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PHASE II SOIL VAPOR EXTRACTION TREATABILITY STUDY REPORT

BUILDING 134, IR-25, PARCEL C
HUNTERS POINT SHIPYARD
SAN FRANCISCO, CALIFORNIA

Environmental Remedial Action
Contract Number N62474-98-D-2076
Contract Task Order 0033

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U.S. Department of the Navy
Southwest Division
Naval Facilities Engineering Command
1220 Pacific Highway
San Diego, California 92132-5190

Submitted by:
IT Corporation
4005 Port Chicago Highway
Concord, California 94520-1120

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Reviewed: _____ Date: _____
Dan Leigh, R.G.
Technical Manager

Approved: _____ Date: _____
Karnig Ohannessian, P.E.
Project Manager

Shaw Environmental, Inc.
4005 Port Chicago Hwy.
Concord, CA 94520
Tel. 925-288-2267
FAX: 925-827-2392

Shaw™ Shaw Environmental, Inc.

May 27, 2003

Ms. Diane Silva, Code 02R1.DS
Naval Regional Environmental Contracts
Southwest Division
1220 Pacific Highway
San Diego, CA 92132

Contract: N62474-98-D-2076, Environmental Remedial Action Contract

Contract Task Order: 0033, O&M of the Soil Vapor Extraction (SVE) Treatability Studies at Site 25, Hunters Point Naval Shipyard, San Francisco, California

Subject: Request for Additional Copies of Delivery Order Document

Dear Ms. Silva:

Per your request we have located and made copies of previously submitted documents for your records. The document titles and dates in this shipment are listed below.

1. DCN 2044, 02/14/00, Draft Phase II Soil Vapor Extraction Treatability Study Report, Building 123, IR-10, Parcel B, Hunters Point Shipyard, San Francisco, CA, Rev 0

2. DCN 2045, 12/03/01, Draft Soil Vapor Extraction Treatability Study Report, Building 134, IR 5, Parcel C

3. DCN 2046, 03/21/02, Draft, Phase II Soil Vapor Extraction Treatability Study Report, Building 211/253, IR-28, Parcel C, Hunters Point Shipyard, San Francisco, CA, Rev 0

4. DCN 2047, 05/28/02, Draft Phase II Soil Vapor Extraction Treatability Study Report, Building 231, IR-28, Parcel C, Hunters Point Shipyard, San Francisco, California, Rev 0

5. DCN 2048, 04/29/02, Draft Phase II Soil Vapor Extraction Treatability Study Report, Building 251, IR-28, Parcel C, Hunters Point Shipyard, San Francisco, CA, Rev 0

6. DCN 2049, 02/28/02, Draft Phase II Soil Vapor Extraction Treatability Study Report, Building 272, IR-28, Parcel C, Hunters Point Shipyard, San Francisco, CA, Rev 0

7. DCN 2050, 06/24/02, Draft Phase II Soil Vapor Extraction Treatability Study Report, Building 406, IR-36, Parcel I, Hunters Point Shipyard, San Francisco, CA, Rev

8. DCN 2072, 09/19/01, Draft Soil Vapor Treatability Study Work Plan Addendum for Parcel B and Parcel C Buildings Sites, Hunters Point Shipyard, San Francisco, CA, Rev 0

9. DCN 3278, 12/31/01, Phase II Soil Vapor Extraction Treatability Study Report, Building 134, IR-25, Parcel C, Hunters Point Shipyard, San Francisco, CA, Rev 0

If you require additional information or if I can be of further assistance, please contact me at (925) 288-2267.

Sincerely,
Shaw Enviornmental, Inc.

Julie Germain
Closeout Coordinator

cc: Project Files CTO 0090 and CTO 0033

Enclosures

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Acronyms and Abbreviations

µg/kg	microgram(s) per kilogram
µg/L	microgram(s) per liter
amsl	above mean sea level
ASTM	American Society for Testing and Materials
BAAQMD	Bay Area Air Quality Management District
bbfs	below building floor surface
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and total xylenes
cfm	cubic foot (feet) per minute
CH	fat clays
CL	lean clays
cm^2	square centimeter(s)
cm/sec	centimeter(s) per second
DCA	dichloroethane
DCB	dichlorobenzene
DCE	dichloroethene
DNAPL	dense nonaqueous phase liquid
EPA	U.S. Environmental Protection Agency
EROI	effective radius of influence
ft/day	feet per day
ft/ft	feet per foot
ft/min	feet per minute
g/cc	grams per cubic centimeter
GAC	granular activated carbon
Hg	mercury
HPS	Hunters Point Shipyard
IR	Installation Restoration
IT	IT Corporation
K	(represents hydraulic conductivity)
lb/day	pound(s) per day
lb/hr	pound(s) per hour
LNAPL	light nonaqueous phase liquid
mg/kg	milligram(s) per kilogram
MQL	method quantitation limit
PCB	polychlorinated biphenyl
PCE	tetrachloroethene
PID	photoionization detector
ppmv	part(s) per million by volume
PRC	PRC Environmental Management, Inc.
PVC	polyvinyl chloride
RI	remedial investigation
ROI	radius (radii) of influence
RU	remedial unit

Acronyms and Abbreviations *(continued)*

scfm	standard cubic feet per minute
SVE	soil vapor extraction
SVOC	semivolatile organic compound
SWDIV	U.S. Department of the Navy, Southwest Division
TCA	trichloroethane
TCE	trichloroethene
TCL	target cleanup level
TMB	trimethylbenzene
TOC	total organic compound
TOG	total oil and grease
TPH	total petroleum hydrocarbon
TPH-d	total petroleum hydrocarbons as diesel
TPH-g	total petroleum hydrocarbons as gasoline
TPH-mo	total petroleum hydrocarbons as motor oil
TS	treatability study
TtEMI	Tetra Tech EM, Inc.
VET	vapor extraction and treatment
VM	vapor monitoring
VOC	volatile organic carbon
wc	water column

Executive Summary

In June 2000, the United States Department of Navy initiated a Phase II Soil Vapor Extraction (SVE) Treatability Study for several Installation Restoration (IR) sites in Parcels B, C, and E at Hunters Point Shipyard in San Francisco, California. This report addresses the treatability study at Building 134 of IR-25 in Parcel C. The main objective of the treatability study was to determine the effectiveness of SVE in removing volatile organic compounds (VOCs) from the subsurface soil and soil-gas beneath the building site. The study focused on two areas within the building: (1) above the VOC groundwater contaminant plume referred to as the remedial unit, RU-6, and (2) the location near the groundwater monitoring well IR25MW16A, previously established as the soil remediation area. Results of this study will be incorporated into the Parcel C Feasibility Study.

In October 2000, in a joint effort with Tetra Tech EM, Inc. (TtEMI), IT Corporation (IT) began the field implementation of the treatability study at Building 134. Field activities performed were in accordance with the Phase II SVE Treatability Study Work Plan prepared by TtEMI in July/August 2001. Specifically, the following primary tasks were conducted in support of the treatability study:

- Initial soil-gas survey – the objectives were to (1) verify that pre-selected SVE well locations were within the contamination area, (2) obtain initial screening-level VOC soil-gas concentrations, and (3) estimate VOC mass in soil-gas
- Baseline wellhead vapor measurement – the objective was to establish baseline SVE wellhead vapor conditions prior to SVE operation
- Pilot-scale SVE system testing – the objectives were to (1) determine optimal operating vacuum, (2) evaluate airflow rates and effective radius of influence (EROI) for the SVE wells, (3) estimate VOC mass removal rates, and (4) verify effectiveness of granular activated carbon for treatment of extracted soil-vapor
- Wellhead rebound monitoring – the objectives were to (1) assess the long-term effectiveness of SVE treatment and (2) evaluate potential sources of VOC rebound, if any

The soil-gas survey was performed at 40 preselected SVE and vapor monitoring (VM) locations. Results of the survey indicated that chlorinated VOCs, such as tetrachloroethene or perchloroethene (PCE), trichloroethene (TCE), and cis-1,2-dichloroethene (DCE), were present in almost all preselected well locations. In addition, total petroleum hydrocarbon as gasoline (TPH-g) and freons were found in many of the soil-gas survey locations. All these VOCs were also found in

the area encompassing IR-6, an IR site located directly across from Building 134 in the southwestern direction. Most of the VOCs detected within Building 134 were in the area beneath the dip tank/sump in the north end of the building. Some VOCs, in particular TCE and TPH-g, were also detected in the center of the building near well IR25MW16A. The soil-gas survey results also suggested that VOC contamination near well IR25MW16A extends in the eastern and northern directions from the well. Due to low soil-air porosity, low average soil gas concentrations, and small vadose zone thickness, the estimated initial VOC contaminant mass in the soil gas was very small – on the order of 0.001 pound.

Most of the VOC contamination in the soil was confined to the areas beneath the dip tank/sump and around well IR25MW16A. In the dip tank/sump area, the highest levels (330,000 μg/kg) of total chlorinated hydrocarbons were found approximately 10 feet below building floor surface (bbfs) in IR25VW6-06A. Near the monitoring well IR25MW16A, the highest VOC concentrations of 66,000 μg/kg were detected in IR25SG058 between 4 and 5 feet bbfs, similar to previous findings obtained during the remedial investigation at the site. Soil samples taken from the outlying VM well locations contained VOCs, indicating that VOC contaminants could be present beyond the treatability study area in the eastern and northern directions. Based on the soil sampling results, the estimated VOC mass in the vadose zone soil within the treatability study area was approximately 1.4 pounds.

Initial wellhead vapor samples were collected from each of the SVE wells. Sample results showed that the total VOC concentrations ranged from 0.4 parts per million by volume (ppmv) to 7.8 ppmv in the SVE wells. The highest concentration was found at IR25VW6-18A in the central area of the building. The primary chlorinated VOCs detected were PCE, TCE, and cis-1,2-DCE. Out of the 17 SVE wells sampled, 14 had detectable concentrations of VOCs.

A 1,000 cubic-feet-per-minute (cfm) pilot-scale extraction and treatment system was constructed by the end of January 2001, and field testing began in February 2001. The system was operated almost continuously until June 2001 when the initial test period ended. All 17 SVE wells and 46 VM wells constructed as part of this treatability study were included in the test. Wellhead and system monitoring data were collected periodically using field instruments, including a portable airflow meter and a photoionization detector (PID) with a 10.2 eV probe, during the system operation. System monitoring also included vapor sampling at the inlet and outlet of the vapor phase carbon treatment unit to ensure that emissions control for the SVE system conformed to the standards established in Regulation 8, Rule 47 by the Bay Area Air Quality Management District. The system operation complied with the local air district regulatory standards, in spite of a carbon breakthrough by Freon-11 near the end of the test period.

Initial observations noted some limitations to SVE performance at the site due to (1) low soil-air filled porosity, (2) excess moisture entrained in the extracted soil-vapor, and (3) small vadose zone amenable to subsurface airflow. However, these limitations appeared to be less problematic later in the test period and were believed to be associated with seasonal changes of the groundwater level at the site. Entrainment of excess moisture was noted mostly in the rainy months of February and March. In April, the amount of liquid recovered substantially decreased. No measurable amount of liquid was encountered in May or June. The amount of airflow yield also showed gradual increase near the end of the rainy season, with an approximately 75 percent increase in the combined extraction airflow between February and June. This increase in the airflow could be as a result of an increase in: (1) the soil-air porosity in the vadose zone after the gradual depletion of moisture content caused by the continuous SVE operation, and/or (2) the soil volume in the vadose zone exposed to air movement due to a decline in the groundwater table.

Pilot-test data also revealed that the SVE well EROI varied substantially, from 30 feet to 70 feet between the northern and central portions of the building. This variation could be attributed to the heterogeneous nature of the subsurface soil at the site and the presence of subsurface utilities that transect across the building. The utility runs could cause uneven vacuum distribution as well as alter the subsurface airflow pattern by acting as the preferential flow pathways. The cumulative VOC mass removed during the test period was approximately 5.0 pounds, above the amount initially estimated in the soil. Some of the VOC species recovered were in quantities much greater than those estimated in the soil. Such differences suggest that a larger soil data set is required to more accurately estimate VOC mass, or the VOC mass was removed beyond the boundary the treatability study area. Since some of the well EROIs extend beyond the treatability study area, it is possible that VOCs beyond the treatability study area were removed.

VOC rebound was monitored using a PID at all SVE and VM wells for approximately 2 months after the completion of the pilot test. In addition, three wellhead vapor samples were collected to quantify the VOC concentrations at those wells showing substantial rebound. Rebound monitoring results indicated that nearly full rebound of VOCs occurred in at least one location in the dip tank/sump. The other locations that showed substantial rebound also displayed high concentrations of the VOC analytes. One of the two locations showed only freons in the wellhead vapor concentrations.

An equilibrium partitioning calculation using the rebound vapor sample data was performed at each of the three well locations to determine the source of the concentration rebound and the likely direction of VOC mass transport, that is, from soil to groundwater, or vice versa. Results suggested that the source for the concentration rebound of VOCs was more likely from the

vadose zone soil than groundwater, even in the location (such as the dip tank/sump) where high levels of VOCs had historically been found in the groundwater. The equilibrium calculation results also suggested a gradient of VOC mass transfer from the soil to the groundwater at the site.

The extracted soil-vapor concentration did not approach an asymptote during the entire period of operation, suggesting the continuing presence of residual VOC mass in the soil. This observation is also supported by the rebound monitoring results. Test results also indicated that VOC mass removal beneath the dip tank/sump was more restricted because of limited vadose zone thickness coupled with the ease of groundwater entrainment into the SVE wells. As a result, the SVE treatment effectiveness in that area inside the building was limited.

In light of the findings gathered during this phase of treatability study, further testing is recommended at Building 134 to confirm the SVE treatment effectiveness for the site and allow comparison of two test periods. Some adjustments to the pilot-scale system and test approach described as follows are also recommended:

- Install additional, or convert existing deep VM wells into, SVE wells in the central area of the building to increase the capture of VOCs not removed during the last round of SVE operation, as indicated by the rebound vapor sample results obtained at IR25SG58-10.
- Because of the close proximity of Building 134 to IR-6, the test area shall also include IR-6 since similar VOCs have also been found in that area.
- To accommodate only the number of SVE wells to be operated between Building 134 and IR-6, the SVE system capacity shall also be re-evaluated.
- Utilize a permanent power source, such as power supply from the utility company, for the more efficient operation of the pilot-scale system.
- Upon completion of the systems operation, collect rebound vapor samples from, at a minimum, the three wells previously sampled, to assess whether VOC reductions have occurred. To further verify that VOC mass reduction occurs across the test area, rebound vapor samples are to be collected from all SVE wells operated in each test area. In addition, vapor samples may be taken from the SVE wells while system operation is ongoing to gather additional evidence that VOCs are being removed from those wells.
- Perform subsurface soil and/or multi-depth soil-gas sampling after the completion of testing to allow post-SVE operation comparison of contaminant concentrations.

GAC has proven effective for treatment of extracted soil-vapor containing the chlorinated VOCs, except Freon-11 and vinyl chloride. Although it is anticipated that the amount of VOCs

extracted will be substantially less than the local air district requirements, the mass extraction rate of Freon-11 will require close monitoring to ensure that the air emissions limitations are not exceeded. If the mass extraction rate of Freon-11 has increased substantially, an alternate treatment will need to be considered. A similar scenario also applies to vinyl chloride, which has been detected at substantially high concentrations in the soil-gas in IR-6. An alternate treatment other than GAC will be required.

1.0 Introduction

This report summarizes the performance and results of the soil-vapor extraction (SVE) treatability study conducted between October 2000 and August 2001 at Building 134 at Hunters Point Shipyard (HPS), San Francisco, California. The building site is located within the boundary of Installation Restoration (IR) Site 25 in Parcel C of HPS. Figure 1 shows the location of the building site. Activities performed in support of the SVE treatability study were executed under Environmental Remedial Action Contract Nos. N62474-93-D-2151, Delivery Order 0109, Modification 15, and N62474-98-D-2076, Contract Task Order 0033.

1.1 Project Background

In 1998, an SVE Treatability Study was conducted at several IR sites in Parcel C (IR-25 and IR-8) and Parcel E (IR-36) (Tetra Tech EM, Inc. [TtEMI], 1998). However, due to various technical issues, study results were not used for evaluation of the technology at those sites. In June 2000, the U.S. Department of the Navy (Navy) initiated a Phase II SVE Treatability Study to further determine the applicability of SVE for treatment of subsurface soil at those and other sites. IT Corporation (IT) was tasked by the Navy Southwest Division to perform the Phase II SVE treatability testing at seven building sites, in a joint effort with TtEMI. One of the seven SVE treatability study sites was Building 134 of IR-25. The other six were the following:

- Building 123 (IR-10 in Parcel B)
- Building 211/253 (IR-28 in Parcel C)
- Building 231 (IR-28 in Parcel C)
- Building 251 (IR-28 in Parcel C)
- Building 272 (IR-28 in Parcel C)
- Building 406 (IR-36 in Parcel E)

Results of the treatability study will be used to help evaluate SVE as a potential remedial technology for volatile organic compound (VOC)-contaminated soil and soil-gas at those sites. Further evaluation of the technology will be included in the Parcel C Feasibility Study.

In July/August 2000, TtEMI prepared the Phase II SVE Treatability Study Work Plan addressing the key field tasks and activities (TtEMI, 2000). In October 2000, IT began field implementation of the treatability study activities at Building 134. Procedures were conducted under the general guidance described in the TtEMI Work Plan and IT's Standard Operating Procedures (SOPs).

1.2 Treatability Study Approach and Objectives

Two locations inside the building were selected for conducting the SVE treatability study at Building 134. One location is beneath the dip tank/sump area near the northwestern area of the building. VOC contaminants, including tetrachloroethene or perchloroethene (PCE), vinyl chloride, trichloroethene (TCE), and cis-1,2-dichloroethene (DCE) have been found in the underlying soil and groundwater in that area. Another location is near monitoring well IR25MW16A, where TCE was detected at a concentration up to 47 milligram per kilogram (mg/kg) in a soil sample about 5 feet below building floor surface (bbfs). Because of the potential concern that the VOCs could migrate into the building from the subsurface soil and/or groundwater via volatilization, the primary purpose of conducting a field study was to determine whether SVE could effectively remove the VOC contaminants from the subsurface beneath the building.

To achieve this objective, the Treatability Study Work Plan described four discrete tasks (TtEMI, 2000). These tasks and their associated objectives are summarized in Table 1-1, as follows:

Table 1-1
Field Treatability Study Tasks and Associated Objectives

Task	Description	Primary Objective
I	Initial soil-gas survey	Obtain baseline soil-gas concentrations. Verify that SVE wells will be installed in locations containing VOCs. Estimate mass of VOCs in the soil-gas.
II	Baseline SVE wellhead vapor sampling	Establish initial soil-vapor conditions at the vapor extraction points.
III	Pilot-scale SVE system testing	Determine optimal operating vacuum. Confirm the ability of selected vapor-phase treatment technology to meet air quality standards for extracted soil-vapors. Evaluate airflow rates and effective radius of influence (EROI) for the SVE wells. Estimate VOC mass removal rates.
IV	Rebound monitoring	Evaluate the long-term effectiveness of SVE at the site.

Field implementation of these tasks and results addressing the task objectives are described in Sections 4.0 and 5.0.

1.3 Report Organization

Topics covered in this report are organized as follows:

- **Section 2.0**—A brief description of the site, including the environmental setting, historical use, investigation history, and nature of subsurface contamination
- **Section 3.0**—Descriptions of the field pilot scale system and its components
- **Section 4.0**—Descriptions of field activities completed in support of the treatability study
- **Section 5.0**—Presentation and analysis of data collected from the field activities
- **Section 6.0**—Conclusions regarding the treatability study and recommendations based on study results.

In addition, the following appendices are included to provide supporting data for the treatability study:

- **Appendix A**—Unvalidated on-site and off-site laboratory data summaries and reports
- **Appendix B**—Well construction summary and boring diagrams
- **Appendix C**—Field record of wellhead and SVE system measurement data taken during pilot-scale system testing
- **Appendix D**—Plots of SVE well performance during the period of system testing
- **Appendix E**—Summary of the procedures used for equilibrium partitioning calculations

2.0 Site Description

This section provides brief descriptions of the building site and its use, the general environmental setting, the investigation history, and the nature of contamination.

2.1 Site Location and Use

Building 134 lies within the boundary of IR-25, located in the northwest corner of Parcel C. The building site is bounded to the north by an easement, to the east by the intersection of Fisher Avenue and Lockwood Street, to the south by Lockwood Street, and to the west by an easement, (formerly occupied by a small building, Building 124, between Buildings 134 and 123). Building 134 is a two-story building with a total area of 51,716 square feet. The main floor is constructed of concrete and was formerly used for shop services and storage. The top floor consists primarily of offices. A large, concrete dip tank labeled "chlorinated materials" is built into the foundation and drains to a below-grade sump that is partly inside and partly outside the building. A building layout is shown in Figure 2.

From 1940 to 1974, Building 134 was used by the Navy as a machine shop. Activities conducted in the building included parts cleaning and use as the Quality and Reliability Assurance industrial laboratory. Since Base closure in 1974, the building had been leased by Cal Marine Works Machine Shop and used as a warehouse. In 1985, the building was also leased to Odaco, Inc., a refrigeration company (PRC Environmental Management, Inc. [PRC], 1996a). Currently, the building is not being used. Although unoccupied, the building is preserved for potential future uses.

Available historical and recent utility drawing records indicate that two underground utility pipe tunnels (utilidors) intersect in the southwest portion of the diesel and gun overhaul shop section of the building. The depth of the utilidor, however, is not shown on the drawings. The utilidors run parallel and perpendicular to the long axis of the diesel and gun overhaul shop section. The utilidors formerly housed pipes for lubrication oil, steam lines, and condensate lines. Diesel oil, air, freshwater, saltwater, and gas lines run parallel to, but outside of, the utilidors. IT previously decommissioned the fuel distribution lines in place by pumping concrete grout through them during the 1998/1999 field effort (IT, 2000). As shown in Figure 2, a 33-inch diameter storm drain is also located on the south side of the northeast-southwest-trending utilidor and runs parallel to the utilidor.

2.2 Geology and Hydrogeology

This section describes the geology and hydrogeology in the general area of the building site. Site geology is discussed in Section 2.2.1, and the hydrogeology is discussed in Section 2.2.2.

2.2.1 Geology

The peninsula forming HPS is within a northwest trending terrane of Franciscan Complex bedrock known as the Hunters Point Shear Zone. The Hunters Point Shear Zone is a melange containing blocks of competent bedrock from the bounding Marin Headlands terrane to the west, and the Alcatraz terrane to the east. The bedrock blocks are also floating in the intensely sheared and deformed serpentinite matrix (Wahrhaftig and Sloan, 1989). HPS is underlain by six geologic units; all but the Jurassic-Cretaceous-age Franciscan Complex bedrock are of Quaternary age. In general, the stratigraphic sequence of these geologic units, from youngest (shallowest) to oldest (deepest), is as follows: Artificial Fill; Slope Debris and Ravine Fill (also known as Colluvium and Alluvium); Undifferentiated Upper Sand Deposits; Bay Mud Deposits; Undifferentiated Sedimentary Deposits; and Franciscan Complex Bedrock.

The soil boring information collected during this TS indicates that the Artificial Fill geologic unit is present throughout the extent of the Building 134 SVE borings. The fill at Building 134 includes angular gravelly fill as well as finer-grained sediments. Rock types include sandstone, shale, chert, and serpentine, obtained largely from blasting and grading of on-site Franciscan bedrock outcrops. Artificial Fill can be distinguished from all other units by the occurrence of debris such as bricks, finished wood fragments, paint chips, pieces of concrete, and other manufactured products. Concrete fragments were found at various depths in several of the SVE borings at Building 134, indicating that the material throughout the SVE borings is Artificial Fill.

2.2.2 Hydrogeology

Two aquifer zones and one water-bearing zone occur at Parcel C (PRC, 1996a). These hydrogeologic units are categorized as the unconfined A-aquifer, a deeper semi-confined B-aquifer, and the bedrock water-bearing zone. The A- and B-aquifers are extremely heterogeneous and variable in permeability and thickness. The A-aquifer is composed primarily of the Artificial Fill geologic unit, but in places includes portions of the Undifferentiated Upper Sand Deposits geologic unit. A discontinuous aquitard of finer-grained material lies between the A- and B-aquifers. This aquitard is often referred to as the Bay Mud unit. The Bay Mud is a marine sedimentary unit typically containing shell fragments and composed predominantly of dark-colored plastic clays, but the unit can grade locally to clayey sands, sands, and gravels.

The groundwater elevation contour map dated July 16, 2001, prepared by TtEMI, indicates a groundwater elevation of approximately 1 to 3 feet above mean sea level (amsl) in the A-aquifer beneath Building 134 (TtEMI, 2001). Rainfall is the primary influence on groundwater levels in this area. Groundwater elevations are expected to be generally higher during the winter rainy season than in the summer dry season.

In general, groundwater flow direction within the A-aquifer in the vicinity of Building 134 is to the northeast, east, and/or southeast toward San Francisco Bay. However, the heterogeneous and horizontally discontinuous nature of the fill material, leaking water pipes, and the presence of storm and sanitary sewer lines, may cause localized complex flow patterns within the A-aquifer. Isolated groundwater mounds and sinks cause local variations in flow direction.

2.3 Summary of Site Investigation Results

Brief summaries of the site investigation history and the nature of the soil and groundwater contamination at the site are presented in Sections 2.3.1 and 2.3.2, respectively.

2.3.1 Investigation History

Building 134 was inspected in February and March 1991 and in January 1993. During the initial inspection, sludge and oily liquid were observed in the dip tank and the sump. The contents of the dip tank and sump were later removed. The floor tile in one machine room was observed to be saturated with and deformed by oil and corrosive material. Pools of standing oil on the concrete flooring near and under machines were observed in 1991; however, the floors appeared to be clean and in good physical condition during the site inspection in 1993 (PRC, 1996a).

Subsequent investigations of Building 134 began in January 1993. The site was investigated during a parcel-wide remedial investigation (RI) from 1993 to 1996. Investigation results indicated that there were two distinct areas of contaminated soil and groundwater inside the building. One area was in the northwestern part of the building where the soil and groundwater were found to be contaminated with VOCs, semivolatile organic compounds (SVOCs), metals, pesticides, polychlorinated biphenyls (PCBs), and total petroleum hydrocarbons (TPH). The presence of these contaminants may be due to leakage from the dip tank and the sump. The other area was in the central part of the building where the soil and groundwater contaminants may be the result of leakage from the fuel lines that passed under this part of the building (PRC, 1996b).

Between January and February 1998, a treatability study was conducted at the building site (TtEMI, 1998). One of the objectives of the study was to evaluate the applicability of SVE for

treatment of subsurface soil at the site. The study included the performance of a soil-gas survey and a field pilot test of an SVE system inside the building. Because of concerns regarding the soil-gas data integrity and the short duration of the field pilot test, results of the treatability study were not used for decision-making purposes.

2.3.2 Nature of Site Contamination

The nature of site contamination is further discussed in this section.

2.3.2.1 Soil Contamination

Previous investigation results indicated the presence of VOC and TPH contaminants in soil beneath Building 134, along with some metals, SVOCs, and PCBs. The nature of the VOC and TPH contamination is summarized below. Complete details and discussions on soil contamination with these and other contaminants are provided in the RI Report (PRC, 1996a).

Volatile Organic Compounds in Soil. PCE, TCE, 1,2-dichloroethane (DCA), and vinyl chloride have been detected at concentrations up to 750,000, 47,000, 16,000, and 26 micrograms per kilogram (µg/kg), respectively, in the soil samples collected beneath Building 134 during the RI investigations. High concentrations of the VOCs (except TCE) have been limited mainly to within the dip tank at depths greater than 10 feet beneath the tank floor. The presence of relatively minor amounts of vinyl chloride, compared to TCE and PCE, suggests that anaerobic degradation of VOCs in soil is either not occurring or very limited. PCE was also detected at 860 µg/kg at 1.25 feet beneath the dip tank in a soil boring adjacent to IR25MW15A1 during the RI (see Figure 2). The presence of the chlorinated ethane and ethenes in the soil may be due to spills or leaks of solvents previously used in the dip tank (PRC, 1996a). The dip tank location has been identified as part of the soil remediation area delineated for other contaminants, including metals and PCBs, in Building 134 (TtEMI, 1998).

TCE was detected primarily beneath the central area of the building. During the RI, a soil sample collected at 4.75 feet below building floor surface (bbfs) in the IR25MW16A boring contained TCE at 47,000 µg/kg. A 40-foot by 40-foot grid centering on IR25MW16A has been established to define the location as a soil remediation area (TtEMI, 1998). This area is shown in Figure 2.

Petroleum Hydrocarbons in Soil. TPH as diesel (TPH-d), as motor oil (TPH-mo), and as gasoline (TPH-g) and total oil and grease (TOG) have been detected in the soil inside the building at concentrations ranging from 0.7 mg/kg TPH-g to 35,000 mg/kg TOG. As described in the RI report, there are two separate distributions for TPH in soil (PRC, 1996a). One is located in the center of the building, at depths of less than 10 feet bbfs. The other is located in

the northwestern portion of the building, but south of the dip tank. The TPH in soil could have originated from leakage of fuel lines that passed beneath the building or from the contents formerly present in the degreaser sump.

2.3.2.2 *Groundwater Contamination*

Previous investigation results indicated the presence of VOC and TPH contaminants in the A-aquifer groundwater at the site, along with metals, SVOCs, pesticides, and PCBs. The nature of the VOC and volatile TPH contamination is summarized below. Complete details and discussions on groundwater contamination with these and other contaminants are provided in the RI report (PRC, 1996a).

Volatile Organic Compounds in Groundwater. Thirteen (13) VOCs have been detected in groundwater at elevated concentrations. Table 2-1 lists the VOCs and the maximum concentrations detected during the RI. Most of the VOCs have been found in the shallow portion of the A-aquifer, based on historical sampling results from well IR25MW15A1. This groundwater monitoring well is screened between 3.5 to 13.5 feet below the dip tank. VOCs have also been detected in the deeper portion of the A-aquifer, based on historical sampling results from well IR25MW15A2 (screened between 20 and 30 feet below the dip tank). The highest concentration of PCE has been found in well IR25MW15A1.

The most widespread VOCs found in groundwater have been 1,1,1-trichloroethane (TCA), TCE, 1,2-DCA, and vinyl chloride. These VOCs have also been found downgradient of Building 134, including the area encompassing IR-6, an IR site located on the opposite side of Lockwood Street, directly across from Building 134. The presence of vinyl chloride at concentrations comparable to TCE and PCE suggests that anaerobic biodegradation of VOCs is occurring in groundwater. As much as 86 µg/L of TCE was detected at monitoring well IR25MW16A. The VOCs detected in groundwater at these locations may be due to leaks and spills of solvents formerly used in Building 134 (PRC, 1996b).

The groundwater plume underlying the site near the dip tank and sump is referred to as Groundwater Remedial Unit (RU) 6 because of the presence of the VOCs, particularly vinyl chloride. The approximate boundary of RU-6 is shown in Figure 2. However, vinyl chloride in groundwater also extends downgradient beneath IR-6. In January and February of 2001, two baseline groundwater sampling events were conducted by IT in support of a chemical oxidation treatability study proposed for RU-6. Observations of dense non-aqueous phase liquid (DNAPL) and light non-aqueous phase liquid (LNAPL) were noted during well purging and sampling.

Table 2-1
Maximum Concentrations of VOCs Detected in Groundwater Monitoring Wells at IR-25 During the RI

Analyte	Maximum Detected Concentration (μg/L)
1,1,1-TCA	720
1,1-DCE	30
1,2-DCA	150,000
1,2-DCE (Total)	57,000
1,2-Dichloropropane	330
Benzene	43
Clorobenzene	2,200
Chloroform	39
cis-1,2-DCE	25,000
Methylene chloride	200
PCE	56,000
TCE	9,900
Vinyl Chloride	6,600

Source: PRC. 1996. "Draft Final Parcel B Remedial Investigation Report, HPS, San Francisco, California." June 3.

These observations were recorded on field documentation prepared by IT field sampling personnel. Free product and/or sheens were noted in five wells, IR25MW902, IR25MW903, IR25MW22A, IR25MW19A and IR25MW15A2. DNAPL were noted only in two wells, IR25MW902 and IR25MW19A based on visual observations of the groundwater samples collected from the wells. Sample analytical results, presented in Table 2-2, showed presence of PCE, TCE and cis-1,2-DCE. The concentrations (as raw laboratory data) of these VOCs in the groundwater sample from well IR25MW19A were compared to their respective solubilities in water. Results of the comparison show that the PCE concentration was approximately 48 percent of its solubility in water, and that those of TCE and cis-1,2-DCE were approximately 1.64 percent and 1.26 percent, respectively, of their solubilities in water.

One round of groundwater sampling was conducted by TtEMI in the first quarter of 2001. Results show decreases in the groundwater concentrations for some of the VOCs, such as TCE in IR25MW16A. Only low to non-detected concentrations of cis-1,2-DCE and vinyl chloride were found in the groundwater samples, suggesting biodegradation of TCE is not occurring in the groundwater. A summary of the primary VOCs detected in the groundwater monitoring wells at the site is shown in Table 2-3.

Table 2-2
Baseline Groundwater Sampling Results for IR25MW9A and IR25MW9B at Building 134, IR-25

Well Number	Date Sampled	DCE (µg/L)	PCE (µg/L)	TCE (µg/L)	Calculated Solubility for DCE	Calculated Solubility PCE	Calculated Solubility for TCE
IR25MW902B	01/31/2001	36,000	36,000	5,100	1.03%	23.95%	0.46%
IR25MW19A	01/25/2001	44,000	72,000	18,000	1.26%	47.90%	1.64%
Solubility[1] in water @ 25° C	3,500,000	150,300	1,100,000				

[1] *Howard, Philip H. 1990, Handbook of Environmental Fate and Exposure Data for Organic Chemicals, Lewis Publishers, Michigan.*

[2] *Sample results are from the baseline groundwater sampling performed by IT in January 2001 as part of the proposed chemical oxidation treatability study for RU-6.*

Table 2-3
Groundwater VOC Results for Monitoring Wells at Building 134 in the First Quarter 2001

Well ID	Detected VOC Species and Concentration (µg/L)				
	PCE	TCE	Cis-1,2 DCE	Trans-1,2 DCE	Vinyl Chloride
IR06MW41A	ND	ND	ND	ND	ND
IR06MW44A	ND	ND	ND	ND	ND
IR06MW45A	ND	ND	ND	ND	ND
IR25MW15A1	7,200	5,000	33,000	200	2,800
IR25MW16A	ND	6	9	ND	ND
IR25MW18A	1,400	2,600	6,800	590	2,000
IR25MW19A	17,000	5,700	32,000	NA	1,400
IR25MW22A[b]	ND	ND	ND	ND	ND
IR25MW39A	ND	ND	ND	ND	ND
IR25MW41A	ND	ND	ND	ND	ND

NOTES:
From Parcel C First Quarter Groundwater Sampling results provided in Phase II Groundwater Data Gaps Investigation prepared by Tetra Tech EMI.
From Baseline-1 Groundwater Sampling performed by IT Corporation.
NA denotes not analyzed/available.
ND denotes not detected above the method quantitation limit.
µg/L denotes micrograms per liter.

Petroleum Hydrocarbons in Groundwater TPH-g has been detected at concentrations ranging from 47 to 650,000 µg/L in monitoring wells IR25MW15A1, IR25MW15A2, IR25MW11A. These wells are screened in the A-aquifer beneath and south of the dip tank at the north end of the building. TPH-d has been detected in monitoring wells IR25MW15A1 and IR25MW11A,

but not in the deeper monitoring well, IR25MW15A2. Groundwater in the central part of the building was found to contain TPH-g and TPH-mo. The potential sources of TPH in groundwater are the dip tank, the sump, and the fuel lines beneath the building.

3.0 Pilot Test System Description

This section describes the SVE and vapor monitoring (VM) well layout and the pilot-scale system components. In general, the system was constructed in accordance with the descriptions presented in the Treatability Study Work Plan, specifically with respect to well design and layout and general arrangement of the vapor extraction and treatment (VET) components.

3.1 Well Layout

The SVE well locations are shown in Figure 3. All of the SVE wells except one are located within the RU-6 boundary in the north end of the building. One SVE well is located adjacent to monitoring well IR25MW16A. The wells were placed to assess the VOC removal effectiveness by SVE at this site. As such, the SVE wells are screened through the entire vadose zone to maximize capture of VOCs in the soil.

The VM wells are placed around the SVE wells, at distances ranging from 8 to 30 feet away to facilitate measurements, such as vacuum and vapor concentration readings. These measurements were used to assess the SVE well radius of influence (ROI), the SVE removal effectiveness, and the potential for preferential air pathways through the fill material in the vadose zone, including utility line backfill.

3.2 Vapor Extraction and Treatment System

The VET unit consisted of a skid-mounted blower system and a vapor phase granular activated carbon (GAC) unit. A schematic process diagram of the pilot-scale system is shown in Figure 4. The system was designed to handle a minimum of 50 cubic feet per minute (cfm) of airflow from each well at approximately 8 inches of mercury (Hg) vacuum. These initial values were adopted from the previous treatability tests conducted at the building site (TtEMI, 1998). Based on the number of SVE wells, a vapor extraction blower capable of yielding 850 cfm airflow was selected.

The blower of the VET unit selected was a 75-horsepower (hp), Spencer™ RB 100D, and of the positive displacement type. The blower operated on 460-volt, 3-phase, 60-ampere power. Electric power to the blower as well as the entire vapor extraction system was from a 190-kilowatt generator. In addition to the blower, the system consisted of a liquid-vapor separator, a dilution valve equipped with an air filter/silencer, a blower suction Universal™ URD-8 silencer, a blower discharge Universal™ silencer, and an Xchanger 2000 air-cooled heat exchanger.

The liquid-vapor separator was equipped with a level gauge, Warrick Control™ level switches, and a 2-hp positive displacement condensate discharge pump. The level switches controlled the start and stop of the Oberdorfer 9000-R condensate discharge pump. At a pre-set high level, the pump would be automatically turned on, and at a pre-set low level, the pump would be automatically turned off. The level gauge provided visual check of the liquid level inside the liquid-vapor separator.

The air-cooled heat exchanger was included to keep the extracted soil-vapor temperature at the inlet of the downstream GAC units to not greater than 110 degrees Fahrenheit (°F) to prevent adverse impact on the adsorption performance of the GAC. The heat exchanger was equipped with a temperature sensor and a switch that controlled the start and stop of the exchanger fan. When the system air temperature at the inlet of the heat exchanger was above the set point established for the air temperature, the exchanger fan would automatically start. When the system air temperature dropped below the set point, the exchanger fan would automatically stop.

GAC was selected for the primary treatment of extracted soil-vapor because of the type and levels of VOCs detected in previous treatability testing and in the initial soil-gas survey. The GAC unit was sized to provide a minimum of 1 month of the estimated service life. The service life for this site was estimated based on a GAC consumption rate of approximately 200 pounds per day. This estimate was also based on an average influent vapor concentration of 10 µg/L and an average airflow of 1,000 cfm. Approximately 8,000 pounds of virgin coconut GAC was acquired. The entire amount of GAC was distributed evenly into two vessels. The vessels were connected in a series for normal operation. A list of the major components of the system is presented in Table 3-1, as follows:

Table 3-1
Major Pilot Test Equipment List

Major Equipment	Model/Type	Capacity
Blower	Spencer Lobe RB 100D, positive displacement type	1,000 cfm at 12 inches Hg vacuum
Air-cooled Heat Exchanger	Xchanger 2000	1,000 cfm, with maximum heat exchange at 100,000 British Thermal Units per hour (BTU/hr)
Liquid Vapor Separator	Vertical, with Demister	50 gallons full capacity
Silencers	Universal URD-8	32 dBA
Granular Activated Carbons	4 x 8 mesh, virgin coconut shell	8,000 pounds (4,000 pounds in each vessel)

The VET unit was connected to the SVE wells via a 10-inch main pipe header made of Schedule 80 polyvinyl chloride (PVC) piping. The 10-inch pipe transitioned down, to 8-inch, to 6-inch, to eventually 4-inch pipes, before joining at the SVE wellheads. Piping was sized using a general airflow range of 2,000 to 3,000 feet per minute to minimize pressure drop through the piping network. The piping layout is also shown in Figure 3.

At the SVE well, the conveyance piping joined the wellhead PVC pipe through the connection to a 4-inch vacuum-rated flexible hose. The hose was included to provide a visual check and monitoring of liquid extracted out from the SVE well so that proper adjustment of operating flow and vacuum at the wellhead could be made, by minimizing liquid entrainment from the well. A vacuum gauge, a flow port, and a vapor concentration measurement port were installed at the wellhead for monitoring of the well performance. An SVE wellhead diagram is shown in Figure 5.

4.0 Performance of Field Activities

Field activities completed as part of the study included the following:

- Conducting a soil-gas survey
- Collecting soil samples and installing wells
- Collecting baseline SVE wellhead vapor samples
- Conducting step rate tests
- Conducting constant rate tests
- Monitoring wellheads for rebound

These activities and the data collected are described in further detail in the following subsections.

4.1 Soil-Gas Survey

A soil-gas survey was conducted in October 2000 at 40 locations pre-selected in the work plan as either SVE or VM wells. Prior to the start of the soil-gas survey, all locations were marked and Underground Service Alert (USA) was notified. The underground utilities in the vicinity of the soil-gas survey area were also located using a radio detection transmitter and identified on the ground surface with industry standard color codes. Any soil-gas survey points located within 2 feet of underground utilities were relocated approximately 4 feet away from the underground utility.

Soil-gas sampling began approximately 2 feet bbfs. Before collecting the samples, 6-inch diameter cores were cut out from the concrete surface at each sampling location. An AT-1 direct push rig was then used to drive a 1-inch steel rod equipped with hardened, reverse-threaded steel driving point into soil at the desired depth. A Teflon tube with a ¼-inch outside diameter was inserted down through the steel rod and connected to a sampling port at the bottom of the rod. Upon reaching the sampling depth, the rod was pulled back approximately ¼ inch to create a probe cavity for collecting the vapor sample. The sample was then drawn through the tubing to the Tedlar™ bag placed inside of an evacuated chamber. Prior to collecting the sample, the sample rod was purged by extracting approximately 2 liters of soil-gas.

After collecting the soil-gas sample at that sampling depth but before moving onto the next sampling interval, the steel rod was completely pulled out from the borehole and the tip was cleaned with soap and water. The rod was then advanced to the next sampling depth, and a new ¼-inch Teflon tube was used to eliminate the potential of sample "carryover." These procedures continued until sampling at that borehole location was completed. Upon completion of sampling

at each survey point, the sampling borehole was grouted to the surface with bentonite before the next borehole sampling began.

With the groundwater depth measured near 10 feet bbfs, based on readings taken from monitoring wells IR25MW16A and IR25MW20A in September 2000, the majority of soil-gas samples were taken from 2 feet bbfs to approximately 10 feet bbfs, at 2-foot intervals. However, in some events, ground refusals and/or groundwater caused early termination of sampling. Samples were analyzed onsite in a mobile laboratory for VOCs using U.S. Environmental Protection Agency (EPA) Method 8260. The screening-level analytical results are presented in Appendix A, Attachment 1.

4.2 Soil Sampling and Well Installation

After the completion of the soil-gas survey, soil borings were drilled and SVE and VM wells were installed. A summary of as-built well construction details is presented in Appendix B, Attachment 1. The boring logs with well completion diagrams are included in Appendix B, Attachment 2. Further descriptions of drilling, soil sampling, and well installation activities are presented in the following subsections.

4.2.1 Drilling and Subsurface Soil Sampling

Prior to well installation, boreholes were advanced at the SVE well and VM well locations preselected in the Treatability Study Work Plan. Boreholes were positioned over or immediately adjacent to the soil-gas survey locations, as site conditions permitted. Boreholes were advanced by direct-push using a trencher-mounted all-terrain rig or a hand-truck limited-access rig, depending on site access conditions. Soil samples were collected continuously throughout each borehole in 6-inch stainless steel sleeves for lithologic logging using American Society for Testing and Materials (ASTM) Method D2488-00 and analytical sampling. The borings were advanced to the approximate depth of the water table, observed in the borings to be approximately 10 feet bbfs inside Building 134, or approximately 1.5 feet elevation amsl. Following borehole completion, the boreholes were either plugged by backfilling with bentonite chips and water, or overdrilled using a hollow-stem auger for SVE or VM well installation.

In conjunction with lithologic logging, soil samples were screened for organic vapors using a photoionization detector (PID). In each borehole, soil samples exhibiting the two highest PID readings were selected for off-site laboratory analysis for VOCs (EPA 8260B) and total organic carbon (TOC) (Walkley-Black method) in accordance with the Treatability Study Work Plan. Where none of the soil samples exhibited PID readings above background (defined as the ambient air level), one sample from the bottom of the borehole was selected for off-site VOC

analysis. The off-site laboratory selected for chemical analysis was GPL Laboratories. Table 4-1 shows the locations and depths where samples were collected for analysis, in addition to the PID readings and types of analyses performed. A summary of the laboratory analytical results is provided in Appendix A.

Geotechnical soil samples were also collected for analysis of physical soil parameters. The geotechnical soil samples were selected from depths representing the major different soil types observed in each borehole. Physical parameters analyzed included bulk soil density (ASTM D2937), specific gravity of soil particles (ASTM D854), hydraulic conductivity (ASTM D5084), and moisture content (ASTM D2216). The off-site laboratory selected for soil physical analysis was Cyme, Inc.

Sixty-two (62) soil samples (including field quality control samples) were sent off site for physical and chemical analyses. The soil chemical and physical laboratory analytical data are included in Appendix A, Attachments 2 and 3, respectively.

4.2.2 Well Installation

Forty-six (46) VM wells (as well pairs at 23 locations) and 17 SVE wells were installed in Building 134 after the completion of the subsurface soil sampling. Well boreholes were drilled using a hydraulically-driven, limited-access hollow stem auger or Foremost B-4500 truck-mounted rig. In some cases, well locations were moved several feet because of underground utilities or other subsurface obstructions. The shallow and deep VM wells proposed at IR25SG054 could not be installed due to drilling refusal during the direct push drilling. Three adjacent locations were attempted for this soil boring but all yielded refusal at 2 feet bbfs, and the location was dropped from the well list.

The SVE wells are generally screened from 2 to 10 feet bbfs. The VM wells were installed in pairs, with well screens placed in shallow and deep intervals. The shallow screen interval is generally between 3 and 5 feet bbfs, and the deep screen interval is between 6 and 10 feet bbfs. The shallow and deep VM wells at IR25SG044, along with three SVE wells (IR25VW6-06A, IR25VW6-07A, and IR25VW6-19A), were installed in the concrete sump on the north end of the building. The sump floor is approximately 3 to 4 feet bbfs. As such, those wells are screened at an elevation 3 to 4 feet lower than the rest of the wells.

After completion of the well borehole, the well screen and casing were placed in the borehole to the targeted well depth. In some cases, the borehole was backfilled with bentonite chips or No. 3 Monterey sand to bring the bottom of the well screen up to the target depth. The SVE and VM

Table 4-1
Summary of Soil Sampling Locations and Analyses Performed

Sample Location (a)	Sampling Depth (ft bbfs) (b)	PID Reading (ppmv) (c)	Chemical Analysis (d)	Geotechnical Analysis (e)
IR25SG042	4.5	0		X
	8.5/9.5	0	X	X
IR25SG043	7	0		X
	8/8.5/9	0/0	X	X
IR25SG044 (f)	2.5	0		X
	5.5/6	0	X	X
IR25SG045	4	0		X
	8/8.5/9	28.3/75.9	X	X
IR25SG046	7.5/6.5	22.9	X	X
	9.5/8.5	56.4	X	X
IR25SG047	2.5	0		X
	8.5/9	0	X	X
IR25SG048	3	0		X
	8.5/9	0	X	X
IR25SG049	3	0		X
	8.5/9	0	X	X
IR25SG050	3	0		X
	8.5/9	0/0	X	X
IR25SG051	9.5/8.5	133	X	X
IR25SG052	6/6.5/5	14.2/43.7	X	X
	8.5/9	12.2	X	X
IR25SG053	6/5	24.8	X	X
	8.5/9	3.2	X	X
IR25SG055	1/2	16.1	X	X
	6/6.5	12.7	X	X
IR25SG056	6.5/7	0	X	X
	8.5/9	0	X	X
IR25SG057	4.5/5	587	X	X
	8.5/9	2.3	X	X
IR25SG058	4.5/5	456	X	X
	8.5/9	0	X	X
IR25SG059	2.5/3	0	X	X
	8/8.5	3.5	X	X
IR25SG060	8/8.5/9	0/0	X	X
IR25SG061	4.5/5	26	X	X
	8.5/9	0	X	X

Table 4-1 (Continued)
Summary of Soil Sampling Locations and Analyses Performed

Sample Location (a)	Sampling Depth (ft bbfs) (b)	PID Reading (ppmv) (c)	Chemical Analysis (d)	Geotechnical Analysis (e)
IR25SG062	2.5	0	X	
	8.5/9	0	X	X
IR25SG063	4.5	0		X
	9/9.5	0	X	X
IR25SG064	3	0		X
	8.5/9	0	X	X
IR25SG065	4	0		X
	8/8.5/9	0/0	X	X
IR25VW6-03A	4.5	0		X
	8.5/9	0	X	X
IR25VW6-04A	4.5	0		X
	8.5/9	0	X	X
IR25VW6-05A	0.5	0		X
	6.5/7	0	X	X
IR25VW6-06A (f)	3.5/2.5	3.8	X	X
	5.5/4.5	969	X	X
IR25VW6-07A (f)	5/5	0	X	X
IR25VW6-8A	5	0		X
	9	0	X	X
IR25VW6-09A	3	0		X
	9/9.5	0	X	X
IR25VW6-10A	4.5	0		X
	6.5/7	1.9	X	X
IR25VW6-11A	8.5/9	NR	X	X
IR25VW6-12A	9.5	0	X	
IR25VW6-13A	5	0		X
	8/8.5/9	7.7/203	X	X
IR25VW6-14A	1	0		X
	8.5/9	0	X	X
IR25VW6-15A	7.5/6.5	159	X	X
	9.5/8.5	67.4	X	X
IR25VW6-16A	8.5/9	0	X	X
IR25VW6-17A	0.5/1	1.9	X	X
	8/8.5/9	0/0	X	X
IR25VW6-19A (f)	3.5/3	3.8	X	X
	5.5/5	310	X	X

Table Notes:

(a) No soil samples were taken from IR25SG054 and IR25VW6-18A due to the soil conditions at those two boreholes.

(b) Where two sampling depths are shown, the first one is for the soil sample taken for chemical analysis, and the second one is for the sample taken for geotechnical analysis. Where three depths are shown, the first two are for chemical analysis, with one being a field duplicate and the last one is for geotechnical analysis.

(c) Where two readings are shown, they correspond to the respective sampling depths from which samples were submitted for chemical analyses.

(d) The laboratory analytical method for chemical analysis of the soil samples was EPA 8260B.

(e) Refer to Section 4.2.1 for all geotechnical analyses performed on the soil samples.

(f) Samples at these four locations were taken from beneath the dip tank. The sampling depths shown are referenced to the tank floor, which is 3.5 feet to 4 feet below the building floor.

NR denotes not recorded.

well materials consist of Schedule 40 polyvinyl chloride (PVC) casings with 0.020-inch slotted screens. Filter pack consisting of No. 3 Monterey sand was then poured in the annulus around the well screen and casing from the bottom of the well to 6 to 12 inches above the top of the well screen. Bentonite chips were placed on top of the filter packs to near surface, hydrated, and allowed to set for at least 2 hours prior to grouting. Cement-bentonite grout was then placed in the annulus from the top of the bentonite seal up to ground surface and allowed to set for at least 24 hours before the surface completion of the wells was performed. Wells were generally completed with the top of PVC casing extending 2 to 3 feet above the floor surface, to allow room for modifications and connection to the SVE conveyance piping. Further well construction information is provided in Appendix B, Attachment 1.

4.3 Baseline Field Measurements

Upon completion of well installation, one round of field measurements was conducted to establish baseline conditions prior to the SVE operation. These measurements included taking oxygen level and total VOC concentrations at the SVE and VM wellheads. The oxygen content was measured using a LandTec™ GA 90 instrument and total VOC concentration was measured using the Photovac™ 2020 PID with 10.2 electrovolt (eV) probe. The field instruments were calibrated using their respective calibration span gases each time prior to their uses. Before collecting the vapor samples for field measurement at each well, approximately three times of the combined well casing and wellhead piping volumes were evacuated using a sampling pump. After the completion of the wellhead evacuation, a PID measurement was performed, followed by measuring the oxygen level. In each PID measurement, the vapor sample was directly purged into the instrument via a Teflon-lined flexible tubing connected to the sample port. The instrument reading was then taken within a few minutes when the instrument readings stabilized. A similar procedure was followed for collecting the vapor sample for oxygen level measurement. Baseline measurement data are provided in Appendix C.

After wellhead measurements with the field instruments, one round of vapor sampling was performed at the wellheads of the SVE wells. Samples were contained in SUMMA™ canisters and shipped to Smart Chemistry (formerly JPB Corporation) for analysis using EPA Method TO-14. The following procedure was followed when collecting a vapor sample using the canister:

1. Before sampling, verified that the vacuum of the canister was above 25 inches of mercury.
2. Removed the brass cap from the canister valve, and attached the vacuum gauge to the canister valve.
3. Opened the canister valve, and attached the vacuum gauge to the canister valve.
4. Removed the vacuum gauge.
5. Attached the particulate filter to the canister inlet valve.
6. Purged the sample port for 10 seconds prior to sampling.
7. Attached a Teflon® sampling line from the vapor sampling port to the canister inlet valve. Ensured that this was an airtight connection.
8. Opened the effluent vapor sample port valve, then opened the canister valve. An audible noise would indicate air movement into the canister.
9. Waited for approximately 5 to 10 seconds after the sound ceased, then closed the canister valve and the sample port valve.
10. Removed the Teflon® line and the filter from the canister. Replaced the brass cap on the canister valve.
11. Labeled the canister, and stored it in a secure location until it was shipped to the off-site laboratory.

Analytical results and PID readings are presented in Table 4-2. Laboratory data are provided in Appendix A, Attachment 4.

4.4 Step Rate Testing

Step rate testing of selected SVE wells was conducted in accordance with the Treatability Study Work Plan to measure the airflow at different applied vacuum. The intent was to determine the vacuum/airflow characteristics of the SVE well subject to the geologic conditions of the vadose zone. Step test results were also used to determine the optimal vacuum for the constant rate test of the SVE system. Other information, such as well ROI, was also determined based on field data collected from the step rate test.

The system was tested at 2.5 inches Hg, 5 inches Hg, 7.5 inches Hg, and near 10 inches Hg of vacuum. Two wells were selected for step rate testing: well IR25VW6-15A, located in the north end of the building, and well IR25VW6-18A, located in the central area of the building. These two wells were considered to be representative of the subsurface conditions within the majority of their respective areas and were expected to yield results that would be applicable to those areas. Step tests were conducted first at IR25VW6-15A and then at IR25VW6-18A.

Table 4-2
Baseline Wellhead Vapor Concentrations for SVE Wells at Building 134

SVE Well ID	PID Reading (ppmv)	Detected VOC Species and Concentration (ppmv)						Total VOC Concentration (ppmv)
		2-Butanone	cis-1,2-DCE	PCE	TCE	1,2-DCA	Vinyl Chloride	
IR25VW6-3A	12.8	0.75	0.05	0.34	0.06	ND	ND	1.2
IR25VW6-4A	10.6	0.87	0.13	0.67	0.08	ND	ND	1.7
IR25VW6-5A	10.6	0.68	ND	0.14	0.03	ND	ND	0.8
IR25VW6-6A	26.6	2.02	0.83	2.63	0.28	ND	ND	5.8
IR25VW6-7A	18	0.69	0.17	0.19	0.04	0.05	ND	1.1
IR25VW6-8A	12.2	ND	0.08	0.35	ND	0.09	ND	0.5
IR25VW6-9A	19.8	0.69	0.26	0.15	0.06	ND	0.02	1.2
IR25VW6-10A	22.1	0.72	0.09	0.12	0.05	ND	ND	1.0
IR25VW6-11A	10.3	0.36	0.05	0.17	ND	ND	ND	0.6
IR25VW6-12A	20.6	0.90	ND	ND	ND	ND	ND	0.9
IR25VW6-13A	90.1	3.94	ND	ND	ND	ND	ND	3.9
IR25VW6-14A	8.4	0.41	0.06	0.11	ND	ND	ND	0.6
IR25VW6-15A	60.3	0.36	ND	0.03	ND	ND	ND	0.4
IR25VW6-16A	8	0.38	ND	0.07	ND	ND	ND	0.4
IR25VW6-17A	27	6.17	ND	ND	ND	ND	ND	6.2
IR25VW6-18A	27.5	ND	ND	ND	7.76	ND	ND	7.8
IR25VW6-19A	47.6	ND	1.82	4.08	0.39	ND	ND	6.3

ND denotes not detected above the method quantitation limit.
ppmv denotes parts per million by volume.

The SVE blower unit was used for the tests. Each test ran for at least 2 hours. System operating data, including extraction airflow, PID, and vacuum readings at the SVE wellhead and the VET unit, were recorded every half-hour. Vacuum readings were also measured every half-hour at all observation wells. System airflow was measured using a TSI VelociCalc Plus ™ Model 8360 flowmeter. Readings were recorded in actual cubic feet per minute (scfm), which were then converted into standard cubic feet per minute, in reference to approximately 70°F and one atmospheric pressure. PID measurements were conducted following similar procedures used for baseline measurements, except that when taken at the SVE well, a sampling pump was also used to overcome the vacuum exerted by the blower. The vapor stream was taken off the discharge end of the sampling pump and analyzed by the PID for total VOC concentration. When the SVE well experienced excess moisture entrainment, a moisture trap was attached to the sampling pump to remove the excess moisture from the sample stream.

At the end of each test, oxygen content and PID readings were again taken at the wellheads of each SVE well and VM well. Influent and effluent vapor samples were collected from the vapor-phase carbon adsorption units to determine carbon treatment efficiencies. The samples were shipped in SUMMA™ canisters to Smart Chemistry for EPA TO-14 analysis. Sampling procedures followed the same as for the baseline measurements. Sample results are provided in Appendix A, Attachment 4.

In addition to wellhead measurement, similar measurements, including those of vacuum, PID, and airflow, were taken across the system inlet and outlet during the test period. Field test data collected were recorded onto log sheets (included as Appendix C). The average extraction airflow rate measured at each step test was plotted against vacuum applied (see Figure 6). During the performance of a step test at 7.5 inches Hg at IR25VW6-15A, excess moisture was noted at the wellhead of the SVE well. Although this phenomenon did not occur at IR25VW6-18A, a lower vacuum was later selected for the constant rate test.

4.5 Constant Rate Testing

Constant rate testing of the SVE system began on February 19 and ended on June 14, 2001. The constant rate test was conducted to evaluate the overall SVE system performance based on step rate test results and to assess the short-term effectiveness of SVE in removing the VOC contaminants from the subsurface soil. The system was operated at approximately 5.0 inches Hg vacuum to address potential rise of water table within the SVE well screen. Operation had been maintained on a 24-hour, 7-day period, except during several short-term shutdown episodes and during the interim noise abatement period when the systems were only running between 8:00 a.m. and 5:30 p.m. Some of the shutdown events were also necessary to accommodate field sampling activities conducted by TtEMI inside the buildings.

System operation was monitored once every 2 hours for the first 8 to 10 hours on the first day of operation, and once every 8 hours on the third day of the operation. Beginning the fourth day of continuous operation, system monitoring was reduced to once daily. Carbon treatment system samples were collected, using SUMMA™ canisters, once daily for the first 3 days of operation and then once a week thereafter for the subsequent 2 weeks of operation. After approximately 2 weeks of system monitoring, system samples were taken once every 2 weeks. Again, sampling procedures were the same as for the baseline measurements. Sample analytical data are provided in Appendix A, Attachment 4.

The total extraction airflow rate, measured using the TSI VelociCalc Plus™ flowmeter at the piping manifold before the inlet of the extraction blower system, began at around 600 to 700 scfm. During the first 2 weeks of operation, liquid entrainment was observed at almost half of the SVE wells. As a result, the vacuum was reduced at those wells to minimize the amount of liquid entering the SVE system. The average airflow yield was approximately 40 scfm per well. After more than a month of operation, the total airflow increased and stabilized near 1000 scfm, with the system vacuum operating consistently around 5 inches Hg. Liquid entrainment did not occur as frequently as before but remained a primary concern for some SVE wells, particularly IR25VW6-6A and IR25VW6-19A. Airflow from those two wells located in the concrete sump was strictly limited because of excessive liquid entrainment. The amount of liquid recovered decreased from 165 gallons in February, to 70 gallons in April. No substantial amount of liquid was recovered in May and June. Recovered liquid was transported in drums onto a central waste staging area on site, and disposed of accordingly with other remediation-derived wastes.

In general, most of the airflow came from wells located outside of the sump on the north end of the building. The average airflow increased to approximately 50 scfm per well. Prior to system shutdown in June, the airflow yield per well was noted to have increased to nearly 70 scfm. The increase in airflow for most of the wells suggested: 1) an increase in the soil-air volume in the vadose zone, due to reduction of moisture content (or an increase in air-filled porosity) and/or 2) an increase in vadose zone thickness due to a decrease in the shallow groundwater table. Airflow temperatures fluctuated between 50 and 60°F throughout the test. System and well operation data are included in Appendix C. SVE well performance data are summarized in Table 4-3. Plots of the data are presented in Appendix D. Overall, the system operated at steady conditions, despite numerous short-term shutdowns and restarts.

Periodic groundwater level measurements using a Solinst water level meter were taken at both IR25MW22A and IR25MW16A. Beginning May 2001, a pressure transducer was installed in each of the two monitoring wells, IR25MW15A1 and IR25MW16A. The intent of using the pressure transducer was to allow continuous measurement of changes to the groundwater level while the SVE system was running. This in situ measurement continued from May through mid-June while the SVE testing was in progress. Overall, monitoring data did not show substantial increases in the well water level with the SVE system operating continuously. A plot of the water level changes in well IR25MW15A1 over time is presented as Figure 7. As shown in the figure, a gradual decrease in the water level during the system operation period was observed in this well.

Table 4-3
SVE Well Performance Data measured During the Constant Rate Testing from February 19, 2001 to June 14, 2001

Well ID	Flow (cfm)	Vacuum (Inches Hg)	VOC Concentration Measured by PID (ppmv)
IR25VW6-03A	15 to 20	0.5 to 2	0 to 22
IR25VW6-04A	40 to 50	1 to 3.5	0 to 15
IR25VW6-05A	15 to 20	4.5 to 5.5	0 to 25
IR25VW6-06A	2 to 5	0.5 to 1	0 to 20
IR25VW6-07A	20 to 25	1 to 1.5	0 to 15
IR25VW6-08A	80 to 100	4 to 5	0 to 25
IR25VW6-09A	10 to 20	1 to 2	0 to 17
IR25VW6-10A	15 to 20	4 to 5	0 to 220
IR25VW6-11A	20 to 40	4 to 5	0 to 30
IR25VW6-12A	10 to 15	4.5 to 5	0 to 22
IR25VW6-13A	15 to 20	4.5 to 5	0 to 150
IR25VW6-14A	40 to 50	2 to 2.5	0 to 28
IR25VW6-15A	120 to 140	4 to 5	0 to 22
IR25VW6-16A	60 to 80	5	0 to 25
IR25VW6-17A	10 to 20	4.5 to 5	0 to 1250
IR25VW6-18A	100 to 120	2 to 3	0 to 24
IR25VW6-19A	5 to 10	0.5 to 1.5	0 to 17

Note:
Well performance data are presented in ranges to show the extent of variations observed during the constant rate test.

4.6 Rebound Wellhead Monitoring

After the shutdown of the system in June 2001, monitoring for rebound of the total vapor concentration at the SVE and VM wells was performed. PID readings were taken at each of the SVE and VM wells on the day immediately following the system shutdown and then once every 2 weeks for a period of 2 months. In accordance with the Treatability Study Work Plan, vapor samples were collected from the three areas with the highest PID readings at the completion of the rebound monitoring and sent to an off-site laboratory for analysis.

In order to yield a representative picture of the rebound conditions over the rather large treatability study area, the following criteria were also used in selecting the sampling locations:

- One location would be inside the tank/sump area where highest VOC concentrations were previously detected in the north end of the building;
- One location would be in the central area of the building to provide VOC rebound information for that area;
- One location would be in the area between the tank/sump and the central portion of the building; and,
- At least one of the three sampling locations would be from the SVE wells at which baseline vapor sampling was conducted to allow direct comparison of wellhead vapor concentrations before and after SVE operations.

As a result, wellhead vapor samples were collected from wells IR25VW6-19A, IR25SG045-10, and IR25SG058-10. All three sampling locations satisfied the requirement of having the highest PID measurements within their respective areas. Laboratory analytical results are provided in Appendix A, Attachment 4. Results of the rebound monitoring and sampling are discussed in Section 5.0.

5.0 Presentation and Analysis of Treatability Study Data

This section presents the results of the analysis of the treatability study data collected from the site via sampling and system testing.

5.1 Vadose Zone Soil Characteristics

The subsurface soil characteristics within the treatability study area are described based on findings from soil borings and SVE well installation. Details are presented in the following subsections.

5.1.1 Soil Lithology and Description

Cross-sections showing the predominant vadose zone soil within the treatability study area in Building 134 are presented in Figures 8, 9, 10, 11, and 12. These cross-sections were prepared using lithologic logs developed from the SVE borings. Several lithologic logs from wells previously installed within the SVE area were also included to supplement the SVE lithologic log information. The fill was described and classified in the SVE borings following the methods described in ASTM D 2488-00, Standard Practice for Description and Identification of Soil.

Surface cover inside Building 134 consists of approximately 6 inches of concrete slab; an asphalt layer of similar thickness exists outside the northern edge of the building. The vadose zone underlying the treatability study area consists of predominantly artificial fill. This fill, below the surface concrete or asphalt, is characterized as unconsolidated material with color alternating between brown, gray, and grayish-brown, of a wide range of soil types. Soil types range from clays to sands and gravels, based on which SVE borings were logged. The ASTM D 2488-00 soil type classifications that were logged at the site are shown on the cross-sections posted next to the boreholes (see Figures 9 through 12). These soil types often contain a great portion of minor grain sizes; for example, many of the lean clays (CL) contain large percentages of sand, silt, and/or gravel. The fill material encountered is extremely heterogeneous, with a wide variation in soil types throughout the vadose zone, both vertically and horizontally.

In general, the soil type descriptions alternate between predominantly gravelly fill containing varying amounts of clay and sand, and finer-grained fill ranging from clayey sands to sandy clays with minor amounts of gravel. Gravels are predominantly angular, up to 1.5 inches in diameter, and include some concrete fragments as well as rock fragments of Franciscan bedrock origin.

The upper 4-foot to 5-foot portion of the vadose zone is predominantly gravelly fill with varying amounts of clay and/or sand, while the lower 5-foot portion is predominantly clayey fill with varying amounts of sand and occasional minor amounts of gravel. As shown in the cross sections (see Figures 9 through 12), predominantly lean clays (CL) and some fat clays (CH) are present in the lower half of the vadose zone, with varying percentages of sand and gravel. This lower section also includes isolated lenses of gravel (GP or GC). The upper half of the vadose zone is more varied in soil type, but is dominated by sand and/or gravel soil types (SC, SP, GC, GP, GP-GC), with varying amounts of clay or silt.

Because of the horizontal and vertical heterogeneity of the vadose zone fill deposits, contiguous units of individual soil types are not correlated. Instead, soil types are grouped on the cross sections into three broader subunits based on predominant grain size and associated estimates of hydraulic conductivity: 1) lower conductivity soil – primarily clayey soil; 2) moderate conductivity soil – sands or gravels with some clay or silt; and 3) higher conductivity soil – sands and/or gravels with no clay or silt. Fetter (1988) provides general ranges of hydraulic conductivity for clays, tills (poorly sorted mixtures of wide grain size variation), and sands and gravels, which correspond to the three soil type subunits selected. The hydraulic conductivity ranges provided in Fetter approximate the hydraulic conductivity values measured in geotechnical samples from the SVE borings and are presented on the cross-sections.

5.1.2 Soil Air-Filled Porosity

One soil physical parameter of particular importance with respect to SVE treatment effectiveness is the air-filled porosity in the vadose zone. This porosity value is estimated based on the following relationship (Johnston, et al., 1990a):

$$\varepsilon_a = \varepsilon_t - \rho_b \theta_m$$

Where:

ε_a = air-filled soil porosity
ε_t = total soil porosity
ρ_b = soil bulk density, g/cc
θ_m = soil moisture content, g-water/g-soil

Calculated values of the air-filled porosity are summarized in Table 5-1. Based on results of the soil samples collected between 2 and 5 feet and those between 6 and 10 feet, the difference in the air-filled porosity between the two screen zones is minimal. The calculated median value for the shallower layer was 0.05, while that for the deeper layer was 0.03. Overall, the low air-filled porosity values suggested a small soil-air volume initially present in the vadose zone beneath Building 134.

Table 5-1
Range of Measured and Calculated Soil Porosity Values for Treatability Study Area at Building 134

Sampling Zone	Soil Bulk Density, g/cc	Specific Gravity of Soil Particles (With Respect to Water Density)	Soil Moisture Content, g-water/g-soil	Soil Porosity	Calculated Air-Filled Porosity
From 2 to 10 feet bbfs	1.2 to 1.9, with a median value of 1.7	2.7 to 2.9, with a median value of 2.8	11% to 46%, with a median value of 21%	0.28 to 0.57, with a median value of 0.4	Near zero to 0.25, with a median value of 0.03

g/cc denotes grams per cubic centimeter.

5.2 Volatile Organic Compound Mass Distribution in Subsurface Soil

To estimate total mass of VOCs in the subsurface soil within the treatability study area, VOC mass was calculated for both soil-gas and soil media. Mass calculation was based on concentrations of the detected contaminants and the estimated contaminant volumes. For the purpose of estimating the contaminant volume, the laboratory method quantitation limit (MQL) was used to delineate the extent of the contaminant volume. For soil-gas, an MQL of 0.2 μg/L was selected. For soil, because the MQL of each VOC species varied, the lowest MQL of 1 μg/kg was chosen. Calculated individual contaminant mass was then summed to estimate the total VOC mass. Further discussions of VOC distribution and estimated mass in soil-gas and soil are presented in the following subsections.

5.2.1 Volatile Organic Compounds in Soil-Gas

Soil-gas survey analytical results showed that TCE, PCE, TPH-g, and trichlorofluoromethane (or Freon-11) were the predominant VOCs detected in the north end of the building and that TCE and TPH-g are the primary VOCs detected in the central area of the building. In the north end of the building, most of the VOCs were detected beneath the concrete sump. High VOC concentrations were mainly found 6 feet beneath the tank/sump area (or 10 feet bbfs) in IR25VW6-19A. In the center of the building, most of the VOCs were found at 4 feet bbfs near groundwater well IR25MW16A (see Appendix A, Attachment 1).

Figure 13 graphically presents the distribution of VOCs in soil-gas within the treatability study area. As shown in the figure, VOCs were categorized into four distinct groups, with the total concentration presented for each group at each sampling depth. These VOC groups are (1) benzene, toluene, ethylbenzene, and total xylenes (BTEX), (2) chlorinated VOCs, consisting of mainly vinyl chloride, DCE, PCE, and TCE, (3) TPH-g, and (4) Freon, consisting of both

Freon-11 and dichlorodifluoromethane or Freon-12. Contours of TCE concentration in soil-gas are also shown in Figure 13.

The total VOC mass in soil-gas combined from both areas was estimated to be less than 0.01 pound. This small soil-gas mass is due to a combination of the following three factors: 1) low average soil-gas concentration, 2) low soil air-filled porosity, and 3) small vadose zone thickness. Approximately 60 percent of the mass was attributed to TPH-g, followed by 26 percent to TCE and about 6 percent to Freon-11. The remaining was made up of cis-1,2-DCE, trans-1,2-DCE, PCE, and vinyl chloride. Vinyl chloride contributed to less than 1 percent of the mass in soil-gas and was primarily detected in locations where elevated levels of PCE and TCE were found. Table 5-2 presents a summary of the estimated VOC mass in soil gas.

Table 5-2
Summary of Estimated VOC Mass in Soil-Gas

Area	VOC Species	Estimated Volume (cubic feet)	Computed Average Concentration (µg/L)	Calculated Individual Mass (lb)	Combined Total Mass for Each Species (lb)	Percentage of VOC Species in Total Mass (%)
North End of the Building	Cis-1,2-DCE	11,800	0.9	3E-05	6E-05	2
	PCE	33,100	1.4	1E-04	1E-04	4
	TCE	45,700	1.0	1E-04	7E-04	26
	Freon-11	23,200	2.8	2E-04	2E-04	6
	TPH-g	6,900	14.0	2E-04	2E-03	61.4
	Vinyl Chloride	1,200	1.0	3E-06	3E-06	0.1
Central Area of the Building	Cis-1,2-DCE	5,170	2.4	3E-05	Included above	Included above
	Trans-1,2-DCE	3,520	1.4	1E-05	1E-05	0.4
	TCE	8,420	27.9	6E-04	Included above	Included above
	TPH-g	4,050	142.6	1E-03	Included above	Included above

5.2.2 *Volatile Organic Compounds in Soil*

Soil sample analytical results indicated that, in addition to DCE, PCE, and TCE, chlorobenzene (and its isomers) and naphthalene were the predominant hydrocarbons in the vadose zone soil in the northern area. In the central area of the building, predominant species detected were cis-1,2-DCE, trans-1,2-DCE, ethylbenzene, naphthalene, TCE, 1,2,4-trimethylbenzene (TMB), and xylenes. Vinyl chloride was again detected in a few locations and in only those where DCE, PCE, and/or TCE were also found.

Most of the volatile hydrocarbons in the northern area were found near and beneath the concrete sump. As much as 139 mg/kg of PCE and 103 mg/kg of 1,2-DCB were detected in the soil sample collected between 5 and 6 feet below the sump floor (approximately 10 feet bbfs) at IR25VW6-06A. These organic compounds were also detected southeast of the sump between 8 and 9 feet bbfs at IR25SG045 but at lower concentrations—2.4 mg/kg for PCE and 10 mg/kg for 1,2-DCB.

Organic contaminants in the central area were mostly detected in the vicinity of monitoring well IR25MW16A. TCE was found with the highest concentration of 64 mg/kg in the sample collected between 4 and 5 feet at IR25SG058 (located approximately 20 feet northeast of the monitoring well). Other hydrocarbons, such as 1,2,4- TMB, ethylbenzene, xylenes, and naphthalene, were also detected in that sample (see Appendix A, Attachment 2). Sample results also suggested that soil contamination (particularly with TCE) could exist north and east of the groundwater monitoring well.

The total organic contaminant mass in the soil was estimated to be 1.4 pound. Approximately 75 percent of the contaminant mass came from 1,2-DCB and TCE, with the remaining 25 percent from chlorobenzene and its other isomers, 1,2- DCA, DCEs, ethylbenzene, naphthalene, PCE, and xylenes. Figures 14 and 15, respectively, show the distributions of TCE and 1,2-DCB (the predominant organic hydrocarbons) in the subsurface soil beneath Building 134. Table 5-3 presents a summary of the estimated organic contaminant mass in soil.

Table 5-3
Summary of Estimated VOC Mass in Soil

Area	Primary Organic Contaminants	Estimated Volume (cubic feet)	Estimated Average Concentration (μg/kg)	Calculated Individual Mass (lb)	Combined Total Mass for Each Species (lb)	Percentage of Species in Total Mass (%)
North End of the Building	Cis-1,2-DCE	1,560	223	0.04	0.05	3.5
	1,2,4-TCB	950	135	0.01	0.01	1.0
	1,2-DCB	8,840	600	0.55	0.55	40.0
	1,3-DCB	980	127	0.01	0.01	0.9
	1,4-DCB	5,810	200	0.12	0.12	8.7
	Chlorobenzene	6,980	25	0.02	0.02	1.3
	Naphthalene	10,250	11	0.01	0.02	1.3
	PCE	14,980	58	0.09	0.09	6.6
	TCE	4,420	63	0.03	0.5	35.4
Central Area of the Building	Cis-1,2-DCE	5,070	23	0.01	Included above	Included above
	Trans-1,2-DCE	1,510	11	2E-03	2E-03	0.1
	TCE	7,230	610	0.5	Included above	Included above
	1,2,4-TMB	1,670	38	7E-03	7E-03	0.5
	Ethylbenzene	470	27	1E-03	1E-03	0.1
	m-,p-Xylenes	570	54	3E-03	3E-03	0.2
	o-Xylene	640	24	2E-03	2E-03	0.1
	Naphthalene	1,510	37	6E-03	Included above	Included above

DCB denotes dichlorobenzene.
DCE denotes dichloroethene.
Freon-11 denotes trichlorofluoromethane.
PCE denotes tetrachloroethene.
TCB denotes trichlorobenzene.
TCE denotes trichloroethene.
TMB denotes trimethylbenzene.

5.3 Pilot-Scale System Performance

This section presents the results of the pilot-scale SVE testing based on field data gathered from baseline to rebound monitoring. Areas discussed include: SVE well performance including vacuum/airflow correlation, ROI, soil permeability to airflow, and effective ROI; extracted soil-vapor concentration behavior; soil-vapor treatment efficiency; VOC mass removal; and concentration rebound.

5.3.1 Soil-Vapor Extraction Well Performance

Well performance is discussed in terms of the extraction airflow and well ROI. These two performance areas are discussed in further details in Sections 5.3.1.1 and 5.3.1.2, respectively.

5.3.1.1 Vacuum/Flow Correlation

During the step rate test, a vacuum/extraction airflow profile was developed for each of the two SVE wells tested. The step test results generated a maximum airflow of 70 scfm at 8.0 inches Hg for IR25VW6-15A and 130 scfm for IR25VW6-18A at 10.0 inches Hg. At 7.5 inches Hg, the airflow yield at IR25VW6-18A was nearly 90 scfm. At 5.0 inches Hg, however, the extraction airflow measured at both wells was approximately 50 scfm (see Figure 6). This airflow rate also corresponded to the average well airflow yield measured during the constant rate test. Based on the vacuum distribution and the minimal amount of liquid entrainment noted at the majority of the SVE wells, the optimal well operating vacuum was determined to also be at 5.0 inches Hg.

5.3.1.2 Radius of Influence

An ROI of the SVE well was estimated based on vacuum responses measured at the observation wells during the step rate test. The ROI was defined as the radial distance at which a vacuum response of 0.1 inches water column (wc) would be yielded. The ROI was determined from a semi-log plot of vacuum readings taken at the observation wells against their respective distances from the SVE well. A regressed straight line was plotted and extrapolated to yield the ROI at 0.1 inches wc. Figures 16, 17, 18, 19, 20, 21, 22, and 23 show plots of the vacuum readings based on observation points from the two SVE wells. The scattered vacuum distribution data shown in the figures are likely due to the heterogeneity of the subsurface soil and possibly the presence of subsurface utilities in the vadose zone. As shown previously in Figure 2, there are subsurface utility runs transecting across the building. These utility runs tend to cause uneven vacuum distribution induced by the SVE wells, as well as alter the airflow direction by acting as the preferential pathway for subsurface air movement.

To show differences in the ROI based on vacuum readings taken from wells screened in different depths, Table 5-4, summarizes the range of results based on: 1) only the shallow VM wells; 2) only the deep VM wells; and 3) all SVE and VM wells. Results indicate that the well ROI varied from 30 feet to 130 feet. As shown in Table 5-4, for IR25VW6-15A, the ROI estimated based on vacuum distributions from the shallower wells was smaller than (almost half of) that

Table 5-4
Average SVE Well ROI Based on Field Test Data

Test Well	Based on Readings from	Radius of Influence (feet) Determined for Vacuum Level at				
		2.5 in Hg	5.0 in Hg	7.5 in Hg	10.0 in Hg	Average
IR25VW6-15A	All SVE and VM wells	53	47	66	59	56
	Shallow VM wells only	13	31	46	44	34
	Deep VM wells only	82	55	78	92	77
IR25VW6-18A (a)	All SVE and VM wells	108	98	146	156	127
	Deep VM wells only	111	36	118	125	98

Note:
(a) The vacuum readings taken from the shallow VM wells during the step testing at IR25VW6-18A generated inconsistent results when plotted against distances. Therefore, no estimate of the ROI based on only the shallow VM well readings was made.

from the deeper wells. For IR25VW6-18A, the inconsistent vacuum responses observed from the shallower wells did not yield a reasonable ROI. The non-uniform vacuum distribution experienced in the central area where the well is located could be due to the presence of subsurface utilities beneath the building. The vacuum responses from the deeper wells in the area yielded an ROI of over 100 feet. However, because of the presence of subsurface utilities, the zone of vacuum influence in the northwest and southwest directions would likely not reach beyond the utility lines. Greater vacuum responses also seemed to be experienced towards east and southeast of the SVE well. In that area, more permeable sandy type soil was noted within the first 4 to 5 feet bgs in the vadose zone. Therefore, greater airflow might also be yielded from the east and southeast direction.

Although the large variation in the data set rendered an uncertainty in the absolute value of the estimated ROI, this uncertainty did not necessarily result in a great impact on the calculation of other physical parameters using the ROI, such as the soil permeability to airflow and the linear

soil-gas velocity. As shown later in the equations for determining the two parameters, both the soil permeability to air and the linear soil-gas velocity are functions of the natural logarithm of the quotient in which the ROI appears as the denominator. As such, these parameters are also rather insensitive to any substantial increases or decreases in the absolute value of the ROI since the natural logarithm of the quotient will not greatly affect the calculated values of the soil permeability to air and the soil-gas velocity.

5.3.1.3 Soil Permeability to Airflow

The soil permeability to airflow was calculated using the following equation, derived from the steady-state radial flow solution for compressible flow (Johnson et. al., 1990a):

$$K_v = \frac{Q\mu \ln\left(\frac{R_w}{R_i}\right)}{\left\{H\pi P_w\left[1-\left(\frac{P_{atm}}{P_w}\right)^2\right]\right\}}$$

Where:

H = well screen length, cm
K_v = soil permeability to airflow, cm^2
P_{atm} = absolute ambient pressure, $g/cm\text{-}s^2$
P_w = absolute pressure at SVE well, $g/cm\text{-}s^2$
Q = volumetric airflow rate, cm^3/s
R_i = radius of influence, cm
R_w = radius of SVE well, cm
μ = viscosity of air, g/cm-s

Average permeability values were determined for the north and central areas of the building (see Table 5-5). Results show no significant difference in the permeability value between the two areas. The calculated soil permeability to airflow ranges from 9E-08 square centimeters (cm^2) to 11E-08 cm^2, or 9 to 11 darcys.

Table 5-5
Average Soil Permeability to Airflow Calculated Based on Field Test Data

Area [a]	Screened Interval	SVE Well Vacuum, in Hg	Induced Airflow, acfm	Average ROI, feet	Calculated Soil Permeability to Air, cm^2
North end of the building	2 to 10 feet	5.5	56	56	9.2E-08
Central area of the building	2 to 10 feet	5	54	98	11E-08

(a) Performance data for the north area are based on SVE well IR25VW6-15A, while performance data for the central area are based on SVE well IR25VW6-18A.

acfm denotes actual cubic feet per minute.

5.3.1.4 Effective Radius of Influence

The EROI is defined as the radius at which a critical airflow velocity is reached. This parameter is determined via a four-step process: 1) estimation of ROI; 2) estimation of soil permeability to airflow; 3) determination of soil-gas velocity; and 4) determination of the EROI. Results of the first two steps are presented in previous subsections. The linear soil-gas velocity is determined by the following equation:

$$u(r) = -\frac{k}{2\mu\varepsilon} \frac{\left[\frac{P_w}{r\ln(R_w/R_i)}\right]\left[1-\left(\frac{P_{atm}}{P_w}\right)^2\right]}{\left\{1+\left[1-\left(\frac{P_{atm}}{P_w}\right)^2\right]\frac{\ln(r/R_w)}{\ln(R_w/R_i}\right\}^{1/2}}$$

Where:

K = soil permeability to airflow, cm^2
P_{atm} = absolute ambient pressure, g/cm-s^2
P_w = absolute pressure at SVE well, g/cm-s^2
r = radial distance away from well, cm
R_i = radius of influence, cm
R_w = radius of well, cm
$u(r)$ = linear soil-gas velocity as a function of radial distance r, cm/s
ε = soil air-filled porosity
μ = viscosity of air, g/cm-s

The EROI is estimated based on a soil-gas velocity of approximately 0.1 feet per minute (ft/min). Average EROIs were calculated for both test locations inside the building; the values varied from 30 feet to 70 feet. The greater EROI again occurred in the central area of the building. The time for the soil-gas to travel from the perimeter of the EROI to the SVE well was also calculated based on the linear soil-gas velocity. Table 5-6 shows the average EROIs and soil-gas travel time calculated using results from the step rate tests on the two SVE wells.

5.3.2 Extracted Soil-Vapor Concentration

The extracted soil-vapor concentration monitored through laboratory analysis of vapor samples collected at the inlet of the aboveground SVE system showed slight variations in the 3 months of operation. The small changes in the soil-vapor concentration were also noted from the PID measurements. Based on the laboratory analysis, the concentration decreased from 0.25 parts per million by volume (ppmv) to 0.025 ppmv after approximately 1 week of operation, and then increased to 0.1 ppmv following another 12 days of system run time. Thereafter, the vapor concentration fluctuated between 0.05 ppmv and 0.2 ppmv, until the system was shut down on June 14, 2001. The soil-vapor concentration did not appear to approach a stable asymptote.

Table 5-6
Average Effective Radius of Influence Estimated for SVE Wells at Building 134

Building Area	Screened Interval	Soil Air-Filled Porosity	Well ROI Ri, feet	Soil-Air Permeability Kv, darcy	Radial Distance r, feet	Linear Soil-Gas Velocity, feet/min (absolute) (a)	Cumulative Travel Time, Tr Day
North end of the building	2 to 10 feet bbfs	0.2	60	9.0	10	0.5	0.015
					20	0.2	0.05
					30	0.1 (b)	0.1
Central Area of the building	2 to 10 feet bbfs	0.1	130	11.0	10	1.0	0.01
					20	0.5	0.02
					30	0.3	0.04
					40	0.2	0.07
					50	0.2	0.1
					60	0.2	0.2
					70	0.1 (b)	0.2

(a) An absolute value is presented for the linear soil-gas velocity.
(b) Indicates the EROIs that correspond to the soil-gas velocity of 0.1 feet per minute.

Because the system airflow rate and operating vacuum were nearly constant, the fluctuations in the extracted soil-vapor concentration might indicate spatially heterogeneous areas of elevated VOC concentrations in soil within the treatability study area. Figure 24 shows the trend of the extracted soil-vapor concentration over the duration of the test, along with system operation status. System flow and vacuum trends are also presented in Figures 25 and 26, respectively.

5.3.3 Cumulative Volatile Organic Compound Mass Removed

Most of the detected VOCs in the influent vapor samples were PCE, TCE, toluene, xylenes, and Freon-11. As much as 50 percent of the VOCs removed from the subsurface was Freon-11 (see Table 5-7). Vinyl chloride was not detected above the method quantitation limit in any of the influent vapor samples. The total VOC mass removal rate, determined from the laboratory sample analytical results and the extraction airflow rate, varied from 0.002 pounds per hour (lb/hr) to 0.005 lb/hr. The cumulative VOC mass removal was estimated at approximately 5.0 pounds. The cumulative VOC mass removal versus hours of system operations is shown in Figure 27.

Table 5-7
Composition of VOCs Removed from the Subsurface by SVE Operations at Building 134

VOC Detected in Extracted Soil-Vapor	Maximum Concentration Detected (ppbv)	Cumulative Mass Removed (pounds)	Percent of Total Cumulative Mass Removed (%)
Benzene	17	0.03	< 1
Butanone	39	0.04	< 1
Cis-1,2-DCE	8.9	0.05	1
Ethylbenzene	20	0.13	3
Freon-11	117	2.1	48
Freon-113	13	0.2	5
PCE	25	0.5	11
TCE	69	0.6	13
Toluene	109	0.25	6
Xylenes	96	0.5	12

ppbv denotes parts per billion by volume.

5.3.4 *Extracted Soil-Vapor Treatment*

Extracted soil-vapor was treated with vapor phase carbon. Appendix A, Attachment 4 contains laboratory data of influent and effluent vapor samples collected during the system operation. The average carbon treatment efficiency was generally maintained above 90 percent until May when breakthrough of Freon-11 occurred. Local air emissions limitations, established in Regulation 8, Rule 47, by the Bay Area Air Quality Management District (BAAQMD) requires at least 90 percent reduction by weight of VOCs through a control device if any of the following conditions occur in the extracted soil-vapor:

- Greater than 1 pound per day (lb/day) of benzene, methylene chloride, PCE, TCE, and/or vinyl chloride
- Greater than 15 lb/day of total VOCs

Because the total VOC mass extraction rate had been less than 1 lb/day, the breakthrough by Freon-11 did not constitute non-conformance to the local emissions requirements.

5.3.5 *Volatile Organic Compound Rebound*

VOC concentration rebounds measured by the PID were noted in almost all wells. Most of them, however, show PID readings less than 20 ppmv. The six VM wells outside of the building showed even lower rebound readings (less than 5 ppmv). The deep VM wells of IR25SG057

and IR25SG058 are the only two that show PID readings of greater than 100 ppmv. A comparison between the baseline and rebound PID measurements is presented in Table 5-8.

As discussed above, three wellhead vapor samples were collected during the rebound test for offsite laboratory analysis. Analytical results are summarized in Table 5-9. A comparison between rebound and baseline analytical results for the samples taken from IR25VW6-19A shows an increase in the wellhead vapor concentration for PCE (133 percent), TCE (127 percent) and cis-1,2-DCE (240 percent). These increases clearly indicated a substantial rebound of the wellhead vapor concentrations after the SVE operation ceased. However, operation of this well had been limited throughout the test period due to excess liquid entrainment observed at the well. As such, VOC removal from this well was also limited.

The VOC rebound at IR25VW6-19A is not expected to be associated with VOC presence in the groundwater. An equilibrium calculation using the rebound vapor sample results suggests that the equilibrium groundwater concentration should be less than 30 μg/L for PCE, TCE, and cis-1,2-DCE combined (see Appendix E, Table E-1). However, historical concentration values for any of the three VOCs detected in the groundwater in the adjacent monitoring well IR25MW15A1 have been on the order of magnitude of 1,000 to 10,000 μg/L, far above the calculated equilibrium groundwater concentration. The soil equilibrium partitioning calculation shown in Appendix E, Table E-2, on the other hand, provides a more comparable result to the initial soil concentration in that location. Hence, the calculation results suggest that the VOCs in the subsurface soil are likely the source of the concentration rebound observed in the wellhead.

However, the calculated equilibrium soil concentrations may reflect the contaminant levels at approximately 3.5 feet beneath the dip tank floor at that location. Soil samples collected during well installation at IR25VW6-19A showed substantially high concentrations of PCE (at 15,000 μg/kg), TCE (at 900 μg/kg), and 1,2-DCE (at 4,800 μg/kg) at approximately 5.5 feet below the dip tank floor, while less than 200 μg/kg was found for the three VOCs at 3.5 feet in the same borehole. The equilibrium soil-vapor concentrations calculated using the sample results at 3.5 feet at IR25VW6-19A are more comparable to the baseline wellhead vapor concentrations measured at that well than using the deeper sample results. Since operation of this SVE well has been limited, it is very likely that only a small reduction of the VOC mass in the shallower screen interval has occurred while the majority of it remains in the deeper layer. Based on this assumption, the equilibrium soil-water concentrations for the three VOCs were calculated using the initially measured soil concentrations. The calculation shows that the soil-water concentrations were comparable (even higher) to the historically detected groundwater concentrations for the VOCs. This evaluation suggests a direction of the VOC mass transfer from the soil to the groundwater.

Table 5-8
Baseline and Rebound Wellhead Vapor PID Measurements at Building 134

Well ID	PID Readings Prior to System Startup (ppmv)	PID Readings Immediately after System Shutdown (ppmv)	PID Readings Approximately 2 Months after System Shutdown (ppmv)
	02/12/2001	06/14/2001	08/08/2001
IR25VW6-3A	12.8	0.4	16.6
IR25VW6-4A	10.6	0.5	14
IR25VW6-5A	10.6	0.5	16.5
IR25VW6-6A	26.6	1.3	15.8
IR25VW6-7A	18	0.4	14.8
IR25VW6-8A	12.2	0	15.8
IR25VW6-9A	19.8	4.7	13.1
IR25VW6-10A	22.1	6.7	12.3
IR25VW6-11A	10.3	0.1	16.9
IR25VW6-12A	20.6	2.1	11.4
IR25VW6-13A	90.1	18.4	22.2
IR25VW6-14A	8.4	2.5	18.4
IR25VW6-15A	60.3	4.3	21.3
IR25VW6-16A	8	1.1	22.9
IR25VW6-17A	27	0	18.9
IR25VW6-18A	27.5	4.6	34.2
IR25VW6-19A	47.6	2.1	36.2
IR25SG042S	3.9	0	19
IR25SG042D	7.6	0.3	28.6
IR25SG043S	11.9	0	15.4
IR25SG043D	17.9	0.5	48.4
IR25SG044S	11.6	2.6	14
IR25SG044D	2.7	2.4	13.5
IR25SG045S	4.1	0.1	21.2
IR25SG045D	21	51.2	117
IR25SG046S	11.5	9	19.2
IR25SG046D	16.5	6.7	17.4
IR25SG047S	5.1	2.2	19.3
IR25SG047D	7.8	1.6	25.2
IR25SG048S	5.2	2.4	20.4

Table 5-8 (Continued)
Baseline and Rebound Wellhead Vapor PID Measurements at Building 134

Well ID	PID Readings Prior to System Startup (ppmv)	PID Readings Immediately after System Shutdown (ppmv)	PID Readings Approximately 2 Months after System Shutdown (ppmv)
	02/12/2001	06/14/2001	08/08/2001
IR25SG048D	17.9	2.9	30.2
IR25SG049S	7.9	2.7	19.9
IR25SG049D	5.7	3.1	9.1
IR25SG050S	4.1	0	17.7
IR25SG050D	4.9	0	39.3
IR25SG051S	5.7	0.9	15.6
IR25SG051D	52.5	2.4	33.7
IR25SG052S	2.9	0	24.6
IR25SG052D	68.5	17.8	78.2
IR25SG053S	7.5	1.3	19.5
IR25SG053D	20.8	18.7	75.5
IR25SG055S	6.5	5	23.5
IR25SG055D	34.5	27.9	51.5
IR25SG056S	8.6	3.1	23.3
IR25SG056D	12.6	3.4	37.8
IR25SG057S	44.2	6.3	34.1
IR25SG057D	288	77.4	195
IR25SG058S	65.3	22.3	43.5
IR25SG058D	154	212	295
IR25SG059S	21.9	0.2	19.2
IR25SG059D	61.1	10.9	51.5
IR25SG060S	19.8	0	9.9
IR25SG060D	19.9	0.4	23
IR25SG061S	11.3	0	17.6
IR25SG061D	9.4	0	7.8
IR25SG062S	14.2	3.6	21.5
IR25SG062D	17.1	3.9	31.2
IR25SG063S	2.1	0.8	4
IR25SG063D	3.5	1.3	3.9
IR25SG064S	3.2	5.3	2.1
IR25SG064D	4.8	10.1	3.9
IR25SG065S	4.3	4.2	1.1
IR25SG065D	3.7	7.6	0.9

Table 5-9
Wellhead Vapor Rebound Sample Analytical Results

Well ID	Sampling Event	VOC Concentration (ppmv)				
		PCE	TCE	Cis-1,2-DCE	Freon-11	Freon-113 (b)
IR25VW6-19A (SVE well)	Baseline (a)	4.08	0.39	1.82	ND (c)	ND
	Rebound	9.49	0.89	6.21	ND	ND
IR25SG045-10 (deep VM well)	Rebound	ND	ND	ND	866.0	132.0
IR25SG058-10 (deep VM well)	Rebound	ND	62.0	ND	ND	ND

(a) Baseline results for IR25VW6-19A are included for comparison purposes only.
(b) Freon-113 is the same as trichlorotrifluoroethane.
(c) Not detected above the method quantitation limit.

