5 U	<0.5 U	-	-	<0.5 U
22-jan-96	CS	a	V	<0.5 U	<0.5 U	<0.5 U	-	-	<0.5 U
W-909									
15-nov-93	CS	a	V	74	230	50	-	-	<5 U
16-oct-95	CS	af	V	150 D	870 D	110 D	-	-	<0.5 U
07-nov-95	CS	af	V	170 D	910 D	140 D	-	-	<2.5 DU
05-dec-95	CS	af	V	190 D	990 D	140 D	-	-	<5 DU
22-jan-96	CS	af	V	210 D	1200 D	160 D	-	-	<5 DU
29-apr-96	CL	a	V	200 D	810 DS	170 D	<5 UD	<5 UD	<10 UD
05-aug-96	CS	a	V	190 D	780 DLO	74 D	<10 DU	<10 DU	-
W-911									
27-oct-93	CH	af	N	293 D	740 D	232 D	-	-	-
01-feb-96	CS	af	V	260 D	780 D	220 D	-	-	<1 U
30-apr-96	CL	a	V	190 D	510 ODS	270 OD	<5 DU	<5 DU	<10 DU
31-jul-96	CS	af	V	250 D	760 D	270 D	<5 DU	<5 DU	-
W-912									
27-oct-93	CH	af	N	7.7 D	90 D	<4 DU	-	-	-
10-oct-95	CS	af	V	18 D	210 D	9.4 D	-	-	<2.5 DU
05-dec-95	CS	af	V	17	200 D	8.4	-	-	<0.5 U
23-jan-96	CS	af	V	16	210 D	9	-	-	<0.5 U
30-apr-96	CL	a	V	15	140 OS	10 O	<0.5 U	<0.5 U	<1 U
05-aug-96	CS	a	V	13	150 DLO	6.9	<0.5 U	<0.5 U	-
W-1108									
15-sep-95	CS	af	V	16 D	260 D	8.4 D	-	-	<2.5 DU
26-oct-95	CS	af	V	22	300 D	9.8	-	-	<0.5 U
05-dec-95	CS	af	V	17	230 D	8.7	-	-	<0.5 U
23-jan-96	CS	af	V	21	280 D	10	-	-	<0.5 U
01-may-96	CL	a	V	15 JD	160 DS	10 JD	<1 UJD	<1 UJD	<2 DU
25-jun-96	CS	af	V	21	200 D	8.7	<0.5 U	<0.5 U	-
28-jun-96	CS	af	V	46 D	590 D	20 D	<5 DU	<5 DU	-
05-aug-96	CS	a	V	26 D	320 DLO	12 D	<2.5 DU	<2.5 DU	-
W-1109									
23-jun-95	CS	af	V	310 D	1100 D	170 D	-	-	<25 DU
17-nov-95	CS	af	V	550 D	2000 D	250 D	-	-	<13 DU
29-feb-96	CS	af	V	590 D	2100 D	280 D	-	-	<10 DU
29-apr-96	CL	a	V	350	1100 S	240	1.5	<0.5 U	2
04-jun-96	CS	a	V	550 D	2100 D	280 D	<5 DU	<5 DU	-
07-jun-96	CS	a	V	300 D	1100 D	180 D	<5 DU	<5 DU	-
07-jun-96	CS	a	V	340 D	1200 D	220 D	<5 DU	<5 DU	-
05-aug-96	CS	a	V	440 D	1600 DLO	270 D	<10 DU	<10 DU	-
W-1117									
07-nov-95	CS	af	V	3.1	43 D	1.3	-	-	<0.5 U
07-dec-95	CS	af	V	8.4	87 D	4.1	-	-	<0.5 U
29-feb-96	CS	af	V	1.8	82 D	4.8	-	-	<0.5 U
01-may-96	CL	a	V	8 JD	49 DS	4 JD	<1 UJD	<1 UJD	<2 DU
06-aug-96	CS	a	V	6.6	92 D	6.2	<0.5 U	<0.5 U	-
22-aug-96	CS	a	V	24	330 D	14	-	-	<1 U
W-1118									
26-oct-95	CS	afj	V	130 D	1000 D	44 D	-	-	<0.5 U
06-dec-95	CS	af	V	140 D	1300 DO	69 DO	-	-	<5 DU
17-jan-96	CS	af	V	180 D	1600 D	75 D	-	-	<1 U
01-may-96	CL	a	V	110 JD	810 DS	69 JD	<5 UJD	<5 UJD	<10 DU
06-aug-96	CS	a	V	130 D	1300 D	59 D	<10 DU	<10 DU	-
W-1201									
20-oct-95	CS	afj	V	44	540 D	33	-	-	<0.5 U
06-dec-95	CS	af	V	73 D	490 D	23 D	-	-	<13 DU

Results recorded by 31-oct-1996.

1,1,1 TCA	1,1 DCA	1,2 DCA	Carbon Tetra-chloride	Chloro-form	Freon 11	Freon 113	Location Date
				(continued) Monitor Wells and Piezometers			
							(continued) W-652
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	30-oct-91
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	04-feb-92
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	28-jul-92
<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	<0.5 P	27-jan-93
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	03-feb-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	22-jan-96
							W-909
<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	26	15-nov-93
0.69	0.84	0.88	6.2	19	<0.5 U	56 D	16-oct-95
<2.5 DU	<2.5 DU	<2.5 DU	6.2 D	19 D	<2.5 DU	24 D	07-nov-95
<5 DU	<5 DU	<5 DU	6 D	20 D	<5 DU	18 D	05-dec-95
<5 DU	<5 DU	<5 DU	7.6 D	22 D	<5 DU	29 D	22-jan-96
<5 UD	<5 UD	<5 UD	<5 UD	18 D	<5 UD	22 D	29-apr-96
<10 DU	<10 DU	<10 DU	<10 DU	<10 DU	<10 DU	15 D	05-aug-96
							W-911
<4 DU	-	<4 DU	<4 DU	<4 DU	-	<4 DU	27-oct-93
1	<1 U	<1 U	<1 U	<1 U	<1 U	43	01-feb-96
<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	49 D	30-apr-96
<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	49 D	31-jul-96
							W-912
<4 DU	-	<4 DU	<4 DU	<4 DU	-	<4 DU	27-oct-93
<2.5 DU	<2.5 DU	<2.5 DU	<2.5 DU	12 D	<2.5 DU	7.1 D	10-oct-95
<0.5 U	<0.5 U	2.1	0.98	14	<0.5 U	4	05-dec-95
<0.5 U	<0.5 U	2.1	1	13	<0.5 U	7.1	23-jan-96
<0.5 U	<0.5 U	1.5	0.7	11	<0.5 U	8.5	30-apr-96
<0.5 U	<0.5 U	1.5	0.83	11	<0.5 U	5.4	05-aug-96
							W-1108
<2.5 DU	<2.5 DU	<2.5 DU	<2.5 DU	13 D	<2.5 DU	<2.5 DU	15-sep-95
<0.5 U	<0.5 U	1.9	1.1	18	<0.5 U	1.5	26-oct-95
<0.5 U	<0.5 U	1.7	0.87	17	<0.5 U	1.1	05-dec-95
<0.5 U	<0.5 U	1.9	0.98	17	<0.5 U	1.4	23-jan-96
<1 UJD	<1 DU	1 JD	<1 DU	14 JD	<1 UJD	1 DJ	01-may-96
<0.5 U	0.68	2.3	1.1	19	<0.5 U	1.3	25-jun-96
<5 DU	<5 DU	<5 DU	<5 DU	38 D	<5 DU	<5 DU	28-jun-96
<2.5 DU	<2.5 DU	<2.5 DU	<2.5 DU	24 D	<2.5 DU	<2.5 DU	05-aug-96
							W-1109
<25 DU	<25 DU	<25 DU	<25 DU	<25 DU	<25 DU	48 D	23-jun-95
<13 DU	<13 DU	<13 DU	<13 DU	<13 DU	<13 DU	21 D	17-nov-95
<10 DU	<10 DU	<10 DU	<10 DU	<10 DU	<10 DU	28 D	29-feb-96
<0.5 U	1.2	<0.5 U	0.6	2.3	0.8	82	29-apr-96
<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	42 D	04-jun-96
<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	35 D	07-jun-96
<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	44 D	07-jun-96
<10 DU	<10 DU	<10 DU	<10 DU	<10 DU	<10 DU	54 D	05-aug-96
							W-1117
<0.5 U	<0.5 U	0.71	<0.5 U	19	<0.5 U	<0.5 U	07-nov-95
<0.5 U	<0.5 U	1.3	0.64	18	<0.5 U	0.57	07-dec-95
<0.5 U	<0.5 U	1.5	0.58	12	<0.5 U	<0.5 U	29-feb-96
<1 UJD	<1 DU	1 JD	<1 DU	8 JD	<1 UJD	<1 DUJ	01-may-96
<0.5 U	<0.5 U	1.6	<0.5 U	11	<0.5 U	0.66	06-aug-96
<1 U	<1 U	4.3	1.4	22	<1 U	<1 U	22-aug-96
							W-1118
<0.5 U	2.1	7.9	6.8	64 D	<0.5 U	34	26-oct-95
<5 DU	<5 DU	9.9 D	9.7 D	74 D	<5 DU	54 D	06-dec-95
<1 U	3	9.3	12	81 D	<1 U	65 D	17-jan-96
<5 UJD	<5 DU	6 JD	6 D	54 JD	<5 UJD	59 DJ	01-may-96
<10 DU	<10 DU	<10 DU	<10 DU	55 D	<10 DU	42 D	06-aug-96
							W-1201
0.59	1.3	4.2	3.9	34	<0.5 U	24	20-oct-95
<13 DU	<13 DU	<13 DU	<13 DU	34 D	<13 DU	13 D	06-dec-95

Ground water analyses (ug/L) for Volatile Organic Compounds (VOCs) in the Trailer 5475 Area

Location Date	Lab	Note	Val.	PCE	TCE	1,1 DCE	cis-1,2 DCE	trans-1,2 DCE	Total 1,2 DCE
Monitor Wells and Piezometers (continued)									
W-1201 (continued)									
13-mar-96	CL	a	V	35	310 S	18	<0.5 U	<0.5 U	<1 U
13-mar-96	CS	a	V	38 D	290 D	13 DLO	-	-	<2.5 DU
28-aug-96	CS	ah	N	60 D	710 D	16 D	<5 DU	<5 DU	-
28-aug-96	CS	aeh	N	84 D	650 D	23 D	<2.5 DU	<2.5 DU	-
17-sep-96	CS	a	N	130 D	1200 D	58 D	-	-	<1 U
W-1202									
30-oct-95	CS	afj	V	21	170 D	11	-	-	<0.5 U
19-aug-96	CS	a	V	19	170 D	17	-	-	<1 U
W-1203									
08-nov-95	CS	aj	V	<0.5 U	23	<0.5 U	-	-	<0.5 U
08-dec-95	CS	a	V	1.2	32	<0.5 U	-	-	<0.5 U
12-mar-96	CL	a	V	<0.5 U	27 S	<0.5 U	<0.5 U	<0.5 U	<1 U
12-mar-96	CS	a	N	<0.5 U	31	<0.5 U	-	-	<0.5 U
28-mar-96	CL	a	V	<1 U	38	<1 U	<1 U	<1 U	<2 U
30-apr-96	CL	a	V	<0.5 U	16 OS	<0.5 UO	<0.5 U	<0.5 U	<1 U
05-aug-96	CS	a	V	<0.5 U	27 LO	<0.5 U	<0.5 U	<0.5 U	-
W-1204									
07-dec-95	CS	a	V	1.1	6	1.8	-	-	<0.5 U
05-jan-96	CS	aj	V	2.6	12	3.6	-	-	<0.5 U
16-feb-96	CS	a	V	4.2	23	7.6	-	-	<1 U
30-apr-96	CL	a	V	1.7	6.8 OS	4.8 O	<0.5 U	<0.5 U	<1 U
05-aug-96	CS	a	V	1.5	10 LO	3.2	<0.5 U	<0.5 U	-
W-1210									
29-may-96	CS	a	V	1	68 DLO	2.4	-	-	<1 U
26-jul-96	CS	af	V	<0.5 U	46 D	1.5	<0.5 U	<0.5 U	-
W-1219									
12-jun-96	CS	aj	V	1.5	130 DLO	12	22	<0.5 U	-
W-1222									
18-sep-96	CS	a	N	390 D	3800 D	180 D	-	-	<1 U
W-1225									
19-aug-96	CS	aj	V	200 D	1600 DLO	86 D	<2.5 DU	<2.5 DU	-
SIP-543-101									
15-sep-95	CS	af	V	1200 D	2100 D	580 D	-	-	<5 DU
03-nov-95	CS	af	V	1600 D	2000 D	390 D	-	-	<10 DU
04-dec-95	CS	af	V	600 D	1000 D	310 D	-	-	<5 DU
19-jan-96	CS	af	V	1600 D	2500 D	690 D	-	-	<13 DU
28-may-96	CS	a	V	420 D	920 D	220 D	<5 DU	<5 DU	-
02-aug-96	CS	af	V	180 D	460 D	140 D	<5 DU	<5 DU	-
SIP-ETS-105									
08-nov-93	CH	afj	N	5 D	92 D	<4 DU	<4 DU	-	-
SIP-ETS-204									
10-jun-91	BC	af	U	930 P	8300 P	<50 P	<50 P	<50 P	<50 P
08-nov-93	CH	afj	N	661 D	5520 D	364 D	<4 DU	-	-
11-aug-95	CS	af	V	370 D	3700 D	240 D	-	-	<5 DU
13-sep-95	CS	af	V	360 D	5000 D	170 D	-	-	<25 DU
03-nov-95	CS	af	V	480 D	12000 D	250 D	-	-	<25 DU
04-dec-95	CS	af	V	680 D	8000 D	370 D	-	-	<25 DU
16-jan-96	CS	af	V	500 D	5400 D	290 D	-	-	<5 DU
14-may-96	CL	af	V	440 D	4700 D	350 D	<30 UD	<30 UD	<60 UD
31-jul-96	CS	af	V	670 D	5800 D	320 D	<25 DU	<25 DU	-
SIP-ETS-205									
05-nov-93	CH	afj	N	64 D	588 D	<4 DU	<4 DU	-	-
11-aug-95	CS	af	V	25	230 D	25	-	-	<0.5 U
13-sep-95	CS	af	V	21	220 D	21	-	-	<0.5 U
01-nov-95	CS	af	V	19	190 D	17	-	-	<0.5 U
04-dec-95	CS	af	V	27	200 D	21	-	-	<0.5 U
04-dec-95	FS	af	V	22 LO	170 DLO	14 L	-	<0.5 U	-

Results recorded by 31-oct-1996.