The other two well locations, IR25SG045-10 and IR25SG058-10, showed the detection of only Freons or TCE, respectively. Freon-11 was detected with the highest concentration at IR25SG045-10 and was also detected in the two soil samples collected between 8 and 9 feet from the soil boring at IR25SG045, with an average concentration of 2,000 µg/kg. Assuming the wellhead vapor concentration was in equilibrium with the soil concentration, an equilibrium partitioning calculation showed that the average soil concentration between 6 and 10 feet at that location would be as high as 650 µg/kg (see Appendix E, Table E-2). The equilibrium calculation results suggested a possible reduction of 67 percent of Freon-11 in the soil. Appendix E, Table E-1 also shows the calculated equilibrium groundwater concentration for Freon-11 (assuming the wellhead vapor concentration was in equilibrium with the groundwater concentration). However, since there are no recent groundwater data for Freon-11, a comparison between the calculated and the actual values was not made. Freon-113 was not detected in the soil samples from that location. An estimate of mass reduction for this VOC could not be made. The source of Freon-113 is possibly associated with the sump. Because Freon-113 was not detected in any of the soil samples and there are no groundwater data for comparison, neither could the mass reduction nor the source of rebound be determined for this VOC.

A relatively low level of TCE (63 µg/kg) was detected in the soil sample collected between 8 and 9 feet from the soil boring at IR25SG058. Based on the wellhead vapor sample result, again assuming the vapor concentration was in equilibrium with the soil concentration, an equilibrium partitioning calculation showed that the average soil concentration between 6 and 10 feet would be as high as 750 µg/kg (see Appendix E, Table E-2). The significant difference between the two values suggested the presence of (1) substantially higher concentration of TCE than

previously detected in the deeper layer of the vadose zone soil and/or (2) other source(s) within that area contributing to the detection of TCE in the wellhead vapor.

Similar to IR25VW6-19A, TCE previously detected in the groundwater is not expected to contribute to the rebound noted at IR25SG058-10. An equilibrium partitioning calculation (see Appendix E, Table E-1) indicated that the equilibrium groundwater concentration for TCE would be on the order of 80 μg/L. This concentration is more than 10 times the groundwater concentration found in IR25MW16A during a round of Parcel C monitoring well sampling conducted by TtEMI in February 2001, suggesting that the source of VOC rebound at the VOC well could not have been from the groundwater. Similarly, the equilibrium partitioning evaluation results also indicate a gradient of VOC mass transfer from the soil to the groundwater at that location.

6.0 Conclusions and Recommendations

This section provides conclusions and recommendations regarding the SVE treatment effectiveness and applicability to the site. In addition, recommendations for subsequent actions are provided.

6.1 Conclusions

The effectiveness of SVE to treatment of subsurface soil and soil-gas contaminated with VOCs at this site is assessed based on the extent of VOC removal using the pilot-scale system. The extent of VOC removal was evaluated based on findings in the following performance areas:

- The presence or absence of a concentration asymptote for the extracted soil-vapor
- The mass removed compared to the initial estimated quantity in soil
- The concentration rebound after system operations ceased

These findings are discussed below.

6.1.1 Extracted Soil-Vapor Concentration Asymptote

In a typical SVE operation, the extracted soil-vapor concentration generally decreases exponentially and approaches an asymptotic level as the system operation progresses. The presence of an asymptote is usually indicative of the maximum amount of VOCs that can be removed from the soil under the system operation conditions. An absence of an asymptote suggests that additional VOC mass remains to be removed.

An asymptote was not noted in the several months of operation at this site. Therefore, it is concluded that a continuing source of VOCs is present in the treatment area. Because the equilibrium calculation results suggested the groundwater is not a contributor to the VOC in soil-gas, one suspected source would be the soil in the more impermeable clay layer in the lower portion of the vadose zone. The VOCs adsorbed in the more impermeable layer of soil acted as the source of supply to the more permeable layer during the SVE operation. VOC removal from clayey soil was probably controlled by the slow diffusion of the VOCs from the clayey soil into the more permeable layer in the upper portion of the vadose zone. This speculation seems to be supported with the low mass removal rate of less than 0.005 lb/hr noted during the 3 months of system operation.

6.1.2 Mass Removal Compared to Initial Quantity

The VOC mass calculation estimated that approximately 1.4 pounds of VOCs were present in the subsurface soil and soil-gas within the treatability study area. However, the cumulative mass removal calculation shows that as much as 5 pounds of VOCs were removed from the subsurface. Comparing the mass removed to the initial quantity present, the SVE system recovered greater amounts of almost all VOCs primarily detected in the soil, except chlorobenzene The lesser degree of removal of chlorobenzene from the subsurface is believed to be associated with the fact that: 1) the majority of the VOC is confined beneath the dip tank/sump area, and 2) the VOC is generally less volatile compared to the others detected. These are also believed to be the main reasons for the lack of removal observed for the DCBs and naphthalene.

In addition, the system removed substantially more of other VOCs that were not considered key soil contaminants, such as ethylbenzene, Freon-11, and Freon-113. These VOCs were probably drawn into the SVE well capture zone from outside the treatability study area, given the appreciable EROIs of the SVE wells. Nevertheless, the increase in VOCs recovered from the subsurface over the amount estimated initially in the soil suggests that SVE has had a positive effect on VOC mass removal at this site.

6.1.3 Residual VOC Mass and Estimated Removal Time

Based on the difference between the initial VOC mass in soil within the treatability study area and the mass removed, little or no residual mass would be expected to remain. However, rebound wellhead vapor sample results suggest that residual VOC mass in the soil probably exists, and that most of the mass is likely to be within the clayey soil in the deeper portion of the vadose zone. In addition to the previous speculation that the slower removal of the VOC mass in the deeper layer may have been due to the slow diffusion of VOCs from the more clayey soil to the more sandy soil of the vadose zone, another speculation is that the slow mass removal could be a result of the short circuiting of the extraction airflow in the vadose zone due to the shallow well screen depth. Since the SVE wells are screened immediately beneath the concrete floor slab at 2 feet bbfs, the sandy filter pack, cracks in the concrete, and the typical coarser surface fill material beneath the concrete slab will altogether provide greater, or preferential, pathways for subsurface airflow movement, resulting in a "channeling" effect. This effect could have resulted in the slow VOC mass removal in the deeper layer of the vadose zone.

Nevertheless, it is still not anticipated that a significant amount of VOCs remain in the soil or soil-gas, considering the initial mass calculated. Considering the mass recovered by the SVE system with approximately 3 months of operation, it can be reasonably assumed that most of the VOC mass was removed from soil at the site.

6.2 Recommendations

In summary, SVE appears to have the capability of effectively removing VOCs from the vadose zone soil in some locations, based on the mass removed within the 3 months of system operation. SVE treatment effectiveness, however, is limited in the dip tank/sump area. Excessive liquid entrainment occurred during SVE operations in the SVE wells in the dip tank/sump area limited the performance of these wells. Although the overall VOC mass removal did not appear to be greatly impacted, most of the VOC contaminants in the dip tank area were probably not removed during the operation. The VOC concentration rebound noted at some of the SVE and VM wells suggests that longer SVE operation may be required to achieve greater removal of the contaminants at these locations. Verification of the overall effectiveness of SVE treatment at the site will therefore require further field testing of a pilot-scale system.

As such, it is recommended further testing at Building 134 to confirm the SVE treatment effectiveness for the site. A test period of 3 or more months is recommended to allow comparison of results obtained from the test with the same period of performance. Some adjustments to the pilot-scale system and test approach described as follows are also recommended:

- Install additional, or convert existing deep VM wells into, SVE wells in the central area of the building to increase the capture of VOCs not removed during the last round of SVE operation, as indicated by the rebound vapor sample results obtained at IR25SG58-10.
- Because of the close proximity of Building 134 to IR-6, the test area shall also include IR-6 since similar VOCs have also been found in that area.
- To accommodate only the number of SVE wells to be operated between Building 134 and IR-6, the SVE system capacity shall also be re-evaluated.
- Utilize a permanent power source, such as power supply from the utility company, for the more efficient operation of the pilot-scale system.

- Upon completion of the constant rate test, collect rebound vapor samples from, at a minimum, the three wells previously sampled, to show if VOC reductions have occurred. To further verify that VOC mass reduction occurs across the test area, rebound vapor samples are to be collected from all SVE wells operated in each test area. In addition, vapor samples may be taken from the SVE wells while system operation is ongoing to gather additional evidence that VOCs are being removed from those wells.

- Perform subsurface soil and/or multi-depth soil-gas sampling after the completion of testing to allow post-SVE operation comparison of contaminant concentrations.

Regarding vapor-phase treatment, GAC has proven effective for treatment of extracted soil-vapor containing the chlorinated VOCs, except Freon-11 and vinyl chloride. Although it is anticipated that the amount of VOCs extracted will be substantially less than the local air district requirements, the mass extraction rate of Freon-11 will require close monitoring to ensure that the air emissions limitations are not exceeded. If the mass extraction rate of Freon-11 has increased substantially, an alternate treatment will need to be considered. A similar scenario also applies to vinyl chloride, which has been detected at substantially high concentrations in the soil-gas in IR-6. An alternate treatment other than GAC will be required.

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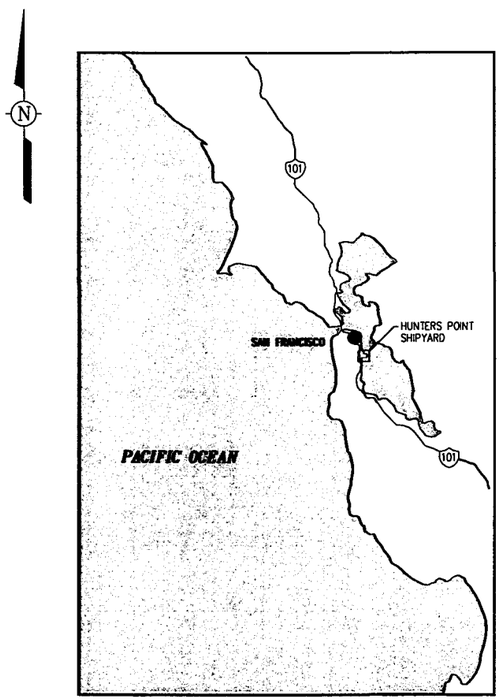
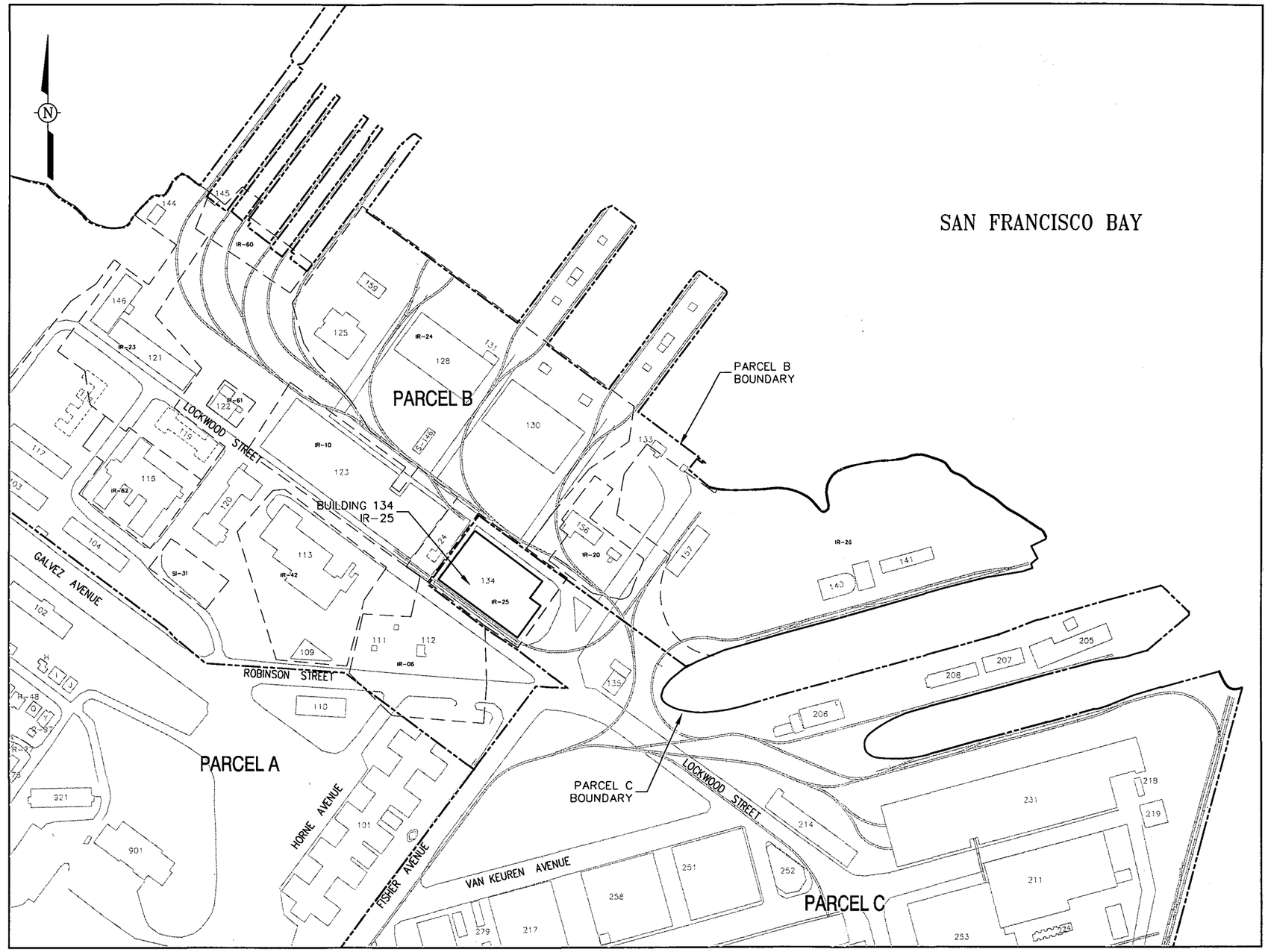
FIGURES

NOT TO SCALE



NOT TO SCALE



SOURCE: PARCEL B FEASIBILITY STUDY, FINAL REPORT,
HUNTERS POINT SHIPYARD, U.S. DEPARTMENT OF THE NAVY,
EFA WEST, NOVEMBER 26, 1996.

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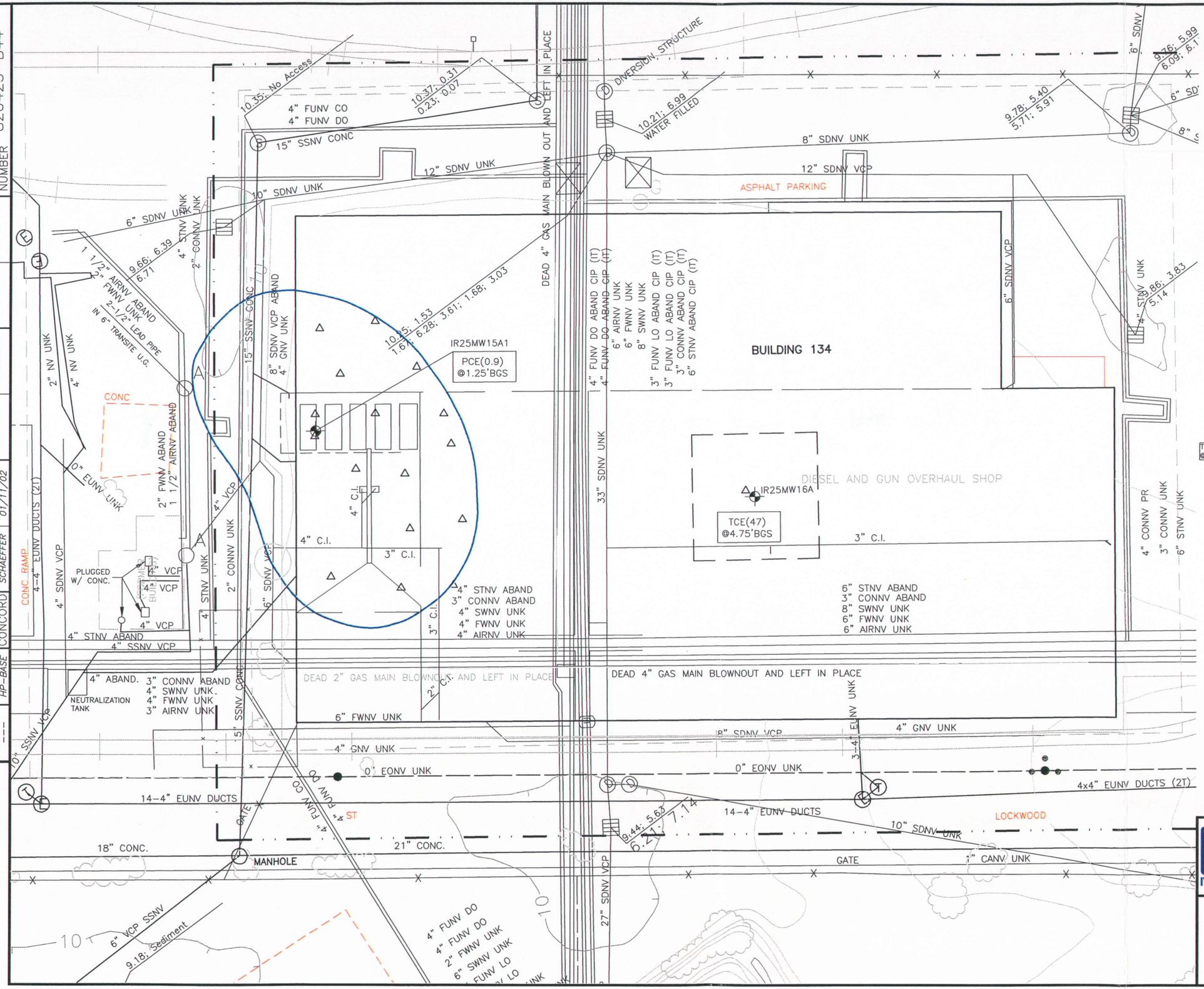
FIGURE 1
SITE LOCATION MAP
IR-25, BUILDING 134, PARCEL C
PHASE II SOIL VAPOR EXTRACTON
TREATABILITY STUDY

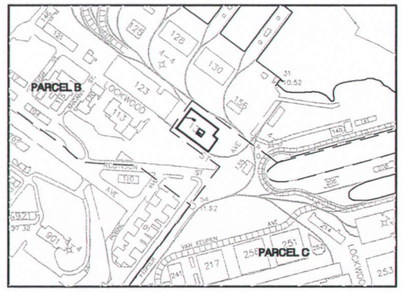
DRAWING NUMBER	APPROVED BY	CHECKED BY	DRAWN BY	OFFICE	X-REF	IMAGE
820425-B63			SCHAEFFER 12/18/01	CONCORD	HPBASE2	---

FORMAT REVISION 2/26/99



LEGEND

FW	FRESH WATER
ST	STEAM
SS	SANITARY SEWER
G	GAS
SD	STORM DRAIN
UNK	UNKNOWN
NV	NOT VERIFIED
SW	SALT WATER
CON	STEAM CONDENSATE LINE
FU	FUEL DISTRIBUTION LINE
DO	DIESEL OIL
LO	LUBE OIL
CIP	CEMENTED IN PLACE
ABAND	ABANDONED
EO	ELECTRICAL OVERHEAD
EU	ELECTRICAL UNDERGROUND
CONC.	CONCRETE
TCE	TRICHLOROETHENE
PCE	PERCHLOROETHENE OR TETRACHLOROETHENE
BGS	BELOW GROUND SURFACE
△	SOIL-VAPOR EXTRACTION WELL (INSTALLED) FOR PHASE II TS
	IR BOUNDARY
	PARCEL C BOUNDARY
	APPROXIMATE GROUNDWATER FLOW DIRECTION
	RU-6 BOUNDARY
	PREVIOUSLY ESTABLISHED SOIL REMEDIATION AREA
TCE(47) @4.75' BGS	DETECTED ANALYTE WITH SOIL CONCENTRATION IN mg/Kg AT SHOWN DEPTH (DATA ARE AS REFERENCED IN RI (PRC, 1996a))



LOCATION MAP

NOTE:
SOIL VAPOR EXTRACTION WELLS ARE SHOWN FOR REFERENCE ONLY.

SCALE
0 30 60 FEET

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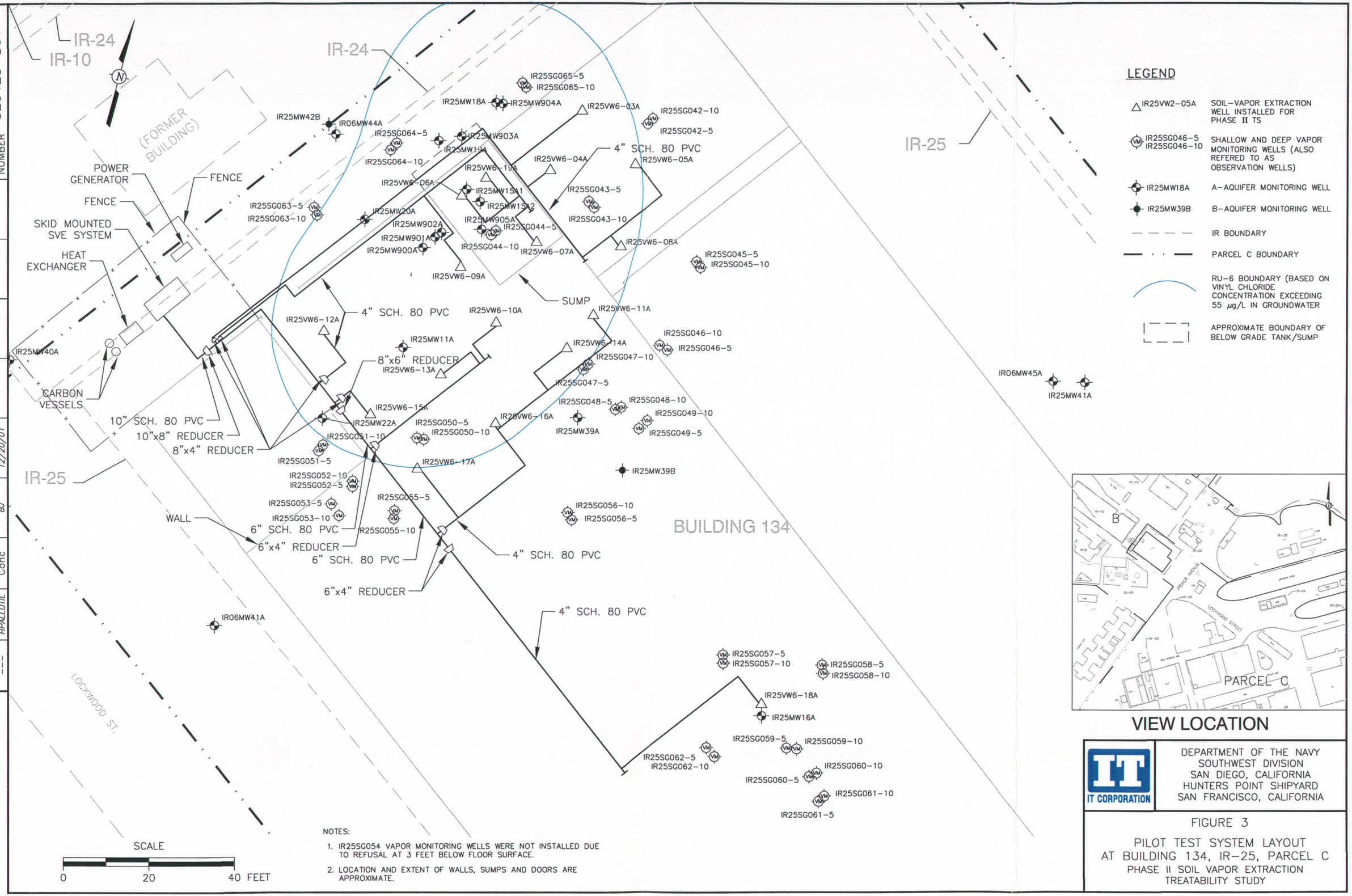
FIGURE 2

BUILDING 134 LAYOUT
IR-25, BUILDING 134, PARCEL C
PHASE II SOIL VAPOR EXTRACTION
TREATABILITY STUDY

DRAWING NUMBER	APPROVED BY	CHECKED BY	DRAWN BY	OFFICE	X-REF	IMAGE
820425-B44			SCHAEFFER 01/11/02	CONCORD	HP-BASE	---

IMAGE	X-REF	OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
---	HPALLUTIL	Conc	BJ 12/20/01			820425-B31



NOTES:

1. IR25SG054 VAPOR MONITORING WELLS WERE NOT INSTALLED DUE TO REFUSAL AT 3 FEET BELOW FLOOR SURFACE.
2. LOCATION AND EXTENT OF WALLS, SUMPS AND DOORS ARE APPROXIMATE.

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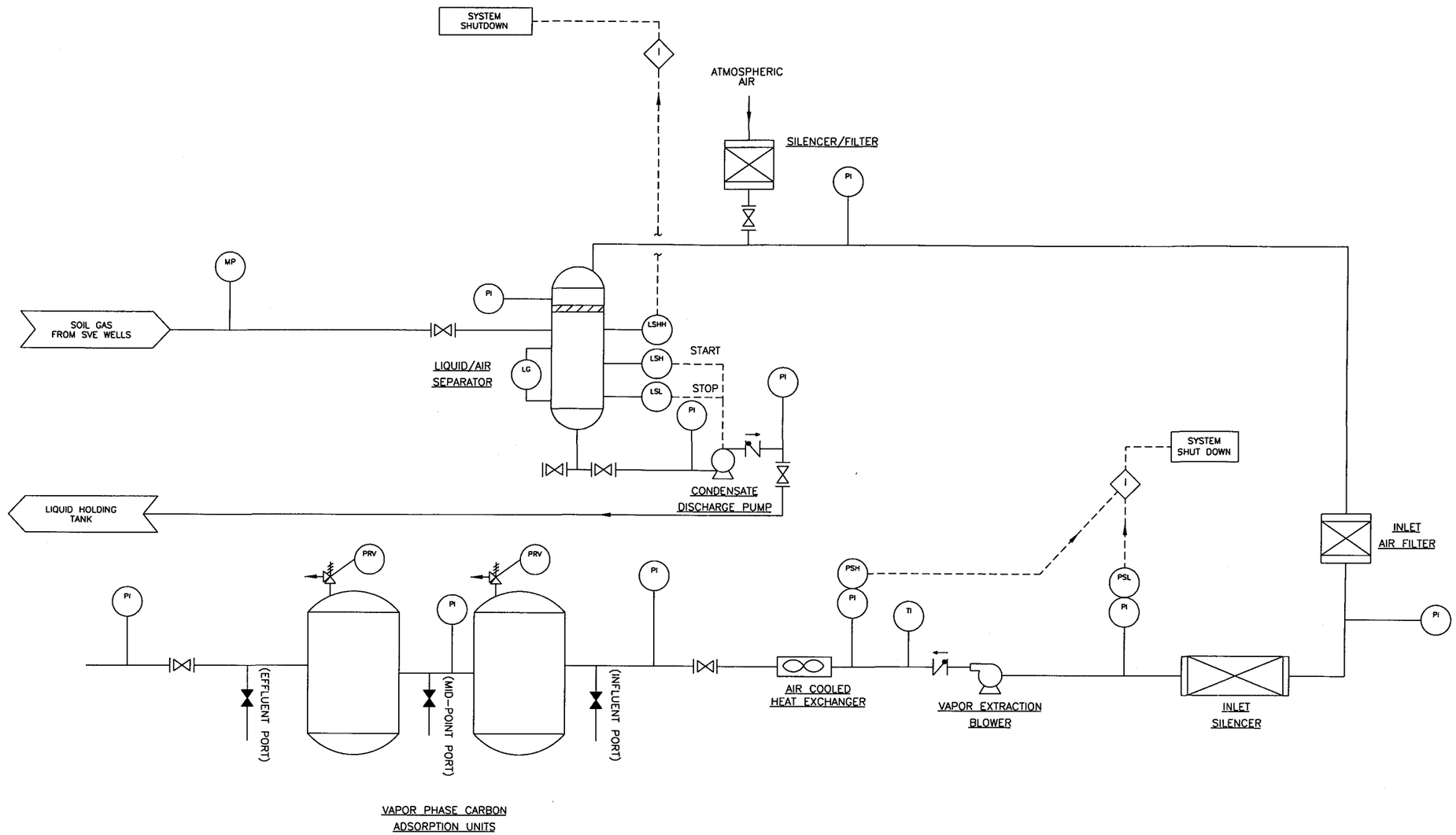
FIGURE 3

PILOT TEST SYSTEM LAYOUT
AT BUILDING 134, IR-25, PARCEL C
PHASE II SOIL VAPOR EXTRACTION
TREATABILITY STUDY



1,000-SCFM SOIL VAPOR EXTRACTION AND TREATMENT SYSTEM

NOT TO SCALE

LEGEND

LG	LEVEL GAUGE
LSH	LEVEL SWITCH HIGH
LSHH	LEVEL SWITCH HIGH HIGH
LSL	LEVEL SWITCH LOW
MP	MONITORING POINT OF COMBINED FLOW, PID, TEMPERATURE AND VACUUM
PI	PRESSURE INDICATOR
PRV	PRESSURE RELIEF VALVE
PSH	PRESSURE SWITCH HIGH (OR HIGH PRESSURE)
PSL	PRESSURE SWITCH LOW (OR HIGH VACUUM)
TI	TEMPERATURE INDICATOR

SYSTEM INTERLOCK

FLOW DIRECTION

FLANGED VALVE (TYP.)

SAMPLE PORT

CHECK VALVE (TYP.)

MIST ELIMINATOR

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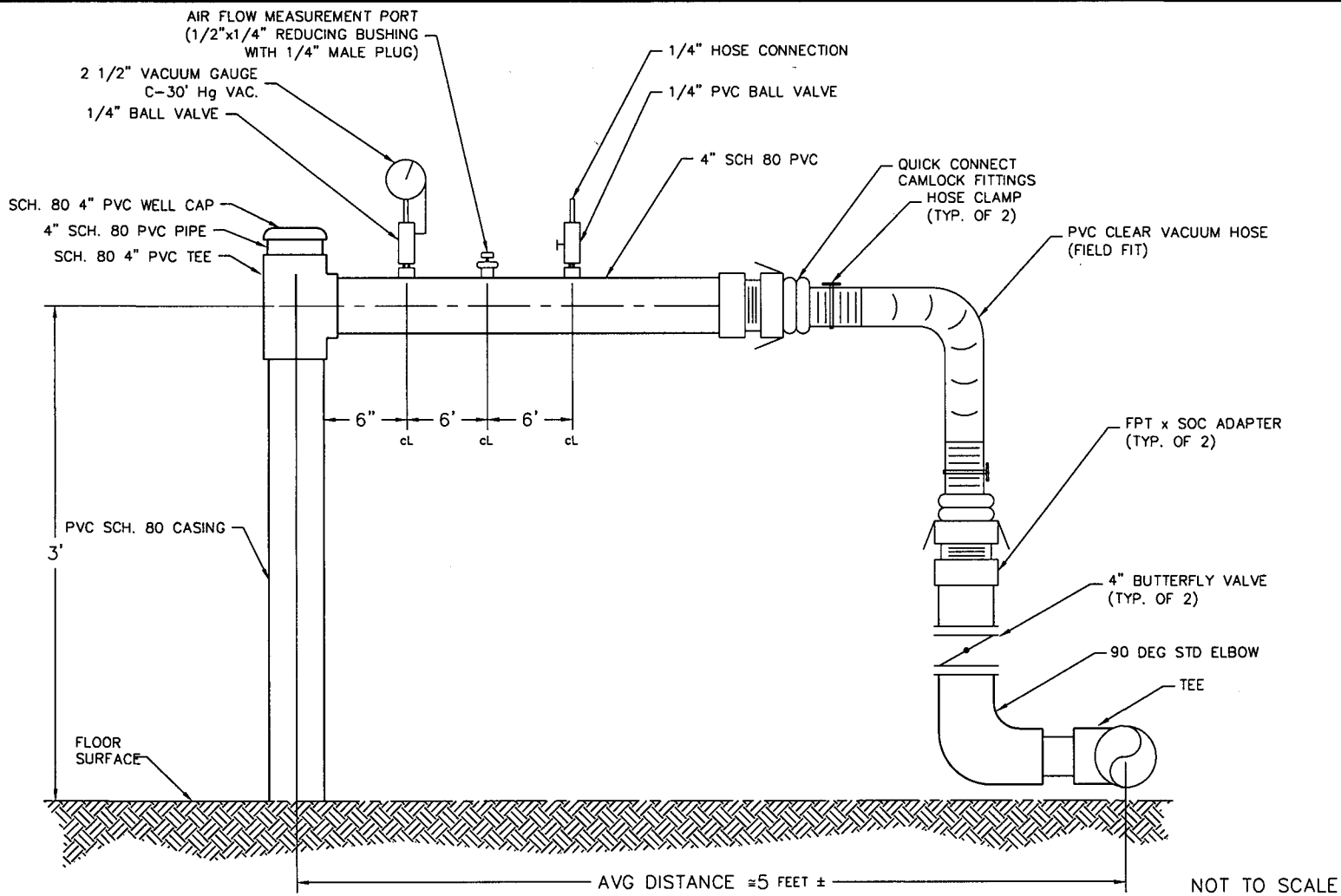
FIGURE 4
SCHEMATIC P&ID OF SVE SYSTEM
AT BUILDING 134

PHASE II SOIL VAPOR EXTRACTION
TREATABILITY STUDY

IMAGE	X-REF	OFFICE	DRAWN BY		CHECKED BY	APPROVED BY	DRAWING NUMBER
---	---	CONCORD	SCHAEFFER	12/12/01			820425-B43

IMAGE	X-REF	OFFICE	DRAWN BY		CHECKED BY		APPROVED BY		DRAWING NUMBER	820425-A4
---	---	Concord	RB	12/11/01						



NOT TO SCALE

NOTES:

1. ALL GAUGE, FLOW, AND SAMPLE PORTS ARE THREADED (DRILLED AND TAPPED TO PIPE)

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FIGURE 5
4" SVE WELLHEAD DETAILS
FOR BUILDING 134
PHASE II SOIL VAPOR EXTRACTION
TREATABILITY STUDY

Figure 6. Plot of Vacuum versus Extraction Airflow for SVE Wells Measured During Step Testing at Building 134, IR-25

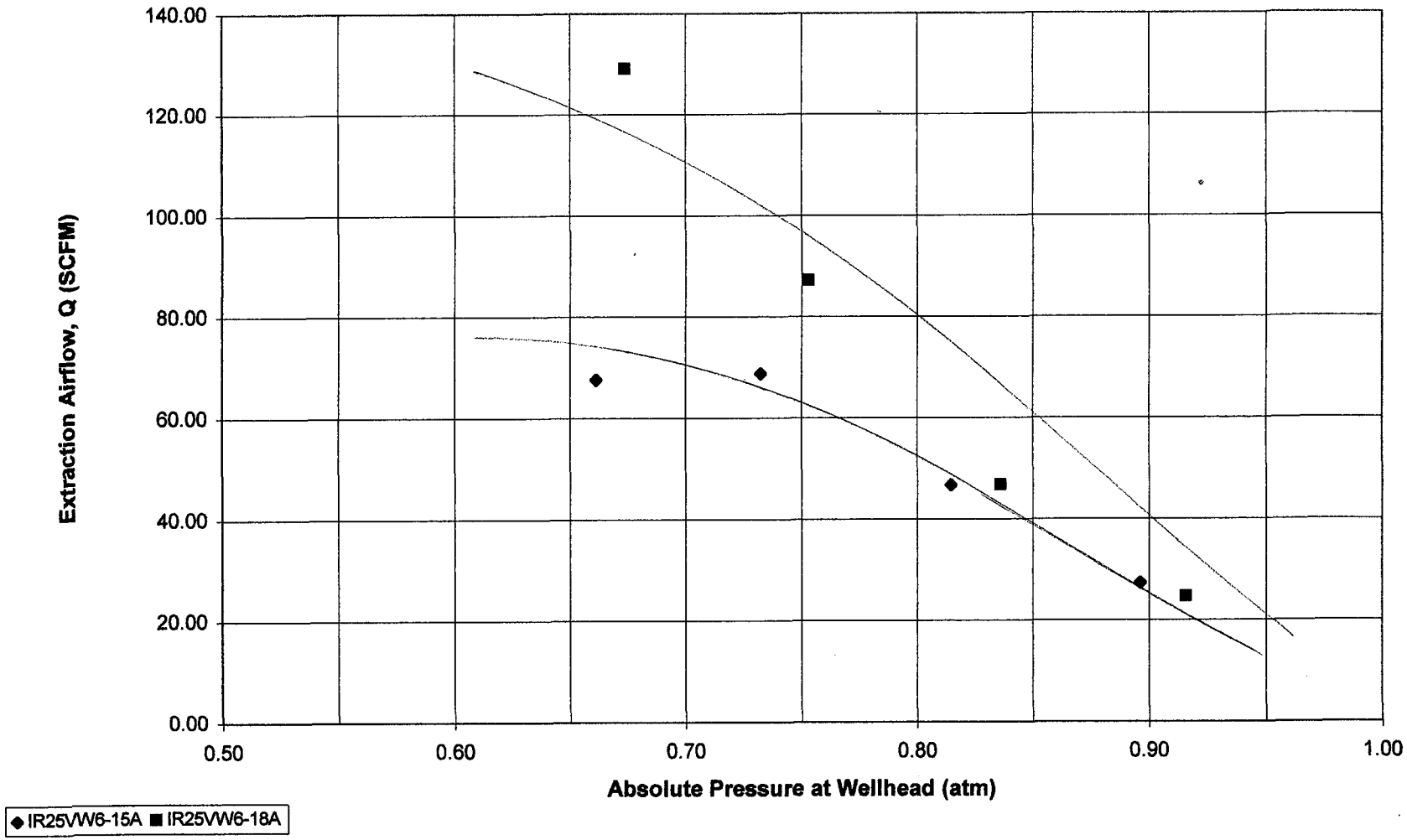
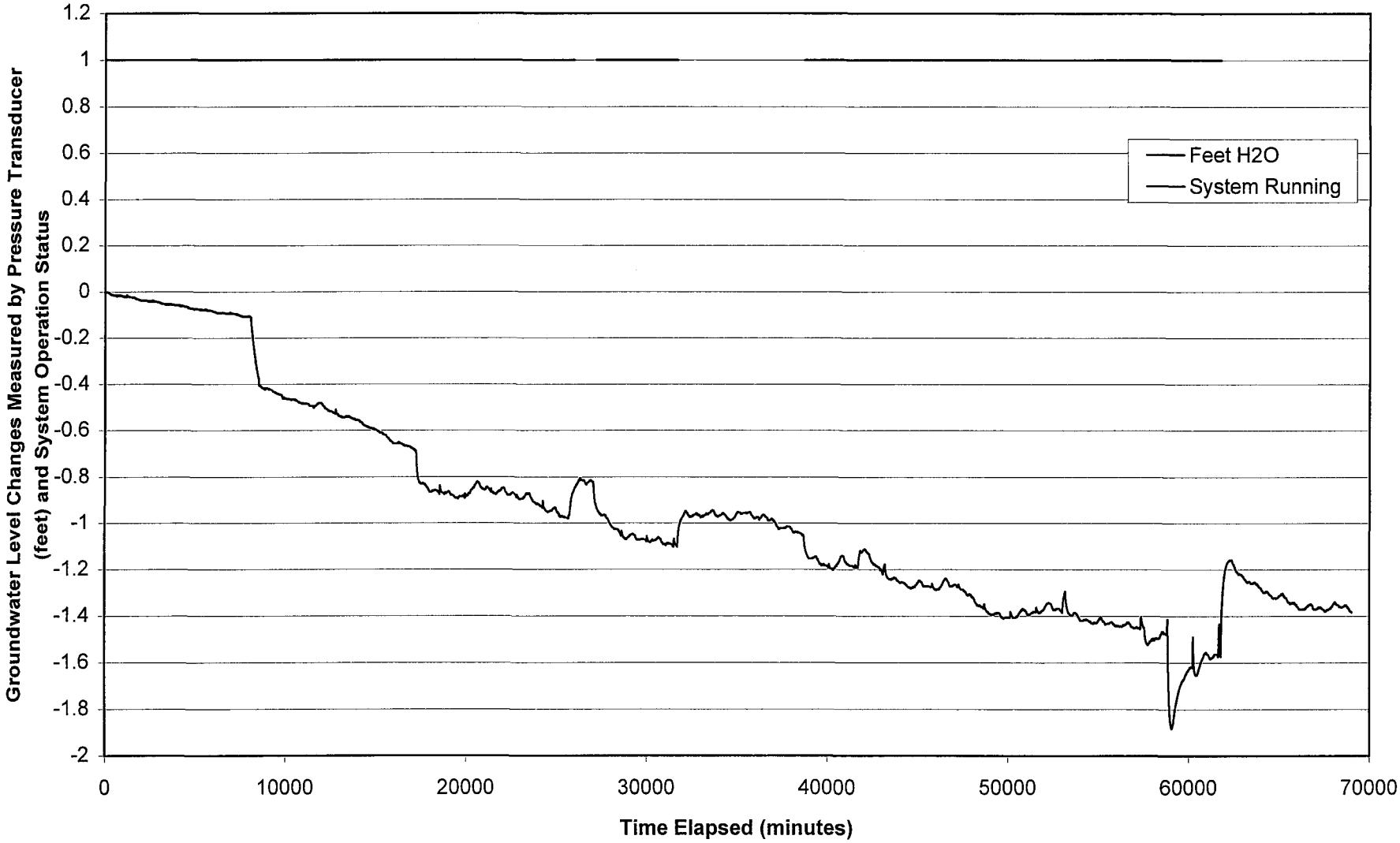


Figure 7: Plot of Groundwater Level Changes and System Operation Status Over the Time Period Between 05/02/01 and 06/19/01 at IR25MW15A1, Building 134



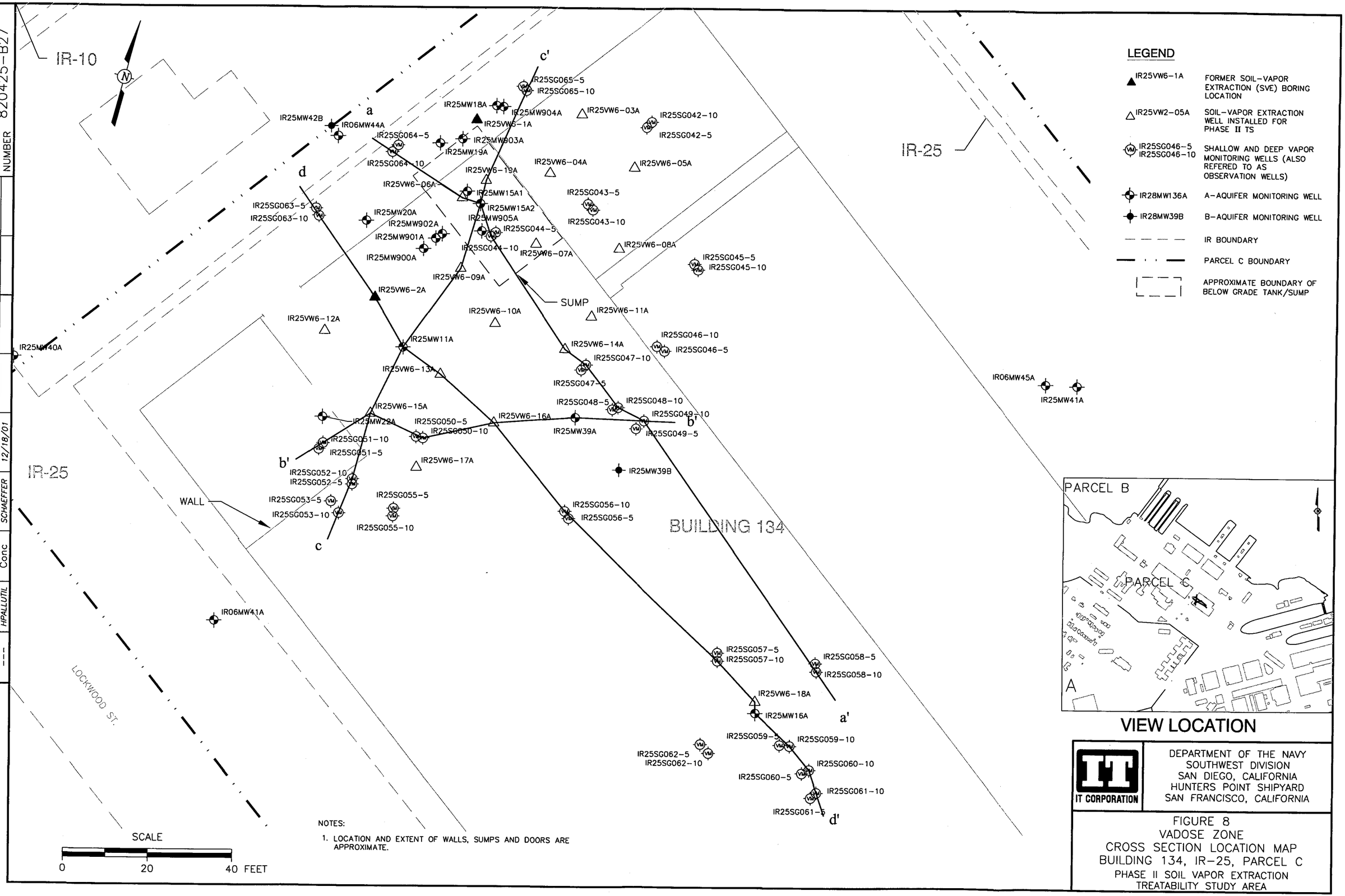

IR-10
IR-25
IR-25
LEGEND
IR25VW6-1A
FORMER SOIL-VAPOR EXTRACTION (SVE) BORING LOCATION
IR25VW2-05A
SOIL-VAPOR EXTRACTION WELL INSTALLED FOR PHASE II TS
IR25SG046-5
IR25SG046-10
SHALLOW AND DEEP VAPOR MONITORING WELLS (ALSO REFERED TO AS OBSERVATION WELLS)
IR28MW136A
A-AQUIFER MONITORING WELL
IR28MW39B
B-AQUIFER MONITORING WELL
IR BOUNDARY
PARCEL C BOUNDARY
APPROXIMATE BOUNDARY OF BELOW GRADE TANK/SUMP
SUMP
WALL
BUILDING 134
LOCKWOOD ST.
a
a'
b
b'
c
c'
d
d'
IR25MW42B
IR06MW44A
IR25SG064-5
IR25SG064-10
IR25MW18A
IR25MW904A
IR25VW6-1A
IR25MW903A
IR25MW19A
IR25VW6-19A
IR25VW6-06A
IR25MW15A1
IR25MW15A2
IR25MW905A
IR25SG065-5
IR25SG065-10
IR25VW6-03A
IR25SG042-10
IR25SG042-5
IR25VW6-04A
IR25VW6-05A
IR25SG043-5
IR25SG043-10
IR25SG063-5
IR25SG063-10
IR25MW20A
IR25MW902A
IR25MW901A
IR25MW900A
IR25SG044-5
IR25SG044-10
IR25VW6-07A
IR25VW6-08A
IR25SG045-5
IR25SG045-10
IR25VW6-09A
IR25VW6-2A
IR25VW6-10A
IR25VW6-11A
IR25VW6-12A
IR25MW40A
IR25MW11A
IR25VW6-14A
IR25SG046-10
IR25SG046-5
IR25SG047-10
IR25SG047-5
IR25VW6-13A
IR06MW45A
IR25MW41A
IR25VW6-15A
IR25MW22A
IR25SG050-5
IR25SG050-10
IR25VW6-16A
IR25SG048-5
IR25SG048-10
IR25SG049-10
IR25SG049-5
IR25MW39A
IR25SG051-10
IR25SG051-5
IR25VW6-17A
IR25SG052-10
IR25SG052-5
IR25SG053-5
IR25SG053-10
IR25SG055-5
IR25SG055-10
IR25MW39B
IR25SG056-10
IR25SG056-5
IR06MW41A
IR25SG057-5
IR25SG057-10
IR25SG058-5
IR25SG058-10
IR25VW6-18A
IR25MW16A
IR25SG059-5
IR25SG059-10
IR25SG062-5
IR25SG062-10
IR25SG060-10
IR25SG060-5
IR25SG061-10
IR25SG061-5
SCALE
0
20
40 FEET
NOTES:
1. LOCATION AND EXTENT OF WALLS, SUMPS AND DOORS ARE APPROXIMATE.
PARCEL B
PARCEL C
A
VIEW LOCATION
IT CORPORATION
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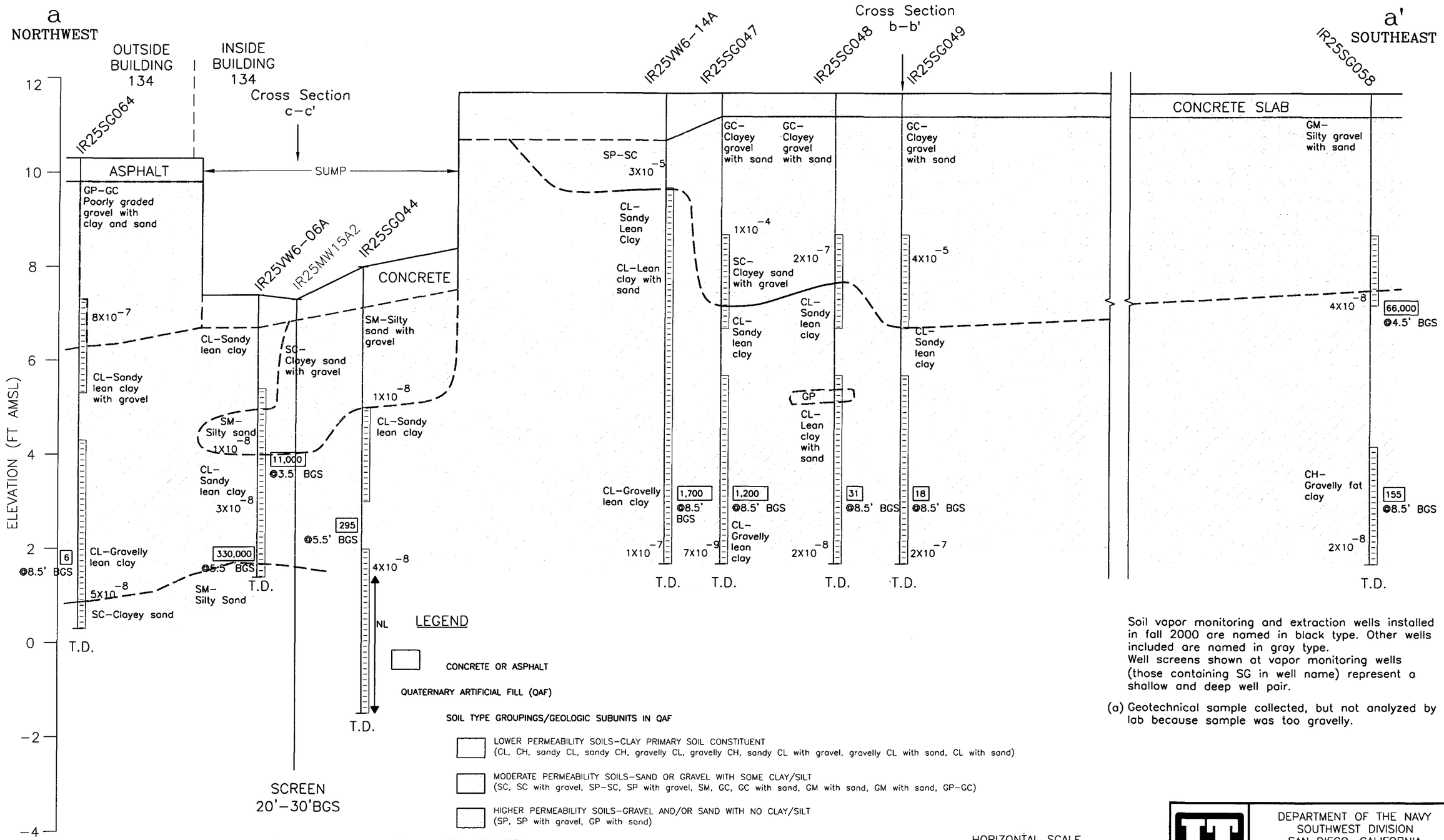
FIGURE 8
VADOSE ZONE
CROSS SECTION LOCATION MAP
BUILDING 134, IR-25, PARCEL C
PHASE II SOIL VAPOR EXTRACTION
TREATABILITY STUDY AREA
DRAWING NUMBER 820425-B27
APPROVED BY
CHECKED BY
DRAWN BY SCHAEFFER 12/18/01
OFFICE Conc
X-REF HPALLUTIL
IMAGE ---



Soil vapor monitoring and extraction wells installed in fall 2000 are named in black type. Other wells included are named in gray type.
Well screens shown at vapor monitoring wells (those containing SG in well name) represent a shallow and deep well pair.

(a) Geotechnical sample collected, but not analyzed by lab because sample was too gravelly.

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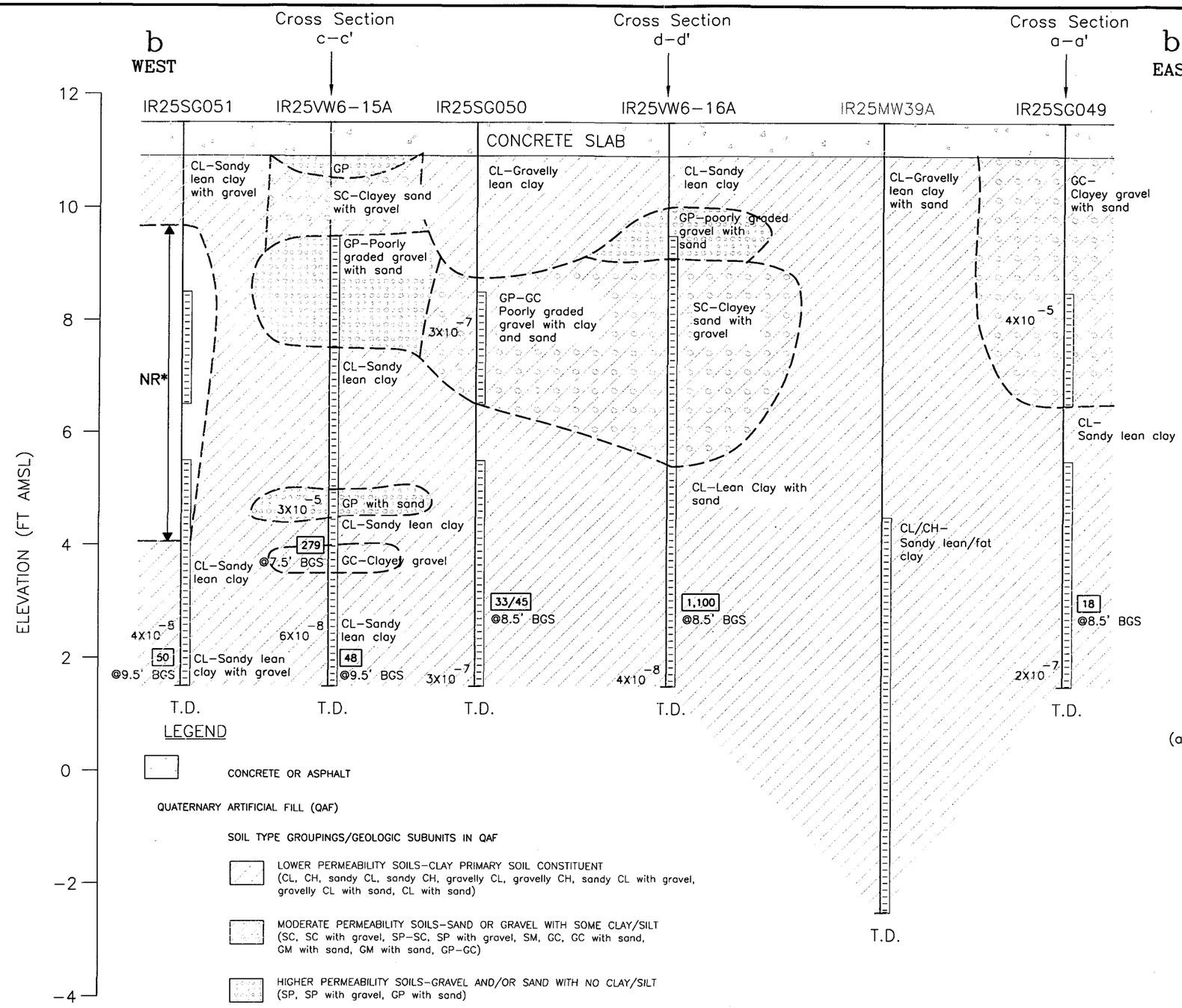
FIGURE 9
a–a' VADOSE ZONE GEOLOGIC CROSS–SECTION FOR BUILDING 134
IR 25,
PHASE II SOIL VAPOR EXTRACTION TREATABILITY STUDY AREA

DRAWING NUMBER	APPROVED BY	CHECKED BY	DRAWN BY	OFFICE	X-REF	IMAGE
820425–B19			RB 12/19/01	CONCORD	---	---



NR* NO RECOVERY 2' TO 7.5' IN IR25SG051 BOREHOLE–LOG INDICATES VOID SPACE IN HOLE TO 6'.

Soil vapor monitoring and extraction wells installed in fall 2000 are named in black type. Other wells included are named in gray type.
Well screens shown at vapor monitoring wells (those containing SG in well name) represent a shallow and deep well pair.

(a) Geotechnical sample collected, but not analyzed by lab because sample was too gravelly.

LEGEND

CONCRETE OR ASPHALT

QUATERNARY ARTIFICIAL FILL (QAF)

SOIL TYPE GROUPINGS/GEOLOGIC SUBUNITS IN QAF

LOWER PERMEABILITY SOILS–CLAY PRIMARY SOIL CONSTITUENT (CL, CH, sandy CL, sandy CH, gravelly CL, gravelly CH, sandy CL with gravel, gravelly CL with sand, CL with sand)

MODERATE PERMEABILITY SOILS–SAND OR GRAVEL WITH SOME CLAY/SILT (SC, SC with gravel, SP–SC, SP with gravel, SM, GC, GC with sand, GM with sand, GM with sand, GP–GC)

HIGHER PERMEABILITY SOILS–GRAVEL AND/OR SAND WITH NO CLAY/SILT (SP, SP with gravel, GP with sand)

NL — SOIL NOT LOGGED

NR — NO RECOVERY

SOIL TYPE/ GEOLOGIC CONTACT (DASHED WHERE INFERRED)

$4X10^{-8}$ — MEASURED HYDRAULIC CONDUCTIVITY (K) VALUE (cm/sec) (K–VALUES IN APPENDIX A–3)

WELL SCREEN

33/45 — TOTAL CHLORINATED HYDROCARBON CONCENTRATION IN SOIL, µg/Kg (SHOWN WITH FIELD DUPLICATE RESULTS)

T.D. – TOTAL DEPTH OF SOIL BORING

AMSL – ABOVE MEAN SEA LEVEL

BGS – BELOW GROUND SURFACE

HORIZONTAL SCALE
0 10 20 FEET

VERTICAL SCALE
0 2 4 FEET

VERTICAL EXAGGERATION = 5x

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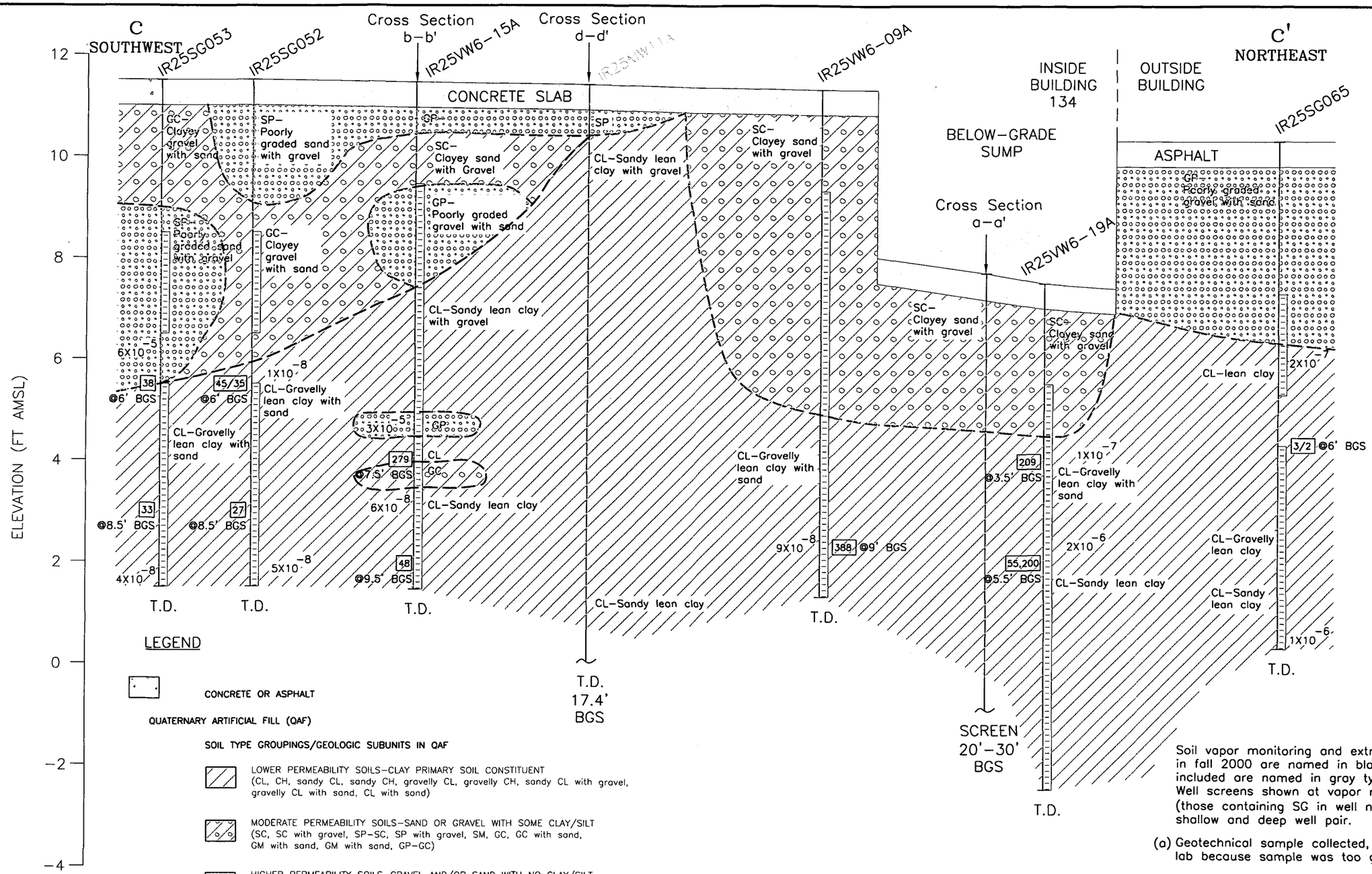
FIGURE 10
b–b' VADOSE ZONE GEOLOGIC CROSS–SECTION FOR BUILDING 134, IR 25

PHASE II SOIL VAPOR EXTRACTION TREATABILITY STUDY

DRAWING NUMBER	APPROVED BY	CHECKED BY	DRAWN BY	OFFICE	X-REF	IMAGE
820425-B17			12/19/01 RB	CONCORD	---	---



LEGEND

CONCRETE OR ASPHALT

QUATERNARY ARTIFICIAL FILL (QAF)

SOIL TYPE GROUPINGS/GEOLOGIC SUBUNITS IN QAF

LOWER PERMEABILITY SOILS–CLAY PRIMARY SOIL CONSTITUENT (CL, CH, sandy CL, sandy CH, gravelly CL, gravelly CH, sandy CL with gravel, gravelly CL with sand, CL with sand)

MODERATE PERMEABILITY SOILS–SAND OR GRAVEL WITH SOME CLAY/SILT (SC, SC with gravel, SP–SC, SP with gravel, SM, GC, GC with sand, GM with sand, GM with sand, GP–GC)

HIGHER PERMEABILITY SOILS–GRAVEL AND/OR SAND WITH NO CLAY/SILT (SP, SP with gravel, GP with sand)

NL SOIL NOT LOGGED

NR NO RECOVERY

SOIL TYPE/ GEOLOGIC CONTACT (DASHED WHERE INFERRED)

$4X10^{-8}$ MEASURED HYDRAULIC CONDUCTIVITY (K) VALUE (cm/sec) (K VALUES IN APPENDIX A–3)

WELL SCREEN

45/35 TOTAL CHLORINATED HYDROCARBON CONCENTRATION IN SOIL, μg/Kg

T.D. –TOTAL DEPTH OF SOIL BORING

AMSL –ABOVE MEAN SEA LEVEL

BGS – BELOW GROUND SURFACE

HORIZONTAL SCALE
0 10 20 FEET

VERTICAL SCALE
0 2 4 FEET

VERTICAL EXAGGERATION = 5x

Soil vapor monitoring and extraction wells installed in fall 2000 are named in black type. Other wells included are named in gray type.
Well screens shown at vapor monitoring wells (those containing SG in well name) represent a shallow and deep well pair.

(a) Geotechnical sample collected, but not analyzed by lab because sample was too gravelly.

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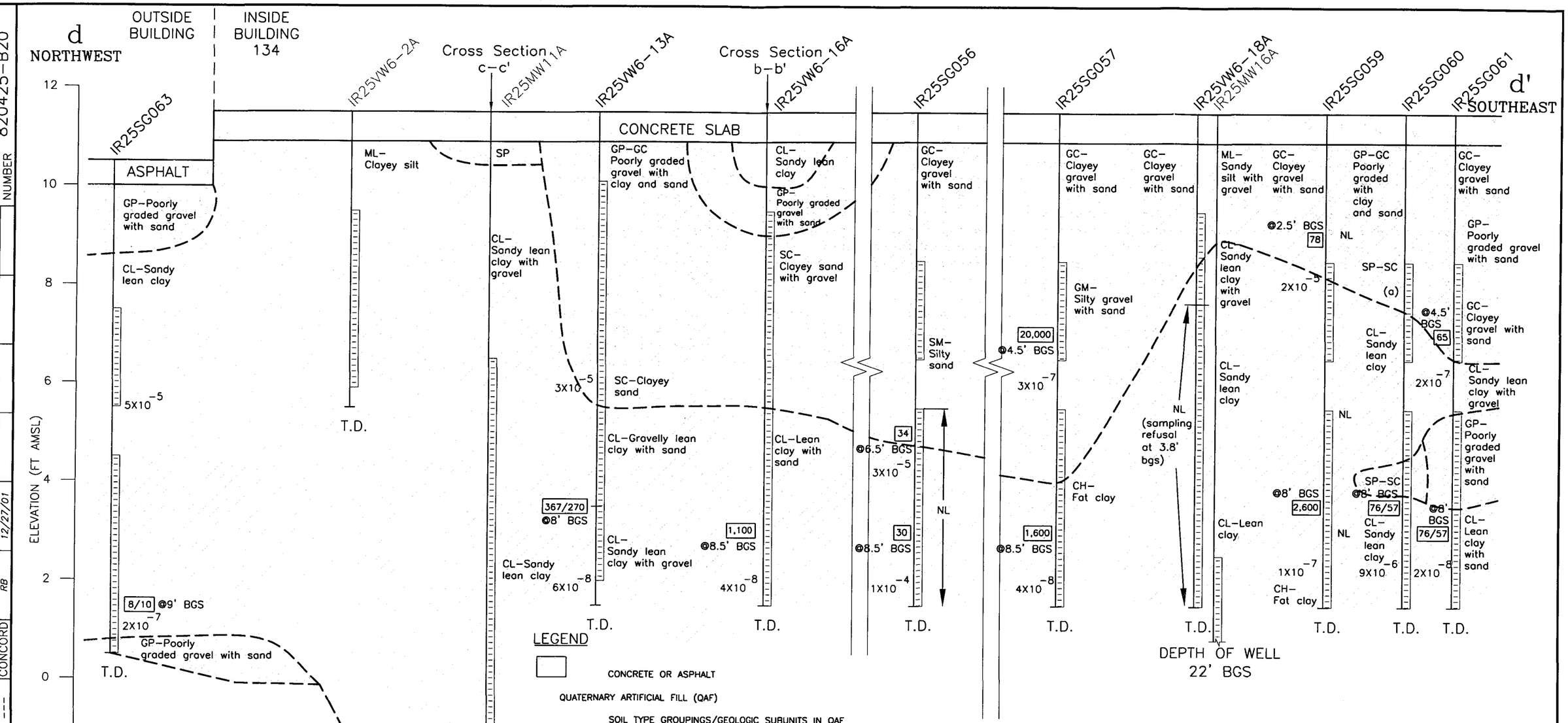
FIGURE 11
c–c' VADOSE ZONE GEOLOGIC CROSS–SECTION FOR BUILDING 134
IR 25
PHASE II SOIL VAPOR EXTRACTION TREATABILITY STUDY

DRAWING NUMBER	APPROVED BY	CHECKED BY	DRAWN BY	OFFICE	X-REF	IMAGE
820425–B18			RB 12/19/01	CONCORD	---	---



Soil vapor monitoring and extraction wells installed in fall 2000 are named in black type. Other wells included are named in gray type.
Well screens shown at vapor monitoring wells (those containing SG in well name) represent a shallow and deep well pair.

(a) Geotechnical sample collected, but not analyzed by lab because sample was too gravelly.

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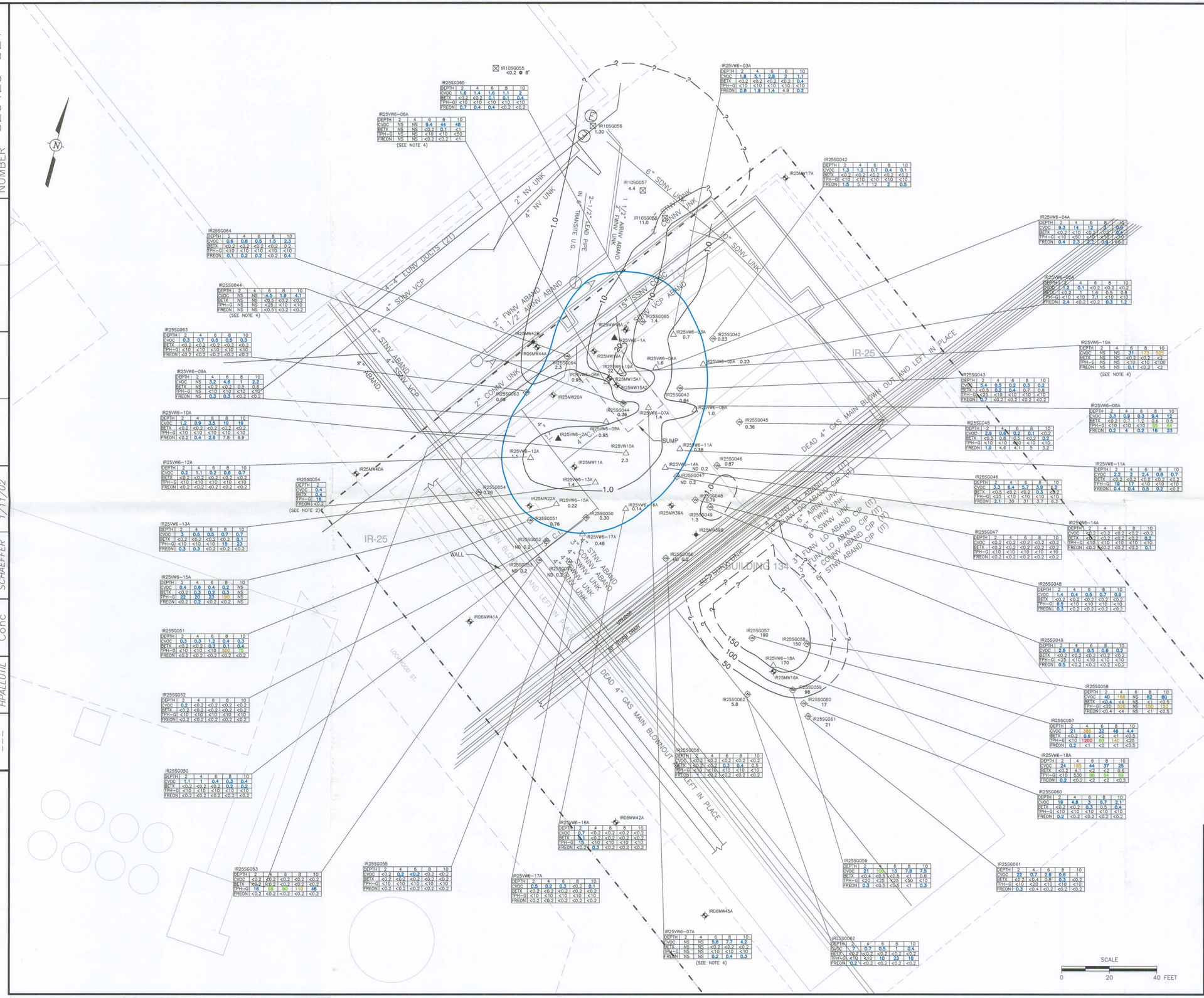
FIGURE 12
d–d' VADOSE ZONE GEOLOGIC CROSS–SECTION FOR BUILDING 134, IR 25

PHASE II SOIL VAPOR EXTRACTION TREATABILITY STUDY

DRAWING NUMBER	APPROVED BY	CHECKED BY	DRAWN BY	OFFICE	X-REF	IMAGE
820425–B20			RB 12/27/01	CONCORD	---	---



LEGEND

- IR25VW6-1A — EXISTING SOIL-VAPOR EXTRACTION (SVE) WELL LOCATION
- IR28VW6-03A — SOIL-GAS SURVEY POINT AT PRE-SELECTED SOIL-VAPOR EXTRACTION WELL LOCATION (SEE NOTE 3 BELOW)
- IR25SG046 — SOIL-GAS SURVEY POINT AT PRE-SELECTED VAPOR MONITORING WELL LOCATION (SEE NOTE 3 BELOW)
- IR25MW39B — B-AQUIFER MONITORING WELL
- IR25MW22A — A-AQUIFER MONITORING WELL
- PARCEL C BOUNDARY
- RU6 BOUNDARY (BASED ON VINYL CHLORIDE CONCENTRATION EXCEEDING 55 µg/L IN GROUNDWATER)
- NS — NO SAMPLE COLLECTED
- 1.3 — TCE CONCENTRATION (ug/L)
- 1.0 — TCE CONCENTRATION CONTOUR LINE (ug/L) DASHED WHERE INFERRED; QUERIED WHERE UNCERTAIN

IR25VW6-05A

DEPTH	2	4	6	8	10
CVOC	1.2	0.1	<0.2	<0.2	<0.2
BTEX	<0.2	1	1.6	0.6	0.8
TPH-G	<10	<10	71	<10	<10
FREON	2.4	<0.2	<0.2	0.3	1.2

- SAMPLING DEPTH, FEET BENEATH BUILDING FLOOR SURFACE
- TOTAL SOIL GAS CONCENTRATION (µg/L)

RED – CONCENTRATION IS >1,000 µg/L.

ORANGE – CONCENTRATION IS >100 µg/L TO 1,000 µg/L.

GREEN – CONCENTRATION IS >50 µg/L TO 100 µg/L.

BLUE – CONCENTRATION IS > DETECTION LIMIT TO 50 µg/L.

BLACK – ND (NON-DETECT).

NOTE:

1. LOCATION AND EXTENT OF WALLS AND SUMPS ARE APPROXIMATE.
2. NO SOIL GAS SAMPLE WAS COLLECTED BELOW 2 FEET AT IR25SG054 DUE TO REFUSAL AT 3 FEET BELOW FLOOR SURFACE.
3. SOME OF THE SOIL GAS SURVEY POINTS ARE OFFSET SEVERAL FEET FROM THE SVE AND VM WELL LOCATIONS AS SHOWN. THIS IS DUE TO SITE CONDITIONS THAT DID NOT PERMIT THE INSTALLATION OF THE WELLS ADJACENT TO THE SOIL-GAS SURVEY POINTS AFTER THE INITIAL SOIL-GAS SURVEY WAS COMPLETED.
4. ONLY THREE SOIL GAS SAMPLES WERE COLLECTED AT IR25VW6-06A, IR25VW6-07A, IR25VW6-19A, AND IR25SG044. THESE SURVEY POINTS WERE LOCATED IN BELOW GRADE CONCRETE SUMP.

ABBREVIATIONS:

CVOC= CHLORINATED VOLATILE OGANIC COMPOUNDS (CONSISTS OF MAINLY PCE, TCE, AND CIS-1,2-DCE)

PCE= TETRACHLORETHENE

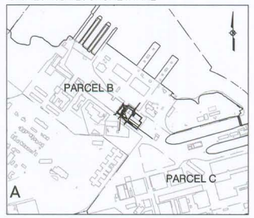
TCE= TRICHLORETHENE

DCE= DICHLOROETHENE

BTEX= BENZENE, TOLUENE, ETHYL BENZENE, AND XYLENES (NOT ALL COMPONENTS FOUND IN THIS AROMATIC HYDROCARBON GROUP)

TPH-G= TOTAL PETROLEUM HYDROCARBONS AS GASOLINE

FREON= INCLUDES TRICHLOROFLUOROMETHANE AND DICHLORODIFLUOROMETHANE



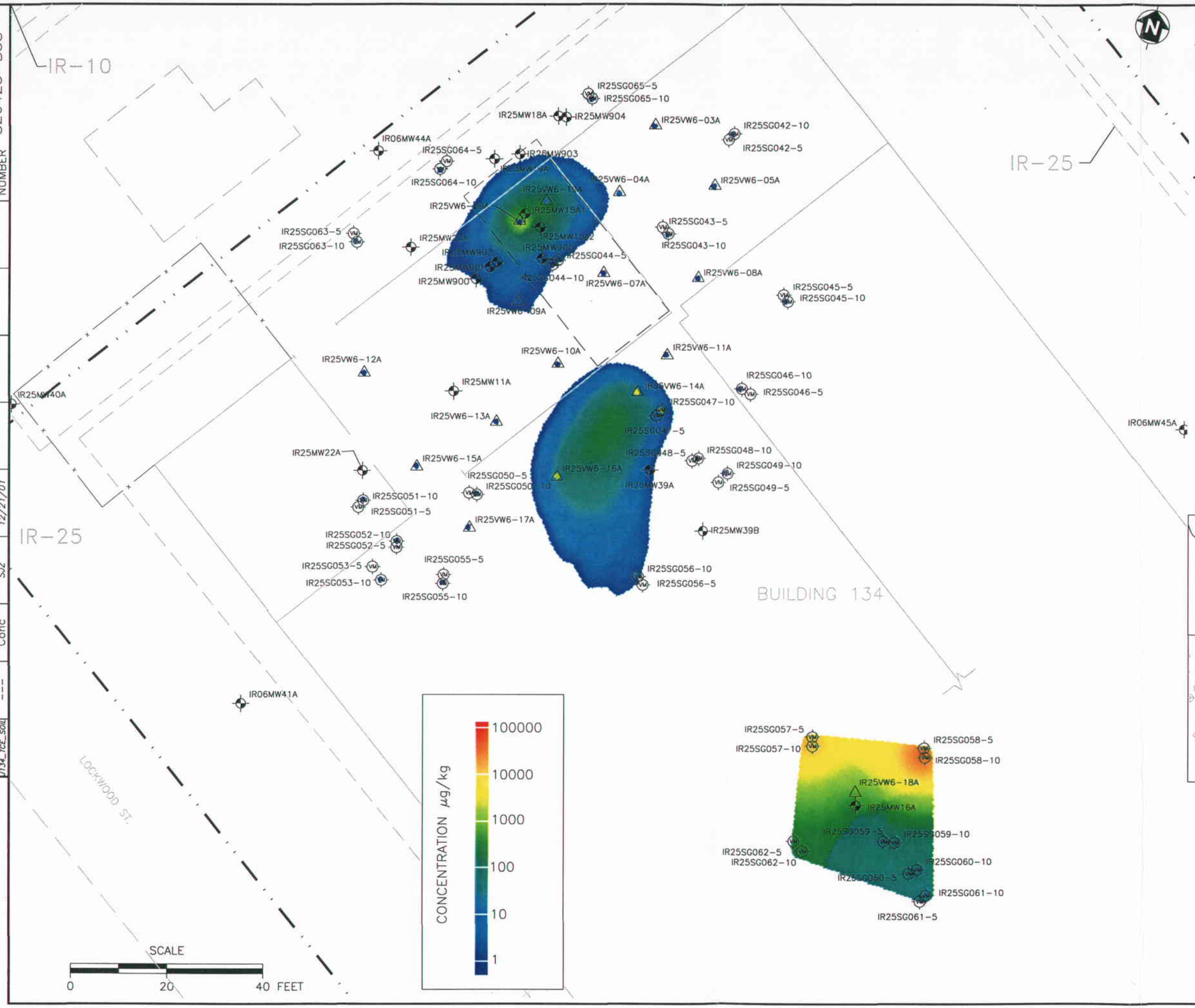
VIEW LOCATION

IT CORPORATION

DEPARTMENT OF THE NAVY
SOUTHWEST DIVISION
SAN DIEGO, CALIFORNIA
HUNTERS POINT SHIPYARD
SAN FRANCISCO, CALIFORNIA

FIGURE 13
VOC DISTRIBUTION IN SOIL GAS PRIOR TO SVE TESTING AT IR-25, BUILDING 134, PARCEL C
PHASE II SOIL VAPOR EXTRACTION TREATABILITY STUDY AREA

DRAWING NUMBER	APPROVED BY	CHECKED BY	DRAWN BY	OFFICE	X-REF	IMAGE
820425-D21			1/11/02 SCHAEFFER	Conc	HPALLUTIL	---

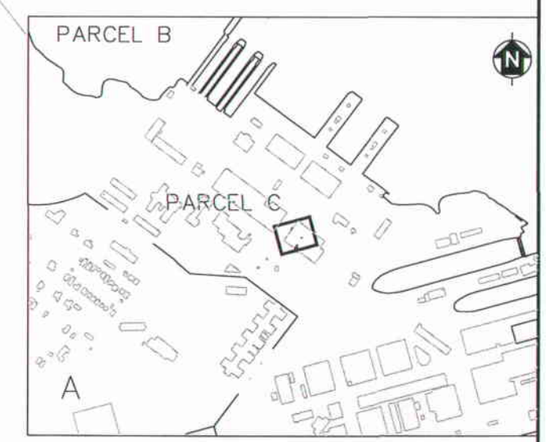


LEGEND

- IR25VW2-05A — SOIL-VAPOR EXTRACTION WELL INSTALLED FOR PHASE II TS
- IR25SG046-5, IR25SG046-10 — SHALLOW AND DEEP VAPOR MONITORING WELLS (ALSO REFERED TO AS OBSERVATION WELLS)
- IR28MW136A — A-AQUIFER MONITORING WELL
- IR BOUNDARY
- PARCEL C BOUNDARY
- APPROXIMATE BOUNDARY OF BELOW GRADE SUMP

NOTES:

1. IR25SG054 VAPOR MONITORING WELLS WERE NOT INSTALLED DUE TO REFUSAL AT 3 FEET BELOW FLOOR SURFACE.
2. LOCATION AND EXTENT OF WALLS, SUMPS AND DOORS ARE APPROXIMATE.
3. THE TWO TCE SOIL PLUMES NEAR THE DIF TANK/SUMP AREA ARE LOCATED AT APPROXIMATELY 10 FEET BELOW FLOOR SURFACE, THE ONE PLUME SHOWN AROUND WELL IR25MW16A AREA IS LOCATED APPROXIMATELY 5 FEET BELOW FLOOR SURFACE.



VIEW LOCATION

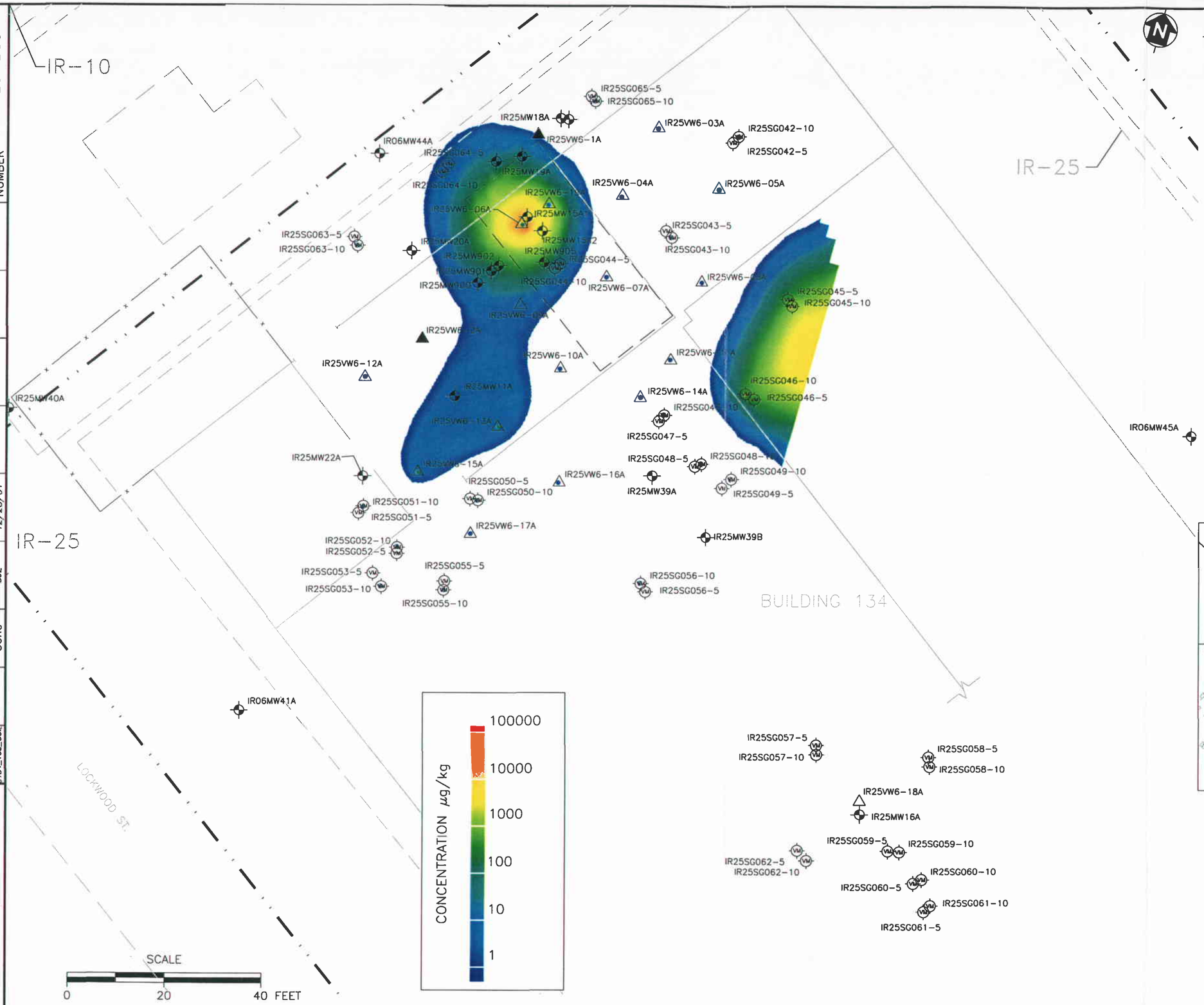
IT CORPORATION

DEPARTMENT OF THE NAVY
SOUTHWEST DIVISION
SAN DIEGO, CALIFORNIA
HUNTERS POINT SHIPYARD
SAN FRANCISCO, CALIFORNIA

FIGURE 14

TCE DISTRIBUTION IN VADOSE ZONE SOIL AT BUILDING 134, IR-25, PARCEL C
PHASE II SOIL VAPOR EXTRACTION TREATABILITY STUDY

DRAWING NUMBER	APPROVED BY	CHECKED BY	DRAWN BY	OFFICE	X-REF	IMAGE
820425-B58			SJZ 12/21/01	Conc	---	V134_TCE_SOIL

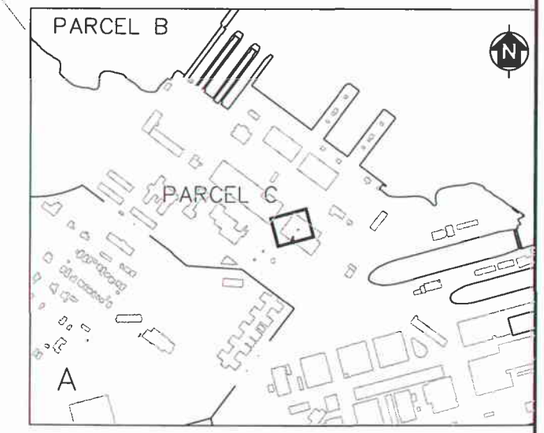


LEGEND

- IR25VW2-05A — SOIL-VAPOR EXTRACTION WELL INSTALLED FOR PHASE II TS
- IR25SG046-5, IR25SG046-10 — SHALLOW AND DEEP VAPOR MONITORING WELLS (ALSO REFERED TO AS OBSERVATION WELLS)
- IR28MW136A — A-AQUIFER MONITORING WELL
- IR BOUNDARY
- PARCEL C BOUNDARY
- APPROXIMATE BOUNDARY OF BELOW GRADE SUMP

NOTES:

1. IR25SG054 VAPOR MONITORING WELLS WERE NOT INSTALLED DUE TO REFUSAL AT 3 FEET BELOW FLOOR SURFACE.
2. LOCATION AND EXTENT OF WALLS, SUMPS AND DOORS ARE APPROXIMATE.
3. THE SOIL PLUMES SHOWN ARE AT APPROXIMATELY 10 FEET BELOW FLOOR SURFACE.