1,1,1 TCA	1,1 DCA	1,2 DCA	Carbon Tetra-chloride	Chloro-form	Freon 11	Freon 113	Location Date
							(continued) Monitor Wells and Piezometers
							(continued) W-1201
<0.5 U	<0.5 U	4	1.8	21	<0.5 U	11	13-mar-96
<2.5 DU	<2.5 DU	3.3 D	<2.5 DU	25 D	<2.5 DU	9.2 D	13-mar-96
<5 DU	<5 DU	<5 DU	<5 DU	20 D	<5 DU	37 D	28-aug-96
<2.5 DU	<2.5 DU	3.6 D	<2.5 DU	33 D	<2.5 DU	56 D	28-aug-96
<1 U	3.1	11	10	71 D	<1 U	45 D	17-sep-96
							W-1202
<0.5 U	0.52	0.53	<0.5 U	1.9	<0.5 U	0.9	30-oct-95
<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	1.3	19-aug-96
							W-1203
<0.5 U	<0.5 U	<0.5 U	<0.5 U	8.2	1.1	9.7	08-nov-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	2.7	<0.5 U	31	08-dec-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	54	12-mar-96
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	54 D	12-mar-96
<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	79	28-mar-96
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	56	30-apr-96
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	37 D	05-aug-96
							W-1204
<0.5 U	<0.5 U	<0.5 U	<0.5 U	3.2	<0.5 U	<0.5 U	07-dec-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	1.2	<0.5 U	<0.5 U	05-jan-96
<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	16-feb-96
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	30-apr-96
<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.57	<0.5 U	<0.5 U	05-aug-96
							W-1210
<1 U	<1 U	<1 U	<1 U	7.1	<1 U	8.2	29-may-96
<0.5 U	<0.5 U	0.57	<0.5 U	5.5	<0.5 U	4	26-jul-96
							W-1219
<0.5 U	1.1	<0.5 U	1.1	20	<0.5 U	<0.5 U	12-jun-96
							W-1222
<1 U	6.4	96 D	29	250 D	<1 U	41	18-sep-96
							W-1225
<2.5 DU	2.7 D	6.7 D	9.1 D	50 D	<2.5 DU	12 D	19-aug-96
							SIP-543-101
<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	9.6 D	15-sep-95
<10 DU	<10 DU	<10 DU	<10 DU	<10 DU	<10 DU	45 D	03-nov-95
<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	51 D	04-dec-95
<13 DU	<13 DU	<13 DU	<13 DU	<13 DU	<13 DU	140 D	19-jan-96
<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	32 D	28-may-96
<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	<5 DU	13 D	02-aug-96
							SIP-ETS-105
<4 DU	-	<4 DU	<4 DU	<4 DU	-	-	08-nov-93
							SIP-ETS-204
<50 P	<50 P	<50 P	<50 P	250 P	<50 P	<50 P	10-jun-91
<4 DU	-	34 D	54 D	405 D	-	-	08-nov-93
<5 DU	6.9 D	29 D	21 D	150 D	<5 DU	15 D	11-aug-95
<25 DU	<25 DU	26 D	<25 DU	150 D	<25 DU	<25 DU	13-sep-95
<25 DU	<25 DU	29 D	<25 DU	200 D	<25 DU	<25 DU	03-nov-95
<25 DU	<25 DU	55 D	29 D	310 D	<25 DU	46 D	04-dec-95
<5 DU	8.2 D	38 D	24 D	210 D	<5 DU	18 D	16-jan-96
<30 UD	<30 UD	30 D	<30 UD	190 D	<30 UD	<30 UD	14-may-96
<25 DU	<25 DU	41 D	<25 DU	220 D	<25 DU	<25 DU	31-jul-96
							SIP-ETS-205
<4 DU	-	<4 DU	7.9 D	23 D	-	-	05-nov-93
<0.5 U	<0.5 U	<0.5 U	3.1	3.3	<0.5 U	1.8	11-aug-95
<0.5 U	<0.5 U	0.64	3.4	3.2	<0.5 U	1.4	13-sep-95
<0.5 U	<0.5 U	<0.5 U	1.7	4.1	<0.5 U	<0.5 U	01-nov-95
<0.5 U	<0.5 U	1.2	3.5	5.4	<0.5 U	0.85	04-dec-95
<0.5 U	<0.5 U	0.9	3.5 L	4.4	<0.5 U	<0.5 U	04-dec-95

Ground water analyses (ug/L) for Volatile Organic Compounds (VOCs) in the Trailer 5475 Area

Location Date	Lab	Note	Val.	PCE	TCE	1,1 DCE	cis-1,2 DCE	trans-1,2 DCE	Total 1,2 DCE
Monitor Wells and Piezometers (continued)									
SIP-ETS-205 (continued)									
16-jan-96	CS	af	V	94 D	630 D	55 D	-	-	<5 DU
14-may-96	CL	af	V	66 D	510 D	61 D	<5 UD	<5 UD	<10 UD
31-jul-96	CS	af	V	100 D	660 D	60 D	<2.5 DU	<2.5 DU	-
SIP-ETS-207									
01-aug-91	CH	ah	U	2537 P	28409 P	-	-	-	-
01-aug-91	CH	ah	U	2039 P	20281 P	-	-	-	-
01-aug-91	CH	ah	U	2320 P	20925 P	-	-	-	-
01-aug-91	CH	ah	U	2818 P	33108 P	-	-	-	-
01-aug-91	CH	ah	U	1927 P	17316 P	-	-	-	-
01-aug-91	CH	ah	U	2144 P	24645 P	-	-	-	-
11-aug-95	CS	af	V	410 D	5300 D	90 D	-	-	<25 DU
13-sep-95	CS	af	V	320 D	4900 D	59 D	-	-	<13 DU
25-oct-95	CS	af	V	6600 D	8100 D	2300 D	-	-	<250 DU
03-nov-95	CS	af	V	420 D	6400 D	91 D	-	-	<25 DU
04-dec-95	CS	af	V	520 D	8800 D	<50 DU	-	-	<50 DU
17-jan-96	CS	af	V	440 D	5400 D	92 D	-	-	<50 DU
14-may-96	CL	af	V	2700 D	35000 D	930 D	<50 UD	<50 UD	<100 UD
31-jul-96	CS	af	V	340 D	4400 D	93 D	<50 DU	<50 DU	-
SIP-ETS-209									
01-aug-91	CH	ah	U	<1200 P	2007 P	-	-	-	-
01-aug-91	CH	ah	U	<300 P	1509 P	-	-	-	-
01-aug-91	CH	ah	U	184 P	1593 P	-	-	-	-
01-aug-91	CH	ah	U	<1200 P	1918 P	-	-	-	-
01-aug-91	CH	ah	U	<300 P	1285 P	-	-	-	-
01-aug-91	CH	ah	U	<150 P	1151 P	-	-	-	-
05-nov-93	CH	afj	N	622 D	2516 D	<4 DU	<4 DU	-	-
11-aug-95	CS	af	V	540 D	5900 D	240 D	-	-	<25 DU
13-sep-95	CS	af	V	4900 D	23000 D	2100 D	-	-	<250 DU
25-oct-95	CS	af	V	8700 D	8400 D	1800 D	-	-	<250 DU
01-nov-95	CS	af	V	420 D	3800 D	210 D	-	-	<5 DU
04-dec-95	CS	af	V	530 D	5200 D	260 D	-	-	<25 DU
04-dec-95	FS	af	V	470 DLO	950 DLO	220 DL	-	<0.5 U	-
16-jan-96	CS	af	V	410 D	4000 D	160 D	-	-	<0.5 U
28-may-96	CS	a	V	540 D	5000 D	250 D	<50 DU	<50 DU	-
31-jul-96	CS	af	V	260 D	3100 D	110 D	<25 DU	<25 DU	-
SIP-ETS-211									
08-nov-93	CH	afj	N	115 D	922 D	39 D	<4 DU	-	-
11-aug-95	CS	af	V	34 D	380 D	17 D	-	-	<2.5 DU
13-sep-95	CS	af	V	38 D	450 D	20 D	-	-	<2.5 DU
03-nov-95	CS	af	V	97 D	710 D	53 D	-	-	<5 DU
04-dec-95	CS	af	V	55 D	450 D	36	-	-	<0.5 U
17-jan-96	CS	af	V	80 D	670 D	46 D	-	-	<5 DU
14-may-96	CL	af	V	60 D	460 D	58 D	<5 UD	<5 UD	<10 UD
31-jul-96	CS	af	V	42 D	220 D	41 D	<2.5 DU	<2.5 DU	-
SIP-ETS-212									
05-nov-93	CH	afj	N	40 D	325 D	<4 DU	<4 DU	-	-
11-aug-95	CS	af	V	4.7	34 D	2.9	-	-	<0.5 U
13-sep-95	CS	af	V	2.2	36 D	0.93	-	-	<0.5 U
01-nov-95	CS	a	V	2	33	0.52	-	-	<0.5 U
04-dec-95	CS	a	V	2.2	35	0.76	-	-	<0.5 U
04-dec-95	FS	af	V	1.6 LO	31 DLO	0.7 L	-	<0.5 U	-
17-jan-96	CS	a	V	1.8	32	0.53	-	-	<0.5 U
14-may-96	CL	a	V	1.4	30	1	<0.5 U	<0.5 U	<1 U
31-jul-96	CS	a	V	1.6	27	<0.5 U	<0.5 U	<0.5 U	-
SIP-ETS-213									
08-nov-93	CH	afj	N	286 D	2120 D	141 D	<4 DU	-	-
11-aug-95	CS	af	V	97 D	1200 D	88 D	-	-	<5 DU
14-sep-95	CS	af	V	83 D	860 D	58 D	-	-	<10 DU
06-nov-95	CS	af	V	93 D	1300 D	83 D	-	-	<5 DU
08-dec-95	CS	af	V	190 D	1600 D	99 D	-	-	<5 DU
17-jan-96	CS	af	V	210 D	1500 D	110 D	-	-	<5 DU
14-may-96	CL	af	V	74 D	640 D	44 D	<5 UD	<5 UD	<10 UD
02-aug-96	CS	af	V	150 D	1200 D	78 D	<2.5 DU	<2.5 DU	-

Results recorded by 31-oct-1996.

1,1,1 TCA	1,1 DCA	1,2 DCA	Carbon Tetra-chloride	Chloro-form	Freon 11	Freon 113	Location Date
				(continued) Monitor Wells and Piezometers			
						(continued)	SIP-ETS-205
<5 DU	<5 DU	<5 DU	<5 DU	8.6 D	<5 DU	<5 DU	16-jan-96
<5 UD	<5 UD	<5 UD	<5 UD	10 D	<5 UD	<5 UD	14-may-96
<2.5 DU	<2.5 DU	<2.5 DU	6.8 D	12 D	<2.5 DU	3.7 D	31-jul-96
							SIP-ETS-207
-	-	<400 P	-	2215 P	-	-	01-aug-91
-	-	<100 P	-	2644 P	-	-	01-aug-91
-	-	85 P	-	3091 P	-	-	01-aug-91
-	-	<400 P	-	2724 P	-	-	01-aug-91
-	-	<100 P	-	2232 P	-	-	01-aug-91
-	-	93 P	-	3612 P	-	-	01-aug-91
<25 DU	<25 DU	44 D	<25 DU	590 D	<25 DU	<25 DU	11-aug-95
<13 DU	<13 DU	46 D	<13 DU	620 D	<13 DU	<13 DU	13-sep-95
<250 DU	<250 DU	1100 D	280 D	14000 D	<250 DU	<250 DU	25-oct-95
<25 DU	<25 DU	51 D	<25 DU	620 D	<25 DU	<25 DU	03-nov-95
<50 DU	<50 DU	68 D	<50 DU	790 D	<50 DU	<50 DU	04-dec-95
<50 DU	<50 DU	53 D	<50 DU	550 D	<50 DU	<50 DU	17-jan-96
<50 UD	60 D	310 D	70 D	3500 D	<50 UD	<50 UD	14-may-96
<50 DU	<50 DU	<50 DU	<50 DU	570 D	<50 DU	<50 DU	31-jul-96
							SIP-ETS-209
-	-	<400 P	-	<1200 P	-	-	01-aug-91
-	-	<100 P	-	<300 P	-	-	01-aug-91
-	-	<50 P	-	<150 P	-	-	01-aug-91
-	-	<400 P	-	<1200 P	-	-	01-aug-91
-	-	<100 P	-	<300 P	-	-	01-aug-91
-	-	<50 P	-	<150 P	-	-	01-aug-91
<4 DU	-	<4 DU	29 D	43 D	-	-	05-nov-93
<25 DU	<25 DU	<25 DU	<25 DU	55 D	<25 DU	<25 DU	11-aug-95
<250 DU	<250 DU	<250 DU	<250 DU	<250 DU	<250 DU	360 D	13-sep-95
<250 DU	<250 DU	<250 DU	430 D	1200 D	<250 DU	<250 DU	25-oct-95
<5 DU	<5 DU	<5 DU	19 D	47 D	<5 DU	<5 DU	01-nov-95
<25 DU	<25 DU	<25 DU	<25 DU	60 D	<25 DU	<25 DU	04-dec-95
<0.5 U	3.5	1	19 L	47 D	<0.5 U	<0.5 U	04-dec-95
0.7	3.7	<0.5 U	20	35	<0.5 U	12	16-jan-96
<50 DU	<50 DU	<50 DU	<50 DU	56 D	<50 DU	<50 DU	28-may-96
<25 DU	<25 DU	<25 DU	<25 DU	33 D	<25 DU	<25 DU	31-jul-96
							SIP-ETS-211
<4 DU	-	15 D	14 D	66 D	-	-	08-nov-93
<2.5 DU	<2.5 DU	<2.5 DU	3.1 D	18 D	<2.5 DU	<2.5 DU	11-aug-95
<2.5 DU	<2.5 DU	<2.5 DU	3.6 D	18 D	<2.5 DU	<2.5 DU	13-sep-95
<5 DU	<5 DU	<5 DU	7.1 D	39 D	<5 DU	6.1 D	03-nov-95
<0.5 U	1	3.6	7.1	34	<0.5 U	6.2	04-dec-95
<5 DU	<5 DU	<5 DU	8.6 D	30 D	<5 DU	9 D	17-jan-96
<5 UD	<5 UD	<5 UD	9 D	26 D	<5 UD	19 D	14-may-96
<2.5 DU	<2.5 DU	<2.5 DU	5.3 D	15 D	<2.5 DU	10 D	31-jul-96
							SIP-ETS-212
<4 DU	-	<4 DU	<4 DU	11 D	-	-	05-nov-93
<0.5 U	<0.5 U	<0.5 U	<0.5 U	4.1	<0.5 U	13	11-aug-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	3.5	<0.5 U	15	13-sep-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	3.6	<0.5 U	10	01-nov-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	4.6	<0.5 U	13	04-dec-95
<0.5 U	<0.5 U	0.8	<0.5 U	3.1	<0.5 U	<0.5 U	04-dec-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	3.3	<0.5 U	10	17-jan-96
<0.5 U	<0.5 U	<0.5 U	<0.5 U	3	<0.5 U	17	14-may-96
<0.5 U	<0.5 U	<0.5 U	<0.5 U	2.4	<0.5 U	9.6	31-jul-96
							SIP-ETS-213
<4 DU	-	20 D	24 D	176 D	-	-	08-nov-93
<5 DU	<5 DU	15 D	7.8 D	77 D	<5 DU	29 D	11-aug-95
<10 DU	<10 DU	11 D	<10 DU	67 D	<10 DU	<10 DU	14-sep-95
<5 DU	<5 DU	13 D	5.8 D	71 D	<5 DU	26 D	06-nov-95
<5 DU	<5 DU	15 D	12 D	80 D	<5 DU	57 D	08-dec-95
<5 DU	<5 DU	14 D	12 D	87 D	<5 DU	61 D	17-jan-96
<5 UD	<5 UD	5 D	<5 UD	31 D	<5 UD	27 D	14-may-96
<2.5 DU	2.6 D	11 D	13 D	63 D	<2.5 DU	42 D	02-aug-96

Ground water analyses (ug/L) for Volatile Organic Compounds (VOCs) in the Trailer 5475 Area