VIEW LOCATION

IT CORPORATION

DEPARTMENT OF THE NAVY
SOUTHWEST DIVISION
SAN DIEGO, CALIFORNIA
HUNTERS POINT SHIPYARD
SAN FRANCISCO, CALIFORNIA

FIGURE 15

1,2-DCB DISTRIBUTION IN VADOSE ZONE SOIL AT BUILDING 134, IR-25, PARCEL C

PHASE II SOIL VAPOR EXTRACTION TREATABILITY STUDY

DRAWING NUMBER	APPROVED BY	CHECKED BY	DRAWN BY	OFFICE	X-REF	IMAGE
820425-B59			SJZ 12/28/01	Conc	---	I134_TCE_SOIL

Figure 16. Vacuum Measured at Observation Points versus Distance from Soil Vapor Extraction Well IR25VW6-15A Operated at 2.5 Inches Hg Vacuum at Building 134

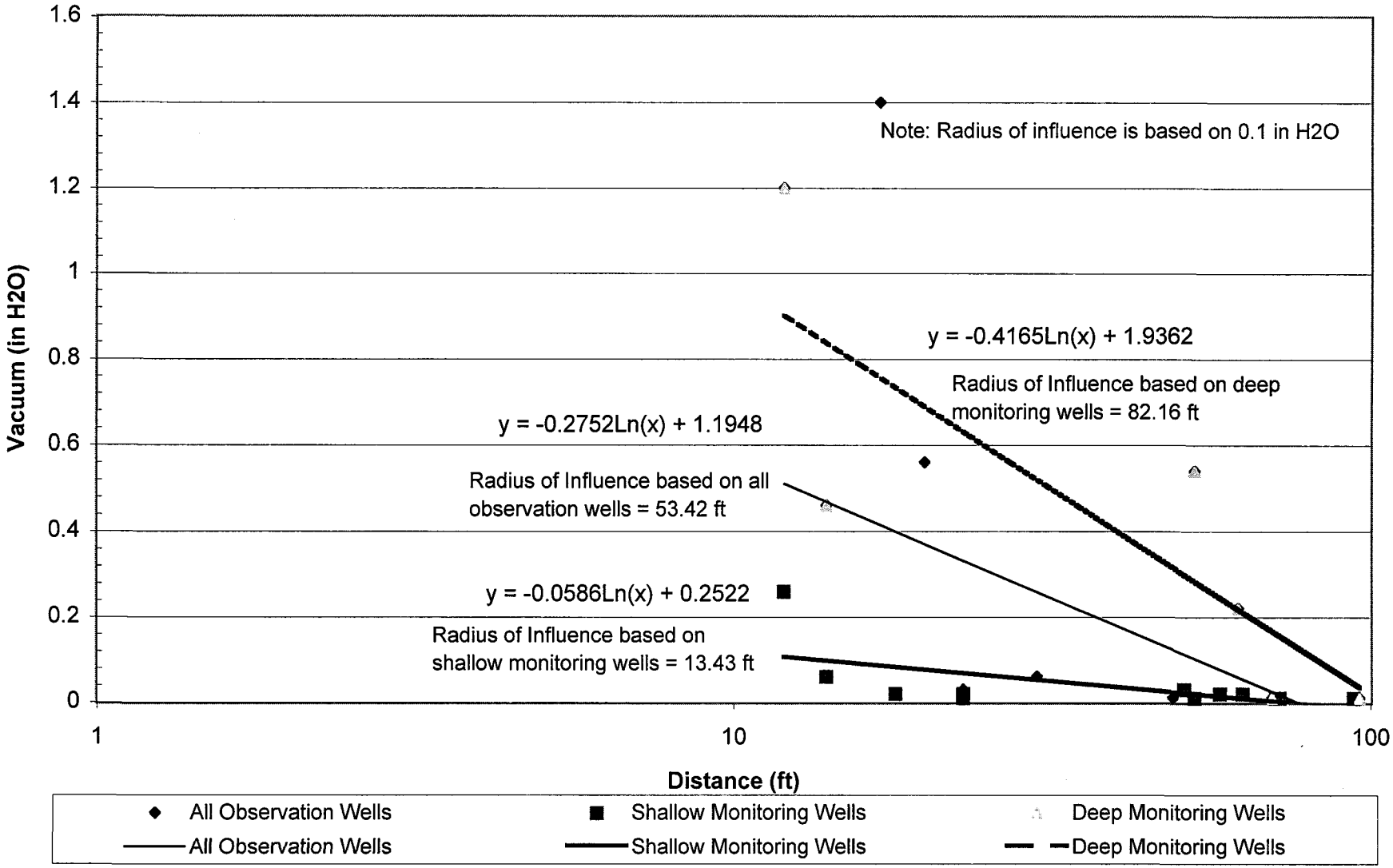


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Figure 17. Vacuum Measured at Obesrvation Points versus Distance from Soil-Vapor Extraction Well IR25VW6-15A Operated at 5.0 in Hg Vacuum at Bldg 134

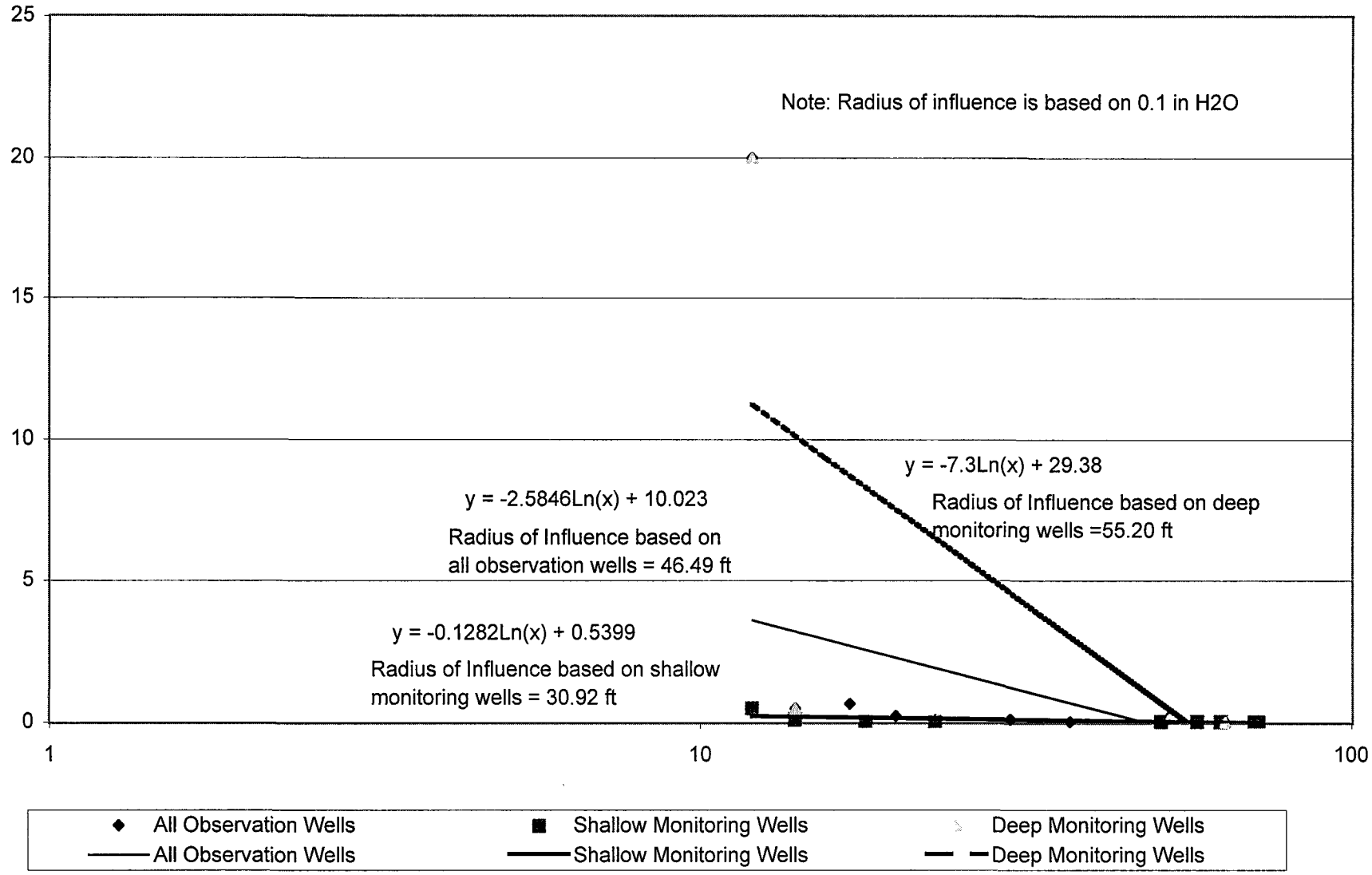

Figure 18. Vacuum Measured at Obesrvation Points versus Distance from Soil-Vapor Extraction Well IR25VW6-15A Operated at 7.5 in Hg Vacuum at Bldg 134

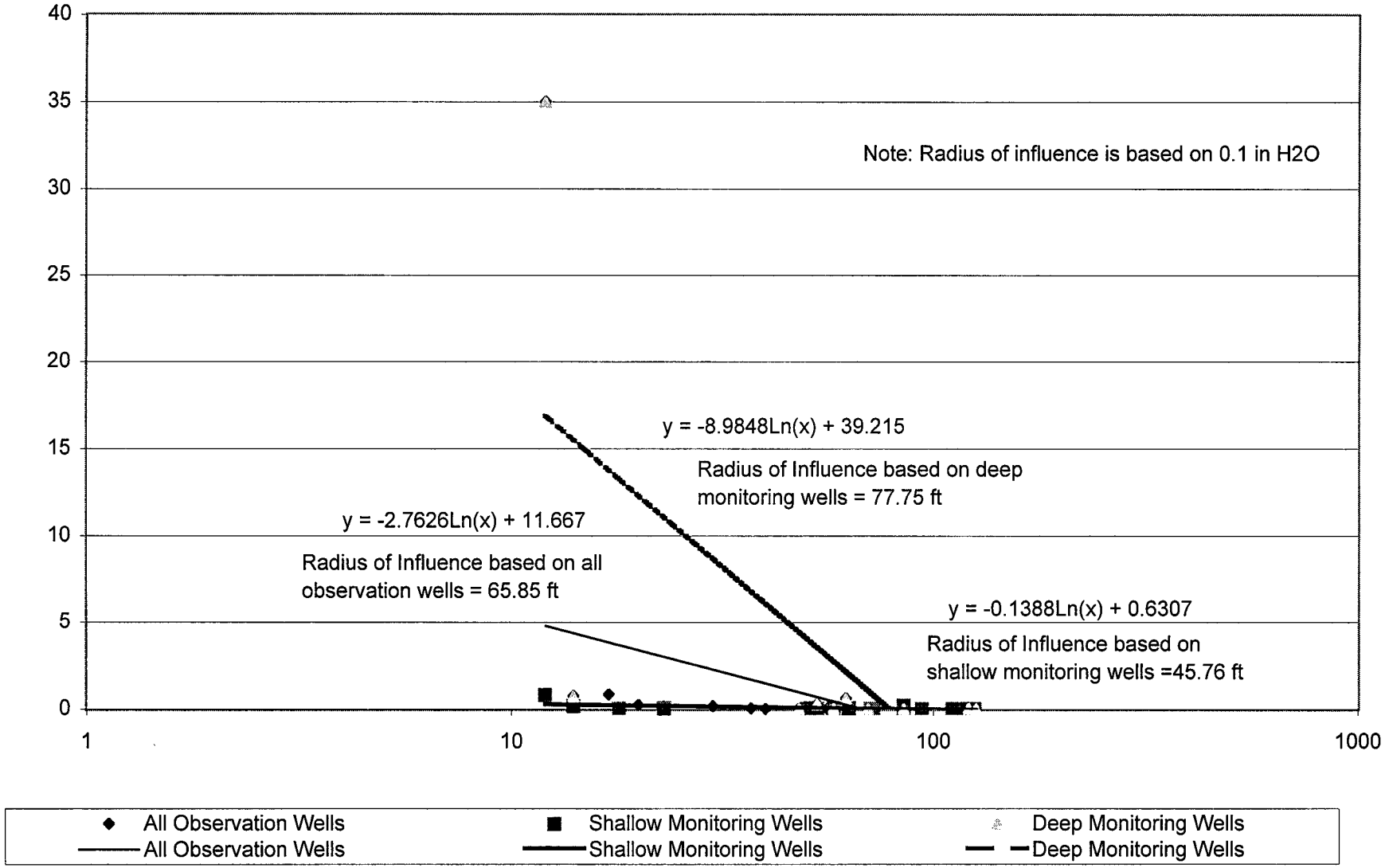

Figure 19. Vacuum Measured at Observation Points versus Distance from Soil-Vapor Extraction Well IR25VW6-15A Operated at 10.0 Inches Hg Vacuum at Building 134

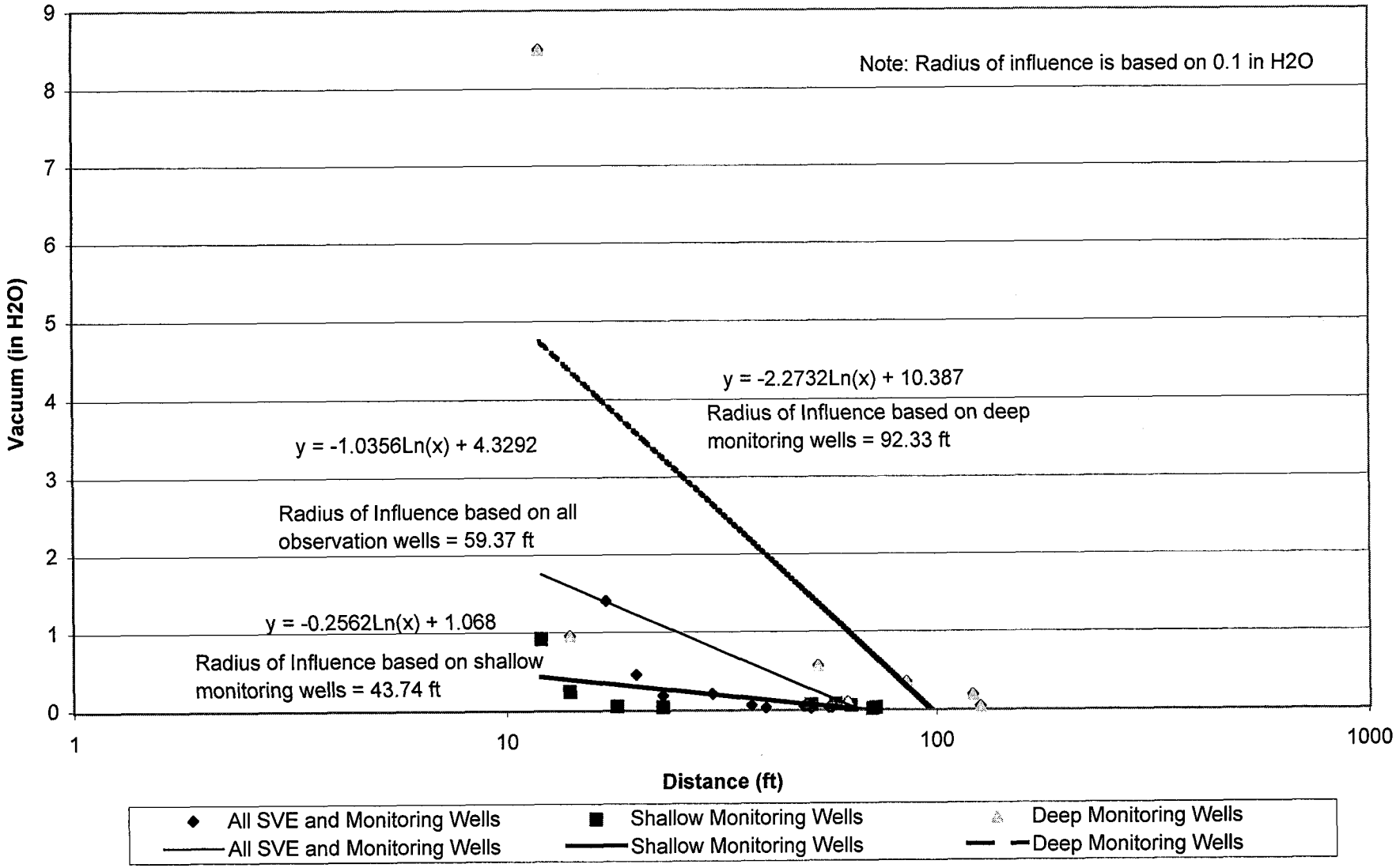

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Figure 20. Vacuum measured at Observation Points versus Distance from Soil-Vapor Extraction Well IR25VW6-18A Operated at 2.5 Inches Hg Vacuum at Building 134

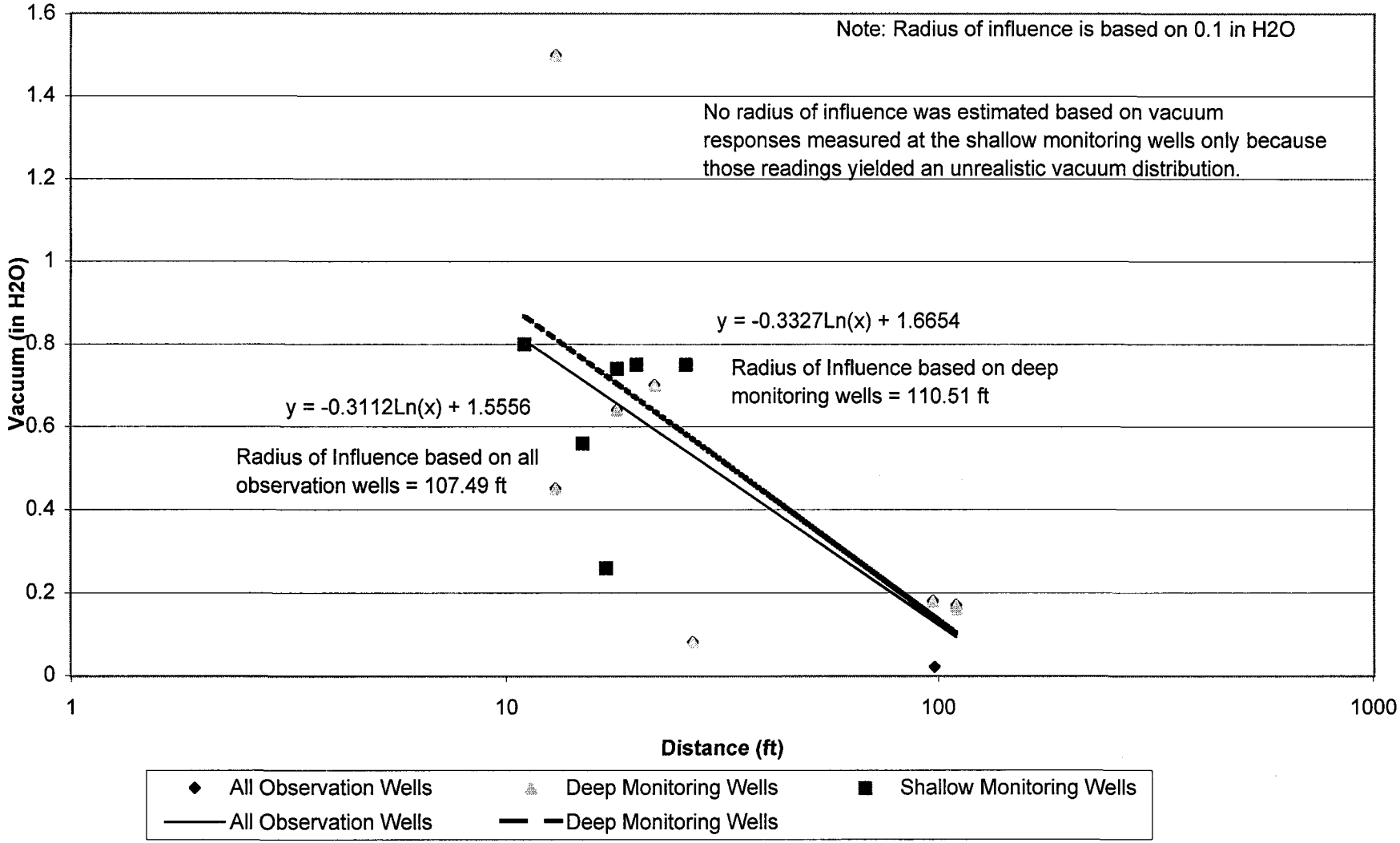

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Figure 21. Vacuum Measured at Observation Points versus Distance from Soil-Vapor Extraction Well IR25VW6-18A Operated at 5.0 Inches Hg Vacuum at Building 134

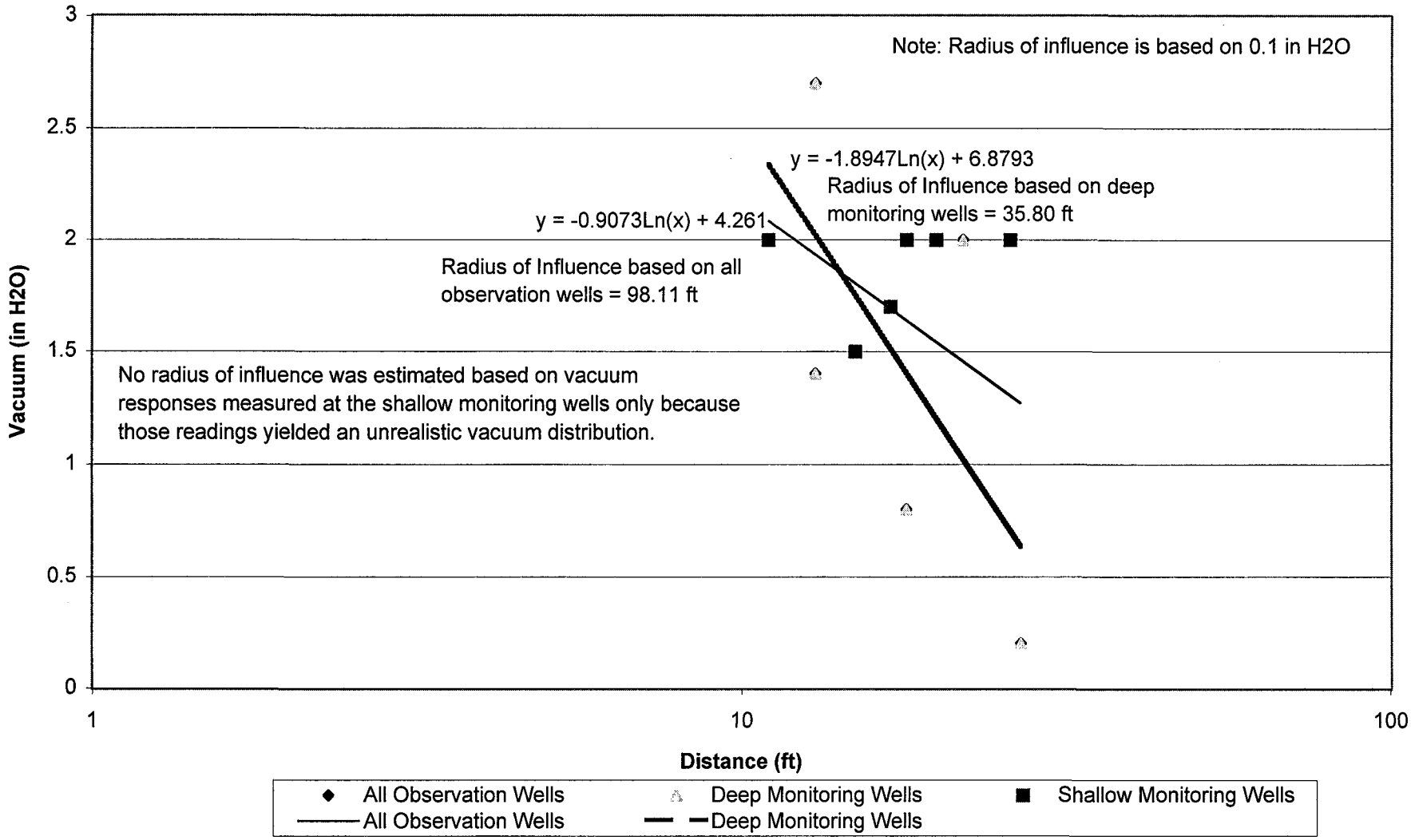


Figure 22. Vacuum Measured at Observation Points versus Distance from Soil-Vapor Extraction Well IR25VW6-18A Operated at 7.5 Inches Hg Vacuum at Building 134

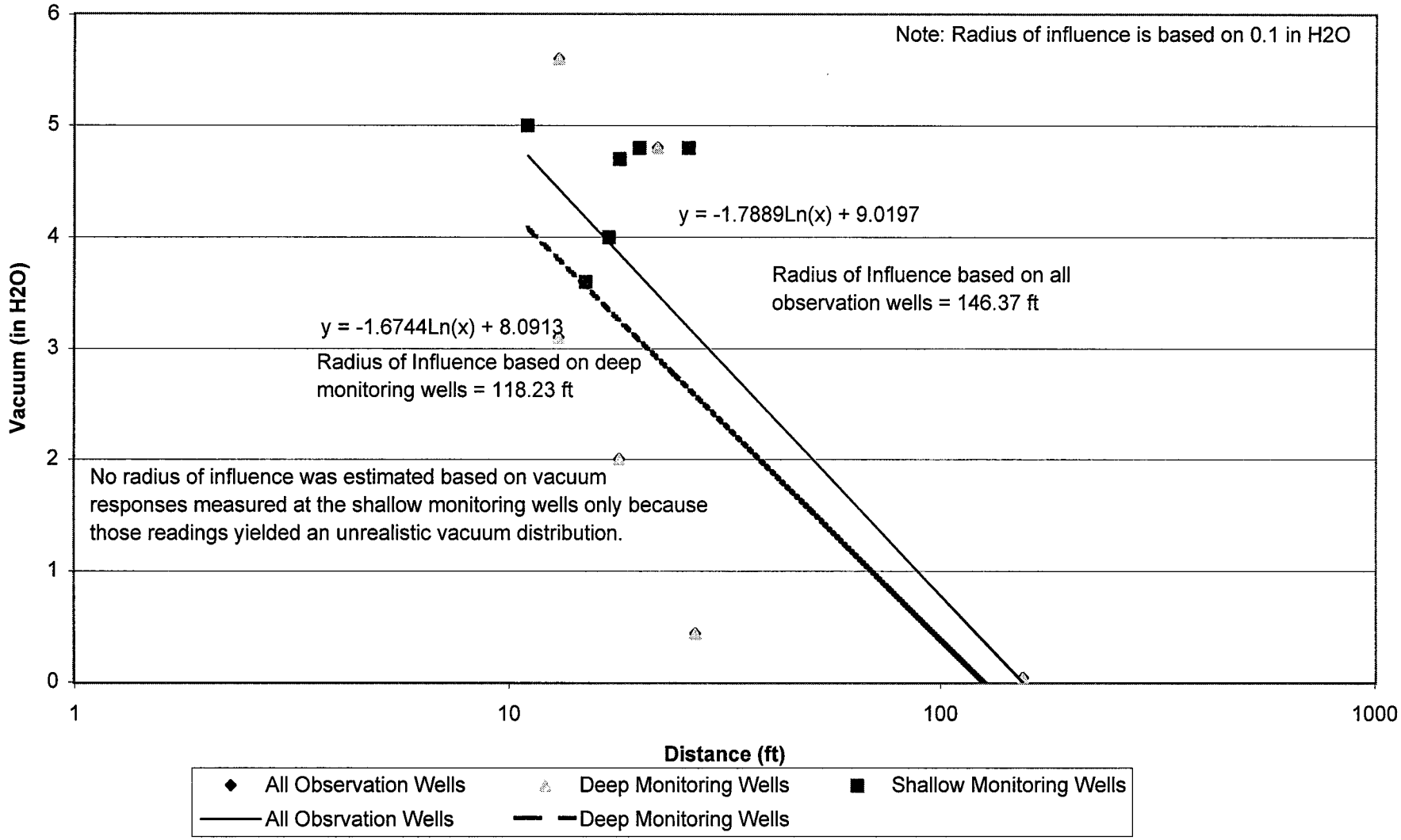


Figure 23. Vacuum Measured at Observation Points versus Distance from Soil-Vapor Extraction Well IR25VW6-18A Operated at 10.0 Inches Hg Vacuum at Building 134

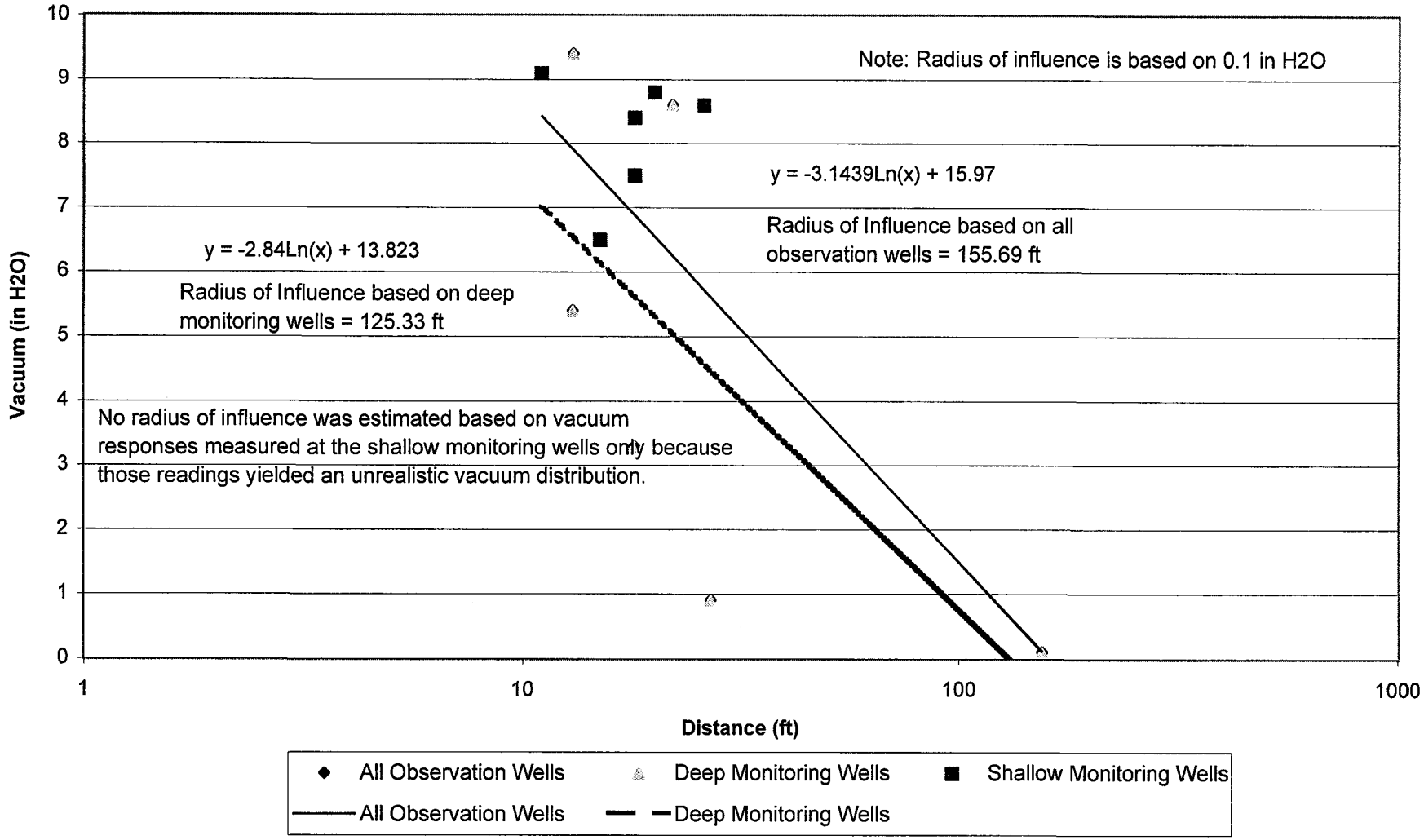
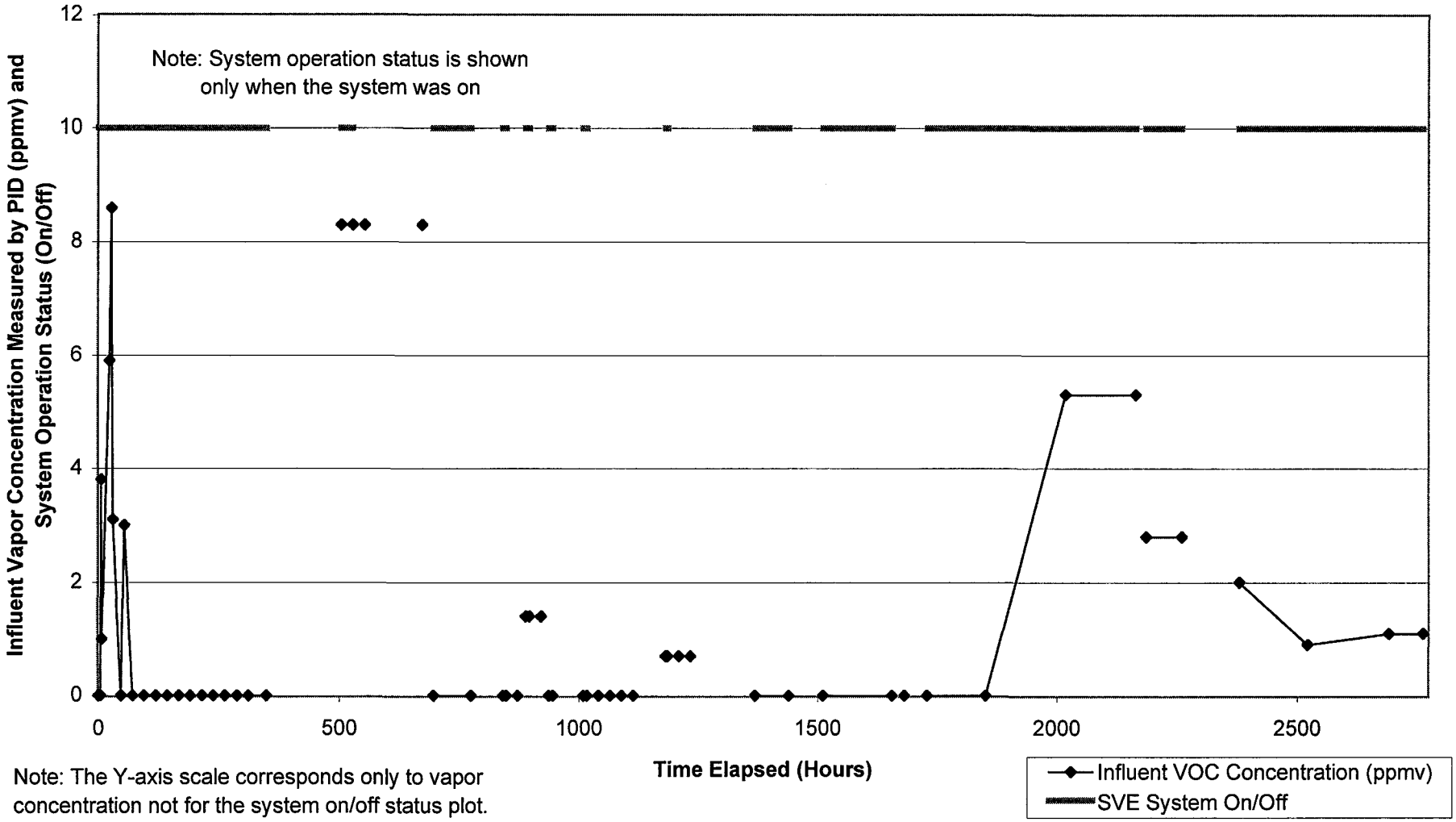


Figure 24. Plot of Influent Concentration and System Operation Status Over the Duration of the SVE Constant Rate Testing from 02/19/01 to 06/14/01, IR-25, Building 134



Note: The Y-axis scale corresponds only to vapor concentration not for the system on/off status plot.

Figure 25. Plot of SVE Extraction Air Flow Over the Duration of the SVE Constant Rate Testing from 02/19/01 to 06/14/01, IR-25, Building 134

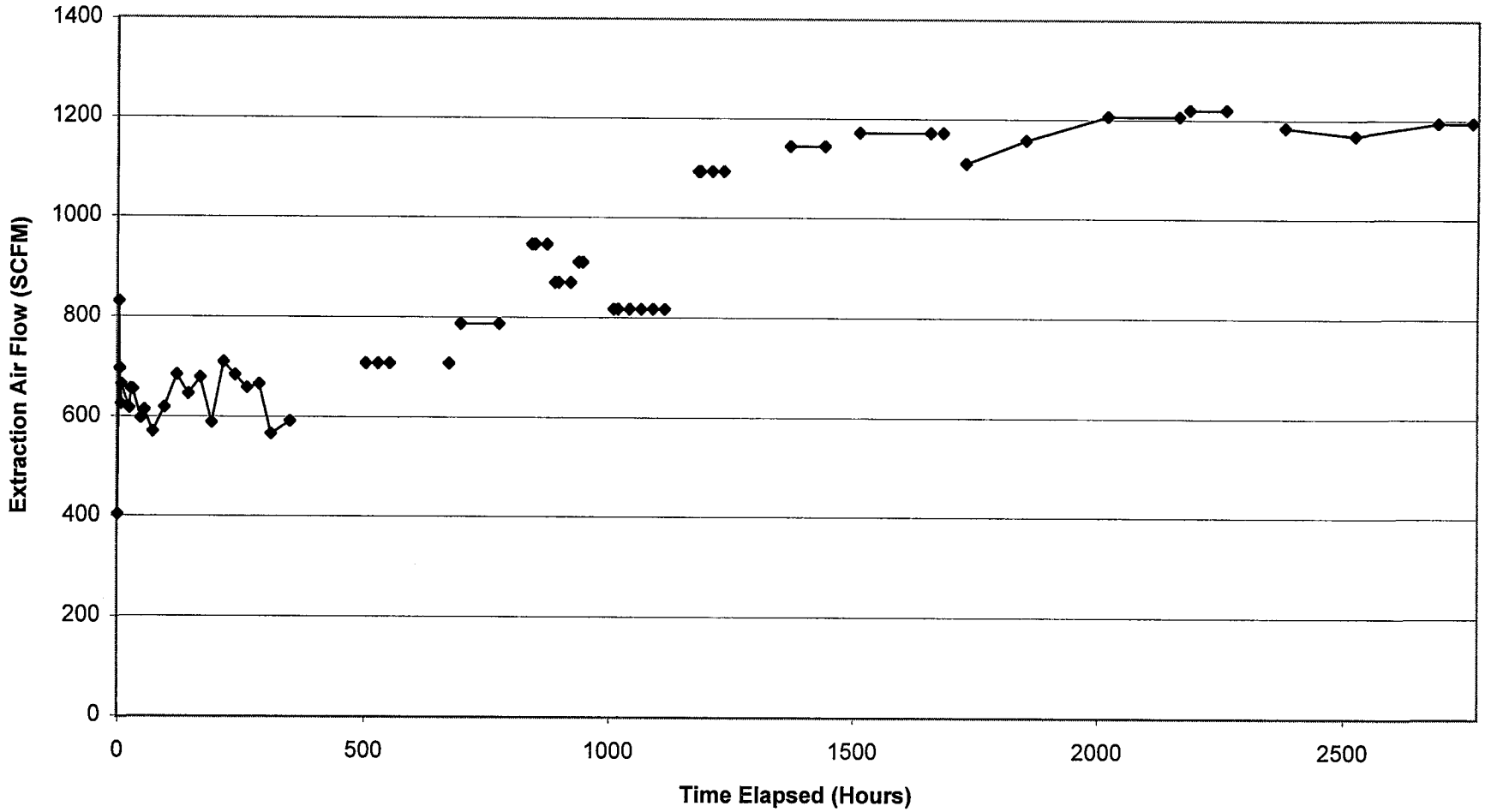


Figure 26. Plot of System Vacuum Over the Duration of the SVE Constant Rate Testing from 02/19/01 to 06/14/01, IR-25, Building 134

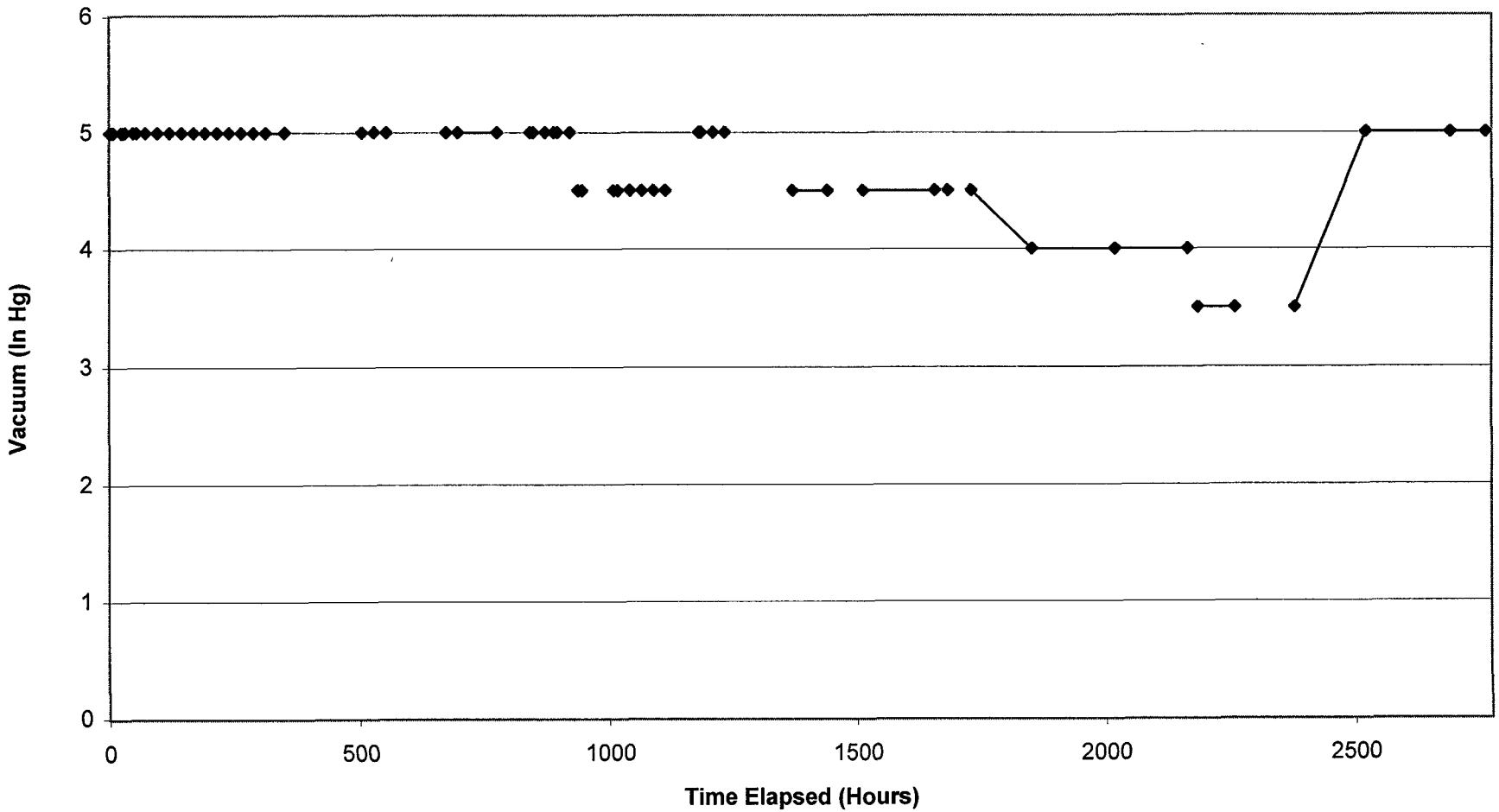
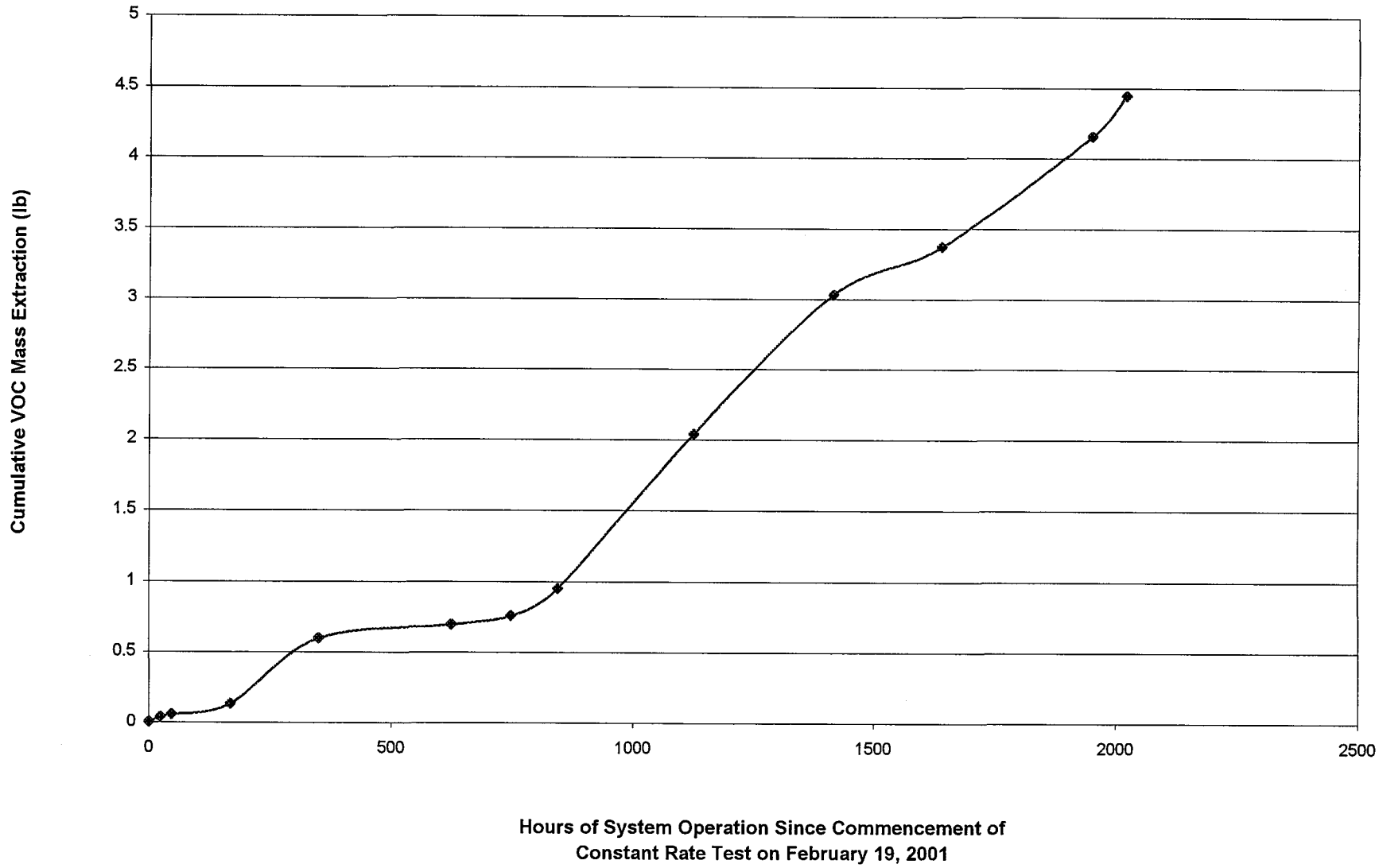


Figure 27. Plot of Cumulative VOC Mass Extraction versus Hours of System Operation, IR-25, Building 134



APPENDIX A
LABORATORY ANALYTICAL DATA

ATTACHMENT 1
SOIL-GAS SURVEY ANALYTICAL DATA

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25SG065 UNITS µg/L-air

BUILDING 134

SAMPLE ID	0038J170	0038J171	0038J172	0038J173	0038J174
SAMPLE DEPTH (feet)	2	4	6	8	10
DATE SAMPLED	09/20/00	09/20/00	09/20/00	09/20/00	09/20/00
ANALYSIS DATE	09/20/00	09/20/00	09/20/00	09/20/00	09/20/00
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2,3-Trichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dibromoethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
2,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
Benzene	<0.2	<0.2	**0.14**	**0.13**	**0.14**
Bromobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromodichloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromoform	<0.2	<0.2	<0.2	<0.2	<0.2
Bromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Carbon Tetrachloride	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroform	<0.2	<0.2	<0.2	<0.2	<0.2
Chloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorodifluoromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Ethyl Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
m,p-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Methylene Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
o-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Styrene	<0.2	<0.2	<0.2	<0.2	<0.2
Tetrachloroethene	**0.80**	**0.24**	**0.20**	**0.19**	<0.2
Toluene	<0.2	<0.2	<0.2	<0.2	**0.23**
Trans-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Trichloroethene	**0.84**	**1.2**	**1.4**	**0.86**	**0.74**
Trichlorofluoromethane	**0.66**	**0.42**	**0.35**	<0.2	<0.2
Vinyl Chloride	<0.2	<0.2	<0.2	<0.2	**1.3**
TPH as gasoline	<10	<10	<10	<10	<10

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25SG064 UNITS µg/L-air

BUILDING 134

SAMPLE ID	0038J175	0038J176	0038J177	0038J178	0038J179
SAMPLE DEPTH (feet)	2	4	6	8	10
DATE SAMPLED	09/20/00	09/20/00	09/20/00	09/20/00	09/20/00
ANALYSIS DATE	09/20/00	09/20/00	09/20/00	09/20/00	09/20/00
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2,3-Trichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dibromoethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
2,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromodichloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromoform	<0.2	<0.2	<0.2	<0.2	<0.2
Bromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Carbon Tetrachloride	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	<0.2	<0.2	<0.2	**0.65**	<0.2
Chloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroform	<0.2	<0.2	<0.2	<0.2	<0.2
Chloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,2-Dichloroethene	<0.2	<0.2	<0.2	**0.37**	<0.2
Cis-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorodifluoromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Ethyl Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
m,p-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Methylene Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
o-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Styrene	<0.2	<0.2	<0.2	<0.2	<0.2
Tetrachloroethene	<0.2	**0.17**	<0.2	<0.2	<0.2
Toluene	<0.2	<0.2	<0.2	<0.2	**0.20**
Trans-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Trichloroethene	**0.55**	**0.63**	**0.46**	**0.52**	**2.3**
Trichlorofluoromethane	**0.11**	**0.24**	**0.21**	<0.2	**0.43**
Vinyl Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
TPH as gasoline	<10	<10	<10	<10	<10

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25SG063 UNITS µg/L-air

BUILDING 134

SAMPLE ID	0038J180	0038J181	0038J182	0038J183	0038J184
SAMPLE DEPTH (feet)	2	4	6	8	10
DATE SAMPLED	09/21/00	09/21/00	09/21/00	09/21/00	09/21/00
ANALYSIS DATE	09/21/00	09/21/00	09/21/00	09/21/00	09/21/00
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2,3-Trichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dibromoethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
2,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromodichloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromoform	<0.2	<0.2	<0.2	<0.2	<0.2
Bromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Carbon Tetrachloride	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroform	<0.2	<0.2	<0.2	<0.2	<0.2
Chloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorodifluoromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Ethyl Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
m,p-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Methylene Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
o-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Styrene	<0.2	<0.2	<0.2	<0.2	<0.2
Tetrachloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Trichloroethene	**0.32**	**0.69**	**0.46**	**0.49**	**0.26**
Trichlorofluoromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Vinyl Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
TPH as gasoline	<10	<10	<10	<10	<10

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25VW6-012A UNITS µg/L-air

BUILDING 134

SAMPLE ID	0038J185	0038J186	0038J187	0038J188	0038J189
SAMPLE DEPTH (feet)	2	4	6	8	10
DATE SAMPLED	09/21/00	09/21/00	09/21/00	09/21/00	09/21/00
ANALYSIS DATE	09/21/00	09/21/00	09/21/00	09/21/00	09/21/00
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2,3-Trichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dibromoethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
2,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromodichloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromoform	<0.2	<0.2	<0.2	<0.2	<0.2
Bromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Carbon Tetrachloride	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroform	<0.2	<0.2	<0.2	<0.2	<0.2
Chloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorodifluoromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Ethyl Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
m,p-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Methylene Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
o-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Styrene	<0.2	<0.2	<0.2	<0.2	<0.2
Tetrachloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Trichloroethene	**0.22**	**1.1**	**0.19**	**0.80**	**0.68**
Trichlorofluoromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Vinyl Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
TPH as gasoline	<10	<10	<10	<10	<10

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25VW6-013A

BUILDING 134

UNITS µg/L-air

SAMPLE ID	0038J190	0038J191	0038J192	0038J193	0038J194
SAMPLE DEPTH (feet)	2	4	6	8	10
DATE SAMPLED	09/21/00	09/21/00	09/21/00	09/21/00	09/21/00
ANALYSIS DATE	09/21/00	09/21/00	09/21/00	09/21/00	09/21/00
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2,3-Trichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dibromoethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
2,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
Benzene	<0.2	<0.2	<0.2	<0.2	**0.11**
Bromobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromodichloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromoform	<0.2	<0.2	<0.2	<0.2	<0.2
Bromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Carbon Tetrachloride	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroform	<0.2	<0.2	<0.2	<0.2	<0.2
Chloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorodifluoromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Ethyl Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
m,p-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Methylene Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
o-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Styrene	<0.2	<0.2	<0.2	<0.2	<0.2
Tetrachloroethene	**1.6**	**0.19**	**0.13**	**0.12**	<0.2
Toluene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Trichloroethene	**1.4**	**0.37**	**0.40**	**0.58**	**0.66**
Trichlorofluoromethane	**0.32**	**0.27**	<0.2	<0.2	<0.2
Vinyl Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
TPH as gasoline	<10	<10	<10	**15**	**23**

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25VW6-010A UNITS µg/L-air

BUILDING 134

SAMPLE ID	0038J195	0038J196	0038J197	0038J198	0038J199
SAMPLE DEPTH (feet)	2	4	6	8	10
DATE SAMPLED	09/21/00	09/21/00	09/21/00	09/21/00	09/21/00
ANALYSIS DATE	09/21/00	09/21/00	09/21/00	09/21/00	09/21/00
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2,3-Trichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dibromoethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloroethane	<0.2	<0.2	<0.2	**0.18**	**0.15**
1,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
2,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromodichloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromoform	<0.2	<0.2	<0.2	<0.2	<0.2
Bromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Carbon Tetrachloride	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroform	<0.2	<0.2	<0.2	<0.2	<0.2
Chloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,2-Dichloroethene	**0.19**	<0.2	**1.6**	**13**	**13**
Cis-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorodifluoromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Ethyl Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
m,p-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Methylene Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
o-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Styrene	<0.2	<0.2	<0.2	<0.2	<0.2
Tetrachloroethene	**0.50**	**0.42**	**1.0**	**2.8**	**3.0**
Toluene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,2-Dichloroethene	<0.2	<0.2	<0.2	**0.58**	**0.59**
Trans-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Trichloroethene	**0.49**	**0.50**	**0.88**	**2.2**	**2.3**
Trichlorofluoromethane	<0.2	**0.38**	**2.6**	**7.8**	**6.9**
Vinyl Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
TPH as gasoline	<10	<10	<10	<10	<10

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25VW6-09A UNITS µg/L-air

BUILDING 134

SAMPLE ID	0038J201	0038J202	0038J203	0038J204	
SAMPLE DEPTH (feet)	4	6	8	10	
DATE SAMPLED	09/21/00	09/21/00	09/21/00	09/21/00	
ANALYSIS DATE	09/22/00	09/22/00	09/22/00	09/22/00	
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	
1,1,1-Trichloroethane	<0.2	<0.2	<0.2	<0.2	
1,1,2,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	
1,1,2-Trichloroethane	<0.2	<0.2	<0.2	<0.2	
1,1-Dichloroethane	<0.2	<0.2	<0.2	<0.2	
1,1-Dichloroethene	<0.2	<0.2	<0.2	<0.2	
1,1-Dichloropropene	<0.2	<0.2	<0.2	<0.2	
1,2,3-Trichloropropane	<0.2	<0.2	<0.2	<0.2	
1,2-Dibromoethane	<0.2	<0.2	<0.2	<0.2	
1,2-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	
1,2-Dichloroethane	<0.2	<0.2	<0.2	<0.2	
1,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	
1,3-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	
1,3-Dichloropropane	<0.2	<0.2	<0.2	<0.2	
1,4-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	
2,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	
Benzene	<0.2	<0.2	**0.13**	**0.20**	
Bromobenzene	<0.2	<0.2	<0.2	<0.2	
Bromochloromethane	<0.2	<0.2	<0.2	<0.2	
Bromodichloromethane	<0.2	<0.2	<0.2	<0.2	
Bromoform	<0.2	<0.2	<0.2	<0.2	
Bromomethane	<0.2	<0.2	<0.2	<0.2	
Carbon Tetrachloride	<0.2	<0.2	<0.2	<0.2	
Chlorobenzene	<0.2	<0.2	<0.2	<0.2	
Chloroethane	<0.2	<0.2	<0.2	<0.2	
Chloroform	<0.2	<0.2	<0.2	<0.2	
Chloromethane	<0.2	<0.2	<0.2	<0.2	
Cis-1,2-Dichloroethene	**1.2**	**1.9**	**0.21**	**0.71**	
Cis-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	
Dibromochloromethane	<0.2	<0.2	<0.2	<0.2	
Dibromomethane	<0.2	<0.2	<0.2	<0.2	
Dichlorodifluoromethane	<0.2	<0.2	<0.2	<0.2	
Ethyl Benzene	<0.2	<0.2	<0.2	<0.2	
m,p-Xylene	<0.2	<0.2	<0.2	<0.2	
Methylene Chloride	<0.2	<0.2	<0.2	<0.2	
o-Xylene	<0.2	<0.2	<0.2	<0.2	
Styrene	<0.2	<0.2	<0.2	<0.2	
Tetrachloroethene	**1.2**	**1.7**	**0.40**	**0.53**	
Toluene	<0.2	<0.2	**0.35**	**0.38**	
Trans-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	
Trans-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	
Trichloroethene	**0.77**	**0.95**	**0.40**	**0.78**	
Trichlorofluoromethane	**0.25**	**0.32**	<0.2	<0.2	
Vinyl Chloride	<0.2	<0.2	<0.2	**0.19**	
TPH as gasoline	<10	<10	<10	<10	

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25SG054 UNITS µg/L-air

BUILDING 134

SAMPLE ID	0038J205				
SAMPLE DEPTH (feet)	2				
DATE SAMPLED	09/21/00				
ANALYSIS DATE	09/22/00				
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2				
1,1,1-Trichloroethane	<0.2				
1,1,2,2-Tetrachloroethane	<0.2				
1,1,2-Trichloroethane	<0.2				
1,1-Dichloroethane	<0.2				
1,1-Dichloroethene	<0.2				
1,1-Dichloropropene	<0.2				
1,2,3-Trichloropropane	<0.2				
1,2-Dibromoethane	<0.2				
1,2-Dichlorobenzene	<0.2				
1,2-Dichloroethane	<0.2				
1,2-Dichloropropane	<0.2				
1,3-Dichlorobenzene	<0.2				
1,3-Dichloropropane	<0.2				
1,4-Dichlorobenzene	<0.2				
2,2-Dichloropropane	<0.2				
Benzene	**0.11**				
Bromobenzene	<0.2				
Bromochloromethane	<0.2				
Bromodichloromethane	<0.2				
Bromoform	<0.2				
Bromomethane	<0.2				
Carbon Tetrachloride	<0.2				
Chlorobenzene	<0.2				
Chloroethane	<0.2				
Chloroform	<0.2				
Chloromethane	<0.2				
Cis-1,2-Dichloroethene	<0.2				
Cis-1,3-Dichloropropene	<0.2				
Dibromochloromethane	<0.2				
Dibromomethane	<0.2				
Dichlorodifluoromethane	<0.2				
Ethyl Benzene	<0.2				
m,p-Xylene	<0.2				
Methylene Chloride	<0.2				
o-Xylene	<0.2				
Styrene	<0.2				
Tetrachloroethene	**0.15**				
Toluene	**0.24**				
Trans-1,2-Dichloroethene	<0.2				
Trans-1,3-Dichloropropene	<0.2				
Trichloroethene	**0.26**				
Trichlorofluoromethane	<0.2				
Vinyl Chloride	<0.2				
TPH as gasoline	**16**				

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25SG051 UNITS µg/L-air

BUILDING 134

SAMPLE ID	0038J206	0038J207	0038J208	0038J209	0038J210
SAMPLE DEPTH (feet)	2	4	6	8	10
DATE SAMPLED	09/21/00	09/21/00	09/21/00	09/21/00	09/21/00
ANALYSIS DATE	09/22/00	09/22/00	09/22/00	09/22/00	09/22/00
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2,3-Trichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dibromoethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
2,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
Benzene	<0.2	<0.2	<0.2	**0.12**	**0.16**
Bromobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromodichloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromoform	<0.2	<0.2	<0.2	<0.2	<0.2
Bromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Carbon Tetrachloride	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroform	<0.2	<0.2	<0.2	<0.2	<0.2
Chloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,2-Dichloroethene	<0.2	<0.2	**0.13**	<0.2	<0.2
Cis-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorodifluoromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Ethyl Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
m,p-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Methylene Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
o-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Styrene	<0.2	<0.2	<0.2	<0.2	<0.2
Tetrachloroethene	<0.2	<0.2	**0.32**	<0.2	<0.2
Toluene	<0.2	<0.2	**0.29**	<0.2	**0.26**
Trans-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Trichloroethene	**0.26**	**0.31**	**0.76**	**0.21**	**0.30**
Trichlorofluoromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Vinyl Chloride	<0.2	<0.2	<0.2	**0.15**	<0.2
TPH as gasoline	<10	<10	<10	**500**	**75**

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25SG050 UNITS µg/L-air

BUILDING 134

SAMPLE ID	0038J211	0038J212	0038J213	0038J214	0038J215
SAMPLE DEPTH (feet)	2	4	6	8	10
DATE SAMPLED	09/21/00	09/21/00	09/21/00	09/21/00	09/21/00
ANALYSIS DATE	09/22/00	09/22/00	09/22/00	09/22/00	09/22/00
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2,3-Trichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dibromoethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
2,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromodichloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromoform	<0.2	<0.2	<0.2	<0.2	<0.2
Bromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Carbon Tetrachloride	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroform	<0.2	<0.2	<0.2	<0.2	<0.2
Chloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorodifluoromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Ethyl Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
m,p-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Methylene Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
o-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Styrene	<0.2	<0.2	<0.2	<0.2	<0.2
Tetrachloroethene	**0.78**	**0.70**	**0.19**	**0.11**	**0.14**
Toluene	<0.2	<0.2	<0.2	**0.21**	**0.22**
Trans-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Trichloroethene	**0.30**	**0.25**	**0.24**	**0.22**	**0.29**
Trichlorofluoromethane	<0.2	**0.17**	<0.2	<0.2	<0.2
Vinyl Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
TPH as gasoline	<10	<10	<10	<10	<10

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25VW6-17A

BUILDING 134

UNITS µg/L-air

SAMPLE ID	0039J216	0039J217	0039J218	0039J219	0039J220
SAMPLE DEPTH (feet)	2	4	6	8	10
DATE SAMPLED	09/25/00	09/25/00	09/25/00	09/25/00	09/25/00
ANALYSIS DATE	09/22/00	09/25/00	09/25/00	09/25/00	09/25/00
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2,3-Trichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dibromoethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
2,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromodichloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromoform	<0.2	<0.2	<0.2	<0.2	<0.2
Bromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Carbon Tetrachloride	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroform	<0.2	<0.2	<0.2	<0.2	<0.2
Chloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorodifluoromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Ethyl Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
m,p-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Methylene Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
o-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Styrene	<0.2	<0.2	<0.2	<0.2	<0.2
Tetrachloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Trichloroethene	**0.46**	**0.17**	**0.28**	<0.2	**0.11**
Trichlorofluoromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Vinyl Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
TPH as gasoline	<10	<10	<10	<10	<10

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25SG061 UNITS µg/L-air

BUILDING 134

SAMPLE ID	0039J221	0039J222	0039J223	0039J224	0039J225
SAMPLE DEPTH (feet)	2	4	6	8	10
DATE SAMPLED	09/25/00	09/25/00	09/25/00	09/25/00	09/25/00
ANALYSIS DATE	09/25/00	09/25/00	09/25/00	09/25/00	09/25/00
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<0.4	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	<0.2	<0.4	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane	<0.2	<0.4	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	<0.2	<0.4	<0.2	<0.2	<0.2
1,1-Dichloroethane	<0.2	<0.4	<0.2	<0.2	<0.2
1,1-Dichloroethene	<0.2	<0.4	<0.2	<0.2	<0.2
1,1-Dichloropropene	<0.2	<0.4	<0.2	<0.2	<0.2
1,2,3-Trichloropropane	<0.2	<0.4	<0.2	<0.2	<0.2
1,2-Dibromoethane	<0.2	<0.4	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	<0.2	<0.4	<0.2	<0.2	<0.2
1,2-Dichloroethane	<0.2	<0.4	<0.2	<0.2	<0.2
1,2-Dichloropropane	<0.2	<0.4	<0.2	<0.2	<0.2
1,3-Dichlorobenzene	<0.2	<0.4	<0.2	<0.2	<0.2
1,3-Dichloropropane	<0.2	<0.4	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	<0.2	<0.4	<0.2	<0.2	<0.2
2,2-Dichloropropane	<0.2	<0.4	<0.2	<0.2	<0.2
Benzene	<0.2	<0.4	<0.2	<0.2	<0.2
Bromobenzene	<0.2	<0.4	<0.2	<0.2	<0.2
Bromochloromethane	<0.2	<0.4	<0.2	<0.2	<0.2
Bromodichloromethane	<0.2	<0.4	<0.2	<0.2	<0.2
Bromoform	<0.2	<0.4	<0.2	<0.2	<0.2
Bromomethane	<0.2	<0.4	<0.2	<0.2	<0.2
Carbon Tetrachloride	<0.2	<0.4	<0.2	<0.2	<0.2
Chlorobenzene	<0.2	<0.4	<0.2	<0.2	<0.2
Chloroethane	<0.2	<0.4	<0.2	<0.2	<0.2
Chloroform	<0.2	<0.4	<0.2	<0.2	<0.2
Chloromethane	<0.2	<0.4	<0.2	<0.2	<0.2
Cis-1,2-Dichloroethene	**0.64**	<0.4	**0.26**	<0.2	<0.2
Cis-1,3-Dichloropropene	<0.2	<0.4	<0.2	<0.2	<0.2
Dibromochloromethane	<0.2	<0.4	<0.2	<0.2	<0.2
Dibromomethane	<0.2	<0.4	<0.2	<0.2	<0.2
Dichlorodifluoromethane	<0.2	<0.4	<0.2	<0.2	<0.2
Ethyl Benzene	<0.2	<0.4	<0.2	<0.2	<0.2
m,p-Xylene	<0.2	<0.4	**0.37**	<0.2	<0.2
Methylene Chloride	<0.2	<0.4	<0.2	<0.2	<0.2
o-Xylene	<0.2	<0.4	<0.2	<0.2	<0.2
Styrene	<0.2	<0.4	<0.2	<0.2	<0.2
Tetrachloroethene	<0.2	<0.4	<0.2	<0.2	<0.2
Toluene	<0.2	<0.4	**0.45**	**0.26**	<0.2
Trans-1,2-Dichloroethene	**0.66**	<0.4	**0.16**	<0.2	<0.2
Trans-1,3-Dichloropropene	<0.2	<0.4	<0.2	<0.2	<0.2
Trichloroethene	**21**	**0.73**	**2.2**	**0.59**	**0.97**
Trichlorofluoromethane	**0.33**	<0.4	<0.2	<0.2	<0.2
Vinyl Chloride	<0.2	<0.4	<0.2	<0.2	<0.2
TPH as gasoline	<10	<20	<10	<10	<10

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25SG060 UNITS µg/L-air

BUILDING 134

SAMPLE ID	0039J226	0039J227	0039J228	0039J229	0039J230
SAMPLE DEPTH (feet)	2	4	6	8	10
DATE SAMPLED	09/25/00	09/25/00	09/25/00	09/25/00	09/25/00
ANALYSIS DATE	09/25/00	09/25/00	09/25/00	09/25/00	09/25/00
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2,3-Trichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dibromoethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
2,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
Benzene	<0.2	<0.2	<0.2	**0.14**	**0.11**
Bromobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromodichloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromoform	<0.2	<0.2	<0.2	<0.2	<0.2
Bromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Carbon Tetrachloride	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroform	<0.2	<0.2	<0.2	<0.2	<0.2
Chloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,2-Dichloroethene	**0.74**	**0.17**	**0.21**	**0.47**	**0.20**
Cis-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorodifluoromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Ethyl Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
m,p-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Methylene Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
o-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Styrene	<0.2	<0.2	<0.2	<0.2	<0.2
Tetrachloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	<0.2	<0.2	**0.26**	**0.33**	**0.26**
Trans-1,2-Dichloroethene	**0.87**	**0.16**	**0.25**	**0.62**	**0.14**
Trans-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Trichloroethene	**17**	**4.5**	**2.5**	**5.6**	**1.8**
Trichlorofluoromethane	**0.21**	<0.2	<0.2	<0.2	<0.2
Vinyl Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
TPH as gasoline	<10	<10	<10	<10	<10

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IRVW6-018A

BUILDING 134

UNITS µg/L-air

SAMPLE ID	0039J231	0039J232	0039J233	0039J234	0039J235
SAMPLE DEPTH (feet)	2	4	6	8	10
DATE SAMPLED	09/25/00	09/25/00	09/25/00	09/25/00	09/25/00
ANALYSIS DATE	09/25/00	09/25/00	09/25/00	09/25/00	09/25/00
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<0.2	<2	<2	<0.5
1,1,1-Trichloroethane	<0.2	<0.2	<2	<2	<0.5
1,1,2,2-Tetrachloroethane	<0.2	<0.2	<2	<2	<0.5
1,1,2-Trichloroethane	<0.2	<0.2	<2	<2	<0.5
1,1-Dichloroethane	<0.2	<0.2	<2	<2	<0.5
1,1-Dichloroethene	<0.2	**0.96**	<2	<2	<0.5
1,1-Dichloropropene	<0.2	<0.2	<2	<2	<0.5
1,2,3-Trichloropropane	<0.2	<0.2	<2	<2	<0.5
1,2-Dibromoethane	<0.2	<0.2	<2	<2	<0.5
1,2-Dichlorobenzene	<0.2	<0.2	<2	<2	<0.5
1,2-Dichloroethane	<0.2	<0.2	<2	<2	<0.5
1,2-Dichloropropane	<0.2	<0.2	<2	<2	<0.5
1,3-Dichlorobenzene	<0.2	<0.2	<2	<2	<0.5
1,3-Dichloropropane	<0.2	<0.2	<2	<2	<0.5
1,4-Dichlorobenzene	<0.2	<0.2	<2	<2	<0.5
2,2-Dichloropropane	<0.2	<0.2	<2	<2	<0.5
Benzene	<0.2	**1.3**	<2	<2	**0.26**
Bromobenzene	<0.2	<0.2	<2	<2	<0.5
Bromochloromethane	<0.2	<0.2	<2	<2	<0.5
Bromodichloromethane	<0.2	<0.2	<2	<2	<0.5
Bromoform	<0.2	<0.2	<2	<2	<0.5
Bromomethane	<0.2	<0.2	<2	<2	<0.5
Carbon Tetrachloride	<0.2	<0.2	<2	<2	<0.5
Chlorobenzene	<0.2	<0.2	<2	<2	<0.5
Chloroethane	<0.2	<0.2	<2	<2	<0.5
Chloroform	<0.2	<0.2	<2	<2	<0.5
Chloromethane	<0.2	<0.2	<2	<2	<0.5
Cis-1,2-Dichloroethene	**3.0**	**7.8**	**2.4**	**2.2**	**1.0**
Cis-1,3-Dichloropropene	<0.2	<0.2	<2	<2	<0.5
Dibromochloromethane	<0.2	<0.2	<2	<2	<0.5
Dibromomethane	<0.2	<0.2	<2	<2	<0.5
Dichlorodifluoromethane	<0.2	<0.2	<2	<2	<0.5
Ethyl Benzene	<0.2	**0.40**	<2	<2	<0.5
m,p-Xylene	<0.2	**0.95**	<2	<2	<0.5
Methylene Chloride	<0.2	<0.2	<2	<2	<0.5
o-Xylene	<0.2	**0.32**	<2	<2	<0.5
Styrene	<0.2	<0.2	<2	<2	<0.5
Tetrachloroethene	<0.2	<0.2	<2	<2	<0.5
Toluene	<0.2	**1.1**	<2	<2	**0.35**
Trans-1,2-Dichloroethene	**1.9**	**3.7**	<2	<2	**0.63**
Trans-1,3-Dichloropropene	<0.2	<0.2	<2	<2	<0.5
Trichloroethene	**19**	**170**	**42**	**35**	**23**
Trichlorofluoromethane	**0.20**	<0.2	<2	<2	<0.5
Vinyl Chloride	<0.2	**2.2**	<2	<2	**0.36**
TPH as gasoline	<10	**530**	**86**	**64**	**69**

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25SG057 UNITS µg/L-air

BUILDING 134

SAMPLE ID	0039J236	0039J237	0039J238	0039J239	0039J240
SAMPLE DEPTH (feet)	2	4	6	8	10
DATE SAMPLED	09/25/00	09/25/00	09/25/00	09/25/00	09/25/00
ANALYSIS DATE	09/26/00	09/26/00	09/26/00	09/26/00	09/26/00
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<1	<2	<1	<0.5
1,1,1-Trichloroethane	<0.2	<1	<2	<1	<0.5
1,1,2,2-Tetrachloroethane	<0.2	<1	<2	<1	<0.5
1,1,2-Trichloroethane	<0.2	<1	<2	<1	<0.5
1,1-Dichloroethane	<0.2	<1	<2	<1	<0.5
1,1-Dichloroethene	<0.2	**3.6**	<2	<1	<0.5
1,1-Dichloropropene	<0.2	<1	<2	<1	<0.5
1,2,3-Trichloropropane	<0.2	<1	<2	<1	<0.5
1,2-Dibromoethane	<0.2	<1	<2	<1	<0.5
1,2-Dichlorobenzene	<0.2	<1	<2	<1	<0.5
1,2-Dichloroethane	<0.2	<1	<2	<1	<0.5
1,2-Dichloropropane	<0.2	<1	<2	<1	<0.5
1,3-Dichlorobenzene	<0.2	<1	<2	<1	<0.5
1,3-Dichloropropane	<0.2	<1	<2	<1	<0.5
1,4-Dichlorobenzene	<0.2	<1	<2	<1	<0.5
2,2-Dichloropropane	<0.2	<1	<2	<1	<0.5
Benzene	<0.2	**0.61**	<2	<1	<0.5
Bromobenzene	<0.2	<1	<2	<1	<0.5
Bromochloromethane	<0.2	<1	<2	<1	<0.5
Bromodichloromethane	<0.2	<1	<2	<1	<0.5
Bromoform	<0.2	<1	<2	<1	<0.5
Bromomethane	<0.2	<1	<2	<1	<0.5
Carbon Tetrachloride	<0.2	<1	<2	<1	<0.5
Chlorobenzene	<0.2	<1	<2	<1	<0.5
Chloroethane	<0.2	<1	<2	<1	<0.5
Chloroform	<0.2	<1	<2	<1	<0.5
Chloromethane	<0.2	<1	<2	<1	<0.5
Cis-1,2-Dichloroethene	**5.8**	**68**	**4.7**	**6.5**	**0.55**
Cis-1,3-Dichloropropene	<0.2	<1	<2	<1	<0.5
Dibromochloromethane	<0.2	<1	<2	<1	<0.5
Dibromomethane	<0.2	<1	<2	<1	<0.5
Dichlorodifluoromethane	<0.2	<1	<2	<1	<0.5
Ethyl Benzene	<0.2	<1	<2	<1	<0.5
m,p-Xylene	<0.2	<1	<2	<1	<0.5
Methylene Chloride	<0.2	<1	<2	<1	<0.5
o-Xylene	<0.2	<1	<2	<1	<0.5
Styrene	<0.2	<1	<2	<1	<0.5
Tetrachloroethene	<0.2	<1	<2	<1	<0.5
Toluene	<0.2	<1	<2	<1	<0.5
Trans-1,2-Dichloroethene	**4.5**	**100**	**5.9**	**9.4**	**0.60**
Trans-1,3-Dichloropropene	<0.2	<1	<2	<1	<0.5
Trichloroethene	**11**	**190**	**21**	**25**	**3.2**
Trichlorofluoromethane	**0.19**	<1	<2	<1	<0.5
Vinyl Chloride	<0.2	**24**	<2	**4.7**	<0.5
TPH as gasoline	<10	**1200**	**83**	**140**	<25

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25SG058 UNITS µg/L-air

BUILDING 134

SAMPLE ID	0039J241	0039J242	0039J244	0039J245	
SAMPLE DEPTH (feet)	2	4	8	10	
DATE SAMPLED	09/25/00	09/25/00	09/25/00	09/25/00	
ANALYSIS DATE	09/26/00	09/26/00	09/26/00	09/26/00	
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.4	<4	<1	<0.5	
1,1,1-Trichloroethane	<0.4	<4	<1	<0.5	
1,1,2,2-Tetrachloroethane	<0.4	<4	<1	<0.5	
1,1,2-Trichloroethane	<0.4	<4	<1	<0.5	
1,1-Dichloroethane	<0.4	<4	<1	<0.5	
1,1-Dichloroethene	<0.4	<4	**2.4**	**1.7**	
1,1-Dichloropropene	<0.4	<4	<1	<0.5	
1,2,3-Trichloropropane	<0.4	<4	<1	<0.5	
1,2-Dibromoethane	<0.4	<4	<1	<0.5	
1,2-Dichlorobenzene	<0.4	<4	<1	<0.5	
1,2-Dichloroethane	<0.4	<4	<1	<0.5	
1,2-Dichloropropane	<0.4	<4	<1	<0.5	
1,3-Dichlorobenzene	<0.4	<4	<1	<0.5	
1,3-Dichloropropane	<0.4	<4	<1	<0.5	
1,4-Dichlorobenzene	<0.4	<4	<1	<0.5	
2,2-Dichloropropane	<0.4	<4	<1	<0.5	
Benzene	<0.4	<4	<1	<0.5	
Bromobenzene	<0.4	<4	<1	<0.5	
Bromochloromethane	<0.4	<4	<1	<0.5	
Bromodichloromethane	<0.4	<4	<1	<0.5	
Bromoform	<0.4	<4	<1	<0.5	
Bromomethane	<0.4	<4	<1	<0.5	
Carbon Tetrachloride	<0.4	<4	<1	<0.5	
Chlorobenzene	<0.4	<4	<1	<0.5	
Chloroethane	<0.4	<4	<1	<0.5	
Chloroform	<0.4	<4	<1	<0.5	
Chloromethane	<0.4	<4	<1	<0.5	
Cis-1,2-Dichloroethene	**0.91**	**6.5**	**6.0**	**7.3**	
Cis-1,3-Dichloropropene	<0.4	<4	<1	<0.5	
Dibromochloromethane	<0.4	<4	<1	<0.5	
Dibromomethane	<0.4	<4	<1	<0.5	
Dichlorodifluoromethane	<0.4	<4	<1	<0.5	
Ethyl Benzene	<0.4	<4	<1	<0.5	
m,p-Xylene	<0.4	<4	<1	<0.5	
Methylene Chloride	<0.4	<4	<1	<0.5	
o-Xylene	<0.4	<4	<1	<0.5	
Styrene	<0.4	<4	<1	<0.5	
Tetrachloroethene	<0.4	<4	<1	<0.5	
Toluene	<0.4	<4	<1	<0.5	
Trans-1,2-Dichloroethene	**1.2**	**11**	**22**	**24**	
Trans-1,3-Dichloropropene	<0.4	<4	<1	<0.5	
Trichloroethene	**38**	**150**	**49**	**45**	
Trichlorofluoromethane	<0.4	<4	<1	<0.5	
Vinyl Chloride	<0.4	<4	**2.7**	**1.8**	
TPH as gasoline	<20	**520**	**150**	**120**	

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25SG049

BUILDING 134

UNITS µg/L-air

SAMPLE ID	0039J246	0039J247	0039J248	0039J249	0039J250
SAMPLE DEPTH (feet)	2	4	6	8	10
DATE SAMPLED	09/26/00	09/26/00	09/26/00	09/26/00	09/26/00
ANALYSIS DATE	09/26/00	09/26/00	09/26/00	09/26/00	09/26/00
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.5	<0.2	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	<0.5	<0.2	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane	<0.5	<0.2	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	<0.5	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	<0.5	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	<0.5	<0.2	<0.2	<0.2	<0.2
1,1-Dichloropropene	<0.5	<0.2	<0.2	<0.2	<0.2
1,2,3-Trichloropropane	<0.5	<0.2	<0.2	<0.2	<0.2
1,2-Dibromoethane	<0.5	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	<0.5	<0.2	<0.2	<0.2	<0.2
1,2-Dichloroethane	<0.5	<0.2	<0.2	<0.2	<0.2
1,2-Dichloropropane	<0.5	<0.2	<0.2	<0.2	<0.2
1,3-Dichlorobenzene	<0.5	<0.2	<0.2	<0.2	<0.2
1,3-Dichloropropane	<0.5	<0.2	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	<0.5	<0.2	<0.2	<0.2	<0.2
2,2-Dichloropropane	<0.5	<0.2	<0.2	<0.2	<0.2
Benzene	<0.5	<0.2	<0.2	<0.2	<0.2
Bromobenzene	<0.5	<0.2	<0.2	<0.2	<0.2
Bromochloromethane	<0.5	<0.2	<0.2	<0.2	<0.2
Bromodichloromethane	<0.5	<0.2	<0.2	<0.2	<0.2
Bromoform	<0.5	<0.2	<0.2	<0.2	<0.2
Bromomethane	<0.5	<0.2	<0.2	<0.2	<0.2
Carbon Tetrachloride	<0.5	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	<0.5	<0.2	<0.2	<0.2	<0.2
Chloroethane	<0.5	<0.2	<0.2	<0.2	<0.2
Chloroform	<0.5	<0.2	<0.2	<0.2	<0.2
Chloromethane	<0.5	<0.2	<0.2	<0.2	<0.2
Cis-1,2-Dichloroethene	**0.36**	**0.13**	<0.2	<0.2	<0.2
Cis-1,3-Dichloropropene	<0.5	<0.2	<0.2	<0.2	<0.2
Dibromochloromethane	<0.5	<0.2	<0.2	<0.2	<0.2
Dibromomethane	<0.5	<0.2	<0.2	<0.2	<0.2
Dichlorodifluoromethane	<0.5	<0.2	<0.2	<0.2	<0.2
Ethyl Benzene	<0.5	<0.2	<0.2	<0.2	<0.2
m,p-Xylene	<0.5	<0.2	<0.2	<0.2	<0.2
Methylene Chloride	<0.5	<0.2	<0.2	<0.2	<0.2
o-Xylene	<0.5	<0.2	<0.2	<0.2	<0.2
Styrene	<0.5	<0.2	<0.2	<0.2	<0.2
Tetrachloroethene	**1.5**	**0.33**	**0.18**	**0.14**	<0.2
Toluene	<0.5	<0.2	<0.2	<0.2	<0.2
Trans-1,2-Dichloroethene	<0.5	<0.2	<0.2	<0.2	<0.2
Trans-1,3-Dichloropropene	<0.5	<0.2	<0.2	<0.2	<0.2
Trichloroethene	**0.7**	**1.3**	**0.29**	**0.44**	**0.20**
Trichlorofluoromethane	**0.45**	<0.2	<0.2	<0.2	<0.2
Vinyl Chloride	<0.5	<0.2	<0.2	<0.2	<0.2
TPH as gasoline	<25	<10	<10	<10	<10

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25SG048 UNITS µg/L-air

BUILDING 134

SAMPLE ID	0039J251	0039J252	0039J253	0039J254	0039J255
SAMPLE DEPTH (feet)	2	4	6	8	10
DATE SAMPLED	09/26/00	09/26/00	09/26/00	09/26/00	09/26/00
ANALYSIS DATE	09/26/00	09/26/00	09/26/00	09/26/00	09/26/00
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2,3-Trichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dibromoethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
2,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromodichloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromoform	<0.2	<0.2	<0.2	<0.2	<0.2
Bromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Carbon Tetrachloride	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroform	<0.2	<0.2	<0.2	<0.2	<0.2
Chloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,2-Dichloroethene	**0.19**	<0.2	<0.2	<0.2	<0.2
Cis-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorodifluoromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Ethyl Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
m,p-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Methylene Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
o-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Styrene	<0.2	<0.2	<0.2	<0.2	<0.2
Tetrachloroethene	**0.79**	**0.14**	**0.14**	**0.14**	**0.13**
Toluene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Trichloroethene	**0.44**	**0.30**	**0.39**	**0.57**	**0.79**
Trichlorofluoromethane	**0.29**	<0.2	<0.2	<0.2	<0.2
Vinyl Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
TPH as gasoline	**6.5**	<10	<10	<10	<10

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25SG047 UNITS µg/L-air

BUILDING 134

SAMPLE ID	0039J257	0039J258	0039J259	0039J260	0039J261
SAMPLE DEPTH (feet)	2	4	6	8	10
DATE SAMPLED	09/26/00	09/26/00	09/26/00	09/26/00	09/26/00
ANALYSIS DATE	09/26/00	09/26/00	09/26/00	09/26/00	09/26/00
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2,3-Trichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dibromoethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
2,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromodichloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromoform	<0.2	<0.2	<0.2	<0.2	<0.2
Bromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Carbon Tetrachloride	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroform	<0.2	<0.2	<0.2	<0.2	<0.2
Chloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorodifluoromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Ethyl Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
m,p-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Methylene Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
o-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Styrene	<0.2	<0.2	<0.2	<0.2	<0.2
Tetrachloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Trichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Trichlorofluoromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Vinyl Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
TPH as gasoline	<10	<10	<10	<10	<10

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25VW6-14A

BUILDING 134

UNITS µg/L-air

SAMPLE ID	0039J262	0039J263	0039J264	0039J265	0039J266
SAMPLE DEPTH (feet)	2	4	6	8	10
DATE SAMPLED	09/26/00	09/26/00	09/26/00	09/26/00	09/26/00
ANALYSIS DATE	09/27/00	09/27/00	09/27/00	09/27/00	09/27/00
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2,3-Trichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dibromoethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
2,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromodichloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromoform	<0.2	<0.2	<0.2	<0.2	<0.2
Bromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Carbon Tetrachloride	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroform	<0.2	<0.2	<0.2	<0.2	<0.2
Chloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorodifluoromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Ethyl Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
m,p-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Methylene Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
o-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Styrene	<0.2	<0.2	<0.2	<0.2	<0.2
Tetrachloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	<0.2	<0.2	<0.2	<0.2	**0.16**
Trans-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Trichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Trichlorofluoromethane	<0.2	<0.2	<0.2	<0.2	**0.13**
Vinyl Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
TPH as gasoline	<10	<10	<10	<10	<10

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25VW6-16A

BUILDING 134

UNITS µg/L-air

SAMPLE ID	0039J267	0039J268	0039J269	0039J270	0039J271
SAMPLE DEPTH (feet)	2	4	6	8	10
DATE SAMPLED	09/26/00	09/26/00	09/26/00	09/26/00	09/26/00
ANALYSIS DATE	09/27/00	09/27/00	09/27/00	09/27/00	09/27/00
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2,3-Trichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dibromoethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
2,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
Benzene	**0.11**	<0.2	<0.2	<0.2	<0.2
Bromobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromodichloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromoform	<0.2	<0.2	<0.2	<0.2	<0.2
Bromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Carbon Tetrachloride	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroform	<0.2	<0.2	<0.2	<0.2	<0.2
Chloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,2-Dichloroethene	**0.18**	<0.2	<0.2	<0.2	<0.2
Cis-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorodifluoromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Ethyl Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
m,p-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Methylene Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
o-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Styrene	<0.2	<0.2	<0.2	<0.2	<0.2
Tetrachloroethene	**0.39**	<0.2	<0.2	<0.2	<0.2
Toluene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Trichloroethene	**0.14**	<0.2	<0.2	<0.2	<0.2
Trichlorofluoromethane	<0.2	**0.27**	<0.2	<0.2	<0.2
Vinyl Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
TPH as gasoline	**15**	<10	<10	<10	<10

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25SG056 UNITS µg/L-air

BUILDING 134

SAMPLE ID	0039J272	0039J273	0039J274	0039J275	0039J276
SAMPLE DEPTH (feet)	2	4	6	8	10
DATE SAMPLED	09/26/00	09/26/00	09/26/00	09/26/00	09/26/00
ANALYSIS DATE	09/27/00	09/27/00	09/27/00	09/27/00	09/27/00
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2,3-Trichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dibromoethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
2,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromodichloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromoform	<0.2	<0.2	<0.2	<0.2	<0.2
Bromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Carbon Tetrachloride	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroform	<0.2	<0.2	<0.2	<0.2	<0.2
Chloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorodifluoromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Ethyl Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
m,p-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Methylene Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
o-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Styrene	<0.2	<0.2	<0.2	<0.2	<0.2
Tetrachloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	<0.2	<0.2	**0.28**	**0.40**	**0.47**
Trans-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Trichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Trichlorofluoromethane	**0.95**	<0.2	<0.2	<0.2	<0.2
Vinyl Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
TPH as gasoline	<10	<10	<10	<10	<10

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25SG052 UNITS µg/L-air

BUILDING 134

SAMPLE ID	0039J277	0039J278	0039J279	0039J280	0039J281
SAMPLE DEPTH (feet)	2	4	6	8	10
DATE SAMPLED	09/27/00	09/27/00	09/27/00	09/27/00	09/27/00
ANALYSIS DATE	09/27/00	09/27/00	09/27/00	09/27/00	09/27/00
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2,3-Trichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dibromoethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
2,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromodichloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromoform	<0.2	<0.2	<0.2	<0.2	<0.2
Bromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Carbon Tetrachloride	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroform	<0.2	<0.2	<0.2	<0.2	<0.2
Chloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorodifluoromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Ethyl Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
m,p-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Methylene Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
o-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Styrene	<0.2	<0.2	<0.2	<0.2	<0.2
Tetrachloroethene	**0.16**	<0.2	<0.2	<0.2	<0.2
Toluene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Trichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Trichlorofluoromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Vinyl Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
TPH as gasoline	<10	<10	<10	<10	<10

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25SG053 UNITS µg/L-air

BUILDING 134

SAMPLE ID	0039J282	0039J283	0039J284	0039J285	0039J286
SAMPLE DEPTH (feet)	2	4	6	8	10
DATE SAMPLED	09/27/00	09/27/00	09/27/00	09/27/00	09/27/00
ANALYSIS DATE	09/27/00	09/27/00	09/27/00	09/27/00	09/27/00
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2,3-Trichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dibromoethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
2,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromodichloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromoform	<0.2	<0.2	<0.2	<0.2	<0.2
Bromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Carbon Tetrachloride	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroform	<0.2	<0.2	<0.2	<0.2	<0.2
Chloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorodifluoromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Ethyl Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
m,p-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Methylene Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
o-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Styrene	<0.2	<0.2	<0.2	<0.2	<0.2
Tetrachloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Trichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Trichlorofluoromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Vinyl Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
TPH as gasoline	**16**	**98**	**80**	**110**	**48**

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25VW6-011A UNITS µg/L-air

BUILDING 134

SAMPLE ID	0039J287	0039J288	0039J289	0039J290	0039J291
SAMPLE DEPTH (feet)	2	4	6	8	10
DATE SAMPLED	09/27/00	09/27/00	09/27/00	09/27/00	09/27/00
ANALYSIS DATE	09/28/00	09/28/00	09/28/00	09/28/00	09/28/00
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2,3-Trichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dibromoethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
2,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromodichloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromoform	<0.2	<0.2	<0.2	<0.2	<0.2
Bromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Carbon Tetrachloride	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroform	<0.2	<0.2	<0.2	<0.2	<0.2
Chloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,2-Dichloroethene	**0.47**	**0.55**	**0.71**	**0.28**	**0.19**
Cis-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorodifluoromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Ethyl Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
m,p-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Methylene Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
o-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Styrene	<0.2	<0.2	<0.2	<0.2	<0.2
Tetrachloroethene	**1.4**	**1.1**	**1.3**	**0.41**	**0.38**
Toluene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Trichloroethene	**0.30**	**0.30**	**0.36**	**0.12**	**0.11**
Trichlorofluoromethane	**0.43**	**0.37**	**0.53**	**0.18**	<0.2
Vinyl Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
TPH as gasoline	**19**	**17**	<10	<10	<10

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25SG042 UNITS µg/L-air

BUILDING 134

SAMPLE ID	0039J292	0039J293	0039J294	0039J295	0039J296
SAMPLE DEPTH (feet)	2	4	6	8	10
DATE SAMPLED	09/27/00	09/27/00	09/27/00	09/27/00	09/27/00
ANALYSIS DATE	09/28/00	09/28/00	09/28/00	09/28/00	09/28/00
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2,3-Trichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dibromoethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
2,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromodichloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromoform	<0.2	<0.2	<0.2	<0.2	<0.2
Bromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Carbon Tetrachloride	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroform	<0.2	<0.2	<0.2	<0.2	<0.2
Chloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,2-Dichloroethene	**0.19**	**0.17**	<0.2	<0.2	<0.2
Cis-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorodifluoromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Ethyl Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
m,p-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Methylene Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
o-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Styrene	<0.2	<0.2	<0.2	<0.2	<0.2
Tetrachloroethene	**0.84**	**0.84**	**0.55**	**0.36**	**0.13**
Toluene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Trichloroethene	**0.23**	**0.23**	**0.15**	<0.2	<0.2
Trichlorofluoromethane	**1.5**	**5.1**	**12**	**2.0**	**0.48**
Vinyl Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
TPH as gasoline	<10	<10	<10	<10	<10

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25VW6-04A UNITS µg/L-air

BUILDING 134

SAMPLE ID	0039J297	0039J298	0039J299	0039J300	0039J301
SAMPLE DEPTH (feet)	2	4	6	8	10
DATE SAMPLED	09/27/00	09/27/00	09/27/00	09/27/00	09/27/00
ANALYSIS DATE	09/28/00	09/28/00	09/28/00	09/28/00	09/28/00
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<1	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	<0.2	<1	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane	<0.2	<1	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	<0.2	<1	<0.2	<0.2	<0.2
1,1-Dichloroethane	<0.2	<1	<0.2	<0.2	<0.2
1,1-Dichloroethene	<0.2	<1	<0.2	<0.2	<0.2
1,1-Dichloropropene	<0.2	<1	<0.2	<0.2	<0.2
1,2,3-Trichloropropane	<0.2	<1	<0.2	<0.2	<0.2
1,2-Dibromoethane	<0.2	<1	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	<0.2	<1	<0.2	<0.2	<0.2
1,2-Dichloroethane	<0.2	<1	<0.2	<0.2	<0.2
1,2-Dichloropropane	<0.2	<1	<0.2	<0.2	<0.2
1,3-Dichlorobenzene	<0.2	<1	<0.2	<0.2	<0.2
1,3-Dichloropropane	<0.2	<1	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	<0.2	<1	<0.2	<0.2	<0.2
2,2-Dichloropropane	<0.2	<1	<0.2	<0.2	<0.2
Benzene	<0.2	<1	<0.2	<0.2	**0.18**
Bromobenzene	<0.2	<1	<0.2	<0.2	<0.2
Bromochloromethane	<0.2	<1	<0.2	<0.2	<0.2
Bromodichloromethane	<0.2	<1	<0.2	<0.2	<0.2
Bromoform	<0.2	<1	<0.2	<0.2	<0.2
Bromomethane	<0.2	<1	<0.2	<0.2	<0.2
Carbon Tetrachloride	<0.2	<1	<0.2	<0.2	<0.2
Chlorobenzene	<0.2	<1	<0.2	<0.2	<0.2
Chloroethane	<0.2	<1	<0.2	<0.2	<0.2
Chloroform	<0.2	<1	<0.2	<0.2	<0.2
Chloromethane	<0.2	<1	<0.2	<0.2	<0.2
Cis-1,2-Dichloroethene	**1.6**	**2.2**	**2.0**	**0.63**	**0.15**
Cis-1,3-Dichloropropene	<0.2	<1	<0.2	<0.2	<0.2
Dibromochloromethane	<0.2	<1	<0.2	<0.2	<0.2
Dibromomethane	<0.2	<1	<0.2	<0.2	<0.2
Dichlorodifluoromethane	<0.2	<1	<0.2	<0.2	<0.2
Ethyl Benzene	<0.2	<1	<0.2	<0.2	<0.2
m,p-Xylene	<0.2	<1	<0.2	<0.2	<0.2
Methylene Chloride	<0.2	<1	<0.2	<0.2	<0.2
o-Xylene	<0.2	<1	<0.2	<0.2	<0.2
Styrene	<0.2	<1	<0.2	<0.2	<0.2
Tetrachloroethene	**6.9**	**9.7**	**8.7**	**2.0**	**0.66**
Toluene	<0.2	<1	<0.2	<0.2	**0.23**
Trans-1,2-Dichloroethene	<0.2	<1	<0.2	<0.2	<0.2
Trans-1,3-Dichloropropene	<0.2	<1	<0.2	<0.2	<0.2
Trichloroethene	**0.81**	**1.6**	**1.4**	**0.36**	**0.13**
Trichlorofluoromethane	**0.39**	**2.3**	**2.2**	**0.91**	<0.2
Vinyl Chloride	<0.2	<1	<0.2	<0.2	<0.2
TPH as gasoline	<10	<50	<10	<10	<10

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25VW6-03A UNITS µg/L-air

BUILDING 134

SAMPLE ID	0039J302	0039J303	0039J304	0039J305	0039J306
SAMPLE DEPTH (feet)	2	4	6	8	10
DATE SAMPLED	09/27/00	09/27/00	09/27/00	09/27/00	09/27/00
ANALYSIS DATE	09/28/00	09/28/00	09/28/00	09/28/00	09/28/00
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2,3-Trichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dibromoethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
2,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
Benzene	<0.2	<0.2	<0.2	<0.2	**0.17**
Bromobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromodichloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromoform	<0.2	<0.2	<0.2	<0.2	<0.2
Bromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Carbon Tetrachloride	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroform	<0.2	<0.2	<0.2	<0.2	<0.2
Chloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,2-Dichloroethene	**0.25**	**0.91**	**0.54**	**0.42**	<0.2
Cis-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorodifluoromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Ethyl Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
m,p-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Methylene Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
o-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Styrene	<0.2	<0.2	<0.2	<0.2	<0.2
Tetrachloroethene	**1.3**	**3.5**	**1.9**	**1.2**	**0.91**
Toluene	<0.2	<0.2	<0.2	<0.2	**0.18**
Trans-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Trichloroethene	**0.28**	**0.70**	**0.40**	**0.34**	**0.14**
Trichlorofluoromethane	**0.83**	**1.9**	**1.4**	**4.9**	**0.19**
Vinyl Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
TPH as gasoline	<10	<10	<10	<10	<10