Location Date	Lab	Note	Val.	PCE	TCE	1,1 DCE	cis-1,2 DCE	trans-1,2 DCE	Total 1,2 DCE
Monitor Wells and Piezometers (continued)									
SIP-ETS-214									
28-jan-92	BC	afg	U	1400 P	8600 P	290 P	<50 P	<50 P	<50 P
28-jan-92	CL	ag	U	610 P	4300 P	100 P	0.6 P	<0.4 P	0.6 P
08-nov-93	CH	afj	N	753 D	3540 D	246 D	<4 DU	-	-
11-aug-95	CS	af	V	260 D	1800 D	100 D	-	-	<5 DU
13-sep-95	CS	af	V	270 D	6600 D	93 D	-	-	<25 DU
01-nov-95	CS	af	V	350 D	2100 D	100 D	-	-	<5 DU
04-dec-95	CS	af	V	390 D	3100 D	160 D	-	-	<25 DU
04-dec-95	FS	af	V	350 DLO	830 DLO	110 DL	-	<0.5 U	-
17-jan-96	CS	af	V	440 D	2800 D	170 D	-	-	<5 DU
14-may-96	CL	af	V	2600 D	13000 D	1100 D	<50 UD	<50 UD	<100 UD
01-aug-96	CS	af	V	330 D	2200 D	76 D	<13 DU	<13 DU	-
SIP-ETS-215									
08-nov-93	CH	afj	N	175 D	830 D	127 D	<4 DU	-	-
11-aug-95	CS	af	V	160 D	940 D	93 D	-	-	<2.5 DU
13-sep-95	CS	af	V	120 D	3200 D	69 D	-	-	<5 DU
01-nov-95	CS	af	V	170 D	720 D	120 D	-	-	<10 DU
04-dec-95	CS	af	V	140 D	2000 D	89 D	-	-	<5 DU
04-dec-95	FS	af	V	210 DLO	580 DLO	99 DL	-	<0.5 U	-
16-jan-96	CS	af	V	190 D	650 D	130 D	-	-	<5 DU
14-may-96	CL	af	V	180 D	730 D	160 D	<5 UD	<5 UD	<10 UD
01-aug-96	CS	af	V	170 D	690 D	84 D	<5 DU	<5 DU	-
SIP-ETS-302									
08-nov-93	CH	afj	N	31 D	258 D	<4 DU	<4 DU	-	-
11-aug-95	CS	af	V	29 D	350 D	15 D	-	-	<2.5 DU
13-sep-95	CS	af	V	26 D	510 D	16 D	-	-	<2.5 DU
01-nov-95	CS	af	V	27	310 D	21	-	-	<0.5 U
04-dec-95	CS	af	V	31	270 D	23	-	-	<0.5 U
04-dec-95	FS	af	V	29 DLO	270 DLO	18 L	-	<0.5 U	-
17-jan-96	CS	af	V	35 D	360 D	25 D	-	-	<5 DU
15-may-96	CL	a	V	32	330	38	<0.5 U	<0.5 U	<1 U
01-aug-96	CS	af	V	9.3	86 D	13	<0.5 U	<0.5 U	-
SIP-ETS-303									
08-nov-93	CH	afj	N	79 D	765 D	39 D	<4 DU	-	-
11-aug-95	CS	af	V	39 D	570 D	16 D	-	-	<2.5 DU
13-sep-95	CS	af	V	32 D	600 D	14 D	-	-	<2.5 DU
03-nov-95	CS	af	V	27	390 D	13	-	-	<0.5 U
04-dec-95	CS	af	V	26	300 D	13	-	-	<0.5 U
17-jan-96	CS	af	V	10	110 D	4.8	-	-	<0.5 U
28-may-96	CS	a	V	26 D	300 D	12 D	<2.5 DU	<2.5 DU	-
01-aug-96	CS	af	V	40 D	400 D	19 D	<2.5 DU	<2.5 DU	-
SIP-ETS-304									
08-nov-93	CH	afj	N	196 D	1740 D	62 D	<4 DU	-	-
11-aug-95	CS	af	V	190 D	1700 D	76 D	-	-	<5 DU
13-sep-95	CS	af	V	190 D	4700 D	63 D	-	-	<25 DU
03-nov-95	CS	af	V	260 D	2400 D	77 D	-	-	<13 DU
04-dec-95	CS	af	V	320 D	3300 D	120 D	-	-	<5 DU
17-jan-96	CS	af	V	270 D	2600 D	93 D	-	-	<5 DU
01-aug-96	CS	af	V	81 D	780 D	45 D	<5 DU	<5 DU	-
SIP-ETS-306									
08-nov-93	CH	afj	N	270 D	2105 D	101 D	<4 DU	-	-
11-aug-95	CS	af	V	140 D	1500 D	52 D	-	-	<5 DU
13-sep-95	CS	af	V	160 D	2800 D	53 D	-	-	<13 DU
03-nov-95	CS	af	V	180 D	1900 D	64 D	-	-	<10 DU
04-dec-95	CS	af	V	200 D	1500 D	68 D	-	-	<13 DU
17-jan-96	CS	af	V	230 D	2400 D	87 D	-	-	<5 DU
15-may-96	CL	a	V	160 D	1500 D	97 D	<5 DU	<5 DU	<10 DU
01-aug-96	CS	af	V	160 D	1600 D	53 D	<5 DU	<5 DU	-
SIP-ETS-401									
15-sep-95	CS	af	V	440 D	4100 D	170 D	-	-	<25 DU
06-nov-95	CS	af	V	400 D	3300 D	130 D	-	-	<13 DU
05-dec-95	CS	af	V	170 D	1500 D	61 D	-	-	<5 DU
19-jan-96	CS	af	V	160 D	950 D	67 D	-	-	<5 DU

Results recorded by 31-oct-1996.

1,1,1 TCA	1,1 DCA	1,2 DCA	Carbon Tetra-chloride	Chloro-form	Freon 11	Freon 113	Location Date
					(continued) Monitor Wells and Piezometers		
							SIP-ETS-214
<50 P	<50 P	600 P	<50 P	160 P	<50 P	<50 P	28-jan-92
0.9 P	1.5 P	330 P	7.1 P	78 P	<0.4 P	63 P	28-jan-92
<4 DU	-	386 D	45 D	163 D	-	-	08-nov-93
<5 DU	<5 DU	68 D	14 D	29 D	<5 DU	41 D	11-aug-95
<25 DU	<25 DU	56 D	<25 DU	<25 DU	<25 DU	30 D	13-sep-95
<5 DU	<5 DU	41 D	14 D	27 D	<5 DU	31 D	01-nov-95
<25 DU	<25 DU	27 D	26 D	34 D	<25 DU	88 D	04-dec-95
<0.5 U	1.1	22 D	33 DL	25 D	<0.5 U	<0.5 U	04-dec-95
<5 DU	<5 DU	22 D	26 D	33 D	<5 DU	93 D	17-jan-96
<50 UD	<50 UD	90 D	110 D	170 D	<50 UD	770 D	14-may-96
<13 DU	<13 DU	<13 DU	18 D	32 D	<13 DU	49 D	01-aug-96
							SIP-ETS-215
4.7 D	-	<4 DU	20 D	<4 DU	-	-	08-nov-93
<2.5 DU	<2.5 DU	<2.5 DU	18 D	5.4 D	<2.5 DU	6.7 D	11-aug-95
<5 DU	<5 DU	<5 DU	12 D	<5 DU	<5 DU	17 D	13-sep-95
<10 DU	<10 DU	<10 DU	19 D	<10 DU	<10 DU	12 D	01-nov-95
<5 DU	<5 DU	<5 DU	16 D	6.1 D	<5 DU	6.4 D	04-dec-95
<0.5 U	<0.5 U	<0.5 U	38 DL	5.5	<0.5 U	<0.5 U	04-dec-95
<5 DU	<5 DU	<5 DU	23 D	<5 DU	<5 DU	25 D	16-jan-96
<5 UD	<5 UD	<5 UD	20 D	7 D	<5 UD	37 D	14-may-96
<5 DU	<5 DU	<5 DU	20 D	<5 DU	<5 DU	16 D	01-aug-96
							SIP-ETS-302
<4 DU	-	<4 DU	<4 DU	<4 DU	-	-	08-nov-93
<2.5 DU	<2.5 DU	5.3 D	<2.5 DU	3.3 D	<2.5 DU	10 D	11-aug-95
<2.5 DU	<2.5 DU	4.9 D	<2.5 DU	<2.5 DU	<2.5 DU	11 D	13-sep-95
<0.5 U	0.76	6.3	2	2.3	<0.5 U	15	01-nov-95
<0.5 U	1.1	6.3	3	2	<0.5 U	24	04-dec-95
<0.5 U	1.5	5.9	3.5 L	2.1	<0.5 U	<0.5 U	04-dec-95
<5 DU	<5 DU	6.2 D	<5 DU	<5 DU	<5 DU	26 D	17-jan-96
<0.5 U	0.9	5.5	3.4	4.3	<0.5 U	49	15-may-96
<0.5 U	<0.5 U	2.4	1.1	1.3	<0.5 U	10	01-aug-96
							SIP-ETS-303
<4 DU	-	10 D	5.6 D	26 D	-	-	08-nov-93
<2.5 DU	<2.5 DU	9.2 D	<2.5 DU	23 D	<2.5 DU	6.4 D	11-aug-95
<2.5 DU	<2.5 DU	8.9 D	<2.5 DU	20 D	<2.5 DU	7.8 D	13-sep-95
<0.5 U	1	9.2	1.2	25	<0.5 U	9.3	03-nov-95
<0.5 U	1.9	11	1.9	29	<0.5 U	2.9	04-dec-95
<0.5 U	<0.5 U	1.2	<0.5 U	3.7	<0.5 U	2.8	17-jan-96
<2.5 DU	<2.5 DU	4.6 D	<2.5 DU	16 D	<2.5 DU	9.7 D	28-may-96
<2.5 DU	<2.5 DU	8.4 D	<2.5 DU	32 D	<2.5 DU	15 D	01-aug-96
							SIP-ETS-304
<4 DU	-	74 D	26 D	292 D	-	-	08-nov-93
<5 DU	<5 DU	130 D	11 D	150 D	<5 DU	12 D	11-aug-95
<25 DU	<25 DU	130 D	<25 DU	150 D	<25 DU	<25 DU	13-sep-95
<13 DU	<13 DU	140 D	<13 DU	270 D	<13 DU	<13 DU	03-nov-95
<5 DU	<5 DU	200 D	18 D	360 D	<5 DU	15 D	04-dec-95
<5 DU	<5 DU	180 D	14 D	270 D	<5 DU	7.7 D	17-jan-96
<5 DU	<5 DU	94 D	<5 DU	91 D	<5 DU	<5 DU	01-aug-96
							SIP-ETS-306
<4 DU	-	22 D	25 D	212 D	-	-	08-nov-93
<5 DU	5.1 D	20 D	<5 DU	120 D	<5 DU	7.4 D	11-aug-95
<13 DU	<13 DU	22 D	<13 DU	96 D	<13 DU	<13 DU	13-sep-95
<10 DU	<10 DU	32 D	<10 DU	130 D	<10 DU	<10 DU	03-nov-95
<13 DU	<13 DU	46 D	<13 DU	150 D	<13 DU	<13 DU	04-dec-95
<5 DU	8.5 D	38 D	8.5 D	150 D	<5 DU	18 D	17-jan-96
<5 DU	10 D	12 D	<5 DU	110 D	<5 DU	31 D	15-may-96
<5 DU	7.3 D	10 D	7.2 D	87 D	<5 DU	14 D	01-aug-96
							SIP-ETS-401
<25 DU	<25 DU	280 D	<25 DU	360 D	<25 DU	28 D	15-sep-95
<13 DU	<13 DU	210 D	16 D	250 D	<13 DU	<13 DU	06-nov-95
<5 DU	<5 DU	50 D	7.2 D	68 D	<5 DU	14 D	05-dec-95
<5 DU	<5 DU	18 D	7.6 D	24 D	<5 DU	31 D	19-jan-96

Ground water analyses (ug/L) for Volatile Organic Compounds (VOCs) in the Trailer 5475 Area

Location Date	Lab	Note	Val.	PCE	TCE	1,1 DCE	cis-1,2 DCE	trans-1,2 DCE	Total 1,2 DCE
Monitor Wells and Piezometers (continued)									
SIP-ETS-401 (continued)									
28-may-96	CS	a	V	160 D	1600 D	79 D	<5 DU	<5 DU	-
01-aug-96	CS	af	V	100 D	690 D	35 D	<5 DU	<5 DU	-
SIP-ETS-402									
15-sep-95	CS	af	V	90 D	550 D	46 D	-	-	<2.5 DU
03-nov-95	CS	af	V	48 D	350 D	24 D	-	-	<2.5 DU
05-dec-95	CS	af	V	57 D	310 D	32	-	-	<0.5 U
19-jan-96	CS	af	V	100 D	500 D	50 D	-	-	<5 DU
28-may-96	CS	a	V	160 D	860 D	79 D	<5 DU	<5 DU	-
01-aug-96	CS	af	V	91 D	530 D	33 D	<2.5 DU	<2.5 DU	-
SIP-ETS-405									
31-aug-95	CS	a	V	0.57	1.7	<0.5 U	-	-	<0.5 U
07-nov-95	CS	a	V	<0.5 U	1.3	<0.5 U	-	-	<0.5 U
11-dec-95	CS	a	V	<0.5 U	1.3	<0.5 U	-	-	<0.5 U
23-jan-96	CS	a	V	7.3	0.57	<0.5 U	-	-	<0.5 U
31-may-96	CS	a	V	8.1	<0.5 U	<0.5 U	<0.5 U	<0.5 U	-
23-aug-96	CS	a	V	6.5	<0.5 U	<0.5 U	<0.5 U	<0.5 U	-
SIP-ETS-501									
16-nov-95	CS	aj	V	2.2	40	1.1	-	-	<0.5 U
28-may-96	CS	a	V	<0.5 U	8.5	<0.5 U	<0.5 U	<0.5 U	-
02-aug-96	CS	a	V	2.6	37	0.87	<0.5 U	<0.5 U	-
SIP-ETS-502									
03-jun-96	CS	a	V	1.8	27	12	<0.5 U	<0.5 U	-
23-aug-96	CS	a	V	1.6	24	7.3	<0.5 U	<0.5 U	-

Results recorded by 31-oct-1996.

1,1,1 TCA	1,1 DCA	1,2 DCA	Carbon Tetra-chloride	Chloro-form	Freon 11	Freon 113	Location Date
					(continued) Monitor Wells and Piezometers		
						(continued)	SIP-ETS-401
<5 DU	<5 DU	8.8 D	11 D	17 D	<5 DU	39 D	28-may-96
<5 DU	<5 DU	5.4 D	6.8 D	12 D	<5 DU	22 D	01-aug-96
							SIP-ETS-402
<2.5 DU	<2.5 DU	<2.5 DU	5.5 D	6.6 D	<2.5 DU	22 D	15-sep-95
<2.5 DU	<2.5 DU	<2.5 DU	2.9 D	3.1 D	<2.5 DU	9.5 D	03-nov-95
<0.5 U	<0.5 U	<0.5 U	5.4	5.2	<0.5 U	19	05-dec-95
<5 DU	<5 DU	<5 DU	7 D	6.6 D	<5 DU	32 D	19-jan-96
<5 DU	<5 DU	<5 DU	13 D	11 D	<5 DU	50 D	28-may-96
<2.5 DU	<2.5 DU	<2.5 DU	8.8 D	8.8 D	<2.5 DU	25 D	01-aug-96
							SIP-ETS-405
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.82	31-aug-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.56	07-nov-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	1.7	11-dec-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.56	23-jan-96
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	31-may-96
<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	23-aug-96
							SIP-ETS-501
<0.5 U	<0.5 U	1	<0.5 U	3.7	<0.5 U	4.4	16-nov-95
<0.5 U	<0.5 U	<0.5 U	<0.5 U	2.1	<0.5 U	4.1	28-may-96
<0.5 U	<0.5 U	0.9	<0.5 U	4.5	<0.5 U	5.3	02-aug-96
							SIP-ETS-502
<0.5 U	<0.5 U	<0.5 U	7	1.3	<0.5 U	<0.5 U	03-jun-96
<0.5 U	<0.5 U	<0.5 U	5.9	<0.5 U	<0.5 U	<0.5 U	23-aug-96

See following page for notes

Ground water analyses (ug/L) for Volatile Organic Compounds (VOCs) in the Trailer 5475 Area
Results recorded by 31-oct-1996.

Notes:

- Indicates no analysis performed for this compound

Footnotes:

a ERD data
b ORAD WGMG data
c Analytical results for this sample are suspect
d Sample collected during hydraulic testing
e Blind sample, sent to lab without well identity
f Sample dilution necessary for analysis; detection limits increased
g Interlaboratory collocated sample
h Intralaboratory collocated sample
i Sample collected as part of pilot study
j Note field may contain important information regarding this sample
k Pre-development sample
l Norm month, norm quarter or norm year inconsistent with sample date
m Confirmation sample
n Sample analyzed after standard holding time
o Sample comprised of partial composite
p Alpha spectroscopy analysis of uranium isotopes
q Gamma spectroscopy analysis of uranium isotopes

Lab Codes:

BB BC Laboratories, Inc., Bakersfield, CA
BC Brown and Caldwell, Emeryville, CA
CH Characterization Labs-Chemistry, LLNL, Livermore, CA
CL Clayton Environmental Consultants, Pleasanton, CA
CS California Laboratory Services, Rancho Cordova, CA
GT Groundwater Technology Environmental Labs, Concord, CA
MC McKesson Environmental Services

Validation Codes:

V Validated
N Not validated (default value)
U Undeclared
H Historical comparison only

CLP flags: (follow result)

B Analyte detected in method blank
C Analytical results for this sample are not in agreement with the intra or interlaboratory collocated sample results and the historical data
D Analysis performed at a secondary dilution or concentration (i.e., vapor)
E Concentration exceeds calibration range
F Analyte detected in field blank
H Sample analyzed outside of the holding time; sample results should be rejected
J Analyte was postively identified; the associated numerical value is the approximate concentration of the analyte
L Spike accuracy not within control limits
O Duplicate spike precision not within control limits
P Absence of a data qualifier flag does not mean that the data does not need qualification, but that the addition of electronic data qualifier flags was not yet implemented
R Sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria; the presence or absence of the analyte cannot be verified
S Analytical results for this sample are suspect
T Analyte is tentatively identified as this compound; result is approximate
U Compound was analyzed for, but not detected above detection limit

Rads in soil, LLNL Boreholes

Radiological Analyses in soil, in the Trailer 5475 Area, results recorded by 14-nov-1996.