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25VW6-05A UNITS µg/L-air

BUILDING 134

SAMPLE ID	0039J307	0039J308	0039J309	0039J310	0039J311
SAMPLE DEPTH (feet)	2	4	6	8	10
DATE SAMPLED	09/28/00	09/28/00	09/28/00	09/28/00	09/28/00
ANALYSIS DATE	09/28/00	09/28/00	09/28/00	09/28/00	09/28/00
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2,3-Trichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dibromoethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
2,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
Benzene	<0.2	**0.34**	**0.55**	**0.20**	**0.33**
Bromobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromodichloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromoform	<0.2	<0.2	<0.2	<0.2	<0.2
Bromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Carbon Tetrachloride	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroform	<0.2	<0.2	<0.2	<0.2	<0.2
Chloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorodifluoromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Ethyl Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
m,p-Xylene	<0.2	**0.18**	**0.29**	<0.2	<0.2
Methylene Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
o-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Styrene	<0.2	<0.2	<0.2	<0.2	<0.2
Tetrachloroethene	**0.98**	**0.14**	<0.2	<0.2	<0.2
Toluene	<0.2	**0.51**	**0.78**	**0.31**	**0.44**
Trans-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Trichloroethene	**0.23**	<0.2	<0.2	<0.2	<0.2
Trichlorofluoromethane	**2.4**	<0.2	<0.2	**0.27**	**1.2**
Vinyl Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
TPH as gasoline	<10	<10	**7.1**	<10	<10

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25VW6-08A UNITS µg/L-air

BUILDING 134

SAMPLE ID	0039J312	0039J313	0039J314	0039J315	0039J316
SAMPLE DEPTH (feet)	2	4	6	8	10
DATE SAMPLED	09/28/00	09/28/00	09/28/00	09/28/00	09/28/00
ANALYSIS DATE	09/28/00	09/28/00	09/28/00	09/28/00	09/28/00
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	<0.2	<0.2	<0.2	<0.2	**0.13**
1,1-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2,3-Trichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dibromoethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloroethane	<0.2	<0.2	<0.2	**2.8**	**3.3**
1,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
2,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
Benzene	<0.2	**0.24**	**0.38**	**0.16**	**0.12**
Bromobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromodichloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromoform	<0.2	<0.2	<0.2	<0.2	<0.2
Bromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Carbon Tetrachloride	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroform	<0.2	<0.2	<0.2	<0.2	<0.2
Chloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,2-Dichloroethene	**1.1**	<0.2	<0.2	**1.2**	**1.5**
Cis-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorodifluoromethane	<0.2	<0.2	<0.2	**0.83**	**1.2**
Ethyl Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
m,p-Xylene	<0.2	**0.18**	**0.29**	**0.16**	**0.18**
Methylene Chloride	<0.2	<0.2	<0.2	**0.16**	**0.19**
o-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Styrene	<0.2	<0.2	<0.2	<0.2	<0.2
Tetrachloroethene	**2.2**	**0.33**	**0.31**	**0.31**	**0.37**
Toluene	<0.2	**0.32**	**0.49**	**0.23**	**0.20**
Trans-1,2-Dichloroethene	<0.2	<0.2	<0.2	**0.13**	**0.15**
Trans-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Trichloroethene	<0.2	**0.52**	<0.2	**0.84**	**1.0**
Trichlorofluoromethane	**0.24**	**4.0**	**0.17**	**15**	**22**
Vinyl Chloride	<0.2	<0.2	<0.2	**4.0**	**5.0**
TPH as gasoline	<10	<10	<10	**68**	**64**

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25SG043 UNITS µg/L-air

BUILDING 134

SAMPLE ID	0039J317	0039J318	0039J319	0039J320	0039J321
SAMPLE DEPTH (feet)	2	4	6	8	10
DATE SAMPLED	09/28/00	09/28/00	09/28/00	09/28/00	09/28/00
ANALYSIS DATE	09/28/00	09/28/00	09/28/00	09/28/00	09/28/00
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.5	<0.2	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	<0.5	<0.2	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane	<0.5	<0.2	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	<0.5	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	<0.5	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	<0.5	<0.2	<0.2	<0.2	<0.2
1,1-Dichloropropene	<0.5	<0.2	<0.2	<0.2	<0.2
1,2,3-Trichloropropane	<0.5	<0.2	<0.2	<0.2	<0.2
1,2-Dibromoethane	<0.5	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	<0.5	<0.2	<0.2	<0.2	<0.2
1,2-Dichloroethane	<0.5	<0.2	<0.2	<0.2	<0.2
1,2-Dichloropropane	<0.5	<0.2	<0.2	<0.2	<0.2
1,3-Dichlorobenzene	<0.5	<0.2	<0.2	<0.2	<0.2
1,3-Dichloropropane	<0.5	<0.2	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	<0.5	<0.2	<0.2	<0.2	<0.2
2,2-Dichloropropane	<0.5	<0.2	<0.2	<0.2	<0.2
Benzene	<0.5	<0.2	**0.15**	**0.22**	**0.28**
Bromobenzene	<0.5	<0.2	<0.2	<0.2	<0.2
Bromochloromethane	<0.5	<0.2	<0.2	<0.2	<0.2
Bromodichloromethane	<0.5	<0.2	<0.2	<0.2	<0.2
Bromoform	<0.5	<0.2	<0.2	<0.2	<0.2
Bromomethane	<0.5	<0.2	<0.2	<0.2	<0.2
Carbon Tetrachloride	<0.5	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	<0.5	<0.2	<0.2	<0.2	<0.2
Chloroethane	<0.5	<0.2	<0.2	<0.2	<0.2
Chloroform	<0.5	<0.2	<0.2	<0.2	<0.2
Chloromethane	<0.5	<0.2	<0.2	<0.2	<0.2
Cis-1,2-Dichloroethene	**0.83**	<0.2	<0.2	<0.2	<0.2
Cis-1,3-Dichloropropene	<0.5	<0.2	<0.2	<0.2	<0.2
Dibromochloromethane	<0.5	<0.2	<0.2	<0.2	<0.2
Dibromomethane	<0.5	<0.2	<0.2	<0.2	<0.2
Dichlorodifluoromethane	<0.5	<0.2	<0.2	<0.2	<0.2
Ethyl Benzene	<0.5	<0.2	<0.2	<0.2	<0.2
m,p-Xylene	<0.5	<0.2	<0.2	**0.17**	**0.18**
Methylene Chloride	<0.5	<0.2	<0.2	<0.2	<0.2
o-Xylene	<0.5	<0.2	<0.2	<0.2	<0.2
Styrene	<0.5	<0.2	<0.2	<0.2	<0.2
Tetrachloroethene	**3.9**	**0.51**	**0.24**	**0.29**	**0.15**
Toluene	<0.5	**0.20**	**0.21**	**0.30**	**0.33**
Trans-1,2-Dichloroethene	<0.5	<0.2	<0.2	<0.2	<0.2
Trans-1,3-Dichloropropene	<0.5	<0.2	<0.2	<0.2	<0.2
Trichloroethene	**0.64**	<0.2	<0.2	<0.2	<0.2
Trichlorofluoromethane	**0.68**	<0.2	<0.2	<0.2	<0.2
Vinyl Chloride	<0.5	<0.2	<0.2	<0.2	<0.2
TPH as gasoline	<25	<10	<10	<10	<10

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25SG055 UNITS µg/L-air

BUILDING 134

SAMPLE ID	0039J322	0039J323	0039J324	0039J325	0039J326
SAMPLE DEPTH (feet)	2	4	6	8	10
DATE SAMPLED	09/28/00	09/28/00	09/28/00	09/28/00	09/28/00
ANALYSIS DATE	09/28/00	09/29/00	09/29/00	09/29/00	09/29/00
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2,3-Trichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dibromoethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
2,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromodichloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromoform	<0.2	<0.2	<0.2	<0.2	<0.2
Bromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Carbon Tetrachloride	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroform	<0.2	<0.2	<0.2	<0.2	<0.2
Chloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorodifluoromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Ethyl Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
m,p-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Methylene Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
o-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Styrene	<0.2	<0.2	<0.2	<0.2	<0.2
Tetrachloroethene	<0.2	**0.23**	<0.2	<0.2	<0.2
Toluene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Trichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Trichlorofluoromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Vinyl Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
TPH as gasoline	<10	<10	<10	<10	<10

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25SG045 UNITS µg/L-air

BUILDING 134

SAMPLE ID	0039J328	0039J329	0039J330	0039J331	0039J332
SAMPLE DEPTH (feet)	2	4	6	8	10
DATE SAMPLED	09/28/00	09/28/00	09/28/00	09/28/00	09/28/00
ANALYSIS DATE	09/29/00	09/29/00	09/29/00	09/29/00	09/29/00
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2,3-Trichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dibromoethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
2,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromodichloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromoform	<0.2	<0.2	<0.2	<0.2	<0.2
Bromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Carbon Tetrachloride	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroform	<0.2	<0.2	<0.2	<0.2	<0.2
Chloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,2-Dichloroethene	**0.44**	**0.12**	<0.2	<0.2	<0.2
Cis-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorodifluoromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Ethyl Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
m,p-Xylene	<0.2	**0.35**	**0.26**	<0.2	<0.2
Methylene Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
o-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Styrene	<0.2	<0.2	<0.2	<0.2	<0.2
Tetrachloroethene	**1.8**	**0.39**	**0.23**	**0.12**	<0.2
Toluene	<0.2	**0.43**	**0.27**	<0.2	**0.21**
Trans-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Trichloroethene	**0.36**	**0.11**	<0.2	<0.2	<0.2
Trichlorofluoromethane	**1.9**	**4.6**	**4.1**	**5.0**	**3.2**
Vinyl Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
TPH as gasoline	<10	<10	<10	<10	<10

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25SG059 UNITS µg/L-air

BUILDING 134

SAMPLE ID	0039J333	0039J334	0039J335	0039J336	0039J337
SAMPLE DEPTH (feet)	2	4	6	8	10
DATE SAMPLED	09/28/00	09/28/00	09/28/00	09/28/00	09/28/00
ANALYSIS DATE	09/29/00	09/29/00	09/29/00	09/29/00	09/29/00
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.4	<0.5	<0.5	<1	<0.2
1,1,1-Trichloroethane	<0.4	<0.5	<0.5	<1	<0.2
1,1,2,2-Tetrachloroethane	<0.4	<0.5	<0.5	<1	<0.2
1,1,2-Trichloroethane	<0.4	<0.5	<0.5	<1	<0.2
1,1-Dichloroethane	<0.4	<0.5	<0.5	<1	<0.2
1,1-Dichloroethene	<0.4	<0.5	<0.5	<1	**0.29**
1,1-Dichloropropene	<0.4	<0.5	<0.5	<1	<0.2
1,2,3-Trichloropropane	<0.4	<0.5	<0.5	<1	<0.2
1,2-Dibromoethane	<0.4	<0.5	<0.5	<1	<0.2
1,2-Dichlorobenzene	<0.4	<0.5	<0.5	<1	<0.2
1,2-Dichloroethane	<0.4	<0.5	<0.5	<1	<0.2
1,2-Dichloropropane	<0.4	<0.5	<0.5	<1	<0.2
1,3-Dichlorobenzene	<0.4	<0.5	<0.5	<1	<0.2
1,3-Dichloropropane	<0.4	<0.5	<0.5	<1	<0.2
1,4-Dichlorobenzene	<0.4	<0.5	<0.5	<1	<0.2
2,2-Dichloropropane	<0.4	<0.5	<0.5	<1	<0.2
Benzene	<0.4	<0.5	<0.5	<1	<0.2
Bromobenzene	<0.4	<0.5	<0.5	<1	<0.2
Bromochloromethane	<0.4	<0.5	<0.5	<1	<0.2
Bromodichloromethane	<0.4	<0.5	<0.5	<1	<0.2
Bromoform	<0.4	<0.5	<0.5	<1	<0.2
Bromomethane	<0.4	<0.5	<0.5	<1	<0.2
Carbon Tetrachloride	<0.4	<0.5	<0.5	<1	<0.2
Chlorobenzene	<0.4	<0.5	<0.5	<1	<0.2
Chloroethane	<0.4	<0.5	<0.5	<1	<0.2
Chloroform	<0.4	<0.5	<0.5	<1	<0.2
Chloromethane	<0.4	<0.5	<0.5	<1	<0.2
Cis-1,2-Dichloroethene	**1.2**	**0.97**	<0.5	<1	**0.4**
Cis-1,3-Dichloropropene	<0.4	<0.5	<0.5	<1	<0.2
Dibromochloromethane	<0.4	<0.5	<0.5	<1	<0.2
Dibromomethane	<0.4	<0.5	<0.5	<1	<0.2
Dichlorodifluoromethane	<0.4	<0.5	<0.5	<1	<0.2
Ethyl Benzene	<0.4	<0.5	<0.5	<1	<0.2
m,p-Xylene	<0.4	<0.5	<0.5	<1	**0.24**
Methylene Chloride	<0.4	<0.5	<0.5	<1	<0.2
o-Xylene	<0.4	<0.5	<0.5	<1	<0.2
Styrene	<0.4	<0.5	<0.5	<1	<0.2
Tetrachloroethene	<0.4	<0.5	<0.5	<1	**0.12**
Toluene	<0.4	<0.5	<0.5	<1	**0.34**
Trans-1,2-Dichloroethene	**1.3**	**1.5**	<0.5	<1	**0.28**
Trans-1,3-Dichloropropene	<0.4	<0.5	<0.5	<1	<0.2
Trichloroethene	**18**	**98**	**13**	**7.8**	**6.3**
Trichlorofluoromethane	**0.30**	<0.5	<0.5	<1	**0.26**
Vinyl Chloride	<0.4	<0.5	<0.5	<1	**0.12**
TPH as gasoline	<20	<25	<25	<50	<10

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25SG062 UNITS µg/L-air

BUILDING 134

SAMPLE ID	0039J338	0039J339	0039J340	0039J341	0039J342
SAMPLE DEPTH (feet)	2	4	6	8	10
DATE SAMPLED	09/29/00	09/29/00	09/29/00	09/29/00	09/29/00
ANALYSIS DATE	09/29/00	09/29/00	09/29/00	09/29/00	09/29/00
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2,3-Trichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dibromoethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
1,3-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
2,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	<0.2
Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Bromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromodichloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Bromoform	<0.2	<0.2	<0.2	<0.2	<0.2
Bromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Carbon Tetrachloride	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroethane	<0.2	<0.2	<0.2	<0.2	<0.2
Chloroform	<0.2	<0.2	<0.2	<0.2	<0.2
Chloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Cis-1,2-Dichloroethene	**0.50**	<0.2	<0.2	<0.2	<0.2
Cis-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromochloromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromomethane	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorodifluoromethane	<0.2	<0.2	<0.2	<0.2	<0.2
Ethyl Benzene	<0.2	<0.2	<0.2	<0.2	<0.2
m,p-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Methylene Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
o-Xylene	<0.2	<0.2	<0.2	<0.2	<0.2
Styrene	<0.2	<0.2	<0.2	<0.2	<0.2
Tetrachloroethene	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	<0.2	<0.2	<0.2	<0.2	<0.2
Trans-1,2-Dichloroethene	**0.71**	<0.2	<0.2	<0.2	<0.2
Trans-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	<0.2
Trichloroethene	**5.8**	**0.71**	**0.51**	**0.96**	**0.40**
Trichlorofluoromethane	**0.17**	<0.2	<0.2	<0.2	<0.2
Vinyl Chloride	<0.2	<0.2	<0.2	<0.2	<0.2
TPH as gasoline	<10	<10	**10**	**23**	**10**

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25SG046 UNITS µg/L-air

BUILDING 134

SAMPLE ID	0039J343	0039J344	0039J345	0039J346	0039J347
SAMPLE DEPTH (feet)	2	4	6	8	10
DATE SAMPLED	09/29/00	09/29/00	09/29/00	09/29/00	09/29/00
ANALYSIS DATE	09/29/00	09/29/00	09/29/00	09/29/00	09/29/00
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.5	<0.2	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	<0.5	<0.2	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane	<0.5	<0.2	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	<0.5	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	<0.5	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	<0.5	<0.2	<0.2	<0.2	<0.2
1,1-Dichloropropene	<0.5	<0.2	<0.2	<0.2	<0.2
1,2,3-Trichloropropane	<0.5	<0.2	<0.2	<0.2	<0.2
1,2-Dibromoethane	<0.5	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	<0.5	<0.2	<0.2	<0.2	<0.2
1,2-Dichloroethane	<0.5	<0.2	<0.2	<0.2	<0.2
1,2-Dichloropropane	<0.5	<0.2	<0.2	<0.2	<0.2
1,3-Dichlorobenzene	<0.5	<0.2	<0.2	<0.2	<0.2
1,3-Dichloropropane	<0.5	<0.2	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	<0.5	<0.2	<0.2	<0.2	<0.2
2,2-Dichloropropane	<0.5	<0.2	<0.2	<0.2	<0.2
Benzene	<0.5	<0.2	<0.2	**0.15**	<0.2
Bromobenzene	<0.5	<0.2	<0.2	<0.2	<0.2
Bromochloromethane	<0.5	<0.2	<0.2	<0.2	<0.2
Bromodichloromethane	<0.5	<0.2	<0.2	<0.2	<0.2
Bromoform	<0.5	<0.2	<0.2	<0.2	<0.2
Bromomethane	<0.5	<0.2	<0.2	<0.2	<0.2
Carbon Tetrachloride	<0.5	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	<0.5	<0.2	<0.2	<0.2	<0.2
Chloroethane	<0.5	<0.2	<0.2	<0.2	<0.2
Chloroform	<0.5	<0.2	<0.2	<0.2	<0.2
Chloromethane	<0.5	<0.2	<0.2	<0.2	<0.2
Cis-1,2-Dichloroethene	**0.84**	**1.2**	**1.1**	**2.4**	**0.22**
Cis-1,3-Dichloropropene	<0.5	<0.2	<0.2	<0.2	<0.2
Dibromochloromethane	<0.5	<0.2	<0.2	<0.2	<0.2
Dibromomethane	<0.5	<0.2	<0.2	<0.2	<0.2
Dichlorodifluoromethane	<0.5	<0.2	<0.2	<0.2	<0.2
Ethyl Benzene	<0.5	<0.2	<0.2	<0.2	<0.2
m,p-Xylene	<0.5	<0.2	<0.2	<0.2	<0.2
Methylene Chloride	<0.5	<0.2	<0.2	<0.2	<0.2
o-Xylene	<0.5	<0.2	<0.2	<0.2	<0.2
Styrene	<0.5	<0.2	<0.2	<0.2	<0.2
Tetrachloroethene	**1.9**	**4.3**	**3.8**	**1.2**	**0.63**
Toluene	<0.5	<0.2	<0.2	**0.17**	<0.2
Trans-1,2-Dichloroethene	<0.5	<0.2	<0.2	<0.2	<0.2
Trans-1,3-Dichloropropene	<0.5	<0.2	<0.2	<0.2	<0.2
Trichloroethene	**0.56**	**0.87**	**0.82**	**0.32**	**0.17**
Trichlorofluoromethane	**2.1**	**30**	**31**	**3.7**	**6.3**
Vinyl Chloride	<0.5	<0.2	<0.2	<0.2	**0.16**
TPH as gasoline	<25	<10	<10	<10	<10

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25VW6-015A UNITS µg/L-air

BUILDING 134

SAMPLE ID	0039J348	0039J349	0039J350	0039J351	
SAMPLE DEPTH (feet)	2	4	6	8	
DATE SAMPLED	09/29/00	09/29/00	09/29/00	09/29/00	
ANALYSIS DATE	09/29/00	09/29/00	09/29/00	09/29/00	
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	
1,1,1-Trichloroethane	<0.2	<0.2	<0.2	<0.2	
1,1,2,2-Tetrachloroethane	<0.2	<0.2	<0.2	<0.2	
1,1,2-Trichloroethane	<0.2	<0.2	<0.2	<0.2	
1,1-Dichloroethane	<0.2	<0.2	<0.2	<0.2	
1,1-Dichloroethene	<0.2	<0.2	<0.2	<0.2	
1,1-Dichloropropene	<0.2	<0.2	<0.2	<0.2	
1,2,3-Trichloropropane	<0.2	<0.2	<0.2	<0.2	
1,2-Dibromoethane	<0.2	<0.2	<0.2	<0.2	
1,2-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	
1,2-Dichloroethane	<0.2	<0.2	<0.2	<0.2	
1,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	
1,3-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	
1,3-Dichloropropane	<0.2	<0.2	<0.2	<0.2	
1,4-Dichlorobenzene	<0.2	<0.2	<0.2	<0.2	
2,2-Dichloropropane	<0.2	<0.2	<0.2	<0.2	
Benzene	<0.2	**0.14**	<0.2	**0.14**	
Bromobenzene	<0.2	<0.2	<0.2	<0.2	
Bromochloromethane	<0.2	<0.2	<0.2	<0.2	
Bromodichloromethane	<0.2	<0.2	<0.2	<0.2	
Bromoform	<0.2	<0.2	<0.2	<0.2	
Bromomethane	<0.2	<0.2	<0.2	<0.2	
Carbon Tetrachloride	<0.2	<0.2	<0.2	<0.2	
Chlorobenzene	<0.2	<0.2	<0.2	<0.2	
Chloroethane	<0.2	<0.2	<0.2	<0.2	
Chloroform	<0.2	<0.2	<0.2	<0.2	
Chloromethane	<0.2	<0.2	<0.2	<0.2	
Cis-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	
Cis-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	
Dibromochloromethane	<0.2	<0.2	<0.2	<0.2	
Dibromomethane	<0.2	<0.2	<0.2	<0.2	
Dichlorodifluoromethane	<0.2	<0.2	<0.2	<0.2	
Ethyl Benzene	<0.2	<0.2	<0.2	<0.2	
m,p-Xylene	<0.2	<0.2	<0.2	<0.2	
Methylene Chloride	<0.2	<0.2	<0.2	<0.2	
o-Xylene	<0.2	<0.2	<0.2	<0.2	
Styrene	<0.2	<0.2	<0.2	<0.2	
Tetrachloroethene	**0.31**	**0.37**	**0.27**	**0.18**	
Toluene	<0.2	**0.17**	**0.16**	**0.13**	
Trans-1,2-Dichloroethene	<0.2	<0.2	<0.2	<0.2	
Trans-1,3-Dichloropropene	<0.2	<0.2	<0.2	<0.2	
Trichloroethene	**0.11**	**0.22**	**0.12**	<0.2	
Trichlorofluoromethane	<0.2	**0.17**	<0.2	<0.2	
Vinyl Chloride	<0.2	<0.2	<0.2	<0.2	
TPH as gasoline	**22**	**20**	**23**	**190**	

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25VW6-06A UNITS µg/L-air

BUILDING 134

SAMPLE ID	0040J358	0040J359	0040J360		
SAMPLE DEPTH (feet)	2	4	6		
DATE SAMPLED	10/02/00	10/02/00	10/02/00		
ANALYSIS DATE	10/02/00	10/02/00	10/02/00		
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<0.2	<1		
1,1,1-Trichloroethane	<0.2	<0.2	<1		
1,1,2,2-Tetrachloroethane	<0.2	<0.2	<1		
1,1,2-Trichloroethane	<0.2	<0.2	<1		
1,1-Dichloroethane	<0.2	<0.2	<1		
1,1-Dichloroethene	<0.2	**0.10**	<1		
1,1-Dichloropropene	<0.2	<0.2	<1		
1,2,3-Trichloropropane	<0.2	<0.2	<1		
1,2-Dibromoethane	<0.2	<0.2	<1		
1,2-Dichlorobenzene	<0.2	<0.2	<1		
1,2-Dichloroethane	<0.2	<0.2	<1		
1,2-Dichloropropane	<0.2	<0.2	<1		
1,3-Dichlorobenzene	<0.2	<0.2	<1		
1,3-Dichloropropane	<0.2	<0.2	<1		
1,4-Dichlorobenzene	<0.2	<0.2	<1		
2,2-Dichloropropane	<0.2	<0.2	<1		
Benzene	<0.2	<0.2	<1		
Bromobenzene	<0.2	<0.2	<1		
Bromochloromethane	<0.2	<0.2	<1		
Bromodichloromethane	<0.2	<0.2	<1		
Bromoform	<0.2	<0.2	<1		
Bromomethane	<0.2	<0.2	<1		
Carbon Tetrachloride	<0.2	<0.2	<1		
Chlorobenzene	<0.2	<0.2	<1		
Chloroethane	<0.2	<0.2	<1		
Chloroform	<0.2	<0.2	<1		
Chloromethane	<0.2	<0.2	<1		
Cis-1,2-Dichloroethene	**4.2**	**35**	**39**		
Cis-1,3-Dichloropropene	<0.2	<0.2	<1		
Dibromochloromethane	<0.2	<0.2	<1		
Dibromomethane	<0.2	<0.2	<1		
Dichlorodifluoromethane	<0.2	<0.2	<1		
Ethyl Benzene	<0.2	<0.2	<1		
m,p-Xylene	<0.2	<0.2	<1		
Methylene Chloride	<0.2	<0.2	<1		
o-Xylene	<0.2	<0.2	<1		
Styrene	<0.2	<0.2	<1		
Tetrachloroethene	**4.0**	**1.5**	**2.1**		
Toluene	<0.2	**0.12**	<1		
Trans-1,2-Dichloroethene	**0.27**	**5.1**	**5.3**		
Trans-1,3-Dichloropropene	<0.2	<0.2	<1		
Trichloroethene	**0.88**	**0.83**	**0.95**		
Trichlorofluoromethane	<0.2	<0.2	<1		
Vinyl Chloride	<0.2	**1.0**	**1.1**		
TPH as gasoline	<10	<10	<50		

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25SG044 UNITS µg/L-air

BUILDING 134

SAMPLE ID	0040J361	0040J362	0040J363		
SAMPLE DEPTH (feet)	2	4	6		
DATE SAMPLED	10/02/00	10/02/00	10/02/00		
ANALYSIS DATE	10/02/00	10/02/00	10/02/00		
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.5	<0.2	<0.2		
1,1,1-Trichloroethane	<0.5	<0.2	<0.2		
1,1,2,2-Tetrachloroethane	<0.5	<0.2	<0.2		
1,1,2-Trichloroethane	<0.5	<0.2	<0.2		
1,1-Dichloroethane	<0.5	<0.2	<0.2		
1,1-Dichloroethene	<0.5	<0.2	<0.2		
1,1-Dichloropropene	<0.5	<0.2	<0.2		
1,2,3-Trichloropropane	<0.5	<0.2	<0.2		
1,2-Dibromoethane	<0.5	<0.2	<0.2		
1,2-Dichlorobenzene	<0.5	<0.2	<0.2		
1,2-Dichloroethane	<0.5	<0.2	<0.2		
1,2-Dichloropropane	<0.5	<0.2	<0.2		
1,3-Dichlorobenzene	<0.5	<0.2	<0.2		
1,3-Dichloropropane	<0.5	<0.2	<0.2		
1,4-Dichlorobenzene	<0.5	<0.2	<0.2		
2,2-Dichloropropane	<0.5	<0.2	<0.2		
Benzene	<0.5	<0.2	<0.2		
Bromobenzene	<0.5	<0.2	<0.2		
Bromochloromethane	<0.5	<0.2	<0.2		
Bromodichloromethane	<0.5	<0.2	<0.2		
Bromoform	<0.5	<0.2	<0.2		
Bromomethane	<0.5	<0.2	<0.2		
Carbon Tetrachloride	<0.5	<0.2	<0.2		
Chlorobenzene	<0.5	<0.2	<0.2		
Chloroethane	<0.5	<0.2	<0.2		
Chloroform	<0.5	<0.2	<0.2		
Chloromethane	<0.5	<0.2	<0.2		
Cis-1,2-Dichloroethene	**2.8**	**1.1**	**2.9**		
Cis-1,3-Dichloropropene	<0.5	<0.2	<0.2		
Dibromochloromethane	<0.5	<0.2	<0.2		
Dibromomethane	<0.5	<0.2	<0.2		
Dichlorodifluoromethane	<0.5	<0.2	<0.2		
Ethyl Benzene	<0.5	<0.2	<0.2		
m,p-Xylene	<0.5	<0.2	<0.2		
Methylene Chloride	<0.5	<0.2	<0.2		
o-Xylene	<0.5	<0.2	<0.2		
Styrene	<0.5	<0.2	<0.2		
Tetrachloroethene	**1.1**	**0.50**	**0.55**		
Toluene	<0.5	<0.2	<0.2		
Trans-1,2-Dichloroethene	**0.25**	**0.17**	**0.29**		
Trans-1,3-Dichloropropene	<0.5	<0.2	<0.2		
Trichloroethene	**0.36**	<0.2	**0.14**		
Trichlorofluoromethane	<0.5	<0.2	<0.2		
Vinyl Chloride	<0.5	**0.12**	**0.18**		
TPH as gasoline	<25	<10	<10		

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25VW6-19A

BUILDING 134

UNITS µg/L-air

SAMPLE ID	0040J364	0040J365	0040J366		
SAMPLE DEPTH (feet)	2	4	6		
DATE SAMPLED	10/02/00	10/02/00	10/02/00		
ANALYSIS DATE	10/02/00	10/02/00	10/02/00		
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<0.2	<2		
1,1,1-Trichloroethane	<0.2	<0.2	<2		
1,1,2,2-Tetrachloroethane	<0.2	<0.2	<2		
1,1,2-Trichloroethane	<0.2	<0.2	<2		
1,1-Dichloroethane	<0.2	<0.2	<2		
1,1-Dichloroethene	<0.2	<0.2	<2		
1,1-Dichloropropene	<0.2	<0.2	<2		
1,2,3-Trichloropropane	<0.2	<0.2	<2		
1,2-Dibromoethane	<0.2	<0.2	<2		
1,2-Dichlorobenzene	<0.2	<0.2	<2		
1,2-Dichloroethane	<0.2	**0.30**	<2		
1,2-Dichloropropane	<0.2	<0.2	<2		
1,3-Dichlorobenzene	<0.2	<0.2	<2		
1,3-Dichloropropane	<0.2	<0.2	<2		
1,4-Dichlorobenzene	<0.2	<0.2	<2		
2,2-Dichloropropane	<0.2	<0.2	<2		
Benzene	<0.2	<0.2	<2		
Bromobenzene	<0.2	<0.2	<2		
Bromochloromethane	<0.2	<0.2	<2		
Bromodichloromethane	<0.2	<0.2	<2		
Bromoform	<0.2	<0.2	<2		
Bromomethane	<0.2	<0.2	<2		
Carbon Tetrachloride	<0.2	<0.2	<2		
Chlorobenzene	<0.2	<0.2	<2		
Chloroethane	<0.2	<0.2	<2		
Chloroform	<0.2	<0.2	<2		
Chloromethane	<0.2	<0.2	<2		
Cis-1,2-Dichloroethene	**9.1**	**150**	**360**		
Cis-1,3-Dichloropropene	<0.2	<0.2	<2		
Dibromochloromethane	<0.2	<0.2	<2		
Dibromomethane	<0.2	<0.2	<2		
Dichlorodifluoromethane	<0.2	<0.2	<2		
Ethyl Benzene	<0.2	<0.2	<2		
m,p-Xylene	<0.2	<0.2	<2		
Methylene Chloride	<0.2	<0.2	<2		
o-Xylene	<0.2	<0.2	<2		
Styrene	<0.2	<0.2	<2		
Tetrachloroethene	**18**	**11**	**78**		
Toluene	<0.2	<0.2	<2		
Trans-1,2-Dichloroethene	**0.52**	**3.9**	**2.3**		
Trans-1,3-Dichloropropene	<0.2	<0.2	<2		
Trichloroethene	**3.2**	**5.8**	**22**		
Trichlorofluoromethane	**0.13**	<0.2	<2		
Vinyl Chloride	<0.2	**1.7**	**63**		
TPH as gasoline	<10	<10	<100		

Soil gas survey at Hunters Point. Project number 773247

SAMPLE LOCATION IR25VW6-07A UNITS µg/L-air

BUILDING 134

SAMPLE ID	0040J367	0040J368	0040J369		
SAMPLE DEPTH (feet)	2	4	6		
DATE SAMPLED	10/02/00	10/02/00	10/02/00		
ANALYSIS DATE	10/02/00	10/02/00	10/02/00		
ANALYTE					
1,1,1,2-Tetrachloroethane	<0.2	<0.2	<0.2		
1,1,1-Trichloroethane	<0.2	<0.2	<0.2		
1,1,2,2-Tetrachloroethane	<0.2	<0.2	<0.2		
1,1,2-Trichloroethane	<0.2	<0.2	<0.2		
1,1-Dichloroethane	<0.2	<0.2	<0.2		
1,1-Dichloroethene	<0.2	<0.2	<0.2		
1,1-Dichloropropene	<0.2	<0.2	<0.2		
1,2,3-Trichloropropane	<0.2	<0.2	<0.2		
1,2-Dibromoethane	<0.2	<0.2	<0.2		
1,2-Dichlorobenzene	<0.2	<0.2	<0.2		
1,2-Dichloroethane	<0.2	<0.2	<0.2		
1,2-Dichloropropane	<0.2	<0.2	<0.2		
1,3-Dichlorobenzene	<0.2	<0.2	<0.2		
1,3-Dichloropropane	<0.2	<0.2	<0.2		
1,4-Dichlorobenzene	<0.2	<0.2	<0.2		
2,2-Dichloropropane	<0.2	<0.2	<0.2		
Benzene	<0.2	<0.2	<0.2		
Bromobenzene	<0.2	<0.2	<0.2		
Bromochloromethane	<0.2	<0.2	<0.2		
Bromodichloromethane	<0.2	<0.2	<0.2		
Bromoform	<0.2	<0.2	<0.2		
Bromomethane	<0.2	<0.2	<0.2		
Carbon Tetrachloride	<0.2	<0.2	<0.2		
Chlorobenzene	<0.2	<0.2	<0.2		
Chloroethane	<0.2	<0.2	<0.2		
Chloroform	<0.2	<0.2	<0.2		
Chloromethane	<0.2	<0.2	<0.2		
Cis-1,2-Dichloroethene	**3.2**	**3.9**	**1.8**		
Cis-1,3-Dichloropropene	<0.2	<0.2	<0.2		
Dibromochloromethane	<0.2	<0.2	<0.2		
Dibromomethane	<0.2	<0.2	<0.2		
Dichlorodifluoromethane	<0.2	<0.2	<0.2		
Ethyl Benzene	<0.2	<0.2	<0.2		
m,p-Xylene	<0.2	<0.2	<0.2		
Methylene Chloride	<0.2	<0.2	<0.2		
o-Xylene	<0.2	<0.2	<0.2		
Styrene	<0.2	<0.2	<0.2		
Tetrachloroethene	**1.7**	**1.7**	**1.0**		
Toluene	<0.2	<0.2	<0.2		
Trans-1,2-Dichloroethene	**0.15**	**0.66**	**0.50**		
Trans-1,3-Dichloropropene	<0.2	<0.2	<0.2		
Trichloroethene	**0.77**	**1.4**	**0.80**		
Trichlorofluoromethane	**0.23**	**0.42**	**0.25**		
Vinyl Chloride	<0.2	<0.2	**0.14**		
TPH as gasoline	<10	<10	<10		

ATTACHMENT 2
LABORATORY CHEMICAL ANALYTICAL DATA FOR SOIL SAMPLES

Summary of Unvalidated Soil Analytical Data for Building 134

Soil Boring Location [1, 2]	Sampling Depth (feet bbls)	PID Reading (ppmv)	Total Organic Carbon (%)	Chemical Concentration (ug/kg)																														
				Trichloroethene	Vinyl Chloride	Bromoform [4]	Methylene Chloride	cis-1,2-Dichloroethene	1,1-Dichloroethene	Tetrachloroethene	Trichlorofluoro-methane [4]	Chloro-benzene	1,2-Dichloro-benzene	1,3-Dichloro-benzene	1,4-Dichloro-benzene	Trans-1,2-Dichloroethene	1,2,3-Trichloro-benzene [4]	1,2,4-Trichloro-benzene	1,2-Dichloroethane	Acetone	1,2,4-Trimethyl-benzene [4]	1,3,5-Trimethyl-benzene [4]	Ethyl Benzene	Toluene	m,p-Xylenes	o-Xylene	Benzene	Carbon Disulfide	2-Butanone [4]	4-Isopropyl toluene [4]	Isopropyl benzene [4]	Naph-thalene [4]	Sec-Butyl benzene [4]	n-Propyl benzene [4]
IR25SG042	8.5	0	0.846	ND	ND	ND	ND	ND	ND	ND	1.78	ND	ND	ND	ND	ND	ND	ND	ND	26.5J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IR25SG043	8.5	0	0.06	ND	ND	ND	1.84J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8	0	0.128	ND	ND	ND	1.67J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.49	15.1J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IR25SG044	5.5	0	0.336	ND	37	ND	ND	ND	ND	ND	2.83	202	50.4	ND	3.09	ND	ND	ND	ND	28.9J	ND	ND	ND	1.85	ND	ND	4.33	ND	14.3	ND	ND	ND	ND	ND
IR25SG045	8.5	75.9	0.042	ND	ND	ND	893J	ND	ND	2370	728	ND	9650	375	2580	ND	ND	235	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8	28.3	0.085	ND	ND	ND	701J	ND	ND	494	3260	ND	2880	795	720	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IR25SG046	7.5	22.9	0.224	ND	ND	ND	1410J	ND	ND	262	274	ND	1600	ND	425	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	9.5	56.4	0.113	ND	ND	ND	1280J	ND	ND	174	ND	ND	961	ND	278	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IR25SG047	8.5	0	0.213	449	ND	ND	725J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IR25SG048	8.5	0	0.327	ND	ND	ND	27.2J	ND	ND	3.38	ND	ND	ND	ND	ND	ND	ND	ND	ND	21.8J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IR25SG049	8.5	0	0.154	ND	ND	ND	17.5J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	18.7J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3	ND	ND
IR25SG050	8.5	0	0.074	ND	ND	ND	45.4J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IR25SG051	9.5	133	0.506	ND	ND	ND	49.9J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	39J	ND	ND	ND	ND	ND	ND	ND	7.78	ND	ND	83.2	ND	186	ND
IR25SG052	6	14.2	0.208	ND	ND	ND	33J	ND	ND	2.87	ND	8.87	ND	ND	ND	ND	ND	ND	ND	33.7J	ND	ND	ND	ND	ND	ND	ND	4.91	ND	ND	ND	ND	ND	ND
	6.5	43.7	0.083	ND	ND	ND	35J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11.3J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8.5	12.2	0.101	ND	ND	ND	27.3J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IR25SG053	6	24.8	0.249	ND	ND	ND	38.1J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12.8J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8.5	3.2	0.123	ND	ND	ND	32.7J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10.2J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IR25SG055	1	16.1	0.105	ND	ND	ND	32.9J	ND	ND	3.34	7.03	ND	ND	ND	ND	ND	ND	ND	ND	30.1J	225	78.7	13.6	4.4	66.8	48.5	ND	ND	ND	69.3	13.7	181	ND	21.2
	6	12.7	0.154	ND	ND	ND	22J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	15.1J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.56	ND	ND
IR25SG056	6.5	0	1.32	9.37	ND	ND	25.1J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	21.6J	ND	ND	ND	ND	ND	ND	ND	1.64	ND	ND	ND	ND	ND	ND
	8.5	0	0.192	5.89	ND	ND	24.6J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IR25SG057	4.5	587	0.166	18400	29.1	ND	44.9J	827	22.3	9.78	ND	ND	ND	ND	ND	584	ND	ND	ND	ND	1790	ND	70.5	43.2	116	64.1	28.1	ND	ND	105	71.4	180	38.2	ND
	8.5	2.3	0.282	1290	39.5	ND	35.3J	127	ND	ND	ND	ND	ND	ND	ND	73.6	ND	ND	ND	11.8J	17.6	ND	ND	ND	ND	2.4	ND	ND	ND	5.6	2.51	19.3	ND	ND
IR25SG058	4.5	456	0.223	64200	ND	ND	ND	761	9.51	13.3	ND	ND	ND	ND	ND	898	ND	ND	ND	ND	12300	198	3130	145	8730	3180	157	ND	ND	179	72.2	12700	ND	127
	8.5	0	0.189	63.4	7.16	ND	31.4J	21.2	ND	ND	ND	ND	ND	ND	ND	32	ND	ND	ND	ND	2.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.8	ND	ND
IR25SG059	2.5	0	0.26	48.8	ND	ND	29.6J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8	3.5	0.233	2490	ND	ND	36.1J	31.5	4.14	ND	ND	ND	ND	ND	ND	29.5	ND	ND	ND	ND	224	103	43.5	ND	29.8	18.5	ND	2.33	ND	111	28	270	ND	51.4
IR25SG060	8.5	0	0.233	12.9	ND	ND	22.1J	17.1	ND	ND	ND	ND	ND	ND	ND	4.47	ND	ND	ND	7.1J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8	0	0.293	43.3	ND	ND	23.7J	6.52	ND	ND	ND	ND	ND	ND	ND	2.59	ND	ND	ND	16.3J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IR25SG061	4.5	26	0.261	38	ND	ND	22.2J	4.34	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	42.6J	8.51	14.4	ND	2.36	ND	ND	ND	ND	ND	19	2.09	ND	ND	ND
	8.5	0	0.213	ND	ND	ND	20.6J	5.18	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	32J	ND	ND	ND	ND	ND	ND	ND	2.28	9.43	ND	ND	ND	ND	ND
IR25SG062	2.5	0	0.289	53.6	ND	ND	22.1J	4.39	ND	ND	ND	ND	ND	ND	ND	2.46	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.09	ND	ND
	8.5	0	0.252	2.04	ND	ND	21.6J	2.14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IR25SG063	9	0	NA	2.93	ND	ND	2.5J	ND	ND	2.23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IR25SG064	8.5	0	0.232	ND	ND	ND	2.88J	ND	ND	ND	ND	ND	2.71	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IR25SG065	8.5	0	0.25	ND	ND	ND	2.15J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	47.2J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8	0	0.664	ND	ND	1.11	1.8J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	38.8J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IR25VW6-03A	8.5	0	0.265	ND	ND	ND	2.29J	ND	ND	2.88	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.84	ND	ND	ND	ND	ND	ND
IR25VW6-04A	8.5	0	0.16	2.3	ND	ND	1.57J	10.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	56J	ND	ND	ND	ND	ND	ND	ND	2.56	14.5	ND	ND	ND	ND	ND
IR25VW6-05A	6.5	0	1.33	ND	ND	ND	1.41J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	37J	ND	ND	ND	ND	ND	ND	ND	4.45	11.5	ND	ND	ND	ND	ND
IR25VW6-06A [3]	3.5	3.8	0.246	ND	25.4	ND	ND	ND	ND	ND	ND	6060	101	ND	4490	ND	ND	ND	ND	56.9J	4.51	ND	ND	ND	ND	ND	5.75	ND	24.8	ND	ND	3.04	ND	ND
	5.5	969	0.333	20500	407	ND	651J	16000	ND	139000	ND	1360	103000	9930	26100	ND	335	6730	4450	ND	2370	664	ND	206	913	549	ND	ND	ND	925	ND	5450	ND	ND
IR25VW6-07A [3]	5	0	0.349	ND	ND	ND	ND	ND	ND	ND	2.59	ND	ND	ND	ND	1.81	ND	ND	ND	31.4J	ND	ND	ND	ND	ND	ND	ND	9.14	16.2	ND	ND	ND	ND	ND
IR25VW6-08A	8.5	0	0.301	ND	ND	ND	258J	ND	ND	ND	1120	ND	ND	ND	ND	ND	ND	ND	8520	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IR25VW6-09A	9	0	0.274	2.06	52.2	ND	3.5J	280	ND	ND	ND	ND	4.88	ND	ND	45.6	ND	ND	ND	109J	ND	ND	ND	ND	ND	ND	ND	23.9	ND	ND	ND	ND	ND	ND
IR25VW6-10A	6.5	1.9	0.209	ND	ND	ND	2.68J	2.51	ND	3.39	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.2	ND	ND
IR25VW6-11A	8.5	n/a	0.08	ND	ND	ND	1.96J	ND	ND	ND	4.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IR25VW6-12A	9.5	0	0.856	ND	ND	ND	33.3J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	90.5	ND	ND	ND	ND	ND	ND	ND	7.19	ND	ND	ND	ND	ND	ND
IR25VW6-13A	8.5	203	1.38	ND	ND	ND	31.9J	ND	ND	ND	ND	162	58.3	ND	17.6	ND	ND	ND	ND	92.9J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	117	12.5	137	ND
	8	7.7	0.175	ND	ND	ND	2.75	ND	ND	ND	ND	263	77.4	ND	24.3	ND	ND	ND	ND	102J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	149	11.5	172	242
IR25VW6-14A	8.5	0	0.146	958	ND	ND	77.3J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IR25VW6-15A	7.5	159	1.39	ND	ND	ND	26.5J	ND	ND	ND	ND	136	90.2	ND	26.3	ND	ND	ND	ND	129J	ND	ND	14.2	ND	ND	ND	ND	2.62	ND	ND	167	21.8	219	275
	9.5	67.4	1.08	ND	ND	ND	20.6J	ND	ND	ND	ND	7.46	16	ND	4.39	ND	ND	ND	ND	22.2J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12.8	ND	ND	22.8
IR25VW6-16A	8.5	0	0.109	502	ND	ND	56.1J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IR25VW6-17A	0.5	1.9	0.101	ND	ND	ND	26.1J	ND	ND	6.98	ND	ND	ND	ND	ND	ND	2.09	1.68	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.98	ND	ND
	8.5	0	0.065	ND	ND	ND	32J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8	0	0.071	ND	ND	ND	39.2J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.29	ND	ND	ND	ND	ND	ND
IR25VW6-19A [3]	3.5	3.8	0.123	12.7	ND	ND	ND	38.2	ND	140	ND	1.67	10.9	ND	4.14	1.36	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5.5	310	0.227	909	ND	ND	915J	4770	ND	15200	ND	ND	17500	4340	3520	ND	712	7320	ND	ND	801	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1750	ND	ND

Abbreviations:

bbls: below building floor surface

ND: Not detected at or above the method reporting limit

PID: Photoionization Detector

ppmv: parts per billion per volume

J- Denotes that it is an estimate value because analyte is a common laboratory contaminant. In many cases, methylene chloride and acetone were also detected in the batch method blank.

Notes:

1. No Soil Sample was collected at IR25SG054 due to refusal at 3 feet below floor surface.

2. No Soil Sample was collected at IR25VW6-18A due to refusal at 3.8 feet below floor surface.

3. IR25VW6-06A, IR25VW6-07A, IR25VW6-19A and IR25SG044 are located inside the below-grade dip tank. The sampling depths shown for these locations are referenced to the bottom of the tank floor, not the building floor. The tank bottom floor is approximately 4 feet below the building floor.

4. No target cleanup levels have been established or proposed for this chemical.

Soil / Soil Gas Treatability Study. Hunters Point, project number 820425

SAMPLE LOCATION IR25SG042 MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0041R128		
SAMPLE DEPTH (feet)	8.5 - 9		
DATE SAMPLED	10/12/00		

ANALYTE			
1,1,1,2-Tetrachloroethane	<4.0		
1,1,1-Trichloroethane	<4.0		
1,1,2,2-Tetrachloroethane	<4.0		
1,1,2-Trichloroethane	<4.0		
1,1-Dichloroethane	<4.0		
1,1-Dichloroethene	<4.0		
1,1-Dichloropropene	<4.0		
1,2,3-Trichlorobenzene	<4.0		
1,2,3-Trichloropropane	<4.0		
1,2,4-Trichlorobenzene	<4.0		
1,2,4-Trimethylbenzene	<4.0		
1,2-Dibromo-3-Chloropropane	<4.0		
1,2-Dibromoethane	<4.0		
1,2-Dichlorobenzene	<4.0		
1,2-Dichloroethane	<4.0		
1,2-Dichloropropane	<4.0		
1,3,5-Trimethylbenzene	<4.0		
1,3-Dichlorobenzene	<4.0		
1,3-Dichloropropane	<4.0		
1,4-Dichlorobenzene	<4.0		
2,2-Dichloropropane	<4.0		
2-Butanone	<7.9		
2-Chlorotoluene	<4.0		
2-Hexanone	<7.9		
4-Chlorotoluene	<4.0		
Acetone	**27**		
Benzene	<4.0		
Bromobenzene	<4.0		
Bromochloromethane	<4.0		
Bromodichloromethane	<4.0		
Bromoform	<4.0		
Bromomethane	<7.9		
Carbon Disulfide	<4.0		
Carbon Tetrachloride	<4.0		
Chlorobenzene	<4.0		
Chloroethane	<7.9		
Chloroform	<4.0		
Chloromethane	<7.9		
cis-1,2-Dichloroethene	<4.0		
Dibromochloromethane	<4.0		
Dibromomethane	<4.0		
Dichlorodifluoromethane	<4.0		
Ethylbenzene	<4.0		
Hexachlorobutadiene	<4.0		
Isopropylbenzene	<4.0		
m,p-Xylenes	<4.0		
Methyl Isobutyl Ketone	<7.9		
Methyl tert-Butyl Ether	<4.0		
Methylene Chloride	<4.0		
n-Butylbenzene	<4.0		
n-Propylbenzene	<4.0		
Naphthalene	<4.0		
o-Xylene	<4.0		
p-Isopropyltoluene	<4.0		
sec-Butylbenzene	<4.0		
Styrene	<4.0		
tert-Butylbenzene	<4.0		
Tetrachloroethene	<4.0		
Toluene	<4.0		
trans-1,2-Dichloroethene	<4.0		
Trichloroethene	<4.0		
Trichlorofluoromethane	**1.8**		
Vinyl Chloride	<7.9		

Percent Solids (percent)	83.1%		
Total Organic Carbon (percent)	0.846%		

Soil / Soil Gas Treatability Study. Hunters Point, project number 820425

SAMPLE LOCATION IR25SG043 MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0041R111	0041R112	
SAMPLE DEPTH (feet)	8.5 - 9	8 - 8.5	
DATE SAMPLED	10/11/00	10/11/00	

ANALYTE			
1,1,1,2-Tetrachloroethane	<3.7	<3.8	
1,1,1-Trichloroethane	<3.7	<3.8	
1,1,2,2-Tetrachloroethane	<3.7	<3.8	
1,1,2-Trichloroethane	<3.7	<3.8	
1,1-Dichloroethane	<3.7	<3.8	
1,1-Dichloroethene	<3.7	<3.8	
1,1-Dichloropropene	<3.7	<3.8	
1,2,3-Trichlorobenzene	<3.7	<3.8	
1,2,3-Trichloropropane	<3.7	<3.8	
1,2,4-Trichlorobenzene	<3.7	<3.8	
1,2,4-Trimethylbenzene	<3.7	<3.8	
1,2-Dibromo-3-Chloropropane	<3.7	<3.8	
1,2-Dibromoethane	<3.7	<3.8	
1,2-Dichlorobenzene	<3.7	<3.8	
1,2-Dichloroethane	**12**	**3.5**	
1,2-Dichloropropane	<3.7	<3.8	
1,3,5-Trimethylbenzene	<3.7	<3.8	
1,3-Dichlorobenzene	<3.7	<3.8	
1,3-Dichloropropane	<3.7	<3.8	
1,4-Dichlorobenzene	<3.7	<3.8	
2,2-Dichloropropane	<3.7	<3.8	
2-Butanone	<7.3	<7.6	
2-Chlorotoluene	<3.7	<3.8	
2-Hexanone	<7.3	<7.6	
4-Chlorotoluene	<3.7	<3.8	
Acetone	<7.3	**15**	
Benzene	<3.7	<3.8	
Bromobenzene	<3.7	<3.8	
Bromochloromethane	<3.7	<3.8	
Bromodichloromethane	<3.7	<3.8	
Bromoform	<3.7	<3.8	
Bromomethane	<7.3	<7.6	
Carbon Disulfide	<3.7	<3.8	
Carbon Tetrachloride	<3.7	<3.8	
Chlorobenzene	<3.7	<3.8	
Chloroethane	<7.3	<7.6	
Chloroform	<3.7	<3.8	
Chloromethane	<7.3	<7.6	
cis-1,2-Dichloroethene	<3.7	<3.8	
Dibromochloromethane	<3.7	<3.8	
Dibromomethane	<3.7	<3.8	
Dichlorodifluoromethane	<3.7	<3.8	
Ethylbenzene	<3.7	<3.8	
Hexachlorobutadiene	<3.7	<3.8	
Isopropylbenzene	<3.7	<3.8	
m,p-Xylenes	<3.7	<3.8	
Methyl Isobutyl Ketone	<7.3	<7.6	
Methyl tert-Butyl Ether	<3.7	<3.8	
Methylene Chloride	**1.8**	**1.7**	
n-Butylbenzene	<3.7	<3.8	
n-Propylbenzene	<3.7	<3.8	
Naphthalene	<3.7	<3.8	
o-Xylene	<3.7	<3.8	
p-Isopropyltoluene	<3.7	<3.8	
sec-Butylbenzene	<3.7	<3.8	
Styrene	<3.7	<3.8	
tert-Butylbenzene	<3.7	<3.8	
Tetrachloroethene	<3.7	<3.8	
Toluene	<3.7	<3.8	
trans-1,2-Dichloroethene	<3.7	<3.8	
Trichloroethene	<3.7	<3.8	
Trichlorofluoromethane	<3.7	<3.8	
Vinyl Chloride	<7.3	<7.6	

Percent Solids (percent)	87.7%	87.2%	
Total Organic Carbon (percent)	0.060%	0.128%	

Soil / Soil Gas Treatability Study. Hunters Point, project number 820425

SAMPLE LOCATION IR25SG044 MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0041R124		
SAMPLE DEPTH (feet)	5 - 5.5		
DATE SAMPLED	10/12/00		

ANALYTE			
1,1,1,2-Tetrachloroethane	<4.9		
1,1,1-Trichloroethane	<4.9		
1,1,2,2-Tetrachloroethane	<4.9		
1,1,2-Trichloroethane	<4.9		
1,1-Dichloroethane	<4.9		
1,1-Dichloroethene	<4.9		
1,1-Dichloropropene	<4.9		
1,2,3-Trichlorobenzene	<4.9		
1,2,3-Trichloropropane	<4.9		
1,2,4-Trichlorobenzene	<4.9		
1,2,4-Trimethylbenzene	<4.9		
1,2-Dibromo-3-Chloropropane	<4.9		
1,2-Dibromoethane	<4.9		
1,2-Dichlorobenzene	**50**		
1,2-Dichloroethane	<4.9		
1,2-Dichloropropane	<4.9		
1,3,5-Trimethylbenzene	<4.9		
1,3-Dichlorobenzene	<4.9		
1,3-Dichloropropane	<4.9		
1,4-Dichlorobenzene	**3.1**		
2,2-Dichloropropane	<4.9		
2-Butanone	**14**		
2-Chlorotoluene	<4.9		
2-Hexanone	<9.9		
4-Chlorotoluene	<4.9		
Acetone	**29**		
Benzene	**4.3**		
Bromobenzene	<4.9		
Bromochloromethane	<4.9		
Bromodichloromethane	<4.9		
Bromoform	<4.9		
Bromomethane	<9.9		
Carbon Disulfide	<4.9		
Carbon Tetrachloride	<4.9		
Chlorobenzene	**200**		
Chloroethane	<9.9		
Chloroform	<4.9		
Chloromethane	<9.9		
cis-1,2-Dichloroethene	<4.9		
Dibromochloromethane	<4.9		
Dibromomethane	<4.9		
Dichlorodifluoromethane	<4.9		
Ethylbenzene	<4.9		
Hexachlorobutadiene	<4.9		
Isopropylbenzene	<4.9		
m,p-Xylenes	<4.9		
Methyl Isobutyl Ketone	<9.9		
Methyl tert-Butyl Ether	<4.9		
Methylene Chloride	<4.9		
n-Butylbenzene	<4.9		
n-Propylbenzene	<4.9		
Naphthalene	<4.9		
o-Xylene	<4.9		
p-Isopropyltoluene	<4.9		
sec-Butylbenzene	<4.9		
Styrene	<4.9		
tert-Butylbenzene	<4.9		
Tetrachloroethene	<4.9		
Toluene	**1.9**		
trans-1,2-Dichloroethene	<4.9		
Trichloroethene	<4.9		
Trichlorofluoromethane	**2.8**		
Vinyl Chloride	**37**		

Percent Solids (percent)	81.8%		
Total Organic Carbon (percent)	0.336%		

Soil / Soil Gas Treatability Study. Hunters Point, project number 820425

SAMPLE LOCATION IR25SG045 MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0041R130	0041R132	
SAMPLE DEPTH (feet)	8.5 - 9	8 - 8.5	
DATE SAMPLED	10/12/00	10/12/00	

ANALYTE			
1,1,1,2-Tetrachloroethane	<520	<500	
1,1,1-Trichloroethane	<520	<500	
1,1,2,2-Tetrachloroethane	<520	<500	
1,1,2-Trichloroethane	<520	<500	
1,1-Dichloroethane	<520	<500	
1,1-Dichloroethene	<520	<500	
1,1-Dichloropropene	<520	<500	
1,2,3-Trichlorobenzene	<520	<500	
1,2,3-Trichloropropane	<520	<500	
1,2,4-Trichlorobenzene	**240**	<500	
1,2,4-Trimethylbenzene	<520	<500	
1,2-Dibromo-3-Chloropropane	<520	<500	
1,2-Dibromoethane	<520	<500	
1,2-Dichlorobenzene	**9700**	**2900**	
1,2-Dichloroethane	<520	<500	
1,2-Dichloropropane	<520	<500	
1,3,5-Trimethylbenzene	<520	<500	
1,3-Dichlorobenzene	**380**	**800**	
1,3-Dichloropropane	<520	<500	
1,4-Dichlorobenzene	**2600**	**720**	
2,2-Dichloropropane	<520	<500	
2-Butanone	<1000	<990	
2-Chlorotoluene	<520	<500	
2-Hexanone	<1000	<990	
4-Chlorotoluene	<520	<500	
Acetone	<1000	<990	
Benzene	<520	<500	
Bromobenzene	<520	<500	
Bromochloromethane	<520	<500	
Bromodichloromethane	<520	<500	
Bromoform	<520	<500	
Bromomethane	<1000	<990	
Carbon Disulfide	<520	<500	
Carbon Tetrachloride	<520	<500	
Chlorobenzene	<520	<500	
Chloroethane	<1000	<990	
Chloroform	<520	<500	
Chloromethane	<1000	<990	
cis-1,2-Dichloroethene	<520	<500	
Dibromochloromethane	<520	<500	
Dibromomethane	<520	<500	
Dichlorodifluoromethane	<520	<500	
Ethylbenzene	<520	<500	
Hexachlorobutadiene	<520	<500	
Isopropylbenzene	<520	<500	
m,p-Xylenes	<520	<500	
Methyl Isobutyl Ketone	<1000	<990	
Methyl tert-Butyl Ether	<520	<500	
Methylene Chloride	**890**	**700**	
n-Butylbenzene	<520	<500	
n-Propylbenzene	<520	<500	
Naphthalene	**310**	<500	
o-Xylene	<520	<500	
p-Isopropyltoluene	<520	<500	
sec-Butylbenzene	<520	<500	
Styrene	<520	<500	
tert-Butylbenzene	<520	<500	
Tetrachloroethene	**2400**	**490**	
Toluene	<520	<500	
trans-1,2-Dichloroethene	<520	<500	
Trichloroethene	<520	<500	
Trichlorofluoromethane	**730**	**3300**	
Vinyl Chloride	<1000	<990	

Percent Solids (percent)	83.0%	78.7%	
Total Organic Carbon (percent)	0.042%	0.085%	

Soil / Soil Gas Treatability Study. Hunters Point, project number 820425

SAMPLE LOCATION IR25SG046 MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0041R133	0041R134	
SAMPLE DEPTH (feet)	7.5 - 8	9.5 - 10	
DATE SAMPLED	10/12/00	10/12/00	

ANALYTE			
1,1,1,2-Tetrachloroethane	<480	<460	
1,1,1-Trichloroethane	<480	<460	
1,1,2,2-Tetrachloroethane	<480	<460	
1,1,2-Trichloroethane	<480	<460	
1,1-Dichloroethane	<480	<460	
1,1-Dichloroethene	<480	<460	
1,1-Dichloropropene	<480	<460	
1,2,3-Trichlorobenzene	<480	<460	
1,2,3-Trichloropropane	<480	<460	
1,2,4-Trichlorobenzene	<480	<460	
1,2,4-Trimethylbenzene	<480	<460	
1,2-Dibromo-3-Chloropropane	<480	<460	
1,2-Dibromoethane	<480	<460	
1,2-Dichlorobenzene	**1600**	**960**	
1,2-Dichloroethane	<480	<460	
1,2-Dichloropropane	<480	<460	
1,3,5-Trimethylbenzene	<480	<460	
1,3-Dichlorobenzene	<480	<460	
1,3-Dichloropropane	<480	<460	
1,4-Dichlorobenzene	**430**	**280**	
2,2-Dichloropropane	<480	<460	
2-Butanone	<970	<910	
2-Chlorotoluene	<480	<460	
2-Hexanone	<970	<910	
4-Chlorotoluene	<480	<460	
Acetone	<970	<910	
Benzene	<480	<460	
Bromobenzene	<480	<460	
Bromochloromethane	<480	<460	
Bromodichloromethane	<480	<460	
Bromoform	<480	<460	
Bromomethane	<970	<910	
Carbon Disulfide	<480	<460	
Carbon Tetrachloride	<480	<460	
Chlorobenzene	<480	<460	
Chloroethane	<970	<910	
Chloroform	<480	<460	
Chloromethane	<970	<910	
cis-1,2-Dichloroethene	<480	<460	
Dibromochloromethane	<480	<460	
Dibromomethane	<480	<460	
Dichlorodifluoromethane	<480	<460	
Ethylbenzene	<480	<460	
Hexachlorobutadiene	<480	<460	
Isopropylbenzene	<480	<460	
m,p-Xylenes	<480	<460	
Methyl Isobutyl Ketone	<970	<910	
Methyl tert-Butyl Ether	<480	<460	
Methylene Chloride	**1400**	**1300**	
n-Butylbenzene	<480	<460	
n-Propylbenzene	<480	<460	
Naphthalene	<480	<460	
o-Xylene	<480	<460	
p-Isopropyltoluene	<480	<460	
sec-Butylbenzene	<480	<460	
Styrene	<480	<460	
tert-Butylbenzene	<480	<460	
Tetrachloroethene	**260**	**170**	
Toluene	<480	<460	
trans-1,2-Dichloroethene	<480	<460	
Trichloroethene	<480	<460	
Trichlorofluoromethane	**270**	<460	
Vinyl Chloride	<970	<910	

Percent Solids (percent)	83.2%	83.0%	
Total Organic Carbon (percent)	0.224%	0.113%	

Soil / Soil Gas Treatability Study. Hunters Point, project number 820425

SAMPLE LOCATION IR25SG047 MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0040R064		
SAMPLE DEPTH (feet)	8.5 - 9		
DATE SAMPLED	10/05/00		

ANALYTE			
1,1,1,2-Tetrachloroethane	<400		
1,1,1-Trichloroethane	<400		
1,1,2,2-Tetrachloroethane	<400		
1,1,2-Trichloroethane	<400		
1,1-Dichloroethane	<400		
1,1-Dichloroethene	<400		
1,1-Dichloropropene	<400		
1,2,3-Trichlorobenzene	<400		
1,2,3-Trichloropropane	<400		
1,2,4-Trichlorobenzene	<400		
1,2,4-Trimethylbenzene	<400		
1,2-Dibromo-3-Chloropropane	<400		
1,2-Dibromoethane	<400		
1,2-Dichlorobenzene	<400		
1,2-Dichloroethane	<400		
1,2-Dichloropropane	<400		
1,3,5-Trimethylbenzene	<400		
1,3-Dichlorobenzene	<400		
1,3-Dichloropropane	<400		
1,4-Dichlorobenzene	<400		
2,2-Dichloropropane	<400		
2-Butanone	<810		
2-Chlorotoluene	<400		
2-Hexanone	<810		
4-Chlorotoluene	<400		
Acetone	<810		
Benzene	<400		
Bromobenzene	<400		
Bromochloromethane	<400		
Bromodichloromethane	<400		
Bromoform	<400		
Bromomethane	<810		
Carbon Disulfide	<400		
Carbon Tetrachloride	<400		
Chlorobenzene	<400		
Chloroethane	<810		
Chloroform	<400		
Chloromethane	<810		
cis-1,2-Dichloroethene	<400		
Dibromochloromethane	<400		
Dibromomethane	<400		
Dichlorodifluoromethane	<400		
Ethylbenzene	<400		
Hexachlorobutadiene	<400		
Isopropylbenzene	<400		
m,p-Xylenes	<400		
Methyl Isobutyl Ketone	<810		
Methyl tert-Butyl Ether	<400		
Methylene Chloride	**730**		
n-Butylbenzene	<400		
n-Propylbenzene	<400		
Naphthalene	<400		
o-Xylene	<400		
p-Isopropyltoluene	<400		
sec-Butylbenzene	<400		
Styrene	<400		
tert-Butylbenzene	<400		
Tetrachloroethene	<400		
Toluene	<400		
trans-1,2-Dichloroethene	<400		
Trichloroethene	**450**		
Trichlorofluoromethane	<400		
Vinyl Chloride	<810		

Percent Solids (percent)	83.6%		
Total Organic Carbon (percent)	0.213%		

Soil / Soil Gas Treatability Study. Hunters Point, project number 820425

SAMPLE LOCATION IR25SG048 MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0040R066		
SAMPLE DEPTH (feet)	8.5 - 9		
DATE SAMPLED	10/05/00		

ANALYTE			
1,1,1,2-Tetrachloroethane	<5.7		
1,1,1-Trichloroethane	<5.7		
1,1,2,2-Tetrachloroethane	<5.7		
1,1,2-Trichloroethane	<5.7		
1,1-Dichloroethane	<5.7		
1,1-Dichloroethene	<5.7		
1,1-Dichloropropene	<5.7		
1,2,3-Trichlorobenzene	<5.7		
1,2,3-Trichloropropane	<5.7		
1,2,4-Trichlorobenzene	<5.7		
1,2,4-Trimethylbenzene	<5.7		
1,2-Dibromo-3-Chloropropane	<5.7		
1,2-Dibromoethane	<5.7		
1,2-Dichlorobenzene	<5.7		
1,2-Dichloroethane	<5.7		
1,2-Dichloropropane	<5.7		
1,3,5-Trimethylbenzene	<5.7		
1,3-Dichlorobenzene	<5.7		
1,3-Dichloropropane	<5.7		
1,4-Dichlorobenzene	<5.7		
2,2-Dichloropropane	<5.7		
2-Butanone	<12		
2-Chlorotoluene	<5.7		
2-Hexanone	<12		
4-Chlorotoluene	<5.7		
Acetone	**22**		
Benzene	<5.7		
Bromobenzene	<5.7		
Bromochloromethane	<5.7		
Bromodichloromethane	<5.7		
Bromoform	<5.7		
Bromomethane	<12		
Carbon Disulfide	<5.7		
Carbon Tetrachloride	<5.7		
Chlorobenzene	<5.7		
Chloroethane	<12		
Chloroform	<5.7		
Chloromethane	<12		
cis-1,2-Dichloroethene	<5.7		
Dibromochloromethane	<5.7		
Dibromomethane	<5.7		
Dichlorodifluoromethane	<5.7		
Ethylbenzene	<5.7		
Hexachlorobutadiene	<5.7		
Isopropylbenzene	<5.7		
m,p-Xylenes	<5.7		
Methyl Isobutyl Ketone	<12		
Methyl tert-Butyl Ether	<5.7		
Methylene Chloride	**27**		
n-Butylbenzene	<5.7		
n-Propylbenzene	<5.7		
Naphthalene	<5.7		
o-Xylene	<5.7		
p-Isopropyltoluene	<5.7		
sec-Butylbenzene	<5.7		
Styrene	<5.7		
tert-Butylbenzene	<5.7		
Tetrachloroethene	**3.4**		
Toluene	<5.7		
trans-1,2-Dichloroethene	<5.7		
Trichloroethene	<5.7		
Trichlorofluoromethane	<5.7		
Vinyl Chloride	<12		

Percent Solids (percent)	87.3%		
Total Organic Carbon (percent)	0.327%		

Soil / Soil Gas Treatability Study. Hunters Point, project number 820425

SAMPLE LOCATION IR25SG049 MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0040R068		
SAMPLE DEPTH (feet)	8.5 - 9		
DATE SAMPLED	10/05/00		

ANALYTE			
1,1,1,2-Tetrachloroethane	<5.8		
1,1,1-Trichloroethane	<5.8		
1,1,2,2-Tetrachloroethane	<5.8		
1,1,2-Trichloroethane	<5.8		
1,1-Dichloroethane	<5.8		
1,1-Dichloroethene	<5.8		
1,1-Dichloropropene	<5.8		
1,2,3-Trichlorobenzene	<5.8		
1,2,3-Trichloropropane	<5.8		
1,2,4-Trichlorobenzene	<5.8		
1,2,4-Trimethylbenzene	<5.8		
1,2-Dibromo-3-Chloropropane	<5.8		
1,2-Dibromoethane	<5.8		
1,2-Dichlorobenzene	<5.8		
1,2-Dichloroethane	<5.8		
1,2-Dichloropropane	<5.8		
1,3,5-Trimethylbenzene	<5.8		
1,3-Dichlorobenzene	<5.8		
1,3-Dichloropropane	<5.8		
1,4-Dichlorobenzene	<5.8		
2,2-Dichloropropane	<5.8		
2-Butanone	<12		
2-Chlorotoluene	<5.8		
2-Hexanone	<12		
4-Chlorotoluene	<5.8		
Acetone	**19**		
Benzene	<5.8		
Bromobenzene	<5.8		
Bromochloromethane	<5.8		
Bromodichloromethane	<5.8		
Bromoform	<5.8		
Bromomethane	<12		
Carbon Disulfide	<5.8		
Carbon Tetrachloride	<5.8		
Chlorobenzene	<5.8		
Chloroethane	<12		
Chloroform	<5.8		
Chloromethane	<12		
cis-1,2-Dichloroethene	<5.8		
Dibromochloromethane	<5.8		
Dibromomethane	<5.8		
Dichlorodifluoromethane	<5.8		
Ethylbenzene	<5.8		
Hexachlorobutadiene	<5.8		
Isopropylbenzene	<5.8		
m,p-Xylenes	<5.8		
Methyl Isobutyl Ketone	<12		
Methyl tert-Butyl Ether	<5.8		
Methylene Chloride	**18**		
n-Butylbenzene	<5.8		
n-Propylbenzene	<5.8		
Naphthalene	**3.0**		
o-Xylene	<5.8		
p-Isopropyltoluene	<5.8		
sec-Butylbenzene	<5.8		
Styrene	<5.8		
tert-Butylbenzene	<5.8		
Tetrachloroethene	<5.8		
Toluene	<5.8		
trans-1,2-Dichloroethene	<5.8		
Trichloroethene	<5.8		
Trichlorofluoromethane	<5.8		
Vinyl Chloride	<12		

Percent Solids (percent)	86.6%		
Total Organic Carbon (percent)	0.154%		

Soil / Soil Gas Treatability Study. Hunters Point, project number 820425

SAMPLE LOCATION IR25SG050 MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0041R086		
SAMPLE DEPTH (feet)	8.5 - 9		
DATE SAMPLED	10/09/00		

ANALYTE			
1,1,1,2-Tetrachloroethane	<7.8		
1,1,1-Trichloroethane	<7.8		
1,1,2,2-Tetrachloroethane	<7.8		
1,1,2-Trichloroethane	<7.8		
1,1-Dichloroethane	<7.8		
1,1-Dichloroethene	<7.8		
1,1-Dichloropropene	<7.8		
1,2,3-Trichlorobenzene	<7.8		
1,2,3-Trichloropropane	<7.8		
1,2,4-Trichlorobenzene	<7.8		
1,2,4-Trimethylbenzene	<7.8		
1,2-Dibromo-3-Chloropropane	<7.8		
1,2-Dibromoethane	<7.8		
1,2-Dichlorobenzene	<7.8		
1,2-Dichloroethane	<7.8		
1,2-Dichloropropane	<7.8		
1,3,5-Trimethylbenzene	<7.8		
1,3-Dichlorobenzene	<7.8		
1,3-Dichloropropane	<7.8		
1,4-Dichlorobenzene	<7.8		
2,2-Dichloropropane	<7.8		
2-Butanone	<16		
2-Chlorotoluene	<7.8		
2-Hexanone	<16		
4-Chlorotoluene	<7.8		
Acetone	<16		
Benzene	<7.8		
Bromobenzene	<7.8		
Bromochloromethane	<7.8		
Bromodichloromethane	<7.8		
Bromoform	<7.8		
Bromomethane	<16		
Carbon Disulfide	<7.8		
Carbon Tetrachloride	<7.8		
Chlorobenzene	<7.8		
Chloroethane	<16		
Chloroform	<7.8		
Chloromethane	<16		
cis-1,2-Dichloroethene	<7.8		
Dibromochloromethane	<7.8		
Dibromomethane	<7.8		
Dichlorodifluoromethane	<7.8		
Ethylbenzene	<7.8		
Hexachlorobutadiene	<7.8		
Isopropylbenzene	<7.8		
m,p-Xylenes	<7.8		
Methyl Isobutyl Ketone	<16		
Methyl tert-Butyl Ether	<7.8		
Methylene Chloride	**45**		
n-Butylbenzene	<7.8		
n-Propylbenzene	<7.8		
Naphthalene	<7.8		
o-Xylene	<7.8		
p-Isopropyltoluene	<7.8		
sec-Butylbenzene	<7.8		
Styrene	<7.8		
tert-Butylbenzene	<7.8		
Tetrachloroethene	<7.8		
Toluene	<7.8		
trans-1,2-Dichloroethene	<7.8		
Trichloroethene	<7.8		
Trichlorofluoromethane	<7.8		
Vinyl Chloride	<16		

Percent Solids (percent)	69.9%		
Total Organic Carbon (percent)	0.106%		

Soil / Soil Gas Treatability Study. Hunters Point, project number 820425

SAMPLE LOCATION IR25SG051 MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0041R091		
SAMPLE DEPTH (feet)	9.5 - 10		
DATE SAMPLED	10/10/00		

ANALYTE			
1,1,1,2-Tetrachloroethane	<6.9		
1,1,1-Trichloroethane	<6.9		
1,1,2,2-Tetrachloroethane	<6.9		
1,1,2-Trichloroethane	<6.9		
1,1-Dichloroethane	<6.9		
1,1-Dichloroethene	<6.9		
1,1-Dichloropropene	<6.9		
1,2,3-Trichlorobenzene	<6.9		
1,2,3-Trichloropropane	<6.9		
1,2,4-Trichlorobenzene	<6.9		
1,2,4-Trimethylbenzene	<6.9		
1,2-Dibromo-3-Chloropropane	<6.9		
1,2-Dibromoethane	<6.9		
1,2-Dichlorobenzene	<6.9		
1,2-Dichloroethane	<6.9		
1,2-Dichloropropane	<6.9		
1,3,5-Trimethylbenzene	<6.9		
1,3-Dichlorobenzene	<6.9		
1,3-Dichloropropane	<6.9		
1,4-Dichlorobenzene	<6.9		
2,2-Dichloropropane	<6.9		
2-Butanone	<14		
2-Chlorotoluene	<6.9		
2-Hexanone	<14		
4-Chlorotoluene	<6.9		
Acetone	**39**		
Benzene	<6.9		
Bromobenzene	<6.9		
Bromochloromethane	<6.9		
Bromodichloromethane	<6.9		
Bromoform	<6.9		
Bromomethane	<14		
Carbon Disulfide	**7.8**		
Carbon Tetrachloride	<6.9		
Chlorobenzene	<6.9		
Chloroethane	<14		
Chloroform	<6.9		
Chloromethane	<14		
cis-1,2-Dichloroethene	<6.9		
Dibromochloromethane	<6.9		
Dibromomethane	<6.9		
Dichlorodifluoromethane	<6.9		
Ethylbenzene	<6.9		
Hexachlorobutadiene	<6.9		
Isopropylbenzene	**83**		
m,p-Xylenes	<6.9		
Methyl Isobutyl Ketone	<14		
Methyl tert-Butyl Ether	<6.9		
Methylene Chloride	**50**		
n-Butylbenzene	<6.9		
n-Propylbenzene	<6.9		
Naphthalene	<6.9		
o-Xylene	<6.9		
p-Isopropyltoluene	<6.9		
sec-Butylbenzene	**190**		
Styrene	<6.9		
tert-Butylbenzene	<6.9		
Tetrachloroethene	<6.9		
Toluene	<6.9		
trans-1,2-Dichloroethene	<6.9		
Trichloroethene	<6.9		
Trichlorofluoromethane	<6.9		
Vinyl Chloride	<14		

Percent Solids (percent)	88.3%		
Total Organic Carbon (percent)	0.506%		

Soil / Soil Gas Treatability Study. Hunters Point, project number 820425

SAMPLE LOCATION IR25SG052 MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0041R078	0041R079	0041R080
SAMPLE DEPTH (feet)	6 - 6.5	6.5 - 7	8.5 - 9
DATE SAMPLED	10/09/00	10/09/00	10/09/00
ANALYTE			
1,1,1,2-Tetrachloroethane	<5.1	<5.3	<5.3
1,1,1-Trichloroethane	<5.1	<5.3	<5.3
1,1,2,2-Tetrachloroethane	<5.1	<5.3	<5.3
1,1,2-Trichloroethane	<5.1	<5.3	<5.3
1,1-Dichloroethane	<5.1	<5.3	<5.3
1,1-Dichloroethene	<5.1	<5.3	<5.3
1,1-Dichloropropene	<5.1	<5.3	<5.3
1,2,3-Trichlorobenzene	<5.1	<5.3	<5.3
1,2,3-Trichloropropane	<5.1	<5.3	<5.3
1,2,4-Trichlorobenzene	<5.1	<5.3	<5.3
1,2,4-Trimethylbenzene	<5.1	<5.3	<5.3
1,2-Dibromo-3-Chloropropane	<5.1	<5.3	<5.3
1,2-Dibromoethane	<5.1	<5.3	<5.3
1,2-Dichlorobenzene	<5.1	<5.3	<5.3
1,2-Dichloroethane	<5.1	<5.3	<5.3
1,2-Dichloropropane	<5.1	<5.3	<5.3
1,3,5-Trimethylbenzene	<5.1	<5.3	<5.3
1,3-Dichlorobenzene	<5.1	<5.3	<5.3
1,3-Dichloropropane	<5.1	<5.3	<5.3
1,4-Dichlorobenzene	<5.1	<5.3	<5.3
2,2-Dichloropropane	<5.1	<5.3	<5.3
2-Butanone	<10	<11	<11
2-Chlorotoluene	<5.1	<5.3	<5.3
2-Hexanone	<10	<11	<11
4-Chlorotoluene	<5.1	<5.3	<5.3
Acetone	**34**	**11**	**12**
Benzene	<5.1	<5.3	<5.3
Bromobenzene	<5.1	<5.3	<5.3
Bromochloromethane	<5.1	<5.3	<5.3
Bromodichloromethane	<5.1	<5.3	<5.3
Bromoform	<5.1	<5.3	<5.3
Bromomethane	<10	<11	<11
Carbon Disulfide	**4.9**	<5.3	<5.3
Carbon Tetrachloride	<5.1	<5.3	<5.3
Chlorobenzene	**8.9**	<5.3	<5.3
Chloroethane	<10	<11	<11
Chloroform	<5.1	<5.3	<5.3
Chloromethane	<10	<11	<11
cis-1,2-Dichloroethene	<5.1	<5.3	<5.3
Dibromochloromethane	<5.1	<5.3	<5.3
Dibromomethane	<5.1	<5.3	<5.3
Dichlorodifluoromethane	<5.1	<5.3	<5.3
Ethylbenzene	<5.1	<5.3	<5.3
Hexachlorobutadiene	<5.1	<5.3	<5.3
Isopropylbenzene	<5.1	<5.3	<5.3
m,p-Xylenes	<5.1	<5.3	<5.3
Methyl Isobutyl Ketone	<10	<11	<11
Methyl tert-Butyl Ether	<5.1	<5.3	<5.3
Methylene Chloride	**33**	**35**	**27**
n-Butylbenzene	<5.1	<5.3	<5.3
n-Propylbenzene	<5.1	<5.3	<5.3
Naphthalene	<5.1	<5.3	<5.3
o-Xylene	<5.1	<5.3	<5.3
p-Isopropyltoluene	<5.1	<5.3	<5.3
sec-Butylbenzene	<5.1	<5.3	<5.3
Styrene	<5.1	<5.3	<5.3
tert-Butylbenzene	<5.1	<5.3	<5.3
Tetrachloroethene	**2.9**	<5.3	<5.3
Toluene	<5.1	<5.3	<5.3
trans-1,2-Dichloroethene	<5.1	<5.3	<5.3
Trichloroethene	<5.1	<5.3	<5.3
Trichlorofluoromethane	<5.1	<5.3	<5.3
Vinyl Chloride	<10	<11	<11
Percent Solids (percent)	80.6%	78.2%	78.5%
Total Organic Carbon (percent)	0.208%	0.083%	0.101%

Soil / Soil Gas Treatability Study. Hunters Point, project number 820425

SAMPLE LOCATION IR25SG053 MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0041R076	0041R077	
SAMPLE DEPTH (feet)	6 - 6.5	8.5 - 9	
DATE SAMPLED	10/09/00	10/09/00	

ANALYTE			
1,1,1,2-Tetrachloroethane	<6.2	<5.1	
1,1,1-Trichloroethane	<6.2	<5.1	
1,1,2,2-Tetrachloroethane	<6.2	<5.1	
1,1,2-Trichloroethane	<6.2	<5.1	
1,1-Dichloroethane	<6.2	<5.1	
1,1-Dichloroethene	<6.2	<5.1	
1,1-Dichloropropene	<6.2	<5.1	
1,2,3-Trichlorobenzene	<6.2	<5.1	
1,2,3-Trichloropropane	<6.2	<5.1	
1,2,4-Trichlorobenzene	<6.2	<5.1	
1,2,4-Trimethylbenzene	<6.2	<5.1	
1,2-Dibromo-3-Chloropropane	<6.2	<5.1	
1,2-Dibromoethane	<6.2	<5.1	
1,2-Dichlorobenzene	<6.2	<5.1	
1,2-Dichloroethane	<6.2	<5.1	
1,2-Dichloropropane	<6.2	<5.1	
1,3,5-Trimethylbenzene	<6.2	<5.1	
1,3-Dichlorobenzene	<6.2	<5.1	
1,3-Dichloropropane	<6.2	<5.1	
1,4-Dichlorobenzene	<6.2	<5.1	
2,2-Dichloropropane	<6.2	<5.1	
2-Butanone	<12	<10	
2-Chlorotoluene	<6.2	<5.1	
2-Hexanone	<12	<10	
4-Chlorotoluene	<6.2	<5.1	
Acetone	**13**	**10**	
Benzene	<6.2	<5.1	
Bromobenzene	<6.2	<5.1	
Bromochloromethane	<6.2	<5.1	
Bromodichloromethane	<6.2	<5.1	
Bromoform	<6.2	<5.1	
Bromomethane	<12	<10	
Carbon Disulfide	<6.2	<5.1	
Carbon Tetrachloride	<6.2	<5.1	
Chlorobenzene	<6.2	<5.1	
Chloroethane	<12	<10	
Chloroform	<6.2	<5.1	
Chloromethane	<12	<10	
cis-1,2-Dichloroethene	<6.2	<5.1	
Dibromochloromethane	<6.2	<5.1	
Dibromomethane	<6.2	<5.1	
Dichlorodifluoromethane	<6.2	<5.1	
Ethylbenzene	<6.2	<5.1	
Hexachlorobutadiene	<6.2	<5.1	
Isopropylbenzene	<6.2	<5.1	
m,p-Xylenes	<6.2	<5.1	
Methyl Isobutyl Ketone	<12	<10	
Methyl tert-Butyl Ether	<6.2	<5.1	
Methylene Chloride	**38**	**33**	
n-Butylbenzene	<6.2	<5.1	
n-Propylbenzene	<6.2	<5.1	
Naphthalene	<6.2	<5.1	
o-Xylene	<6.2	<5.1	
p-Isopropyltoluene	<6.2	<5.1	
sec-Butylbenzene	<6.2	<5.1	
Styrene	<6.2	<5.1	
tert-Butylbenzene	<6.2	<5.1	
Tetrachloroethene	<6.2	<5.1	
Toluene	<6.2	<5.1	
trans-1,2-Dichloroethene	<6.2	<5.1	
Trichloroethene	<6.2	<5.1	
Trichlorofluoromethane	<6.2	<5.1	
Vinyl Chloride	<12	<10	

Percent Solids (percent)	83.0%	79.3%	
Total Organic Carbon (percent)	0.249%	0.123%	

Soil / Soil Gas Treatability Study. Hunters Point, project number 820425

SAMPLE LOCATION IR25SG055 MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0041R074	0041R075	
SAMPLE DEPTH (feet)	1 - 1.5	6 - 6.5	
DATE SAMPLED	10/09/00	10/09/00	

ANALYTE			
1,1,1,2-Tetrachloroethane	<8.4	<6.2	
1,1,1-Trichloroethane	<8.4	<6.2	
1,1,2,2-Tetrachloroethane	<8.4	<6.2	
1,1,2-Trichloroethane	<8.4	<6.2	
1,1-Dichloroethane	<8.4	<6.2	
1,1-Dichloroethene	<8.4	<6.2	
1,1-Dichloropropene	<8.4	<6.2	
1,2,3-Trichlorobenzene	<8.4	<6.2	
1,2,3-Trichloropropane	<8.4	<6.2	
1,2,4-Trichlorobenzene	<8.4	<6.2	
1,2,4-Trimethylbenzene	**230**	<6.2	
1,2-Dibromo-3-Chloropropane	<8.4	<6.2	
1,2-Dibromoethane	<8.4	<6.2	
1,2-Dichlorobenzene	<8.4	<6.2	
1,2-Dichloroethane	<8.4	<6.2	
1,2-Dichloropropane	<8.4	<6.2	
1,3,5-Trimethylbenzene	**79**	<6.2	
1,3-Dichlorobenzene	<8.4	<6.2	
1,3-Dichloropropane	<8.4	<6.2	
1,4-Dichlorobenzene	<8.4	<6.2	
2,2-Dichloropropane	<8.4	<6.2	
2-Butanone	<17	<12	
2-Chlorotoluene	<8.4	<6.2	
2-Hexanone	<17	<12	
4-Chlorotoluene	<8.4	<6.2	
Acetone	**30**	**15**	
Benzene	<8.4	<6.2	
Bromobenzene	<8.4	<6.2	
Bromochloromethane	<8.4	<6.2	
Bromodichloromethane	<8.4	<6.2	
Bromoform	<8.4	<6.2	
Bromomethane	<17	<12	
Carbon Disulfide	<8.4	<6.2	
Carbon Tetrachloride	<8.4	<6.2	
Chlorobenzene	<8.4	<6.2	
Chloroethane	<17	<12	
Chloroform	<8.4	<6.2	
Chloromethane	<17	<12	
cis-1,2-Dichloroethene	<8.4	<6.2	
Dibromochloromethane	<8.4	<6.2	
Dibromomethane	<8.4	<6.2	
Dichlorodifluoromethane	<8.4	<6.2	
Ethylbenzene	**14**	<6.2	
Hexachlorobutadiene	<8.4	<6.2	
Isopropylbenzene	**14**	<6.2	
m,p-Xylenes	**67**	<6.2	
Methyl Isobutyl Ketone	<17	<12	
Methyl tert-Butyl Ether	<8.4	<6.2	
Methylene Chloride	**33**	**22**	
n-Butylbenzene	<8.4	<6.2	
n-Propylbenzene	**21**	<6.2	
Naphthalene	**180**	**3.6**	
o-Xylene	**49**	<6.2	
p-Isopropyltoluene	**69**	<6.2	
sec-Butylbenzene	<8.4	<6.2	
Styrene	<8.4	<6.2	
tert-Butylbenzene	<8.4	<6.2	
Tetrachloroethene	**3.3**	<6.2	
Toluene	**4.4**	<6.2	
trans-1,2-Dichloroethene	<8.4	<6.2	
Trichloroethene	<8.4	<6.2	
Trichlorofluoromethane	**7.0**	<6.2	
Vinyl Chloride	<17	<12	

Percent Solids (percent)	93.2%	68.2%	
Total Organic Carbon (percent)	0.105%	0.154%	

Soil / Soil Gas Treatability Study. Hunters Point, project number 820425

SAMPLE LOCATION IR25SG056 MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0040R057	0040R058	
SAMPLE DEPTH (feet)	6.5 - 7	8.5 - 9	
DATE SAMPLED	10/04/00	10/04/00	

ANALYTE			
1,1,1,2-Tetrachloroethane	<5.7	<6.8	
1,1,1-Trichloroethane	<5.7	<6.8	
1,1,2,2-Tetrachloroethane	<5.7	<6.8	
1,1,2-Trichloroethane	<5.7	<6.8	
1,1-Dichloroethane	<5.7	<6.8	
1,1-Dichloroethene	<5.7	<6.8	
1,1-Dichloropropene	<5.7	<6.8	
1,2,3-Trichlorobenzene	<5.7	<6.8	
1,2,3-Trichloropropane	<5.7	<6.8	
1,2,4-Trichlorobenzene	<5.7	<6.8	
1,2,4-Trimethylbenzene	<5.7	<6.8	
1,2-Dibromo-3-Chloropropane	<5.7	<6.8	
1,2-Dibromoethane	<5.7	<6.8	
1,2-Dichlorobenzene	<5.7	<6.8	
1,2-Dichloroethane	<5.7	<6.8	
1,2-Dichloropropane	<5.7	<6.8	
1,3,5-Trimethylbenzene	<5.7	<6.8	
1,3-Dichlorobenzene	<5.7	<6.8	
1,3-Dichloropropane	<5.7	<6.8	
1,4-Dichlorobenzene	<5.7	<6.8	
2,2-Dichloropropane	<5.7	<6.8	
2-Butanone	<11	<14	
2-Chlorotoluene	<5.7	<6.8	
2-Hexanone	<11	<14	
4-Chlorotoluene	<5.7	<6.8	
Acetone	**22**	<14	
Benzene	<5.7	<6.8	
Bromobenzene	<5.7	<6.8	
Bromochloromethane	<5.7	<6.8	
Bromodichloromethane	<5.7	<6.8	
Bromoform	<5.7	<6.8	
Bromomethane	<11	<14	
Carbon Disulfide	**1.6**	<6.8	
Carbon Tetrachloride	<5.7	<6.8	
Chlorobenzene	<5.7	<6.8	
Chloroethane	<11	<14	
Chloroform	<5.7	<6.8	
Chloromethane	<11	<14	
cis-1,2-Dichloroethene	<5.7	<6.8	
Dibromochloromethane	<5.7	<6.8	
Dibromomethane	<5.7	<6.8	
Dichlorodifluoromethane	<5.7	<6.8	
Ethylbenzene	<5.7	<6.8	
Hexachlorobutadiene	<5.7	<6.8	
Isopropylbenzene	<5.7	<6.8	
m,p-Xylenes	<5.7	<6.8	
Methyl Isobutyl Ketone	<11	<14	
Methyl tert-Butyl Ether	<5.7	<6.8	
Methylene Chloride	**25**	**25**	
n-Butylbenzene	<5.7	<6.8	
n-Propylbenzene	<5.7	<6.8	
Naphthalene	<5.7	<6.8	
o-Xylene	<5.7	<6.8	
p-Isopropyltoluene	<5.7	<6.8	
sec-Butylbenzene	<5.7	<6.8	
Styrene	<5.7	<6.8	
tert-Butylbenzene	<5.7	<6.8	
Tetrachloroethene	<5.7	<6.8	
Toluene	<5.7	<6.8	
trans-1,2-Dichloroethene	<5.7	<6.8	
Trichloroethene	**9.4**	**5.9**	
Trichlorofluoromethane	<5.7	<6.8	
Vinyl Chloride	<11	<14	

Percent Solids (percent)	84.0%	82.1%	
Total Organic Carbon (percent)	1.320%	0.192%	

Soil / Soil Gas Treatability Study. Hunters Point, project number 820425

SAMPLE LOCATION IR25SG057 MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0040R049	0040R050	
SAMPLE DEPTH (feet)	4.5 - 5	8.5 - 9	
DATE SAMPLED	10/04/00	10/04/00	

ANALYTE			
1,1,1,2-Tetrachloroethane	<7.3	<7.2	
1,1,1-Trichloroethane	<7.3	<7.2	
1,1,2,2-Tetrachloroethane	<7.3	<7.2	
1,1,2-Trichloroethane	<7.3	<7.2	
1,1-Dichloroethane	<7.3	<7.2	
1,1-Dichloroethene	**22**	<7.2	
1,1-Dichloropropene	<7.3	<7.2	
1,2,3-Trichlorobenzene	<7.3	<7.2	
1,2,3-Trichloropropane	<7.3	<7.2	
1,2,4-Trichlorobenzene	<7.3	<7.2	
1,2,4-Trimethylbenzene	**1800**	**18**	
1,2-Dibromo-3-Chloropropane	<7.3	<7.2	
1,2-Dibromoethane	<7.3	<7.2	
1,2-Dichlorobenzene	<7.3	<7.2	
1,2-Dichloroethane	<7.3	<7.2	
1,2-Dichloropropane	<7.3	<7.2	
1,3,5-Trimethylbenzene	<7.3	<7.2	
1,3-Dichlorobenzene	<7.3	<7.2	
1,3-Dichloropropane	<7.3	<7.2	
1,4-Dichlorobenzene	<7.3	<7.2	
2,2-Dichloropropane	<7.3	<7.2	
2-Butanone	<15	<14	
2-Chlorotoluene	<7.3	<7.2	
2-Hexanone	<15	<14	
4-Chlorotoluene	<7.3	<7.2	
Acetone	<15	**12**	
Benzene	**28**	<7.2	
Bromobenzene	<7.3	<7.2	
Bromochloromethane	<7.3	<7.2	
Bromodichloromethane	<7.3	<7.2	
Bromoform	<7.3	<7.2	
Bromomethane	<15	<14	
Carbon Disulfide	<7.3	<7.2	
Carbon Tetrachloride	<7.3	<7.2	
Chlorobenzene	<7.3	<7.2	
Chloroethane	<15	<14	
Chloroform	<7.3	<7.2	
Chloromethane	<15	<14	
cis-1,2-Dichloroethene	**830**	**130**	
Dibromochloromethane	<7.3	<7.2	
Dibromomethane	<7.3	<7.2	
Dichlorodifluoromethane	<7.3	<7.2	
Ethylbenzene	**71**	<7.2	
Hexachlorobutadiene	<7.3	<7.2	
Isopropylbenzene	**71**	**2.5**	
m,p-Xylenes	**120**	<7.2	
Methyl Isobutyl Ketone	<15	<14	
Methyl tert-Butyl Ether	<7.3	<7.2	
Methylene Chloride	**45**	**35**	
n-Butylbenzene	<7.3	<7.2	
n-Propylbenzene	<7.3	<7.2	
Naphthalene	**180**	**19**	
o-Xylene	**64**	**2.4**	
p-Isopropyltoluene	**110**	**5.6**	
sec-Butylbenzene	**38**	<7.2	
Styrene	<7.3	<7.2	
tert-Butylbenzene	<7.3	<7.2	
Tetrachloroethene	**9.8**	<7.2	
Toluene	**43**	<7.2	
trans-1,2-Dichloroethene	**580**	**74**	
Trichloroethene	**18000**	**1300**	
Trichlorofluoromethane	<7.3	<7.2	
Vinyl Chloride	**29**	**40**	