Location Date	Depth	Moisture by Weight (Percent)	Tritium (pCi/Lsm)		Tritium (pCi/g)	
B-562						
27-Feb-89	12.5		<1000 -	P		
27-Feb-89	21.0		<1000 -	P		
27-Feb-89	30.5		2100 +/- 400	P		
27-Feb-89	40.8		<1000 -	P		
27-Feb-89	50.5		<1000 -	P		
28-Feb-89	61.0		<1000 -	P		
28-Feb-89	71.3		<1000 -	P		
28-Feb-89	81.3		<1000 -	P		
28-Feb-89	95.5		<1000 -	P		
28-Feb-89	103.3		<1000 -	P		
1-Mar-89	121.0		<1000 -	P		
1-Mar-89	133.5		<1000 -	P		
B-566						
12-Apr-89	88.8		<1000 -	P		
B-909						
7-Sep-93	74.8				<1	U
7-Sep-93	86.8				<1	U
7-Sep-93	91.2				<1	U
8-Sep-93	92.8				<1	U
8-Sep-93	101.3				<1	U
8-Sep-93	107.3				<1	U
8-Sep-93	119.9				<1	U
8-Sep-93	122.0	13.2	<900	U	1	
8-Sep-93	133.3				<1 +/- 71	U
8-Sep-93	136.0				<1	U
8-Sep-93	149.0				<1	U
10-Sep-93	232.6				<1	U
B-911						
15-Sep-93	94.0	9.4	<900	U	4 +/- 0.76	
16-Sep-93	106.8				<1	U
16-Sep-93	121.4				<1	U
16-Sep-93	158.1				<1	U
B-912						
22-Sep-93	81.2	10.5	9000 +/- 810		8 +/- 0.88	
23-Sep-93	169.3				<1	U
24-Sep-93	196.5				<1 +/- 1	U
B-1108						
3-Mar-95	86.3	17.9	<900	U		
3-Mar-95	86.3				<1 +/- 1	U
13-Mar-95	96.0	21.3	<900	U		
13-Mar-95	96.0				<1 +/- 1	U
13-Mar-95	100.3	21.2	<900	U		
13-Mar-95	100.3				<1 +/- 1	U
13-Mar-95	112.0	24.7	<900	U		
13-Mar-95	112.0				<1 +/- 1	U
13-Mar-95	117.4	17.7	4000 +/- 720			
13-Mar-95	117.4				<1 +/- 1	U
13-Mar-95	119.3	13.7	6000 +/- 720			
13-Mar-95	119.3				1 +/- 0.77	
13-Mar-95	128.5	23.7	<900	U		
13-Mar-95	128.5				<1 +/- 1	U
13-Mar-95	135.8	21.1	<900	U		
13-Mar-95	135.8				<1 +/- 1	U
13-Mar-95	140.0	16.1	<900	U		
13-Mar-95	140.0				<1 +/- 1	U
13-Mar-95	143.3	15.2	<900	U		
13-Mar-95	143.3				<1 +/- 1	U
14-Mar-95	147.8	22.1	<900	U		
14-Mar-95	147.8				<1 +/- 1	U
14-Mar-95	164.5	22.3	<900	U		
14-Mar-95	164.5				<1 +/- 1	U
14-Mar-95	173.5	15.0	<900	U		
14-Mar-95	173.5				<1 +/- 1	U

Radiological Analyses in soil, in the Trailer 5475 Area, results recorded by 14-nov-1996.

Location Date	Depth	Moisture by Weight (Percent)	Tritium (pCi/Lsm)		Tritium (pCi/g)	
B-1109						
5-Apr-95	85.8				<1 +/- 1	U
5-Apr-95	95.3				<1 +/- 1	U
5-Apr-95	104.3				<1 +/- 1	U
5-Apr-95	111.8				<1 +/- 1	U
B-1118						
18-Sep-95	108.5	15.0	<170 +/- 130	U		
18-Sep-95	113.5	13.0	<170 +/- 130	U		
18-Sep-95	119.5	12.0	650 +/- 170			
18-Sep-95	122.3	12.0	3180 +/- 290			
19-Sep-95	124.5	16.0	390 +/- 160			
19-Sep-95	133.8	15.0	1090 +/- 200			
19-Sep-95	134.8	9.2	600 +/- 170			
19-Sep-95	139.5	15.0	<170 +/- 140	U		
19-Sep-95	142.3	15.0	<170 +/- 140	U		
19-Sep-95	154.8	18.0	200 +/- 150			
19-Sep-95	155.8	17.0	1090 +/- 190			
19-Sep-95	162.3	12.0	<170 +/- 140	U		
19-Sep-95	164.3	11.0	<170 +/- 140	U		
19-Sep-95	174.5	10.0	390 +/- 160			
19-Sep-95	179.8	11.0	170 +/- 140			
20-Sep-95	184.3	10.0	270 +/- 150			
20-Sep-95	194.3	9.3	<150 +/- 120	U		
20-Sep-95	196.6	14.0	<140 +/- 110	U		
20-Sep-95	199.6	19.0	3430 +/- 270			
20-Sep-95	204.6	13.0	<140 +/- 100	U		
B-1201						
4-Oct-95	105.3	24.0	<160 +/- 130	U		
4-Oct-95	113.3	14.0	<170 +/- 130	U		
5-Oct-95	120.3	15.0	<170 +/- 130	U		
5-Oct-95	126.3	17.0	840 +/- 190			
5-Oct-95	132.0	8.6	3430 +/- 310			
9-Oct-95	140.3	16.0	<170 +/- 130	U		
9-Oct-95	154.3	15.0	<170 +/- 130	U		
9-Oct-95	168.3	9.9	<170 +/- 130	U		
9-Oct-95	184.3	12.0	<170 +/- 140	U		
10-Oct-95	187.3	13.0	<170 +/- 130	U		
10-Oct-95	195.3	13.0	<160 +/- 130	U		
10-Oct-95	206.6	12.0	<170 +/- 140	U		
B-1203						
26-Oct-95	80.3	10.0	210 +/- 170	B		
26-Oct-95	93.5	14.0	<180 +/- 150	UB		
26-Oct-95	105.8	18.0	<170 +/- 160	UB		
26-Oct-95	118.5	15.0	380 +/- 180	B		
26-Oct-95	125.5	15.0	520 +/- 190	B		
26-Oct-95	131.3	17.0	260 +/- 170	B		
26-Oct-95	141.3	16.0	<170 +/- 150	UB		
30-Oct-95	146.5	17.0	<180 +/- 160	UB		
30-Oct-95	155.3	16.0	<180 +/- 160	UB		
30-Oct-95	184.3	13.0	<170 +/- 160	UB		
30-Oct-95	194.8	14.0	<180 +/- 160	UB		
30-Oct-95	200.8	14.0	<180 +/- 150	UB		
B-1204						
13-Nov-95	85.8	15.0	<140 +/- 110	B		
13-Nov-95	90.8	9.9	320 +/- 140	UB		
13-Nov-95	111.3	15.0	<150 +/- 120	UB		
13-Nov-95	119.8	13.0	<140 +/- 110	B		
13-Nov-95	121.5	14.0	<140 +/- 120	B		
13-Nov-95	125.6	16.0	<140 +/- 120	B		
14-Nov-95	150.5	17.0	<150 +/- 120	UB		
14-Nov-95	166.3	11.0	200 +/- 130	UB		
14-Nov-95	183.3	10.0	610 +/- 160	UB		
14-Nov-95	201.8	15.0	<140 +/- 120	UB		
B-1210						
13-Nov-95	116.5				<1	
13-Nov-95	124.5				<1	

Radiological Analyses in soil, in the Trailer 5475 Area, results recorded by 14-nov-1996.

Location Date	Depth	Moisture by Weight (Percent)	Tritium (pCi/Lsm)			Tritium (pCi/g)
13-Nov-95	128.3					<1
B-1219						
16-May-96	5.3		<32000 +/-	13333	U	
16-May-96	5.3	15.0				
16-May-96	10.3		<34286 +/-	14286	U	
16-May-96	10.3	14.0				
16-May-96	20.3		<34286 +/-	14286	U	
16-May-96	20.3	14.0				
20-May-96	30.2	8.7	<99000 +/-	46000	U	
20-May-96	40.3	14.0	<61400 +/-	28600	U	
20-May-96	50.3	15.0	<57000 +/-	27700	U	
20-May-96	59.3	7.2	<119000 +/-	56000	U	
20-May-96	70.3	5.2	<165000 +/-	77000	U	
20-May-96	79.3	11.0	<78000 +/-	36000	U	
20-May-96	89.5	11.0	<78000 +/-	36000	U	
20-May-96	91.0	12.0	<72000 +/-	33000	U	
23-May-96	95.8	10.0	<86000 +/-	40000	U	
23-May-96	103.5	13.0	<66000 +/-	31000	U	
23-May-96	106.0	10.0	<86000 +/-	40000	U	
23-May-96	119.0	19.0	<45000 +/-	21000	U	
23-May-96	121.5	15.0	<67000 +/-	27000	U	
23-May-96	129.5	11.0	<78000 +/-	36000	U	
23-May-96	125.5	11.0	<78000 +/-	36000	U	
23-May-96	131.3	15.0	<57000 +/-	27000	U	
28-May-96	140.5	17.0	<51000 +/-	23500	U	
28-May-96	151.5	14.0	<61400 +/-	29000	U	
28-May-96	154.3	16.0	<53800 +/-	25000	U	
29-May-96	181.5	14.0	<61400 +/-	29000	U	
29-May-96	190.5	15.0	<57300 +/-	27000	U	
B-1222						
19-Jun-96	105.0	14.0	<88 +/-	55	U	
19-Jun-96	108.0	16.0	840 +/-	100		
19-Jun-96	117.7	10.0	4560 +/-	300		
19-Jun-96	121.7	17.0	11230 +/-	720		
19-Jun-96	127.0	15.0	820 +/-	100		
19-Jun-96	129.0	16.0	387 +/-	75		
19-Jun-96	133.3	15.0	1950 +/-	160		
20-Jun-96	148.9	18.1	<138		U	
19-Jun-96	154.0	14.0	<89 +/-	51	U	
19-Jun-96	163.0	12.0	<88 +/-	51	U	
20-Jun-96	163.5	10.9	<138		U	
20-Jun-96	169.5	8.4	<138		U	
B-1225						
31-Jul-96	5.5	6.3	1020 +/-	140		
31-Jul-96	10.5	7.8	1300 +/-	150		
31-Jul-96	20.5	16.0	920 +/-	130		
1-Aug-96	30.0	13.0	1010 +/-	140		
1-Aug-96	40.0	12.0	830 +/-	130		
1-Aug-96	50.0	18.0	1040 +/-	140		
1-Aug-96	50.5	20.0	1220 +/-	150		
1-Aug-96	60.0	11.0	1330 +/-	160		
5-Aug-96	70.0	13.0	2040 +/-	190		
5-Aug-96	80.0	12.0	1060 +/-	140		
7-Aug-96	82.0	17.0	<100 +/-	55	U	
7-Aug-96	87.0	11.0	136 +/-	67		
7-Aug-96	89.0	18.0	<100 +/-	57	U	
7-Aug-96	95.0	13.0	376 +/-	85		
7-Aug-96	101.0	10.0	254 +/-	76		
7-Aug-96	103.5	21.0	179 +/-	70		
7-Aug-96	113.5	16.0	680 +/-	100		
7-Aug-96	116.5	15.0	163 +/-	70		
8-Aug-96	120.0	10.0	1060 +/-	130		
8-Aug-96	123.0	15.0	<100 +/-	63	U	
8-Aug-96	127.0	16.0	<97 +/-	52	U	
8-Aug-96	130.0	14.0	1410 +/-	150		
8-Aug-96	134.0	9.6	3670 +/-	270		
8-Aug-96	137.0	13.0	7750 +/-	500		
8-Aug-96	140.0	10.0	194 +/-	72		

Radiological Analyses in soil, in the Trailer 5475 Area, results recorded by 14-nov-1996.

Location Date	Depth	Moisture by Weight (Percent)	Tritium (pCi/Lsm)		Tritium (pCi/g)	
8-Aug-96	146.0	17.0	<100 +/- 58	U		
SIB-543-001						
24-Sep-90	1.5				<1	
24-Sep-90	2.0	5.7	7000 +/- 1190		1 +/- 0.97	
24-Sep-90	5.0	2.9	8000 +/- 2800		1 +/- 0.91	
24-Sep-90	5.3	3.5	11000 +/- 1540		1 +/- 0.72	
24-Sep-90	10.3	7.2	6000 +/- 1080		1 +/- 0.76	
24-Sep-90	20.3				<1	
24-Sep-90	30.0	12.0	<900		1 +/- 0.89	
25-Sep-90	41.8	14.6	<900		<1	
25-Sep-90	51.3	8.8	<900		<1	
25-Sep-90	60.8	8.8	<900		<1	
25-Sep-90	71.0	15.1	<900		<1	
25-Sep-90	81.0				<1	
25-Sep-90	91.3				<1	
25-Sep-90	101.3				<1	
SIB-543-002						
27-Sep-90	3.3				<1	
27-Sep-90	3.5				<1	
27-Sep-90	6.8	5.4	5000 +/- 1100		2 +/- 1.16	
27-Sep-90	7.0	7.7	4000 +/- 1040		1 +/- 0.97	
27-Sep-90	11.8	7.0	3000 +/- 990		1 +/- 0.89	
27-Sep-90	21.0				<1	
27-Sep-90	31.0				<1	
27-Sep-90	41.0				<1	
27-Sep-90	51.3				<1	
27-Sep-90	60.0				<1	
27-Sep-90	71.0				<1	
27-Sep-90	81.0				<1	
27-Sep-90	91.0				<1	
27-Sep-90	101.5				<1	
SIB-543-003						
28-Sep-90	1.0				<1	
28-Sep-90	1.8	4.2	4000 +/- 960		1 +/- 0.78	
28-Sep-90	4.0				<1	
28-Sep-90	5.8	6.4	4000 +/- 920		1 +/- 0.78	
28-Sep-90	10.3				<1	
28-Sep-90	21.0				<1	
28-Sep-90	30.5				<1	
28-Sep-90	40.5				<1	
1-Oct-90	50.8				<1	
1-Oct-90	60.3				<1	
1-Oct-90	70.8				<1	
1-Oct-90	80.3				<1	
1-Oct-90	90.3				<1	
SIB-543-004						
1-Oct-90	1.3				<1	
1-Oct-90	5.5				<1	
1-Oct-90	11.0				<1	
1-Oct-90	20.8				<1	
1-Oct-90	31.0	11.8	<900			
1-Oct-90	31.0				1 +/- 0.78	
1-Oct-90	41.0				<1	
1-Oct-90	50.5				<1	
1-Oct-90	60.5				<1	
1-Oct-90	71.0				<1	
1-Oct-90	81.0	21.7	<900			
1-Oct-90	81.0				1 +/- 0.8	
SIB-543-101						
24-Jan-95	20.5	20.3	3000 +/- 690			
24-Jan-95	20.5				1 +/- 0.66	
24-Jan-95	30.5				<1 +/- 1	U
24-Jan-95	40.5				<1 +/- 1	U
24-Jan-95	50.5				<1 +/- 1	U
24-Jan-95	60.5				<1 +/- 1	U
24-Jan-95	70.5				<1 +/- 1	U

Radiological Analyses in soil, in the Trailer 5475 Area, results recorded by 14-nov-1996.

Location / Date	Depth	Moisture by Weight (Percent)	Tritium (pCi/Lsm)		Tritium (pCi/g)	
24-Jan-95	80.5				<1 +/- 1	U
24-Jan-95	90.5				<1 +/- 1	U
24-Jan-95	95.5				<1 +/- 1	U
24-Jan-95	100.5				<1 +/- 1	U
SIB-543-102						
7-Jan-95	5.5				<1 +/- 1	U
7-Jan-95	10.5				<1 +/- 1	U
7-Jan-95	20.5				<1 +/- 1	U
2-Feb-95	30.5				<1 +/- 1	U
2-Feb-95	40.5				<1 +/- 1	U
2-Feb-95	50.5				<1 +/- 1	U
2-Feb-95	60.5				<1 +/- 1	U
2-Feb-95	70.5				<1 +/- 1	U
2-Feb-95	80.5				<1 +/- 1	U
2-Feb-95	90.5				<1 +/- 1	U
2-Feb-95	95.0				<1 +/- 1	U
SIB-543-103						
9-Feb-95	5.5				<1 +/- 1	U
9-Feb-95	10.5				<1 +/- 1	U
9-Feb-95	20.5				<1 +/- 1	U
9-Feb-95	30.5				<1 +/- 1	U
14-Feb-95	40.5				<1 +/- 1	U
14-Feb-95	50.5				<1 +/- 1	U
14-Feb-95	60.5				<1 +/- 1	U
14-Feb-95	70.5				<1 +/- 1	U
14-Feb-95	80.5				<1 +/- 1	U
14-Feb-95	90.5				<1 +/- 1	U
14-Feb-95	95.5				<1 +/- 1	U
14-Feb-95	103.5				<1 +/- 1	U
SIB-ELM-001						
23-May-89	50.8		<1000	P		
23-May-89	85.8		<1000	P		
SIB-ELM-101						
29-Mar-90	5.5		94000 +/- 3760			
29-Mar-90	5.5	0.1			8 +/- 1.28	
29-Mar-90	10.5		15000 +/- 1500			
29-Mar-90	10.5	0.1			2 +/- 1.16	
29-Mar-90	20.8		5300 +/- 1113			
29-Mar-90	20.8	0.1			1 +/- 1.2	
29-Mar-90	30.3		1800 +/- 864			
29-Mar-90	30.3	0.2			1 +/- 1.78	
29-Mar-90	40.8		8900 +/- 1246			
29-Mar-90	40.8	0.2			1 +/- 0.75	
29-Mar-90	50.8		17000 +/- 1530			
29-Mar-90	50.8	0.1			1 +/- 0.81	
30-Mar-90	60.8	4.7	21410 +/- 1926.9			
30-Mar-90	60.8				1.67 +/- 0.919	
30-Mar-90	70.8	15.9	9167 +/- 1283.38			
30-Mar-90	70.8				1.02 +/- 0.918	
30-Mar-90	80.8	15.8	2176 +/- 1066.24			
30-Mar-90	80.8				1.36 +/- 0.979	
SIB-ELM-102						
4-Apr-90	1.3				<1	
4-Apr-90	6.3				<1	
4-Apr-90	10.5				1 +/- 0.55	
4-Apr-90	15.8				<1	
4-Apr-90	21.3				<1	
SIB-ELM-103						
7-Jun-90	1.5				<1	
7-Jun-90	1.5				<1	
7-Jun-90	5.5				<1	
7-Jun-90	5.5				<1	
7-Jun-90	10.5				<1	
7-Jun-90	10.5				<1	

Radiological Analyses in soil, in the Trailer 5475 Area, results recorded by 14-nov-1996.

Location / Date	Depth	Moisture by Weight (Percent)	Tritium (pCi/Lsm)		Tritium (pCi/g)
SIB-ELM-105					
8-Jun-90	0.8	7.1	124000 +/- 3720		
8-Jun-90	0.8				10.4 +/- 1.352
8-Jun-90	5.3	9.6	270000 +/- 5400		
8-Jun-90	5.3				32.5 +/- 1.95
8-Jun-90	10.5	13.7	14000 +/- 1540		
8-Jun-90	10.5				1.1 +/- 0.704
SIB-ELM-106					
11-Jun-90	0.0				<1
11-Jun-90	0.5				<1
11-Jun-90	5.5				<1
SIB-ELM-109					
11-Jun-90	0.5				<1
11-Jun-90	5.3				1.7 +/- 0.799
11-Jun-90	10.3				<1
20-Jun-90	0.5	7.6	1200 +/- 816		
20-Jun-90	5.3	13.7	14000 +/- 1680		
20-Jun-90	10.3	10.6	6000 +/- 1260		
SIB-ELM-110					
20-Jun-90	0.5				<1
20-Jun-90	0.5	6.6	<900		
20-Jun-90	5.3				<1
20-Jun-90	5.3	4.7	1000 +/- 760		
20-Jun-90	10.3				<1
20-Jun-90	10.3	6.1	1000 +/- 800		
SIB-ELM-111					
8-Jun-90	0.8	7.1	3900 +/- 975		
8-Jun-90	0.8				<1
8-Jun-90	5.3	4.2	2200 +/- 814		
8-Jun-90	5.3				<1
8-Jun-90	10.3	14.1	<900 +/- 774		
8-Jun-90	10.3				<1
SIB-ELM-112					
11-Jun-90	0.8				<1
11-Jun-90	5.3				<1
11-Jun-90	10.3				<1
SIB-ELM-201					
4-Apr-91	1.5				<1
4-Apr-91	6.0				<1
4-Apr-91	10.5				<1
4-Apr-91	20.5				<1
4-Apr-91	30.5				<1
4-Apr-91	40.5	8.6	<900		
4-Apr-91	40.5	8.6			<1 +/- 0.94
5-Apr-91	51.0				<1
5-Apr-91	61.0	7.4	<900		
5-Apr-91	61.0	7.4			1.58357 +/- 0.998
5-Apr-91	70.5	14.9	<900		
5-Apr-91	70.5	14.9			<1 +/- 0.89
5-Apr-91	80.0				<1
5-Apr-91	90.5				<1
5-Apr-91	101.0				<1
SIB-ETS-001					
8-May-89	20.8		<1000	P	
5-May-89	50.3		<1000	P	
5-May-89	96.3		<1000	P	
SIB-ETS-002					
8-May-89	11.3		<1000	P	
5-May-89	50.3		3000 +\- 500	P	
5-May-89	85.8		<1000	P	
SIB-ETS-003					
8-May-89	10.3		<1000	P	

Radiological Analyses in soil, in the Trailer 5475 Area, results recorded by 14-nov-1996.

Location Date	Depth	Moisture by Weight (Percent)	Tritium (pCi/Lsm)		Tritium (pCi/g)	
9-May-89	60.8		<1000	P		
9-May-89	87.8		<1000	P		
SIB-ETS-004						
10-May-89	10.8		3000 +\- 500	P		
10-May-89	20.5		2000 +\- 500	P		
10-May-89	30.5		<1000	P		
10-May-89	40.5		<1000	P		
10-May-89	51.0		<1000	P		
10-May-89	61.3		<1000	P		
10-May-89	71.3		<1000	P		
10-May-89	81.3		2000 +\- 500	P		
10-May-89	91.3		<1000	P		
10-May-89	100.8		<1000	P		
SIB-ETS-101						
12-Jun-90	5.3	5.3	7200 +/- 1152			
12-Jun-90	5.3				<1 +/- 1.16	
12-Jun-90	10.3	5.8	8300 +/- 1245			
12-Jun-90	10.3				<1 +/- 0.78	
12-Jun-90	20.3	18.0	14000 +/- 1540			
12-Jun-90	20.3				1.54 +/- 0.847	
12-Jun-90	30.3				<1	
12-Jun-90	40.3				<1	
12-Jun-90	50.0				<1	
12-Jun-90	60.3				<1	
12-Jun-90	70.3				<1	
13-Jun-90	80.3				<1 +/- 1	U
SIB-ETS-102						
13-Jun-90	5.0	10.0	93000 +/- 3720			
13-Jun-90	5.0				13 +/- 1.56	
13-Jun-90	10.3				1 +/- 0.86	
13-Jun-90	20.3				<1 +/- 1	U
13-Jun-90	30.3				<1 +/- 1	U
13-Jun-90	40.3				<1 +/- 1	U
14-Jun-90	50.0				<1 +/- 1	U
14-Jun-90	60.3				<1 +/- 1	U
14-Jun-90	70.3				<1 +/- 1	U
14-Jun-90	80.3				<1 +/- 1	U
14-Jun-90	90.3				<1 +/- 1	U
SIB-ETS-103						
13-Jul-90	5.3	10.3	565000 +/- 5650			
13-Jul-90	5.3				132 +/- 3.96	
19-Jul-90	5.5		326000 +/- 14000	P		
20-Jul-90	10.3	15.0	598000 +/- 5980			
20-Jul-90	10.3				124 +/- 3.72	
20-Jul-90	20.3	11.0	477000 +/- 9540			
20-Jul-90	20.3				61 +/- 3.05	
20-Jul-90	30.5	15.0	137000 +/- 4110			
20-Jul-90	30.5				24 +/- 1.92	
20-Jul-90	40.3	14.0	54000 +/- 2700			
20-Jul-90	40.3				8 +/- 1.36	
20-Jul-90	48.3	5.0	15000 +/- 1500			
20-Jul-90	48.3				<1 +/- 1	U
20-Jul-90	60.3	16.0	13000 +/- 1430			
20-Jul-90	60.3				2 +/- 0.94	
20-Jul-90	70.5	11.0	60000 +/- 3000			
20-Jul-90	70.5				8 +/- 1.36	
20-Jul-90	80.3	12.0	133000 +/- 3990			
20-Jul-90	80.3				12 +/- 1.56	
SIB-ETS-104						
8-Oct-90	1.5	7.9	7000 +/- 1330			
8-Oct-90	1.5				1 +/- 0.72	
8-Oct-90	7.8				<1 +/- 1	U
8-Oct-90	11.0	15.6	2000 +/- 980			
8-Oct-90	11.0				1 +/- 0.89	
8-Oct-90	21.0				<1 +/- 1	U
8-Oct-90	31.0	15.6	3000 +/- 1050			

Radiological Analyses in soil, in the Trailer 5475 Area, results recorded by 14-nov-1996.

Location Date	Depth	Moisture by Weight (Percent)	Tritium (pCi/Lsm)	Tritium (pCi/g)	
8-Oct-90	31.0			1 +/- 0.89	
9-Oct-90	41.0			<1 +/- 1	U
9-Oct-90	51.0			<1 +/- 1	U
9-Oct-90	61.0			<1 +/- 1	U
9-Oct-90	71.0	21.5	1000 +/- 630		
9-Oct-90	71.0			1 +/- 0.82	
9-Oct-90	81.0	15.9	10000 +/- 1000		
9-Oct-90	81.0			2 +/- 0.88	
9-Oct-90	90.5	18.0	3000 +/- 990		
9-Oct-90	90.5			1 +/- 0.6	
9-Oct-90	100.0			<1 +/- 1	U
SIB-ETS-105					
6-Dec-90	1.5			<1	
6-Dec-90	6.0			<1	
6-Dec-90	11.0			<1	
6-Dec-90	21.0			<1	
6-Dec-90	31.0			<1	
6-Dec-90	41.0			<1	
6-Dec-90	50.5			<1	
6-Dec-90	61.0			<1	
SIB-ETS-201					
4-Feb-91	3.0			<1	
4-Feb-91	5.8			<1	
4-Feb-91	11.0			<1	
4-Feb-91	21.0			<1	
4-Feb-91	30.8		1800 +/- 972		
4-Feb-91	30.8	15.4		<1	
4-Feb-91	41.0		1100 +/- 836		
4-Feb-91	41.0	15.5		<1	
5-Feb-91	51.0			<1	
5-Feb-91	61.0			<1	
5-Feb-91	70.8			<1	
5-Feb-91	81.0			<1	
5-Feb-91	89.5			<1	
SIB-ETS-202					
7-Feb-91	1.5			<1	
7-Feb-91	6.3	5.5	3000 +\- 1170		
7-Feb-91	6.3			1 +/- 0.84	
7-Feb-91	11.0			<1	
7-Feb-91	21.0			<1	
7-Feb-91	30.8			<1	
7-Feb-91	41.0			<1	
7-Feb-91	51.0			<1	
7-Feb-91	61.0			<1	
7-Feb-91	70.5			<1	
7-Feb-91	80.5			<1	
7-Feb-91	91.0			<1	
SIB-ETS-203					
29-Apr-91	19.0	13.9	699000 +\- 6990		
29-Apr-91	19.0	13.9		114 +/- 4.56	
29-Apr-91	29.0	8.3	229000 +\- 6870		
29-Apr-91	29.0	8.3		18 +/- 1.98	
29-Apr-91	39.0	15.3	31000 +\- 2170		
29-Apr-91	39.0	15.3		6 +/- 1.44	
29-Apr-91	48.8	16.4	118000 +\- 4720		
29-Apr-91	48.8	16.4		23 +/- 2.3	
30-Apr-91	58.8	11.7	120000 +\- 4800		
30-Apr-91	58.8	11.7		18 +/- 1.98	
30-Apr-91	69.0	15.8	78000 +\- 3120		
30-Apr-91	69.0	15.8		13 +/- 1.69	
30-Apr-91	78.0	4.7	120000 +\- 4800		
30-Apr-91	78.0	4.7		11 +/- 1.65	
30-Apr-91	89.0	28.0	144000 +\- 4320		
30-Apr-91	89.0	28.0		30 +/- 2.4	
1-May-91	98.5	18.7	30000 +\- 2400		
1-May-91	98.5	18.7		6 +/- 1.44	
1-May-91	108.5	21.4	26000 +\- 2080		

Radiological Analyses in soil, in the Trailer 5475 Area, results recorded by 14-nov-1996.

Location Date	Depth	Moisture by Weight (Percent)	Tritium (pCi/Lsm)	Tritium (pCi/g)
1-May-91	108.5	21.4		4 +/- 1.36
1-May-91	115.0	16.9	54000 +\- 2700	
1-May-91	115.0	16.9		7 +/- 1.54
SIB-ETS-204				
6-May-91	1.8	19.1	9000 +/- 1440	
6-May-91	1.8	19.1		2 +/- 1.04
6-May-91	6.3	4.7	7000 +/- 1400	
6-May-91	6.3	4.8		1 +/- 0.89
6-May-91	11.0	11.5	<900	
6-May-91	11.0	11.5		1 +/- 0.86
6-May-91	21.0	13.7	<900	
6-May-91	21.0	13.7		1
6-May-91	31.0			<1
6-May-91	41.0			<1
6-May-91	50.5			<1
6-May-91	61.0			<1
6-May-91	71.0	13.4	<900	
6-May-91	71.0	13.4		1 +/- 0.76
6-May-91	81.0	13.6	5000 +/- 1300	
6-May-91	81.0	13.6		2 +/- 1.1
6-May-91	91.0	10.9	36000 +/- 2520	
6-May-91	91.0	10.9		5 +/- 1.4
SIB-ETS-205				
13-Jun-91	5.3	7.9	22000 +/- 1980	
13-Jun-91	5.3	7.9		2 +/- 1.3
14-Jun-91	10.3			<1
14-Jun-91	20.3			<1
14-Jun-91	30.3			<1
14-Jun-91	40.3			<1
14-Jun-91	50.3			<1
14-Jun-91	60.3			<1
14-Jun-91	70.3			<1
14-Jun-91	80.3			<1
17-Jun-91	89.5			<1
SIB-ETS-206				
21-Jun-91	5.3	3.5	60000 +/- 4200	
21-Jun-91	5.3	3.5		4 +/- 1.2
21-Jun-91	15.3			<1
21-Jun-91	20.0			<1
24-Jun-91	30.8			<1
24-Jun-91	40.8			<1
24-Jun-91	51.0			<1
25-Jun-91	60.3			<1
25-Jun-91	70.3			<1
25-Jun-91	80.3			<1
25-Jun-91	89.5	14.9	10000 +/- 1400	
25-Jun-91	89.5	14.9		3 +/- 1.23
SIB-ETS-207				
2-Jul-91	5.5	10.7	457000 +/- 9140	
2-Jul-91	5.5	10.7		52 +/- 3.12
3-Jul-91	10.5	7.5	947000 +/- 9470	
3-Jul-91	10.5	7.5		122 +/- 4.88
3-Jul-91	19.3	13.0	114000 +/- 4560	
3-Jul-91	19.3	13.0		18 +/- 1.98
3-Jul-91	30.8			<1
3-Jul-91	40.3			<1
9-Jul-91	49.8			<1
9-Jul-91	61.0			<1
9-Jul-91	70.5			<1
9-Jul-91	80.5			<1
9-Jul-91	92.5			<1
SIB-ETS-208				
11-Jul-91	10.5	18.2	12000 +/- 1560	
11-Jul-91	10.5	18.2		2 +/- 1.02
12-Jul-91	20.5			<1
12-Jul-91	30.5	24.3	14000 +/- 1680	

Radiological Analyses in soil, in the Trailer 5475 Area, results recorded by 14-nov-1996.