Percent Solids (percent)	74.2%	79.2%	
Total Organic Carbon (percent)	0.166%	0.282%	

Soil / Soil Gas Treatability Study. Hunters Point, project number 820425

SAMPLE LOCATION IR25SG058 MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0040R055	0040R056	
SAMPLE DEPTH (feet)	4.5 - 5	8.5 - 9	
DATE SAMPLED	10/04/00	10/04/00	

ANALYTE			
1,1,1,2-Tetrachloroethane	<7.4	<6.2	
1,1,1-Trichloroethane	<7.4	<6.2	
1,1,2,2-Tetrachloroethane	<7.4	<6.2	
1,1,2-Trichloroethane	<7.4	<6.2	
1,1-Dichloroethane	<7.4	<6.2	
1,1-Dichloroethene	**9.5**	<6.2	
1,1-Dichloropropene	<7.4	<6.2	
1,2,3-Trichlorobenzene	<7.4	<6.2	
1,2,3-Trichloropropane	<7.4	<6.2	
1,2,4-Trichlorobenzene	<7.4	<6.2	
1,2,4-Trimethylbenzene	**12000**	**2.1**	
1,2-Dibromo-3-Chloropropane	<7.4	<6.2	
1,2-Dibromoethane	<7.4	<6.2	
1,2-Dichlorobenzene	<7.4	<6.2	
1,2-Dichloroethane	<7.4	<6.2	
1,2-Dichloropropane	<7.4	<6.2	
1,3,5-Trimethylbenzene	**200**	<6.2	
1,3-Dichlorobenzene	<7.4	<6.2	
1,3-Dichloropropane	<7.4	<6.2	
1,4-Dichlorobenzene	<7.4	<6.2	
2,2-Dichloropropane	<7.4	<6.2	
2-Butanone	<15	<12	
2-Chlorotoluene	<7.4	<6.2	
2-Hexanone	<15	<12	
4-Chlorotoluene	<7.4	<6.2	
Acetone	<15	<12	
Benzene	**160**	<6.2	
Bromobenzene	<7.4	<6.2	
Bromochloromethane	<7.4	<6.2	
Bromodichloromethane	<7.4	<6.2	
Bromoform	<7.4	<6.2	
Bromomethane	<15	<12	
Carbon Disulfide	<7.4	<6.2	
Carbon Tetrachloride	<7.4	<6.2	
Chlorobenzene	<7.4	<6.2	
Chloroethane	<15	<12	
Chloroform	<7.4	<6.2	
Chloromethane	<15	<12	
cis-1,2-Dichloroethene	**760**	**21**	
Dibromochloromethane	<7.4	<6.2	
Dibromomethane	<7.4	<6.2	
Dichlorodifluoromethane	<7.4	<6.2	
Ethylbenzene	**3100**	<6.2	
Hexachlorobutadiene	<7.4	<6.2	
Isopropylbenzene	**72**	<6.2	
m,p-Xylenes	**8700**	<6.2	
Methyl Isobutyl Ketone	<15	<12	
Methyl tert-Butyl Ether	<7.4	<6.2	
Methylene Chloride	<7.4	**31**	
n-Butylbenzene	<7.4	<6.2	
n-Propylbenzene	**130**	<6.2	
Naphthalene	**13000**	**8.8**	
o-Xylene	**3200**	<6.2	
p-Isopropyltoluene	**180**	<6.2	
sec-Butylbenzene	<7.4	<6.2	
Styrene	<7.4	<6.2	
tert-Butylbenzene	<7.4	<6.2	
Tetrachloroethene	**13**	<6.2	
Toluene	**150**	<6.2	
trans-1,2-Dichloroethene	**900**	**32**	
Trichloroethene	**64000**	**63**	
Trichlorofluoromethane	<7.4	<6.2	
Vinyl Chloride	<15	**7.2**	

Percent Solids (percent)	90.8%	71.0%	
Total Organic Carbon (percent)	0.223%	0.189%	

Soil / Soil Gas Treatability Study. Hunters Point, project number 820425

SAMPLE LOCATION IR25SG059 MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0040R051	0040R052	
SAMPLE DEPTH (feet)	2.5 - 3	8 - 8.5	
DATE SAMPLED	10/04/00	10/04/00	

ANALYTE			
1,1,1,2-Tetrachloroethane	<6.1	<6.8	
1,1,1-Trichloroethane	<6.1	<6.8	
1,1,2,2-Tetrachloroethane	<6.1	<6.8	
1,1,2-Trichloroethane	<6.1	<6.8	
1,1-Dichloroethane	<6.1	<6.8	
1,1-Dichloroethene	<6.1	**4.1**	
1,1-Dichloropropene	<6.1	<6.8	
1,2,3-Trichlorobenzene	<6.1	<6.8	
1,2,3-Trichloropropane	<6.1	<6.8	
1,2,4-Trichlorobenzene	<6.1	<6.8	
1,2,4-Trimethylbenzene	<6.1	**220**	
1,2-Dibromo-3-Chloropropane	<6.1	<6.8	
1,2-Dibromoethane	<6.1	<6.8	
1,2-Dichlorobenzene	<6.1	<6.8	
1,2-Dichloroethane	<6.1	<6.8	
1,2-Dichloropropane	<6.1	<6.8	
1,3,5-Trimethylbenzene	<6.1	**100**	
1,3-Dichlorobenzene	<6.1	<6.8	
1,3-Dichloropropane	<6.1	<6.8	
1,4-Dichlorobenzene	<6.1	<6.8	
2,2-Dichloropropane	<6.1	<6.8	
2-Butanone	<12	<14	
2-Chlorotoluene	<6.1	<6.8	
2-Hexanone	<12	<14	
4-Chlorotoluene	<6.1	<6.8	
Acetone	<12	<14	
Benzene	<6.1	<6.8	
Bromobenzene	<6.1	<6.8	
Bromochloromethane	<6.1	<6.8	
Bromodichloromethane	<6.1	<6.8	
Bromoform	<6.1	<6.8	
Bromomethane	<12	<14	
Carbon Disulfide	<6.1	**2.3**	
Carbon Tetrachloride	<6.1	<6.8	
Chlorobenzene	<6.1	<6.8	
Chloroethane	<12	<14	
Chloroform	<6.1	<6.8	
Chloromethane	<12	<14	
cis-1,2-Dichloroethene	<6.1	**32**	
Dibromochloromethane	<6.1	<6.8	
Dibromomethane	<6.1	<6.8	
Dichlorodifluoromethane	<6.1	<6.8	
Ethylbenzene	<6.1	**44**	
Hexachlorobutadiene	<6.1	<6.8	
Isopropylbenzene	<6.1	**28**	
m,p-Xylenes	<6.1	**30**	
Methyl Isobutyl Ketone	<12	<14	
Methyl tert-Butyl Ether	<6.1	<6.8	
Methylene Chloride	**30**	**36**	
n-Butylbenzene	<6.1	<6.8	
n-Propylbenzene	<6.1	**51**	
Naphthalene	<6.1	**270**	
o-Xylene	<6.1	**19**	
p-Isopropyltoluene	<6.1	**110**	
sec-Butylbenzene	<6.1	<6.8	
Styrene	<6.1	<6.8	
tert-Butylbenzene	<6.1	<6.8	
Tetrachloroethene	<6.1	<6.8	
Toluene	<6.1	<6.8	
trans-1,2-Dichloroethene	<6.1	**30**	
Trichloroethene	**49**	**2500**	
Trichlorofluoromethane	<6.1	<6.8	
Vinyl Chloride	<12	<14	

Percent Solids (percent)	85.4%	84.0%	
Total Organic Carbon (percent)	0.260%	0.233%	

Soil / Soil Gas Treatability Study. Hunters Point, project number 820425

SAMPLE LOCATION IR25SG060 MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0040R070	0040R071	
SAMPLE DEPTH (feet)	8.5 - 9	8 - 8.5	
DATE SAMPLED	10/05/00	10/05/00	

ANALYTE			
1,1,1,2-Tetrachloroethane	<6.4	<5.9	
1,1,1-Trichloroethane	<6.4	<5.9	
1,1,2,2-Tetrachloroethane	<6.4	<5.9	
1,1,2-Trichloroethane	<6.4	<5.9	
1,1-Dichloroethane	<6.4	<5.9	
1,1-Dichloroethene	<6.4	<5.9	
1,1-Dichloropropene	<6.4	<5.9	
1,2,3-Trichlorobenzene	<6.4	<5.9	
1,2,3-Trichloropropane	<6.4	<5.9	
1,2,4-Trichlorobenzene	<6.4	<5.9	
1,2,4-Trimethylbenzene	<6.4	<5.9	
1,2-Dibromo-3-Chloropropane	<6.4	<5.9	
1,2-Dibromoethane	<6.4	<5.9	
1,2-Dichlorobenzene	<6.4	<5.9	
1,2-Dichloroethane	<6.4	<5.9	
1,2-Dichloropropane	<6.4	<5.9	
1,3,5-Trimethylbenzene	<6.4	<5.9	
1,3-Dichlorobenzene	<6.4	<5.9	
1,3-Dichloropropane	<6.4	<5.9	
1,4-Dichlorobenzene	<6.4	<5.9	
2,2-Dichloropropane	<6.4	<5.9	
2-Butanone	<13	<12	
2-Chlorotoluene	<6.4	<5.9	
2-Hexanone	<13	<12	
4-Chlorotoluene	<6.4	<5.9	
Acetone	**7.1**	**16**	
Benzene	<6.4	<5.9	
Bromobenzene	<6.4	<5.9	
Bromochloromethane	<6.4	<5.9	
Bromodichloromethane	<6.4	<5.9	
Bromoform	<6.4	<5.9	
Bromomethane	<13	<12	
Carbon Disulfide	<6.4	<5.9	
Carbon Tetrachloride	<6.4	<5.9	
Chlorobenzene	<6.4	<5.9	
Chloroethane	<13	<12	
Chloroform	<6.4	<5.9	
Chloromethane	<13	<12	
cis-1,2-Dichloroethene	**17**	**6.5**	
Dibromochloromethane	<6.4	<5.9	
Dibromomethane	<6.4	<5.9	
Dichlorodifluoromethane	<6.4	<5.9	
Ethylbenzene	<6.4	<5.9	
Hexachlorobutadiene	<6.4	<5.9	
Isopropylbenzene	<6.4	<5.9	
m,p-Xylenes	<6.4	<5.9	
Methyl Isobutyl Ketone	<13	<12	
Methyl tert-Butyl Ether	<6.4	<5.9	
Methylene Chloride	**22**	**24**	
n-Butylbenzene	<6.4	<5.9	
n-Propylbenzene	<6.4	<5.9	
Naphthalene	<6.4	<5.9	
o-Xylene	<6.4	<5.9	
p-Isopropyltoluene	<6.4	<5.9	
sec-Butylbenzene	<6.4	<5.9	
Styrene	<6.4	<5.9	
tert-Butylbenzene	<6.4	<5.9	
Tetrachloroethene	<6.4	<5.9	
Toluene	<6.4	<5.9	
trans-1,2-Dichloroethene	**4.5**	**2.6**	
Trichloroethene	**13**	**43**	
Trichlorofluoromethane	<6.4	<5.9	
Vinyl Chloride	<13	<12	

Percent Solids (percent)	77.9%	84.9%	
Total Organic Carbon (percent)	0.233%	0.293%	

Soil / Soil Gas Treatability Study. Hunters Point, project number 820425

SAMPLE LOCATION IR25SG061 MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0040R072	0040R073	
SAMPLE DEPTH (feet)	4.5 - 5	8.5 - 9	
DATE SAMPLED	10/05/00	10/05/00	

ANALYTE			
1,1,1,2-Tetrachloroethane	<6.0	<5.7	
1,1,1-Trichloroethane	<6.0	<5.7	
1,1,2,2-Tetrachloroethane	<6.0	<5.7	
1,1,2-Trichloroethane	<6.0	<5.7	
1,1-Dichloroethane	<6.0	<5.7	
1,1-Dichloroethene	<6.0	<5.7	
1,1-Dichloropropene	<6.0	<5.7	
1,2,3-Trichlorobenzene	<6.0	<5.7	
1,2,3-Trichloropropane	<6.0	<5.7	
1,2,4-Trichlorobenzene	<6.0	<5.7	
1,2,4-Trimethylbenzene	**8.5**	<5.7	
1,2-Dibromo-3-Chloropropane	<6.0	<5.7	
1,2-Dibromoethane	<6.0	<5.7	
1,2-Dichlorobenzene	<6.0	<5.7	
1,2-Dichloroethane	<6.0	<5.7	
1,2-Dichloropropane	<6.0	<5.7	
1,3,5-Trimethylbenzene	**14**	<5.7	
1,3-Dichlorobenzene	<6.0	<5.7	
1,3-Dichloropropane	<6.0	<5.7	
1,4-Dichlorobenzene	<6.0	<5.7	
2,2-Dichloropropane	<6.0	<5.7	
2-Butanone	<12	**9.4**	
2-Chlorotoluene	<6.0	<5.7	
2-Hexanone	<12	<11	
4-Chlorotoluene	<6.0	<5.7	
Acetone	**43**	**32**	
Benzene	<6.0	<5.7	
Bromobenzene	<6.0	<5.7	
Bromochloromethane	<6.0	<5.7	
Bromodichloromethane	<6.0	<5.7	
Bromoform	<6.0	<5.7	
Bromomethane	<12	<11	
Carbon Disulfide	<6.0	**2.3**	
Carbon Tetrachloride	<6.0	<5.7	
Chlorobenzene	<6.0	<5.7	
Chloroethane	<12	<11	
Chloroform	<6.0	<5.7	
Chloromethane	<12	<11	
cis-1,2-Dichloroethene	**4.3**	**5.2**	
Dibromochloromethane	<6.0	<5.7	
Dibromomethane	<6.0	<5.7	
Dichlorodifluoromethane	<6.0	<5.7	
Ethylbenzene	<6.0	<5.7	
Hexachlorobutadiene	<6.0	<5.7	
Isopropylbenzene	**2.1**	<5.7	
m,p-Xylenes	<6.0	<5.7	
Methyl Isobutyl Ketone	<12	<11	
Methyl tert-Butyl Ether	<6.0	<5.7	
Methylene Chloride	**22**	**21**	
n-Butylbenzene	<6.0	<5.7	
n-Propylbenzene	<6.0	<5.7	
Naphthalene	<6.0	<5.7	
o-Xylene	<6.0	<5.7	
p-Isopropyltoluene	**19**	<5.7	
sec-Butylbenzene	<6.0	<5.7	
Styrene	<6.0	<5.7	
tert-Butylbenzene	<6.0	<5.7	
Tetrachloroethene	<6.0	<5.7	
Toluene	**2.4**	<5.7	
trans-1,2-Dichloroethene	<6.0	<5.7	
Trichloroethene	**38**	<5.7	
Trichlorofluoromethane	<6.0	<5.7	
Vinyl Chloride	<12	<11	

Percent Solids (percent)	83.6%	87.6%	
Total Organic Carbon (percent)	0.261%	0.213%	

Soil / Soil Gas Treatability Study. Hunters Point, project number 820425

SAMPLE LOCATION IR25SG062 MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0040R053	0040R054	
SAMPLE DEPTH (feet)	2.5 - 3	8.5 - 9	
DATE SAMPLED	10/04/00	10/04/00	

ANALYTE			
1,1,1,2-Tetrachloroethane	<6.3	<5.1	
1,1,1-Trichloroethane	<6.3	<5.1	
1,1,2,2-Tetrachloroethane	<6.3	<5.1	
1,1,2-Trichloroethane	<6.3	<5.1	
1,1-Dichloroethane	<6.3	<5.1	
1,1-Dichloroethene	<6.3	<5.1	
1,1-Dichloropropene	<6.3	<5.1	
1,2,3-Trichlorobenzene	<6.3	<5.1	
1,2,3-Trichloropropane	<6.3	<5.1	
1,2,4-Trichlorobenzene	<6.3	<5.1	
1,2,4-Trimethylbenzene	<6.3	<5.1	
1,2-Dibromo-3-Chloropropane	<6.3	<5.1	
1,2-Dibromoethane	<6.3	<5.1	
1,2-Dichlorobenzene	<6.3	<5.1	
1,2-Dichloroethane	<6.3	<5.1	
1,2-Dichloropropane	<6.3	<5.1	
1,3,5-Trimethylbenzene	<6.3	<5.1	
1,3-Dichlorobenzene	<6.3	<5.1	
1,3-Dichloropropane	<6.3	<5.1	
1,4-Dichlorobenzene	<6.3	<5.1	
2,2-Dichloropropane	<6.3	<5.1	
2-Butanone	<13	<10	
2-Chlorotoluene	<6.3	<5.1	
2-Hexanone	<13	<10	
4-Chlorotoluene	<6.3	<5.1	
Acetone	<13	<10	
Benzene	<6.3	<5.1	
Bromobenzene	<6.3	<5.1	
Bromochloromethane	<6.3	<5.1	
Bromodichloromethane	<6.3	<5.1	
Bromoform	<6.3	<5.1	
Bromomethane	<13	<10	
Carbon Disulfide	<6.3	<5.1	
Carbon Tetrachloride	<6.3	<5.1	
Chlorobenzene	<6.3	<5.1	
Chloroethane	<13	<10	
Chloroform	<6.3	<5.1	
Chloromethane	<13	<10	
cis-1,2-Dichloroethene	**4.4**	**2.1**	
Dibromochloromethane	<6.3	<5.1	
Dibromomethane	<6.3	<5.1	
Dichlorodifluoromethane	<6.3	<5.1	
Ethylbenzene	<6.3	<5.1	
Hexachlorobutadiene	<6.3	<5.1	
Isopropylbenzene	<6.3	<5.1	
m,p-Xylenes	<6.3	<5.1	
Methyl Isobutyl Ketone	<13	<10	
Methyl tert-Butyl Ether	<6.3	<5.1	
Methylene Chloride	**22**	**22**	
n-Butylbenzene	<6.3	<5.1	
n-Propylbenzene	<6.3	<5.1	
Naphthalene	**5.1**	<5.1	
o-Xylene	<6.3	<5.1	
p-Isopropyltoluene	<6.3	<5.1	
sec-Butylbenzene	<6.3	<5.1	
Styrene	<6.3	<5.1	
tert-Butylbenzene	<6.3	<5.1	
Tetrachloroethene	<6.3	<5.1	
Toluene	<6.3	<5.1	
trans-1,2-Dichloroethene	**2.5**	<5.1	
Trichloroethene	**54**	**2.0**	
Trichlorofluoromethane	<6.3	<5.1	
Vinyl Chloride	<13	<10	

Percent Solids (percent)	86.2%	81.8%	
Total Organic Carbon (percent)	0.289%	0.252%	

Soil / Soil Gas Treatability Study. Hunters Point, project number 820425

SAMPLE LOCATION IR25SG063 MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0041R097	0041R098	
SAMPLE DEPTH (feet)	9 - 9.5	9 - 9.5	
DATE SAMPLED	10/10/00	10/10/00	

ANALYTE			
1,1,1,2-Tetrachloroethane	<5.4	<6.4	
1,1,1-Trichloroethane	<5.4	<6.4	
1,1,2,2-Tetrachloroethane	<5.4	<6.4	
1,1,2-Trichloroethane	<5.4	<6.4	
1,1-Dichloroethane	<5.4	<6.4	
1,1-Dichloroethene	<5.4	<6.4	
1,1-Dichloropropene	<5.4	<6.4	
1,2,3-Trichlorobenzene	<5.4	<6.4	
1,2,3-Trichloropropane	<5.4	<6.4	
1,2,4-Trichlorobenzene	<5.4	<6.4	
1,2,4-Trimethylbenzene	<5.4	<6.4	
1,2-Dibromo-3-Chloropropane	<5.4	<6.4	
1,2-Dibromoethane	<5.4	<6.4	
1,2-Dichlorobenzene	<5.4	<6.4	
1,2-Dichloroethane	<5.4	<6.4	
1,2-Dichloropropane	<5.4	<6.4	
1,3,5-Trimethylbenzene	<5.4	<6.4	
1,3-Dichlorobenzene	<5.4	<6.4	
1,3-Dichloropropane	<5.4	<6.4	
1,4-Dichlorobenzene	<5.4	<6.4	
2,2-Dichloropropane	<5.4	<6.4	
2-Butanone	<11	<13	
2-Chlorotoluene	<5.4	<6.4	
2-Hexanone	<11	<13	
4-Chlorotoluene	<5.4	<6.4	
Acetone	<11	<13	
Benzene	<5.4	<6.4	
Bromobenzene	<5.4	<6.4	
Bromochloromethane	<5.4	<6.4	
Bromodichloromethane	<5.4	<6.4	
Bromoform	<5.4	<6.4	
Bromomethane	<11	<13	
Carbon Disulfide	<5.4	<6.4	
Carbon Tetrachloride	<5.4	<6.4	
Chlorobenzene	<5.4	<6.4	
Chloroethane	<11	<13	
Chloroform	<5.4	<6.4	
Chloromethane	<11	<13	
cis-1,2-Dichloroethene	<5.4	<6.4	
Dibromochloromethane	<5.4	<6.4	
Dibromomethane	<5.4	<6.4	
Dichlorodifluoromethane	<5.4	<6.4	
Ethylbenzene	<5.4	<6.4	
Hexachlorobutadiene	<5.4	<6.4	
Isopropylbenzene	<5.4	<6.4	
m,p-Xylenes	<5.4	<6.4	
Methyl Isobutyl Ketone	<11	<13	
Methyl tert-Butyl Ether	<5.4	<6.4	
Methylene Chloride	**2.5**	**3.4**	
n-Butylbenzene	<5.4	<6.4	
n-Propylbenzene	<5.4	<6.4	
Naphthalene	<5.4	<6.4	
o-Xylene	<5.4	<6.4	
p-Isopropyltoluene	<5.4	<6.4	
sec-Butylbenzene	<5.4	<6.4	
Styrene	<5.4	<6.4	
tert-Butylbenzene	<5.4	<6.4	
Tetrachloroethene	**2.2**	**2.7**	
Toluene	<5.4	<6.4	
trans-1,2-Dichloroethene	<5.4	<6.4	
Trichloroethene	**2.9**	**4.1**	
Trichlorofluoromethane	<5.4	<6.4	
Vinyl Chloride	<11	<13	

Percent Solids (percent)	84.7%	-	
Total Organic Carbon (percent)	0.086%	-	

Soil / Soil Gas Treatability Study. Hunters Point, project number 820425

SAMPLE LOCATION IR25SG064 MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0041R100		
SAMPLE DEPTH (feet)	8.5 - 9		
DATE SAMPLED	10/10/00		

ANALYTE			
1,1,1,2-Tetrachloroethane	<4.9		
1,1,1-Trichloroethane	<4.9		
1,1,2,2-Tetrachloroethane	<4.9		
1,1,2-Trichloroethane	<4.9		
1,1-Dichloroethane	<4.9		
1,1-Dichloroethene	<4.9		
1,1-Dichloropropene	<4.9		
1,2,3-Trichlorobenzene	<4.9		
1,2,3-Trichloropropane	<4.9		
1,2,4-Trichlorobenzene	<4.9		
1,2,4-Trimethylbenzene	<4.9		
1,2-Dibromo-3-Chloropropane	<4.9		
1,2-Dibromoethane	<4.9		
1,2-Dichlorobenzene	**2.7**		
1,2-Dichloroethane	<4.9		
1,2-Dichloropropane	<4.9		
1,3,5-Trimethylbenzene	<4.9		
1,3-Dichlorobenzene	<4.9		
1,3-Dichloropropane	<4.9		
1,4-Dichlorobenzene	<4.9		
2,2-Dichloropropane	<4.9		
2-Butanone	<9.8		
2-Chlorotoluene	<4.9		
2-Hexanone	<9.8		
4-Chlorotoluene	<4.9		
Acetone	<9.8		
Benzene	<4.9		
Bromobenzene	<4.9		
Bromochloromethane	<4.9		
Bromodichloromethane	<4.9		
Bromoform	<4.9		
Bromomethane	<9.8		
Carbon Disulfide	<4.9		
Carbon Tetrachloride	<4.9		
Chlorobenzene	<4.9		
Chloroethane	<9.8		
Chloroform	<4.9		
Chloromethane	<9.8		
cis-1,2-Dichloroethene	<4.9		
Dibromochloromethane	<4.9		
Dibromomethane	<4.9		
Dichlorodifluoromethane	<4.9		
Ethylbenzene	<4.9		
Hexachlorobutadiene	<4.9		
Isopropylbenzene	<4.9		
m,p-Xylenes	<4.9		
Methyl Isobutyl Ketone	<9.8		
Methyl tert-Butyl Ether	<4.9		
Methylene Chloride	**2.9**		
n-Butylbenzene	<4.9		
n-Propylbenzene	<4.9		
Naphthalene	<4.9		
o-Xylene	<4.9		
p-Isopropyltoluene	<4.9		
sec-Butylbenzene	<4.9		
Styrene	<4.9		
tert-Butylbenzene	<4.9		
Tetrachloroethene	<4.9		
Toluene	<4.9		
trans-1,2-Dichloroethene	<4.9		
Trichloroethene	<4.9		
Trichlorofluoromethane	<4.9		
Vinyl Chloride	<9.8		

Percent Solids (percent)	82.5%		
Total Organic Carbon (percent)	0.232%		

Soil / Soil Gas Treatability Study. Hunters Point, project number 820425

SAMPLE LOCATION IR25SG065 MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0041R102	0041R103	
SAMPLE DEPTH (feet)	8.5 - 9	8 - 8.5	
DATE SAMPLED	10/10/00	10/10/00	

ANALYTE			
1,1,1,2-Tetrachloroethane	<4.3	<3.4	
1,1,1-Trichloroethane	<4.3	<3.4	
1,1,2,2-Tetrachloroethane	<4.3	<3.4	
1,1,2-Trichloroethane	<4.3	<3.4	
1,1-Dichloroethane	<4.3	<3.4	
1,1-Dichloroethene	<4.3	<3.4	
1,1-Dichloropropene	<4.3	<3.4	
1,2,3-Trichlorobenzene	<4.3	<3.4	
1,2,3-Trichloropropane	<4.3	<3.4	
1,2,4-Trichlorobenzene	<4.3	<3.4	
1,2,4-Trimethylbenzene	<4.3	<3.4	
1,2-Dibromo-3-Chloropropane	<4.3	<3.4	
1,2-Dibromoethane	<4.3	<3.4	
1,2-Dichlorobenzene	<4.3	<3.4	
1,2-Dichloroethane	<4.3	<3.4	
1,2-Dichloropropane	<4.3	<3.4	
1,3,5-Trimethylbenzene	<4.3	<3.4	
1,3-Dichlorobenzene	<4.3	<3.4	
1,3-Dichloropropane	<4.3	<3.4	
1,4-Dichlorobenzene	<4.3	<3.4	
2,2-Dichloropropane	<4.3	<3.4	
2-Butanone	<8.6	<6.8	
2-Chlorotoluene	<4.3	<3.4	
2-Hexanone	<8.6	<6.8	
4-Chlorotoluene	<4.3	<3.4	
Acetone	**47**	**39**	
Benzene	<4.3	<3.4	
Bromobenzene	<4.3	<3.4	
Bromochloromethane	<4.3	<3.4	
Bromodichloromethane	<4.3	<3.4	
Bromoform	<4.3	**1.1**	
Bromomethane	<8.6	<6.8	
Carbon Disulfide	<4.3	<3.4	
Carbon Tetrachloride	<4.3	<3.4	
Chlorobenzene	<4.3	<3.4	
Chloroethane	<8.6	<6.8	
Chloroform	<4.3	<3.4	
Chloromethane	<8.6	<6.8	
cis-1,2-Dichloroethene	<4.3	<3.4	
Dibromochloromethane	<4.3	<3.4	
Dibromomethane	<4.3	<3.4	
Dichlorodifluoromethane	<4.3	<3.4	
Ethylbenzene	<4.3	<3.4	
Hexachlorobutadiene	<4.3	<3.4	
Isopropylbenzene	<4.3	<3.4	
m,p-Xylenes	<4.3	<3.4	
Methyl Isobutyl Ketone	<8.6	<6.8	
Methyl tert-Butyl Ether	<4.3	<3.4	
Methylene Chloride	**2.2**	**1.8**	
n-Butylbenzene	<4.3	<3.4	
n-Propylbenzene	<4.3	<3.4	
Naphthalene	<4.3	<3.4	
o-Xylene	<4.3	<3.4	
p-Isopropyltoluene	<4.3	<3.4	
sec-Butylbenzene	<4.3	<3.4	
Styrene	<4.3	<3.4	
tert-Butylbenzene	<4.3	<3.4	
Tetrachloroethene	<4.3	<3.4	
Toluene	<4.3	<3.4	
trans-1,2-Dichloroethene	<4.3	<3.4	
Trichloroethene	<4.3	<3.4	
Trichlorofluoromethane	<4.3	<3.4	
Vinyl Chloride	<8.6	<6.8	

Percent Solids (percent)	83.5%	88.2%	
Total Organic Carbon (percent)	0.250%	0.664%	

Soil / Soil Gas Treatability Study. Hunters Point, project number 820425

SAMPLE LOCATION IR25VW6-03A MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0041R118		
SAMPLE DEPTH (feet)	8.5 - 9		
DATE SAMPLED	10/11/00		

ANALYTE			
1,1,1,2-Tetrachloroethane	<4.3		
1,1,1-Trichloroethane	<4.3		
1,1,2,2-Tetrachloroethane	<4.3		
1,1,2-Trichloroethane	<4.3		
1,1-Dichloroethane	<4.3		
1,1-Dichloroethene	<4.3		
1,1-Dichloropropene	<4.3		
1,2,3-Trichlorobenzene	<4.3		
1,2,3-Trichloropropane	<4.3		
1,2,4-Trichlorobenzene	<4.3		
1,2,4-Trimethylbenzene	<4.3		
1,2-Dibromo-3-Chloropropane	<4.3		
1,2-Dibromoethane	<4.3		
1,2-Dichlorobenzene	<4.3		
1,2-Dichloroethane	<4.3		
1,2-Dichloropropane	<4.3		
1,3,5-Trimethylbenzene	<4.3		
1,3-Dichlorobenzene	<4.3		
1,3-Dichloropropane	<4.3		
1,4-Dichlorobenzene	<4.3		
2,2-Dichloropropane	<4.3		
2-Butanone	<8.5		
2-Chlorotoluene	<4.3		
2-Hexanone	<8.5		
4-Chlorotoluene	<4.3		
Acetone	<8.5		
Benzene	<4.3		
Bromobenzene	<4.3		
Bromochloromethane	<4.3		
Bromodichloromethane	<4.3		
Bromoform	<4.3		
Bromomethane	<8.5		
Carbon Disulfide	**1.8**		
Carbon Tetrachloride	<4.3		
Chlorobenzene	<4.3		
Chloroethane	<8.5		
Chloroform	<4.3		
Chloromethane	<8.5		
cis-1,2-Dichloroethene	<4.3		
Dibromochloromethane	<4.3		
Dibromomethane	<4.3		
Dichlorodifluoromethane	<4.3		
Ethylbenzene	<4.3		
Hexachlorobutadiene	<4.3		
Isopropylbenzene	<4.3		
m,p-Xylenes	<4.3		
Methyl Isobutyl Ketone	<8.5		
Methyl tert-Butyl Ether	<4.3		
Methylene Chloride	**2.3**		
n-Butylbenzene	<4.3		
n-Propylbenzene	<4.3		
Naphthalene	<4.3		
o-Xylene	<4.3		
p-Isopropyltoluene	<4.3		
sec-Butylbenzene	<4.3		
Styrene	<4.3		
tert-Butylbenzene	<4.3		
Tetrachloroethene	**2.9**		
Toluene	<4.3		
trans-1,2-Dichloroethene	<4.3		
Trichloroethene	<4.3		
Trichlorofluoromethane	<4.3		
Vinyl Chloride	<8.5		

Percent Solids (percent)	86.5%		
Total Organic Carbon (percent)	0.265%		

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SAMPLE LOCATION IR25VW6-04A
BUILDING 134

MATRIX soil
UNITS ug/Kg

SAMPLE ID	0041R116		
SAMPLE DEPTH (feet)	8.5 - 9		
DATE SAMPLED	10/11/00		

ANALYTE			
1,1,1,2-Tetrachloroethane	<3.7		
1,1,1-Trichloroethane	<3.7		
1,1,2,2-Tetrachloroethane	<3.7		
1,1,2-Trichloroethane	<3.7		
1,1-Dichloroethane	<3.7		
1,1-Dichloroethene	<3.7		
1,1-Dichloropropene	<3.7		
1,2,3-Trichlorobenzene	<3.7		
1,2,3-Trichloropropane	<3.7		
1,2,4-Trichlorobenzene	<3.7		
1,2,4-Trimethylbenzene	<3.7		
1,2-Dibromo-3-Chloropropane	<3.7		
1,2-Dibromoethane	<3.7		
1,2-Dichlorobenzene	<3.7		
1,2-Dichloroethane	<3.7		
1,2-Dichloropropane	<3.7		
1,3,5-Trimethylbenzene	<3.7		
1,3-Dichlorobenzene	<3.7		
1,3-Dichloropropane	<3.7		
1,4-Dichlorobenzene	<3.7		
2,2-Dichloropropane	<3.7		
2-Butanone	**15**		
2-Chlorotoluene	<3.7		
2-Hexanone	<7.4		
4-Chlorotoluene	<3.7		
Acetone	**56**		
Benzene	<3.7		
Bromobenzene	<3.7		
Bromochloromethane	<3.7		
Bromodichloromethane	<3.7		
Bromoform	<3.7		
Bromomethane	<7.4		
Carbon Disulfide	**2.6**		
Carbon Tetrachloride	<3.7		
Chlorobenzene	<3.7		
Chloroethane	<7.4		
Chloroform	<3.7		
Chloromethane	<7.4		
cis-1,2-Dichloroethene	**11**		
Dibromochloromethane	<3.7		
Dibromomethane	<3.7		
Dichlorodifluoromethane	<3.7		
Ethylbenzene	<3.7		
Hexachlorobutadiene	<3.7		
Isopropylbenzene	<3.7		
m,p-Xylenes	<3.7		
Methyl Isobutyl Ketone	<7.4		
Methyl tert-Butyl Ether	<3.7		
Methylene Chloride	**1.6**		
n-Butylbenzene	<3.7		
n-Propylbenzene	<3.7		
Naphthalene	<3.7		
o-Xylene	<3.7		
p-Isopropyltoluene	<3.7		
sec-Butylbenzene	<3.7		
Styrene	<3.7		
tert-Butylbenzene	<3.7		
Tetrachloroethene	<3.7		
Toluene	<3.7		
trans-1,2-Dichloroethene	<3.7		
Trichloroethene	**2.3**		
Trichlorofluoromethane	<3.7		
Vinyl Chloride	**6.5**		

Percent Solids (percent)	83.9%		
Total Organic Carbon (percent)	0.160%		

SAMPLE LOCATION IR25VW6-05A MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0041R114		
SAMPLE DEPTH (feet)	6.5 - 7		
DATE SAMPLED	10/11/00		

ANALYTE			
1,1,1,2-Tetrachloroethane	<3.9		
1,1,1-Trichloroethane	<3.9		
1,1,2,2-Tetrachloroethane	<3.9		
1,1,2-Trichloroethane	<3.9		
1,1-Dichloroethane	<3.9		
1,1-Dichloroethene	<3.9		
1,1-Dichloropropene	<3.9		
1,2,3-Trichlorobenzene	<3.9		
1,2,3-Trichloropropane	<3.9		
1,2,4-Trichlorobenzene	<3.9		
1,2,4-Trimethylbenzene	<3.9		
1,2-Dibromo-3-Chloropropane	<3.9		
1,2-Dibromoethane	<3.9		
1,2-Dichlorobenzene	<3.9		
1,2-Dichloroethane	<3.9		
1,2-Dichloropropane	<3.9		
1,3,5-Trimethylbenzene	<3.9		
1,3-Dichlorobenzene	<3.9		
1,3-Dichloropropane	<3.9		
1,4-Dichlorobenzene	<3.9		
2,2-Dichloropropane	<3.9		
2-Butanone	**12**		
2-Chlorotoluene	<3.9		
2-Hexanone	<7.8		
4-Chlorotoluene	<3.9		
Acetone	**37**		
Benzene	<3.9		
Bromobenzene	<3.9		
Bromochloromethane	<3.9		
Bromodichloromethane	<3.9		
Bromoform	<3.9		
Bromomethane	<7.8		
Carbon Disulfide	**4.5**		
Carbon Tetrachloride	<3.9		
Chlorobenzene	<3.9		
Chloroethane	<7.8		
Chloroform	<3.9		
Chloromethane	<7.8		
cis-1,2-Dichloroethene	<3.9		
Dibromochloromethane	<3.9		
Dibromomethane	<3.9		
Dichlorodifluoromethane	<3.9		
Ethylbenzene	<3.9		
Hexachlorobutadiene	<3.9		
Isopropylbenzene	<3.9		
m,p-Xylenes	<3.9		
Methyl Isobutyl Ketone	<7.8		
Methyl tert-Butyl Ether	<3.9		
Methylene Chloride	**1.4**		
n-Butylbenzene	<3.9		
n-Propylbenzene	<3.9		
Naphthalene	<3.9		
o-Xylene	<3.9		
p-Isopropyltoluene	<3.9		
sec-Butylbenzene	<3.9		
Styrene	<3.9		
tert-Butylbenzene	<3.9		
Tetrachloroethene	<3.9		
Toluene	<3.9		
trans-1,2-Dichloroethene	<3.9		
Trichloroethene	<3.9		
Trichlorofluoromethane	<3.9		
Vinyl Chloride	<7.8		

Percent Solids (percent)	88.7%		
Total Organic Carbon (percent)	1.330%		

Soil / Soil Gas Treatability Study. Hunters Point, project number 820425

SAMPLE LOCATION IR25VW6-06A MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0041R119	0041R120	
SAMPLE DEPTH (feet)	3.5 - 4	5.5 - 6	
DATE SAMPLED	10/12/00	10/12/00	

ANALYTE			
1,1,1,2-Tetrachloroethane	<8.3	<610	
1,1,1-Trichloroethane	<8.3	<610	
1,1,2,2-Tetrachloroethane	<8.3	<610	
1,1,2-Trichloroethane	<8.3	<610	
1,1-Dichloroethane	<8.3	<610	
1,1-Dichloroethene	<8.3	<610	
1,1-Dichloropropene	<8.3	<610	
1,2,3-Trichlorobenzene	<8.3	**340**	
1,2,3-Trichloropropane	<8.3	<610	
1,2,4-Trichlorobenzene	<8.3	**6700**	
1,2,4-Trimethylbenzene	**4.5**	**2400**	
1,2-Dibromo-3-Chloropropane	<8.3	<610	
1,2-Dibromoethane	<8.3	<610	
1,2-Dichlorobenzene	**100**	**100000**	
1,2-Dichloroethane	<8.3	**4500**	
1,2-Dichloropropane	<8.3	<610	
1,3,5-Trimethylbenzene	<8.3	**660**	
1,3-Dichlorobenzene	<8.3	**9900**	
1,3-Dichloropropane	<8.3	<610	
1,4-Dichlorobenzene	**4500**	**26000**	
2,2-Dichloropropane	<8.3	<610	
2-Butanone	**25**	<1200	
2-Chlorotoluene	<8.3	<610	
2-Hexanone	<17	<1200	
4-Chlorotoluene	<8.3	<610	
Acetone	**57**	<1200	
Benzene	**5.8**	<610	
Bromobenzene	<8.3	<610	
Bromochloromethane	<8.3	<610	
Bromodichloromethane	<8.3	<610	
Bromoform	<8.3	<610	
Bromomethane	<17	<1200	
Carbon Disulfide	<8.3	<610	
Carbon Tetrachloride	<8.3	<610	
Chlorobenzene	**6100**	**1400**	
Chloroethane	<17	<1200	
Chloroform	<8.3	<610	
Chloromethane	<17	<1200	
cis-1,2-Dichloroethene	<8.3	**16000**	
Dibromochloromethane	<8.3	<610	
Dibromomethane	<8.3	<610	
Dichlorodifluoromethane	<8.3	<610	
Ethylbenzene	<8.3	<610	
Hexachlorobutadiene	<8.3	<610	
Isopropylbenzene	<8.3	<610	
m,p-Xylenes	<8.3	**910**	
Methyl Isobutyl Ketone	<17	<1200	
Methyl tert-Butyl Ether	<8.3	<610	
Methylene Chloride	<8.3	**650**	
n-Butylbenzene	<8.3	<610	
n-Propylbenzene	<8.3	<610	
Naphthalene	**3.0**	**5500**	
o-Xylene	<8.3	**550**	
p-Isopropyltoluene	<8.3	**930**	
sec-Butylbenzene	<8.3	<610	
Styrene	<8.3	<610	
tert-Butylbenzene	<8.3	<610	
Tetrachloroethene	<8.3	**140000**	
Toluene	<8.3	**210**	
trans-1,2-Dichloroethene	<8.3	<610	
Trichloroethene	<8.3	**21000**	
Trichlorofluoromethane	<8.3	<610	
Vinyl Chloride	**25**	**410**	

Percent Solids (percent)	84.1%	81.6%	
Total Organic Carbon (percent)	0.246%	0.333%	

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SAMPLE LOCATION IR25VW6-07A MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0041R126		
SAMPLE DEPTH (feet)	5 - 5.5		
DATE SAMPLED	10/12/00		

ANALYTE			
1,1,1,2-Tetrachloroethane	<5.6		
1,1,1-Trichloroethane	<5.6		
1,1,2,2-Tetrachloroethane	<5.6		
1,1,2-Trichloroethane	<5.6		
1,1-Dichloroethane	<5.6		
1,1-Dichloroethene	<5.6		
1,1-Dichloropropene	<5.6		
1,2,3-Trichlorobenzene	<5.6		
1,2,3-Trichloropropane	<5.6		
1,2,4-Trichlorobenzene	<5.6		
1,2,4-Trimethylbenzene	<5.6		
1,2-Dibromo-3-Chloropropane	<5.6		
1,2-Dibromoethane	<5.6		
1,2-Dichlorobenzene	<5.6		
1,2-Dichloroethane	<5.6		
1,2-Dichloropropane	<5.6		
1,3,5-Trimethylbenzene	<5.6		
1,3-Dichlorobenzene	<5.6		
1,3-Dichloropropane	<5.6		
1,4-Dichlorobenzene	<5.6		
2,2-Dichloropropane	<5.6		
2-Butanone	**16**		
2-Chlorotoluene	<5.6		
2-Hexanone	<11		
4-Chlorotoluene	<5.6		
Acetone	**31**		
Benzene	<5.6		
Bromobenzene	<5.6		
Bromochloromethane	<5.6		
Bromodichloromethane	<5.6		
Bromoform	<5.6		
Bromomethane	<11		
Carbon Disulfide	**9.1**		
Carbon Tetrachloride	<5.6		
Chlorobenzene	<5.6		
Chloroethane	<11		
Chloroform	<5.6		
Chloromethane	<11		
cis-1,2-Dichloroethene	<5.6		
Dibromochloromethane	<5.6		
Dibromomethane	<5.6		
Dichlorodifluoromethane	<5.6		
Ethylbenzene	<5.6		
Hexachlorobutadiene	<5.6		
Isopropylbenzene	<5.6		
m,p-Xylenes	<5.6		
Methyl Isobutyl Ketone	<11		
Methyl tert-Butyl Ether	<5.6		
Methylene Chloride	<5.6		
n-Butylbenzene	<5.6		
n-Propylbenzene	<5.6		
Naphthalene	<5.6		
o-Xylene	<5.6		
p-Isopropyltoluene	<5.6		
sec-Butylbenzene	<5.6		
Styrene	<5.6		
tert-Butylbenzene	<5.6		
Tetrachloroethene	<5.6		
Toluene	<5.6		
trans-1,2-Dichloroethene	**1.8**		
Trichloroethene	<5.6		
Trichlorofluoromethane	**2.6**		
Vinyl Chloride	<11		

Percent Solids (percent)	84.9%		
Total Organic Carbon (percent)	0.349%		

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SAMPLE LOCATION IR25VW6-08A MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0041R109		
SAMPLE DEPTH (feet)	8.5 - 9		
DATE SAMPLED	10/11/00		

ANALYTE			
1,1,1,2-Tetrachloroethane	<420		
1,1,1-Trichloroethane	<420		
1,1,2,2-Tetrachloroethane	<420		
1,1,2-Trichloroethane	<420		
1,1-Dichloroethane	<420		
1,1-Dichloroethene	<420		
1,1-Dichloropropene	<420		
1,2,3-Trichlorobenzene	<420		
1,2,3-Trichloropropane	<420		
1,2,4-Trichlorobenzene	<420		
1,2,4-Trimethylbenzene	<420		
1,2-Dibromo-3-Chloropropane	<420		
1,2-Dibromoethane	<420		
1,2-Dichlorobenzene	<420		
1,2-Dichloroethane	**8500**		
1,2-Dichloropropane	<420		
1,3,5-Trimethylbenzene	<420		
1,3-Dichlorobenzene	<420		
1,3-Dichloropropane	<420		
1,4-Dichlorobenzene	<420		
2,2-Dichloropropane	<420		
2-Butanone	<840		
2-Chlorotoluene	<420		
2-Hexanone	<840		
4-Chlorotoluene	<420		
Acetone	<840		
Benzene	<420		
Bromobenzene	<420		
Bromochloromethane	<420		
Bromodichloromethane	<420		
Bromoform	<420		
Bromomethane	<840		
Carbon Disulfide	<420		
Carbon Tetrachloride	<420		
Chlorobenzene	<420		
Chloroethane	<840		
Chloroform	<420		
Chloromethane	<840		
cis-1,2-Dichloroethene	<420		
Dibromochloromethane	<420		
Dibromomethane	<420		
Dichlorodifluoromethane	<420		
Ethylbenzene	<420		
Hexachlorobutadiene	<420		
Isopropylbenzene	<420		
m,p-Xylenes	<420		
Methyl Isobutyl Ketone	<840		
Methyl tert-Butyl Ether	<420		
Methylene Chloride	**260**		
n-Butylbenzene	<420		
n-Propylbenzene	<420		
Naphthalene	<420		
o-Xylene	<420		
p-Isopropyltoluene	<420		
sec-Butylbenzene	<420		
Styrene	<420		
tert-Butylbenzene	<420		
Tetrachloroethene	<420		
Toluene	<420		
trans-1,2-Dichloroethene	<420		
Trichloroethene	<420		
Trichlorofluoromethane	**1100**		
Vinyl Chloride	<840		

Percent Solids (percent)	83.8%		
Total Organic Carbon (percent)	0.301%		

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SAMPLE LOCATION IR25VW6-09A MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0041R092		
SAMPLE DEPTH (feet)	9 - 9.5		
DATE SAMPLED	10/10/00		

ANALYTE			
1,1,1,2-Tetrachloroethane	<6.1		
1,1,1-Trichloroethane	<6.1		
1,1,2,2-Tetrachloroethane	<6.1		
1,1,2-Trichloroethane	<6.1		
1,1-Dichloroethane	<6.1		
1,1-Dichloroethene	<6.1		
1,1-Dichloropropene	<6.1		
1,2,3-Trichlorobenzene	<6.1		
1,2,3-Trichloropropane	<6.1		
1,2,4-Trichlorobenzene	<6.1		
1,2,4-Trimethylbenzene	<6.1		
1,2-Dibromo-3-Chloropropane	<6.1		
1,2-Dibromoethane	<6.1		
1,2-Dichlorobenzene	**4.9**		
1,2-Dichloroethane	<6.1		
1,2-Dichloropropane	<6.1		
1,3,5-Trimethylbenzene	<6.1		
1,3-Dichlorobenzene	<6.1		
1,3-Dichloropropane	<6.1		
1,4-Dichlorobenzene	<6.1		
2,2-Dichloropropane	<6.1		
2-Butanone	<12		
2-Chlorotoluene	<6.1		
2-Hexanone	<12		
4-Chlorotoluene	<6.1		
Acetone	**110**		
Benzene	<6.1		
Bromobenzene	<6.1		
Bromochloromethane	<6.1		
Bromodichloromethane	<6.1		
Bromoform	<6.1		
Bromomethane	<12		
Carbon Disulfide	**24**		
Carbon Tetrachloride	<6.1		
Chlorobenzene	<6.1		
Chloroethane	<12		
Chloroform	<6.1		
Chloromethane	<12		
cis-1,2-Dichloroethene	**280**		
Dibromochloromethane	<6.1		
Dibromomethane	<6.1		
Dichlorodifluoromethane	<6.1		
Ethylbenzene	<6.1		
Hexachlorobutadiene	<6.1		
Isopropylbenzene	<6.1		
m,p-Xylenes	<6.1		
Methyl Isobutyl Ketone	<12		
Methyl tert-Butyl Ether	<6.1		
Methylene Chloride	**3.5**		
n-Butylbenzene	<6.1		
n-Propylbenzene	<6.1		
Naphthalene	<6.1		
o-Xylene	<6.1		
p-Isopropyltoluene	<6.1		
sec-Butylbenzene	<6.1		
Styrene	<6.1		
tert-Butylbenzene	<6.1		
Tetrachloroethene	<6.1		
Toluene	<6.1		
trans-1,2-Dichloroethene	**46**		
Trichloroethene	**2.1**		
Trichlorofluoromethane	<6.1		
Vinyl Chloride	**52**		

Percent Solids (percent)	81.7%		
Total Organic Carbon (percent)	0.274%		

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SAMPLE LOCATION IR25VW6-10A MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0041R105		
SAMPLE DEPTH (feet)	6.5 - 7		
DATE SAMPLED	10/10/00		

ANALYTE			
1,1,1,2-Tetrachloroethane	<5.4		
1,1,1-Trichloroethane	<5.4		
1,1,2,2-Tetrachloroethane	<5.4		
1,1,2-Trichloroethane	<5.4		
1,1-Dichloroethane	<5.4		
1,1-Dichloroethene	<5.4		
1,1-Dichloropropene	<5.4		
1,2,3-Trichlorobenzene	<5.4		
1,2,3-Trichloropropane	<5.4		
1,2,4-Trichlorobenzene	<5.4		
1,2,4-Trimethylbenzene	**3.1**		
1,2-Dibromo-3-Chloropropane	<5.4		
1,2-Dibromoethane	<5.4		
1,2-Dichlorobenzene	<5.4		
1,2-Dichloroethane	<5.4		
1,2-Dichloropropane	<5.4		
1,3,5-Trimethylbenzene	<5.4		
1,3-Dichlorobenzene	<5.4		
1,3-Dichloropropane	<5.4		
1,4-Dichlorobenzene	<5.4		
2,2-Dichloropropane	<5.4		
2-Butanone	<11		
2-Chlorotoluene	<5.4		
2-Hexanone	<11		
4-Chlorotoluene	<5.4		
Acetone	<11		
Benzene	<5.4		
Bromobenzene	<5.4		
Bromochloromethane	<5.4		
Bromodichloromethane	<5.4		
Bromoform	<5.4		
Bromomethane	<11		
Carbon Disulfide	<5.4		
Carbon Tetrachloride	<5.4		
Chlorobenzene	<5.4		
Chloroethane	<11		
Chloroform	<5.4		
Chloromethane	<11		
cis-1,2-Dichloroethene	**2.5**		
Dibromochloromethane	<5.4		
Dibromomethane	<5.4		
Dichlorodifluoromethane	<5.4		
Ethylbenzene	<5.4		
Hexachlorobutadiene	<5.4		
Isopropylbenzene	<5.4		
m,p-Xylenes	<5.4		
Methyl Isobutyl Ketone	<11		
Methyl tert-Butyl Ether	<5.4		
Methylene Chloride	**2.7**		
n-Butylbenzene	<5.4		
n-Propylbenzene	<5.4		
Naphthalene	**4.2**		
o-Xylene	<5.4		
p-Isopropyltoluene	<5.4		
sec-Butylbenzene	<5.4		
Styrene	<5.4		
tert-Butylbenzene	<5.4		
Tetrachloroethene	**3.4**		
Toluene	<5.4		
trans-1,2-Dichloroethene	<5.4		
Trichloroethene	<5.4		
Trichlorofluoromethane	<5.4		
Vinyl Chloride	<11		

Percent Solids (percent)	86.0%		
Total Organic Carbon (percent)	0.209%		

Soil / Soil Gas Treatability Study. Hunters Point, project number 820425

SAMPLE LOCATION IR25VW6-11A MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0041R107		
SAMPLE DEPTH (feet)	8.5 - 9		
DATE SAMPLED	10/11/00		

ANALYTE			
1,1,1,2-Tetrachloroethane	<4.4		
1,1,1-Trichloroethane	<4.4		
1,1,2,2-Tetrachloroethane	<4.4		
1,1,2-Trichloroethane	<4.4		
1,1-Dichloroethane	<4.4		
1,1-Dichloroethene	<4.4		
1,1-Dichloropropene	<4.4		
1,2,3-Trichlorobenzene	<4.4		
1,2,3-Trichloropropane	<4.4		
1,2,4-Trichlorobenzene	<4.4		
1,2,4-Trimethylbenzene	<4.4		
1,2-Dibromo-3-Chloropropane	<4.4		
1,2-Dibromoethane	<4.4		
1,2-Dichlorobenzene	<4.4		
1,2-Dichloroethane	<4.4		
1,2-Dichloropropane	<4.4		
1,3,5-Trimethylbenzene	<4.4		
1,3-Dichlorobenzene	<4.4		
1,3-Dichloropropane	<4.4		
1,4-Dichlorobenzene	<4.4		
2,2-Dichloropropane	<4.4		
2-Butanone	<8.9		
2-Chlorotoluene	<4.4		
2-Hexanone	<8.9		
4-Chlorotoluene	<4.4		
Acetone	<8.9		
Benzene	<4.4		
Bromobenzene	<4.4		
Bromochloromethane	<4.4		
Bromodichloromethane	<4.4		
Bromoform	<4.4		
Bromomethane	<8.9		
Carbon Disulfide	<4.4		
Carbon Tetrachloride	<4.4		
Chlorobenzene	<4.4		
Chloroethane	<8.9		
Chloroform	<4.4		
Chloromethane	<8.9		
cis-1,2-Dichloroethene	<4.4		
Dibromochloromethane	<4.4		
Dibromomethane	<4.4		
Dichlorodifluoromethane	<4.4		
Ethylbenzene	<4.4		
Hexachlorobutadiene	<4.4		
Isopropylbenzene	<4.4		
m,p-Xylenes	<4.4		
Methyl Isobutyl Ketone	<8.9		
Methyl tert-Butyl Ether	<4.4		
Methylene Chloride	**2.0**		
n-Butylbenzene	<4.4		
n-Propylbenzene	<4.4		
Naphthalene	<4.4		
o-Xylene	<4.4		
p-Isopropyltoluene	<4.4		
sec-Butylbenzene	<4.4		
Styrene	<4.4		
tert-Butylbenzene	<4.4		
Tetrachloroethene	<4.4		
Toluene	<4.4		
trans-1,2-Dichloroethene	<4.4		
Trichloroethene	<4.4		
Trichlorofluoromethane	**4.0**		
Vinyl Chloride	<8.9		

Percent Solids (percent)	83.0%		
Total Organic Carbon (percent)	0.080%		

Soil / Soil Gas Treatability Study. Hunters Point, project number 820425

SAMPLE LOCATION IR25VW6-12A MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0041R090		
SAMPLE DEPTH (feet)	9.5 - 10		
DATE SAMPLED	10/09/00		

ANALYTE			
1,1,1,2-Tetrachloroethane	<5.4		
1,1,1-Trichloroethane	<5.4		
1,1,2,2-Tetrachloroethane	<5.4		
1,1,2-Trichloroethane	<5.4		
1,1-Dichloroethane	<5.4		
1,1-Dichloroethene	<5.4		
1,1-Dichloropropene	<5.4		
1,2,3-Trichlorobenzene	<5.4		
1,2,3-Trichloropropane	<5.4		
1,2,4-Trichlorobenzene	<5.4		
1,2,4-Trimethylbenzene	<5.4		
1,2-Dibromo-3-Chloropropane	<5.4		
1,2-Dibromoethane	<5.4		
1,2-Dichlorobenzene	<5.4		
1,2-Dichloroethane	<5.4		
1,2-Dichloropropane	<5.4		
1,3,5-Trimethylbenzene	<5.4		
1,3-Dichlorobenzene	<5.4		
1,3-Dichloropropane	<5.4		
1,4-Dichlorobenzene	<5.4		
2,2-Dichloropropane	<5.4		
2-Butanone	<11		
2-Chlorotoluene	<5.4		
2-Hexanone	<11		
4-Chlorotoluene	<5.4		
Acetone	**91**		
Benzene	<5.4		
Bromobenzene	<5.4		
Bromochloromethane	<5.4		
Bromodichloromethane	<5.4		
Bromoform	<5.4		
Bromomethane	<11		
Carbon Disulfide	**7.2**		
Carbon Tetrachloride	<5.4		
Chlorobenzene	<5.4		
Chloroethane	<11		
Chloroform	<5.4		
Chloromethane	<11		
cis-1,2-Dichloroethene	<5.4		
Dibromochloromethane	<5.4		
Dibromomethane	<5.4		
Dichlorodifluoromethane	<5.4		
Ethylbenzene	<5.4		
Hexachlorobutadiene	<5.4		
Isopropylbenzene	<5.4		
m,p-Xylenes	<5.4		
Methyl Isobutyl Ketone	<11		
Methyl tert-Butyl Ether	<5.4		
Methylene Chloride	**33**		
n-Butylbenzene	<5.4		
n-Propylbenzene	<5.4		
Naphthalene	<5.4		
o-Xylene	<5.4		
p-Isopropyltoluene	<5.4		
sec-Butylbenzene	<5.4		
Styrene	<5.4		
tert-Butylbenzene	<5.4		
Tetrachloroethene	<5.4		
Toluene	<5.4		
trans-1,2-Dichloroethene	<5.4		
Trichloroethene	<5.4		
Trichlorofluoromethane	<5.4		
Vinyl Chloride	<11		

Percent Solids (percent)	84.0%		
Total Organic Carbon (percent)	0.856%		

Soil / Soil Gas Treatability Study. Hunters Point, project number 820425

SAMPLE LOCATION IR25VW6-13A MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0041R094	0041R095	
SAMPLE DEPTH (feet)	8.5 - 9	8 - 8.5	
DATE SAMPLED	10/10/00	10/10/00	
ANALYTE			
1,1,1,2-Tetrachloroethane	<4.7	<4.4	
1,1,1-Trichloroethane	<4.7	<4.4	
1,1,2,2-Tetrachloroethane	<4.7	<4.4	
1,1,2-Trichloroethane	<4.7	<4.4	
1,1-Dichloroethane	<4.7	<4.4	
1,1-Dichloroethene	<4.7	<4.4	
1,1-Dichloropropene	<4.7	<4.4	
1,2,3-Trichlorobenzene	<4.7	<4.4	
1,2,3-Trichloropropane	<4.7	<4.4	
1,2,4-Trichlorobenzene	<4.7	<4.4	
1,2,4-Trimethylbenzene	<4.7	<4.4	
1,2-Dibromo-3-Chloropropane	<4.7	<4.4	
1,2-Dibromoethane	<4.7	<4.4	
1,2-Dichlorobenzene	**58**	**77**	
1,2-Dichloroethane	<4.7	<4.4	
1,2-Dichloropropane	<4.7	<4.4	
1,3,5-Trimethylbenzene	<4.7	<4.4	
1,3-Dichlorobenzene	<4.7	<4.4	
1,3-Dichloropropane	<4.7	<4.4	
1,4-Dichlorobenzene	**18**	**24**	
2,2-Dichloropropane	<4.7	<4.4	
2-Butanone	<9.5	<8.7	
2-Chlorotoluene	<4.7	<4.4	
2-Hexanone	<9.5	<8.7	
4-Chlorotoluene	<4.7	<4.4	
Acetone	**93**	**100**	
Benzene	<4.7	<4.4	
Bromobenzene	<4.7	<4.4	
Bromochloromethane	<4.7	<4.4	
Bromodichloromethane	<4.7	<4.4	
Bromoform	<4.7	<4.4	
Bromomethane	<9.5	<8.7	
Carbon Disulfide	<4.7	<4.4	
Carbon Tetrachloride	<4.7	<4.4	
Chlorobenzene	**160**	**260**	
Chloroethane	<9.5	<8.7	
Chloroform	<4.7	<4.4	
Chloromethane	<9.5	<8.7	
cis-1,2-Dichloroethene	<4.7	<4.4	
Dibromochloromethane	<4.7	<4.4	
Dibromomethane	<4.7	<4.4	
Dichlorodifluoromethane	<4.7	<4.4	
Ethylbenzene	<4.7	<4.4	
Hexachlorobutadiene	<4.7	<4.4	
Isopropylbenzene	**120**	**150**	
m,p-Xylenes	<4.7	<4.4	
Methyl Isobutyl Ketone	<9.5	<8.7	
Methyl tert-Butyl Ether	<4.7	<4.4	
Methylene Chloride	**32**	**2.8**	
n-Butylbenzene	<4.7	<4.4	
n-Propylbenzene	<4.7	**240**	
Naphthalene	**13**	**12**	
o-Xylene	<4.7	<4.4	
p-Isopropyltoluene	<4.7	<4.4	
sec-Butylbenzene	**140**	**170**	
Styrene	<4.7	<4.4	
tert-Butylbenzene	<4.7	<4.4	
Tetrachloroethene	<4.7	<4.4	
Toluene	<4.7	<4.4	
trans-1,2-Dichloroethene	<4.7	<4.4	
Trichloroethene	<4.7	<4.4	
Trichlorofluoromethane	<4.7	<4.4	
Vinyl Chloride	<9.5	<8.7	
Percent Solids (percent)	88.1%	84.1%	
Total Organic Carbon (percent)	1.380%	0.175%	

Soil / Soil Gas Treatability Study. Hunters Point, project number 820425

SAMPLE LOCATION IR25VW6-14A
BUILDING 134

MATRIX soil
UNITS ug/Kg

SAMPLE ID	0040R059		
SAMPLE DEPTH (feet)	8.5 - 9		
DATE SAMPLED	10/05/00		

ANALYTE			
1,1,1,2-Tetrachloroethane	<470		
1,1,1-Trichloroethane	<470		
1,1,2,2-Tetrachloroethane	<470		
1,1,2-Trichloroethane	<470		
1,1-Dichloroethane	<470		
1,1-Dichloroethene	<470		
1,1-Dichloropropene	<470		
1,2,3-Trichlorobenzene	<470		
1,2,3-Trichloropropane	<470		
1,2,4-Trichlorobenzene	<470		
1,2,4-Trimethylbenzene	<470		
1,2-Dibromo-3-Chloropropane	<470		
1,2-Dibromoethane	<470		
1,2-Dichlorobenzene	<470		
1,2-Dichloroethane	<470		
1,2-Dichloropropane	<470		
1,3,5-Trimethylbenzene	<470		
1,3-Dichlorobenzene	<470		
1,3-Dichloropropane	<470		
1,4-Dichlorobenzene	<470		
2,2-Dichloropropane	<470		
2-Butanone	<950		
2-Chlorotoluene	<470		
2-Hexanone	<950		
4-Chlorotoluene	<470		
Acetone	<950		
Benzene	<470		
Bromobenzene	<470		
Bromochloromethane	<470		
Bromodichloromethane	<470		
Bromoform	<470		
Bromomethane	<950		
Carbon Disulfide	<470		
Carbon Tetrachloride	<470		
Chlorobenzene	<470		
Chloroethane	<950		
Chloroform	<470		
Chloromethane	<950		
cis-1,2-Dichloroethene	<470		
Dibromochloromethane	<470		
Dibromomethane	<470		
Dichlorodifluoromethane	<470		
Ethylbenzene	<470		
Hexachlorobutadiene	<470		
Isopropylbenzene	<470		
m,p-Xylenes	<470		
Methyl Isobutyl Ketone	<950		
Methyl tert-Butyl Ether	<470		
Methylene Chloride	**770**		
n-Butylbenzene	<470		
n-Propylbenzene	<470		
Naphthalene	<470		
o-Xylene	<470		
p-Isopropyltoluene	<470		
sec-Butylbenzene	<470		
Styrene	<470		
tert-Butylbenzene	<470		
Tetrachloroethene	<470		
Toluene	<470		
trans-1,2-Dichloroethene	<470		
Trichloroethene	**960**		
Trichlorofluoromethane	<470		
Vinyl Chloride	<950		

Percent Solids (percent)	82.6%		
Total Organic Carbon (percent)	0.146%		

Soil / Soil Gas Treatability Study. Hunters Point, project number 820425

SAMPLE LOCATION IR25VW6-15A MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0041R088	0041R089	
SAMPLE DEPTH (feet)	7.5 - 8	9.5 - 10	
DATE SAMPLED	10/09/00	10/09/00	

ANALYTE			
1,1,1,2-Tetrachloroethane	<4.8	<4.8	
1,1,1-Trichloroethane	<4.8	<4.8	
1,1,2,2-Tetrachloroethane	<4.8	<4.8	
1,1,2-Trichloroethane	<4.8	<4.8	
1,1-Dichloroethane	<4.8	<4.8	
1,1-Dichloroethene	<4.8	<4.8	
1,1-Dichloropropene	<4.8	<4.8	
1,2,3-Trichlorobenzene	<4.8	<4.8	
1,2,3-Trichloropropane	<4.8	<4.8	
1,2,4-Trichlorobenzene	<4.8	<4.8	
1,2,4-Trimethylbenzene	<4.8	<4.8	
1,2-Dibromo-3-Chloropropane	<4.8	<4.8	
1,2-Dibromoethane	<4.8	<4.8	
1,2-Dichlorobenzene	**90**	**16**	
1,2-Dichloroethane	<4.8	<4.8	
1,2-Dichloropropane	<4.8	<4.8	
1,3,5-Trimethylbenzene	<4.8	<4.8	
1,3-Dichlorobenzene	<4.8	<4.8	
1,3-Dichloropropane	<4.8	<4.8	
1,4-Dichlorobenzene	**26**	**4.4**	
2,2-Dichloropropane	<4.8	<4.8	
2-Butanone	<9.7	<9.7	
2-Chlorotoluene	<4.8	<4.8	
2-Hexanone	<9.7	<9.7	
4-Chlorotoluene	<4.8	<4.8	
Acetone	**130**	**22**	
Benzene	<4.8	<4.8	
Bromobenzene	<4.8	<4.8	
Bromochloromethane	<4.8	<4.8	
Bromodichloromethane	<4.8	<4.8	
Bromoform	<4.8	<4.8	
Bromomethane	<9.7	<9.7	
Carbon Disulfide	**2.6**	<4.8	
Carbon Tetrachloride	<4.8	<4.8	
Chlorobenzene	**140**	**7.5**	
Chloroethane	<9.7	<9.7	
Chloroform	<4.8	<4.8	
Chloromethane	<9.7	<9.7	
cis-1,2-Dichloroethene	<4.8	<4.8	
Dibromochloromethane	<4.8	<4.8	
Dibromomethane	<4.8	<4.8	
Dichlorodifluoromethane	<4.8	<4.8	
Ethylbenzene	**14**	<4.8	
Hexachlorobutadiene	<4.8	<4.8	
Isopropylbenzene	**170**	**13**	
m,p-Xylenes	<4.8	<4.8	
Methyl Isobutyl Ketone	<9.7	<9.7	
Methyl tert-Butyl Ether	<4.8	<4.8	
Methylene Chloride	**27**	**21**	
n-Butylbenzene	<4.8	<4.8	
n-Propylbenzene	**280**	**23**	
Naphthalene	**22**	<4.8	
o-Xylene	<4.8	<4.8	
p-Isopropyltoluene	<4.8	<4.8	
sec-Butylbenzene	**220**	<4.8	
Styrene	<4.8	<4.8	
tert-Butylbenzene	<4.8	<4.8	
Tetrachloroethene	<4.8	<4.8	
Toluene	<4.8	<4.8	
trans-1,2-Dichloroethene	<4.8	<4.8	
Trichloroethene	<4.8	<4.8	
Trichlorofluoromethane	<4.8	<4.8	
Vinyl Chloride	<9.7	<9.7	

Percent Solids (percent)	89.0%	83.3%	
Total Organic Carbon (percent)	1.390%	1.080%	

Soil / Soil Gas Treatability Study. Hunters Point, project number 820425

SAMPLE LOCATION IR25VW6-16A MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0040R062		
SAMPLE DEPTH (feet)	8.5 - 9		
DATE SAMPLED	10/05/00		

ANALYTE			
1,1,1,2-Tetrachloroethane	<360		
1,1,1-Trichloroethane	<360		
1,1,2,2-Tetrachloroethane	<360		
1,1,2-Trichloroethane	<360		
1,1-Dichloroethane	<360		
1,1-Dichloroethene	<360		
1,1-Dichloropropene	<360		
1,2,3-Trichlorobenzene	<360		
1,2,3-Trichloropropane	<360		
1,2,4-Trichlorobenzene	<360		
1,2,4-Trimethylbenzene	<360		
1,2-Dibromo-3-Chloropropane	<360		
1,2-Dibromoethane	<360		
1,2-Dichlorobenzene	<360		
1,2-Dichloroethane	<360		
1,2-Dichloropropane	<360		
1,3,5-Trimethylbenzene	<360		
1,3-Dichlorobenzene	<360		
1,3-Dichloropropane	<360		
1,4-Dichlorobenzene	<360		
2,2-Dichloropropane	<360		
2-Butanone	<720		
2-Chlorotoluene	<360		
2-Hexanone	<720		
4-Chlorotoluene	<360		
Acetone	<720		
Benzene	<360		
Bromobenzene	<360		
Bromochloromethane	<360		
Bromodichloromethane	<360		
Bromoform	<360		
Bromomethane	<720		
Carbon Disulfide	<360		
Carbon Tetrachloride	<360		
Chlorobenzene	<360		
Chloroethane	<720		
Chloroform	<360		
Chloromethane	<720		
cis-1,2-Dichloroethene	<360		
Dibromochloromethane	<360		
Dibromomethane	<360		
Dichlorodifluoromethane	<360		
Ethylbenzene	<360		
Hexachlorobutadiene	<360		
Isopropylbenzene	<360		
m,p-Xylenes	<360		
Methyl Isobutyl Ketone	<720		
Methyl tert-Butyl Ether	<360		
Methylene Chloride	**560**		
n-Butylbenzene	<360		
n-Propylbenzene	<360		
Naphthalene	<360		
o-Xylene	<360		
p-Isopropyltoluene	<360		
sec-Butylbenzene	<360		
Styrene	<360		
tert-Butylbenzene	<360		
Tetrachloroethene	<360		
Toluene	<360		
trans-1,2-Dichloroethene	<360		
Trichloroethene	**500**		
Trichlorofluoromethane	<360		
Vinyl Chloride	<720		

Percent Solids (percent)	83.4%		
Total Organic Carbon (percent)	0.109%		

Soil / Soil Gas Treatability Study. Hunters Point, project number 820425

SAMPLE LOCATION IR25VW6-17A
BUILDING 134

MATRIX soil
UNITS ug/Kg

SAMPLE ID	0041R082	0041R083	0041R084
SAMPLE DEPTH (feet)	0.5 - 1	8.5 - 9	8 - 8.5
DATE SAMPLED	10/09/00	10/09/00	10/09/00
ANALYTE			
1,1,1,2-Tetrachloroethane	<4.5	<6.3	<6.2
1,1,1-Trichloroethane	<4.5	<6.3	<6.2
1,1,2,2-Tetrachloroethane	<4.5	<6.3	<6.2
1,1,2-Trichloroethane	<4.5	<6.3	<6.2
1,1-Dichloroethane	<4.5	<6.3	<6.2
1,1-Dichloroethene	<4.5	<6.3	<6.2
1,1-Dichloropropene	<4.5	<6.3	<6.2
1,2,3-Trichlorobenzene	**2.1**	<6.3	<6.2
1,2,3-Trichloropropane	<4.5	<6.3	<6.2
1,2,4-Trichlorobenzene	**1.7**	<6.3	<6.2
1,2,4-Trimethylbenzene	<4.5	<6.3	<6.2
1,2-Dibromo-3-Chloropropane	<4.5	<6.3	<6.2
1,2-Dibromoethane	<4.5	<6.3	<6.2
1,2-Dichlorobenzene	<4.5	<6.3	<6.2
1,2-Dichloroethane	<4.5	<6.3	<6.2
1,2-Dichloropropane	<4.5	<6.3	<6.2
1,3,5-Trimethylbenzene	<4.5	<6.3	<6.2
1,3-Dichlorobenzene	<4.5	<6.3	<6.2
1,3-Dichloropropane	<4.5	<6.3	<6.2
1,4-Dichlorobenzene	<4.5	<6.3	<6.2
2,2-Dichloropropane	<4.5	<6.3	<6.2
2-Butanone	<8.9	<13	<13
2-Chlorotoluene	<4.5	<6.3	<6.2
2-Hexanone	<8.9	<13	<13
4-Chlorotoluene	<4.5	<6.3	<6.2
Acetone	<8.9	<13	<13
Benzene	<4.5	<6.3	<6.2
Bromobenzene	<4.5	<6.3	<6.2
Bromochloromethane	<4.5	<6.3	<6.2
Bromodichloromethane	<4.5	<6.3	<6.2
Bromoform	<4.5	<6.3	<6.2
Bromomethane	<8.9	<13	<13
Carbon Disulfide	<4.5	<6.3	**8.3**
Carbon Tetrachloride	<4.5	<6.3	<6.2
Chlorobenzene	<4.5	<6.3	<6.2
Chloroethane	<8.9	<13	<13
Chloroform	<4.5	<6.3	<6.2
Chloromethane	<8.9	<13	<13
cis-1,2-Dichloroethene	<4.5	<6.3	<6.2
Dibromochloromethane	<4.5	<6.3	<6.2
Dibromomethane	<4.5	<6.3	<6.2
Dichlorodifluoromethane	<4.5	<6.3	<6.2
Ethylbenzene	<4.5	<6.3	<6.2
Hexachlorobutadiene	<4.5	<6.3	<6.2
Isopropylbenzene	<4.5	<6.3	<6.2
m,p-Xylenes	<4.5	<6.3	<6.2
Methyl Isobutyl Ketone	<8.9	<13	<13
Methyl tert-Butyl Ether	<4.5	<6.3	<6.2
Methylene Chloride	**26**	**32**	**39**
n-Butylbenzene	<4.5	<6.3	<6.2
n-Propylbenzene	<4.5	<6.3	<6.2
Naphthalene	**3.0**	<6.3	<6.2
o-Xylene	<4.5	<6.3	<6.2
p-Isopropyltoluene	<4.5	<6.3	<6.2
sec-Butylbenzene	<4.5	<6.3	<6.2
Styrene	<4.5	<6.3	<6.2
tert-Butylbenzene	<4.5	<6.3	<6.2
Tetrachloroethene	**7.0**	<6.3	<6.2
Toluene	<4.5	<6.3	<6.2
trans-1,2-Dichloroethene	<4.5	<6.3	<6.2
Trichloroethene	<4.5	<6.3	<6.2
Trichlorofluoromethane	<4.5	<6.3	<6.2
Vinyl Chloride	<8.9	<13	<13
Percent Solids (percent)	90.6%	79.4%	81.8%
Total Organic Carbon (percent)	0.101%	0.065%	0.071%

Soil / Soil Gas Treatability Study. Hunters Point, project number 820425

SAMPLE LOCATION IR25VW6-19A MATRIX soil
BUILDING 134 UNITS ug/Kg

SAMPLE ID	0041R121	0041R122	
SAMPLE DEPTH (feet)	3.5 - 4	5.5 - 6	
DATE SAMPLED	10/12/00	10/12/00	

ANALYTE			
1,1,1,2-Tetrachloroethane	<4.3	<970	
1,1,1-Trichloroethane	<4.3	<970	
1,1,2,2-Tetrachloroethane	<4.3	<970	
1,1,2-Trichloroethane	<4.3	<970	
1,1-Dichloroethane	<4.3	<970	
1,1-Dichloroethene	<4.3	<970	
1,1-Dichloropropene	<4.3	<970	
1,2,3-Trichlorobenzene	<4.3	**710**	
1,2,3-Trichloropropane	<4.3	<970	
1,2,4-Trichlorobenzene	<4.3	**7300**	
1,2,4-Trimethylbenzene	<4.3	**800**	
1,2-Dibromo-3-Chloropropane	<4.3	<970	
1,2-Dibromoethane	<4.3	<970	
1,2-Dichlorobenzene	**11**	**18000**	
1,2-Dichloroethane	<4.3	<970	
1,2-Dichloropropane	<4.3	<970	
1,3,5-Trimethylbenzene	<4.3	<970	
1,3-Dichlorobenzene	<4.3	**4300**	
1,3-Dichloropropane	<4.3	<970	
1,4-Dichlorobenzene	**4.1**	**3500**	
2,2-Dichloropropane	<4.3	<970	
2-Butanone	<8.6	<1900	
2-Chlorotoluene	<4.3	<970	
2-Hexanone	<8.6	<1900	
4-Chlorotoluene	<4.3	<970	
Acetone	<8.6	<1900	
Benzene	<4.3	<970	
Bromobenzene	<4.3	<970	
Bromochloromethane	<4.3	<970	
Bromodichloromethane	<4.3	<970	
Bromoform	<4.3	<970	
Bromomethane	<8.6	<1900	
Carbon Disulfide	<4.3	<970	
Carbon Tetrachloride	<4.3	<970	
Chlorobenzene	**1.7**	<970	
Chloroethane	<8.6	<1900	
Chloroform	<4.3	<970	
Chloromethane	<8.6	<1900	
cis-1,2-Dichloroethene	**38**	**4800**	
Dibromochloromethane	<4.3	<970	
Dibromomethane	<4.3	<970	
Dichlorodifluoromethane	<4.3	<970	
Ethylbenzene	<4.3	<970	
Hexachlorobutadiene	<4.3	<970	
Isopropylbenzene	<4.3	<970	
m,p-Xylenes	<4.3	<970	
Methyl Isobutyl Ketone	<8.6	<1900	
Methyl tert-Butyl Ether	<4.3	<970	
Methylene Chloride	<4.3	**920**	
n-Butylbenzene	<4.3	<970	
n-Propylbenzene	<4.3	<970	
Naphthalene	<4.3	**1800**	
o-Xylene	<4.3	<970	
p-Isopropyltoluene	<4.3	<970	
sec-Butylbenzene	<4.3	<970	
Styrene	<4.3	<970	
tert-Butylbenzene	<4.3	<970	
Tetrachloroethene	**140**	**15000**	
Toluene	<4.3	<970	
trans-1,2-Dichloroethene	**1.4**	<970	
Trichloroethene	**13**	**910**	
Trichlorofluoromethane	<4.3	<970	
Vinyl Chloride	<8.6	<1900	

Percent Solids (percent)	80.9%	64.6%	
Total Organic Carbon (percent)	0.123%	0.227%	

ATTACHMENT 3
LABORATORY GEOTECHNICAL ANALYTICAL DATA FOR SOIL SAMPLES

Geotechnical Analysis Data Summary
SVE Treatability Study at Building 134, IR-25, Hunters Point Naval Shipyard
San Francisco, CA

Boring No.	Well Type	Geotech Sample Date	Sample Number	Sample Depth	Bulk Density ASTM D2937-94 (pcf)	Specific Gravity ASTM D854-92	Moisture Content ASTM D2216-92 (%)	Intrinsic Permeability ASTM D5084-90 (cm/sec)	Comments
IR25SG042	VMP	10/12/00	0041R128	9.5' - 10'	111	2.76	19.1	0.0000005	
IR25SG042	VMP	10/12/00	0041R127	4.5' - 5'	88.2	2.78	31.1	0.000003	
IR25SG043	VMP	10/11/00	0041R110	7' - 8'	110.3	2.76	16.7	0.0000002	
IR25SG043	VMP	10/11/00	0041R111	9' - 10'	109.9	2.75	20.1	0.00000003	
IR25SG044	VMP	10/12/00	0041R123	2.5' - 3'	107.6	2.79	21.8	0.00000001	
IR25SG044	VMP	10/12/00	0041R124	6' - 6.5'	104.4	2.83	22.4	0.00000004	
IR25SG045	VMP	10/12/00	0041R130	9' - 10'	102.6	2.75	21.6	0.000003	
IR25SG045	VMP	10/12/00	0041R129	4' - 5'	92.9	2.75	22.2	0.000005	
IR25SG046	VMP	10/12/00	0041R134	8.5' - 9.5'	106.4	2.82	21.8	0.0000002	
IR25SG046	VMP	10/12/00	0041R133	6.5' - 7.5'	109.4	2.77	16.2	0.0000001	
IR25SG047	VMP	10/05/00	0040R063	2.5' - 3.5'	117.2	2.86	12	0.0001	
IR25SG047	VMP	10/05/00	0040R064	9' - 10'	115.6	2.82	18.2	0.000000007	
IR25SG048	VMP	10/05/00	0040R065	3' - 4'	107.5	2.73	20.3	0.0000002	
IR25SG048	VMP	10/05/00	0040R066	9' - 10'	116.1	2.82	18.3	0.00000002	
IR25SG049	VMP	10/05/00	0040R067	3' - 4'	85.4	2.76	30.3	0.00004	
IR25SG049	VMP	10/05/00	0040R068	9' - 10'	95.5	2.77	28.4	0.0000002	
IR25SG050	VMP	10/09/00	0041R085	3' - 4'	99.4	2.73	22.8	0.0000003	
IR25SG050	VMP	10/09/00	0041R086	9' - 10'	74.7	2.72	46.4	0.0000003	
IR25SG051	VMP	10/10/00	0041R091	8.5' - 9.5'	109.1	2.78	19.6	0.00000004	
IR25SG052	VMP	10/09/00	0041R078	5' - 6'	100.8	2.75	23.9	0.00000001	
IR25SG052	VMP	10/09/00	0041R080	9' - 10'	111.2	2.79	20.2	0.00000005	
IR25SG053	VMP	10/09/00	0041R076	5' - 6'	114.1	2.66	15.7	0.00006	
IR25SG053	VMP	10/09/00	0041R077	9' - 10'	111.4	2.81	19.9	0.00000004	
IR25SG054	VMP					Drilling refusal at 3' depth			(a)
IR25SG055	VMP	10/09/00	0041R074	' - 2', 2.5'	100.2	2.74	16.9	0.000003	
IR25SG055	VMP	10/09/00	0041R075	6.5' - 7.5'	84.9	2.69	27.7	0.0002	
IR25SG056	VMP	10/04/00	0040R057	7' - 8'	116.9	2.81	15.7	0.00003	
IR25SG056	VMP	10/04/00	0040R058	9' - 10'	99.9	2.73	20.6	0.0001	
IR25SG057	VMP	10/04/00	0040R049	5' - 6'	106.2	2.79	21.1	0.0000003	
IR25SG057	VMP	10/04/00	0040R050	9' - 10'	116.6	2.79	16.7	0.00000004	
IR25SG058	VMP	10/04/00	0040R055	5' - 6'	110.2	2.68	17.8	0.00000004	
IR25SG058	VMP	10/04/00	0040R056	9' - 10'	117	2.73	16.7	0.00000002	
IR25SG059	VMP	10/04/00	0040R051	3' - 4'	121.6	2.72	11	0.00002	
IR25SG059	VMP	10/04/00	0040R052	8.5' - 9.5'	75.9	2.7	44.6	0.0000001	
IR25SG060	VMP	10/05/00	0040R070	9' - 10'	91.9	2.74	29.6	0.000009	
IR25SG060	VMP	10/05/00	0040R069	3' - 4'					(b)
IR25SG061	VMP	10/05/00	0040R072	5' - 6'	111.2	2.8	14.2	0.0000002	
IR25SG061	VMP	10/05/00	0040R073	9' - 10'	85.5	2.75	33.8	0.00000002	

IR25SG062	VMP	10/04/00	0040R054	9' - 10'	97.6	2.7	26.9	0.00000005	
IR25SG063	VMP	10/10/00	0041R096	4.5' - 5.5'	107.5	2.82	19.4	0.00005	
IR25SG063	VMP	10/10/00	0041R097	9.5' - 10'	111.5	2.81	19.7	0.0000002	
IR25SG064	VMP	10/10/00	0041R099	3' - 4'	109.3	2.75	20.4	0.0000008	
IR25SG064	VMP	10/10/00	0041R100	9' - 10'	107.7	2.72	21.1	0.00000005	
IR25SG065	VMP	10/10/00	0041R101	4' - 5'	109.7	2.79	18.2	0.0000002	
IR25SG065	VMP	10/10/00	0041R102	9' - 10'	108.7	2.76	20.7	0.000001	
IR25VW6-03A	VEW	10/11/00	0041R118	9' - 10'	113.1	2.82	19.3	0.0000001	
IR25VW6-03A	VEW	10/11/00	0041R117	4.5' - 5.5'	111.9	2.74	15.8	0.000001	
IR25VW6-04A	VEW	10/11/00	0041R115	4.5' - 5.5'	118.5	2.77	15.3	0.00000002	
IR25VW6-04A	VEW	10/11/00	0041R116	9' - 10'	110.8	2.72	18.7	0.00000002	
IR25VW6-05A	VEW	10/11/00	0041R113	0.5' - 1.5'	109.7	2.7	16.2	0.000002	
IR25VW6-05A	VEW	10/11/00	0041R114	7' - 8'	111.4	2.73	17.4	0.0000002	
IR25VW6-06A	VEW	10/12/00	0041R119	2.5' - 3.5'	106.8	2.78	22	0.00000001	
IR25VW6-06A	VEW	10/12/00	0041R120	4.5' - 5.5'	98.1	2.75	26.8	0.00000003	
IR25VW6-07A	VEW	10/12/00	0041R125	1' - 2'					(b)
IR25VW6-07A	VEW	10/12/00	0041R126	5' - 5.5'	102.5	2.81	23.9	0.00000005	
IR25VW6-08A	VEW	10/11/00	0041R108	5' - 6'	106	2.78	21.5	0.00000001	
IR25VW6-08A	VEW	10/11/00	0041R109	9' - 10'	115	2.75	17.2	0.0000001	
IR25VW6-09A	VEW	10/10/00	0041R092	9.5' - 10'	107.6	2.74	21.1	0.00000009	
IR25VW6-10A	VEW	10/10/00	0041R104	3' - 4'	88.5	2.8	27.1	0.00004	
IR25VW6-10A	VEW	10/10/00	0041R105	7' - 8'	95.6	2.69	24	0.000002	
IR25VW6-11A	VEW	10/11/00	0041R106	4.5' - 5.5'	106.8	2.73	15.9	0.0000002	
IR25VW6-11A	VEW	10/11/00	0041R107	9' - 10'	96.6	2.75	27	0.0000001	
IR25VW6-12A	VEW								(c)
IR25VW6-13A	VEW	10/10/00	0041R093	5' - 6'	106.9	2.75	18.6	0.00003	
IR25VW6-13A	VEW	10/10/00	0041R094	9' - 10'	98.6	2.8	27.3	0.00000006	
IR25VW6-14A	VEW	10/05/00	0040R060	1' - 2'	75.7	2.81	34.8	0.00003	
IR25VW6-14A	VEW	10/05/00	0040R059	9' - 10'	94.5	2.72	29.2	0.0000001	
IR25VW6-15A	VEW	10/09/00	0041R087	6.5' - 7.5'	111.5	2.75	16.3	0.00003	
IR25VW6-15A	VEW	10/09/00	0041R088	8.5' - 9.5'	100	2.76	25.9	0.00000006	
IR25VW6-16A	VEW	10/05/00	0040R062	9' - 10'	108.3	2.78	21.3	0.00000004	
IR25VW6-17A	VEW	10/09/00	0041R082	1' - 2'	103.6	2.7	10.8	0.0002	
IR25VW6-17A	VEW	10/09/00	0041R083	9' - 10'	96.3	2.78	26.1	0.0000001	
IR25VW6-18A	VEW					Drilling refusal at 3.8' depth			(a)
IR25VW6-19A	VEW	10/12/00	0041R121	3' - 3.5'	103.6	2.76	18.8	0.0000001	
IR25VW6-19A	VEW	10/12/00	0041R122	5' - 5.5'	105	2.81	21.4	0.000002	

(a) Geotechnical samples not collected due to drilling refusal at shallow depth
(b) Laboratory did not perform analysis on sample - soil was either too disturbed or too gravelly for accurate geotechnical parameters
(c) Geotechnical samples not collected because matrix was too disturbed by drilling
VEW - vapor extraction well location
VMP - vapor monitoring point location
pcf - pounds per cubic foot
cm/sec - centimeters per second

ATTACHMENT 4
VAPOR SAMPLE ANALYTICAL RESULTS

Analytical Laboratory Report

JPB

EPA Method TO-14

Client: IT Corporation
Chain-of Custody #: 572619
Sample Type: AIR
Date Sampled: 12-Feb-01
Date Received: 13-Feb-01
Date Analyzed: 15-Feb-2001
Time Analyzed: 13:21
Dilution Factor: 40.5

Field ID #: B134-V-074
Lab Sample ID: 1IT14001
Concentration Units: PPBV
Initial Calibration Date: Nov 09 2000
QC Batch Code: 9GT0215A5
Data Filename: 01021507.D
Electronic Filename: 507G0215.T
SACODE: N
Location: IR25VW6-03A

Baseline

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
1,1,1-Trichloroethane	132	71-55-6	41	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	41	0	U		
1,1,2-Trichloroethane	132	79-00-5	41	0	U		
1,1-Dichloroethane	98	75-34-3	41	0	U		
1,1-Dichloroethene	96	75-35-4	41	0	U		
1,2-Dichloroethane	98	75-35-4	41	0	U		
1,2-Dichloropropane	112	78-87-5	41	0	U		
2-Butanone	72	78-93-3	203	748	=		
2-CEVE	106	110-75-8	203	0	U		
2-Hexanone	100	591-78-6	203	0	U		
Methyl isobutyl ketone	100	108-10-1	203	0	U		
Acetone	58	67-64-1	203	0	U		
Benzene	78	71-43-2	41	0	U		
Bromodichloromethane	162	75-27-4	41	0	U		
Bromoform	250	75-25-2	41	0	U		
Bromomethane	94	74-83-9	41	0	U		
Carbon tetrachloride	152	56-23-5	41	0	U		
Chlorobenzene	112	108-90-7	41	0	U		
Chloroethane	64	75-00-3	41	0	U		
Chloroform	118	67-66-3	41	0	U		
Chloromethane	50	74-87-3	41	0	U		
cis-1,2-dichloroethene	96	156-59-2	41	53	=		
cis-1,3-Dichloropropene	110	10061-01-5	41	0	U		
Dibromochloromethane	206	124-48-1	41	0	U		
Ethylbenzene	106	100-41-4	41	0	U		
Methylene chloride	84	75-09-2	41	0	U		
MTBE	88	1634-04-4	41	0	U		
Styrene	104	100-42-5	41	0	U		
Tetrachloroethene	164	127-18-4	41	342	=		
Toluene	92	108-88-3	41	0	U		
trans-1,2-dichloroethene	96	156-60-5	41	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	41	0	U		
Trichloroethene	130	79-01-6	41	63	=		
Vinyl acetate	86	108-05-4	41	0	U		
Vinyl chloride	62	75-01-4	41	0	U		
Xylenes (total)	106	110-75-8	41	0	U		
4-BFB(surrogate)		460-00-4		95	=		
1,2-DCA-d4(surrogate)		17060-07-0		106	=		
Toluene-d8(surrogate)		2037-26-5		96	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
B - Blank contamination.
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

% Recovery criteria is 70-130% for all analytes of interest.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

JPB

EPA Method TO-14

Client: IT Corporation
Chain-of Custody #: 572619
Sample Type: AIR
Date Sampled: 12-Feb-01
Date Received: 13-Feb-01
Date Analyzed: 15-Feb-2001
Time Analyzed: 13:21
Dilution Factor: 40.5

Field ID #: B134-V-074
Lab Sample ID: 1IT14001
Concentration Units: PPBV
Initial Calibration Date: Nov 09 2000
QC Batch Code: 9GT0215A5
Data Filename: 01021507.D
Electronic Filename: 507G0215.T
SACODE: N
Location: IR25VW6-03A

Baseline

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
1,1,1-Trichloroethane	132	71-55-6	41	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	41	0	U		
1,1,2-Trichloroethane	132	79-00-5	41	0	U		
1,1-Dichloroethane	98	75-34-3	41	0	U		
1,1-Dichloroethene	96	75-35-4	41	0	U		
1,2-Dichloroethane	98	75-35-4	41	0	U		
1,2-Dichloropropane	112	78-87-5	41	0	U		
2-Butanone	72	78-93-3	203	748	=		
2-CEVE	106	110-75-8	203	0	U		
2-Hexanone	100	591-78-6	203	0	U		
Methyl isobutyl ketone	100	108-10-1	203	0	U		
Acetone	58	67-64-1	203	0	U		
Benzene	78	71-43-2	41	0	U		
Bromodichloromethane	162	75-27-4	41	0	U		
Bromoform	250	75-25-2	41	0	U		
Bromomethane	94	74-83-9	41	0	U		
Carbon tetrachloride	152	56-23-5	41	0	U		
Chlorobenzene	112	108-90-7	41	0	U		
Chloroethane	64	75-00-3	41	0	U		
Chloroform	118	67-66-3	41	0	U		
Chloromethane	50	74-87-3	41	0	U		
cis-1,2-dichloroethene	96	156-59-2	41	53	=		
cis-1,3-Dichloropropene	110	10061-01-5	41	0	U		
Dibromochloromethane	206	124-48-1	41	0	U		
Ethylbenzene	106	100-41-4	41	0	U		
Methylene chloride	84	75-09-2	41	0	U		
MTBE	88	1634-04-4	41	0	U		
Styrene	104	100-42-5	41	0	U		
Tetrachloroethene	164	127-18-4	41	342	=		
Toluene	92	108-88-3	41	0	U		
trans-1,2-dichloroethene	96	156-60-5	41	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	41	0	U		
Trichloroethene	130	79-01-6	41	63	=		
Vinyl acetate	86	108-05-4	41	0	U		
Vinyl chloride	62	75-01-4	41	0	U		
Xylenes (total)	106	110-75-8	41	0	U		
4-BFB(surrogate)		460-00-4		95	=		
1,2-DCA-d4(surrogate)		17060-07-0		106	=		
Toluene-d8(surrogate)		2037-26-5		96	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
B - Blank contamination.
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

% Recovery criteria is 70-130% for all analytes of interest.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

JPB

EPA Method TO-14

Client: IT Corporation
Chain-of Custody #: 572619
Sample Type: AIR
Date Sampled: 12-Feb-01
Date Received: 13-Feb-01
Date Analyzed: 15-Feb-2001
Time Analyzed: 16:20
Dilution Factor: 89.0

Field ID #: B134-V-075
Lab Sample ID: 1IT14002
Concentration Units: PPBV
Initial Calibration Date: Nov 09 2000
QC Batch Code: 9GT0215A5
Data Filename: 01021512.D
Electronic Filename: 512G0215.T
SACODE: N
Location: IR25VW6-04A