Location Date	Depth	Moisture by Weight (Percent)	Tritium (pCi/Lsm)	Tritium (pCi/g)
12-Jul-91	30.5	24.3		3 +/- 1.29
12-Jul-91	40.5	20.7	22000 +/- 1980	
12-Jul-91	40.5	20.7		2 +/- 1
12-Jul-91	50.8	18.8	19000 +/- 1900	
12-Jul-91	50.8	18.8		2 +/- 1.02
12-Jul-91	60.8	22.1	18000 +/- 1800	
12-Jul-91	60.8	22.1		2 +/- 0.86
15-Jul-91	70.8			<1
15-Jul-91	80.5			<1
15-Jul-91	85.8			<1
SIB-ETS-209				
22-Jul-91	4.8	7.8	22000 +/- 1980	
22-Jul-91	4.8	7.8		2 +/- 1.16
22-Jul-91	10.8			<1
22-Jul-91	19.8			<1
22-Jul-91	30.8			<1
22-Jul-91	40.5			<1
22-Jul-91	50.5			<1
23-Jul-91	60.5			<1
23-Jul-91	70.5			<1
23-Jul-91	80.5			<1
23-Jul-91	85.5			<1
SIB-ETS-210				
26-Jul-91	5.0	13.3	87000 +\- 3480	
26-Jul-91	5.0	13.3		11 +/- 1.65
26-Jul-91	10.5	3.7	11000 +\- 1650	
26-Jul-91	10.5	3.7		1 +/- 0.78
26-Jul-91	19.5			<1
26-Jul-91	30.5			<1
26-Jul-91	40.0			<1
29-Jul-91	50.5			<1
29-Jul-91	50.9			<1
29-Jul-91	61.5	17.4	<900	
29-Jul-91	61.5	17.4		1 +/- 0.89
29-Jul-91	61.8			<1
29-Jul-91	71.5			<1
29-Jul-91	80.5	13.8	13000 +/- 1690	
29-Jul-91	80.5	13.8		3 +/- 1.26
29-Jul-91	91.8			<1
29-Jul-91	100.5			<1
30-Jul-91	110.0			<1
SIB-ETS-211				
2-Aug-91	5.7			<1
2-Aug-91	10.8			<1
2-Aug-91	20.8			<1
2-Aug-91	30.8			<1
2-Aug-91	40.8			<1
5-Aug-91	51.0			<1
5-Aug-91	60.8			<1
5-Aug-91	70.3			<1
5-Aug-91	80.8			<1
6-Aug-91	90.8			<1
6-Aug-91	100.8	13.4	79000 +/-	
6-Aug-91	100.8			14 +/- 1.82
SIB-ETS-212				
12-Aug-91	5.8			<1
12-Aug-91	10.8			<1
12-Aug-91	20.8			<1
12-Aug-91	30.8			<1
12-Aug-91	40.8			<1
12-Aug-91	49.7			<1
13-Aug-91	61.0			<1
13-Aug-91	71.8			<1
13-Aug-91	81.8			<1
14-Aug-91	90.8			<1
14-Aug-91	100.8			<1

Radiological Analyses in soil, in the Trailer 5475 Area, results recorded by 14-nov-1996.

Location Date	Depth	Moisture by Weight (Percent)	Tritium (pCi/Lsm)	Tritium (pCi/g)
SIB-ETS-213				
16-Aug-91	5.5	12.1	370000 +/- 7400	
16-Aug-91	5.5			39 +/- 2.73
16-Aug-91	10.8	14.4	400000 +/- 8000	
16-Aug-91	10.8			58 +/- 3.48
15-Nov-91	20.8	16.3	280000 +/- 5600	
15-Nov-91	20.8		0	38 +/- 2.66
15-Nov-91	30.8	23.4	200000 +/- 6000	
15-Nov-91	30.8		0	31 +/- 2.48
15-Nov-91	40.8	18.7	88000 +/- 3520	
15-Nov-91	40.8		0	13 +/- 1.82
15-Nov-91	50.8	6.7	38000 +/- 2660	
15-Nov-91	50.8		0	2 +/- 1.14
15-Nov-91	61.8	11.2	16000 +/- 1760	
15-Nov-91	61.8			1 +/- 0.71
15-Nov-91	70.8			<1
15-Nov-91	80.8			<1
15-Nov-91	89.8			<1
15-Nov-91	100.0			<1
15-Nov-91	108.0			<1
SIB-ETS-214				
20-Nov-91	6.0	6.0	35000 +/- 2800	
20-Nov-91	6.0			2 +/- 1
20-Nov-91	10.5	6.5	40000 +/- 2800	
20-Nov-91	10.5			3 +/- 1.11
20-Nov-91	20.5	16.3	59000 +/- 2950	
20-Nov-91	20.5			8 +/- 1.6
20-Nov-91	30.5			<1
20-Nov-91	40.5			<1
20-Nov-91	50.5	23.9	6000 +/- 1380	
20-Nov-91	50.5			1 +/- 0.86
20-Nov-91	60.5			<1
20-Nov-91	70.5			<1
20-Nov-91	80.5			<1
20-Nov-91	89.0			<1
SIB-ETS-215				
25-Nov-91	6.0			<1
25-Nov-91	10.5			<1
25-Nov-91	22.3			<1
25-Nov-91	30.5			<1
25-Nov-91	40.5			<1
25-Nov-91	50.5			<1
25-Nov-91	60.5			<1
25-Nov-91	70.5			<1
25-Nov-91	80.5			<1
SIB-ETS-301				
18-Mar-92	5.7			<1
18-Mar-92	12.0			<1
18-Mar-92	21.4			<1
18-Mar-92	31.5			<1
18-Mar-92	41.5			<1
19-Mar-92	51.2			<1
19-Mar-92	61.2			<1
19-Mar-92	69.4			<1
19-Mar-92	78.5			<1
19-Mar-92	89.3			<1
20-Mar-92	94.2			<1
20-Mar-92	100.3			<1
20-Mar-92	110.0			<1
20-Mar-92	120.1	24.6	11000 +/- 1540	2 +/- 1.2
SIB-ETS-302				
25-Mar-92	6.2			<1
25-Mar-92	11.5			<1
25-Mar-92	21.4			<1
25-Mar-92	29.5			<1
25-Mar-92	41.4			<1
25-Mar-92	51.0			<1

Radiological Analyses in soil, in the Trailer 5475 Area, results recorded by 14-nov-1996.

Location Date	Depth	Moisture by Weight (Percent)	Tritium (pCi/Lsm)	Tritium (pCi/g)
26-Mar-92	62.2			<1
26-Mar-92	68.9			<1
26-Mar-92	78.9			<1
26-Mar-92	89.3			<1
26-Mar-92	99.5			<1
27-Mar-92	110.3	20.7	30000 +/- 8	
27-Mar-92	110.3			6 +/- 24
27-Mar-92	117.1	20.8	8000 +/- 17	
27-Mar-92	117.1			2 +/- 66
SIB-ETS-303				
1-Apr-92	5.9			<1
1-Apr-92	11.0			<1
1-Apr-92	20.9			<1
1-Apr-92	28.6			<1
1-Apr-92	38.5			<1
1-Apr-92	51.0			<1
1-Apr-92	61.6			<1
1-Apr-92	69.5			<1
2-Apr-92	79.4			<1
2-Apr-92	90.1			<1
2-Apr-92	100.3	19.5	18000 +/- 10	
2-Apr-92	100.3			2 +/- 50
2-Apr-92	110.3			<1
SIB-ETS-304				
25-Aug-92	5.3	17.0	8000 +/- 5040	2 +/- 0.82
25-Aug-92	10.3	19.4	50000 +/- 2500	7 +/- 1.33
25-Aug-92	20.4	18.3	9000 +/- 1260	1 +/- 0.69
25-Aug-92	30.9	22.7	5000 +/- 1050	1 +/- 0.71
26-Aug-92	40.8	19.7	6000 +/- 1200	2 +/- 0.9
26-Aug-92	50.6	18.6	5000 +/- 1050	2 +/- 1.1
26-Aug-92	60.7	18.3	5000 +/- 1050	1 +/- 0.66
26-Aug-92	70.7	14.4	5000 +/- 1050	2 +/- 0.92
27-Aug-92	83.0	13.1	9000 +/- 1350	2 +/- 0.94
27-Aug-92	91.0	18.7	9000 +/- 1350	3 +/- 1.11
27-Aug-92	99.5	16.1	23000 +/- 1840	4 +/- 1.2
SIB-ETS-305				
31-Aug-92	1.7	11.0	252000 +/- 5040	28 +/- 2.24
31-Aug-92	4.3	12.0	177000 +/- 5310	24 +/- 2.16
31-Aug-92	6.2	5.7	250000 +/- 5000	18 +/- 1.8
31-Aug-92	8.2	7.0	200000 +/- 6000	18 +/- 1.8
31-Aug-92	12.4	19.8	46000 +/- 2760	9 +/- 1.44
31-Aug-92	14.2	17.8	25000 +/- 2000	4 +/- 1.04
31-Aug-92	16.2	17.5	25000 +/- 2000	4 +/- 1.16
31-Aug-92	18.3	21.2	21000 +/- 1890	4 +/- 1.12
31-Aug-92	20.5	20.2	6000 +/- 1200	1 +/- 0.71
1-Sep-92	22.2			<1
1-Sep-92	25.2			<1
1-Sep-92	30.5	18.6	4000 +/- 1120	<1
1-Sep-92	35.7	16.8	4000 +/- 960	1 +/- 0.94
1-Sep-92	40.3	19.9	4000 +/- 1040	1 +/- 0.74
1-Sep-92	45.6			<1
1-Sep-92	50.5	21.3	4000 +/- 1160	1 +/- 0.89
2-Sep-92	55.7	17.6	2700 +/- 972	1 +/- 0.78
2-Sep-92	58.0	18.2	4000 +/- 1080	1 +/- 0.89
2-Sep-92	60.8	20.3	2500 +/- 925	1 +/- 0.82
2-Sep-92	64.7	7.7	3000 +/- 900	<1
2-Sep-92	70.8	13.1	3000 +/- 990	1 +/- 0.63
2-Sep-92	81.0	9.6	3000 +/- 930	<1
2-Sep-92	82.9	13.7	2600 +/- 936	1 +/- 0.78
SIB-ETS-306				
9-Sep-92	0.0	5.8	2000 +/- 78	
9-Sep-92	0.0			1 +/- 76
9-Sep-92	2.6	13.1	3000 +/- 49	
9-Sep-92	2.6			<1
9-Sep-92	4.5	2.9	3000 +/- 47	
9-Sep-92	4.5			<1
9-Sep-92	10.6	16.4	2000 +/- 47	

Radiological Analyses in soil, in the Trailer 5475 Area, results recorded by 14-nov-1996.

Location Date	Depth	Moisture by Weight (Percent)	Tritium (pCi/Lsm)		Tritium (pCi/g)	
9-Sep-92	10.6				<1	
9-Sep-92	20.5	19.3	<900			
9-Sep-92	20.5				1 +/- 74	
9-Sep-92	22.8	3.4	<900			
9-Sep-92	22.8				<1	
9-Sep-92	30.4	16.6	2000 +/- 82			
9-Sep-92	30.4				<1	
9-Sep-92	40.7	10.2	2000 +/- 86			
9-Sep-92	40.7				1 +/- 69	
9-Sep-92	49.6	17.0	2000 +/- 82			
9-Sep-92	49.6				1 +/- 89	
10-Sep-92	60.7	22.3	1000 +/- 69			
10-Sep-92	60.7				<1	
10-Sep-92	70.8	14.1	1900 +/- 44			
10-Sep-92	70.8				<1	
10-Sep-92	80.5	6.9	1200 +/- 60			
10-Sep-92	80.5				<1	
10-Sep-92	89.7	19.8	4000 +/- 27			
10-Sep-92	89.7				1 +/- 66	
10-Sep-92	96.7	19.4	12000 +/- 12			
10-Sep-92	96.7				3 +/- 39	
10-Sep-92	99.7	17.6	14000 +/- 11			
10-Sep-92	99.7				3 +/- 40	
SIB-ETS-307						
30-Nov-92	5.3				<1	U
1-Dec-92	10.0				<1	U
1-Dec-92	20.0				<1	U
1-Dec-92	30.0				<1	U
1-Dec-92	40.1				<1	U
2-Dec-92	50.1				<1	U
4-Dec-92	59.8				<1	U
4-Dec-92	70.6				<1	U
7-Dec-92	79.6				<1	U
7-Dec-92	90.0				<1	U
8-Dec-92	99.5				<1	U
SIB-ETS-401						
24-Jul-95	4.1	15.0	5980 +/- 590			
24-Jul-95	8.9	4.8	5620 +/- 950			
25-Jul-95	22.7	12.0	580 +/- 240			
25-Jul-95	31.7	20.0	1050 +/- 280			
25-Jul-95	42.7	16.0	300 +/- 210			
25-Jul-95	52.5	8.0	<280 +/- 180	U		
25-Jul-95	61.7	7.3	300 +/- 210			
25-Jul-95	71.7	19.0	<260 +/- 170	U		
25-Jul-95	81.3	7.8	<260 +/- 160	U		
27-Jul-95	91.2	16.0	<260 +/- 200	U		
27-Jul-95	101.2	15.0	910 +/- 270			
SIB-ETS-402						
2-Aug-95	2.7	16.0	7490 +/- 700			
2-Aug-95	9.7	6.4	9010 +/- 720			
2-Aug-95	19.7	13.0	5110 +/- 580			
2-Aug-95	29.7	3.9	4700 +/- 1000			
2-Aug-95	39.9	14.0	<310 +/- 180	U		
3-Aug-95	53.2	8.3	<280 +/- 210	U		
3-Aug-95	62.7	7.5	<330 +/- 330	U		
3-Aug-95	71.6	10.0	<300 +/- 200	U		
3-Aug-95	81.6	7.6	<290 +/- 210	U		
7-Aug-95	89.2		<300 +/- 210	U		
7-Aug-95	101.4		<300 +/- 220	U		
SIB-ETS-403						
9-Aug-95	6.2	2.9	<330 +/- 300	U		
9-Aug-95	11.7	12.0	<290 +/- 230	U		
9-Aug-95	24.0	6.3	<280 +/- 200	U		
9-Aug-95	32.7	10.0	1380 +/- 400			
10-Aug-95	43.6	0.4	<290 +/- 200	U		
10-Aug-95	52.6	16.0	<280 +/- 180	U		
10-Aug-95	62.6	5.1	<290 +/- 190	U		

Radiological Analyses in soil, in the Trailer 5475 Area, results recorded by 14-nov-1996.

Location Date	Depth	Moisture by Weight (Percent)	Tritium (pCi/Lsm)		Tritium (pCi/g)
10-Aug-95	72.3	18.0	<280 +/- 180	U	
14-Aug-95	92.5	21.0	<270 +/- 200	U	
14-Aug-95	82.3	11.0	<280 +/- 200	U	
SIB-ETS-405					
23-Aug-95	5.3	9.6	1440 +/- 290		
23-Aug-95	15.7	14.0	<220 +/- 210	U	
23-Aug-95	25.7	11.0	<440 +/- 390	U	
23-Aug-95	35.5	9.2	250 +/- 240		
24-Aug-95	43.8	13.0	<300 +/- 230	U	
24-Aug-95	55.4	9.1	<300 +/- 210	U	
24-Aug-95	65.4	6.0	<290 +/- 240	U	
24-Aug-95	75.6	12.0	<260 +/- 200	U	
28-Aug-95	85.4	10.0	<290 +/- 200	U	
28-Aug-95	95.4	19.0	<300 +/- 190	U	
28-Aug-95	103.4	16.0	<290 +/- 190	U	
28-Aug-95	115.4	8.1	<290 +/- 200	U	
28-Aug-95	125.4	14.0	<290 +/- 210	U	
SIB-ETS-502					
29-Nov-95	5.3	4.4	2720 +/- 135		
29-Nov-95	10.3	5.3	10900 +/- 141		
29-Nov-95	20.3	9.9	1470 +/- 50		
29-Nov-95	30.3	16.5	2260 +/- 45		
29-Nov-95	40.3	13.3	<96.4 +/- 29	U	
30-Nov-95	50.3	5.9	<222 +/- 67	U	
30-Nov-95	60.3	13.3	<100 +/- 30	U	
30-Nov-95	70.3	6.7	<200 +/- 61	U	
4-Dec-95	80.3	9.3	<143 +/- 44	U	
4-Dec-95	90.3	16.0	<100 +/- 30	U	
SIB-ETS-503					
12-Jun-96	4.5	4.4	<17000 +/- 7800	U	
12-Jun-96	10.5	5.8	<13000 +/- 6200	U	
12-Jun-96	20.0	15.0	<4900 +/- 2300	U	
12-Jun-96	30.0	17.4	<4200 +/- 2100	U	
12-Jun-96	40.0	13.4	<5500 +/- 2600	U	
12-Jun-96	50.0	14.0	<5200 +/- 2400	U	
13-Jun-96	60.0	6.0	<190 +/- 100	U	
13-Jun-96	70.0	18.0	<170 +/- 93	U	
13-Jun-96	80.0	11.0	<170 +/- 93	U	
13-Jun-96	90.0	12.0	<170 +/- 100	U	
13-Jun-96	100.0	13.0	<170 +/- 90	U	
SIB-ETS-504					
2-Jul-96	6.0	9.5	118300 +/- 6300		
2-Jul-96	6.3		44700 +/- 270		
2-Jul-96	6.3	8.5			
2-Jul-96	10.3	10.0	746000 +/- 38000		
2-Jul-96	10.5		702000 +/- 1000		
2-Jul-96	10.5	11.0			
2-Jul-96	15.3	13.0	341000 +/- 17000		
2-Jul-96	15.5		285000 +/- 640		
2-Jul-96	15.5	12.0			
2-Jul-96	20.3	3.9	62800 +/- 3500		
2-Jul-96	20.5		76600 +/- 340		
2-Jul-96	20.5	3.3			
2-Jul-96	25.3	3.5	263000 +/- 14000		
2-Jul-96	26.0		164000 +/- 490		
2-Jul-96	26.0	2.6			
3-Jul-96	30.3	13.0	195000 +/- 10000		
3-Jul-96	30.5		172000 +/- 500		
3-Jul-96	30.5	17.0			
3-Jul-96	35.3	15.0	98100 +/- 5300		
3-Jul-96	35.5		111000 +/- 410		
3-Jul-96	35.5	14.0			
3-Jul-96	40.3	16.0	62400 +/- 3500		
3-Jul-96	40.7		86900 +/- 360		
3-Jul-96	40.7	16.0			
3-Jul-96	45.0	12.0	13380 +/- 850		
3-Jul-96	45.3		11200 +/- 150		

Radiological Analyses in soil, in the Trailer 5475 Area, results recorded by 14-nov-1996.

Location Date	Depth	Moisture by Weight (Percent)	Tritium (pCi/Lsm)	Tritium (pCi/g)
3-Jul-96	45.3	6.1		
3-Jul-96	52.0	13.0	44500 +/- 2600	
3-Jul-96	52.5		45600 +/- 270	
3-Jul-96	52.5	13.0		
3-Jul-96	55.5	15.0	41100 +/- 2400	
3-Jul-96	55.7		43200 +/- 260	
3-Jul-96	55.7	12.0		
3-Jul-96	62.3	15.0	44700 +/- 2600	
3-Jul-96	62.5		44200 +/- 260	
3-Jul-96	62.5	16.0		
3-Jul-96	65.7	13.0	40200 +/- 2400	
3-Jul-96	66.0		39900 +/- 250	
3-Jul-96	66.0	16.0		
3-Jul-96	70.6	16.0	11530 +/- 740	
3-Jul-96	71.0		9890 +/- 150	
3-Jul-96	71.0	8.1		
3-Jul-96	76.0	19.0	10730 +/- 690	
3-Jul-96	76.3		11100 +/- 150	
3-Jul-96	76.3	13.0		
SIB-ETS-505				
11-Jul-96	5.7	14.0	7970 +/- 140	
11-Jul-96	10.3	15.0	7670 +/- 580	
11-Jul-96	10.5	14.0	7570 +/- 130	
11-Jul-96	15.7	10.0	4960 +/- 120	
11-Jul-96	20.3	9.9	4600 +/- 410	
11-Jul-96	20.5	9.0	5110 +/- 120	
11-Jul-96	25.3	16.0	1550 +/- 96	
11-Jul-96	30.3	12.0	1210 +/- 200	
11-Jul-96	30.5	15.0	1260 +/- 94	
11-Jul-96	35.7	15.0	777 +/- 90	
11-Jul-96	41.0	13.0	400 +/- 140	
11-Jul-96	41.5	11.0	649 +/- 89	
15-Jul-96	46.0	8.0	1250 +/- 94	
15-Jul-96	51.5	9.0	410 +/- 130	
15-Jul-96	51.7	8.8	492 +/- 88	
15-Jul-96	55.0	13.0	1130 +/- 93	
15-Jul-96	61.3	13.0	1460 +/- 150	
15-Jul-96	62.0	12.0	1890 +/- 98	
15-Jul-96	65.5	11.0	1680 +/- 97	
15-Jul-96	72.0	18.0	1070 +/- 190	
15-Jul-96	72.5	19.0	1340 +/- 94	
15-Jul-96	76.7	9.4	1750 +/- 97	
16-Jul-96	80.3	7.7	2190 +/- 100	
15-Jul-96	80.5	13.0	9060 +/- 660	
SIB-ETS-506				
22-Jul-96	1.2	8.4	4860 +/- 230	
22-Jul-96	5.2	15.0	1830 +/- 130	
22-Jul-96	10.0	13.0	1760 +/- 240	
22-Jul-96	10.2	13.0	1670 +/- 120	
22-Jul-96	15.2	9.9	2160 +/- 130	
23-Jul-96	20.0	12.0	1990 +/- 260	
23-Jul-96	20.2	12.0	1530 +/- 120	
23-Jul-96	25.2	11.0	1410 +/- 120	
23-Jul-96	30.0	22.0	1800 +/- 250	
23-Jul-96	30.2	14.0	2090 +/- 130	
23-Jul-96	35.2	15.0	1270 +/- 120	
23-Jul-96	41.0	14.0	430 +/- 140	
23-Jul-96	41.3	14.0	380 +/- 110	
23-Jul-96	45.2	11.0	414 +/- 110	
23-Jul-96	51.0	13.0	860 +/- 180	
23-Jul-96	51.3	9.2	714 +/- 110	
23-Jul-96	55.2	13.0	1570 +/- 120	
23-Jul-96	61.0	13.0	960 +/- 180	
23-Jul-96	61.2	10.0	672 +/- 110	
23-Jul-96	65.2	9.2	1110 +/- 120	
23-Jul-96	71.3	14.0	803 +/- 110	
23-Jul-96	74.0	13.0	720 +/- 170	
23-Jul-96	74.2	15.0	787 +/- 110	

Radiological Analyses in soil, in the Trailer 5475 Area, results recorded by 14-nov-1996.

Location / Date	Depth	Moisture by Weight (Percent)	Tritium (pCi/Lsm)		Tritium (pCi/g)
SIB-ETS-507					
25-Jul-96	1.0	8.3	61400 +/- 3600		
30-Jul-96	2.0	7.6	34300 +/- 330		
25-Jul-96	5.0	9.6	142500 +/- 7600		
30-Jul-96	5.5	8.0	195000 +/- 750		
25-Jul-96	10.0	8.5	323000 +/- 17000		
30-Jul-96	10.5	5.4	311000 +/- 950		
25-Jul-96	15.0	9.3	378000 +/- 19000		
30-Jul-96	15.2	3.6	361000 +/- 1000		
25-Jul-96	20.0	8.6	422000 +/- 22000		
30-Jul-96	20.5	6.8	354000 +/- 1000		
25-Jul-96	25.0	9.6	427000 +/- 22000		
30-Jul-96	25.5	6.4	338000 +/- 990		
25-Jul-96	30.0	12.0	189800 +/- 9900		
30-Jul-96	30.5	8.9	113000 +/- 580		
25-Jul-96	35.0	13.0	4350 +/- 280		
30-Jul-96	35.5	11.0	9200 +/- 200		
29-Jul-96	41.0	12.0	1240 +/- 130		
30-Jul-96	43.0	12.0	3800 +/- 160		
29-Jul-96	43.5	15.0	2780 +/- 240		
29-Jul-96	45.0	10.0	2590 +/- 210		
30-Jul-96	45.5	8.8	2180 +/- 140		
29-Jul-96	51.8	13.0	4420 +/- 290		
30-Jul-96	53.0	11.0	3450 +/- 160		
29-Jul-96	53.5	12.0	4500 +/- 330		
29-Jul-96	55.0	12.0	3760 +/- 260		
30-Jul-96	55.5	12.0	2540 +/- 150		
29-Jul-96	61.0	10.0	3650 +/- 250		
30-Jul-96	63.0	8.0	4180 +/- 160		
29-Jul-96	63.2	11.0	4000 +/- 300		
30-Jul-96	65.0	5.6	3480 +/- 160		
29-Jul-96	65.2	8.2	3200 +/- 250		
29-Jul-96	72.0	12.0	900 +/- 110		
30-Jul-96	73.0	11.0	902 +/- 130		
29-Jul-96	73.2	8.7	920 +/- 130		
29-Jul-96	74.0	15.0	1140 +/- 140		
30-Jul-96	74.5	10.0	1070 +/- 130		
SIB-OSY-001					
12-Jun-89	50.3		<1000	P	
12-Jun-89	90.8		<1000	P	
SIB-OSY-002					
12-Jun-89	50.3		<1000	P	
12-Jun-89	90.8		<1000	P	
SIB-OSY-102					
15-Jun-90	5.3	13.5	1700 +/- 130		
15-Jun-90	5.3				<1
15-Jun-90	10.3	2.9	1100 +/- 130		
15-Jun-90	10.3				<1
SIB-OSY-103					
15-Jun-90	2.3	9.9	1600 +/- 130		
15-Jun-90	2.3				<1
15-Jun-90	5.3	6.2	900 +/- 130		
15-Jun-90	5.3				<1
15-Jun-90	10.3	8.4	2800 +/- 130		
15-Jun-90	10.3				<1
SIB-OSY-107					
15-Jun-90	2.3	16.1	1800 +/- 130		
15-Jun-90	2.3				<1
15-Jun-90	5.3	15.4	1900 +/- 130		
15-Jun-90	5.3				<1
15-Jun-90	10.3	13.3	1500 +/- 130		
15-Jun-90	10.3				<1
SIB-OSY-110					
15-Jun-90	2.3	10.6	2300 +/- 130		
15-Jun-90	2.3				<1

Radiological Analyses in soil, in the Trailer 5475 Area, results recorded by 14-nov-1996.

Location Date	Depth	Moisture by Weight (Percent)	Tritium (pCi/Lsm)	Tritium (pCi/g)
15-Jun-90	5.3	11.2	1700 +/- 130	
15-Jun-90	5.3			<1
15-Jun-90	10.3	11.6	1200 +/- 130	
15-Jun-90	10.3			<1
SIB-OSY-201				
9-May-91	1.8			<1
9-May-91	6.0			<1
9-May-91	11.0			<1
SIB-OSY-202				
9-May-91	1.8			<1
9-May-91	6.0			<1
9-May-91	11.0			<1
SIB-OSY-203				
9-May-91	1.8			<1
9-May-91	6.0			<1
9-May-91	11.0			<1

B Analyte detected in method blank

P Absence of a data qualifier flag does not mean that the data does not need qualification, but that the addition of electronic data qualifier flags was not yet implemented

U Compound was analyzed for, but not detected above detection limit

Appendix B

Operations and Maintenance Quality Assurance/Quality Control Plan

Appendix B

Operations and Maintenance Quality Assurance/Quality Control Plan

B-1. Introduction

This QA/QC plan has been developed in support of the O&M for TF5475 and VTF5475. The purpose of the plan is to define the quality objectives and areas of responsibility to operate and maintain the facilities. This plan meets the O&M requirements of DOE Order 5700.6C, and the Environmental Protection Department (EPD) Quality Assurance Management Plan (QAMP) (EPD, 1996). The QA/QC plan for construction of TF5475 and VTF5475 are similar to those presented in RD1 (Boegel et al., 1993).

B-2. Organization

This section documents the organizational structure, functional responsibilities, levels of authority, and lines of communications for those aspects of the O&M of TF5475 and VTF5475 that affect quality.

Figure B-1 shows the organizational structure for QA activities. The descriptions below generally describe the QA responsibilities of those primarily involved in carrying out the QA program for the O&M of TF5475 and VTF5475. The individuals shown in Figure B-1 have the following responsibilities:

- The Livermore Site Project Leader (LSPL) issues this QA plan and periodically reviews its implementation. The LSPL may request an independent review or formal audit of the QA program.
- The Quality Assurance Engineer (QAE) is responsible for the development and implementation of the QA plan, establishment and control of the QA document files, coordination with appropriate project personnel to assure compliance within other groups, and development of tracking and reporting systems to provide management visibility of implementation activities and results.
- The Task Leader (TL) is responsible for overseeing facility startup and monitoring its performance and operations.
- The LLNL Plant Engineering Project Manager (PEPM) reports functionally during the construction phase to the ERD LSPL and the TL. The PEPM is Plant Engineering's primary contact with ERD for the assigned project, as discussed in RD1 (Boegel et al., 1993).

- The Technicians Supervisor (TS) is responsible for the day-to-day O&M of the treatment facility. This includes scheduling required maintenance and ensuring completion in a timely fashion.
- State Certified Analytical Laboratories using EPA methods are responsible for providing independent chemical analytical results on ground water samples. For TF5475, these samples will be submitted as part of LLNL's self-monitoring program in addition to operational testing samples collected prior to the official operation of a facility, and routine samples taken to evaluate facility performance.

B-3. Quality Assurance Program

This section covers the objectives, quality goals, and the QA levels. The procedures for implementation of QA requirements are included in this plan, the ERD SOPs (Dibley and Depue, 1997), and/or in the TF5475 and VTF5475 O&M Manual being developed.

The QA objectives are to:

- Assure excellence in maintenance services and operations to achieve quality.
- Provide the QA requirements to meet all programmatic and institutional needs.

This QA plan defines the process for providing confidence that these QA objectives will be achieved and include due consideration for health, safety, property, and the environment.

Table B-1 shows the 11 elements of the EPD QAMP, which implements DOE Order 5700.6C, and their applicability to the O&M of TF5475 and VTF5475.

The SOPs and the O&M Manual provide the procedures to implement the applicable elements of EPD's QAMP. In addition, they include lists of the QA auditable records, including the personnel responsible for documenting compliance with the requirements of the QAMP.

B-4. Operations and Maintenance

B-4.1. Scope

TF5475 and VTF5475 will be operated to treat VOCs in ground water and vapor, respectively.

B-4.2. Operations

The LSPL is responsible for ensuring the quality of operations at this facility. The TS is responsible for ensuring that all field operations, including maintenance and operations, are performed with the appropriate quality procedures and are completed in a timely fashion. Vapor samples will be collected to monitor the performance of VTF5475, and water samples will monitor the performance of TF5475. The TS is responsible for ensuring that the technicians are properly trained to collect these samples according to documented procedures.

TF5475 and VTF5475 will have their own set of operating procedures. These procedures, which are being developed as part of the O&M Manual, cover the different modes of operation

including startup, shutdown, normal operation, safety considerations, and maintenance procedures.

An operational log will be kept at VTF5475. This log records the operating parameters of each system (i.e., temperature, pressure, etc.), the number and type of samples taken, maintenance performed on the system, and all adjustments made by the operators to the system.

B-4.3. Maintenance

Preventive and corrective maintenance will be performed at TF5475 and VTF5475.

B-4.3.1. Preventive Maintenance

Preventive maintenance is performed on those components that need routine servicing and are part of systems related to quality. The preventive maintenance schedule is kept at the facility with the operations procedures. The TS is responsible for ensuring that preventive maintenance is scheduled and completed on schedule to minimize downtime. Maintenance will be performed by LLNL Plant Engineering and/or ERD personnel, and will follow the requirements in the O&M Manual to ensure the maintenance functions are performed as planned.

Table B-2 is a tentative schedule of the preventive maintenance for TF5475 and VTF5475.

B-4.3.2. Corrective Maintenance

Corrective maintenance is performed when a system component fails or begins to fail and the quality of facility operations could be compromised if operation continues. When a component fails, root-cause analysis is performed, guided by a graded approach, before the corrective maintenance action commences. A graded approach uses a root-cause analysis and problem solving in a cost-effective manner, based on consequences of the failure. This is to ensure that the nature of the problem is understood and can be prevented. This root-cause analysis is also used to modify the preventive maintenance plan where appropriate. The results of the root-cause analyses are documented in the facility operations log. As with preventive maintenance, corrective maintenance is performed by Plant Operations personnel or ERD personnel in accordance with this QA/QC plan.

All corrective maintenance actions and their times of completion are recorded in the facility operations log. Once complete, the specific component or system is started up and operated. This ensures that the maintenance was correctly performed and that system quality is maintained. An entry in the facility log is made, indicating that an operational check was made following preventive or corrective maintenance and the performance of the new component is noted. If successful, the system is allowed to resume normal operations.