Baseline

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
1,1,1-Trichloroethane	132	71-55-6	89	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	89	0	U		
1,1,2-Trichloroethane	132	79-00-5	89	0	U		
1,1-Dichloroethane	98	75-34-3	89	0	U		
1,1-Dichloroethene	96	75-35-4	89	0	U		
1,2-Dichloroethane	98	75-35-4	89	0	U		
1,2-Dichloropropane	112	78-87-5	89	0	U		
2-Butanone	72	78-93-3	445	869	=		
2-CEVE	106	110-75-8	445	0	U		
2-Hexanone	100	591-78-6	445	0	U		
Methyl isobutyl ketone	100	108-10-1	445	0	U		
Acetone	58	67-64-1	445	0	U		
Benzene	78	71-43-2	89	0	U		
Bromodichloromethane	162	75-27-4	89	0	U		
Bromoform	250	75-25-2	89	0	U		
Bromomethane	94	74-83-9	89	0	U		
Carbon tetrachloride	152	56-23-5	89	0	U		
Chlorobenzene	112	108-90-7	89	0	U		
Chloroethane	64	75-00-3	89	0	U		
Chloroform	118	67-66-3	89	0	U		
Chloromethane	50	74-87-3	89	0	U		
cis-1,2-dichloroethene	96	156-59-2	89	132	=		
cis-1,3-Dichloropropene	110	10061-01-5	89	0	U		
Dibromochloromethane	206	124-48-1	89	0	U		
Ethylbenzene	106	100-41-4	89	0	U		
Methylene chloride	84	75-09-2	89	0	U		
MTBE	88	1634-04-4	89	0	U		
Styrene	104	100-42-5	89	0	U		
Tetrachloroethene	164	127-18-4	89	657	=		
Toluene	92	108-88-3	89	0	U		
trans-1,2-dichloroethene	96	156-60-5	89	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	89	0	U		
Trichloroethene	130	79-01-6	89	75	J		
Vinyl acetate	86	108-05-4	89	0	U		
Vinyl chloride	62	75-01-4	89	0	U		
Xylenes (total)	106	110-75-8	89	0	U		
4-BFB(surrogate)		460-00-4		98	=		
1,2-DCA-d4(surrogate)		17060-07-0		106	=		
Toluene-d8(surrogate)		2037-26-5		94	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
B - Blank contamination.
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

% Recovery criteria is 70-130% for all analytes of interest.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

JPB

EPA Method TO-14

Client: IT Corporation
Chain-of Custody #: 572619
Sample Type: AIR
Date Sampled: 12-Feb-01
Date Received: 13-Feb-01
Date Analyzed: 16-Feb-2001
Time Analyzed: 14:03
Dilution Factor: 44.5

Field ID #: B134-V-076
Lab Sample ID: 1IT14003
Concentration Units: PPBV
Initial Calibration Date: Nov 09 2000
QC Batch Code: 9GT0216A5
Data Filename: 01021606.D
Electronic Filename: 506G0216.T
SACODE: N
Location: IR25VW6-05A

Baseline

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
1,1,1-Trichloroethane	132	71-55-6	45	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	45	0	U		
1,1,2-Trichloroethane	132	79-00-5	45	0	U		
1,1-Dichloroethane	98	75-34-3	45	0	U		
1,1-Dichloroethene	96	75-35-4	45	0	U		
1,2-Dichloroethane	98	75-35-4	45	0	U		
1,2-Dichloropropane	112	78-87-5	45	0	U		
2-Butanone	72	78-93-3	223	677	=		
2-CEVE	106	110-75-8	223	0	U		
2-Hexanone	100	591-78-6	223	0	U		
Methyl isobutyl ketone	100	108-10-1	223	0	U		
Acetone	58	67-64-1	223	0	U		
Benzene	78	71-43-2	45	0	U		
Bromodichloromethane	162	75-27-4	45	0	U		
Bromoform	250	75-25-2	45	0	U		
Bromomethane	94	74-83-9	45	0	U		
Carbon tetrachloride	152	56-23-5	45	0	U		
Chlorobenzene	112	108-90-7	45	0	U		
Chloroethane	64	75-00-3	45	0	U		
Chloroform	118	67-66-3	45	0	U		
Chloromethane	50	74-87-3	45	0	U		
cis-1,2-dichloroethene	96	156-59-2	45	0	U		
cis-1,3-Dichloropropene	110	10061-01-5	45	0	U		
Dibromochloromethane	206	124-48-1	45	0	U		
Ethylbenzene	106	100-41-4	45	0	U		
Methylene chloride	84	75-09-2	45	0	U		
MTBE	88	1634-04-4	45	0	U		
Styrene	104	100-42-5	45	0	U		
Tetrachloroethene	164	127-18-4	45	139	=		
Toluene	92	108-88-3	45	0	U		
trans-1,2-dichloroethene	96	156-60-5	45	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	45	0	U		
Trichloroethene	130	79-01-6	45	32	J		
Vinyl acetate	86	108-05-4	45	0	U		
Vinyl chloride	62	75-01-4	45	0	U		
Xylenes (total)	106	110-75-8	45	0	U		
4-BFB(surrogate)		460-00-4		95	=		
1,2-DCA-d4(surrogate)		17060-07-0		105	=		
Toluene-d8(surrogate)		2037-26-5		96	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
B - Blank contamination.
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

% Recovery criteria is 70-130% for all analytes of interest.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

JPB

EPA Method TO-14

Client: IT Corporation
Chain-of Custody #: 572619
Sample Type: AIR
Date Sampled: 12-Feb-01
Date Received: 13-Feb-01
Date Analyzed: 15-Feb-2001
Time Analyzed: 17:33
Dilution Factor: 460.3

Field ID #: B134-V-077
Lab Sample ID: 1IT14004
Concentration Units: PPBV
Initial Calibration Date: Nov 09 2000
QC Batch Code: 9GT0215A5
Data Filename: 01021514.D
Electronic Filename: 514G0215.T
SACODE: N
Location: IR25VW6-06A

Baseline

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
1,1,1-Trichloroethane	132	71-55-6	460	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	460	0	U		
1,1,2-Trichloroethane	132	79-00-5	460	0	U		
1,1-Dichloroethane	98	75-34-3	460	0	U		
1,1-Dichloroethene	96	75-35-4	460	0	U		
1,2-Dichloroethane	98	75-35-4	460	0	U		
1,2-Dichloropropane	112	78-87-5	460	0	U		
2-Butanone	72	78-93-3	2302	2020	J		
2-CEVE	106	110-75-8	2302	0	U		
2-Hexanone	100	591-78-6	2302	0	U		
Methyl isobutyl ketone	100	108-10-1	2302	0	U		
Acetone	58	67-64-1	2302	0	U		
Benzene	78	71-43-2	460	0	U		
Bromodichloromethane	162	75-27-4	460	0	U		
Bromoform	250	75-25-2	460	0	U		
Bromomethane	94	74-83-9	460	0	U		
Carbon tetrachloride	152	56-23-5	460	0	U		
Chlorobenzene	112	108-90-7	460	0	U		
Chloroethane	64	75-00-3	460	0	U		
Chloroform	118	67-66-3	460	0	U		
Chloromethane	50	74-87-3	460	0	U		
cis-1,2-dichloroethene	96	156-59-2	460	826	=		
cis-1,3-Dichloropropene	110	10061-01-5	460	0	U		
Dibromochloromethane	206	124-48-1	460	0	U		
Ethylbenzene	106	100-41-4	460	0	U		
Methylene chloride	84	75-09-2	460	0	U		
MTBE	88	1634-04-4	460	0	U		
Styrene	104	100-42-5	460	0	U		
Tetrachloroethene	164	127-18-4	460	2630	=		
Toluene	92	108-88-3	460	0	U		
trans-1,2-dichloroethene	96	156-60-5	460	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	460	0	U		
Trichloroethene	130	79-01-6	460	283	J		
Vinyl acetate	86	108-05-4	460	0	U		
Vinyl chloride	62	75-01-4	460	0	U		
Xylenes (total)	106	110-75-8	460	0	U		
4-BFB(surrogate)		460-00-4		94	=		
1,2-DCA-d4(surrogate)		17060-07-0		104	=		
Toluene-d8(surrogate)		2037-26-5		97	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
B - Blank contamination.
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

% Recovery criteria is 70-130% for all analytes of interest.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

JPB

EPA Method TO-14

Client: IT Corporation
Chain-of Custody #: 572619
Sample Type: AIR
Date Sampled: 12-Feb-01
Date Received: 13-Feb-01
Date Analyzed: 16-Feb-2001
Time Analyzed: 14:40
Dilution Factor: 43.9

Field ID #: B134-V-078
Lab Sample ID: 1IT14005
Concentration Units: PPBV
Initial Calibration Date: Nov 09 2000
QC Batch Code: 9GT0216A5
Data Filename: 01021607.D
Electronic Filename: 507G0216.T
SACODE: N
Location: IR25VW6-07A

Baseline

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
1,1,1-Trichloroethane	132	71-55-6	44	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	44	0	U		
1,1,2-Trichloroethane	132	79-00-5	44	0	U		
1,1-Dichloroethane	98	75-34-3	44	0	U		
1,1-Dichloroethene	96	75-35-4	44	0	U		
1,2-Dichloroethane	98	75-35-4	44	50	=		
1,2-Dichloropropane	112	78-87-5	44	0	U		
2-Butanone	72	78-93-3	220	589	=		
2-CEVE	106	110-75-8	220	0	U		
2-Hexanone	100	591-78-6	220	0	U		
Methyl isobutyl ketone	100	108-10-1	220	0	U		
Acetone	58	67-64-1	220	0	U		
Benzene	78	71-43-2	44	0	U		
Bromodichloromethane	162	75-27-4	44	0	U		
Bromoform	250	75-25-2	44	0	U		
Bromomethane	94	74-83-9	44	0	U		
Carbon tetrachloride	152	56-23-5	44	0	U		
Chlorobenzene	112	108-90-7	44	0	U		
Chloroethane	64	75-00-3	44	0	U		
Chloroform	118	67-66-3	44	0	U		
Chloromethane	50	74-87-3	44	0	U		
cis-1,2-dichloroethene	96	156-59-2	44	168	=		
cis-1,3-Dichloropropene	110	10061-01-5	44	0	U		
Dibromochloromethane	206	124-48-1	44	0	U		
Ethylbenzene	106	100-41-4	44	0	U		
Methylene chloride	84	75-09-2	44	0	U		
MTBE	88	1634-04-4	44	0	U		
Styrene	104	100-42-5	44	0	U		
Tetrachloroethene	164	127-18-4	44	192	=		
Toluene	92	108-88-3	44	0	U		
trans-1,2-dichloroethene	96	156-60-5	44	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	44	0	U		
Trichloroethene	130	79-01-6	44	38	J		
Vinyl acetate	86	108-05-4	44	0	U		
Vinyl chloride	62	75-01-4	44	0	U		
Xylenes (total)	106	110-75-8	44	0	U		
4-BFB(surrogate)		460-00-4		94	=		
1,2-DCA-d4(surrogate)		17060-07-0		107	=		
Toluene-d8(surrogate)		2037-26-5		98	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
B - Blank contamination.
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

% Recovery criteria is 70-130% for all analytes of interest.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

JPB

EPA Method TO-14

Client: IT Corporation
Chain-of Custody #: 572619
Sample Type: AIR
Date Sampled: 12-Feb-01
Date Received: 13-Feb-01
Date Analyzed: 15-Feb-2001
Time Analyzed: 18:47
Dilution Factor: 94.9

Field ID #: B134-V-079
Lab Sample ID: 1IT14006
Concentration Units: PPBV
Initial Calibration Date: Nov 09 2000
QC Batch Code: 9GT0215A5
Data Filename: 01021516.D
Electronic Filename: 516G0215.T
SACODE: N
Location: IR25VW6-08A

Baseline

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
1,1,1-Trichloroethane	132	71-55-6	95	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	95	0	U		
1,1,2-Trichloroethane	132	79-00-5	95	0	U		
1,1-Dichloroethane	98	75-34-3	95	0	U		
1,1-Dichloroethene	96	75-35-4	95	0	U		
1,2-Dichloroethane	98	75-35-4	95	90	J		
1,2-Dichloropropane	112	78-87-5	95	0	U		
2-Butanone	72	78-93-3	475	0	U		
2-CEVE	106	110-75-8	475	0	U		
2-Hexanone	100	591-78-6	475	0	U		
Methyl isobutyl ketone	100	108-10-1	475	0	U		
Acetone	58	67-64-1	475	0	U		
Benzene	78	71-43-2	95	0	U		
Bromodichloromethane	162	75-27-4	95	0	U		
Bromoform	250	75-25-2	95	0	U		
Bromomethane	94	74-83-9	95	0	U		
Carbon tetrachloride	152	56-23-5	95	0	U		
Chlorobenzene	112	108-90-7	95	0	U		
Chloroethane	64	75-00-3	95	0	U		
Chloroform	118	67-66-3	95	0	U		
Chloromethane	50	74-87-3	95	0	U		
cis-1,2-dichloroethene	96	156-59-2	95	83	J		
cis-1,3-Dichloropropene	110	10061-01-5	95	0	U		
Dibromochloromethane	206	124-48-1	95	0	U		
Ethylbenzene	106	100-41-4	95	0	U		
Methylene chloride	84	75-09-2	95	0	U		
MTBE	88	1634-04-4	95	0	U		
Styrene	104	100-42-5	95	0	U		
Tetrachloroethene	164	127-18-4	95	349	=		
Toluene	92	108-88-3	95	0	U		
trans-1,2-dichloroethene	96	156-60-5	95	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	95	0	U		
Trichloroethene	130	79-01-6	95	0	U		
Vinyl acetate	86	108-05-4	95	0	U		
Vinyl chloride	62	75-01-4	95	0	U		
Xylenes (total)	106	110-75-8	95	0	U		
4-BFB(surrogate)		460-00-4		93	=		
1,2-DCA-d4(surrogate)		17060-07-0		106	=		
Toluene-d8(surrogate)		2037-26-5		97	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
B - Blank contamination.
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

% Recovery criteria is 70-130% for all analytes of interest.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

JPB

EPA Method TO-14

Client: IT Corporation
Chain-of Custody #: 572619
Sample Type: AIR
Date Sampled: 12-Feb-01
Date Received: 13-Feb-01
Date Analyzed: 16-Feb-2001
Time Analyzed: 15:17
Dilution Factor: 45.2

Field ID #: B134-V-080
Lab Sample ID: 1IT14007
Concentration Units: PPBV
Initial Calibration Date: Nov 09 2000
QC Batch Code: 9GT0216A5
Data Filename: 01021608.D
Electronic Filename: 508G0216.T
SACODE: N
Location: IR25VW6-09A

Baseline

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
1,1,1-Trichloroethane	132	71-55-6	45	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	45	0	U		
1,1,2-Trichloroethane	132	79-00-5	45	0	U		
1,1-Dichloroethane	98	75-34-3	45	0	U		
1,1-Dichloroethene	96	75-35-4	45	0	U		
1,2-Dichloroethane	98	75-35-4	45	0	U		
1,2-Dichloropropane	112	78-87-5	45	0	U		
2-Butanone	72	78-93-3	226	689	=		
2-CEVE	106	110-75-8	226	0	U		
2-Hexanone	100	591-78-6	226	0	U		
Methyl isobutyl ketone	100	108-10-1	226	0	U		
Acetone	58	67-64-1	226	0	U		
Benzene	78	71-43-2	45	0	U		
Bromodichloromethane	162	75-27-4	45	0	U		
Bromoform	250	75-25-2	45	0	U		
Bromomethane	94	74-83-9	45	0	U		
Carbon tetrachloride	152	56-23-5	45	0	U		
Chlorobenzene	112	108-90-7	45	0	U		
Chloroethane	64	75-00-3	45	0	U		
Chloroform	118	67-66-3	45	0	U		
Chloromethane	50	74-87-3	45	0	U		
cis-1,2-dichloroethene	96	156-59-2	45	262	=		
cis-1,3-Dichloropropene	110	10061-01-5	45	0	U		
Dibromochloromethane	206	124-48-1	45	0	U		
Ethylbenzene	106	100-41-4	45	0	U		
Methylene chloride	84	75-09-2	45	0	U		
MTBE	88	1634-04-4	45	0	U		
Styrene	104	100-42-5	45	0	U		
Tetrachloroethene	164	127-18-4	45	146	=		
Toluene	92	108-88-3	45	0	U		
trans-1,2-dichloroethene	96	156-60-5	45	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	45	0	U		
Trichloroethene	130	79-01-6	45	57	=		
Vinyl acetate	86	108-05-4	45	0	U		
Vinyl chloride	62	75-01-4	45	23	J		
Xylenes (total)	106	110-75-8	45	0	U		
4-BFB(surrogate)		460-00-4		94	=		
1,2-DCA-d4(surrogate)		17060-07-0		108	=		
Toluene-d8(surrogate)		2037-26-5		97	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
B - Blank contamination.
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

% Recovery criteria is 70-130% for all analytes of interest.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

JPB

EPA Method TO-14

Client: IT Corporation
Chain-of Custody #: 572619
Sample Type: AIR
Date Sampled: 12-Feb-01
Date Received: 13-Feb-01
Date Analyzed: 16-Feb-2001
Time Analyzed: 15:54
Dilution Factor: 44.5

Field ID #: B134-V-081
Lab Sample ID: 1IT14008
Concentration Units: PPBV
Initial Calibration Date: Nov 09 2000
QC Batch Code: 9GT0216A5
Data Filename: 01021609.D
Electronic Filename: 509G0216.T
SACODE: N
Location: IR25VW6-10A

Baseline

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
1,1,1-Trichloroethane	132	71-55-6	45	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	45	0	U		
1,1,2-Trichloroethane	132	79-00-5	45	0	U		
1,1-Dichloroethane	98	75-34-3	45	0	U		
1,1-Dichloroethene	96	75-35-4	45	0	U		
1,2-Dichloroethane	98	75-35-4	45	0	U		
1,2-Dichloropropane	112	78-87-5	45	0	U		
2-Butanone	72	78-93-3	223	722	=		
2-CEVE	106	110-75-8	223	0	U		
2-Hexanone	100	591-78-6	223	0	U		
Methyl isobutyl ketone	100	108-10-1	223	0	U		
Acetone	58	67-64-1	223	0	U		
Benzene	78	71-43-2	45	0	U		
Bromodichloromethane	162	75-27-4	45	0	U		
Bromoform	250	75-25-2	45	0	U		
Bromomethane	94	74-83-9	45	0	U		
Carbon tetrachloride	152	56-23-5	45	0	U		
Chlorobenzene	112	108-90-7	45	0	U		
Chloroethane	64	75-00-3	45	0	U		
Chloroform	118	67-66-3	45	0	U		
Chloromethane	50	74-87-3	45	0	U		
cis-1,2-dichloroethene	96	156-59-2	45	85	=		
cis-1,3-Dichloropropene	110	10061-01-5	45	0	U		
Dibromochloromethane	206	124-48-1	45	0	U		
Ethylbenzene	106	100-41-4	45	0	U		
Methylene chloride	84	75-09-2	45	0	U		
MTBE	88	1634-04-4	45	0	U		
Styrene	104	100-42-5	45	0	U		
Tetrachloroethene	164	127-18-4	45	119	=		
Toluene	92	108-88-3	45	0	U		
trans-1,2-dichloroethene	96	156-60-5	45	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	45	0	U		
Trichloroethene	130	79-01-6	45	54	=		
Vinyl acetate	86	108-05-4	45	0	U		
Vinyl chloride	62	75-01-4	45	0	U		
Xylenes (total)	106	110-75-8	45	0	U		
4-BFB(surrogate)		460-00-4		93	=		
1,2-DCA-d4(surrogate)		17060-07-0		107	=		
Toluene-d8(surrogate)		2037-26-5		98	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
B - Blank contamination.
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

% Recovery criteria is 70-130% for all analytes of interest.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

JPB

EPA Method TO-14

Client: IT Corporation
Chain-of Custody #: 572619
Sample Type: AIR
Date Sampled: 12-Feb-01
Date Received: 13-Feb-01
Date Analyzed: 16-Feb-2001
Time Analyzed: 16:31
Dilution Factor: 90.8

Field ID #: B134-V-082
Lab Sample ID: 1IT14009
Concentration Units: PPBV
Initial Calibration Date: Nov 09 2000
QC Batch Code: 9GT0216A5
Data Filename: 01021610.D
Electronic Filename: 510G0216.T
SACODE: N
Location: IR25VW6-11A

Baseline

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
1,1,1-Trichloroethane	132	71-55-6	91	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	91	0	U		
1,1,2-Trichloroethane	132	79-00-5	91	0	U		
1,1-Dichloroethane	98	75-34-3	91	0	U		
1,1-Dichloroethene	96	75-35-4	91	0	U		
1,2-Dichloroethane	98	75-35-4	91	0	U		
1,2-Dichloropropane	112	78-87-5	91	0	U		
2-Butanone	72	78-93-3	454	356	J		
2-CEVE	106	110-75-8	454	0	U		
2-Hexanone	100	591-78-6	454	0	U		
Methyl isobutyl ketone	100	108-10-1	454	0	U		
Acetone	58	67-64-1	454	0	U		
Benzene	78	71-43-2	91	0	U		
Bromodichloromethane	162	75-27-4	91	0	U		
Bromoform	250	75-25-2	91	0	U		
Bromomethane	94	74-83-9	91	0	U		
Carbon tetrachloride	152	56-23-5	91	0	U		
Chlorobenzene	112	108-90-7	91	0	U		
Chloroethane	64	75-00-3	91	0	U		
Chloroform	118	67-66-3	91	0	U		
Chloromethane	50	74-87-3	91	0	U		
cis-1,2-dichloroethene	96	156-59-2	91	50	J		
cis-1,3-Dichloropropene	110	10061-01-5	91	0	U		
Dibromochloromethane	206	124-48-1	91	0	U		
Ethylbenzene	106	100-41-4	91	0	U		
Methylene chloride	84	75-09-2	91	0	U		
MTBE	88	1634-04-4	91	0	U		
Styrene	104	100-42-5	91	0	U		
Tetrachloroethene	164	127-18-4	91	170	=		
Toluene	92	108-88-3	91	0	U		
trans-1,2-dichloroethene	96	156-60-5	91	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	91	0	U		
Trichloroethene	130	79-01-6	91	0	U		
Vinyl acetate	86	108-05-4	91	0	U		
Vinyl chloride	62	75-01-4	91	0	U		
Xylenes (total)	106	110-75-8	91	0	U		
4-BFB(surrogate)		460-00-4		92	=		
1,2-DCA-d4(surrogate)		17060-07-0		106	=		
Toluene-d8(surrogate)		2037-26-5		98	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
B - Blank contamination.
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

% Recovery criteria is 70-130% for all analytes of interest.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

JPB

EPA Method TO-14

Client: IT Corporation
Chain-of Custody #: 572619
Sample Type: AIR
Date Sampled: 12-Feb-01
Date Received: 13-Feb-01
Date Analyzed: 20-Feb-2001
Time Analyzed: 15:37
Dilution Factor: 178.0

Field ID #: B134-V-083
Lab Sample ID: 1IT14010
Concentration Units: PPBV
Initial Calibration Date: Nov 09 2000
QC Batch Code: 9GT0220A5
Data Filename: 01022007.D
Electronic Filename: 507G0220.T
SACODE: N
Location: IR25VW6-12A

Baseline

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
1,1,1-Trichloroethane	132	71-55-6	178	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	178	0	U		
1,1,2-Trichloroethane	132	79-00-5	178	0	U		
1,1-Dichloroethane	98	75-34-3	178	0	U		
1,1-Dichloroethene	96	75-35-4	178	0	U		
1,2-Dichloroethane	98	75-35-4	178	0	U		
1,2-Dichloropropane	112	78-87-5	178	0	U		
2-Butanone	72	78-93-3	890	897	=		
2-CEVE	106	110-75-8	890	0	U		
2-Hexanone	100	591-78-6	890	0	U		
Methyl isobutyl ketone	100	108-10-1	890	0	U		
Acetone	58	67-64-1	890	0	U		
Benzene	78	71-43-2	178	0	U		
Bromodichloromethane	162	75-27-4	178	0	U		
Bromoform	250	75-25-2	178	0	U		
Bromomethane	94	74-83-9	178	0	U		
Carbon tetrachloride	152	56-23-5	178	0	U		
Chlorobenzene	112	108-90-7	178	0	U		
Chloroethane	64	75-00-3	178	0	U		
Chloroform	118	67-66-3	178	0	U		
Chloromethane	50	74-87-3	178	0	U		
cis-1,2-dichloroethene	96	156-59-2	178	0	U		
cis-1,3-Dichloropropene	110	10061-01-5	178	0	U		
Dibromochloromethane	206	124-48-1	178	0	U		
Ethylbenzene	106	100-41-4	178	0	U		
Methylene chloride	84	75-09-2	178	0	U		
MTBE	88	1634-04-4	178	0	U		
Styrene	104	100-42-5	178	0	U		
Tetrachloroethene	164	127-18-4	178	0	U		
Toluene	92	108-88-3	178	0	U		
trans-1,2-dichloroethene	96	156-60-5	178	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	178	0	U		
Trichloroethene	130	79-01-6	178	0	U		
Vinyl acetate	86	108-05-4	178	0	U		
Vinyl chloride	62	75-01-4	178	0	U		
Xylenes (total)	106	110-75-8	178	0	U		
4-BFB(surrogate)		460-00-4		95	=		
1,2-DCA-d4(surrogate)		17060-07-0		107	=		
Toluene-d8(surrogate)		2037-26-5		99	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
B - Blank contamination.
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

% Recovery criteria is 70-130% for all analytes of interest.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

JPB

EPA Method TO-14

Client: IT Corporation
Chain-of Custody #: 572619
Sample Type: AIR
Date Sampled: 12-Feb-01
Date Received: 13-Feb-01
Date Analyzed: 20-Feb-2001
Time Analyzed: 16:14
Dilution Factor: 445.3

Field ID #: B134-V-084
Lab Sample ID: 1IT14011
Concentration Units: PPBV
Initial Calibration Date: Nov 09 2000
QC Batch Code: 9GT0220A5
Data Filename: 01022008.D
Electronic Filename: 508G0220.T
SACODE: N
Location: IR25VW6-13A

Baseline

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
1,1,1-Trichloroethane	132	71-55-6	445	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	445	0	U		
1,1,2-Trichloroethane	132	79-00-5	445	0	U		
1,1-Dichloroethane	98	75-34-3	445	0	U		
1,1-Dichloroethene	96	75-35-4	445	0	U		
1,2-Dichloroethane	98	75-35-4	445	0	U		
1,2-Dichloropropane	112	78-87-5	445	0	U		
2-Butanone	72	78-93-3	2227	3940	=		
2-CEVE	106	110-75-8	2227	0	U		
2-Hexanone	100	591-78-6	2227	0	U		
Methyl isobutyl ketone	100	108-10-1	2227	0	U		
Acetone	58	67-64-1	2227	0	U		
Benzene	78	71-43-2	445	0	U		
Bromodichloromethane	162	75-27-4	445	0	U		
Bromoform	250	75-25-2	445	0	U		
Bromomethane	94	74-83-9	445	0	U		
Carbon tetrachloride	152	56-23-5	445	0	U		
Chlorobenzene	112	108-90-7	445	0	U		
Chloroethane	64	75-00-3	445	0	U		
Chloroform	118	67-66-3	445	0	U		
Chloromethane	50	74-87-3	445	0	U		
cis-1,2-dichloroethene	96	156-59-2	445	0	U		
cis-1,3-Dichloropropene	110	10061-01-5	445	0	U		
Dibromochloromethane	206	124-48-1	445	0	U		
Ethylbenzene	106	100-41-4	445	0	U		
Methylene chloride	84	75-09-2	445	0	U		
MTBE	88	1634-04-4	445	0	U		
Styrene	104	100-42-5	445	0	U		
Tetrachloroethene	164	127-18-4	445	0	U		
Toluene	92	108-88-3	445	0	U		
trans-1,2-dichloroethene	96	156-60-5	445	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	445	0	U		
Trichloroethene	130	79-01-6	445	0	U		
Vinyl acetate	86	108-05-4	445	0	U		
Vinyl chloride	62	75-01-4	445	0	U		
Xylenes (total)	106	110-75-8	445	0	U		
4-BFB(surrogate)		460-00-4		89	=		
1,2-DCA-d4(surrogate)		17060-07-0		106	=		
Toluene-d8(surrogate)		2037-26-5		102	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
B - Blank contamination.
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

% Recovery criteria is 70-130% for all analytes of interest.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

JPB

EPA Method TO-14

Client: IT Corporation
Chain-of Custody #: 572619
Sample Type: AIR
Date Sampled: 12-Feb-01
Date Received: 13-Feb-01
Date Analyzed: 16-Feb-2001
Time Analyzed: 18:22
Dilution Factor: 90.0

Field ID #: B134-V-085
Lab Sample ID: 1IT14012
Concentration Units: PPBV
Initial Calibration Date: Nov 09 2000
QC Batch Code: 9GT0216A5
Data Filename: 01021613.D
Electronic Filename: 513G0216.T
SACODE: N
Location: IR25VW6-14A

Baseline

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
1,1,1-Trichloroethane	132	71-55-6	90	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	90	0	U		
1,1,2-Trichloroethane	132	79-00-5	90	0	U		
1,1-Dichloroethane	98	75-34-3	90	0	U		
1,1-Dichloroethene	96	75-35-4	90	0	U		
1,2-Dichloroethane	98	75-35-4	90	0	U		
1,2-Dichloropropane	112	78-87-5	90	0	U		
2-Butanone	72	78-93-3	450	408	J		
2-CEVE	106	110-75-8	450	0	U		
2-Hexanone	100	591-78-6	450	0	U		
Methyl isobutyl ketone	100	108-10-1	450	0	U		
Acetone	58	67-64-1	450	0	U		
Benzene	78	71-43-2	90	0	U		
Bromodichloromethane	162	75-27-4	90	0	U		
Bromoform	250	75-25-2	90	0	U		
Bromomethane	94	74-83-9	90	0	U		
Carbon tetrachloride	152	56-23-5	90	0	U		
Chlorobenzene	112	108-90-7	90	0	U		
Chloroethane	64	75-00-3	90	0	U		
Chloroform	118	67-66-3	90	0	U		
Chloromethane	50	74-87-3	90	0	U		
cis-1,2-dichloroethene	96	156-59-2	90	62	J		
cis-1,3-Dichloropropene	110	10061-01-5	90	0	U		
Dibromochloromethane	206	124-48-1	90	0	U		
Ethylbenzene	106	100-41-4	90	0	U		
Methylene chloride	84	75-09-2	90	0	U		
MTBE	88	1634-04-4	90	0	U		
Styrene	104	100-42-5	90	0	U		
Tetrachloroethene	164	127-18-4	90	112	=		
Toluene	92	108-88-3	90	0	U		
trans-1,2-dichloroethene	96	156-60-5	90	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	90	0	U		
Trichloroethene	130	79-01-6	90	0	U		
Vinyl acetate	86	108-05-4	90	0	U		
Vinyl chloride	62	75-01-4	90	0	U		
Xylenes (total)	106	110-75-8	90	0	U		
4-BFB(surrogate)		460-00-4		98	=		
1,2-DCA-d4(surrogate)		17060-07-0		104	=		
Toluene-d8(surrogate)		2037-26-5		96	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
B - Blank contamination.
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

% Recovery criteria is 70-130% for all analytes of interest.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

JPB

EPA Method TO-14

Client: IT Corporation
Chain-of Custody #: 572619
Sample Type: AIR
Date Sampled: 12-Feb-01
Date Received: 13-Feb-01
Date Analyzed: 16-Feb-2001
Time Analyzed: 18:59
Dilution Factor: 187.1

Field ID #: B134-V-086
Lab Sample ID: 1IT14013
Concentration Units: PPBV
Initial Calibration Date: Nov 09 2000
QC Batch Code: 9GT0216A5
Data Filename: 01021614.D
Electronic Filename: 514G0216.T
SACODE: N
Location: IR25VW6-15A

Baseline

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
1,1,1-Trichloroethane	132	71-55-6	187	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	187	0	U		
1,1,2-Trichloroethane	132	79-00-5	187	0	U		
1,1-Dichloroethane	98	75-34-3	187	0	U		
1,1-Dichloroethene	96	75-35-4	187	0	U		
1,2-Dichloroethane	98	75-35-4	187	0	U		
1,2-Dichloropropane	112	78-87-5	187	0	U		
2-Butanone	72	78-93-3	936	357	J		
2-CEVE	106	110-75-8	936	0	U		
2-Hexanone	100	591-78-6	936	0	U		
Methyl isobutyl ketone	100	108-10-1	936	0	U		
Acetone	58	67-64-1	936	0	U		
Benzene	78	71-43-2	187	0	U		
Bromodichloromethane	162	75-27-4	187	0	U		
Bromoform	250	75-25-2	187	0	U		
Bromomethane	94	74-83-9	187	0	U		
Carbon tetrachloride	152	56-23-5	187	0	U		
Chlorobenzene	112	108-90-7	187	0	U		
Chloroethane	64	75-00-3	187	0	U		
Chloroform	118	67-66-3	187	0	U		
Chloromethane	50	74-87-3	187	0	U		
cis-1,2-dichloroethene	96	156-59-2	187	0	U		
cis-1,3-Dichloropropene	110	10061-01-5	187	0	U		
Dibromochloromethane	206	124-48-1	187	0	U		
Ethylbenzene	106	100-41-4	187	0	U		
Methylene chloride	84	75-09-2	187	0	U		
MTBE	88	1634-04-4	187	0	U		
Styrene	104	100-42-5	187	0	U		
Tetrachloroethene	164	127-18-4	187	32	J		
Toluene	92	108-88-3	187	0	U		
trans-1,2-dichloroethene	96	156-60-5	187	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	187	0	U		
Trichloroethene	130	79-01-6	187	0	U		
Vinyl acetate	86	108-05-4	187	0	U		
Vinyl chloride	62	75-01-4	187	0	U		
Xylenes (total)	106	110-75-8	187	0	U		
4-BFB(surrogate)		460-00-4		96	=		
1,2-DCA-d4(surrogate)		17060-07-0		103	=		
Toluene-d8(surrogate)		2037-26-5		98	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
B - Blank contamination.
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

% Recovery criteria is 70-130% for all analytes of interest.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

JPB

EPA Method TO-14

Client: IT Corporation
Chain-of Custody #: 572619
Sample Type: AIR
Date Sampled: 12-Feb-01
Date Received: 13-Feb-01
Date Analyzed: 16-Feb-2001
Time Analyzed: 19:36
Dilution Factor: 86.7

Field ID #: B134-V-087
Lab Sample ID: 1IT14014
Concentration Units: PPBV
Initial Calibration Date: Nov 09 2000
QC Batch Code: 9GT0216A5
Data Filename: 01021615.D
Electronic Filename: 515G0216.T
SACODE: N
Location: IR25VW6-16A

Baseline

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
1,1,1-Trichloroethane	132	71-55-6	87	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	87	0	U		
1,1,2-Trichloroethane	132	79-00-5	87	0	U		
1,1-Dichloroethane	98	75-34-3	87	0	U		
1,1-Dichloroethene	96	75-35-4	87	0	U		
1,2-Dichloroethane	98	75-35-4	87	0	U		
1,2-Dichloropropane	112	78-87-5	87	0	U		
2-Butanone	72	78-93-3	434	379	J		
2-CEVE	106	110-75-8	434	0	U		
2-Hexanone	100	591-78-6	434	0	U		
Methyl isobutyl ketone	100	108-10-1	434	0	U		
Acetone	58	67-64-1	434	0	U		
Benzene	78	71-43-2	87	0	U		
Bromodichloromethane	162	75-27-4	87	0	U		
Bromoform	250	75-25-2	87	0	U		
Bromomethane	94	74-83-9	87	0	U		
Carbon tetrachloride	152	56-23-5	87	0	U		
Chlorobenzene	112	108-90-7	87	0	U		
Chloroethane	64	75-00-3	87	0	U		
Chloroform	118	67-66-3	87	0	U		
Chloromethane	50	74-87-3	87	0	U		
cis-1,2-dichloroethene	96	156-59-2	87	0	U		
cis-1,3-Dichloropropene	110	10061-01-5	87	0	U		
Dibromochloromethane	206	124-48-1	87	0	U		
Ethylbenzene	106	100-41-4	87	0	U		
Methylene chloride	84	75-09-2	87	0	U		
MTBE	88	1634-04-4	87	0	U		
Styrene	104	100-42-5	87	0	U		
Tetrachloroethene	164	127-18-4	87	66	J		
Toluene	92	108-88-3	87	0	U		
trans-1,2-dichloroethene	96	156-60-5	87	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	87	0	U		
Trichloroethene	130	79-01-6	87	0	U		
Vinyl acetate	86	108-05-4	87	0	U		
Vinyl chloride	62	75-01-4	87	0	U		
Xylenes (total)	106	110-75-8	87	0	U		
4-BFB(surrogate)		460-00-4		100	=		
1,2-DCA-d4(surrogate)		17060-07-0		104	=		
Toluene-d8(surrogate)		2037-26-5		95	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
B - Blank contamination.
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

% Recovery criteria is 70-130% for all analytes of interest.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

JPB

EPA Method TO-14

Client: IT Corporation
Chain-of Custody #: 572619
Sample Type: AIR
Date Sampled: 12-Feb-01
Date Received: 13-Feb-01
Date Analyzed: 20-Feb-2001
Time Analyzed: 15:00
Dilution Factor: 451.4

Field ID #: B134-V-088
Lab Sample ID: 1IT14015
Concentration Units: PPBV
Initial Calibration Date: Nov 09 2000
QC Batch Code: 9GT0220A5
Data Filename: 01022006.D
Electronic Filename: 506G0220.T
SACODE: N
Location: IR25VW6-17A

Baseline

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
1,1,1-Trichloroethane	132	71-55-6	451	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	451	0	U		
1,1,2-Trichloroethane	132	79-00-5	451	0	U		
1,1-Dichloroethane	98	75-34-3	451	0	U		
1,1-Dichloroethene	96	75-35-4	451	0	U		
1,2-Dichloroethane	98	75-35-4	451	0	U		
1,2-Dichloropropane	112	78-87-5	451	0	U		
2-Butanone	72	78-93-3	2257	5170	=		
2-CEVE	106	110-75-8	2257	0	U		
2-Hexanone	100	591-78-6	2257	0	U		
Methyl isobutyl ketone	100	108-10-1	2257	0	U		
Acetone	58	67-64-1	2257	0	U		
Benzene	78	71-43-2	451	0	U		
Bromodichloromethane	162	75-27-4	451	0	U		
Bromoform	250	75-25-2	451	0	U		
Bromomethane	94	74-83-9	451	0	U		
Carbon tetrachloride	152	56-23-5	451	0	U		
Chlorobenzene	112	108-90-7	451	0	U		
Chloroethane	64	75-00-3	451	0	U		
Chloroform	118	67-66-3	451	0	U		
Chloromethane	50	74-87-3	451	0	U		
cis-1,2-dichloroethene	96	156-59-2	451	0	U		
cis-1,3-Dichloropropene	110	10061-01-5	451	0	U		
Dibromochloromethane	206	124-48-1	451	0	U		
Ethylbenzene	106	100-41-4	451	0	U		
Methylene chloride	84	75-09-2	451	0	U		
MTBE	88	1634-04-4	451	0	U		
Styrene	104	100-42-5	451	0	U		
Tetrachloroethene	164	127-18-4	451	0	U		
Toluene	92	108-88-3	451	0	U		
trans-1,2-dichloroethene	96	156-60-5	451	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	451	0	U		
Trichloroethene	130	79-01-6	451	0	U		
Vinyl acetate	86	108-05-4	451	0	U		
Vinyl chloride	62	75-01-4	451	0	U		
Xylenes (total)	106	110-75-8	451	0	U		
4-BFB(surrogate)		460-00-4		94	=		
1,2-DCA-d4(surrogate)		17060-07-0		105	=		
Toluene-d8(surrogate)		2037-26-5		97	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
B - Blank contamination.
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

% Recovery criteria is 70-130% for all analytes of interest.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

JPB

EPA Method TO-14

Client: IT Corporation
Chain-of Custody #: 572619
Sample Type: AIR
Date Sampled: 12-Feb-01
Date Received: 13-Feb-01
Date Analyzed: 21-Feb-2001
Time Analyzed: 20:17
Dilution Factor: 888.0

Field ID #: B134-V-089
Lab Sample ID: 1IT14016
Concentration Units: PPBV
Initial Calibration Date: Feb 21 2001
QC Batch Code: 9GT0221A5
Data Filename: 01022111.D
Electronic Filename: 511G0221.T
SACODE: N
Location: IR25VW6-18A

Baseline

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
1,1,1-Trichloroethane	132	71-55-6	888	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	888	0	U		
1,1,2-Trichloroethane	132	79-00-5	888	0	U		
1,1-Dichloroethane	98	75-34-3	888	0	U		
1,1-Dichloroethene	96	75-35-4	888	0	U		
1,2-Dichloroethane	98	75-35-4	888	0	U		
1,2-Dichloropropane	112	78-87-5	888	0	U		
2-Butanone	72	78-93-3	4440	0	U		
2-CEVE	106	110-75-8	4440	0	U		
2-Hexanone	100	591-78-6	4440	0	U		
Methyl isobutyl ketone	100	108-10-1	4440	0	U		
Acetone	58	67-64-1	4440	0	U		
Benzene	78	71-43-2	888	0	U		
Bromodichloromethane	162	75-27-4	888	0	U		
Bromoform	250	75-25-2	888	0	U		
Bromomethane	94	74-83-9	888	0	U		
Carbon tetrachloride	152	56-23-5	888	0	U		
Chlorobenzene	112	108-90-7	888	0	U		
Chloroethane	64	75-00-3	888	0	U		
Chloroform	118	67-66-3	888	0	U		
Chloromethane	50	74-87-3	888	0	U		
cis-1,2-dichloroethene	96	156-59-2	888	0	U		
cis-1,3-Dichloropropene	110	10061-01-5	888	0	U		
Dibromochloromethane	206	124-48-1	888	0	U		
Ethylbenzene	106	100-41-4	888	0	U		
Methylene chloride	84	75-09-2	888	0	U		
MTBE	88	1634-04-4	888	0	U		
Styrene	104	100-42-5	888	0	U		
Tetrachloroethene	164	127-18-4	888	0	U		
Toluene	92	108-88-3	888	0	U		
trans-1,2-dichloroethene	96	156-60-5	888	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	888	0	U		
Trichloroethene	130	79-01-6	888	7760	=		
Vinyl acetate	86	108-05-4	888	0	U		
Vinyl chloride	62	75-01-4	888	0	U		
Xylenes (total)	106	110-75-8	888	0	U		
4-BFB(surrogate)		460-00-4		95	=		
1,2-DCA-d4(surrogate)		17060-07-0		100	=		
Toluene-d8(surrogate)		2037-26-5		98	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
B - Blank contamination.
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

% Recovery criteria is 70-130% for all analytes of interest.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

JPB

EPA Method TO-14

Client: IT Corporation
Chain-of Custody #: 572619
Sample Type: AIR
Date Sampled: 12-Feb-01
Date Received: 13-Feb-01
Date Analyzed: 21-Feb-2001
Time Analyzed: 20:56
Dilution Factor: 559.7

Field ID #: B134-V-090
Lab Sample ID: 1IT14017
Concentration Units: PPBV
Initial Calibration Date: Feb 21 2001
QC Batch Code: 9GT0221A5
Data Filename: 01022112.D
Electronic Filename: 512G0221.T
SACODE: N
Location: IR25VW6-19A

Baseline

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
1,1,1-Trichloroethane	132	71-55-6	560	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	560	0	U		
1,1,2-Trichloroethane	132	79-00-5	560	0	U		
1,1-Dichloroethane	98	75-34-3	560	0	U		
1,1-Dichloroethene	96	75-35-4	560	0	U		
1,2-Dichloroethane	98	75-35-4	560	0	U		
1,2-Dichloropropane	112	78-87-5	560	0	U		
2-Butanone	72	78-93-3	2799	0	U		
2-CEVE	106	110-75-8	2799	0	U		
2-Hexanone	100	591-78-6	2799	0	U		
Methyl isobutyl ketone	100	108-10-1	2799	0	U		
Acetone	58	67-64-1	2799	0	U		
Benzene	78	71-43-2	560	0	U		
Bromodichloromethane	162	75-27-4	560	0	U		
Bromoform	250	75-25-2	560	0	U		
Bromomethane	94	74-83-9	560	0	U		
Carbon tetrachloride	152	56-23-5	560	0	U		
Chlorobenzene	112	108-90-7	560	0	U		
Chloroethane	64	75-00-3	560	0	U		
Chloroform	118	67-66-3	560	0	U		
Chloromethane	50	74-87-3	560	0	U		
cis-1,2-dichloroethene	96	156-59-2	560	1820	=		
cis-1,3-Dichloropropene	110	10061-01-5	560	0	U		
Dibromochloromethane	206	124-48-1	560	0	U		
Ethylbenzene	106	100-41-4	560	0	U		
Methylene chloride	84	75-09-2	560	0	U		
MTBE	88	1634-04-4	560	0	U		
Styrene	104	100-42-5	560	0	U		
Tetrachloroethene	164	127-18-4	560	4060	=		
Toluene	92	108-88-3	560	0	U		
trans-1,2-dichloroethene	96	156-60-5	560	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	560	0	U		
Trichloroethene	130	79-01-6	560	394	J		
Vinyl acetate	86	108-05-4	560	0	U		
Vinyl chloride	62	75-01-4	560	0	U		
Xylenes (total)	106	110-75-8	560	0	U		
4-BFB(surrogate)		460-00-4		96	=		
1,2-DCA-d4(surrogate)		17060-07-0		100	=		
Toluene-d8(surrogate)		2037-26-5		98	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
B - Blank contamination.
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

% Recovery criteria is 70-130% for all analytes of interest.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

JPB

EPA Method TO-14

Client: IT Corporation
Chain-of Custody #: 573556
Sample Type: AIR
Date Sampled: 13-Feb-01
Date Received: 14-Feb-01
Date Analyzed: 22-Feb-2001
Time Analyzed: 02:30
Dilution Factor: 5.8

Field ID #: B134-V-093
Lab Sample ID: 1IT14101
Concentration Units: PPBV
Initial Calibration Date: Feb 21 2001
QC Batch Code: 9GT0221A5
Data Filename: 01022121.D
Electronic Filename: 521G0221.T
SACODE: N
Location: BLDG 134 system INF

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
1,1,1-Trichloroethane	132	71-55-6	6	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	6	0	U		
1,1,2-Trichloroethane	132	79-00-5	6	0	U		
1,1-Dichloroethane	98	75-34-3	6	0	U		
1,1-Dichloroethene	96	75-35-4	6	0	U		
1,2-Dichloroethane	98	75-35-4	6	0	U		
1,2-Dichloropropane	112	78-87-5	6	0	U		
2-Butanone	72	78-93-3	29	53	=		
2-CEVE	106	110-75-8	29	0	U		
2-Hexanone	100	591-78-6	29	0	U		
Methyl isobutyl ketone	100	108-10-1	29	0	U		
Acetone	58	67-64-1	29	0	U		
Benzene	78	71-43-2	6	0	U		
Bromodichloromethane	162	75-27-4	6	0	U		
Bromoform	250	75-25-2	6	0	U		
Bromomethane	94	74-83-9	6	0	U		
Carbon tetrachloride	152	56-23-5	6	0	U		
Chlorobenzene	112	108-90-7	6	0	U		
Chloroethane	64	75-00-3	6	0	U		
Chloroform	118	67-66-3	6	0	U		
Chloromethane	50	74-87-3	6	0	U		
cis-1,2-dichloroethene	96	156-59-2	6	0	U		
cis-1,3-Dichloropropene	110	10061-01-5	6	0	U		
Dibromochloromethane	206	124-48-1	6	0	U		
Ethylbenzene	106	100-41-4	6	0	U		
Methylene chloride	84	75-09-2	6	0	U		
MTBE	88	1634-04-4	6	0	U		
Styrene	104	100-42-5	6	0	U		
Tetrachloroethene	164	127-18-4	6	4	J		
Toluene	92	108-88-3	6	0	U		
trans-1,2-dichloroethene	96	156-60-5	6	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	6	0	U		
Trichloroethene	130	79-01-6	6	0	U		
Vinyl acetate	86	108-05-4	6	0	U		
Vinyl chloride	62	75-01-4	6	0	U		
Xylenes (total)	106	110-75-8	6	0	U		
4-BFB(surrogate)		460-00-4		96	=		
1,2-DCA-d4(surrogate)		17060-07-0		103	=		
Toluene-d8(surrogate)		2037-26-5		102	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
B - Blank contamination.
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

% Recovery criteria is 70-130% for all analytes of interest.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

JPB

EPA Method TO-14

Client: IT Corporation
Chain-of Custody #: 573556
Sample Type: AIR
Date Sampled: 13-Feb-01
Date Received: 14-Feb-01
Date Analyzed: 22-Feb-2001
Time Analyzed: 20:28
Dilution Factor: 1.2

Field ID #: B134-V-094
Lab Sample ID: 1IT14102
Concentration Units: PPBV
Initial Calibration Date: Feb 21 2001
QC Batch Code: 9GT0222A5
Data Filename: 01022212.D
Electronic Filename: 512G0222.T
SACODE: N
Location: BLDG 134 system EFF

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
1,1,1-Trichloroethane	132	71-55-6	1	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	1	0	U		
1,1,2-Trichloroethane	132	79-00-5	1	0	U		
1,1-Dichloroethane	98	75-34-3	1	0	U		
1,1-Dichloroethene	96	75-35-4	1	0	U		
1,2-Dichloroethane	98	75-35-4	1	0	U		
1,2-Dichloropropane	112	78-87-5	1	0	U		
2-Butanone	72	78-93-3	6	0	U		
2-CEVE	106	110-75-8	6	0	U		
2-Hexanone	100	591-78-6	6	0	U		
Methyl isobutyl ketone	100	108-10-1	6	0	U		
Acetone	58	67-64-1	6	3.5	J		
Benzene	78	71-43-2	1	0	U		
Bromodichloromethane	162	75-27-4	1	0	U		
Bromoform	250	75-25-2	1	0	U		
Bromomethane	94	74-83-9	1	0	U		
Carbon tetrachloride	152	56-23-5	1	0	U		
Chlorobenzene	112	108-90-7	1	0	U		
Chloroethane	64	75-00-3	1	0	U		
Chloroform	118	67-66-3	1	0	U		
Chloromethane	50	74-87-3	1	0	U		
cis-1,2-dichloroethene	96	156-59-2	1	0	U		
cis-1,3-Dichloropropene	110	10061-01-5	1	0	U		
Dibromochloromethane	206	124-48-1	1	0	U		
Ethylbenzene	106	100-41-4	1	0	U		
Methylene chloride	84	75-09-2	1	0	U		
MTBE	88	1634-04-4	1	0	U		
Styrene	104	100-42-5	1	0	U		
Tetrachloroethene	164	127-18-4	1	0	U		
Toluene	92	108-88-3	1	0	U		
trans-1,2-dichloroethene	96	156-60-5	1	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	1	0	U		
Trichloroethene	130	79-01-6	1	0	U		
Vinyl acetate	86	108-05-4	1	0	U		
Vinyl chloride	62	75-01-4	1	0	U		
Xylenes (total)	106	110-75-8	1	0	U		
4-BFB(surrogate)		460-00-4		95	=		
1,2-DCA-d4(surrogate)		17060-07-0		103	=		
Toluene-d8(surrogate)		2037-26-5		100	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
B - Blank contamination.
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

% Recovery criteria is 70-130% for all analytes of interest.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

JPB

EPA Method TO-14

Client: IT Corporation
Chain-of Custody #: 573557
Sample Type: AIR
Date Sampled: 15-Feb-01
Date Received: 20-Feb-01
Date Analyzed: 20-Feb-2001
Time Analyzed: 21:04
Dilution Factor: 46.2

Field ID #: B134-V-099
Lab Sample ID: 1IT14501
Concentration Units: PPBV
Initial Calibration Date: Nov 09 2000
QC Batch Code: 9GT0220A5
Data Filename: 01022015.D
Electronic Filename: 515G0220.T
SACODE: N
Location: BLDG 134 system INF

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
1,1,1-Trichloroethane	132	71-55-6	46	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	46	0	U		
1,1,2-Trichloroethane	132	79-00-5	46	0	U		
1,1-Dichloroethane	98	75-34-3	46	0	U		
1,1-Dichloroethene	96	75-35-4	46	0	U		
1,2-Dichloroethane	98	75-35-4	46	0	U		
1,2-Dichloropropane	112	78-87-5	46	0	U		
2-Butanone	72	78-93-3	231	0	U		
2-CEVE	106	110-75-8	231	0	U		
2-Hexanone	100	591-78-6	231	0	U		
Methyl isobutyl ketone	100	108-10-1	231	0	U		
Acetone	58	67-64-1	231	0	U		
Benzene	78	71-43-2	46	0	U		
Bromodichloromethane	162	75-27-4	46	0	U		
Bromoform	250	75-25-2	46	0	U		
Bromomethane	94	74-83-9	46	0	U		
Carbon tetrachloride	152	56-23-5	46	0	U		
Chlorobenzene	112	108-90-7	46	0	U		
Chloroethane	64	75-00-3	46	0	U		
Chloroform	118	67-66-3	46	0	U		
Chloromethane	50	74-87-3	46	0	U		
cis-1,2-dichloroethene	96	156-59-2	46	0	U		
cis-1,3-Dichloropropene	110	10061-01-5	46	0	U		
Dibromochloromethane	206	124-48-1	46	0	U		
Ethylbenzene	106	100-41-4	46	0	U		
Methylene chloride	84	75-09-2	46	0	U		
MTBE	88	1634-04-4	46	0	U		
Styrene	104	100-42-5	46	0	U		
Tetrachloroethene	164	127-18-4	46	0	U		
Toluene	92	108-88-3	46	0	U		
trans-1,2-dichloroethene	96	156-60-5	46	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	46	0	U		
Trichloroethene	130	79-01-6	46	166	=		
Vinyl acetate	86	108-05-4	46	0	U		
Vinyl chloride	62	75-01-4	46	0	U		
Xylenes (total)	106	110-75-8	46	0	U		
4-BFB(surrogate)		460-00-4		93	=		
1,2-DCA-d4(surrogate)		17060-07-0		108	=		
Toluene-d8(surrogate)		2037-26-5		100	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
B - Blank contamination.
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

% Recovery criteria is 70-130% for all analytes of interest.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

JPB

EPA Method TO-14

Client: IT Corporation
Chain-of Custody #: 573557
Sample Type: AIR
Date Sampled: 15-Feb-01
Date Received: 20-Feb-01
Date Analyzed: 20-Feb-2001
Time Analyzed: 21:40
Dilution Factor: 2.4

Field ID #: B134-V-100
Lab Sample ID: 1IT14502
Concentration Units: PPBV
Initial Calibration Date: Nov 09 2000
QC Batch Code: 9GT0220A5
Data Filename: 01022016.D
Electronic Filename: 516G0220.T
SACODE: N
Location: BLDG 134 system EFF

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
1,1,1-Trichloroethane	132	71-55-6	2	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	2	0	U		
1,1,2-Trichloroethane	132	79-00-5	2	0	U		
1,1-Dichloroethane	98	75-34-3	2	0	U		
1,1-Dichloroethene	96	75-35-4	2	0	U		
1,2-Dichloroethane	98	75-35-4	2	0	U		
1,2-Dichloropropane	112	78-87-5	2	0	U		
2-Butanone	72	78-93-3	12	0	U		
2-CEVE	106	110-75-8	12	0	U		
2-Hexanone	100	591-78-6	12	0	U		
Methyl isobutyl ketone	100	108-10-1	12	0	U		
Acetone	58	67-64-1	12	0	U		
Benzene	78	71-43-2	2	0	U		
Bromodichloromethane	162	75-27-4	2	0	U		
Bromoform	250	75-25-2	2	0	U		
Bromomethane	94	74-83-9	2	0	U		
Carbon tetrachloride	152	56-23-5	2	0	U		
Chlorobenzene	112	108-90-7	2	0	U		
Chloroethane	64	75-00-3	2	0	U		
Chloroform	118	67-66-3	2	0	U		
Chloromethane	50	74-87-3	2	0	U		
cis-1,2-dichloroethene	96	156-59-2	2	0	U		
cis-1,3-Dichloropropene	110	10061-01-5	2	0	U		
Dibromochloromethane	206	124-48-1	2	0	U		
Ethylbenzene	106	100-41-4	2	0	U		
Methylene chloride	84	75-09-2	2	0	U		
MTBE	88	1634-04-4	2	0	U		
Styrene	104	100-42-5	2	0	U		
Tetrachloroethene	164	127-18-4	2	0	U		
Toluene	92	108-88-3	2	0	U		
trans-1,2-dichloroethene	96	156-60-5	2	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	2	0	U		
Trichloroethene	130	79-01-6	2	0	U		
Vinyl acetate	86	108-05-4	2	0	U		
Vinyl chloride	62	75-01-4	2	0	U		
Xylenes (total)	106	110-75-8	2	0	U		
4-BFB(surrogate)		460-00-4		94	=		
1,2-DCA-d4(surrogate)		17060-07-0		108	=		
Toluene-d8(surrogate)		2037-26-5		100	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
B - Blank contamination.
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

% Recovery criteria is 70-130% for all analytes of interest.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

JPB

EPA Method TO-14

Client: IT GROUP
Chain-of Custody #: 572628
Sample Type: AIR
Date Sampled: 19-Feb-01
Date Received: 20-Feb-01
Date Analyzed: 22-Feb-2001
Time Analyzed: 19:13
Dilution Factor: 9.1

Field ID #: B134-V-103
Concentration Units: PPBV
Lab Sample ID: 1IT14603
Initial Calibration Date: Feb 21 2001
QC Batch Code: 9GT0222A5
Data Filename: 01022210.D
Electronic Filename: 510G0222.T
SACODE: N
Location: BLDG 134 system INF

Analytes	PARLABEL	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
Dichlorodifluoromethane	FC12	75-71-8	9	0	U		
Freon 114	DCTFA12	76-14-2	9	0	U		
Chloromethane	CLME	74-87-3	9	0	U		
Vinyl chloride	VC	75-01-4	9	0	U		
Bromomethane	BRME	74-83-9	9	0	U		
Chloroethane	CLEA	75-00-3	9	0	U		
Trichlorofluoromethane	FC11	75-69-4	9	0	U		
Trichlorotrifluoroethane	FC113	76-13-1	9	0	U		
Methylene chloride	MTLNCL	75-09-2	9	0	U		
1,1-Dichloroethene	DCE11	75-35-4	9	0	U		
trans-1,2-dichloroethene	DCE12T	156-60-5	9	0	U		
1,1-Dichloroethane	DCA11	75-34-3	9	0	U		
cis-1,2-dichloroethene	DCE12C	156-59-2	9	8.9	J		
Chloroform	TCLME	67-66-3	9	0	U		
1,1,1-Trichloroethane	TCA111	71-55-6	9	0	U		
Carbon tetrachloride	CTCL	56-23-5	9	0	U		
Benzene	BZ	71-43-2	9	0	U		
1,2-Dichloroethane	DCA12	107-06-2	9	0	U		
Trichloroethene	TCE	79-01-6	9	69	=		
1,2-Dichloropropane	DCPA12	78-87-5	9	0	U		
cis-1,3-Dichloropropene	DCP13C	10061-01-5	9	0	U		
Toluene	BZME	108-88-3	9	0	U		
trans-1,3-Dichloropropene	DCP13T	10061-02-6	9	0	U		
1,1,2-Trichloroethane	TCA112	79-00-5	9	0	U		
Tetrachloroethene	PCE	127-18-4	9	25	=		
1,2-Dibromoethane	EDB	106-93-4	9	0	U		
Chlorobenzene	CLBZ	108-90-7	9	0	U		
Ethylbenzene	EBZ	100-41-4	9	0	U		
m + p + o-Xylenes	XYLMP	1330-20-7	9	0	U		
Styrene	STY	100-42-5	9	0	U		
1,1,2,2-Tetrachloroethane	PCA	79-34-5	9	0	U		
1,3,5-Trimethylbenzene	TMB135	108-67-8	9	0	U		
1,2,4-Trimethylbenzene	TMB124	95-63-6	9	0	U		
Benzyl Chloride	BZLCL	100-44-7	9	0	U		
1,3-Dichlorobenzene	DCBZ13	541-73-1	9	0	U		
1,4-Dichlorobenzene	DCBZ14	106-46-7	9	0	U		
1,2-Dichlorobenzene	DCBZ12	95-50-1	9	0	U		
1,2,4-Trichlorobenzene	TCB124	120-82-1	9	0	U		
Hexachlorobutadiene	HCBU	87-68-3	9	0	U		
4-BFB(surrogate)	BR4FBZ	460-00-4		97	=		
1,2-DCA-d4(surrogate)	DCA12D4			103	=		
Toluene-d8(surrogate)	BZMED8			100	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
J - Result below MQL
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

JPB

EPA Method TO-14

Client: IT GROUP
Chain-of Custody #: 572628
Sample Type: AIR
Date Sampled: 19-Feb-01
Date Received: 20-Feb-01
Date Analyzed: 22-Feb-2001
Time Analyzed: 19:51
Dilution Factor: 1.1

Field ID #: B134-V-104
Concentration Units: PPBV
Lab Sample ID: 1IT14604
Initial Calibration Date: Feb 21 2001
QC Batch Code: 9GT0222A5
Data Filename: 01022211.D
Electronic Filename: 511G0222.T
SACODE: N
Location: BLDG 134 system EFF

Analytes	PARLABEL	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
Dichlorodifluoromethane	FC12	75-71-8	1	0	U		
Freon 114	DCTFA12	76-14-2	1	0	U		
Chloromethane	CLME	74-87-3	1	0	U		
Vinyl chloride	VC	75-01-4	1	0	U		
Bromomethane	BRME	74-83-9	1	0	U		
Chloroethane	CLEA	75-00-3	1	0	U		
Trichlorofluoromethane	FC11	75-69-4	1	0	U		
Trichlorotrifluoroethane	FC113	76-13-1	1	0	U		
Methylene chloride	MTLNCL	75-09-2	1	0	U		
1,1-Dichloroethene	DCE11	75-35-4	1	0	U		
trans-1,2-dichloroethene	DCE12T	156-60-5	1	0	U		
1,1-Dichloroethane	DCA11	75-34-3	1	0	U		
cis-1,2-dichloroethene	DCE12C	156-59-2	1	0	U		
Chloroform	TCLME	67-66-3	1	0	U		
1,1,1-Trichloroethane	TCA111	71-55-6	1	0	U		
Carbon tetrachloride	CTCL	56-23-5	1	0	U		
Benzene	BZ	71-43-2	1	0	U		
1,2-Dichloroethane	DCA12	107-06-2	1	0	U		
Trichloroethene	TCE	79-01-6	1	0	U		
1,2-Dichloropropane	DCPA12	78-87-5	1	0	U		
cis-1,3-Dichloropropene	DCP13C	10061-01-5	1	0	U		
Toluene	BZME	108-88-3	1	0.58	J		
trans-1,3-Dichloropropene	DCP13T	10061-02-6	1	0	U		
1,1,2-Trichloroethane	TCA112	79-00-5	1	0	U		
Tetrachloroethene	PCE	127-18-4	1	0	U		
1,2-Dibromoethane	EDB	106-93-4	1	0	U		
Chlorobenzene	CLBZ	108-90-7	1	0	U		
Ethylbenzene	EBZ	100-41-4	1	0	U		
m + p + o-Xylenes	XYLMP	1330-20-7	1	0	U		
Styrene	STY	100-42-5	1	0	U		
1,1,2,2-Tetrachloroethane	PCA	79-34-5	1	0	U		
1,3,5-Trimethylbenzene	TMB135	108-67-8	1	0	U		
1,2,4-Trimethylbenzene	TMB124	95-63-6	1	0	U		
Benzyl Chloride	BZLCL	100-44-7	1	0	U		
1,3-Dichlorobenzene	DCBZ13	541-73-1	1	0	U		
1,4-Dichlorobenzene	DCBZ14	106-46-7	1	0	U		
1,2-Dichlorobenzene	DCBZ12	95-50-1	1	0	U		
1,2,4-Trichlorobenzene	TCB124	120-82-1	1	0	U		
Hexachlorobutadiene	HCBU	87-68-3	1	0	U		
4-BFB(surrogate)	BR4FBZ	460-00-4		96	=		
1,2-DCA-d4(surrogate)	DCA12D4			102	=		
Toluene-d8(surrogate)	BZMED8			100	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
J - Result below MQL
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

JPB

EPA Method TO-14

Client: IT Corporation
Chain-of Custody #: 572627
Sample Type: AIR
Date Sampled: 20-Feb-01
Date Received: 22-Feb-01
Date Analyzed: 22-Feb-2001
Time Analyzed: 22:21
Dilution Factor: 2.2

Field ID #: B134-V-105
Lab Sample ID: 1IT14801
Concentration Units: PPBV
Initial Calibration Date: Feb 21 2001
QC Batch Code: 9GT0222A5
Data Filename: 01022215.D
Electronic Filename: 515G0222.T
SACODE: N
Location: BLDG 134 system INF

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
1,1,1-Trichloroethane	132	71-55-6	2	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	2	0	U		
1,1,2-Trichloroethane	132	79-00-5	2	0	U		
1,1-Dichloroethane	98	75-34-3	2	0	U		
1,1-Dichloroethene	96	75-35-4	2	0	U		
1,2-Dichloroethane	98	75-35-4	2	0	U		
1,2-Dichloropropane	112	78-87-5	2	0	U		
2-Butanone	72	78-93-3	11	7.5	J		
2-CEVE	106	110-75-8	11	0	U		
2-Hexanone	100	591-78-6	11	0	U		
Methyl isobutyl ketone	100	108-10-1	11	0	U		
Acetone	58	67-64-1	11	0	U		
Benzene	78	71-43-2	2	0	U		
Bromodichloromethane	162	75-27-4	2	0	U		
Bromoform	250	75-25-2	2	0	U		
Bromomethane	94	74-83-9	2	0	U		
Carbon tetrachloride	152	56-23-5	2	0	U		
Chlorobenzene	112	108-90-7	2	0	U		
Chloroethane	64	75-00-3	2	0	U		
Chloroform	118	67-66-3	2	0	U		
Chloromethane	50	74-87-3	2	0	U		
cis-1,2-dichloroethene	96	156-59-2	2	5.4	=		
cis-1,3-Dichloropropene	110	10061-01-5	2	0	U		
Dibromochloromethane	206	124-48-1	2	0	U		
Ethylbenzene	106	100-41-4	2	0	U		
Methylene chloride	84	75-09-2	2	0	U		
MTBE	88	1634-04-4	2	0	U		
Styrene	104	100-42-5	2	0	U		
Tetrachloroethene	164	127-18-4	2	14	=		
Toluene	92	108-88-3	2	2	=		
trans-1,2-dichloroethene	96	156-60-5	2	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	2	0	U		
Trichloroethene	130	79-01-6	2	33	=		
Vinyl acetate	86	108-05-4	2	0	U		
Vinyl chloride	62	75-01-4	2	0	U		
Xylenes (total)	106	110-75-8	2	1.6	J		
4-BFB(surrogate)		460-00-4		96	=		
1,2-DCA-d4(surrogate)		17060-07-0		104	=		
Toluene-d8(surrogate)		2037-26-5		101	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
B - Blank contamination.
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

% Recovery criteria is 70-130% for all analytes of interest.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

JPB

EPA Method TO-14

Client: IT Corporation
Chain-of Custody #: 572627
Sample Type: AIR
Date Sampled: 20-Feb-01
Date Received: 22-Feb-01
Date Analyzed: 22-Feb-2001
Time Analyzed: 22:58
Dilution Factor: 1.1

Field ID #: B134-V-106
Lab Sample ID: 1IT14802
Concentration Units: PPBV
Initial Calibration Date: Feb 21 2001
QC Batch Code: 9GT0222A5
Data Filename: 01022216.D
Electronic Filename: 516G0222.T
SACODE: N
Location: BLDG 134 system EFF

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
1,1,1-Trichloroethane	132	71-55-6	1	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	1	0	U		
1,1,2-Trichloroethane	132	79-00-5	1	0	U		
1,1-Dichloroethane	98	75-34-3	1	0	U		
1,1-Dichloroethene	96	75-35-4	1	0	U		
1,2-Dichloroethane	98	75-35-4	1	0	U		
1,2-Dichloropropane	112	78-87-5	1	0	U		
2-Butanone	72	78-93-3	6	0	U		
2-CEVE	106	110-75-8	6	0	U		
2-Hexanone	100	591-78-6	6	0	U		
Methyl isobutyl ketone	100	108-10-1	6	0	U		
Acetone	58	67-64-1	6	3.3	J		
Benzene	78	71-43-2	1	0	U		
Bromodichloromethane	162	75-27-4	1	0	U		
Bromoform	250	75-25-2	1	0	U		
Bromomethane	94	74-83-9	1	0	U		
Carbon tetrachloride	152	56-23-5	1	0	U		
Chlorobenzene	112	108-90-7	1	0	U		
Chloroethane	64	75-00-3	1	0	U		
Chloroform	118	67-66-3	1	0	U		
Chloromethane	50	74-87-3	1	0	U		
cis-1,2-dichloroethene	96	156-59-2	1	0	U		
cis-1,3-Dichloropropene	110	10061-01-5	1	0	U		
Dibromochloromethane	206	124-48-1	1	0	U		
Ethylbenzene	106	100-41-4	1	0	U		
Methylene chloride	84	75-09-2	1	0	U		
MTBE	88	1634-04-4	1	0	U		
Styrene	104	100-42-5	1	0	U		
Tetrachloroethene	164	127-18-4	1	0	U		
Toluene	92	108-88-3	1	0	U		
trans-1,2-dichloroethene	96	156-60-5	1	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	1	0	U		
Trichloroethene	130	79-01-6	1	0	U		
Vinyl acetate	86	108-05-4	1	0	U		
Vinyl chloride	62	75-01-4	1	0	U		
Xylenes (total)	106	110-75-8	1	0	U		
4-BFB(surrogate)		460-00-4		96	=		
1,2-DCA-d4(surrogate)		17060-07-0		103	=		
Toluene-d8(surrogate)		2037-26-5		101	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
B - Blank contamination.
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

% Recovery criteria is 70-130% for all analytes of interest.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

JPB

EPA Method TO-14

Client: IT Corporation
Chain-of Custody #: 572627
Sample Type: AIR
Date Sampled: 21-Feb-01
Date Received: 22-Feb-01
Date Analyzed: 22-Feb-2001
Time Analyzed: 18:37
Dilution Factor: 2.7

Field ID #: B134-V-107
Lab Sample ID: 1IT14803
Concentration Units: PPBV
Initial Calibration Date: Feb 21 2001
QC Batch Code: 9GT0222A5
Data Filename: 01022209.D
Electronic Filename: 509G0222.T
SACODE: N
Location: BLDG 134 system INF

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
1,1,1-Trichloroethane	132	71-55-6	3	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	3	0	U		
1,1,2-Trichloroethane	132	79-00-5	3	0	U		
1,1-Dichloroethane	98	75-34-3	3	0	U		
1,1-Dichloroethene	96	75-35-4	3	0	U		
1,2-Dichloroethane	98	75-35-4	3	0	U		
1,2-Dichloropropane	112	78-87-5	3	0	U		
2-Butanone	72	78-93-3	14	0	U		
2-CEVE	106	110-75-8	14	0	U		
2-Hexanone	100	591-78-6	14	0	U		
Methyl isobutyl ketone	100	108-10-1	14	0	U		
Acetone	58	67-64-1	14	0	U		
Benzene	78	71-43-2	3	2.6	J		
Bromodichloromethane	162	75-27-4	3	0	U		
Bromoform	250	75-25-2	3	0	U		
Bromomethane	94	74-83-9	3	0	U		
Carbon tetrachloride	152	56-23-5	3	0	U		
Chlorobenzene	112	108-90-7	3	0	U		
Chloroethane	64	75-00-3	3	0	U		
Chloroform	118	67-66-3	3	0	U		
Chloromethane	50	74-87-3	3	0	U		
cis-1,2-dichloroethene	96	156-59-2	3	4.3	=		
cis-1,3-Dichloropropene	110	10061-01-5	3	0	U		
Dibromochloromethane	206	124-48-1	3	0	U		
Ethylbenzene	106	100-41-4	3	0	U		
Methylene chloride	84	75-09-2	3	0	U		
MTBE	88	1634-04-4	3	0	U		
Styrene	104	100-42-5	3	0	U		
Tetrachloroethene	164	127-18-4	3	10	=		
Toluene	92	108-88-3	3	4.7	=		
trans-1,2-dichloroethene	96	156-60-5	3	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	3	0	U		
Trichloroethene	130	79-01-6	3	29	=		
Vinyl acetate	86	108-05-4	3	0	U		
Vinyl chloride	62	75-01-4	3	0	U		
Xylenes (total)	106	110-75-8	3	2.3	J		
4-BFB(surrogate)		460-00-4		97	=		
1,2-DCA-d4(surrogate)		17060-07-0		102	=		
Toluene-d8(surrogate)		2037-26-5		99	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
B - Blank contamination.
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

% Recovery criteria is 70-130% for all analytes of interest.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

JPB

EPA Method TO-14

Client: IT Corporation
Chain-of Custody #: 572627
Sample Type: AIR
Date Sampled: 21-Feb-01
Date Received: 22-Feb-01
Date Analyzed: 22-Feb-2001
Time Analyzed: 23:36
Dilution Factor: 1.1

Field ID #: B134-V-108
Lab Sample ID: 1IT14804
Concentration Units: PPBV
Initial Calibration Date: Feb 21 2001
QC Batch Code: 9GT0222A5
Data Filename: 01022217.D
Electronic Filename: 517G0222.T
SACODE: N
Location: BLDG 134 system EFF

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
1,1,1-Trichloroethane	132	71-55-6	1	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	1	0	U		
1,1,2-Trichloroethane	132	79-00-5	1	0	U		
1,1-Dichloroethane	98	75-34-3	1	0	U		
1,1-Dichloroethene	96	75-35-4	1	0	U		
1,2-Dichloroethane	98	75-35-4	1	0	U		
1,2-Dichloropropane	112	78-87-5	1	0	U		
2-Butanone	72	78-93-3	6	0	U		
2-CEVE	106	110-75-8	6	0	U		
2-Hexanone	100	591-78-6	6	0	U		
Methyl isobutyl ketone	100	108-10-1	6	0	U		
Acetone	58	67-64-1	6	0	U		
Benzene	78	71-43-2	1	0	U		
Bromodichloromethane	162	75-27-4	1	0	U		
Bromoform	250	75-25-2	1	0	U		
Bromomethane	94	74-83-9	1	0	U		
Carbon tetrachloride	152	56-23-5	1	0	U		
Chlorobenzene	112	108-90-7	1	0	U		
Chloroethane	64	75-00-3	1	0	U		
Chloroform	118	67-66-3	1	0	U		
Chloromethane	50	74-87-3	1	0.73	J		
cis-1,2-dichloroethene	96	156-59-2	1	0	U		
cis-1,3-Dichloropropene	110	10061-01-5	1	0	U		
Dibromochloromethane	206	124-48-1	1	0	U		
Ethylbenzene	106	100-41-4	1	0	U		
Methylene chloride	84	75-09-2	1	0	U		
MTBE	88	1634-04-4	1	0	U		
Styrene	104	100-42-5	1	0	U		
Tetrachloroethene	164	127-18-4	1	0	U		
Toluene	92	108-88-3	1	2.3	=		
trans-1,2-dichloroethene	96	156-60-5	1	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	1	0	U		
Trichloroethene	130	79-01-6	1	0	U		
Vinyl acetate	86	108-05-4	1	0	U		
Vinyl chloride	62	75-01-4	1	0	U		
Xylenes (total)	106	110-75-8	1	0.71	J		
4-BFB(surrogate)		460-00-4		96	=		
1,2-DCA-d4(surrogate)		17060-07-0		102	=		
Toluene-d8(surrogate)		2037-26-5		100	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
B - Blank contamination.
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

% Recovery criteria is 70-130% for all analytes of interest.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Smart
Chemistry

Analytical Laboratory Report

EPA Method TO-14

Client: IT GROUP
Chain-of Custody #: 572626
Sample Type: AIR
Date Sampled: 26-Feb-01
Date Received: 27-Feb-01
Date Analyzed: 28-Feb-2001
Time Analyzed: 16:39
Dilution Factor: 8.7

Field ID #: B134-V-109
Concentration Units: PPBV
Lab Sample ID: 1IT15001
Initial Calibration Date: Feb 21 2001
QC Batch Code: 9GT0228A5
Data Filename: 01022808.D
Electronic Filename: 508G0228.T
SACODE: N
Location: BLDG 134 system INF

Analytes	PARLABEL	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
Dichlorodifluoromethane	FC12	75-71-8	9	0	U		
Freon 114	DCTFA12	76-14-2	9	0	U		
Chloromethane	CLME	74-87-3	9	0	U		
Vinyl chloride	VC	75-01-4	9	0	U		
Bromomethane	BRME	74-83-9	9	0	U		
Chloroethane	CLEA	75-00-3	9	0	U		
Trichlorofluoromethane	FC11	75-69-4	9	17	=		
Trichlorotrifluoroethane	FC113	76-13-1	9	0	U		
Methylene chloride	MTLNCL	75-09-2	9	0	U		
1,1-Dichloroethene	DCE11	75-35-4	9	0	U		
trans-1,2-dichloroethene	DCE12T	156-60-5	9	0	U		
1,1-Dichloroethane	DCA11	75-34-3	9	0	U		
cis-1,2-dichloroethene	DCE12C	156-59-2	9	0	U		
Chloroform	TCLME	67-66-3	9	0	U		
1,1,1-Trichloroethane	TCA111	71-55-6	9	0	U		
Carbon tetrachloride	CTCL	56-23-5	9	0	U		
Benzene	BZ	71-43-2	9	17	=		
1,2-Dichloroethane	DCA12	107-06-2	9	0	U		
Trichloroethene	TCE	79-01-6	9	0	U		
1,2-Dichloropropane	DCPA12	78-87-5	9	0	U		
cis-1,3-Dichloropropene	DCP13C	10061-01-5	9	0	U		
Toluene	BZME	108-88-3	9	109	=		
trans-1,3-Dichloropropene	DCP13T	10061-02-6	9	0	U		
1,1,2-Trichloroethane	TCA112	79-00-5	9	0	U		
Tetrachloroethene	PCE	127-18-4	9	5.1	J		
1,2-Dibromoethane	EDB	106-93-4	9	0	U		
Chlorobenzene	CLBZ	108-90-7	9	0	U		
Ethylbenzene	EBZ	100-41-4	9	7.8	J		
Xylenes	XYLMP	1330-20-7	9	36	=		
Styrene	STY	100-42-5	9	0	U		
1,1,2,2-Tetrachloroethane	PCA	79-34-5	9	0	U		
1,3,5-Trimethylbenzene	TMB135	108-67-8	9	0	U		
1,2,4-Trimethylbenzene	TMB124	95-63-6	9	0	U		
Benzyl Chloride	BZLCL	100-44-7	9	0	U		
1,3-Dichlorobenzene	DCBZ13	541-73-1	9	0	U		
1,4-Dichlorobenzene	DCBZ14	106-46-7	9	0	U		
1,2-Dichlorobenzene	DCBZ12	95-50-1	9	0	U		
1,2,4-Trichlorobenzene	TCB124	120-82-1	9	0	U		
Hexachlorobutadiene	HCBU	87-68-3	9	0	U		
4-BFB(surrogate)	BR4FBZ	460-00-4		103	=		
1,2-DCA-d4(surrogate)	DCA12D4			95	=		
Toluene-d8(surrogate)	BZMED8			100	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
J - Result below MQL
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

PROCEDURES:
This analysis was performed using EPA Method TO-14

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Analytical Laboratory Report

EPA Method TO-14

Client: IT GROUP
Chain-of Custody #: 572626
Sample Type: AIR
Date Sampled: 26-Feb-01
Date Received: 27-Feb-01
Date Analyzed: 28-Feb-2001
Time Analyzed: 17:17
Dilution Factor: 1.1

Field ID #: B134-V-110
Concentration Units: PPBV
Lab Sample ID: 1IT15002
Initial Calibration Date: Feb 21 2001
QC Batch Code: 9GT0228A5
Data Filename: 01022809.D
Electronic Filename: 509G0228.T
SACODE: N
Location: BLDG 134 system EFF

Analytes	PARLABEL	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
Dichlorodifluoromethane	FC12	75-71-8	1	0	U		
Freon 114	DCTFA12	76-14-2	1	0	U		
Chloromethane	CLME	74-87-3	1	0.67	J		
Vinyl chloride	VC	75-01-4	1	0	U		
Bromomethane	BRME	74-83-9	1	0	U		
Chloroethane	CLEA	75-00-3	1	0	U		
Trichlorofluoromethane	FC11	75-69-4	1	0	U		
Trichlorotrifluoroethane	FC113	76-13-1	1	0	U		
Methylene chloride	MTLNCL	75-09-2	1	0	U		
1,1-Dichloroethene	DCE11	75-35-4	1	0	U		
trans-1,2-dichloroethene	DCE12T	156-60-5	1	0	U		
1,1-Dichloroethane	DCA11	75-34-3	1	0	U		
cis-1,2-dichloroethene	DCE12C	156-59-2	1	0	U		
Chloroform	TCLME	67-66-3	1	0	U		
1,1,1-Trichloroethane	TCA111	71-55-6	1	0	U		
Carbon tetrachloride	CTCL	56-23-5	1	0	U		
Benzene	BZ	71-43-2	1	0	U		
1,2-Dichloroethane	DCA12	107-06-2	1	0	U		
Trichloroethene	TCE	79-01-6	1	0	U		
1,2-Dichloropropane	DCPA12	78-87-5	1	0	U		
cis-1,3-Dichloropropene	DCP13C	10061-01-5	1	0	U		
Toluene	BZME	108-88-3	1	0	U		
trans-1,3-Dichloropropene	DCP13T	10061-02-6	1	0	U		
1,1,2-Trichloroethane	TCA112	79-00-5	1	0	U		
Tetrachloroethene	PCE	127-18-4	1	0	U		
1,2-Dibromoethane	EDB	106-93-4	1	0	U		
Chlorobenzene	CLBZ	108-90-7	1	0	U		
Ethylbenzene	EBZ	100-41-4	1	0	U		
Xylenes	XYLMP	1330-20-7	1	0	U		
Styrene	STY	100-42-5	1	0	U		
1,1,2,2-Tetrachloroethane	PCA	79-34-5	1	0	U		
1,3,5-Trimethylbenzene	TMB135	108-67-8	1	0	U		
1,2,4-Trimethylbenzene	TMB124	95-63-6	1	0	U		
Benzyl Chloride	BZLCL	100-44-7	1	0	U		
1,3-Dichlorobenzene	DCBZ13	541-73-1	1	0	U		
1,4-Dichlorobenzene	DCBZ14	106-46-7	1	0	U		
1,2-Dichlorobenzene	DCBZ12	95-50-1	1	0	U		
1,2,4-Trichlorobenzene	TCB124	120-82-1	1	0	U		
Hexachlorobutadiene	HCBU	87-68-3	1	0	U		
4-BFB(surrogate)	BR4FBZ	460-00-4		102	=		
1,2-DCA-d4(surrogate)	DCA12D4			96	=		
Toluene-d8(surrogate)	BZMED8			98	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
J - Result below MQL
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Smart Chemistry

Analytical Laboratory Report

EPA Method TO-14

Client: IT Group
Chain-of Custody #: 572625
Sample Type: AIR
Date Sampled: 05-Mar-01
Date Received: 06-Mar-01
Date Analyzed: 06-Mar-2001
Time Analyzed: 17:38
Dilution Factor: 2.2

Field ID #: B134-V-129
Concentration Units: PPBV
Lab Sample ID: 1IT15501
Initial Calibration Date: Feb 21 2001
QC Batch Code: 9GT0306A5
Data Filename: 01030608.D
Electronic Filename: 508G0306.T
SACODE: N
Location: BLDG 134 system INF

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
Dichlorodifluoromethane	120	75-71-8	2	0	U		
Freon 114	170	76-14-2	2	0	U		
Chloromethane	50	74-87-3	2	0	U		
Vinyl chloride	62	75-01-4	2	0	U		
Bromomethane	94	74-83-9	2	0	U		
Chloroethane	64	75-00-3	2	0	U		
Acetone	58	67-64-1	11	0	U		
Trichlorofluoromethane	136	75-69-4	2	14	=		
Trichlorotrifluoroethane	186	76-13-1	2	0	U		
Methylene chloride	84	75-09-2	2	0	U		
1,1-Dichloroethene	96	75-35-4	2	0	U		
trans-1,2-dichloroethene	96	156-60-5	2	0	U		
1,1-Dichloroethane	98	75-34-3	2	0	U		
2-Butanone	72	78-93-3	11	0	U		
cis-1,2-dichloroethene	96	156-59-2	2	2.2	=		
Chloroform	118	67-66-3	2	0	U		
1,1,1-Trichloroethane	132	71-55-6	2	0	U		
Carbon tetrachloride	152	56-23-5	2	0	U		
Benzene	78	71-43-2	2	0	U		
1,2-Dichloroethane	112	107-06-2	2	0	U		
Trichloroethene	130	79-01-6	2	18	=		
1,2-Dichloropropane	112	78-87-5	2	0	U		
cis-1,3-Dichloropropene	110	10061-01-5	2	0	U		
Toluene	92	108-88-3	2	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	2	0	U		
1,1,2-Trichloroethane	132	79-00-5	2	0	U		
Tetrachloroethene	164	127-18-4	2	5.4	=		
1,2-Dibromoethane	186	106-93-4	2	0	U		
Chlorobenzene	112	108-90-7	2	0	U		
Ethylbenzene	106	100-41-4	2	0	U		
Xylenes (Total)	106	1330-20-7	2	0	U		
Styrene	104	100-42-5	2	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	2	0	U		
1,3,5-Trimethylbenzene	120	108-67-8	2	0	U		
1,2,4-Trimethylbenzene	120	95-63-6	2	0	U		
Benzyl Chloride	126	100-44-7	2	0	U		
1,3-Dichlorobenzene	146	541-73-1	2	0	U		
1,4-Dichlorobenzene	146	106-46-7	2	0	U		
1,2-Dichlorobenzene	146	95-50-1	2	0	U		
1,2,4-Trichlorobenzene	180	120-82-1	2	0	U		
Hexachlorobutadiene	258	87-68-3	2	0	U		
4-BFB(surrogate)		460-00-4		101	=		
1,2-DCA-d4(surrogate)		17060-07-0		102	=		
Toluene-d8(surrogate)		2037-26-5		101	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
J - Result below MQL
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Smart Chemistry

Analytical Laboratory Report
EPA Method TO-14

Client: IT Group
Chain-of Custody #: 572625
Sample Type: AIR
Date Sampled: 05-Mar-01
Date Received: 06-Mar-01
Date Analyzed: 06-Mar-2001
Time Analyzed: 18:15
Dilution Factor: 1.2

Field ID #: B134-V-130
Concentration Units: PPBV
Lab Sample ID: 1IT15502
Initial Calibration Date: Feb 21 2001
QC Batch Code: 9GT0306A5
Data Filename: 01030609.D
Electronic Filename: 509G0306.T
SACODE: N
Location: BLDG 134 system EFF

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
Dichlorodifluoromethane	120	75-71-8	1	0	U		
Freon 114	170	76-14-2	1	0	U		
Chloromethane	50	74-87-3	1	0.73	J		
Vinyl chloride	62	75-01-4	1	0	U		
Bromomethane	94	74-83-9	1	0	U		
Chloroethane	64	75-00-3	1	0	U		
Acetone	58	67-64-1	6	0	U		
Trichlorofluoromethane	136	75-69-4	1	0	U		
Trichlorotrifluoroethane	186	76-13-1	1	0	U		
Methylene chloride	84	75-09-2	1	0	U		
1,1-Dichloroethene	96	75-35-4	1	0	U		
trans-1,2-dichloroethene	96	156-60-5	1	0	U		
1,1-Dichloroethane	98	75-34-3	1	0	U		
2-Butanone	72	78-93-3	6	0	U		
cis-1,2-dichloroethene	96	156-59-2	1	0	U		
Chloroform	118	67-66-3	1	0	U		
1,1,1-Trichloroethane	132	71-55-6	1	0	U		
Carbon tetrachloride	152	56-23-5	1	0	U		
Benzene	78	71-43-2	1	0	U		
1,2-Dichloroethane	112	107-06-2	1	0	U		
Trichloroethene	130	79-01-6	1	0	U		
1,2-Dichloropropane	112	78-87-5	1	0	U		
cis-1,3-Dichloropropene	110	10061-01-5	1	0	U		
Toluene	92	108-88-3	1	2.8	=		
trans-1,3-Dichloropropene	96	10061-02-6	1	0	U		
1,1,2-Trichloroethane	132	79-00-5	1	0	U		
Tetrachloroethene	164	127-18-4	1	0	U		
1,2-Dibromoethane	186	106-93-4	1	0	U		
Chlorobenzene	112	108-90-7	1	0	U		
Ethylbenzene	106	100-41-4	1	0	U		
Xylenes (Total)	106	1330-20-7	1	0	U		
Styrene	104	100-42-5	1	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	1	0	U		
1,3,5-Trimethylbenzene	120	108-67-8	1	0	U		
1,2,4-Trimethylbenzene	120	95-63-6	1	0	U		
Benzyl Chloride	126	100-44-7	1	0	U		
1,3-Dichlorobenzene	146	541-73-1	1	0	U		
1,4-Dichlorobenzene	146	106-46-7	1	0	U		
1,2-Dichlorobenzene	146	95-50-1	1	0	U		
1,2,4-Trichlorobenzene	180	120-82-1	1	0	U		
Hexachlorobutadiene	258	87-68-3	1	0	U		
4-BFB(surrogate)		460-00-4		100	=		
1,2-DCA-d4(surrogate)		17060-07-0		103	=		
Toluene-d8(surrogate)		2037-26-5		102	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
J - Result below MQL
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

Smart Chemistry

EPA Method TO-14

Client: IT Group
Chain-of Custody #: 573356
Sample Type: AIR
Date Sampled: 19-Mar-01
Date Received: 20-Mar-01
Date Analyzed: 28-Mar-2001
Time Analyzed: 14:57
Dilution Factor: 21.9

Field ID #: B134-V-160
Concentration Units: PPBV
Lab Sample ID: 1IT16501
Initial Calibration Date: Feb 21 2001
QC Batch Code: 9GT0328A5
Data Filename: 01032807.D
Electronic Filename: 507G0328.T
SACODE: N
Location: BLDG 134 system INF

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
Dichlorodifluoromethane	120	75-71-8	22	0	U		
Freon 114	170	76-14-2	22	0	U		
Chloromethane	50	74-87-3	22	0	U		
Vinyl chloride	62	75-01-4	22	0	U		
Bromomethane	94	74-83-9	22	0	U		
Chloroethane	64	75-00-3	22	0	U		
Acetone	58	67-64-1	110	0	U		
Trichlorofluoromethane	136	75-69-4	22	20	J		
Trichlorotrifluoroethane	186	76-13-1	22	0	U		
Methylene chloride	84	75-09-2	22	0	U		
1,1-Dichloroethene	96	75-35-4	22	0	U		
trans-1,2-dichloroethene	96	156-60-5	22	0	U		
1,1-Dichloroethane	98	75-34-3	22	0	U		
2-Butanone	72	78-93-3	110	0	U		
cis-1,2-dichloroethene	96	156-59-2	22	0	U		
Chloroform	118	67-66-3	22	0	U		
1,1,1-Trichloroethane	132	71-55-6	22	0	U		
Carbon tetrachloride	152	56-23-5	22	0	U		
Benzene	78	71-43-2	22	0	U		
1,2-Dichloroethane	112	107-06-2	22	0	U		
Trichloroethene	130	79-01-6	22	11	J		
1,2-Dichloropropane	112	78-87-5	22	0	U		
cis-1,3-Dichloropropene	110	10061-01-5	22	0	U		
Toluene	92	108-88-3	22	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	22	0	U		
1,1,2-Trichloroethane	132	79-00-5	22	0	U		
Tetrachloroethene	164	127-18-4	22	0	U		
1,2-Dibromoethane	186	106-93-4	22	0	U		
Chlorobenzene	112	108-90-7	22	0	U		
Ethylbenzene	106	100-41-4	22	0	U		
Xylenes (Total)	106	1330-20-7	22	0	U		
Styrene	104	100-42-5	22	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	22	0	U		
1,3,5-Trimethylbenzene	120	108-67-8	22	0	U		
1,2,4-Trimethylbenzene	120	95-63-6	22	0	U		
Benzyl Chloride	126	100-44-7	22	0	U		
1,3-Dichlorobenzene	146	541-73-1	22	0	U		
1,4-Dichlorobenzene	146	106-46-7	22	0	U		
1,2-Dichlorobenzene	146	95-50-1	22	0	U		
1,2,4-Trichlorobenzene	180	120-82-1	22	0	U		
Hexachlorobutadiene	258	87-68-3	22	0	U		
4-BFB(surrogate)		460-00-4		98	=		
1,2-DCA-d4(surrogate)		17060-07-0		109	=		
Toluene-d8(surrogate)		2037-26-5		98	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
J - Result below MQL
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

EPA Method TO-14

Smart Chemistry

Client: IT Group
Chain-of Custody #: 573356
Sample Type: AIR
Date Sampled: 19-Mar-01
Date Received: 20-Mar-01
Date Analyzed: 29-Mar-2001
Time Analyzed: 13:13
Dilution Factor: 1.1

Field ID #: B134-V-161
Concentration Units: PPBV
Lab Sample ID: 1IT16502
Initial Calibration Date: Feb 21 2001
QC Batch Code: 9GT0329A5
Data Filename: 01032906.D
Electronic Filename: 506G0329.T
SACODE: N
Location: BLDG 134 system EFF

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
Dichlorodifluoromethane	120	75-71-8	1	1.2	=		
Freon 114	170	76-14-2	1	0	U		
Chloromethane	50	74-87-3	1	0	U		
Vinyl chloride	62	75-01-4	1	0	U		
Bromomethane	94	74-83-9	1	0	U		
Chloroethane	64	75-00-3	1	0	U		
Acetone	58	67-64-1	6	0	U		
Trichlorofluoromethane	136	75-69-4	1	1.7	=		
Trichlorotrifluoroethane	186	76-13-1	1	0	U		
Methylene chloride	84	75-09-2	1	0	U		
1,1-Dichloroethene	96	75-35-4	1	0	U		
trans-1,2-dichloroethene	96	156-60-5	1	0	U		
1,1-Dichloroethane	98	75-34-3	1	0	U		
2-Butanone	72	78-93-3	6	0	U		
cis-1,2-dichloroethene	96	156-59-2	1	0	U		
Chloroform	118	67-66-3	1	0	U		
1,1,1-Trichloroethane	132	71-55-6	1	0	U		
Carbon tetrachloride	152	56-23-5	1	0	U		
Benzene	78	71-43-2	1	0	U		
1,2-Dichloroethane	112	107-06-2	1	0	U		
Trichloroethene	130	79-01-6	1	0	U		
1,2-Dichloropropane	112	78-87-5	1	0	U		
cis-1,3-Dichloropropene	110	10061-01-5	1	0	U		
Toluene	92	108-88-3	1	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	1	0	U		
1,1,2-Trichloroethane	132	79-00-5	1	0	U		
Tetrachloroethene	164	127-18-4	1	0	U		
1,2-Dibromoethane	186	106-93-4	1	0	U		
Chlorobenzene	112	108-90-7	1	0	U		
Ethylbenzene	106	100-41-4	1	0	U		
Xylenes (Total)	106	1330-20-7	1	0	U		
Styrene	104	100-42-5	1	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	1	0	U		
1,3,5-Trimethylbenzene	120	108-67-8	1	0	U		
1,2,4-Trimethylbenzene	120	95-63-6	1	0	U		
Benzyl Chloride	126	100-44-7	1	0	U		
1,3-Dichlorobenzene	146	541-73-1	1	0	U		
1,4-Dichlorobenzene	146	106-46-7	1	0	U		
1,2-Dichlorobenzene	146	95-50-1	1	0	U		
1,2,4-Trichlorobenzene	180	120-82-1	1	0	U		
Hexachlorobutadiene	258	87-68-3	1	0	U		
4-BFB(surrogate)		460-00-4		99	=		
1,2-DCA-d4(surrogate)		17060-07-0		110	=		
Toluene-d8(surrogate)		2037-26-5		97	=		

NOTES:
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0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual

PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

Smart Chemistry

EPA Method TO-14

Client: IT Group
Chain-of Custody #: 573362
Sample Type: AIR
Date Sampled: 02-Apr-01
Date Received: 02-Apr-01
Date Analyzed: 05-Apr-2001
Time Analyzed: 15:59
Dilution Factor: 5.5

Field ID #: B134-V-178
Concentration Units: PPBV
Lab Sample ID: 1IT17601
Initial Calibration Date: Feb 21 2001
QC Batch Code: 9GT0405A5
Data Filename: 01040510.D
Electronic Filename: 510G0405.T
SACODE: N
Location: BLDG 134 system INF

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
Dichlorodifluoromethane	120	75-71-8	6	0	U		
Freon 114	170	76-14-2	6	0	U		
Chloromethane	50	74-87-3	6	0	U		
Vinyl chloride	62	75-01-4	6	0	U		
Bromomethane	94	74-83-9	6	0	U		
Chloroethane	64	75-00-3	6	0	U		
Acetone	58	67-64-1	28	0	U		
Trichlorofluoromethane	136	75-69-4	6	52	=		
Trichlorotrifluoroethane	186	76-13-1	6	0	U		
Methylene chloride	84	75-09-2	6	0	U		
1,1-Dichloroethene	96	75-35-4	6	0	U		
trans-1,2-dichloroethene	96	156-60-5	6	0	U		
1,1-Dichloroethane	98	75-34-3	6	0	U		
2-Butanone	72	78-93-3	28	0	U		
cis-1,2-dichloroethene	96	156-59-2	6	5.6	=		
Chloroform	118	67-66-3	6	0	U		
1,1,1-Trichloroethane	132	71-55-6	6	0	U		
Carbon tetrachloride	152	56-23-5	6	0	U		
Benzene	78	71-43-2	6	0	U		
1,2-Dichloroethane	112	107-06-2	6	0	U		
Trichloroethene	130	79-01-6	6	20	=		
1,2-Dichloropropane	112	78-87-5	6	0	U		
cis-1,3-Dichloropropene	110	10061-01-5	6	0	U		
Toluene	92	108-88-3	6	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	6	0	U		
1,1,2-Trichloroethane	132	79-00-5	6	0	U		
Tetrachloroethene	164	127-18-4	6	22	=		
1,2-Dibromoethane	186	106-93-4	6	0	U		
Chlorobenzene	112	108-90-7	6	0	U		
Ethylbenzene	106	100-41-4	6	0	U		
Xylenes (Total)	106	1330-20-7	6	0	U		
Styrene	104	100-42-5	6	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	6	0	U		
1,3,5-Trimethylbenzene	120	108-67-8	6	0	U		
1,2,4-Trimethylbenzene	120	95-63-6	6	0	U		
Benzyl Chloride	126	100-44-7	6	0	U		
1,3-Dichlorobenzene	146	541-73-1	6	0	U		
1,4-Dichlorobenzene	146	106-46-7	6	0	U		
1,2-Dichlorobenzene	146	95-50-1	6	0	U		
1,2,4-Trichlorobenzene	180	120-82-1	6	0	U		
Hexachlorobutadiene	258	87-68-3	6	0	U		
4-BFB(surrogate)		460-00-4		98	=		
1,2-DCA-d4(surrogate)		17060-07-0		119	=		
Toluene-d8(surrogate)		2037-26-5		99	=		

NOTES:
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Q - parameter is out of control limits.
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PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

Smart Chemistry

EPA Method TO-14

Client: IT Group
Chain-of Custody #: 573362
Sample Type: AIR
Date Sampled: 02-Apr-01
Date Received: 02-Apr-01
Date Analyzed: 05-Apr-2001
Time Analyzed: 13:32
Dilution Factor: 1.1

Field ID #: B134-V-179
Concentration Units: PPBV
Lab Sample ID: 1IT17602
Initial Calibration Date: Feb 21 2001
QC Batch Code: 9GT0405A5
Data Filename: 01040507.D
Electronic Filename: 507G0405.T
SACODE: N
Location: BLDG 134 system EFF

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
Dichlorodifluoromethane	120	75-71-8	1	0	U		
Freon 114	170	76-14-2	1	0	U		
Chloromethane	50	74-87-3	1	0	U		
Vinyl chloride	62	75-01-4	1	0	U		
Bromomethane	94	74-83-9	1	0	U		
Chloroethane	64	75-00-3	1	0	U		
Acetone	58	67-64-1	6	7.6	=		
Trichlorofluoromethane	136	75-69-4	1	2.5	=		
Trichlorotrifluoroethane	186	76-13-1	1	0	U		
Methylene chloride	84	75-09-2	1	0	U		
1,1-Dichloroethene	96	75-35-4	1	0	U		
trans-1,2-dichloroethene	96	156-60-5	1	0	U		
1,1-Dichloroethane	98	75-34-3	1	0	U		
2-Butanone	72	78-93-3	6	0	U		
cis-1,2-dichloroethene	96	156-59-2	1	0	U		
Chloroform	118	67-66-3	1	0	U		
1,1,1-Trichloroethane	132	71-55-6	1	0	U		
Carbon tetrachloride	152	56-23-5	1	0	U		
Benzene	78	71-43-2	1	0	U		
1,2-Dichloroethane	112	107-06-2	1	0	U		
Trichloroethene	130	79-01-6	1	0	U		
1,2-Dichloropropane	112	78-87-5	1	0	U		
cis-1,3-Dichloropropene	110	10061-01-5	1	0	U		
Toluene	92	108-88-3	1	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	1	0	U		
1,1,2-Trichloroethane	132	79-00-5	1	0	U		
Tetrachloroethene	164	127-18-4	1	0	U		
1,2-Dibromoethane	186	106-93-4	1	0	U		
Chlorobenzene	112	108-90-7	1	0	U		
Ethylbenzene	106	100-41-4	1	0	U		
Xylenes (Total)	106	1330-20-7	1	0	U		
Styrene	104	100-42-5	1	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	1	0	U		
1,3,5-Trimethylbenzene	120	108-67-8	1	0	U		
1,2,4-Trimethylbenzene	120	95-63-6	1	0	U		
Benzyl Chloride	126	100-44-7	1	0	U		
1,3-Dichlorobenzene	146	541-73-1	1	0	U		
1,4-Dichlorobenzene	146	106-46-7	1	0	U		
1,2-Dichlorobenzene	146	95-50-1	1	0	U		
1,2,4-Trichlorobenzene	180	120-82-1	1	0	U		
Hexachlorobutadiene	258	87-68-3	1	0	U		
4-BFB(surrogate)		460-00-4		99	=		
1,2-DCA-d4(surrogate)		17060-07-0		119	=		
Toluene-d8(surrogate)		2037-26-5		95	=		

NOTES:
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PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

Smart Chemistry

EPA Method TO-14

Client: IT Group
Chain-of Custody #: 573366
Sample Type: AIR
Date Sampled: 17-Apr-01
Date Received: 18-Apr-01
Date Analyzed: 19-Apr-2001
Time Analyzed: 23:23
Dilution Factor: 9.4

Field ID #: B134-V-196
Concentration Units: PPBV
Lab Sample ID: 1IT18503
Initial Calibration Date: Apr 19 2001
QC Batch Code: 9GT0419A5
Data Filename: 01041920.D
Electronic Filename: 520G0419.T
SACODE: N
Location: BLDG 134 system INF

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
Dichlorodifluoromethane	120	75-71-8	9	0	U		
Freon 114	170	76-14-2	9	0	U		
Chloromethane	50	74-87-3	9	0	U		
Vinyl chloride	62	75-01-4	9	0	U		
Bromomethane	94	74-83-9	9	0	U		
Chloroethane	64	75-00-3	9	0	U		
Acetone	58	67-64-1	47	0	U		
Trichlorofluoromethane	136	75-69-4	9	117	=		
Trichlorotrifluoroethane	186	76-13-1	9	13	=		
Methylene chloride	84	75-09-2	9	0	U		
1,1-Dichloroethene	96	75-35-4	9	0	U		
trans-1,2-dichloroethene	96	156-60-5	9	0	U		
1,1-Dichloroethane	98	75-34-3	9	0	U		
2-Butanone	72	78-93-3	47	0	U		
cis-1,2-dichloroethene	96	156-59-2	9	0	U		
Chloroform	118	67-66-3	9	0	U		
1,1,1-Trichloroethane	132	71-55-6	9	0	U		
Carbon tetrachloride	152	56-23-5	9	0	U		
Benzene	78	71-43-2	9	0	U		
1,2-Dichloroethane	112	107-06-2	9	0	U		
Trichloroethene	130	79-01-6	9	17	=		
1,2-Dichloropropane	112	78-87-5	9	0	U		
cis-1,3-Dichloropropene	110	10061-01-5	9	0	U		
Toluene	92	108-88-3	9	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	9	0	U		
1,1,2-Trichloroethane	132	79-00-5	9	0	U		
Tetrachloroethene	164	127-18-4	9	10	=		
1,2-Dibromoethane	186	106-93-4	9	0	U		
Chlorobenzene	112	108-90-7	9	0	U		
Ethylbenzene	106	100-41-4	9	0	U		
Xylenes (Total)	106	1330-20-7	9	0	U		
Styrene	104	100-42-5	9	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	9	0	U		
1,3,5-Trimethylbenzene	120	108-67-8	9	0	U		
1,2,4-Trimethylbenzene	120	95-63-6	9	0	U		
Benzyl Chloride	126	100-44-7	9	0	U		
1,3-Dichlorobenzene	146	541-73-1	9	0	U		
1,4-Dichlorobenzene	146	106-46-7	9	0	U		
1,2-Dichlorobenzene	146	95-50-1	9	0	U		
1,2,4-Trichlorobenzene	180	120-82-1	9	0	U		
Hexachlorobutadiene	258	87-68-3	9	0	U		
4-BFB(surrogate)		460-00-4		87	=		
1,2-DCA-d4(surrogate)		17060-07-0		103	=		
Toluene-d8(surrogate)		2037-26-5		100	=		

NOTES:
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0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 70 to 130%.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

Smart Chemistry

EPA Method TO-14

Client: IT Group
Chain-of Custody #: 573366
Sample Type: AIR
Date Sampled: 17-Apr-01
Date Received: 18-Apr-01
Date Analyzed: 20-Apr-2001
Time Analyzed: 00:02
Dilution Factor: 1.2

Field ID #: B134-V-197
Concentration Units: PPBV
Lab Sample ID: 1IT18504
Initial Calibration Date: Apr 19 2001
QC Batch Code: 9GT0419A5
Data Filename: 01041921.D
Electronic Filename: 521G0419.T
SACODE: N
Location: BLDG 134 system EFF

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
Dichlorodifluoromethane	120	75-71-8	1	0	U		
Freon 114	170	76-14-2	1	0	U		
Chloromethane	50	74-87-3	1	0	U		
Vinyl chloride	62	75-01-4	1	0	U		
Bromomethane	94	74-83-9	1	0	U		
Chloroethane	64	75-00-3	1	0	U		
Acetone	58	67-64-1	6	0	U		
Trichlorofluoromethane	136	75-69-4	1	3.5	=		
Trichlorotrifluoroethane	186	76-13-1	1	0	U		
Methylene chloride	84	75-09-2	1	0	U		
1,1-Dichloroethene	96	75-35-4	1	0	U		
trans-1,2-dichloroethene	96	156-60-5	1	0	U		
1,1-Dichloroethane	98	75-34-3	1	0	U		
2-Butanone	72	78-93-3	6	0	U		
cis-1,2-dichloroethene	96	156-59-2	1	0	U		
Chloroform	118	67-66-3	1	0	U		
1,1,1-Trichloroethane	132	71-55-6	1	0	U		
Carbon tetrachloride	152	56-23-5	1	0	U		
Benzene	78	71-43-2	1	0	U		
1,2-Dichloroethane	112	107-06-2	1	0	U		
Trichloroethene	130	79-01-6	1	0	U		
1,2-Dichloropropane	112	78-87-5	1	0	U		
cis-1,3-Dichloropropene	110	10061-01-5	1	0	U		
Toluene	92	108-88-3	1	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	1	0	U		
1,1,2-Trichloroethane	132	79-00-5	1	0	U		
Tetrachloroethene	164	127-18-4	1	0	U		
1,2-Dibromoethane	186	106-93-4	1	0	U		
Chlorobenzene	112	108-90-7	1	0	U		
Ethylbenzene	106	100-41-4	1	0	U		
Xylenes (Total)	106	1330-20-7	1	0	U		
Styrene	104	100-42-5	1	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	1	0	U		
1,3,5-Trimethylbenzene	120	108-67-8	1	0	U		
1,2,4-Trimethylbenzene	120	95-63-6	1	0	U		
Benzyl Chloride	126	100-44-7	1	0	U		
1,3-Dichlorobenzene	146	541-73-1	1	0	U		
1,4-Dichlorobenzene	146	106-46-7	1	0	U		
1,2-Dichlorobenzene	146	95-50-1	1	0	U		
1,2,4-Trichlorobenzene	180	120-82-1	1	0	U		
Hexachlorobutadiene	258	87-68-3	1	0	U		
4-BFB(surrogate)		460-00-4		94	=		
1,2-DCA-d4(surrogate)		17060-07-0		99	=		
Toluene-d8(surrogate)		2037-26-5		97	=		

NOTES:
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J - Result below MQL
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 70 to 130%.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

EPA Method TO-14

Smart Chemistry

Client: IT Group
Chain-of Custody #: 573035
Sample Type: AIR
Date Sampled: 02-May-01
Date Received: 03-May-01
Date Analyzed: 03-May-2001
Time Analyzed: 19:07
Dilution Factor: 5.6

Field ID #: B134-V-206
Concentration Units: PPBV
Lab Sample ID: 1IT18901
Initial Calibration Date: Apr 19 2001
QC Batch Code: 9GT0503A5
Data Filename: 01050314.D
Electronic Filename: 514G0503.T
SACODE: N
Location: BLDG 134 system INF

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
Dichlorodifluoromethane	120	75-71-8	6	0	U		
Freon 114	170	76-14-2	6	0	U		
Chloromethane	50	74-87-3	6	0	U		
Vinyl chloride	62	75-01-4	6	0	U		
Bromomethane	94	74-83-9	6	0	U		
Chloroethane	64	75-00-3	6	0	U		
Acetone	58	67-64-1	28	0	U		
Trichlorofluoromethane	136	75-69-4	6	50	=		
Trichlorotrifluoroethane	186	76-13-1	6	6.4	=		
Methylene chloride	84	75-09-2	6	0	U		
1,1-Dichloroethene	96	75-35-4	6	0	U		
trans-1,2-dichloroethene	96	156-60-5	6	0	U		
1,1-Dichloroethane	98	75-34-3	6	0	U		
2-Butanone	72	78-93-3	28	0	U		
cis-1,2-dichloroethene	96	156-59-2	6	0	U		
Chloroform	118	67-66-3	6	0	U		
1,1,1-Trichloroethane	132	71-55-6	6	0	U		
Carbon tetrachloride	152	56-23-5	6	0	U		
Benzene	78	71-43-2	6	0	U		
1,2-Dichloroethane	112	107-06-2	6	0	U		
Trichloroethene	130	79-01-6	6	14	=		
1,2-Dichloropropane	112	78-87-5	6	0	U		
cis-1,3-Dichloropropene	110	10061-01-5	6	0	U		
Toluene	92	108-88-3	6	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	6	0	U		
1,1,2-Trichloroethane	132	79-00-5	6	0	U		
Tetrachloroethene	164	127-18-4	6	8.4	=		
1,2-Dibromoethane	186	106-93-4	6	0	U		
Chlorobenzene	112	108-90-7	6	0	U		
Ethylbenzene	106	100-41-4	6	20	=		
Xylenes (Total)	106	1330-20-7	6	60	=		
Styrene	104	100-42-5	6	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	6	0	U		
1,3,5-Trimethylbenzene	120	108-67-8	6	0	U		
1,2,4-Trimethylbenzene	120	95-63-6	6	0	U		
Benzyl Chloride	126	100-44-7	6	0	U		
1,3-Dichlorobenzene	146	541-73-1	6	0	U		
1,4-Dichlorobenzene	146	106-46-7	6	0	U		
1,2-Dichlorobenzene	146	95-50-1	6	0	U		
1,2,4-Trichlorobenzene	180	120-82-1	6	0	U		
Hexachlorobutadiene	258	87-68-3	6	0	U		
4-BFB(surrogate)		460-00-4		93	=		
1,2-DCA-d4(surrogate)		17060-07-0		78	=		
Toluene-d8(surrogate)		2037-26-5		96	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
J - Result below MQL
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 70 to 130%.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

Smart Chemistry

EPA Method TO-14

Client: IT Group
Chain-of Custody #: 573035
Sample Type: AIR
Date Sampled: 02-May-01
Date Received: 03-May-01
Date Analyzed: 03-May-2001
Time Analyzed: 19:44
Dilution Factor: 2.2

Field ID #: B134-V-207
Concentration Units: PPBV
Lab Sample ID: 1IT18902
Initial Calibration Date: Apr 19 2001
QC Batch Code: 9GT0503A5
Data Filename: 01050315.D
Electronic Filename: 515G0503.T
SACODE: N
Location: BLDG 134 system EFF

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
Dichlorodifluoromethane	120	75-71-8	2	0	U		
Freon 114	170	76-14-2	2	0	U		
Chloromethane	50	74-87-3	2	0	U		
Vinyl chloride	62	75-01-4	2	0	U		
Bromomethane	94	74-83-9	2	0	U		
Chloroethane	64	75-00-3	2	0	U		
Acetone	58	67-64-1	11	0	U		
Trichlorofluoromethane	136	75-69-4	2	28	=		
Trichlorotrifluoroethane	186	76-13-1	2	0	U		
Methylene chloride	84	75-09-2	2	0	U		
1,1-Dichloroethene	96	75-35-4	2	0	U		
trans-1,2-dichloroethene	96	156-60-5	2	0	U		
1,1-Dichloroethane	98	75-34-3	2	0	U		
2-Butanone	72	78-93-3	11	0	U		
cis-1,2-dichloroethene	96	156-59-2	2	0	U		
Chloroform	118	67-66-3	2	0	U		
1,1,1-Trichloroethane	132	71-55-6	2	0	U		
Carbon tetrachloride	152	56-23-5	2	0	U		
Benzene	78	71-43-2	2	0	U		
1,2-Dichloroethane	112	107-06-2	2	0	U		
Trichloroethene	130	79-01-6	2	0	U		
1,2-Dichloropropane	112	78-87-5	2	0	U		
cis-1,3-Dichloropropene	110	10061-01-5	2	0	U		
Toluene	92	108-88-3	2	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	2	0	U		
1,1,2-Trichloroethane	132	79-00-5	2	0	U		
Tetrachloroethene	164	127-18-4	2	0	U		
1,2-Dibromoethane	186	106-93-4	2	0	U		
Chlorobenzene	112	108-90-7	2	0	U		
Ethylbenzene	106	100-41-4	2	0	U		
Xylenes (Total)	106	1330-20-7	2	0	U		
Styrene	104	100-42-5	2	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	2	0	U		
1,3,5-Trimethylbenzene	120	108-67-8	2	0	U		
1,2,4-Trimethylbenzene	120	95-63-6	2	0	U		
Benzyl Chloride	126	100-44-7	2	0	U		
1,3-Dichlorobenzene	146	541-73-1	2	0	U		
1,4-Dichlorobenzene	146	106-46-7	2	0	U		
1,2-Dichlorobenzene	146	95-50-1	2	0	U		
1,2,4-Trichlorobenzene	180	120-82-1	2	0	U		
Hexachlorobutadiene	258	87-68-3	2	0	U		
4-BFB(surrogate)		460-00-4		96	=		
1,2-DCA-d4(surrogate)		17060-07-0		78	=		
Toluene-d8(surrogate)		2037-26-5		95	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
J - Result below MQL
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 70 to 130%.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

Smart Chemistry

EPA Method TO-14

Client: IT Group
Chain-of Custody #: 573038
Sample Type: AIR
Date Sampled: 14-May-01
Date Received: 15-May-01
Date Analyzed: 16-May-2001
Time Analyzed: 16:47
Dilution Factor: 8.7

Field ID #: B134-V-214
Concentration Units: PPBV
Lab Sample ID: 1IT19301
Initial Calibration Date: May 16 2001
QC Batch Code: 9GT0516A5
Data Filename: 01051611.D
Electronic Filename: 511G0516.T
SACODE: N
Location: BLDG 134 system INF

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
Dichlorodifluoromethane	120	75-71-8	9	0	U		
Freon 114	170	76-14-2	9	0	U		
Chloromethane	50	74-87-3	9	0	U		
Vinyl chloride	62	75-01-4	9	0	U		
Bromomethane	94	74-83-9	9	0	U		
Chloroethane	64	75-00-3	9	0	U		
Acetone	58	67-64-1	44	0	U		
Trichlorofluoromethane	136	75-69-4	9	41	=		
Trichlorotrifluoroethane	186	76-13-1	9	4.6	J		
Methylene chloride	84	75-09-2	9	0	U		
1,1-Dichloroethene	96	75-35-4	9	0	U		
trans-1,2-dichloroethene	96	156-60-5	9	0	U		
1,1-Dichloroethane	98	75-34-3	9	0	U		
2-Butanone	72	78-93-3	44	0	U		
cis-1,2-dichloroethene	96	156-59-2	9	0	U		
Chloroform	118	67-66-3	9	0	U		
1,1,1-Trichloroethane	132	71-55-6	9	0	U		
Carbon tetrachloride	152	56-23-5	9	0	U		
Benzene	78	71-43-2	9	0	U		
1,2-Dichloroethane	112	107-06-2	9	0	U		
Trichloroethene	130	79-01-6	9	10	=		
1,2-Dichloropropane	112	78-87-5	9	0	U		
cis-1,3-Dichloropropene	110	10061-01-5	9	0	U		
Toluene	92	108-88-3	9	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	9	0	U		
1,1,2-Trichloroethane	132	79-00-5	9	0	U		
Tetrachloroethene	164	127-18-4	9	6.6	J		
1,2-Dibromoethane	186	106-93-4	9	0	U		
Chlorobenzene	112	108-90-7	9	0	U		
Ethylbenzene	106	100-41-4	9	0	U		
Xylenes (Total)	106	1330-20-7	9	0	U		
Styrene	104	100-42-5	9	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	9	0	U		
1,3,5-Trimethylbenzene	120	108-67-8	9	0	U		
1,2,4-Trimethylbenzene	120	95-63-6	9	0	U		
Benzyl Chloride	126	100-44-7	9	0	U		
1,3-Dichlorobenzene	146	541-73-1	9	0	U		
1,4-Dichlorobenzene	146	106-46-7	9	0	U		
1,2-Dichlorobenzene	146	95-50-1	9	0	U		
1,2,4-Trichlorobenzene	180	120-82-1	9	0	U		
Hexachlorobutadiene	258	87-68-3	9	0	U		
4-BFB(surrogate)		460-00-4		92	=		
1,2-DCA-d4(surrogate)		17060-07-0		99	=		
Toluene-d8(surrogate)		2037-26-5		102	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
J - Result below MQL
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 70 to 130%.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

Smart Chemistry

EPA Method TO-14

Client: IT Group
Chain-of Custody #: 573038
Sample Type: AIR
Date Sampled: 14-May-01
Date Received: 15-May-01
Date Analyzed: 16-May-2001
Time Analyzed: 17:24
Dilution Factor: 2.2

Field ID #: B134-V-215
Concentration Units: PPBV
Lab Sample ID: 1IT19302
Initial Calibration Date: May 16 2001
QC Batch Code: 9GT0516A5
Data Filename: 01051612.D
Electronic Filename: 512G0516.T
SACODE: N
Location: BLDG 134 system EFF

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
Dichlorodifluoromethane	120	75-71-8	2	0	U		
Freon 114	170	76-14-2	2	0	U		
Chloromethane	50	74-87-3	2	0	U		
Vinyl chloride	62	75-01-4	2	0	U		
Bromomethane	94	74-83-9	2	0	U		
Chloroethane	64	75-00-3	2	0	U		
Acetone	58	67-64-1	11	0	U		
Trichlorofluoromethane	136	75-69-4	2	57	E		
Trichlorotrifluoroethane	186	76-13-1	2	0	U		
Methylene chloride	84	75-09-2	2	0	U		
1,1-Dichloroethene	96	75-35-4	2	0	U		
trans-1,2-dichloroethene	96	156-60-5	2	0	U		
1,1-Dichloroethane	98	75-34-3	2	0	U		
2-Butanone	72	78-93-3	11	0	U		
cis-1,2-dichloroethene	96	156-59-2	2	0	U		
Chloroform	118	67-66-3	2	0	U		
1,1,1-Trichloroethane	132	71-55-6	2	0	U		
Carbon tetrachloride	152	56-23-5	2	0	U		
Benzene	78	71-43-2	2	0	U		
1,2-Dichloroethane	112	107-06-2	2	0	U		
Trichloroethene	130	79-01-6	2	0	U		
1,2-Dichloropropane	112	78-87-5	2	0	U		
cis-1,3-Dichloropropene	110	10061-01-5	2	0	U		
Toluene	92	108-88-3	2	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	2	0	U		
1,1,2-Trichloroethane	132	79-00-5	2	0	U		
Tetrachloroethene	164	127-18-4	2	0	U		
1,2-Dibromoethane	186	106-93-4	2	0	U		
Chlorobenzene	112	108-90-7	2	0	U		
Ethylbenzene	106	100-41-4	2	0	U		
Xylenes (Total)	106	1330-20-7	2	0	U		
Styrene	104	100-42-5	2	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	2	0	U		
1,3,5-Trimethylbenzene	120	108-67-8	2	0	U		
1,2,4-Trimethylbenzene	120	95-63-6	2	0	U		
Benzyl Chloride	126	100-44-7	2	0	U		
1,3-Dichlorobenzene	146	541-73-1	2	0	U		
1,4-Dichlorobenzene	146	106-46-7	2	0	U		
1,2-Dichlorobenzene	146	95-50-1	2	0	U		
1,2,4-Trichlorobenzene	180	120-82-1	2	0	U		
Hexachlorobutadiene	258	87-68-3	2	0	U		
4-BFB(surrogate)		460-00-4		94	=		
1,2-DCA-d4(surrogate)		17060-07-0		98	=		
Toluene-d8(surrogate)		2037-26-5		99	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
J - Result below MQL
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 70 to 130%.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

EPA Method TO-14

Smart Chemistry

Client: IT Group
Chain-of Custody #: 573043
Sample Type: AIR
Date Sampled: 29-May-01
Date Received: 30-May-01
Date Analyzed: 30-May-2001
Time Analyzed: 20:27
Dilution Factor: 4.3

Field ID #: B134-V-232
Concentration Units: PPBV
Lab Sample ID: 1IT20001
Initial Calibration Date: May 16 2001
QC Batch Code: 9GT0530A5
Data Filename: 01053007.D
Electronic Filename: 507G0530.T
SACODE: N
Location: BLDG 134 system INF

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
Dichlorodifluoromethane	120	75-71-8	4	0	U		
Freon 114	170	76-14-2	4	0	U		
Chloromethane	50	74-87-3	4	0	U		
Vinyl chloride	62	75-01-4	4	0	U		
Bromomethane	94	74-83-9	4	0	U		
Chloroethane	64	75-00-3	4	0	U		
Acetone	58	67-64-1	22	0	U		
Trichlorofluoromethane	136	75-69-4	4	60	=		
Trichlorotrifluoroethane	186	76-13-1	4	6.5	=		
Methylene chloride	84	75-09-2	4	0	U		
1,1-Dichloroethene	96	75-35-4	4	0	U		
trans-1,2-dichloroethene	96	156-60-5	4	0	U		
1,1-Dichloroethane	98	75-34-3	4	0	U		
2-Butanone	72	78-93-3	22	0	U		
cis-1,2-dichloroethene	96	156-59-2	4	4.1	J		
Chloroform	118	67-66-3	4	0	U		
1,1,1-Trichloroethane	132	71-55-6	4	0	U		
Carbon tetrachloride	152	56-23-5	4	0	U		
Benzene	78	71-43-2	4	0	U		
1,2-Dichloroethane	112	107-06-2	4	0	U		
Trichloroethene	130	79-01-6	4	16	=		
1,2-Dichloropropane	112	78-87-5	4	0	U		
cis-1,3-Dichloropropene	110	10061-01-5	4	0	U		
Toluene	92	108-88-3	4	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	4	0	U		
1,1,2-Trichloroethane	132	79-00-5	4	0	U		
Tetrachloroethene	164	127-18-4	4	15	=		
1,2-Dibromoethane	186	106-93-4	4	0	U		
Chlorobenzene	112	108-90-7	4	0	U		
Ethylbenzene	106	100-41-4	4	0	U		
Xylenes (Total)	106	1330-20-7	4	0	U		
Styrene	104	100-42-5	4	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	4	0	U		
1,3,5-Trimethylbenzene	120	108-67-8	4	0	U		
1,2,4-Trimethylbenzene	120	95-63-6	4	0	U		
Benzyl Chloride	126	100-44-7	4	0	U		
1,3-Dichlorobenzene	146	541-73-1	4	0	U		
1,4-Dichlorobenzene	146	106-46-7	4	0	U		
1,2-Dichlorobenzene	146	95-50-1	4	0	U		
1,2,4-Trichlorobenzene	180	120-82-1	4	0	U		
Hexachlorobutadiene	258	87-68-3	4	0	U		
4-BFB(surrogate)		460-00-4		89	=		
1,2-DCA-d4(surrogate)		17060-07-0		105	=		
Toluene-d8(surrogate)		2037-26-5		107	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
J - Result below MQL
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual

PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

Smart Chemistry

EPA Method TO-14

Client: IT Group
Chain-of Custody #: 573043
Sample Type: AIR
Date Sampled: 29-May-01
Date Received: 30-May-01
Date Analyzed: 30-May-2001
Time Analyzed: 21:01
Dilution Factor: 5.5

Field ID #: B134-V-233
Concentration Units: PPBV
Lab Sample ID: 1IT20002
Initial Calibration Date: May 16 2001
QC Batch Code: 9GT0530A5
Data Filename: 01053008.D
Electronic Filename: 508G0530.T
SACODE: N
Location: BLDG 134 system EFF

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
Dichlorodifluoromethane	120	75-71-8	6	0	U		
Freon 114	170	76-14-2	6	0	U		
Chloromethane	50	74-87-3	6	0	U		
Vinyl chloride	62	75-01-4	6	0	U		
Bromomethane	94	74-83-9	6	0	U		
Chloroethane	64	75-00-3	6	0	U		
Acetone	58	67-64-1	28	0	U		
Trichlorofluoromethane	136	75-69-4	6	58	=		
Trichlorotrifluoroethane	186	76-13-1	6	0	U		
Methylene chloride	84	75-09-2	6	0	U		
1,1-Dichloroethene	96	75-35-4	6	0	U		
trans-1,2-dichloroethene	96	156-60-5	6	0	U		
1,1-Dichloroethane	98	75-34-3	6	0	U		
2-Butanone	72	78-93-3	28	0	U		
cis-1,2-dichloroethene	96	156-59-2	6	0	U		
Chloroform	118	67-66-3	6	0	U		
1,1,1-Trichloroethane	132	71-55-6	6	0	U		
Carbon tetrachloride	152	56-23-5	6	0	U		
Benzene	78	71-43-2	6	0	U		
1,2-Dichloroethane	112	107-06-2	6	0	U		
Trichloroethene	130	79-01-6	6	0	U		
1,2-Dichloropropane	112	78-87-5	6	0	U		
cis-1,3-Dichloropropene	110	10061-01-5	6	0	U		
Toluene	92	108-88-3	6	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	6	0	U		
1,1,2-Trichloroethane	132	79-00-5	6	0	U		
Tetrachloroethene	164	127-18-4	6	0	U		
1,2-Dibromoethane	186	106-93-4	6	0	U		
Chlorobenzene	112	108-90-7	6	0	U		
Ethylbenzene	106	100-41-4	6	0	U		
Xylenes (Total)	106	1330-20-7	6	0	U		
Styrene	104	100-42-5	6	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	6	0	U		
1,3,5-Trimethylbenzene	120	108-67-8	6	0	U		
1,2,4-Trimethylbenzene	120	95-63-6	6	0	U		
Benzyl Chloride	126	100-44-7	6	0	U		
1,3-Dichlorobenzene	146	541-73-1	6	0	U		
1,4-Dichlorobenzene	146	106-46-7	6	0	U		
1,2-Dichlorobenzene	146	95-50-1	6	0	U		
1,2,4-Trichlorobenzene	180	120-82-1	6	0	U		
Hexachlorobutadiene	258	87-68-3	6	0	U		
4-BFB(surrogate)		460-00-4		95	=		
1,2-DCA-d4(surrogate)		17060-07-0		92	=		
Toluene-d8(surrogate)		2037-26-5		96	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
J - Result below MQL
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.

PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

EPA Method TO-14

Smart Chemistry

Client: IT Group
Chain-of Custody #: 573047
Sample Type: AIR
Date Sampled: 11-Jun-01
Date Received: 12-Jun-01
Date Analyzed: 12-Jun-2001
Time Analyzed: 13:55
Dilution Factor: 8.6

Field ID #: B134-V-244
Concentration Units: PPBV
Lab Sample ID: 1IT20601
Initial Calibration Date: Jun 11 2001
QC Batch Code: 9GT0612A5
Data Filename: 01061206.D
Electronic Filename: 506G0612.T
SACODE: N
Location: BLDG 134 system INF

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
Dichlorodifluoromethane	120	75-71-8	9	0	U		
Freon 114	170	76-14-2	9	0	U		
Chloromethane	50	74-87-3	9	0	U		
Vinyl chloride	62	75-01-4	9	0	U		
Bromomethane	94	74-83-9	9	0	U		
Chloroethane	64	75-00-3	9	0	U		
Acetone	58	67-64-1	43	0	U		
Trichlorofluoromethane	136	75-69-4	9	51	=		
Trichlorotrifluoroethane	186	76-13-1	9	0	U		
Methylene chloride	84	75-09-2	9	0	U		
1,1-Dichloroethene	96	75-35-4	9	0	U		
trans-1,2-dichloroethene	96	156-60-5	9	0	U		
1,1-Dichloroethane	98	75-34-3	9	0	U		
2-Butanone	72	78-93-3	43	39	J		
cis-1,2-dichloroethene	96	156-59-2	9	0	U		
Chloroform	118	67-66-3	9	0	U		
1,1,1-Trichloroethane	132	71-55-6	9	0	U		
Carbon tetrachloride	152	56-23-5	9	0	U		
Benzene	78	71-43-2	9	6.9	J		
1,2-Dichloroethane	112	107-06-2	9	0	U		
Trichloroethene	130	79-01-6	9	8.5	J		
1,2-Dichloropropane	112	78-87-5	9	0	U		
cis-1,3-Dichloropropene	110	10061-01-5	9	0	U		
Toluene	92	108-88-3	9	51	=		
trans-1,3-Dichloropropene	96	10061-02-6	9	0	U		
1,1,2-Trichloroethane	132	79-00-5	9	0	U		
Tetrachloroethene	164	127-18-4	9	15	=		
1,2-Dibromoethane	186	106-93-4	9	0	U		
Chlorobenzene	112	108-90-7	9	0	U		
Ethylbenzene	106	100-41-4	9	4.8	J		
Xylenes (Total)	106	1330-20-7	9	23	=		
Styrene	104	100-42-5	9	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	9	0	U		
1,3,5-Trimethylbenzene	120	108-67-8	9	0	U		
1,2,4-Trimethylbenzene	120	95-63-6	9	0	U		
Benzyl Chloride	126	100-44-7	9	0	U		
1,3-Dichlorobenzene	146	541-73-1	9	0	U		
1,4-Dichlorobenzene	146	106-46-7	9	0	U		
1,2-Dichlorobenzene	146	95-50-1	9	0	U		
1,2,4-Trichlorobenzene	180	120-82-1	9	0	U		
Hexachlorobutadiene	258	87-68-3	9	0	U		
4-BFB(surrogate)		460-00-4		98	=		
1,2-DCA-d4(surrogate)		17060-07-0		106	=		
Toluene-d8(surrogate)		2037-26-5		100	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
J - Result below MQL
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

Smart Chemistry

EPA Method TO-14

Client: IT Group
Chain-of Custody #: 573047
Sample Type: AIR
Date Sampled: 11-Jun-01
Date Received: 12-Jun-01
Date Analyzed: 12-Jun-2001
Time Analyzed: 15:36
Dilution Factor: 4.4

Field ID #: B134-V-245
Concentration Units: PPBV
Lab Sample ID: 1IT20602
Initial Calibration Date: Jun 11 2001
QC Batch Code: 9GT0612A5
Data Filename: 01061208.D
Electronic Filename: 508G0612.T
SACODE: N
Location: BLDG 134 system EFF

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
Dichlorodifluoromethane	120	75-71-8	4	0	U		
Freon 114	170	76-14-2	4	0	U		
Chloromethane	50	74-87-3	4	0	U		
Vinyl chloride	62	75-01-4	4	0	U		
Bromomethane	94	74-83-9	4	0	U		
Chloroethane	64	75-00-3	4	0	U		
Acetone	58	67-64-1	22	0	U		
Trichlorofluoromethane	136	75-69-4	4	78	=		
Trichlorotrifluoroethane	186	76-13-1	4	0	U		
Methylene chloride	84	75-09-2	4	0	U		
1,1-Dichloroethene	96	75-35-4	4	0	U		
trans-1,2-dichloroethene	96	156-60-5	4	0	U		
1,1-Dichloroethane	98	75-34-3	4	0	U		
2-Butanone	72	78-93-3	22	0	U		
cis-1,2-dichloroethene	96	156-59-2	4	5.1	=		
Chloroform	118	67-66-3	4	0	U		
1,1,1-Trichloroethane	132	71-55-6	4	0	U		
Carbon tetrachloride	152	56-23-5	4	0	U		
Benzene	78	71-43-2	4	0	U		
1,2-Dichloroethane	112	107-06-2	4	0	U		
Trichloroethene	130	79-01-6	4	5.5	=		
1,2-Dichloropropane	112	78-87-5	4	0	U		
cis-1,3-Dichloropropene	110	10061-01-5	4	0	U		
Toluene	92	108-88-3	4	5.2	=		
trans-1,3-Dichloropropene	96	10061-02-6	4	0	U		
1,1,2-Trichloroethane	132	79-00-5	4	0	U		
Tetrachloroethene	164	127-18-4	4	0	U		
1,2-Dibromoethane	186	106-93-4	4	0	U		
Chlorobenzene	112	108-90-7	4	0	U		
Ethylbenzene	106	100-41-4	4	0	U		
Xylenes (Total)	106	1330-20-7	4	0	U		
Styrene	104	100-42-5	4	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	4	0	U		
1,3,5-Trimethylbenzene	120	108-67-8	4	0	U		
1,2,4-Trimethylbenzene	120	95-63-6	4	0	U		
Benzyl Chloride	126	100-44-7	4	0	U		
1,3-Dichlorobenzene	146	541-73-1	4	0	U		
1,4-Dichlorobenzene	146	106-46-7	4	0	U		
1,2-Dichlorobenzene	146	95-50-1	4	0	U		
1,2,4-Trichlorobenzene	180	120-82-1	4	0	U		
Hexachlorobutadiene	258	87-68-3	4	0	U		
4-BFB(surrogate)		460-00-4		94	=		
1,2-DCA-d4(surrogate)		17060-07-0		119	=		
Toluene-d8(surrogate)		2037-26-5		101	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
J - Result below MQL
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

Smart Chemistry

EPA Method TO-14

Client: IT Group
Chain-of Custody #: 573047
Sample Type: AIR
Date Sampled: 11-Jun-01
Date Received: 12-Jun-01
Date Analyzed: 12-Jun-2001
Time Analyzed: 16:13
Dilution Factor: 4.3

Field ID #: B134-V-246
Concentration Units: PPBV
Lab Sample ID: 1IT20603
Initial Calibration Date: Jun 11 2001
QC Batch Code: 9GT0612A5
Data Filename: 01061209.D
Electronic Filename: 509G0612.T
SACODE: N
Location: BLDG 134 system Midpoint

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
Dichlorodifluoromethane	120	75-71-8	4	0	U		
Freon 114	170	76-14-2	4	0	U		
Chloromethane	50	74-87-3	4	0	U		
Vinyl chloride	62	75-01-4	4	0	U		
Bromomethane	94	74-83-9	4	0	U		
Chloroethane	64	75-00-3	4	0	U		
Acetone	58	67-64-1	22	0	U		
Trichlorofluoromethane	136	75-69-4	4	64	=		
Trichlorotrifluoroethane	186	76-13-1	4	4.6	=		
Methylene chloride	84	75-09-2	4	0	U		
1,1-Dichloroethene	96	75-35-4	4	0	U		
trans-1,2-dichloroethene	96	156-60-5	4	0	U		
1,1-Dichloroethane	98	75-34-3	4	0	U		
2-Butanone	72	78-93-3	22	0	U		
cis-1,2-dichloroethene	96	156-59-2	4	0	U		
Chloroform	118	67-66-3	4	0	U		
1,1,1-Trichloroethane	132	71-55-6	4	0	U		
Carbon tetrachloride	152	56-23-5	4	0	U		
Benzene	78	71-43-2	4	0	U		
1,2-Dichloroethane	112	107-06-2	4	0	U		
Trichloroethene	130	79-01-6	4	0	U		
1,2-Dichloropropane	112	78-87-5	4	0	U		
cis-1,3-Dichloropropene	110	10061-01-5	4	0	U		
Toluene	92	108-88-3	4	12	=		
trans-1,3-Dichloropropene	96	10061-02-6	4	0	U		
1,1,2-Trichloroethane	132	79-00-5	4	0	U		
Tetrachloroethene	164	127-18-4	4	0	U		
1,2-Dibromoethane	186	106-93-4	4	0	U		
Chlorobenzene	112	108-90-7	4	0	U		
Ethylbenzene	106	100-41-4	4	0	U		
Xylenes (Total)	106	1330-20-7	4	4.1	=		
Styrene	104	100-42-5	4	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	4	0	U		
1,3,5-Trimethylbenzene	120	108-67-8	4	0	U		
1,2,4-Trimethylbenzene	120	95-63-6	4	0	U		
Benzyl Chloride	126	100-44-7	4	0	U		
1,3-Dichlorobenzene	146	541-73-1	4	0	U		
1,4-Dichlorobenzene	146	106-46-7	4	0	U		
1,2-Dichlorobenzene	146	95-50-1	4	0	U		
1,2,4-Trichlorobenzene	180	120-82-1	4	0	U		
Hexachlorobutadiene	258	87-68-3	4	0	U		
4-BFB(surrogate)		460-00-4		94	=		
1,2-DCA-d4(surrogate)		17060-07-0		119	=		
Toluene-d8(surrogate)		2037-26-5		103	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
J - Result below MQL
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

Smart Chemistry

EPA Method TO-14

Client: IT Group
Chain-of Custody #: 573014
Sample Type: AIR
Date Sampled: 14-Aug-01
Date Received: 15-Aug-01
Date Analyzed: 16-Aug-2001
Time Analyzed: 00:19
Dilution Factor: 1103.5

Field ID #: B134-V-266
Concentration Units: PPBV
Lab Sample ID: 1IT22204
Initial Calibration Date: 15-Aug-2001
QC Batch Code: 9GT0815A5
Data Filename: 01081520.D
Electronic Filename: 520G0815.T/415G0821.T
SACODE: N
Location: IR25VW6-19A Rebound

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
Dichlorodifluoromethane	120	75-71-8	1104	0	U		
Freon 114	170	76-14-2	1104	0	U		
Chloromethane	50	74-87-3	1104	0	U		
Vinyl chloride	62	75-01-4	1104	0	U		
Bromomethane	94	74-83-9	1104	0	U		
Chloroethane	64	75-00-3	1104	0	U		
Acetone	58	67-64-1	5518	0	U		
Trichlorofluoromethane	136	75-69-4	1104	0	U		
Trichlorotrifluoroethane	186	76-13-1	1104	0	U		
Methylene chloride	84	75-09-2	1104	0	U		
1,1-Dichloroethene	96	75-35-4	1104	0	U		
trans-1,2-dichloroethene	96	156-60-5	1104	0	U		
1,1-Dichloroethane	98	75-34-3	1104	0	U		
2-Butanone	72	78-93-3	5518	0	U		
cis-1,2-dichloroethene	96	156-59-2	1104	6210	=		
Chloroform	118	67-66-3	1104	0	U		
1,1,1-Trichloroethane	132	71-55-6	1104	0	U		
Carbon tetrachloride	152	56-23-5	1104	0	U		
Benzene	78	71-43-2	1104	0	U		
1,2-Dichloroethane	112	107-06-2	1104	0	U		
Trichloroethene	130	79-01-6	1104	894	J		
1,2-Dichloropropane	112	78-87-5	1104	0	U		
cis-1,3-Dichloropropene	110	10061-01-5	1104	0	U		
Toluene	92	108-88-3	1104	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	1104	0	U		
1,1,2-Trichloroethane	132	79-00-5	1104	0	U		
Tetrachloroethene	164	127-18-4	1104	9490	=		
1,2-Dibromoethane	186	106-93-4	1104	0	U		
Chlorobenzene	112	108-90-7	1104	0	U		
Ethylbenzene	106	100-41-4	1104	0	U		
Xylenes (Total)	106	1330-20-7	1104	0	U		
Styrene	104	100-42-5	1104	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	1104	0	U		
1,3,5-Trimethylbenzene	120	108-67-8	1104	0	U		
1,2,4-Trimethylbenzene	120	95-63-6	1104	0	U		
Benzyl Chloride	126	100-44-7	1104	0	U		
1,3-Dichlorobenzene	146	541-73-1	1104	0	U		
1,4-Dichlorobenzene	146	106-46-7	1104	0	U		
1,2-Dichlorobenzene	146	95-50-1	1104	0	U		
1,2,4-Trichlorobenzene	180	120-82-1	1104	0	U		
Hexachlorobutadiene	258	87-68-3	1104	0	U		
4-BFB(surrogate)		460-00-4		101	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
J - Result below MQL
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

EPA Method TO-14

Smart Chemistry

Client: IT Group
Chain-of Custody #: 573014
Sample Type: AIR
Date Sampled: 14-Aug-01
Date Received: 15-Aug-01
Date Analyzed: 27-Aug-2001
Time Analyzed: 18:07
Dilution Factor: 106500.0

Field ID #: B134-V-267
Concentration Units: PPBV
Lab Sample ID: 1IT22205
Initial Calibration Date: 23-Aug-2001
QC Batch Code: 9GT0827A5
Data Filename: 01082712.D
Electronic Filename: 512G0827.T
SACODE: N
Location: IR25SG045-10 Rebound

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
Dichlorodifluoromethane	120	75-71-8	106500	0	U		
Freon 114	170	76-14-2	106500	0	U		
Chloromethane	50	74-87-3	106500	0	U		
Vinyl chloride	62	75-01-4	106500	0	U		
Bromomethane	94	74-83-9	106500	0	U		
Chloroethane	64	75-00-3	106500	0	U		
Acetone	58	67-64-1	532500	0	U		
Trichlorofluoromethane	136	75-69-4	106500	866000	=		
Trichlorotrifluoroethane	186	76-13-1	106500	132000	=		
Methylene chloride	84	75-09-2	106500	0	U		
1,1-Dichloroethene	96	75-35-4	106500	0	U		
trans-1,2-dichloroethene	96	156-60-5	106500	0	U		
1,1-Dichloroethane	98	75-34-3	106500	0	U		
2-Butanone	72	78-93-3	532500	0	U		
cis-1,2-dichloroethene	96	156-59-2	106500	0	U		
Chloroform	118	67-66-3	106500	0	U		
1,1,1-Trichloroethane	132	71-55-6	106500	0	U		
Carbon tetrachloride	152	56-23-5	106500	0	U		
Benzene	78	71-43-2	106500	0	U		
1,2-Dichloroethane	112	107-06-2	106500	0	U		
Trichloroethene	130	79-01-6	106500	0	U		
1,2-Dichloropropane	112	78-87-5	106500	0	U		
cis-1,3-Dichloropropene	110	10061-01-5	106500	0	U		
Toluene	92	108-88-3	106500	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	106500	0	U		
1,1,2-Trichloroethane	132	79-00-5	106500	0	U		
Tetrachloroethene	164	127-18-4	106500	0	U		
1,2-Dibromoethane	186	106-93-4	106500	0	U		
Chlorobenzene	112	108-90-7	106500	0	U		
Ethylbenzene	106	100-41-4	106500	0	U		
Xylenes (Total)	106	1330-20-7	106500	0	U		
Styrene	104	100-42-5	106500	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	106500	0	U		
1,3,5-Trimethylbenzene	120	108-67-8	106500	0	U		
1,2,4-Trimethylbenzene	120	95-63-6	106500	0	U		
Benzyl Chloride	126	100-44-7	106500	0	U		
1,3-Dichlorobenzene	146	541-73-1	106500	0	U		
1,4-Dichlorobenzene	146	106-46-7	106500	0	U		
1,2-Dichlorobenzene	146	95-50-1	106500	0	U		
1,2,4-Trichlorobenzene	180	120-82-1	106500	0	U		
Hexachlorobutadiene	258	87-68-3	106500	0	U		
4-BFB(surrogate)		460-00-4		98	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
J - Result below MQL
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

PROCEDURES:
This analysis was performed using EPA Method TO-14

Analytical Laboratory Report

EPA Method TO-14

Smart Chemistry

Client: IT Group
Chain-of Custody #: 573014
Sample Type: AIR
Date Sampled: 14-Aug-01
Date Received: 15-Aug-01
Date Analyzed: 16-Aug-2001
Time Analyzed: 00:58
Dilution Factor: 3937.8

Field ID #: B134-V-268
Concentration Units: PPBV
Lab Sample ID: 1IT22206
Initial Calibration Date: 15-Aug-2001
QC Batch Code: 9GT0815A5
Data Filename: 01081521.D
Electronic Filename: 521G0815.T/416G0821
SACODE: N
Location: IR25SG058-10 Rebound

Analytes	MW	CASNUM	MQL	Results	PARVQ	%Recovery	RPD/PD
Dichlorodifluoromethane	120	75-71-8	3938	0	U		
Freon 114	170	76-14-2	3938	0	U		
Chloromethane	50	74-87-3	3938	0	U		
Vinyl chloride	62	75-01-4	3938	0	U		
Bromomethane	94	74-83-9	3938	0	U		
Chloroethane	64	75-00-3	3938	0	U		
Acetone	58	67-64-1	19689	0	U		
Trichlorofluoromethane	136	75-69-4	3938	0	U		
Trichlorotrifluoroethane	186	76-13-1	3938	0	U		
Methylene chloride	84	75-09-2	3938	0	U		
1,1-Dichloroethene	96	75-35-4	3938	0	U		
trans-1,2-dichloroethene	96	156-60-5	3938	0	U		
1,1-Dichloroethane	98	75-34-3	3938	0	U		
2-Butanone	72	78-93-3	19689	0	U		
cis-1,2-dichloroethene	96	156-59-2	3938	0	U		
Chloroform	118	67-66-3	3938	0	U		
1,1,1-Trichloroethane	132	71-55-6	3938	0	U		
Carbon tetrachloride	152	56-23-5	3938	0	U		
Benzene	78	71-43-2	3938	0	U		
1,2-Dichloroethane	112	107-06-2	3938	0	U		
Trichloroethene	130	79-01-6	3938	62000	=		
1,2-Dichloropropane	112	78-87-5	3938	0	U		
cis-1,3-Dichloropropene	110	10061-01-5	3938	0	U		
Toluene	92	108-88-3	3938	0	U		
trans-1,3-Dichloropropene	96	10061-02-6	3938	0	U		
1,1,2-Trichloroethane	132	79-00-5	3938	0	U		
Tetrachloroethene	164	127-18-4	3938	0	U		
1,2-Dibromoethane	186	106-93-4	3938	0	U		
Chlorobenzene	112	108-90-7	3938	0	U		
Ethylbenzene	106	100-41-4	3938	0	U		
Xylenes (Total)	106	1330-20-7	3938	0	U		
Styrene	104	100-42-5	3938	0	U		
1,1,2,2-Tetrachloroethane	166	79-34-5	3938	0	U		
1,3,5-Trimethylbenzene	120	108-67-8	3938	0	U		
1,2,4-Trimethylbenzene	120	95-63-6	3938	0	U		
Benzyl Chloride	126	100-44-7	3938	0	U		
1,3-Dichlorobenzene	146	541-73-1	3938	0	U		
1,4-Dichlorobenzene	146	106-46-7	3938	0	=		
1,2-Dichlorobenzene	146	95-50-1	3938	0	U		
1,2,4-Trichlorobenzene	180	120-82-1	3938	0	U		
Hexachlorobutadiene	258	87-68-3	3938	0	U		
4-BFB(surrogate)		460-00-4		93	=		

NOTES:
E - Data estimated due to exceedance of calibration range.
J - Result below MQL
U - Analytes not detected at, or above the stated detection limit.
Q - parameter is out of control limits.
0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.
PPBV - Parts per billion volume.
MQL - Method quantitation limit.
PD - Percent difference.
RPD - Relative percent difference.
Surrogate results are in units of percent recovery with control limits: 65 to 135%.

PROCEDURES:
This analysis was performed using EPA Method TO-14

APPENDIX B
WELL CONSTRUCTION SUMMARY AND BORING DIAGRAMS

ATTACHMENT 1
AS-BUILT WELL CONSTRUCTION DETAILS

Soil Vapor Well Construction As-Builts

				Direct Push / Continuous soil sampling				Well Completion			
Vapor Extraction Wells											
Parcel	IR	Well No.	Well Type	Boring drill date	Date Soil samples collected/shipped	TD of boring (feet bgs)	Comments	Date of Well completion	Well TD	Screen Interval	Well Diameter (in.)
C	IR-25	IR25VW6-03A	VEW	10/11/2000	10/11/2000	10		10/18/2000	10.0	2 - 10 '	4 "
C	IR-25	IR25VW6-04A	VEW	10/11/2000	10/11/2000	10		10/18/2000	10.0	2 - 10 '	4 "
C	IR-25	IR25VW6-05A	VEW	10/11/2000	10/11/2000	10		10/18/2000	10.0	2 - 10 '	4 "
C	IR-25	IR25VW6-06A	VEW	10/12/2000	10/12/2000	6	In sump 4' below surrounding bldg floor - hand sample	10/24/2000	10.0	2 - 6 '	4 "
C	IR-25	IR25VW6-07A	VEW	10/12/2000	10/12/2000	6	In sump 4' below surrounding bldg floor; refusal at 6'	10/17/2000	10.0	2 - 10 '	4 "
C	IR-25	IR25VW6-08A	VEW	10/11/2000	10/11/2000	10		10/18/2000	10.0	2 - 10 '	4 "
C	IR-25	IR25VW6-09A	VEW	10/10/2000	10/10/2000	10		10/16/2000	10.0	2 - 10 '	4 "
C	IR-25	IR25VW6-10A	VEW	10/10/2000	10/10/2000	10		10/11/2000	10.0	2 - 10 '	4 "
C	IR-25	IR25VW6-11A	VEW	10/11/2000	10/11/2000	10		10/18/2000	10.0	2 - 10 '	4 "
C	IR-25	IR25VW6-12A	VEW	10/09/2000	10/09/2000	10		10/17/2000	10.0	1.5 - 9.5 '	4 "
C	IR-25	IR25VW6-13A	VEW	10/10/2000	10/10/2000	10		10/17/2000	10.0	1.5 - 9.5 '	4 "
C	IR-25	IR25VW6-14A	VEW	10/05/2000	10/05/2000	10		10/09/2000	10.0	2 - 10 '	4 "
C	IR-25	IR25VW6-15A	VEW	10/09/2000	10/09/2000	10		10/11/2000	10.0	2 - 10 '	4 "
C	IR-25	IR25VW6-16A	VEW	10/05/2000	10/05/2000	10		10/05/2000	10.0	2 - 10 '	4 "
C	IR-25	IR25VW6-17A	VEW	10/09/2000	10/09/2000	10		10/11/2000	10.0	2 - 10 '	4 "
C	IR-25	IR25VW6-18A	VEW	10/04/2000	10/04/2000	3.83	Refusal at 3 ' 10 "	10/09/2000	10.0	2 - 10 '	4 "
C	IR-25	IR25VW6-19A	VEW	10/12/2000	10/12/2000	6	In sump 4' below surrounding bldg floor - hand sample	10/17/2000	10.0	2 - 10 '	4 "
Vapor Monitoring Points (Lower Zone)											
C	IR-25	IR25SG042-10	VMP-L	10/12/2000	10/12/2000	10		10/18/2000	10.0	6 - 10 '	2 "
C	IR-25	IR25SG043-10	VMP-L	10/11/2000	10/11/2000	10		10/19/2000	10.0	6 - 10 '	2 "
C	IR-25	IR25SG044-10	VMP-L	10/12/2000	10/12/2000	6.5	In sump 3.5' below surrounding bldg floor	10/17/2000	10.0	6 - 10 '	2 "
C	IR-25	IR25SG045-10	VMP-L	10/12/2000	10/12/2000	10		10/24/2000	10.0	6 - 10 '	2 "
C	IR-25	IR25SG046-10	VMP-L	10/12/2000	10/12/2000	10		10/24/2000	10.0	6 - 10 '	2 "
C	IR-25	IR25SG047-10	VMP-L	10/05/2000	10/05/2000	10		10/09/2000	10.0	6 - 10 '	2 "
C	IR-25	IR25SG048-10	VMP-L	10/05/2000	10/05/2000	10		10/05/2000	10.0	6 - 10 '	2 "
C	IR-25	IR25SG049-10	VMP-L	10/05/2000	10/05/2000	10		10/05/2000	10.0	6 - 10 '	2 "
C	IR-25	IR25SG050-10	VMP-L	10/09/2000	10/09/2000	10		10/11/2000	10.0	6 - 10 '	2 "
C	IR-25	IR25SG051-10	VMP-L	10/10/2000	10/10/2000	10		10/17/2000	10.0	6 - 10 '	2 "
C	IR-25	IR25SG052-10	VMP-L	10/09/2000	10/09/2000	10		10/11/2000	10.0	6 - 10 '	2 "
C	IR-25	IR25SG053-10	VMP-L	10/09/2000	10/09/2000	10	Push to refusal at 5' on first try; moved over & pushed to 10'	10/10/2000	10.0	6 - 10 '	2 "
C	IR-25	IR25SG054-10	VMP-L	10/10/2000	10/10/2000	3	Refusal at 3 '	NA	NA	NA	NA
C	IR-25	IR25SG055-10	VMP-L	10/09/2000	10/09/2000	10		10/11/2000	10.0	6 - 10 '	2 "

Soil Vapor Well Construction As-Builts

				Direct Push / Continuous soil sampling				Well Completion			
C	IR-25	IR25SG056-10	VMP-L	10/04/2000	10/04/2000	10		10/05/2000	10.0	6 - 10 '	2 "
C	IR-25	IR25SG057-10	VMP-L	10/04/2000	10/04/2000	10		10/09/2000	10.0	6 - 10 '	2 "
C	IR-25	IR25SG058-10	VMP-L	10/04/2000	10/04/2000	10		10/04/2000	10.0	6 - 10 '	2 "
C	IR-25	IR25SG059-10	VMP-L	10/04/2000	10/04/2000	10		10/10/2000	10.0	6 - 10 '	2 "
C	IR-25	IR25SG060-10	VMP-L	10/05/2000	10/05/2000	10		10/10/2000	10.0	6 - 10 '	2 "
C	IR-25	IR25SG061-10	VMP-L	10/05/2000	10/05/2000	10		10/10/2000	10.0	6 - 10 '	2 "
C	IR-25	IR25SG062-10	VMP-L	10/04/2000	10/04/2000	10		10/04/2000	10.0	6 - 10 '	2 "
C	IR-25	IR25SG063-10	VMP-L	10/10/2000	10/10/2000	10		10/11/2000	10.0	6 - 10 '	2 "
C	IR-25	IR25SG064-10	VMP-L	10/10/2000	10/10/2000	10		10/11/2000	10.0	6 - 10 '	2 "
C	IR-25	IR25SG065-10	VMP-L	10/10/2000	10/10/2000	10		10/25/2000	10.0	6 - 10 '	2 "
Vapor Monitoring Points (Upper Zone)											
C	IR-25	IR25SG042-5	VMP-U	same as lower zone wells (SEE EXPLANATIONS BELOW)				10/18/2000	5.0	3 - 5 '	2 "
C	IR-25	IR25SG043-5	VMP-U					10/19/2000	5.0	3 - 5 '	2 "
C	IR-25	IR25SG044-5	VMP-U					10/17/2000	5.0	3 - 5 '	2 "
C	IR-25	IR25SG045-5	VMP-U					10/24/2000	5.0	3 - 5 '	2 "
C	IR-25	IR25SG046-5	VMP-U					10/24/2000	5.0	3 - 5 '	2 "
C	IR-25	IR25SG047-5	VMP-U					10/09/2000	5.0	3 - 5 '	2 "
C	IR-25	IR25SG048-5	VMP-U					10/05/2000	5.0	3 - 5 '	2 "
C	IR-25	IR25SG049-5	VMP-U					10/05/2000	5.0	3 - 5 '	2 "
C	IR-25	IR25SG050-5	VMP-U					10/11/2000	5.0	3 - 5 '	2 "
C	IR-25	IR25SG051-5	VMP-U					10/17/2000	5.0	3 - 5 '	2 "
C	IR-25	IR25SG052-5	VMP-U					10/11/2000	5.0	3 - 5 '	2 "
C	IR-25	IR25SG053-5	VMP-U					10/10/2000	5.0	3 - 5 '	2 "
C	IR-25	IR25SG054-5	VMP-U					NA	NA	NA	NA
C	IR-25	IR25SG055-5	VMP-U					10/11/2000	5.0	3 - 5 '	2 "
C	IR-25	IR25SG056-5	VMP-U					10/05/2000	5.0	3 - 5 '	2 "
C	IR-25	IR25SG057-5	VMP-U					10/09/2000	5.0	3 - 5 '	2 "
C	IR-25	IR25SG058-5	VMP-U					10/04/2000	5.0	3 - 5 '	2 "
C	IR-25	IR25SG059-5	VMP-U					10/09/2000	5.0	3 - 5 '	2 "
C	IR-25	IR25SG060-5	VMP-U					10/10/2000	5.0	3 - 5 '	2 "
C	IR-25	IR25SG061-5	VMP-U					10/10/2000	5.0	3 - 5 '	2 "
C	IR-25	IR25SG062-5	VMP-U					10/04/2000	5.0	3 - 5 '	2 "
C	IR-25	IR25SG063-5	VMP-U					10/11/2000	5.0	3 - 5 '	2 "
C	IR-25	IR25SG064-5	VMP-U					10/11/2000	5.0	3 - 5 '	2 "
C	IR-25	IR25SG065-5	VMP-U					10/25/2000	5.0	3 - 5 '	2 "

Explanations:

One soil boring was performed at each vapor monitoring well location

VEW = vapor extraction well

VMP-L = vapor monitoring well installed in lower or deeper zone

Soil Vapor Well Construction As-Builts												
				Direct Push / Continuous soil sampling				Well Completion				
VMP-U = vapor monitoring well installed in shallower or upper zone												
NA = Not applicable -- only one well was installed due to site conditions												

ATTACHMENT 2
BORING LOGS AND WELL COMPLETION DIAGRAMS

BORING NO. IR25VW6-03A

COORDINATES: N. 453103.85
E. 1461241.40

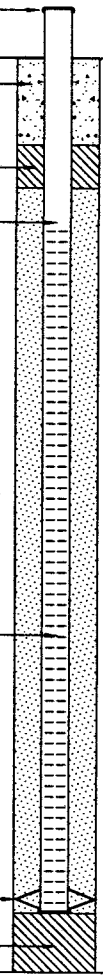
FIELD GEOLOGIST M. Brown
CHECKED BY E. Mullenmeister
APPROVED BY W. Akiyama, R.G.

DATE BEGAN 10/11/00
DATE FINISHED 10/11/00
SURFACE ELEV. 11.47
SAMPLE DIA. 1.5 in.

VAPOR EXTRACTION WELL IR25VW6-03A

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland

INSTALLATION DATE: 10/18/00



DEPTH IN FEET	SAMPLE NUMBER	RECOVERY (%)	P.I.D. READING (PPM)	ASTM D2488-00	PROFILE	
0						CONCRETE 0.5'
1	SS	50	0.0	gc fill		No recovery 0.5 to 1' CLAYEY GRAVEL with SAND; brown, moist, firm, 10-30% clay, gravel to 1.5" diameter, FILL.
2						
3	SS	25	0.0			No recovery 2' to 3'
4						
5	SS	100	0.0			
6						
7	SS	25	0.0			No recovery 6' to 7.5'
8						8.0'
				sp fill		POORLY GRADED SAND; brown, coarse sand, moist, FILL. 8.5'
9	SS	100	0.0	ch fill		SANDY FAT CLAY; brown, moist, firm, plastic, FILL.
10						10.0'
	NS	NA	NA			TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET This interval was not logged during well installation. 10.7'
11						TOTAL DEPTH OF WELL IS 10 FEET
12						
13						
14						
15						
16						Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at this location. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.
17						Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.

DRILLER : M Flynn

DRILLING CO. : Precision Sampling Inc.
DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)
SAMPLING METHOD : California Modified Split Spoon Sampler (SS)
PROJECT : Hunters Point Shipyard
LOCATION : Building 134
PROJECT NO. : 773247-53210606

DRAWN BY	M.Verhaeg	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247-A427
DATE	01/09/01	APPROVED BY		

IT CORPORATION

BORING NO. IR25VW6-04A

COORDINATES: N. 453088.39
E. 1461237.94

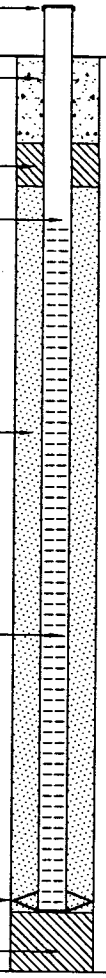
FIELD GEOLOGIST A. Bolland
CHECKED BY E. Mullenmeister
APPROVED BY W. Akiyama, R.G.

DATE BEGAN 10/11/00
DATE FINISHED 10/11/00
SURFACE ELEV. 11.48
SAMPLE DIA. 1.5 in.

VAPOR EXTRACTION WELL IR25VW6-04A

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland

INSTALLATION DATE: 10/18/00



DEPTH IN FEET	SAMPLE NUMBER	RECOVERY (%)	P.I.D. READING (PPM)	ASTM D2488-00	PROFILE	
0						Concrete — 0.5'
1	SS	100	0.0	gc fill		CLAYEY GRAVEL with SAND: brown, moist, firm, 10-30% clay, gravel to 1.5" diameter, FILL.
2						2' to 3' not recovered
3	SS	50	0.0			
4						
5	SS	100	0.0			
6						Clay content increases to 40-50%. 6' to 8' not recovered
7	SS	0	0.0			
8				gm fill		SILTY GRAVEL; grey, moist, 10% silt, FILL. — 8.0'
						8.5'
9	SS	100	0.0	ch fill		FAT CLAY; dark brown-greenish, moist, firm, plastic, FILL.
10	NS	NA	NA			10.0' — TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET. This interval was not logged during well installation. — 10.7'
11						TOTAL DEPTH OF WELL IS 10 FEET
12						
13						
14						
15						
16						Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at this location. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.
17						Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.

DRILLER : M Flynn
DRILLING CO. : Precision Sampling Inc.
DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)
SAMPLING METHOD : California Modified Split Spoon Sampler (SS)
PROJECT : Hunters Point Shipyard
LOCATION : Building 134
PROJECT NO. : 773247-53210606

DRAWN BY	M.Verhaeg	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247-A428
DATE	01/09/01	APPROVED BY		

IT CORPORATION

BORING NO. IR25VW6-05A

COORDINATES: N. 453095.11
E. 1461256.83

FIELD GEOLOGIST A. Bolland
CHECKED BY E. Mullenmeister
APPROVED BY W. Akiyama, R.G.

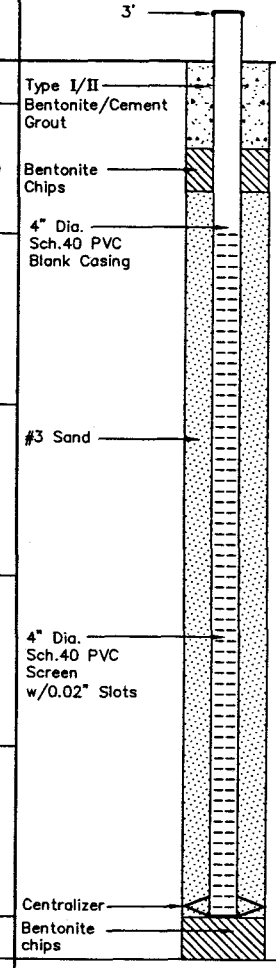
DATE BEGAN 10/11/00
DATE FINISHED 10/11/00
SURFACE ELEV. 11.41
SAMPLE DIA. 1.5 in.

VAPOR EXTRACTION WELL IR25VW6-05A

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland

INSTALLATION DATE: 10/18/00

DEPTH IN FEET	SAMPLE NUMBER	RECOVERY (%)	P.I.D. READING (PPM)	ASTM D2488-00	PROFILE	
0						Concrete — 0.5'
1	SS	100	0.0	gc fill		CLAYEY GRAVEL with SAND; brown, moist, 10-20% clay, gravel to 1.5" diameter, FILL.
2						
3	SS	75	0.0			Grey color change.
4						
5	SS	100	0.0			Color changes to greenish (olive) brown (dark). — 6.5'
6						
7	SS	100	0.0	cl fill		SANDY LEAN CLAY; greenish-brown, some gravel, firm, medium-plasticity, moist, FILL.
8						
9	SS	100	0.0			Description as above, but no gravel. — 10'
10	NS	NA	NA			TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET This interval was not logged during well installation. — 10.5'
11						
12						
13						
14						
15						
16						Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at this location. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.
17						Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.



TOTAL DEPTH OF WELL IS 10 FEET

DRILLER : M Flynn
DRILLING CO. : Precision Sampling Inc.
DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)
SAMPLING METHOD : California Modified Split Spoon Sampler (SS)
PROJECT : Hunters Point Shipyard
LOCATION : Building 134
PROJECT NO. : 773247-53210606

DRAWN BY	M.Verhaeg	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247-A429
DATE	01/09/01	APPROVED BY		

IT CORPORATION

BORING NO. IR25VW6-06A

VAPOR EXTRACTION WELL IR25VW6-06A

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland

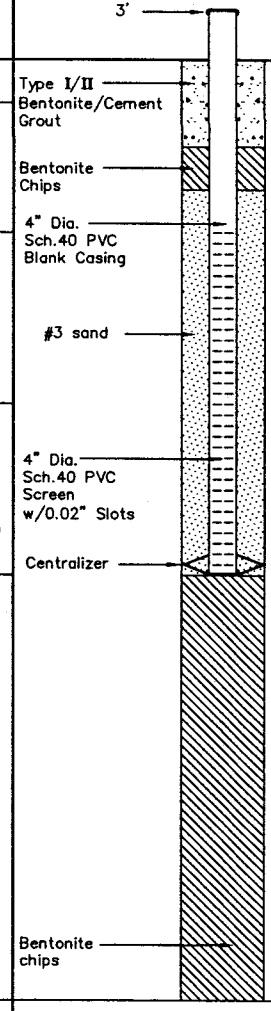
INSTALLATION DATE: 10/24/00

COORDINATES: N. 453077.31 E. 1461219.56

FIELD GEOLOGIST M. Brown
CHECKED BY E. Mullenmeister
APPROVED BY W. Akiyama, R.G.

DATE BEGAN 10-12-00
DATE FINISHED 10-12-00
SURFACE ELEV. 7.46
SAMPLE DIA. 1.5 in.

DEPTH IN FEET	SAMPLE NUMBER	RECOVERY (%)	P.I.D. READING (PPM)	ASTM D2488-00	PROFILE	
0						Concrete — 0.75'
1	SS	0		cl fill		no recovery 0.8' to 2'; rock blocking sample shoe at 2'.
2	SS	100	0 0 0 3.8	cl fill		SANDY LEAN CLAY; dark brown, dry, 10% fine gravel, 30% fine sand, FILL. — 2.5'
3				sm		SILTY SAND; medium brown, moist, loose, FILL. — 3.25'
4	SS	75	0 0 9.6 22.5 969	cl fill		SANDY LEAN CLAY; dark gray, moist, soft. No recovery 4' to 4.5'. 20% gravel to 1.5" diameter at 5'. — 5.75'
5						
6				sm fill		SILTY SAND; moist, compact, 60% fine sand, FILL. — 6.0'
7	NS	NA	NA			TOTAL DEPTH OF DIRECT PUSH BORING IS 6 FEET
8						
9						This interval was not logged during well installation.
10						
11						11.0'
12						
13						
14						
15						
16						Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at this location. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.
17						Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.



TOTAL DEPTH OF WELL IS 6 FEET

DRILLER : M Flynn
DRILLING CO. : Precision Sampling Inc.
DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)
SAMPLING METHOD : California Modified Split Spoon Sampler (SS)
PROJECT : Hunters Point Shipyard
LOCATION : Building 134
PROJECT NO. : 773247-53210606

DRAWN BY	M.Verhaeg	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247-A430
DATE	01/10/01	APPROVED BY		

IT CORPORATION

BORING NO. IR25VW6-07A

COORDINATES: N. 453071.56
E. 1461239.27

FIELD GEOLOGIST M. Brown
CHECKED BY E. Mullenmeister
APPROVED BY W. Akiyama, R.G.

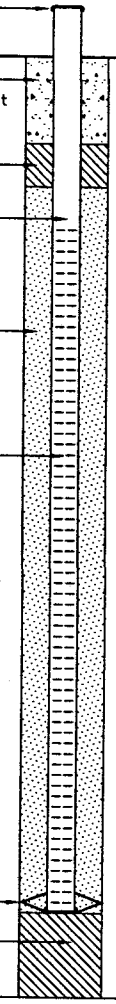
DATE BEGAN 10-12-00
DATE FINISHED 10-12-00
SURFACE ELEV. 8.43
SAMPLE DIA. 1.5 in.

VAPOR EXTRACTION WELL IR25VW6-07A

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland

INSTALLATION DATE: 10/17/00

DEPTH IN FEET	SAMPLE NUMBER	RECOVERY (%)	P.I.D. READING (PPM)	ASTM D2488-00	PROFILE	
0						Concrete — 8"
1	SS	85	0, 0, 0	sc fill		CLAYEY SAND with GRAVEL; 25% clay, 25% gravel to 0.5" diameter, moist, loose, brown, FILL.
2						No recovery 2' to 3.5'.
3	SS	25				3.5'
4				gp fill		POORLY GRADED GRAVEL with SAND; gravel to 2" diameter from 3.5'-4', dry, loose, FILL.
5	SS	40	0, 0, 0			No recovery 4'-5.2'. — 5.0'
			17.5	cl fill		SANDY LEAN CLAY; 40% fine sand, moist, soft, FILL. — 5.5'
6				sm fill		SILTY SAND; wet, compact, dark grey with sheen appearance, slight chemical odor, FILL. Refusal at 6'-cracked drill rod casing at top. — 6.0'
7						TOTAL DEPTH OF DIRECT PUSH BORING IS 6 FEET
8						
9	NS	NA	NA			This interval was not logged during well installation.
10						
11						11.0'
12						
13						
14						
15						
16						Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at this location. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.
17						Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.



TOTAL DEPTH OF WELL IS 10 FEET

DRILLER : M Flynn
DRILLING CO. : Precision Sampling Inc.
DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)
SAMPLING METHOD : California Modified Split Spoon Sampler (SS)
PROJECT : Hunters Point Shipyard
LOCATION : Building 134
PROJECT NO. : 773247-53210606

DRAWN BY	M.Verhaeg	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247-A431
DATE	01/10/01	APPROVED BY		

IT CORPORATION

BORING NO. IR25VW6-08A

COORDINATES: N. 453075.62
E. 1461258.57

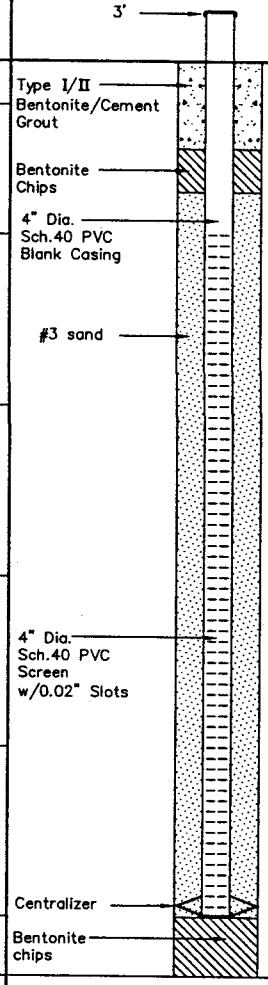
FIELD GEOLOGIST A. Bolland
CHECKED BY E. Mullenmeister
APPROVED BY W. Akiyama, R.G.

DATE BEGAN 10/11/00
DATE FINISHED 10/11/00
SURFACE ELEV. 11.48
SAMPLE DIA. 1.5 in.

VAPOR EXTRACTION WELL IR25VW6-08A

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland

INSTALLATION DATE: 10/18/00



DEPTH IN FEET	SAMPLE NUMBER	RECOVERY (%)	P.I.D. READING (PPM)	ASTM D2488-00	PROFILE	
0						CONCRETE 0.5'
1	SS	100	0.0	gc fill		CLAYEY GRAVEL with SAND; brown, moist, firm, 20-30% clay, gravel to 1/2" diameter, FILL.
2						
3	SS	50	0.0			No recovery 3.0'
				gp fill		POORLY GRADED GRAVEL with SAND; light gray, gravel to 1.5" diameter, 20% sand, FILL. 4.5'
4						
5	SS	100	0.0	cl fill		SANDY LEAN CLAY; orange-brown, firm, non-plastic, FILL. 5.0'
6				ch fill		SANDY FAT CLAY; brown, moist, firm, plastic, FILL.
7	SS	25	0.0			7.75'
8				gc/fill		CLAYEY GRAVEL with SAND; light gray, gravel to 1.5" diameter, FILL. 8.0'
9	SS	100	0.0	ch fill		SANDY FAT CLAY; brown, moist, firm, plastic, FILL.
10	NS	NA	NA			10' TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET This interval was not logged during well installation. 10.7'
11						TOTAL DEPTH OF WELL IS 10 FEET
12						
13						
14						
15						
16						Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at this location. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.
17						Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.

DRILLER : M Flynn
DRILLING CO. : Precision Sampling Inc.
DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)
SAMPLING METHOD : California Modified Split Spoon Sampler (SS)
PROJECT : Hunters Point Shipyard
LOCATION : Building 134
PROJECT NO. : 773247-53210606

DRAWN BY	M.Verhaeg	CHECKED BY	EGM 7/2/01	DRAWING NO. : 773247-A432
DATE	01/10/01	APPROVED BY		

IT CORPORATION

BORING NO. IR25VW6-09A

COORDINATES: N. 453061.13
E. 1461223.81

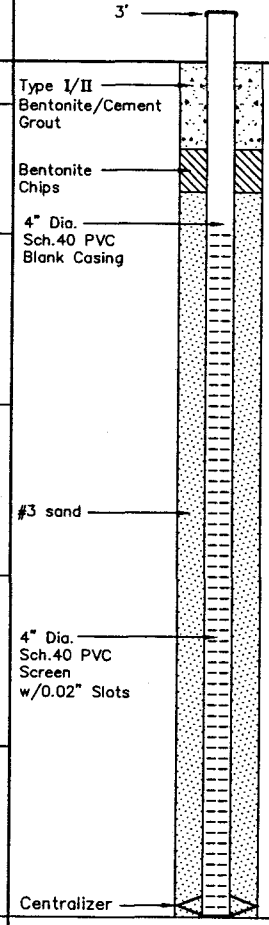
FIELD GEOLOGIST M. Brown
CHECKED BY E. Mullenmeister
APPROVED BY W. Akiyama, R.G.

DATE BEGAN 10/10/00
DATE FINISHED 10/10/00
SURFACE ELEV. 11.27
SAMPLE DIA. 1.5 in.

VAPOR EXTRACTION WELL IR25VW6-09A

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland

INSTALLATION DATE: 10/16/00



DEPTH IN FEET	SAMPLE NUMBER	RECOVERY (%)	P.I.D. READING (PPM)	ASTM D2488-00	PROFILE	
0						CONCRETE 0.5'
1	SS	100	0.0	sc fill		CLAYEY SAND with GRAVEL; light to medium brown, loose, dry, 20% clay, 20% gravel to 0.5" diameter, FILL.
2	SS	75	0.0			No recovery 2'-2.5'.
3						
4	SS	50	0.0			No recovery 4'-5'.
5						
6	SS	50	0.0			No recovery 6'-7'. 6.5'
7				cl fill		GRAVELLY LEAN CLAY with SAND; 30% gravel to 0.25" diameter, 15% sand, dark greyish brown, soft, moist, FILL.
8	SS	50	0.0			No recovery 8'-9'.
9						GRAVELLY LEAN CLAY with SAND; soft, moist, dark- greenish blue grey, fine gravel to 0.25" diameter, FILL. 10'
10						
11						
12						
13						
14						
15						
16						
17						

TOTAL DEPTH OF WELL IS 10 FEET

TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET

Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at this location. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.

Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.

DRILLER : M Flynn
DRILLING CO. : Precision Sampling Inc.
DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)
SAMPLING METHOD : California Modified Split Spoon Sampler (SS)
PROJECT : Hunters Point Shipyard
LOCATION : Building 134
PROJECT NO. : 773247-53210606

DRAWN BY	M.Verhaeg	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247-A433
DATE	01/10/01	APPROVED BY		

IT CORPORATION

BORING NO. IR25VW6-10A

COORDINATES: N. 453050.63
E. 1461235.30

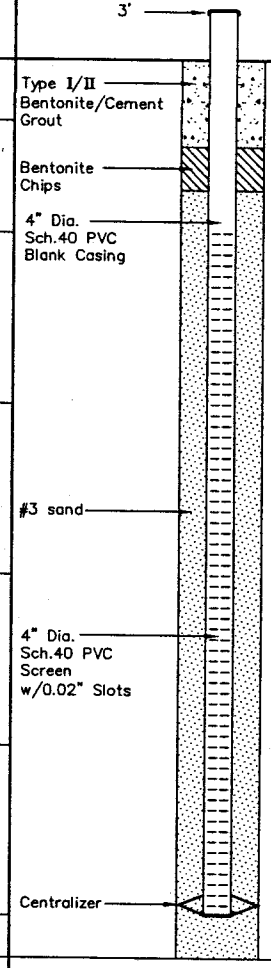
FIELD GEOLOGIST M. Brown
CHECKED BY E. Mullenmeister
APPROVED BY W. Akiyama, R.G.

DATE BEGAN 10-10-00
DATE FINISHED 10-10-00
SURFACE ELEV. 11.40
SAMPLE DIA. 1.5 in.

VAPOR EXTRACTION WELL IR25VW6-10A

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland

INSTALLATION DATE: 10/11/00



TOTAL DEPTH OF WELL IS 10 FEET

DEPTH IN FEET	SAMPLE NUMBER	RECOVERY (%)	P.I.D. READING (PPM)	ASTM D2488-00	PROFILE	
0						Concrete (8")
1	SS	100	0, 0, 0	sp-sc fill		POORLY GRADED SAND with CLAY and GRAVEL; brown intermixed with gray, 20% gravel to 1" diameter, 20% clay, dry, loose, FILL.
2	SS	50	0, 0, 0			No recovery 2'-3' (sample below compacted).
3						
4	SS	75	0, 0, 0			No recovery 4'-4.5'.
5						SANDY LEAN CLAY with GRAVEL; hard, very dark gray, with 20% angular gravel to 1" diameter, FILL. (5.0')
6	SS	75	0, 1.9, 0, 0	cl fill		POORLY GRADED SAND with CLAY and GRAVEL; compact, dry, FILL. (6.0')
7				sp-sc fill		No recovery 6'-6.5'.
8	SS	100	0, 0, 0, 0	cl fill		SANDY LEAN CLAY; soft to firm, moist, very dark brownish gray, FILL. (7.5')
9						Bluish- gray below 9'.
10	NS	NA	NA			TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET (10.0') This interval was not logged during well installation. (10.5')
11						
12						
13						
14						
15						
16						Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at this location. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.
17						Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.

DRILLER : M Flynn
DRILLING CO. : Precision Sampling Inc.
DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)
SAMPLING METHOD : California Modified Split Spoon Sampler (SS)
PROJECT : Hunters Point Shipyard
LOCATION : Building 134
PROJECT NO. : 773247-53210606

DRAWN BY	M.Verhoeg	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247-A434
DATE	01/10/01	APPROVED BY		

IT CORPORATION

BORING NO. IR25VW6-11A

COORDINATES: N. 453058.49
E. 1461256.57

FIELD GEOLOGIST A. Bolland
CHECKED BY E. Mullenmeister
APPROVED BY W. Akiyama, R.G.

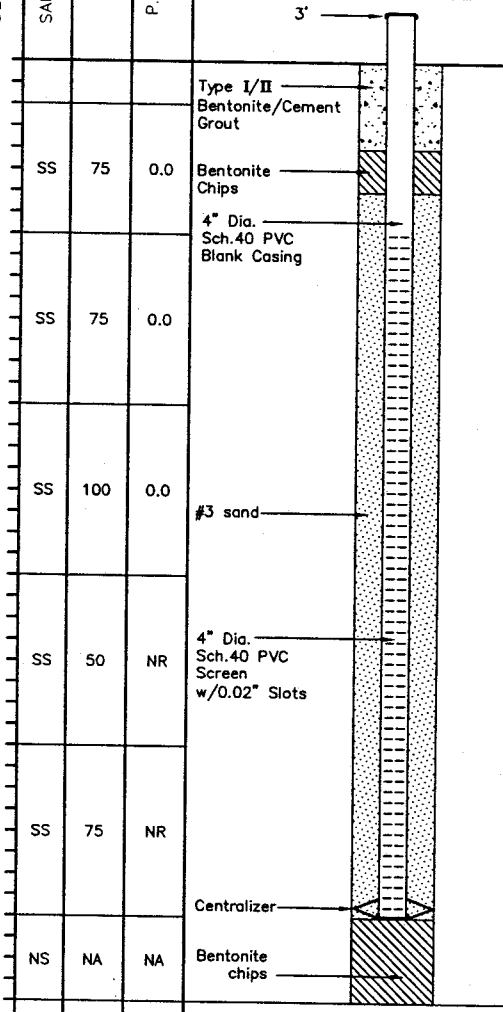
DATE BEGAN 10-11-00
DATE FINISHED 10-11-00
SURFACE ELEV. 11.52
SAMPLE DIA. 1.5 in.

VAPOR EXTRACTION WELL IR25VW6-11A

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland

INSTALLATION DATE: 10/18/00

DEPTH IN FEET	SAMPLE NUMBER	RECOVERY (%)	P.I.D. READING (PPM)	ASTM D2488-00	PROFILE	
0						Concrete — 0.5'
1	SS	75	0.0	gc fill		CLAYEY GRAVEL with SAND; brown, moist, firm, 20-30% clay, gravel to 1" diameter, FILL.
2						
3	SS	75	0.0			
4						4.5'
5	SS	100	0.0	cl fill		SANDY LEAN CLAY; hard, orange-brown, firm, FILL. — 5.0'
6				gc fill		CLAYEY GRAVEL with SAND; gravel to 1/2" diameter, brown, moist, firm, FILL.
7	SS	50	NR			No recovery 6' to 7' — 7.5'
8				ch fill		FAT CLAY; brown, moist, firm, plastic, FILL.
9	SS	75	NR			
10						10.0'
	NS	NA	NA			TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET This interval was not logged during well installation.
11						11.0'
12						
13						
14						
15						
16						
17						



TOTAL DEPTH OF WELL IS 10 FEET

NR = not recorded

Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at this location. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.

Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.

DRILLER : M Flynn
DRILLING CO. : Precision Sampling Inc.
DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)
SAMPLING METHOD : California Modified Split Spoon Sampler (SS)
PROJECT : Hunters Point Shipyard
LOCATION : Building 134
PROJECT NO. : 773247-53210606

DRAWN BY	M.Verhaeg	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247-A435
DATE	01/10/01	APPROVED BY		

IT CORPORATION

BORING NO. IR25VW6-12A

COORDINATES: N. 453038.44
E. 1461196.89

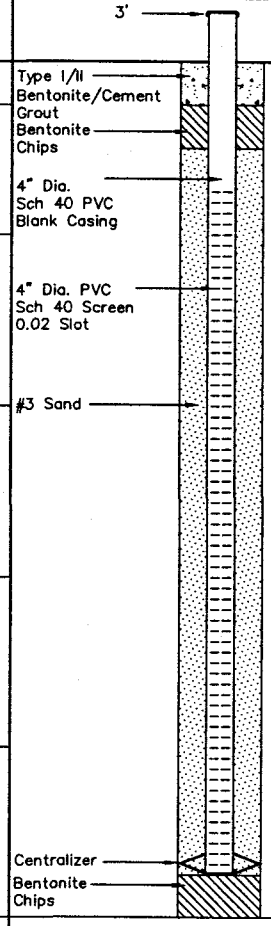
FIELD GEOLOGIST M. Brown
CHECKED BY E. Mullenmeister
APPROVED BY W. Akiyama, R.G.

DATE BEGAN 10/9/00
DATE FINISHED 10/9/00
SURFACE ELEV. 11.42
SAMPLE DIA. 1.5 in.

VAPOR EXTRACTION WELL IR25VW6-12A

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland

INSTALLATION DATE: 10/17/00



DEPTH IN FEET	SAMPLE TYPE	RECOVERY (%)	P.I.D. READING (PPM)	ASTM D2488-00	PROFILE	
0						CONCRETE 0.5
1	SS	45	0.0 0.0 0.0			No recovery 0.5' to 1.25'.
2						No recovery 2' to 4'.
3	SS	0				1" of POORLY GRADED GRAVEL with SAND; loose, dry, in split spoon shoe.
4				gp fill		No recovery 4' to 5'.
5	SS	50	0.0 0.0			POORLY GRADED GRAVEL with SAND; yellowish-brown, loose, FILL.
6						No recovery 6' to 6.7'.
7	SS	60	0.0 0.0 0.0			
8						No recovery 8' to 8.7'. 8.0'
9	SS	60	0.0 0.0 0.0	cl fill		LEAN CLAY with SAND; dark bluish-gray, soft, dry, 15% fine sand, FILL. Large rock blocking shoe from 8'-10' sampler. 10.0'
10						
11						
12						
13						
14						
15						
16						
17						

TOTAL DEPTH OF WELL IS 9.5 FEET

TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET

Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at this location. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.

Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.

DRILLER : M. Flynn
DRILLING CO. : Precision Sampling Inc.
DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)
SAMPLING METHOD : California Modified Split Spoon Sampler (SS)
PROJECT : Hunters Point Shipyard
LOCATION : Building 134
PROJECT NO. : 773247-53210606

DRAWN BY	RB	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247-A556
DATE	5/19/01	APPROVED BY		

IT CORPORATION

BORING NO. IR25VW6-13A

COORDINATES: N. 453035.77
E. 1461226.15

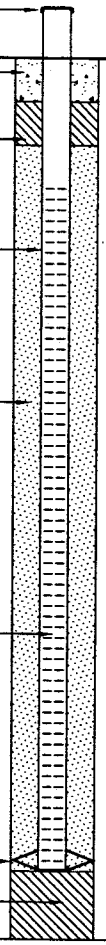
FIELD GEOLOGIST M. Brown
CHECKED BY E. Mullenmeister
APPROVED BY W. Akiyama, R.G.

DATE BEGAN 10-10-00
DATE FINISHED 10-10-00
SURFACE ELEV. 11.45
SAMPLE DIA. 1.5 in.

VAPOR EXTRACTION WELL IR25VW6-13A

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland

INSTALLATION DATE: 10/17/00



DEPTH IN FEET	SAMPLE NUMBER	RECOVERY (%)	P.I.D. READING (PPM)	ASTM D2488-00	PROFILE	
0						Concrete .75'
1	SS	100	0, 4.1, 0	gp-gc fill		POORLY GRADED GRAVEL with CLAY and SAND; loose, dry, 30% sand, 60% gravel, FILL.
2						No recovery 2' to 2.5'
3	SS	75	0, 0, 0			Concrete fragments and angular gravel to 1.5" diameter from 3' to 4' depth
4			0, 0			No recovery 4' to 4.4'
5	SS	80	0, 0			5.0'
				sc fill		CLAYEY SAND; dark brown, compact, dry, 20% clay, fine sand, FILL. 6.0'
6			0, 0			No recovery 6-6.7'
7	SS	65	0, 0	cl fill		GRAVELLY LEAN CLAY with SAND; brown, firm, dry, 30% gravel to 1" diameter, FILL. Clay becoming greenish-gray 7.5' to 8'.
8			7.7, 203			SANDY LEAN CLAY with GRAVEL; gravel to 1.5" diameter (15%), dark blue-greenish-gray, hard, hydrocarbon odor, dry, FILL.
9	SS	100	155, 9.7, 0			becoming brown, moist, less gravelly below 9'.
10	NS	NA	NA			10.0'
						TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET. 10.3' This interval was not logged during well installation.
11						TOTAL DEPTH OF WELL IS 9.5 FEET
12						
13						
14						
15						
16						Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at this location. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.
17						Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.

DRILLER : M Flynn
DRILLING CO. : Precision Sampling Inc.
DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)
SAMPLING METHOD : California Modified Split Spoon Sampler (SS)
PROJECT : Hunters Point Shipyard
LOCATION : Building 134
PROJECT NO. : 773247-53210606

DRAWN BY	M.Verhaeg	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247-A436
DATE	01/10/01	APPROVED BY		

IT CORPORATION

BORING NO. IR25VW6-14A

COORDINATES: N. 453049.36
E. 1461252.74

FIELD GEOLOGIST M. Brown
CHECKED BY E. Mullenmeister
APPROVED BY W. Akiyama, R.G.