The O&M Manual for TF5475 and VTF5475 will indicate the required spare parts for system components that have relatively high risk of failure or long lead time to replace. These components are to be maintained at the Livermore Site to prevent extended shutdown of the treatment system.

B-4.3.3. Maintenance Support

Maintenance support activities (including identification and control of items, inspection,

testing, operating status, control of processes, and control of measuring and test equipment) will be implemented as outlined in the TF5475 and VTF5475 O&M Manual.

B-5. References

Boegel, A. J., M. D. Dresen, E. Folsom, P. Thiry, and J. P. Ziagos (Eds.) (1993), *Remedial Design Report No. 1 for Treatment Facilities A and B, Lawrence Livermore National Laboratory Livermore Site*, Lawrence Livermore National Laboratory, Livermore, Calif. (UCRL-AR-110576).

Dibley, V. and R. Depue (Eds.) (1997), *LLNL Livermore Site and Site 300 Environmental Restoration Project Standard Operating Procedures (SOPs)*, Lawrence Livermore National Laboratory, Livermore, Calif. (UCRL-MA-109115 Rev. 3).

DOE Order 5700.6C, Quality Assurance Program.

Environmental Protection Department (EPD) Quality Assurance Management Plan (QAMP), Rev. 4, December 2, 1996.

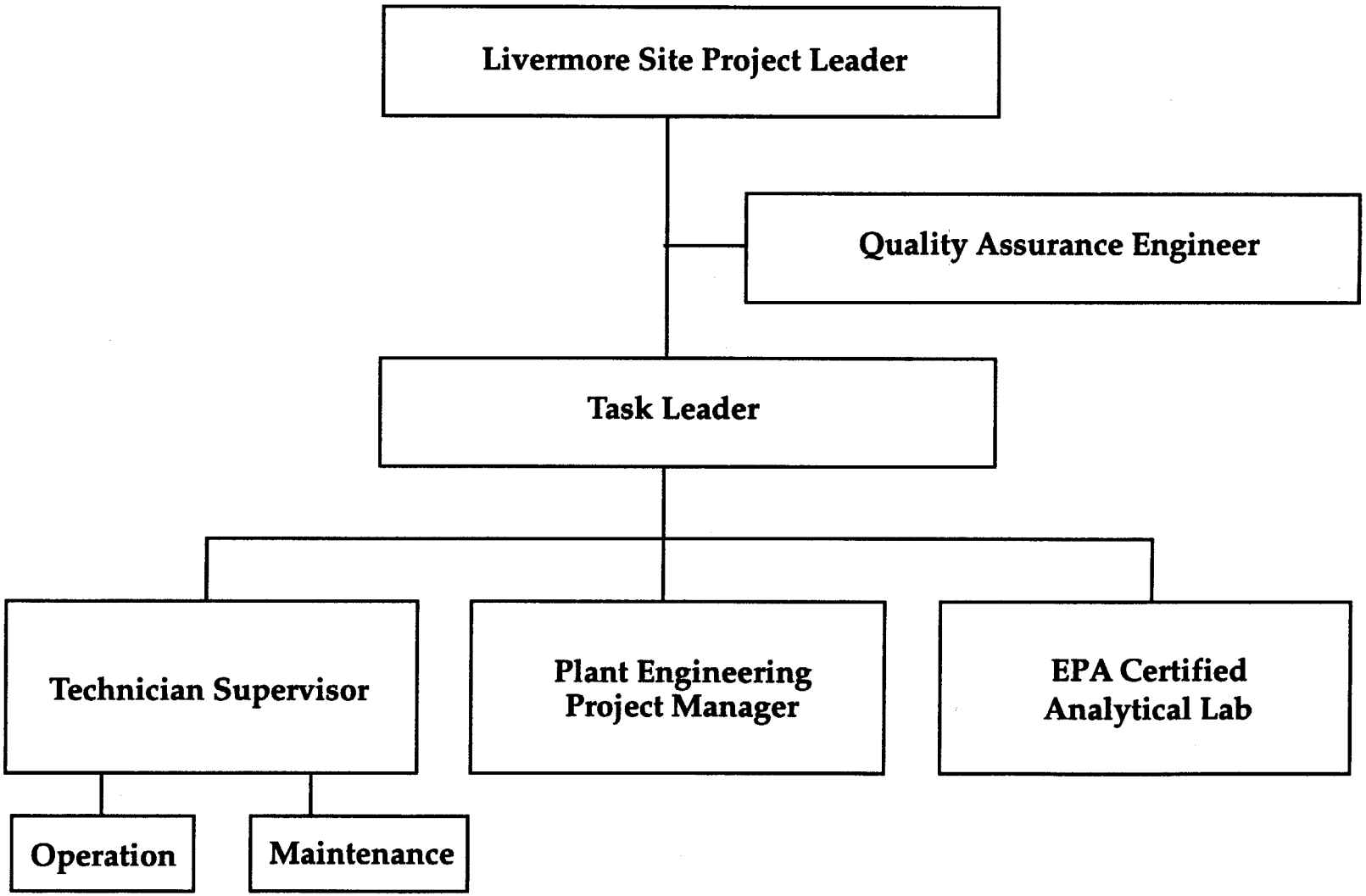


Figure B-1. Organization chart for O&M QA/QC for TF5475 and VTF5475.

2-98/ERD RD 4:rtd

Table B-1. Applicability of the EPD QAMP Elements to O&M of TF5475 and VTF5475.

EPD QAMP requirement	Title	Applicable ?
Element 1	EPD Quality Assurance Program Description	Y
Element 2	Personnel Training and Qualification	Y
Element 3	Quality Improvement	Y
Element 4	Document and Records	Y
Element 5	Work Processes	Y
Element 6	Design Control	Y
Element 7	Procurement	Y
Element 8	Inspection and Acceptance Testing	Y
Element 9	Management Assessment	Y
Element 10	Independent Assessment	Y
Element 11	Sampling and Analysis	Y

Table B-2. Preventive maintenance for TF5475 and VTF5475.

Action	Frequency/comments
TF5475:	
Inspect variable speed submersible pump	Annually
Inspect pneumatic packer assembly	Annually
Inspect electrolyzer for generation of hydrogen	Annually
Inspect catalyst columns	Annually
Monitor pump controller	Weekly
Monitor level sensors	Weekly
Monitor pressure indicator	Weekly
Monitor pH meter	Weekly
Monitor flow indicator	Weekly
Inspect miscellaneous hoses, seals, fittings, etc.	Weekly
Check interlock system	Annually
Inspect sampling ports	Before use
VTF5475:	
Inspect miscellaneous hoses, seals, fittings, etc.	Weekly
Inspect GAC	Weekly
Inspect wellhead demister	Annually
Inspect vacuum and pressure gauges	Annually
Monitor temperature sensors	Annually
Monitor temperature indicators	Annually
Monitor air flow sensor	Annually
Inspect process air heater	Annually
Check interlock system	Annually
Inspect vapor extraction blower	Annually
Inspect programmable logic controller	Annually
Inspect sampling ports	Before use
Clean organic debris from area surrounding the building	Weekly, or as needed. Notify the gardeners (Ext. 3-0495)

Appendix C

Operations and Maintenance Health and Safety Plan

Appendix C

Operations and Maintenance Health and Safety Plan

C-1. Purpose

Safety procedures are required to operate and maintain TF5475 and VTF5475. This HASP serves as an administrative tool to summarize many of the requirements of the LLNL Health and Safety Manual that are pertinent to the O&M of TF5475 and VTF5475.

C-2. Responsibilities

Ed Folsom, phone number (510) 422-0389, LLNL pager number 02892, and home phone number (510) 490-7028, is responsible for the safety of this operation and for assuring that all work is performed in conformance with this HASP and applicable sections of the LLNL Health and Safety Manual and Environmental Protection Handbook. In the absence of the responsible individual, John Greci, phone number (510) 422-3034, LLNL pager number 05240, shall assume these responsibilities.

Any changes in operations that improve or do not significantly affect safety and environmental controls can be approved by the authorizing individuals listed above and the LLNL Environmental Safety & Health (ES&H) team leader. The responsible individual will ensure that this action is documented in a memorandum. Any changes in the operation that increase the hazard level, introduce additional hazards, or decrease safety shall not be made until a revision to this HASP has been reviewed and approved.

C-3. Hazard Analysis

C-3.1. Fire/Explosion Hazard

Hydrogen will be generated from the ground water to react with VOCs. However, hydrogen generated in this process will be dissolved in water and should not constitute an explosive hazard.

C-3.2. Tritium Hazard

Ground water in well W-1302 contains tritium at concentrations up to 8,000 pCi/L. Evaporation of ground water could expose personnel to very low levels of tritium, although an intake of 1 millicurie of tritium could result in an effective dose equivalent to 0.063 millirem. Therefore, any dose resulting from evaporated ground water would be insignificant.

C-3.3. Temperature Hazard

Personnel may be injured if they contact the hot aboveground discharge pipes of VTF5475. Personnel protection will be required if the temperature of the pipes exceeds 140°F.

C-3.4. Electrical Hazard

A 480-volt alternating-current electrical power supply will be used to operate this facility. Electrical shock and injury may occur if personnel come into contact with exposed energized parts.

C-3.5. Seismic Hazard

Personnel may be injured during an earthquake due to falling equipment or missile hazards (equipment or materials moving energetically due to seismic forces).

C-3.6. Confined Space

Not applicable.

C-3.7. Noise Hazard

Not applicable.

C-3.8. Chemicals

Not applicable.

C-4. Hazard Control

C-4.1. Fire/Explosion Control

The dissolved hydrogen gas in the catalytic reductive dehalogenation process does not require any specific control. However, at least one fire extinguisher (carbon dioxide or dry chemical, type BC or ABC) shall be available on site.

C-4.2. Tritium Hazard Control

No additional controls are necessary.

C-4.3. Temperature Hazard Control

To prevent injury to personnel who might contact the hot walls of VTF5475 discharge pipes, the aboveground pipes will be properly insulated with pipe insulation material.

C-4.4. Electrical Hazard Control

A secured panel door will prevent contact with energized electrical components.

All personnel will follow safety precautions as outlined in the Health and Safety Manual, Chapter 23, "Electricity," and the Electronics Engineering Department: Electrical Safety Policy, LED-61-00-01-A1A.

All personnel will follow the LLNL Lockout and Tag program as defined in Chapter 26.13 of the Health & Safety Manual whenever any work is to be done that would expose them to energized equipment.

C-4.5. Seismic Hazard Control

Equipment will be securely bolted to concrete pads to avoid damage and injury during an earthquake.

To preclude injury from missile hazards, any equipment or materials stored at a height of 5 ft or more shall be seismically restrained.

C-5. Environmental Concerns and Controls

Atmospheric discharge of untreated vapor is the only environmental concern identified. This will be controlled by daily inspection for leaks by the facility operator.

C-6. Training

C-6.1. Basic Facility Operator Courses:

- HS-0039—SARA/OSHA Training (40-hour course with yearly refreshers)
- HS-0001—New Employee Safety Orientation
- HS-1620—Standard First Aid (First Aid Certification valid for 2 years)
- HS-5300—Back Care Workshop

C-6.2. Selective Training Courses

Facility Operator Courses (when they apply to the tasks assigned to the facility operator):

- HS-0006—Hazardous Waste Handling Practices (refresher training required annually)
- HS-4240—Chemical Safety
- HS-5030—Pressure Orientation (required every 5 years)
- HS-5220—Electrical Safety (required every 5 years)
- HS-5245—Lock and Tag Procedure (refresher training required every 5 years)

C-6.3. Facility Operator Qualification

The training courses identified in this section do not qualify a person to operate the treatment equipment and treatment systems. Only the responsible individual identified in Section C.2 of this HASP will determine if and when a person is qualified to operate TF5475 and VTF5475. Once qualified, each technician's personnel file is updated to reflect the status as a treatment facility operator.

C-6.4. Records of Training

The responsible individual, or designee, shall ensure that all required training (including on-the-job training, if applicable) is completed and documented in the Laboratory Repository of Completed Courses. Untrained personnel may work under the supervision of a trained person until the required training is completed.

C-7. Maintenance

Interlocks shall be tested during facility activation, and annually thereafter.

C-8. Quality Assurance

Annual interlock checks shall be performed by the Facility Electronics Staff assisted by operators, as required. Test documentation shall be maintained by the Facility Electronics Supervisor, or designee.

Scheduled sampling will monitor the ground water and vapor treatment performance.

C-9. Emergency Response Procedures

In the event of an emergency, facility operations personnel will first dial "911" to report to the Emergency Dispatcher, then administer first aid if necessary to injured personnel. The Emergency Dispatcher uses reserved telephone lines to promptly relay the emergency call to the following members of the LLNL Emergency Response Team:

- Fire Department
- Security Department
- Hazards Control Safety Teams
- Plant Engineering
- Health Services

The Emergency Response Team will go to the scene of the emergency immediately. During off hours, the phone numbers of individuals to be notified in the event of an emergency will be posted at VTF5475. The LLNL Health and Safety Plan describes the emergency response procedures.

C-10. References

C-10.1. Health and Safety Manual Sections

1 LLNL ES&H Policies and Responsibilities

2 Integrating ES&H into Laboratory Activities

10 Personal Protective Equipment

10.08 Hearing Protection

11 Access Control, Safety Signs, and Alarm Systems

11.07 Interlock Systems

21 Chemicals

21.04 Facilities and Equipment

21.05 Handling Solid and Liquid Chemicals

23 Electrical Safety

23.1 Introduction

23.2 Applicability

23.3 Requirements/Regulatory Summary

23.4 Methods for Reducing Risks

23.5 Responsibilities

23.6 Training

23.7 LLNL Contacts

Appendix 23-B: Effects of Electrical Energy on Humans

Appendix 23-C: Electrical Equipment Compliance Criteria

26 Hazards—General and Miscellaneous

26.14 Working in Confined Spaces

C-10.2. Electronics Engineering Department—Electrical Safety Policy, LED-61-00-01-A1A

C-10.3. Livermore Site Safety Plan, January 1997

C-10.4. Operational Safety Procedure (OSP) No. L-63, Treatability Testing

C-10.5. LLNL Health and Safety Manual Supplements:

10.08 Hearing Conservation

11.07 Personnel Safety Interlocks

26.13 LLNL Lockout and Tag Program

Appendix D

Sampling Procedures for TF5475 and VTF5475

Appendix D

Sampling Procedures for TF5475 and VTF5475

The following describes sampling procedures for the TF5475 and VTF5475 facilities. Results of treatment facility self-monitoring are presented in the Livermore Site Quarterly Self-Monitoring Reports.

D-1. TF5475

Influent and effluent water samples will be collected to monitor the performance of the treatment wells. Prior to collecting a sample, office preparation will follow the procedures described in SOP No. 2.6— "Sampling for Volatile Organic Compounds", SOP No. 2.9— "Sampling for Tritium in Ground Water," SOP No. 4.1— "General Instructions for Field Personnel," and SOP No. 4.2— "Sample Control and Documentation" (Dibley and Depue, 1997).

Samples will be collected from the designated sampling ports shown on Drawing 2. The influent and effluent water samples will be collected by opening the valve at the sampling port and allowing water to flow through it for about 15 seconds A bottle will be introduced into the flow stream and filled. If the bottle is not certified clean, it will be rinsed first with the water to be sampled. For the influent sample, the untreated water flowing through the valve prior to and during sampling will be captured with a bucket and returned to the well for treatment.

A specific sample container will be used depending on the analysis. In addition, some analyses require sample preservation. The requirements for each analysis are described in SOP No. 4.3— "Sample Containers and Preservation" (Dibley and Depue, 1997). Samples are then packaged and shipped to a certified analytical laboratory according to SOP No. 4.4— "Guide to the Handling, Packaging, and Shipping of Samples" (Dibley and Depue, 1997).

D-2. Vapor

BAAQMD does not require effluent sampling from VTF5475 because the vapor will be reinjected. Regardless, DOE/LLNL will collect samples to monitor the performance of the system. Prior to collecting a sample, office preparation will follow the procedures described in SOP No. 4.1— "General Instructions for Field Personnel," SOP No. 4.2— "Sample Control and Documentation, and SOP No. 4.8— "Calibration/Verification and Maintenance of Field Instruments used in Measuring Parameters of Surface Water, Ground Water, and Soils." (Dibley and Depue, 1997).

When the system is under a vacuum, a vacuum pump will be attached to the sampling port and an OVA/FID reading will be taken until the reading stabilizes. If sampling occurs when the facility is not under vacuum, a vacuum pump is not needed prior to taking an OVA/FID reading.

Sample locations with the lowest concentrations will be measured first, and higher concentration locations last.