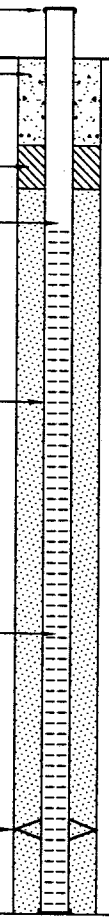
DATE BEGAN 10-5-00
DATE FINISHED 10-05-00
SURFACE ELEV. 11.49
SAMPLE DIA. 1.5 in.

VAPOR EXTRACTION WELL IR25VW6-14A

WELL INSTALLATION FIELD GEOLOGIST: M. Brown

INSTALLATION DATE: 10/9/00

3'



DEPTH IN FEET	SAMPLE NUMBER	RECOVERY (%)	P.I.D. READING (PPM)	ASTM D2488-00	PROFILE	
0						Concrete
1	SS	100	0, 0, 0	sp-sc fill		POORLY GRADED SAND with CLAY and GRAVEL; dark brown, loose, dry, gravel to 0.5" diameter, FILL. (1.0')
2						(2.0') No recovery 2'-2.5'; soil 2.5' to 4' appears compacted.
3	SS	75	0, 0, 0			SANDY LEAN CLAY; dark gray- brown, dry, ~70% clay, 30% sand, firm, concrete fragments at 3.5', FILL.
4			0, 0			LEAN CLAY with SAND; medium brown, moist, ~75% clay, 20% sand, 5% gravel, firm, FILL.
5	SS	100	0, 0			
6				cl fill		No recovery 6'-7'.
7	SS	40	0, 0			Gravel and concrete fragments to 1.5" diameter at 7.2' - 7.5' depth
8						GRAVELLY LEAN CLAY; brown, moist, 65% clay, 35% gravel, firm, FILL.
9	SS	100	0, 0, 0, 0			
10						(10') TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET.
11						
12						
13						
14						
15						
16						Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at this location. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.
17						Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.

TOTAL DEPTH OF WELL IS 10 FEET

DRILLER : M Flynn
DRILLING CO. : Precision Sampling Inc.
DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)
SAMPLING METHOD : California Modified Split Spoon Sampler (SS)
PROJECT : Hunters Point Shipyard
LOCATION : Building 134
PROJECT NO. : 773247-53210606

DRAWN BY	M.Verhaeg	CHECKED BY	EEM 6/25/01	DRAWING NO. : 773247-A438
DATE	01/10/01	APPROVED BY	[illegible] 7/2/01	

IT CORPORATION

BORING NO. IR25VW6-15A

COORDINATES: N. 453022.30
E. 1461212.58

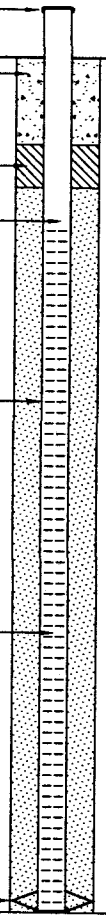
FIELD GEOLOGIST M. Brown
CHECKED BY E. Mullenmeister
APPROVED BY W. Akiyama, R.G.

DATE BEGAN 10-09-00
DATE FINISHED 10-09-00
SURFACE ELEV. 11.44
SAMPLE DIA. 1.5 in.

VAPOR EXTRACTION WELL IR25VW6-15A

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland

INSTALLATION DATE: 10/16/00



DEPTH IN FEET	SAMPLE NUMBER	RECOVERY (%)	P.I.D. READING (PPM)	ASTM D2488-00	PROFILE	
0						Concrete (0.5')
				gp fill		POORLY GRADED GRAVEL with SAND; loose, dry, FILL. (1.0')
1	SS	100	0	sc fill		CLAYEY SAND with GRAVEL; loose,dry, 30% clay, 20% gravel to 1" diameter, FILL. (2.0')
			0			
			0			
2			0	gp fill		No recovery 2' to 2.5'
3	SS	75	0			POORLY GRADED GRAVEL with SAND; 70% angular gravel to 1.5" diameter, loose, dry, FILL. (4.0')
			0			
			0			
4			0	cl fill		SANDY LEAN CLAY with GRAVEL; brown alternate with blue gray, firm, 20% fine sand, 10% gravel, dry, FILL.
5	SS	100	0			
			0			
			0			
6			19.2			No recovery 6' to 6.5' (6.5')
			0	gp fill		POORLY GRADED GRAVEL with SAND; loose, dry, 70% angular gravel to 1" diameter, FILL. (7.0)
			0	cl fill		SANDY LEAN CLAY; blue gray, dry, firm, chemical odor, FILL. (7.5')
7	SS	75	159	gc fill		CLAYEY GRAVEL; 50% angular gravel to 1" diameter, loose, FILL. (8.0')
			33.8			
8			23.1	cl fill		SANDY LEAN CLAY; description as at 7', FILL.
			66.3			
9	SS	100	16.4			
			67.4			
10						(10')
11						
12						
13						
14						
15						
16						
17						

TOTAL DEPTH OF WELL IS 10 FEET

TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET.

Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at this location. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.

Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.

DRILLER : M Flynn
DRILLING CO. : Precision Sampling Inc.
DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)
SAMPLING METHOD : California Modified Split Spoon Sampler (SS)
PROJECT : Hunters Point Shipyard
LOCATION : Building 134
PROJECT NO. : 773247-53210606

DRAWN BY	M.Verhoeg	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247-A439
DATE	01/10/01	APPROVED BY		

IT CORPORATION

BORING NO. IR25VW6-16A

VAPOR EXTRACTION WELL IR25VW6-16A

WELL INSTALLATION FIELD GEOLOGIST: M. Brown

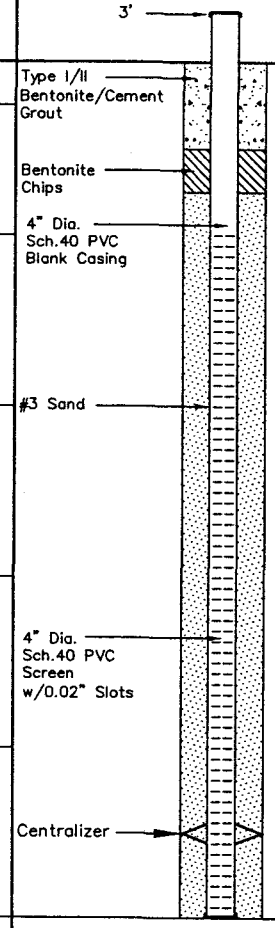
INSTALLATION DATE: 10/5/00

COORDINATES: N. 453027.99
E. 1461241.27

FIELD GEOLOGIST M. Brown
CHECKED BY E. Mullenmeister
APPROVED BY W. Akiyama, R.G.

DATE BEGAN 10-05-00
DATE FINISHED 10-05-00
SURFACE ELEV. 11.49
SAMPLE DIA. 1.5 in.

DEPTH IN FEET	SAMPLE NUMBER	RECOVERY (%)	P.I.D. READING (PPM)	ASTM D2488-00	PROFILE	
0						Concrete (0.5')
1	SS	100	0, 0, 0	cl fill		SANDY LEAN CLAY; brown, firm, dry, FILL. (1.5')
2				gp fill		POORLY GRADED GRAVEL with SAND; loose, dry, FILL. No recovery 2'-2.5' (sample below is compacted). (2.5')
3	SS	75	0, 0, 0, 0	sc fill		CLAYEY SAND with GRAVEL; dry, slightly compact, gravel/concrete fragments to 0.75" diameter, FILL.
4						No recovery 4'-5'.
5	SS	50	0, 0			Gravel to 1" diameter at 5'. CLAYEY SAND with GRAVEL; description as at 2.5'. (6.0')
6						LEAN CLAY with SAND; yellowish-brown with gray mottling, slighyly plastic, firm, ~85%, clay, 15% very fine sand, FILL.
7	SS	100	0, 0, 0	cl fill		
8						
9	SS	100	0, 0, 0, 0			Clay becoming moist 9' and below.
10						(10')
11						
12						
13						
14						
15						
16						
17						



TOTAL DEPTH OF WELL IS 10 FEET

TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET

Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at this location. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.

Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.

DRILLER : M Flynn
DRILLING CO. : Precision Sampling Inc.
DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)
SAMPLING METHOD : California Modified Split Spoon Sampler (SS)
PROJECT : Hunters Point Shipyard
LOCATION : Building 134
PROJECT NO. : 773247-53210606

DRAWN BY	M.Verhaeg	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247-A440
DATE	01/10/01	APPROVED BY		

IT CORPORATION

BORING NO. IR25VW6-17A

VAPOR EXTRACTION WELL IR25VW6-17A

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland

INSTALLATION DATE: 10/11/00

COORDINATES: N. 453013.02 E. 1461226.42

FIELD GEOLOGIST M. Brown

CHECKED BY E. Mullenmeister

APPROVED BY W. Akiyama, R.G.

DATE BEGAN 10-09-00

DATE FINISHED 10-09-00

SURFACE ELEV. 11.50

SAMPLE DIA. 1.5 in.

DEPTH IN FEET	SAMPLE NUMBER	RECOVERY (%)	P.I.D. READING (PPM)	ASTM D2488-00	PROFILE
0					Concrete
1	SS	100	1.9, 0.5, 0	sc fill	CLAYEY SAND with GRAVEL; slightly compact, dry, yellowish brown, 20% clay, 20% gravel, 20% fine-very fine sand, FILL. (0.5')
2			0		
3	SS	100	0, 0, 0	cl fill	SANDY LEAN CLAY; 10% subronded gravel to 1/4" diameter, firm, moist, dark gray, FILL. (2.5')
4			0		
5	SS	100	0, 0, 0	gc fill	CLAYEY GRAVEL with SAND; subrounded gravel to 1/4" diameter, brown and light gray, loose, FILL. (4.0)
6			0		
7	SS	100	0, 0, 0	cl fill	LEAN CLAY with SAND; medium brown, soft-firm, moist, 15% very fine sand, FILL. (5.0')
8			0		
9	SS	100	0, 0, 0		LEAN CLAY with SAND; intermixed brown and greenish-blue, firm, moist, FILL.
10			0		
	NS	NA	NA		TOTAL DEPTH OF DIRECT PUSH BORING 10 FEET (10.5')
11					This interval was not logged during well installation.
12					
13					
14					
15					
16					
17					

Type I/II Bentonite/Cement Grout

Bentonite Chips

4" Dia. Sch.40 PVC Blank Casing

#3 Sand

4" Dia. Sch.40 PVC Screen w/0.02" Slots

Centralizer

TOTAL DEPTH OF WELL IS 10 FEET

Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at this location. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.

Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.

DRILLER : M Flynn

DRILLING CO. : Precision Sampling Inc.

DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)

SAMPLING METHOD : California Modified Split Spoon Sampler (SS)

PROJECT : Hunters Point Shipyard

LOCATION : Building 134

PROJECT NO. : 773247-53210606

DRAWN BY	M.Verhaeg	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247-A441
DATE	01/10/01	APPROVED BY		

IT CORPORATION

BORING NO. IR25VW6-18A

VAPOR EXTRACTION WELL IR25VW6-18A

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland

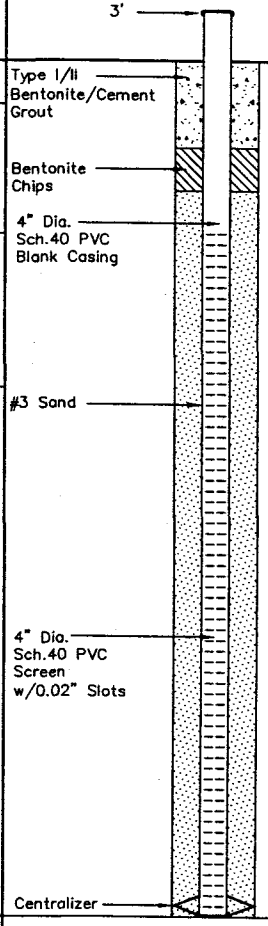
INSTALLATION DATE: 10/04/00

COORDINATES: N. 452981.12 E. 1461318.79

FIELD GEOLOGIST A. Bolland
CHECKED BY E. Mullenmeister
APPROVED BY W. Akiyama, R.G.

DATE BEGAN 10-04-00
DATE FINISHED 10-04-00
SURFACE ELEV. 11.49
SAMPLE DIA. 1.5 in.

DEPTH IN FEET	SAMPLE NUMBER	RECOVERY (%)	P.I.D. READING (PPM)	ASTM D2488-00	PROFILE	
0						Concrete 0.5'
1	SS	100	0	gc fill		CLAYEY GRAVEL with SAND; dark brown, moist, loose, 10-20% clay, gravel to 1.5" diameter, FILL.
2						
3	SS	0	NR			2-3'10" not recovered. 3.8'
4						TOTAL DEPTH OF DIRECT PUSH BORING IS 3.8 FEET (REFUSAL)
5						
6	NS	NA	NA			This interval was not logged well installation.
7						
8						
9						
10						10.0'
11						
12						
13						
14						
15						
16						
17						



TOTAL DEPTH OF WELL IS 10 FEET

NR = Not recorded

Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at this location. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.

Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.

DRILLER : M Flynn
DRILLING CO. : Precision Sampling Inc.
DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)
SAMPLING METHOD : California Modified Split Spoon Sampler (SS)
PROJECT : Hunters Point Shipyard
LOCATION : Building 134
PROJECT NO. : 773247-53210606

DRAWN BY	M.Verhaeg	CHECKED BY	EEM 6/25/01	DRAWING NO. : 773247-A442
DATE	01/10/01	APPROVED BY	WA 7-2-01	

IT CORPORATION

BORING NO. IR25VW6-19A

COORDINATES: N. 453082.82
E. 1461223.84

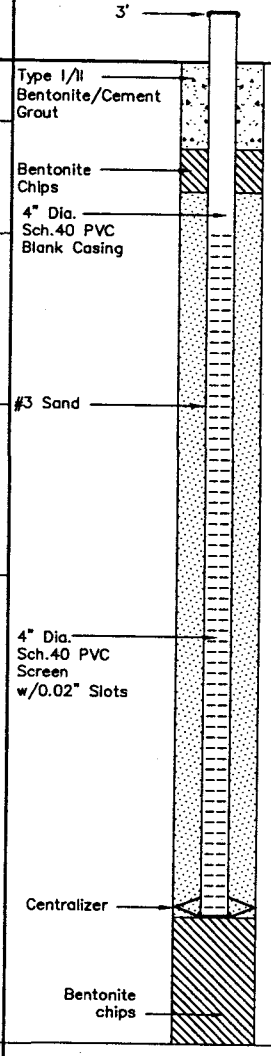
FIELD GEOLOGIST M. Brown
CHECKED BY E. Mullenmeister
APPROVED BY W. Akiyama, R.G.

DATE BEGAN 10-12-00
DATE FINISHED 10-12-00
SURFACE ELEV. 7.55
SAMPLE DIA. 1.5 in.

VAPOR EXTRACTION WELL IR25VW6-19A

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland

INSTALLATION DATE: 10/17/00



DEPTH IN FEET	SAMPLE TYPE	RECOVERY (%)	P.I.D. READING (PPM)	ASTM D2488-00	PROFILE	
0						Concrete (8")
1	SS	80	0, 0, 0	sc fill		No recovery 0.8'-1.0'. CLAYEY SAND with GRAVEL; light yellow-brown, slightly compact, dry, 20% clay, 20% gravel to 0.25" diameter, FILL.
2						
3	SS	50	1.3, 0.5, 2.6, 3.8			(3.0') GRAVELLY LEAN CLAY with SAND; firm, dark gray-brown, dry, FILL.
4				cl fill		No recovery 4-5'.
5	SS	50	17.8, 15.9, 310			SANDY LEAN CLAY; firm, moist, slight chemical odor, FILL.
6						Plywood fragments 5.5' to 6'. (6.0')
7						TOTAL DEPTH OF DIRECT PUSH BORING IS 6 FEET
8						
9	NS	NA	NA			This interval was not logged during well installation.
10						
11						(11.5')
12						TOTAL DEPTH OF WELL IS 10 FEET
13						
14						
15						
16						Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at this location. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.
17						Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.

DRILLER : M Flynn
DRILLING CO. : Precision Sampling Inc.
DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)
SAMPLING METHOD : California Modified Split Spoon Sampler (SS)
PROJECT : Hunters Point Shipyard
LOCATION : Building 134
PROJECT NO. : 773247-53210606

DRAWN BY	M.Verhaeg	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247-A443
DATE	01/10/01	APPROVED BY	WA 7-2-01	

IT CORPORATION

BORING NO. IR25SG042

COORDINATES: DEEP WELL N. 453106.69 E. 1461257.85 SHALLOW WELL N. 453105.17 E. 1461257.01

SURF. ELEV. 11.49 SURF. ELEV. 11.48

FIELD GEOLOGIST M. Brown DATE BEGAN 10/12/00

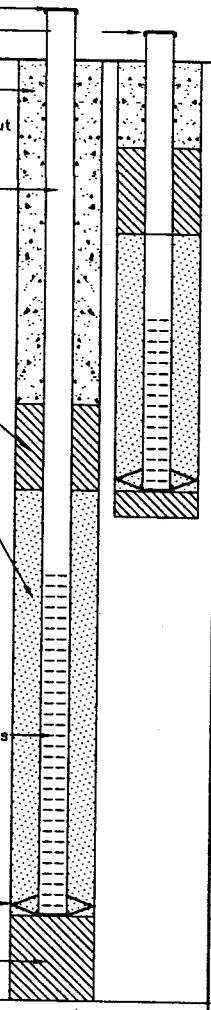
CHECKED BY E. Mullenmeister DATE FINISHED 10/12/00

APPROVED BY W. Akiyama, R.G. SAMPLE DIA. 1.5 in

VAPOR MONITORING WELL PAIR

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland

WELL INSTALLATION DATE: 10/18/00



DEPTH IN FEET	SAMPLE NUMBER	RECOVERY (%)	P.I.D. READING (ppm)	ASTM D2488-00	PROFILE	
0						Concrete 8"
1	SS	100	0	sc fill		CLAYEY SAND with GRAVEL; brown, (20% clay, 20% gravel to 1"); slightly compact, moist, FILL.
2						
3	SS	25	0			No recovery 2' to 3.5'
4						
5	SS	100	0			5.0'
				cl fill		SANDY LEAN CLAY; firm, olive-brown, slightly plastic, moist, 10% very fine sand, FILL.
6						
7	SS	87	0			Clay becoming dark blue gray, non plastic, below 7', sand content increase (20%)
8						
9	SS	100	0			Becoming moist below 9.5'
10						10.0'
	NS	NA	NA			TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET. This interval was not logged during well installation.
11						11.0'
12						
13						
14						
15						
16						
17						

DEEP WELL: IR25SG042-10
TOTAL DEPTH IS 10 FEET

SHALLOW WELL: IR28SG042-5
TOTAL DEPTH IS 5 FEET

Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at the deep well location of this monitoring well pair. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.

No direct push soil boring was drilled at the shallow well location. The shallow and deep well locations are less than 4 feet apart.

Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.

DRILLER : M. Flynn
DRILLING CO. : Precision Sampling Inc.
DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)
SAMPLING METHOD : California Modified Split Spoon Sampler (SS)
PROJECT : Hunters Point
LOCATION : Building 134
PROJECT NO. : 773247-53210606

DRAWN BY	RB	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247-A403
DATE	01/05/01	APPROVED BY	[illegible] 7-2-01	

IT CORPORATION

BORING NO. IR25SG043

COORDINATES: DEEP WELL N. 453082.92 E. 1461249.96 SHALLOW WELL N. 453083.93 E. 1461248.45

SURF. ELEV. 11.46 SURF. ELEV. 11.47

FIELD GEOLOGIST A. Bolland DATE BEGAN 10/11/00

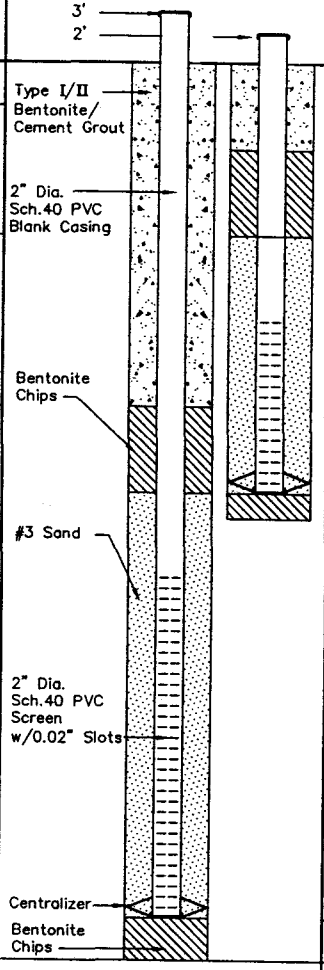
CHECKED BY E. Mullenmeister DATE FINISHED 10/11/00

APPROVED BY W. Akiyama, R.G. SAMPLE DIA. 1.5 in

VAPOR MONITORING WELL PAIR

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland

WELL INSTALLATION DATE: 10/19/00



DEEP WELL: IR25SG043-10
TOTAL DEPTH IS 10 FEET

SHALLOW WELL: IR25SG043-5
TOTAL DEPTH IS 5 FEET

DEPTH IN FEET	SAMPLE NUMBER	RECOVERY (%)	P.I.D. READING (ppm)	ASTM D2488-00	PROFILE	
0						CONCRETE 0.5'
1	SS	75	0	gc fill		CLAYEY GRAVEL with SAND; brown, moist, firm, 30% clay, gravel to 1" diameter, FILL. 2.0'
2						
3	SS	25	0	gp fill		No recovery 2' to 3.5' POORLY GRADED GRAVEL with SAND; brown, moist, firm, gravel to 1.5" diameter, dry, FILL. 4.0'
4						
5	SS	100	0	gc fill		CLAYEY GRAVEL with SAND; same material as at 1'. 5.0
6				cl fill		LEAN CLAY; brown, moist, firm, medium-plastic, FILL. 6.0'
7	SS	100	0	gm fill		SILTY GRAVEL with SAND; moist, 10-30% clay, gravel to 1" diameter, FILL. Changes color to black. 8.0'
8						
9	SS	100	0	ch fill		FAT CLAY; brown, moist, firm, plastic, FILL. 10.0'
10	NS	NA	NA			TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET. This interval was not logged during well installation. 10.5'
11						
12						
13						
14						
15						
16						
17						

Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at the deep well location of this monitoring well pair. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.

No direct push soil boring was drilled at the shallow well location. The shallow and deep well locations are less than 4 feet apart.

Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.

DRILLER : M. Flynn

DRILLING CO. : Precision Sampling Inc.

DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)

SAMPLING METHOD : California Modified Split Spoon Sampler (SS)

PROJECT : Hunters Point

LOCATION : Building 134

PROJECT NO. : 773247-53210606

DRAWN BY	RB	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247-A404
DATE	05/25/01	APPROVED BY	WA 7-3-01	

IT CORPORATION

BORING NO. IR25SG044

VAPOR MONITORING WELL PAIR

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland

WELL INSTALLATION DATE: 10/12/00

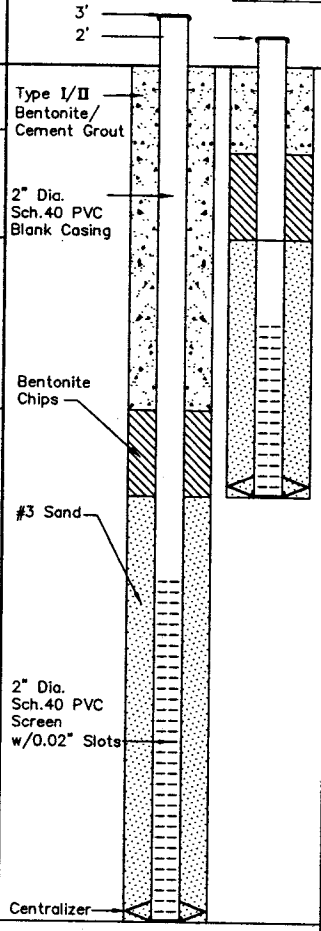
COORDINATES: DEEP WELL N. 453070.46 E. 1461228.52 SHALLOW WELL N. 453071.61 E. 1461229.36

SURF. ELEV. 8.06 SURF. ELEV. 8.01

FIELD GEOLOGIST M. Brown DATE BEGAN 10/12/00

CHECKED BY E. Mullenmeister DATE FINISHED 10/12/00

APPROVED BY W. Akiyama, R.G. SAMPLE DIA. 1.5 in



DEPTH IN FEET	SAMPLE NUMBER	RECOVERY (%)	P.I.D. READING (ppm)	ASTM D2488-00	PROFILE	
0						CONCRETE 0.75'
1	SS	10		sm fill		No recovery 0.8" to 1.8' (rock in sample shoe) SILTY SAND with GRAVEL; dark gray brown, moist, compact, rock in shoe blocking at 2', FILL. 3.0'
2			0			
3	SS	100	0 0 0			
4			0			SANDY LEAN CLAY; 35% very fine to fine sand, moist, soft-firm, very dark gray, FILL. 6.0'
5	SS	100	0 0 0 0	cl fill		
6	SS	50	0	cl serp. fill		SANDY LEAN CLAY; light greenish-blue color, hard, dry, spongy feel when squeezed, SERPENTINITE FILL. 6.5'
7						TOTAL DEPTH OF DIRECT PUSH BORING IS 6.5 FEET.
8	NS	NA	NA			This interval was not logged during well installation.
9						
10						10.0'
11						
12						
13						
14						
15						Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at this location of this monitoring well pair. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.
16						No direct push soil boring was drilled at the shallow well location. The shallow and deep well locations are less than 4 feet apart.
17						Soil description from original field logs were revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.

DEEP WEEL: IR25SG044-10
TOTAL DEPTH IS 10 FEET
SHALLOW WEEL: IR25SG044-5
TOTAL DEPTH IS 5 FEET

DRILLER : M. Flynn

DRILLING CO. : Precision Sampling Inc.

DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)

SAMPLING METHOD : California Modified Split Spoon Sampler (SS)

PROJECT : Hunters Point

LOCATION : Building 134

PROJECT NO. : 773247-53210606

DRAWN BY	RB	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247-A405
DATE	01/05/01	APPROVED BY	[illegible] 7-2-01	

IT CORPORATION

BORING NO. IR25SG045

COORDINATES: DEEP WELL N. 453075.92 E. 1461277.88 SHALLOW WELL N. 453077.03 E. 1461276.67

SURF. ELEV. 11.49 SURF. ELEV. 11.48

FIELD GEOLOGIST M. Brown DATE BEGAN 10/12/00

CHECKED BY E. Mullenmeister DATE FINISHED 10/12/00

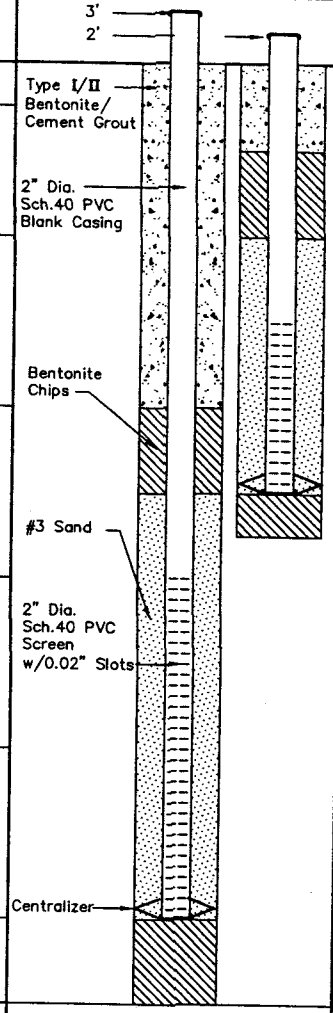
APPROVED BY W. Akiyama, R.G. SAMPLE DIA. 1.5 in

VAPOR MONITORING WELL PAIR

WELL INSTALLATION FIELD GEOLOGIST: A. Balland

WELL INSTALLATION DATE: 10/12/00

DEPTH IN FEET	SAMPLE NUMBER	RECOVERY (%)	P.I.D. READING (ppm)	ASTM D2488-00	PROFILE	
0						CONCRETE 0.5'
1	SS	90	0, 0, 0	sc fill		CLAYEY SAND with GRAVEL; 40% clay, 20% gravel to 0.5", slightly compact, moist, fine sand, FILL.
2						No recovery 2'–3.5' (1.5" gravel in sample shoe)
3	SS	25	0			
4	SS	100	0, 0, 0, 0			4.5'
5				cl fill		SANDY LEAN CLAY; dark olive brown, dry, firm, 20% fine sand, FILL.
6	SS	100	0, 0, 0, 0			
7						SANDY LEAN CLAY with GRAVEL; 30% fine sand/10% gravel to 0.5" diameter, moist, soft–firm, dark bluish–gray, angular gravel to 1" diameter at 8' depth, FILL.
8	SS	100	28.3, 75.9, 21.5, 9.1, 0.6			
9						
10	NS	NA	NA			10.0' TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET. This interval was not logged during well installation.
11						11.0'
12						
13						
14						
15						
16						
17						



DEEP WELL: IR25SG045–10
TOTAL DEPTH IS 10 FEET

SHALLOW WELL: IR25SG045–5
TOTAL DEPTH IS 5 FEET

Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at the deep well location of this monitoring well pair. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.

No direct push soil boring was drilled at the shallow well location. The shallow and deep well locations are less than 4 feet apart.

Soil description from original field logs was revised or corrected to conform to ASTM D2488–00 Standard Practice for Description and Identification of Soils.

DRILLER : M. Flynn

DRILLING CO. : Precision Sampling Inc.

DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)

SAMPLING METHOD : California Modified Split Spoon Sampler (SS)

PROJECT : Hunters Point

LOCATION : Building 134

PROJECT NO. : 773247–53210606

DRAWN BY	RB	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247–A406
DATE	01/05/01	APPROVED BY	[illegible] 7-2-01	

IT CORPORATION

BORING NO. IR25SG046

COORDINATES: DEEP WELL N. 453055.85 E. 1461273.50 SHALLOW WELL N. 453055.24 E. 1461275.54

SURF. ELEV. 11.51 SURF. ELEV. 11.50

FIELD GEOLOGIST M. Brown DATE BEGAN 10/12/00

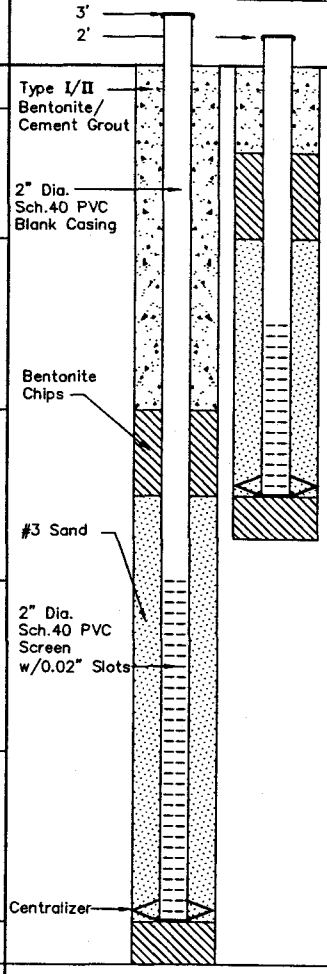
CHECKED BY E. Mullenmeister DATE FINISHED 10/12/00

APPROVED BY W. Akiyama, R.G. SAMPLE DIA. 1.5 in

VAPOR MONITORING WELL PAIR

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland

WELL INSTALLATION DATE: 10/24/00



DEPTH IN FEET	SAMPLE NUMBER	RECOVERY (%)	P.I.D. READING (ppm)	ASTM D2488-00	PROFILE	
0						CONCRETE 0.5'
1	SS	87	0, 0, 0, 0	cl fill		SANDY LEAN CLAY with GRAVEL; olive brown, 60% clay, gravel to 0.25"; firm, dry, FILL.
2						
3	SS	75	0, 0, 0, 0			No recovery 2'–2.5'
4						4.0'
5	SS	25		gc fill		No recovery 4'–5.5' large gravel in sample shoe. CLAYEY GRAVEL with SAND; 60% angular gravel to 2" diameter, moist, FILL.
6						No recovery 6'–6.4' 6.4'
7	SS	80	0, 0, 0, 0, 0	cl fill		GRAVELLY LEAN CLAY with SAND; moist, loose, soft, FILL. 7.0'
8				sp fill		POORLY GRADED SAND with GRAVEL; 30% angular gravel to 0.5" diameter, moist, compact, light brown, dark gray color and sheen at 8', FILL. No recovery 8'–8.7' 8.7'
9	SS	65	22.9, 25.0, 48.3, 56.4, 12.9	sm fill		SILTY SAND with GRAVEL; dark brown with gray mottling, sheen appearance and chemical odor, moist, compact, FILL. 10.0'
10	NS	NA	NA			TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET. This interval was not logged during well installation. 10.8'
11						
12						
13						
14						
15						
16						
17						

DEEP WELL: IR25SG046-10
TOTAL DEPTH IS 10 FEET
SHALLOW WELL: IR25SG046-5
TOTAL DEPTH IS 5 FEET

Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at the deep well location of this monitoring well pair. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.

No direct push soil boring was drilled at the shallow well location. The shallow and deep well locations are less than 4 feet apart.

Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.

DRILLER : M. Flynn

DRILLING CO. : Precision Sampling Inc.

DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)

SAMPLING METHOD : California Modified Split Spoon Sampler (SS)

PROJECT : Hunters Point

LOCATION : Building 134

PROJECT NO. : 773247-53210606

DRAWN BY	RB	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247-A407
DATE	01/05/01	APPROVED BY	WA 7-2-01	

IT CORPORATION

BORING NO. IR25SG047

COORDINATES: DEEP WELL N. 453047.10 E. 1461258.39 SHALLOW WELL N. 453045.62 E. 1461257.68

SURF. ELEV. 11.48 SURF. ELEV. 11.48

FIELD GEOLOGIST M. Brown DATE BEGAN 10/5/00

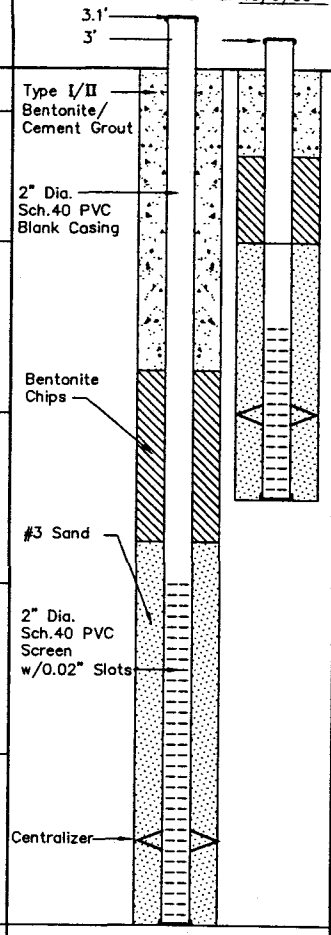
CHECKED BY E. Mullenmeister DATE FINISHED 10/5/00

APPROVED BY W. Akiyama, R.G. SAMPLE DIA. 1.5 in

VAPOR MONITORING WELL PAIR

WELL INSTALLATION FIELD GEOLOGIST: M. Brown

WELL INSTALLATION DATE: 10/9/00



DEPTH IN FEET	SAMPLE NUMBER	RECOVERY (%)	P.I.D. READING (ppm)	ASTM D2488-00	PROFILE	
0						CONCRETE 0.5'
1	SS	75	0, 0, 0	gc fill		CLAYEY GRAVEL with SAND; 60% gravel/25% clay, moist, compact, FILL. No recovery 1.7'–2' loose sand in bottom.
2						
3	SS	90	0, 0, 0, 0	sc fill		CLAYEY SAND with GRAVEL; medium yellowish brown, slightly compact, dry, 60% sand/30% clay, FILL. No recovery 3.7'–4' loose sand in bottom. 3.0'
4						
5	SS	100	0, 0, 0, 0, 0	cl fill		SANDY LEAN CLAY; brown and dark gray intermixed, dry, firm, black gravels ~1/8" diameter, 90% clay/10% fine sand, FILL. 4.5'
6						
7	SS	100	0, 0, 0			
8						No recovery 8'–8.75', sample below may be compacted
9	SS	67	0, 0, 0			GRAVELLY LEAN CLAY; 80% clay, intermixed brown and gray, moist, firm, FILL. 10.0'
10						
11						
12						
13						
14						
15						
16						
17						

DEEP WELL: IR25SG047-10
TOTAL DEPTH IS 10 FEET
SHALLOW WELL: IR25SG047-5
TOTAL DEPTH IS 5 FEET

TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET.

Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at the deep well location of this monitoring well pair. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.

No direct push soil boring was drilled at the shallow well location. The shallow and deep well locations are less than 4 feet apart.

Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.

DRILLER : M. Flynn

DRILLING CO. : Precision Sampling Inc.

DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)

SAMPLING METHOD : California Modified Split Spoon Sampler (SS)

PROJECT : Hunters Point

LOCATION : Building 134

PROJECT NO. : 773247-53210606

DRAWN BY	RB	CHECKED BY	ECM 7/2/01	DRAWING NO. : 773247-A408
DATE	01/08/01	APPROVED BY	[illegible]	

IT CORPORATION

BORING NO. IR25SG048

VAPOR MONITORING WELL PAIR

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland

WELL INSTALLATION DATE: 10/05/00

COORDINATES: DEEP WELL N. 453039.41 E. 1461268.49 SHALLOW WELL N. 453038.56 E. 1461267.30

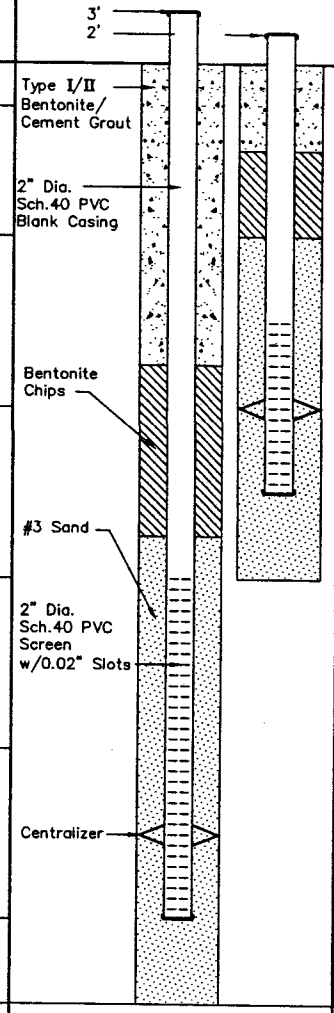
SURF. ELEV. 11.50 SURF. ELEV. 11.51

FIELD GEOLOGIST M. Brown DATE BEGAN 10/5/00

CHECKED BY E. Mullenmeister DATE FINISHED 10/5/00

APPROVED BY W. Akiyama, R.G. SAMPLE DIA. 1.5 in

DEPTH IN FEET	SAMPLE NUMBER	RECOVERY (%)	P.I.D. READING (ppm)	ASTM D2488-00	PROFILE	
0						CONCRETE 0.5'
1	SS	66	0, 0	gc fill		No recovery 0.5'–1' (sample below compacted); CLAYEY GRAVEL with SAND; brown, loose, dry, gravel to 2" diameter, FILL.
2	SS	75	0, 0, 0, 0, 0	gc fill		No recovery 2'–2.5' (sample below 2.5' may be compacted) 4.0
4	SS	100	0, 0, 0, 0	cl fill		SANDY LEAN CLAY; brown, firm, moist, 20% very fine sand, FILL. 6.3'
6	SS	100	0, 0, 0	gp/ fill		6.3' to 6.6': POORLY GRADED GRAVEL with SAND; loose, dry, angular gravel to 1", FILL. 6.6'
7				cl fill		LEAN CLAY with SAND; brown, 10% fine sand, firm, dry, FILL.
8	SS	100	0, 0, 0, 0, 0	cl fill		Clay becoming gray, slightly moist below 9'. 10.0'
10	NS	NA	NA			TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET. This interval was not logged during well installation. 11.0'
11						
12						
13						
14						
15						
16						
17						



DEEP WELL: IR25SG048-10
TOTAL DEPTH IS 10 FEET

SHALLOW WELL: IR25SG048-5
TOTAL DEPTH IS 5 FEET

Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at the deep well location of this monitoring well pair. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.

No direct push soil boring was drilled at the shallow well location. The shallow and deep well locations are less than 4 feet apart.

Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.

DRILLER : M. Flynn

DRILLING CO. : Precision Sampling Inc.

DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)

SAMPLING METHOD : California Modified Split Spoon Sampler (SS)

PROJECT : Hunters Point

LOCATION : Building 134

PROJECT NO. : 773247-53210606

DRAWN BY	RB	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247-A409
DATE	01/08/01	APPROVED BY	[illegible]	

IT CORPORATION

BORING NO. IR25SG049

COORDINATES: DEEP WELL N. 453038.06 E. 1461275.34 SHALLOW WELL N. 453035.76 E. 1461273.94

SURF. ELEV. 11.50 SURF. ELEV. 11.50

FIELD GEOLOGIST M. Brown DATE BEGAN 10/5/00

CHECKED BY E. Mullenmeister DATE FINISHED 10/5/00

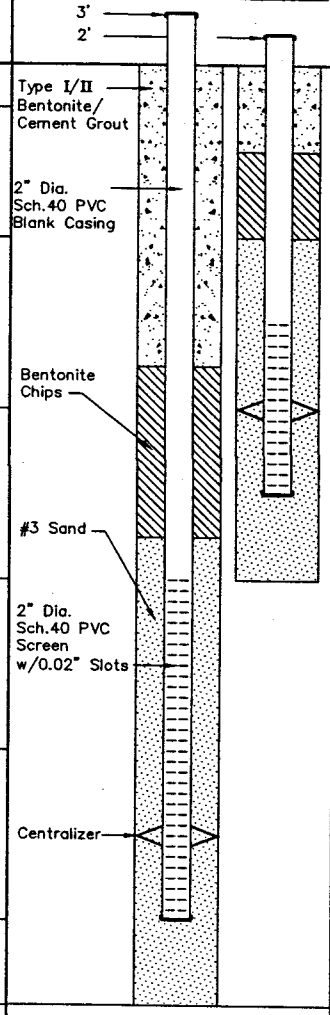
APPROVED BY W. Akiyama, R.G. SAMPLE DIA. 1.5 in

VAPOR MONITORING WELL PAIR

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland

WELL INSTALLATION DATE: 10/5/00

DEPTH IN FEET	SAMPLE NUMBER	RECOVERY (%)	P.I.D. READING (ppm)	ASTM D2488-00	PROFILE
0					CONCRETE (0.5')
1	SS	100	0, 0, 0	gc fill	CLAYEY GRAVEL with SAND; 60% gravel to 1" diameter, 25% clay, loose, dry, FILL. (5.0')
2					
3	SS	100	0, 0, 0, 0		
4					
5	SS	100	0, 0, 0, 0	cl fill	SANDY LEAN CLAY; medium brown, 90% clay, moist, firm, FILL. (10.0')
6					
7	SS	100	0, 0, 0		
8					
9	SS	100	0, 0, 0, 0		
10					
11	NS	NA	NA		TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET. This interval was not logged during well installation. (11.0')
12					
13					
14					
15					
16					
17					



DEEP WELL: IR25SG049-10
TOTAL DEPTH IS 11 FEET
SHALLOW WELL: IR25SG049-5
TOTAL DEPTH IS 6 FEET

Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at the deep well location of this monitoring well pair. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.

No direct push soil boring was drilled at the shallow well location. The shallow and deep well locations are less than 4 feet apart.

Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.

DRILLER : M. Flynn

DRILLING CO. : Precision Sampling Inc.

DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)

SAMPLING METHOD : California Modified Split Spoon Sampler (SS)

PROJECT : Hunters Point

LOCATION : Building 134

PROJECT NO. : 773247-53210606

DRAWN BY	RB	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247-A410
DATE	01/08/01	APPROVED BY	[illegible] 7-2-01	

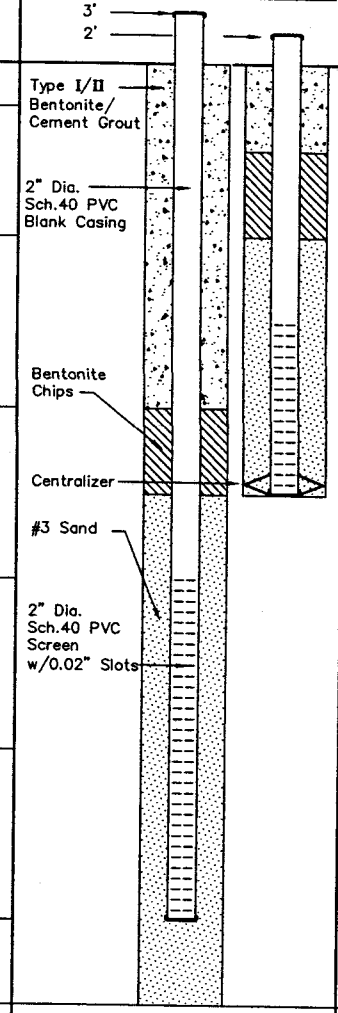
IT CORPORATION

BORING NO. IR25SG050

COORDINATES: DEEP WELL N. 453020.10 E. 1461226.09 SHALLOW WELL N. 453019.99 E. 1461224.45
SURF. ELEV. 11.52 SURF. ELEV. 11.52
FIELD GEOLOGIST M. Brown DATE BEGAN 10/9/00
CHECKED BY E. Mullenmeister DATE FINISHED 10/9/00
APPROVED BY W. Akiyama, R.G. SAMPLE DIA. 1.5 in

VAPOR MONITORING WELL PAIR

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland
WELL INSTALLATION DATE: 10/11/00



DEPTH IN FEET	SAMPLE NUMBER	RECOVERY (%)	P.I.D. READING (ppm)	ASTM D2488-00	PROFILE	
0						CONCRETE (0.5')
1	SS	100	0, 0	cl fill		GRAVELLY LEAN CLAY; brown, 55% clay, moist, FILL.
2	SS	65	0, 0, 0, 0			No recovery 2'–2.7' (2.7')
3				gp-gc fill		POORLY GRADED GRAVEL with CLAY and SAND; angular gravel to 1.5", loose, dry, 50% sandy gravel, 50% clayey gravel, FILL.
4	SS	100	0, 0, 0, 0			
5						SANDY LEAN CLAY with GRAVEL; firm, alternating brown and bluish-gray, moist, 5% gravel, 15% sand, FILL. (5.0')
6	SS	75	0, 0, 0, 0	cl fill		No recovery 6'–6.5'
7						
8	SS	100	0, 0, 0, 0, 0			
9						Becoming more gravelly, wet below 9.2' (35% gravel/50% clay)
10	NS	NA	NA			TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET. (10.0') This interval was not logged during well installation.
11						(11.0')
12						
13						
14						
15						
16						
17						

DEEP WELL: IR25SG050–10
TOTAL DEPTH IS 10 FEET
SHALLOW WELL: IR25SG050–5
TOTAL DEPTH IS 5 FEET

Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at the deep well location of this monitoring well pair. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.

No direct push soil boring was drilled at the shallow well location. The shallow and deep well locations are less than 4 feet apart.

Soil description from original field logs was revised or corrected to conform to ASTM D2488–00 Standard Practice for Description and Identification of Soils.

DRILLER : M. Flynn
DRILLING CO. : Precision Sampling Inc.
DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)
SAMPLING METHOD : California Modified Split Spoon Sampler (SS)
PROJECT : Hunters Point
LOCATION : Building 134
PROJECT NO. : 773247–53210606

DRAWN BY	RB	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247–A411
DATE	01/09/01	APPROVED BY		

IT CORPORATION

BORING NO. IR25SG051

COORDINATES: DEEP WELL N. 453012.72 E. 1461203.71 SHALLOW WELL N. 453011.08 E. 1461203.11

SURF. ELEV. 11.56 SURF. ELEV. 11.56

FIELD GEOLOGIST M. Brown DATE BEGAN 10/10/00

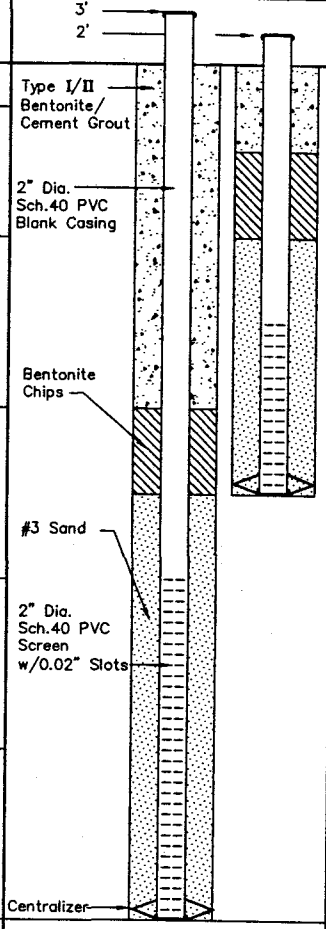
CHECKED BY E. Mullenmeister DATE FINISHED 10/10/00

APPROVED BY W. Akiyama, R.G. SAMPLE DIA. 1.5 in

VAPOR MONITORING WELL PAIR

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland

WELL INSTALLATION DATE: 10/17/00



DEPTH IN FEET	SAMPLE NUMBER	RECOVERY (%)	P.I.D. READING (ppm)	ASTM D2488-00	PROFILE	
0						CONCRETE 0.5'
1	SS	66	0 0 0	cl fill		No recovery 0.5'–1' SANDY LEAN CLAY with GRAVEL; dark brown, loose, dry, FILL. Gravel in shoe at 2' (2" diameter)
2						
3	SS	0				No recovery 2'–4'
4						
5	SS	0				No recovery 4'–6'
6						(hole is open and dry to 6" depth despite 0% recovery) No recovery 6'–7.5'
7	SS	25				
8			0 0			SANDY LEAN CLAY; dark brown, 25% sand, moist, FILL. No recovery 8'–8.5'
9	SS	75	10 133 29.8			SANDY LEAN CLAY with GRAVEL; greenish-blue, 25% gravel to 0.25", soft, moist, FILL.
10						10.0'
11						
12						
13						
14						
15						
16						
17						

DEEP WELL: IR25SG051-10
TOTAL DEPTH IS 10 FEET
SHALLOW WELL: IR25SG051-5
TOTAL DEPTH IS 5 FEET

TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET.

Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at the deep well location of this monitoring well pair. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.

No direct push soil boring was drilled at the shallow well location. The shallow and deep well locations are less than 4 feet apart.

Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.

DRILLER : M. Flynn
DRILLING CO. : Precision Sampling Inc.
DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)
SAMPLING METHOD : California Modified Split Spoon Sampler (SS)
PROJECT : Hunters Point
LOCATION : Building 134
PROJECT NO. : 773247-53210606

DRAWN BY	RB	CHECKED BY	EJM 7/2/01	DRAWING NO. : 773247-A412
DATE	01/09/01	APPROVED BY		

IT CORPORATION

BORING NO. IR25SG052

COORDINATES: DEEP WELL N. 453006.33 E. 1461212.63 SHALLOW WELL N. 453005.10 E. 1461212.90

SURF. ELEV. 11.51 SURF. ELEV. 11.50

FIELD GEOLOGIST M. Brown DATE BEGAN 10/9/00

CHECKED BY E. Mullenmeister DATE FINISHED 10/9/00

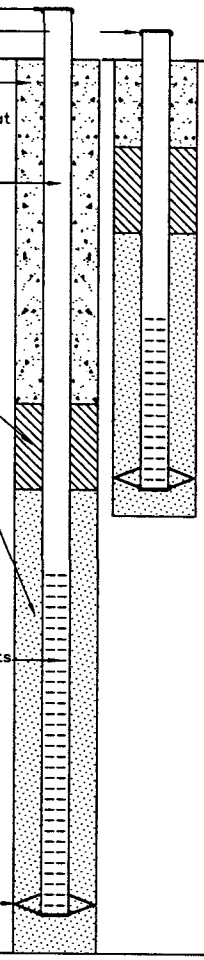
APPROVED BY W. Akiyama, R.G. SAMPLE DIA. 1.5 in

VAPOR MONITORING WELL PAIR

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland

WELL INSTALLATION DATE: 10/11/00

DEPTH IN FEET	SAMPLE NUMBER	RECOVERY (%)	P.I.D. READING (ppm)	ASTM D2488-00	PROFILE	
0						CONCRETE 0.5'
1	SS	100	0 17.0 0	sp fill		POORLY GRADED SAND with GRAVEL; subrounded gravel to 1/4", loose, dry, concrete fragments, FILL. No recovery 2'–3.4' 2.5'
2						
3	SS	30	0 0 0	gc fill		CLAYEY GRAVEL with SAND; 60% angular gravel to 1" diameter, loose, dry, FILL. 5.5'
4						
5	SS	100	0 0 0			
6						GRAVELLY LEAN CLAY with SAND; alternating brown and gray, soft–firm, moist, hydrocarbon odor 6'–6.5', FILL.
7	SS	100	14.2 43.7 10.0 49.4	cl fill		No recovery 8'–8.2', more gravelly 8.2' to 8.5'.
8						
9	SS	90	17.6 12.2 2.7 0			
10			0			10.0'
	NS	NA	NA			TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET. This interval was not logged during well installation. 10.5'
11						
12						
13						
14						
15						
16						
17						



DEEP WELL: IR25SG052–10
TOTAL DEPTH IS 10 FEET
SHALLOW WELL: IR25SG052–5
TOTAL DEPTH IS 5 FEET

Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at the deep well location of this monitoring well pair. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.

No direct push soil boring was drilled at the shallow well location. The shallow and deep well locations are less than 4 feet apart.

Soil description from original field logs was revised or corrected to conform to ASTM D2488–00 Standard Practice for Description and Identification of Soils.

DRILLER : M. Flynn

DRILLING CO. : Precision Sampling Inc.

DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)

SAMPLING METHOD : California Modified Split Spoon Sampler (SS)

PROJECT : Hunters Point

LOCATION : Building 134

PROJECT NO. : 773247–53210606

DRAWN BY	RB	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247–A413
DATE	01/09/01	APPROVED BY	[illegible]	

IT CORPORATION

BORING NO. IR25SG053

COORDINATES: DEEP WELL N. 452997.70 E. 1461211.66 SHALLOW WELL N. 452999.91 E. 1461209.22

SURF. ELEV. 11.50 SURF. ELEV. 11.51

FIELD GEOLOGIST M. Brown DATE BEGAN 10/9/00

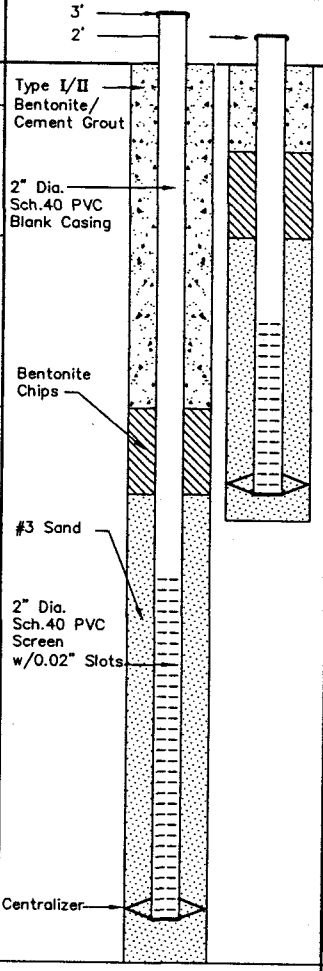
CHECKED BY E. Mullenmeister DATE FINISHED 10/9/00

APPROVED BY W. Akiyama, R.G. SAMPLE DIA. 1.5 in

VAPOR MONITORING WELL PAIR

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland

WELL INSTALLATION DATE: 10/10/00



DEPTH IN FEET	SAMPLE NUMBER	RECOVERY (%)	P.I.D. READING (ppm)	ASTM D2488-00	PROFILE	
0						CONCRETE 0.5'
1	SS	70	0, 0, 0	gc fill		No recovery 0.5–1' (sample below compacted)
2						CLAYEY GRAVEL with SAND; angular gravel to 1" diameter, dry, loose, brown, FILL. No recovery 2–2.5' (sample below compacted) 2.5'
3	SS	75	0	sp fill		POORLY GRADED SAND with GRAVEL; fine–medium sand with 10% gravel to 0.25" diameter, yellow–brown, dry, loose, FILL.
4						No recovery 4–4.5' (sample below compacted)
5	SS	75	0, 24.8			
6						6.0'
7	SS	100	2.3, 80.7, 0.8, 0	cl fill		GRAVELLY LEAN CLAY with SAND; gray, firm, moist, oily sheen and hydrocarbon odor in 6' depth sample, FILL.
8						
9	SS	100	0, 3.2, 1.1, 0			GRAVELLY LEAN CLAY with SAND; intermixed gray and light brown, soft, moist, FILL.
10	NS	NA	0, NA			10.0' TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET. This interval was not logged during well installation. 10.5'
11						
12						
13						
14						
15						
16						
17						

DEEP WELL: IR25SG053-10
TOTAL DEPTH IS 10 FEET

SHALLOW WELL: IR25SG053-5
TOTAL DEPTH IS 5 FEET

Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at the deep well location of this monitoring well pair. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.

No direct push soil boring was drilled at the shallow well location. The shallow and deep well locations are less than 4 feet apart.

Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.

DRILLER : M. Flynn

DRILLING CO. : Precision Sampling Inc.

DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)

SAMPLING METHOD : California Modified Split Spoon Sampler (SS)

PROJECT : Hunters Point

LOCATION : Building 134

PROJECT NO. : 773247-53210606

DRAWN BY	RB	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247-A414
DATE	01/09/01	APPROVED BY		

IT CORPORATION

BORING NO. IR25SG054

COORDINATES: N. not surveyed
E. not surveyed

FIELD GEOLOGIST M. Brown
CHECKED BY E. Mullenmeister
APPROVED BY W. Akiyama, R.G.

DATE BEGAN 10/10/00
DATE FINISHED 10/10/00
SURFACE ELEV. not surveyed
SAMPLE DIA. 1.5 in.

DEPTH IN FEET	SAMPLE TYPE	RECOVERY (%)	P.I.D. READING (ppm)	BORING DIAGRAM	ASTM D2488-00	PROFILE	
0							CONCRETE 0.5'
1	SS	85	0 0 0	2" Dia. Direct Push Boring (backfilled with type I/II Bentonite Cement Grout)	sp-sc fill		No recovery 0.5'-0.8' POORLY GRADED SAND with CLAY and GRAVEL; dark brown, loose, dry, light brown from 1.5'-2', 60% fine sand, 30% angular gravel to 0.5" diameter, FILL.
2	SS	100	0 0				Refusal at 3' in both core holes; concrete pad at 3' depth 3.0'
3				No vapor monitoring wells installed at this location.			TOTAL DEPTH OF BORING IS 3 FEET.
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							

DRILLER : M. Flynn
DRILLING CO. : Precision Sampling Inc.
DRILLING METHOD : Direct Push with 1.5" Diameter Sampler
SAMPLING METHOD : California Modified Split Spoon Sampler (SS)
PROJECT : Hunters Point
LOCATION : Building 134
PROJECT NO. : 773247-53210606

DRAWN BY	RB	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247-A415
DATE	05/25/01	APPROVED BY	[illegible]	

IT CORPORATION

BORING NO. IR25SG055

VAPOR MONITORING WELL PAIR

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland

WELL INSTALLATION DATE: 10/11/00

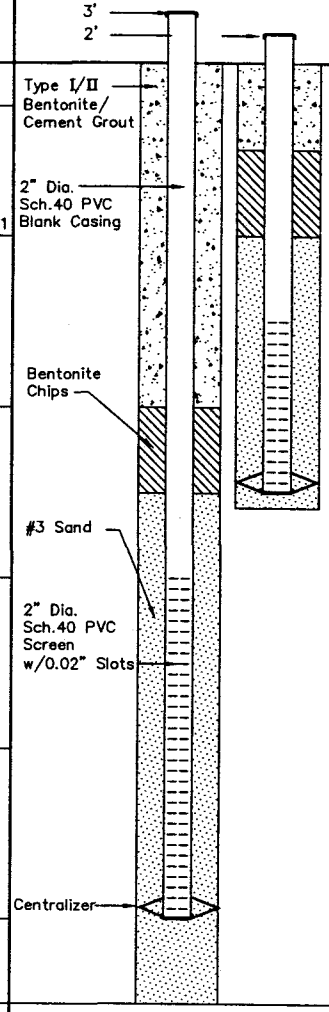
COORDINATES: DEEP WELL N. 453000.37 E. 1461224.15 SHALLOW WELL N. 453002.19 E. 1461223.84

SURF. ELEV. 11.49 SURF. ELEV. 11.49

FIELD GEOLOGIST M. Brown DATE BEGAN 10/9/00

CHECKED BY E. Mullenmeister DATE FINISHED 10/9/00

APPROVED BY W. Akiyama, R.G. SAMPLE DIA. 1.5 in



DEPTH IN FEET	SAMPLE NUMBER	RECOVERY (%)	P.I.D. READING (ppm)	ASTM D2488-00	PROFILE	
0						CONCRETE 0.5'
1	SS	100	0	gc fill		CLAYEY GRAVEL with SAND; brown, dry, compact, concrete and plastic debris fragments to 1" diameter, 50% gravel, 25% sand, 25% clay, FILL.
2			16.1			No recovery 2'–2.5' (sample 2.5'–4' compacted)
3	SS	75	0 4.1 0			
4			0			4.5'
5	SS	100	4.8 1.7	cl fill		SANDY LEAN CLAY with GRAVEL; 25% sand, 10% gravel), brown and gray intermixed, dry, firm, FILL.
6			0			6.0'
7	SS	100	0 12.7 2.7	gc fill		CLAYEY GRAVEL with SAND; gray, moist, angular gravel to 1.5" diameter, FILL. 7.0'
8				cl fill		SANDY LEAN CLAY with GRAVEL; medium gray, moist, 60% clay, 25% sand, FILL.
9	SS	75	0 0			No recovery 8'–8.5'
10			0			10.0'
11	NS	NA	NA			TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET. This interval was not logged during well installation. 11.0'
12						
13						
14						
15						
16						
17						

DEEP WELL: IR25SG055-10
TOTAL DEPTH IS 10 FEET

SHALLOW WELL: IR25SG055-5
TOTAL DEPTH IS 5 FEET

Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at the deep well location of this monitoring well pair. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.

No direct push soil boring was drilled at the shallow well location. The shallow and deep well locations are less than 4 feet apart.

Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.

DRILLER : M. Flynn

DRILLING CO. : Precision Sampling Inc.

DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)

SAMPLING METHOD : California Modified Split Spoon Sampler (SS)

PROJECT : Hunters Point

LOCATION : Building 134

PROJECT NO. : 773247-53210606

DRAWN BY	RB	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247-A416
DATE	01/11/01	APPROVED BY	[illegible] 7-3-01	

IT CORPORATION

BORING NO. IR25SG056

COORDINATES: DEEP WELL N. 453012.41 E. 1461262.98 SHALLOW WELL N. 453011.00 E. 1461264.31

SURF. ELEV. 11.51 SURF. ELEV. 11.51

FIELD GEOLOGIST A. Bolland DATE BEGAN 10/4/00

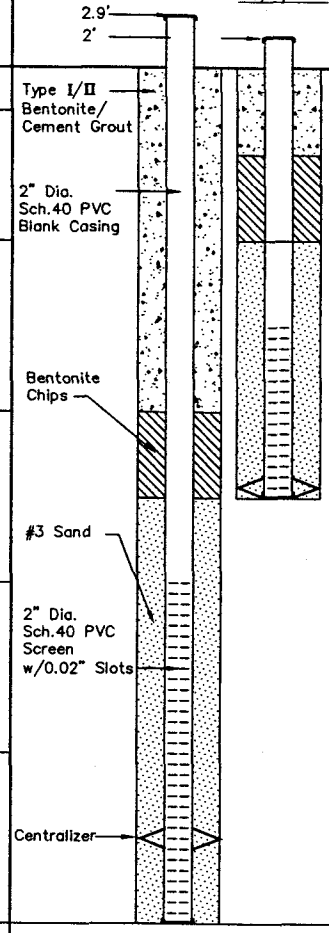
CHECKED BY E. Mullenmeister DATE FINISHED 10/4/00

APPROVED BY W. Akiyama, R.G. SAMPLE DIA. 1.5 in

VAPOR MONITORING WELL PAIR

WELL INSTALLATION FIELD GEOLOGIST: M. Brown

WELL INSTALLATION DATE: 10/5/00



DEPTH IN FEET	SAMPLE TYPE	RECOVERY (%)	P.I.D. READING (ppm)	ASTM D2488-00	PROFILE	
0						CONCRETE 0.5'
1	SS	100	0	gc fill		CLAYEY GRAVEL with SAND; dark brown, moist, loose, gravel to 1" diameter, 10% clay, layer of dark, shiny, material (rock) at 1.5', FILL.
2						*2'–2.5' not logged
3	SS	NR	0			Same material as at 1', changing at 3' to more clay content (30–40% clay) by 4'.
4						CLAYEY GRAVEL; brown, moist, firm, plastic, gravel to 3/4" diameter, 50–60% clay, FILL. 4'–4.5' not logged 4.5'
5	SS	NR	0	sm fill		SILTY SAND; dark brown, loose, moist, coarse sand, FILL.
6						*6'–10' not logged
7	SS	NR	0			
8						
9	SS	NR	0			
10						10.0'
11						
12						
13						
14						
15						
16						
17						

DEEP WELL: IR25SG056–10
TOTAL DEPTH IS 10 FEET
SHALLOW WELL: IR25SG056–5
TOTAL DEPTH IS 5 FEET

TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET.

* Not logged – sample sent to lab before logging complete, and/or incomplete sample recovery.

NR = not recorded

Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at the deep well location of this monitoring well pair. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.

No direct push soil boring was drilled at the shallow well location. The shallow and deep well locations are less than 4 feet apart.

Soil description from original field logs was revised or corrected to conform to ASTM D2488–00 Standard Practice for Description and Identification of Soils.

DRILLER : M. Flynn

DRILLING CO. : Precision Sampling Inc.

DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)

SAMPLING METHOD : California Modified Split Spoon Sampler (SS)

PROJECT : Hunters Point

LOCATION : Building 134

PROJECT NO. : 773247–53210606

DRAWN BY	RB	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247–A417
DATE	01/10/01	APPROVED BY	[illegible]	

IT CORPORATION

BORING NO. IR25SG057

COORDINATES: DEEP WELL N. 452988.00 E. 1461307.45 SHALLOW WELL N. 452989.84 E. 1461306.91

SURF. ELEV. 11.52 SURF. ELEV. 11.52

FIELD GEOLOGIST A. Bolland DATE BEGAN 10/4/00

CHECKED BY E. Mullenmeister DATE FINISHED 10/4/00

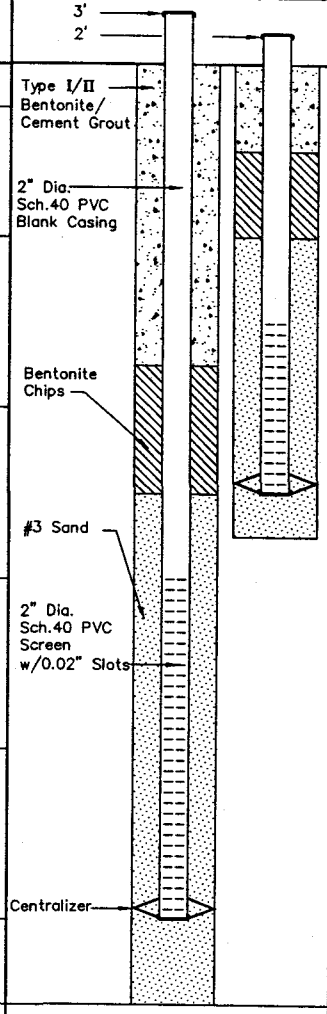
APPROVED BY W. Akiyama, R.G. SAMPLE DIA. 1.5 in

VAPOR MONITORING WELL PAIR

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland

WELL INSTALLATION DATE: 10/9/00

DEPTH IN FEET	SAMPLE TYPE	RECOVERY (%)	P.I.D. READING (ppm)	ASTM D2488-00	PROFILE	
0						CLAYEY GRAVEL with SAND; dark brown, moist, firm, 40% clay, gravel to 1" diameter, FILL.
1	SS	100		gc fill		
2			0			*2'-3' not logged
3	SS	NR				3.0'
4			0			SILTY GRAVEL with SAND; dark brown to olive green, loose, moist, 10-20% silt, gravel to 1/2" diameter, FILL.
			68			
5	SS	NR	587	gm fill		
			56.9			
			2.6			*4.5'-7' not logged
6						
7	SS	NR				7.5'
			2.3			FAT CLAY; light brown to dark brown, moist, plastic, firm, FILL.
8			3.0			*8'-10' not logged
			0			
9	SS	NA	0	ch fill		
			2.3			
10			0			10.0'
	NS	NA	NA			TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET. This installation not logged during well installation.
11						11.0'
12						
13						
14						
15						
16						
17						



DEEP WELL: IR25SG057-10
TOTAL DEPTH IS 10 FEET

SHALLOW WELL: IR25SG057-5
TOTAL DEPTH IS 5 FEET

* Not logged – sample sent to lab before logging complete, and/or incomplete sample recovery.

NR = not recorded

Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at the deep well location of this monitoring well pair. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.

No direct push soil boring was drilled at the shallow well location. The shallow and deep well locations are less than 4 feet apart.

Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.

DRILLER : M. Flynn

DRILLING CO. : Precision Sampling Inc.

DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)

SAMPLING METHOD : California Modified Split Spoon Sampler (SS)

PROJECT : Hunters Point

LOCATION : Building 134

PROJECT NO. : 773247-53210606

DRAWN BY	RB	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247-A418
DATE	01/10/01	APPROVED BY		

IT CORPORATION

BORING NO. IR25SG058

COORDINATES: DEEP WELL N. 452991.82 E. 1461330.54 SHALLOW WELL N. 452993.64 E. 1461329.80

SURF. ELEV. 11.51 SURF. ELEV. 11.49

FIELD GEOLOGIST A. Bolland DATE BEGAN 10/4/00

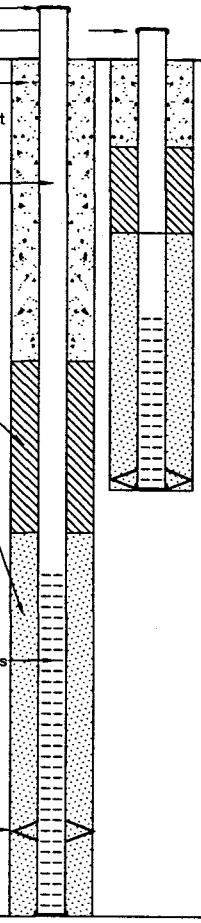
CHECKED BY E. Mullenmeister DATE FINISHED 10/4/00

APPROVED BY W. Akiyama, R.G. SAMPLE DIA. 1.5 in

VAPOR MONITORING WELL PAIR

WELL INSTALLATION FIELD GEOLOGIST: M. Brown

WELL INSTALLATION DATE: 10/4/00



DEPTH IN FEET	SAMPLE TYPE	RECOVERY (%)	P.I.D. READING (ppm)	ASTM D2488-00	PROFILE	
0						CONCRETE 0.5'
1	SS	100	0, 0, 0	gm fill		SILTY GRAVEL with SAND; moist, loose, gravel to 1/2" diameter, FILL. *2'-2.5' not logged
2						
3	SS	NR	0, 0			
4						
5	SS	NR	3.2, 456, 2.8			*4.5'-8' not logged
6						
7	SS	NR				
8						8.0'
9	SS	NR	0, 0, 0, 0	ch fill		GRAVELLY FAT CLAY; gravel to 1/8" diameter, light to dark brown, firm, plastic, moist, FILL. No recovery 8.5'-10'
10						10.0'
11						
12						
13						
14						
15						
16						
17						

DEEP WELL: IR25SG058-10
TOTAL DEPTH IS 10 FEET

SHALLOW WELL: IR25SG058-5
TOTAL DEPTH IS 5 FEET

TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET.

* Not logged - sample sent to lab before logging complete, and/or incomplete sample recovery.

NR = not recorded

Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at the deep well location of this monitoring well pair. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.

No direct push soil boring was drilled at the shallow well location. The shallow and deep well locations are less than 4 feet apart.

Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.

DRILLER : M. Flynn

DRILLING CO. : Precision Sampling Inc.

DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)

SAMPLING METHOD : California Modified Split Spoon Sampler (SS)

PROJECT : Hunters Point

LOCATION : Building 134

PROJECT NO. : 773247-53210606

DRAWN BY	RB	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247-A419
DATE	01/10/01	APPROVED BY	[illegible]	

IT CORPORATION

BORING NO. IR25SG059

COORDINATES: DEEP WELL N. 452973.24 E. 1461329.21 SHALLOW WELL N. 452972.80 E. 1461326.88

SURF. ELEV. 11.50 SURF. ELEV. 11.50

FIELD GEOLOGIST A. Bolland DATE BEGAN 10/4/00

CHECKED BY E. Mullenmeister DATE FINISHED 10/4/00

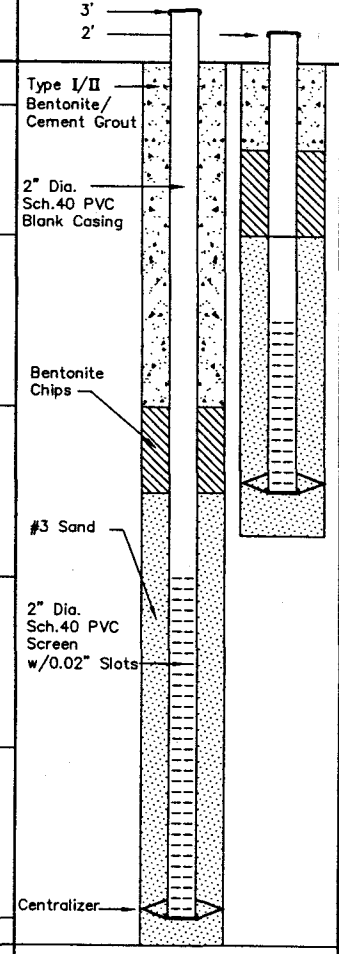
APPROVED BY W. Akiyama, R.G. SAMPLE DIA. 1.5 in

VAPOR MONITORING WELL PAIR

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland

WELL INSTALLATION DATE: 10/4/00

DEPTH IN FEET	SAMPLE TYPE	RECOVERY (%)	P.I.D. READING (ppm)	ASTM D2488-00	PROFILE	
0						CONCRETE 0.5'
1	SS	75	0	gc fill		CLAYEY GRAVEL with SAND; dark brown, moist, loose, 10–20% clay, gravel to 1/2" diameter, FILL.
			0			
2			0			
3	SS	NR	0			*2'–5' not logged
4						
5	SS	NR				Same material as at 2' but gravel to 1/4".
6			0			
7	SS	NR				*6'–7' not logged
8			0			
			3.5			*8'–9.5' not logged
9	SS	NR				9.5'
				ch fill		FAT CLAY; light to dark brown, moist, firm, plastic, FILL. 10.0'
10	NS	NA	NA			TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET. 10.3'
11						10.0' to 10.3' not logged during well installation.
12						
13						
14						
15						
16						
17						



DEEP WELL: IR25SG059-10
TOTAL DEPTH IS 10 FEET

SHALLOW WELL: IR25SG059-5
TOTAL DEPTH IS 5 FEET

* Not logged – sample sent to lab before logging complete, and/or incomplete sample recovery.

NR = not recorded

Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at the deep well location of this monitoring well pair. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.

No direct push soil boring was drilled at the shallow well location. The shallow and deep well locations are less than 4 feet apart.

Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.

DRILLER : M. Flynn

DRILLING CO. : Precision Sampling Inc.

DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)

SAMPLING METHOD : California Modified Split Spoon Sampler (SS)

PROJECT : Hunters Point

LOCATION : Building 134

PROJECT NO. : 773247-53210606

DRAWN BY	RB	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247-A420
DATE	05/29/01	APPROVED BY		

IT CORPORATION

BORING NO. IR25SG060

COORDINATES: DEEP WELL N. 452969.02 E. 1461335.16 SHALLOW WELL N. 452967.78 E. 1461333.71

SURF. ELEV. 11.51 SURF. ELEV. 11.51

FIELD GEOLOGIST M. Brown DATE BEGAN 10/5/00

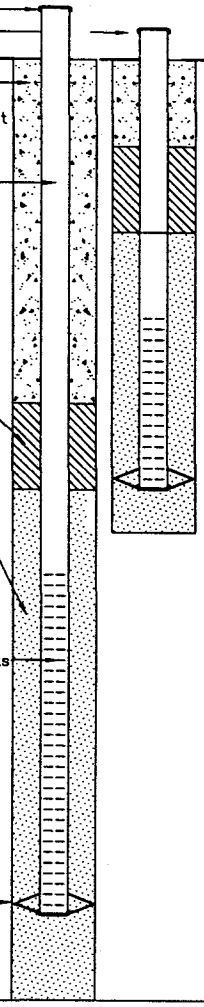
CHECKED BY E. Mullenmeister DATE FINISHED 10/5/00

APPROVED BY W. Akiyama, R.G. SAMPLE DIA. 1.5 in

VAPOR MONITORING WELL PAIR

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland

WELL INSTALLATION DATE: 10/10/00



DEPTH IN FEET	SAMPLE NUMBER	RECOVERY (%)	P.I.D. READING (ppm)	ASTM D2488-00	PROFILE	
0						CONCRETE 0.5'
1	SS	90	0, 0	gp-gc fill		No recovery 0.5' to 0.8' (sample below compacted); POORLY GRADED GRAVEL with SAND and CLAY; loose, dry, angular gravel to 1.5", FILL.
2						No recovery 2' to 3'
3	SS	50	0	sp-sc fill		Angular gravel to 1.5" diameter at 3'. POORLY GRADED SAND with CLAY and GRAVEL; brown, loose, dry, FILL. 4.0'
4				cl fill		SANDY LEAN CLAY; intermixed brown and dark gray, hard, dry, FILL.
5	SS	100	0, 0, 0, 0			
6						No recovery 6' to 7'
7	SS	50	0, 0	sp-sc fill		POORLY GRADED SAND with CLAY and GRAVEL; brown, compact, dry, ~60% fine sand, 10% gravel to 0.5" diameter, FILL. 7.7'
8			0, 0	cl fill		SANDY LEAN CLAY; intermixed brown and gray, hard, moist, 20% fine sand, FILL.
9	SS	100	0, 0, 0			
10						10.0'
	NS	NA	NA			TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET. This interval was not logged during well installation. 11.0'
11						
12						
13						
14						
15						
16						
17						

DEEP WELL: IR25SG060-10
TOTAL DEPTH IS 10 FEET
SHALLOW WELL: IR25SG060-5
TOTAL DEPTH IS 5 FEET

Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at the deep well location of this monitoring well pair. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.

No direct push soil boring was drilled at the shallow well location. The shallow and deep well locations are less than 4 feet apart.

Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.

DRILLER : M. Flynn

DRILLING CO. : Precision Sampling Inc.

DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)

SAMPLING METHOD : California Modified Split Spoon Sampler (SS)

PROJECT : Hunters Point

LOCATION : Building 134

PROJECT NO. : 773247-53210606

DRAWN BY	RB	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247-A421
DATE	01/10/01	APPROVED BY	RJG 7-2-01	

IT CORPORATION

BORING NO. IR25SG061

COORDINATES: DEEP WELL N. 452964.32 E. 1461338.32 SHALLOW WELL N. 452962.76 E. 1461337.34

SURF. ELEV. 11.53 SURF. ELEV. 11.54

FIELD GEOLOGIST M. Brown DATE BEGAN 10/5/00

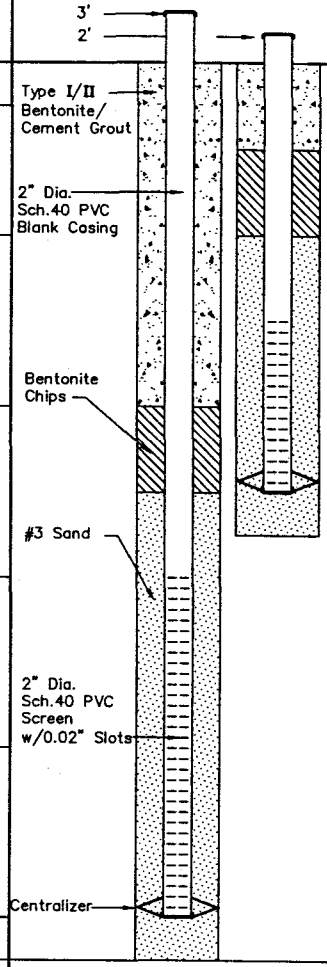
CHECKED BY E. Mullenmeister DATE FINISHED 10/5/00

APPROVED BY W. Akiyama, R.G. SAMPLE DIA. 1.5 in

VAPOR MONITORING WELL PAIR

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland

WELL INSTALLATION DATE: 10/10/00



DEPTH IN FEET	SAMPLE NUMBER	RECOVERY (%)	P.I.D. READING (ppm)	ASTM D2488-00	PROFILE	
0						CONCRETE 0.5'
1	SS	100	0	gc fill		CLAYEY GRAVEL with SAND; yellowish-brown, compact, dry, 60% gravel, 25 % clay, FILL. 2.0'
2						
3	SS	50	0	gp fill		No recovery 2'-3' POORLY GRADED GRAVEL with SAND; 80% angular gravel to 1.5" diameter, loose, dry, FILL. 3.8'
4						
5	SS	85	26	gc fill		CLAYEY GRAVEL with SAND; compact, dry, no recovery 4'-4.3' (sample below compacted), FILL. 5.0
6				cl fill		SANDY LEAN CLAY with GRAVEL; dark gray, firm, dry, 65% clay, 25% fine sand, FILL. 6.0'
7	SS	50	0	gp fill		No recovery 6'-7' POORLY GRADED GRAVEL with SAND; loose, dry, angular gravel to 1.5" diameter, becoming clayey towards 8', FILL. 8.0'
8						
9	SS	100	0	cl fill		LEAN CLAY with SAND; firm, moist, 15% fine sand, light grayish-brown, FILL. 10.0'
10	NS	NA	NA			TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET. This interval was not logged during well installation. 10.5'
11						
12						
13						
14						
15						
16						
17						

DEEP WELL: IR25SG061-10
TOTAL DEPTH IS 10 FEET

SHALLOW WELL: IR25SG061-5
TOTAL DEPTH IS 5 FEET

Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at the deep well location of this monitoring well pair. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.

No direct push soil boring was drilled at the shallow well location. The shallow and deep well locations are less than 4 feet apart.

Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.

DRILLER : M. Flynn

DRILLING CO. : Precision Sampling Inc.

DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)

SAMPLING METHOD : California Modified Split Spoon Sampler (SS)

PROJECT : Hunters Point

LOCATION : Building 134

PROJECT NO. : 773247-53210606

DRAWN BY	RB	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247-A422
DATE	01/12/01	APPROVED BY	[illegible] 1-2-01	

IT CORPORATION

BORING NO. IR25SG062

COORDINATES: DEEP WELL N. 452966.46 E. 1461311.22 SHALLOW WELL N. 452967.99 E. 1461308.84

SURF. ELEV. 11.51 SURF. ELEV. 11.50

FIELD GEOLOGIST A. Bolland DATE BEGAN 10/4/00

CHECKED BY E. Mullenmeister DATE FINISHED 10/4/00

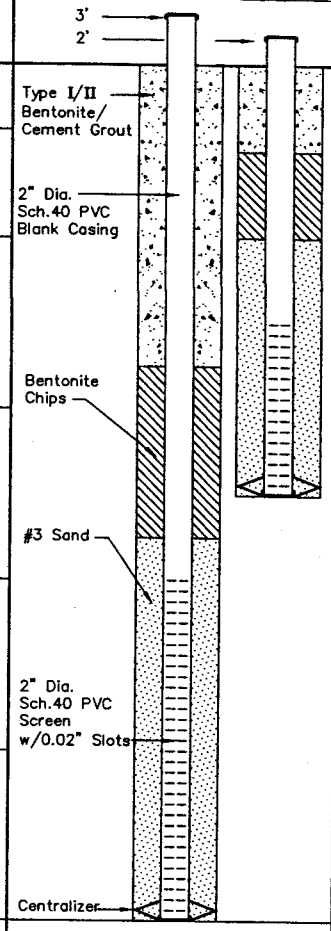
APPROVED BY W. Akiyama, R.G. SAMPLE DIA. 1.5 in

VAPOR MONITORING WELL PAIR

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland

WELL INSTALLATION DATE: 10/4/00

DEPTH IN FEET	SAMPLE TYPE	RECOVERY (%)	P.I.D. READING (ppm)	ASTM D2488-00	PROFILE	
0						CONCRETE 0.5'
1	SS	100	0	gp-gc fill		POORLY GRADED GRAVEL with CLAY and SAND; gravel to 1.5" diameter, dark brown, moist, loose, 10% clay, FILL.
2						
3	SS	NR	0			No recovery 2.5'-4'
4						
5	SS	75/100	0			Same material as at 1'. 5.0'
6				gc fill		CLAYEY GRAVEL with SAND; same description as at 4' but increase in clay content to 20-30%, FILL. 6.0'
				gp-gc fill		POORLY GRADED GRAVEL with CLAY and SAND as at 0.5', FILL. 6.5'
7	SS	100	0	ch fill		FAT CLAY; light to dark brown, moist, firm, plastic, FILL.
8						
9	SS	NR	0			*8.5' to 10' not logged
10						10.0'
11						TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET.
12						
13						
14						
15						
16						
17						



DEEP WELL: IR25SG062-10
TOTAL DEPTH IS 10 FEET

SHALLOW WELL: IR25SG062-5
TOTAL DEPTH IS 5 FEET

* Not logged – sample sent to lab before logging complete, and/or incomplete sample recovery.

NR = not recorded

Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at the deep well location of this monitoring well pair. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.

No direct push soil boring was drilled at the shallow well location. The shallow and deep well locations are less than 4 feet apart.

Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.

DRILLER : M. Flynn

DRILLING CO. : Precision Sampling Inc.

DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)

SAMPLING METHOD : California Modified Split Spoon Sampler (SS)

PROJECT : Hunters Point

LOCATION : Building 134

PROJECT NO. : 773247-53210606

DRAWN BY	RB	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247-A423
DATE	01/12/01	APPROVED BY		

IT CORPORATION

BORING NO. IR25SG063

VAPOR MONITORING WELL PAIR

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland

WELL INSTALLATION DATE: 10/11/00

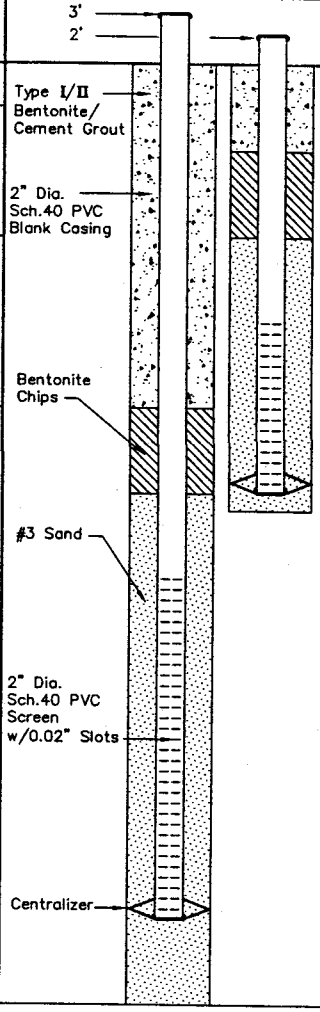
COORDINATES: DEEP WELL N. 453064.33 E. 1461188.08 SHALLOW WELL N. 453065.88 E. 1461186.97

SURF. ELEV. 10.56 SURF. ELEV. 10.48

FIELD GEOLOGIST M. Brown DATE BEGAN 10/10/00

CHECKED BY E. Mullenmeister DATE FINISHED 10/10/00

APPROVED BY W. Akiyama, R.G. SAMPLE DIA. 1.5 in



DEPTH IN FEET	SAMPLE NUMBER	RECOVERY (%)	P.I.D. READING (ppm)	ASTM D2488-00	PROFILE	
0						ASPHALT 0.5'
1	SS	100	0	gp fill		POORLY GRADED GRAVEL with SAND; angular gravel to 1.5" diameter, 40% fine-medium sand, loose, dry, FILL. 2.0
2						No recovery 2'-2.5'
3	SS	75	0			SANDY LEAN CLAY; 5% gravel to 0.5" diameter, intermixed dark gray and light brown, soft, moist, FILL.
4						No recovery 4'-4.5'
5	SS	75	0			Concrete fragments 5 to 5.5' up to 2" dia.
6				cl fill		No recovery 6'-6.5'
7	SS	75	0			SANDY LEAN CLAY with GRAVEL; medium-brown, moist, soft, 5% gravel to 0.2" diameter, FILL.
8						No recovery 8'-9'
9	SS	50	0			9.8'
10				gp/fill		POORLY GRADED GRAVEL with SAND; gravel to 0.5", dry, loose, FILL. 10.0'
	NS	NA	NA			TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET. This interval was not logged during well installation. 11.0'
11						
12						
13						
14						
15						
16						
17						

DEEP WELL: IR25SG063-10
TOTAL DEPTH IS 10 FEET

SHALLOW WELL: IR25SG063-5
TOTAL DEPTH IS 5 FEET

Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at the deep well location of this monitoring well pair. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.

No direct push soil boring was drilled at the shallow well location. The shallow and deep well locations are less than 4 feet apart.

Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.

DRILLER : M. Flynn

DRILLING CO. : Precision Sampling Inc.

DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)

SAMPLING METHOD : California Modified Split Spoon Sampler (SS)

PROJECT : Hunters Point

LOCATION : Building 134

PROJECT NO. : 773247-53210606

DRAWN BY	RB	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247-A424
DATE	01/12/01	APPROVED BY		

IT CORPORATION

BORING NO. IR25SG064

COORDINATES: DEEP WELL N. 453083.46 E. 1461200.63 SHALLOW WELL N. 453085.37 E. 1461201.55

SURF. ELEV. 10.29 SURF. ELEV. 10.33

FIELD GEOLOGIST M. Brown DATE BEGAN 10/10/00

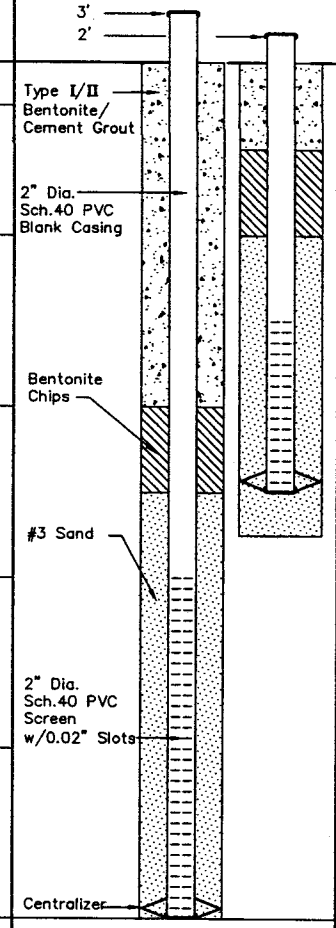
CHECKED BY E. Mullenmeister DATE FINISHED 10/10/00

APPROVED BY W. Akiyama, R.G. SAMPLE DIA. 1.5 in

VAPOR MONITORING WELL PAIR

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland

WELL INSTALLATION DATE: 10/11/00



DEEP WELL: IR25SG064-10
TOTAL DEPTH IS 10 FEET
SHALLOW WELL: IR25SG064-5
TOTAL DEPTH IS 5 FEET

DEPTH IN FEET	SAMPLE NUMBER	RECOVERY (%)	P.I.D. READING (ppm)	ASTM D2488-00	PROFILE	
0						ASPHALT 0.5'
1	SS	66	0	gp-gc fill		No recovery 0.5' to 1' (sample compacted below) POORLY GRADED GRAVEL with CLAY and SAND; angular gravel to 0.5" diameter, loose, dry, FILL.
2						No recovery 2'-2.5'
3	SS	75	0			
4						4.0'
5	SS	75	0			SANDY LEAN CLAY with GRAVEL; brown, soft, 15% subrounded gravel to 0.3" diameter, moist, FILL.
6						No recovery 6'-6.5'
7	SS	75	0	cl fill		SANDY LEAN CLAY; 35% sand fine to coarse, brown with patches of dark gray, moist, very soft, FILL.
8						No recovery 8'-8.5' 8.5'
9	SS	50	0	cl fill		GRAVELLY LEAN CLAY with SAND; gray, moist, soft, FILL. 9.5'
10				sc fill		CLAYEY SAND; 5%-10% clay in chunks, wet, medium-coarse sand, loose, FILL. 10.0'
11						TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET.
12						
13						
14						
15						Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at the deep well location of this monitoring well pair. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.
16						No direct push soil boring was drilled at the shallow well location. The shallow and deep well locations are less than 4 feet apart.
17						Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.

DRILLER : M. Flynn

DRILLING CO. : Precision Sampling Inc.

DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)

SAMPLING METHOD : California Modified Split Spoon Sampler (SS)

PROJECT : Hunters Point

LOCATION : Building 134

PROJECT NO. : 773247-53210606

DRAWN BY	RB	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247-A425
DATE	01/12/01	APPROVED BY		

IT CORPORATION

BORING NO. IR25SG065

VAPOR MONITORING WELL PAIR

WELL INSTALLATION FIELD GEOLOGIST: A. Bolland

WELL INSTALLATION DATE: 10/25/00

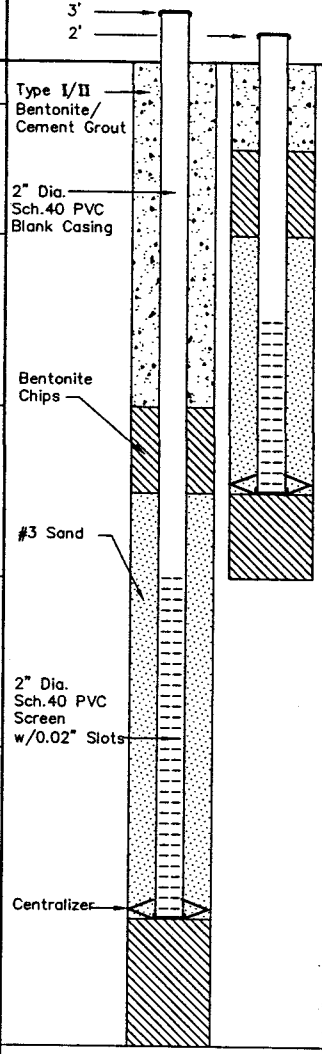
COORDINATES: DEEP WELL N. 453083.46 E. 1461200.63 SHALLOW WELL N. 453085.37 E. 1461201.55

SURF. ELEV. 10.29 SURF. ELEV. 10.33

FIELD GEOLOGIST M. Brown DATE BEGAN 10/10/00

CHECKED BY E. Mullenmeister DATE FINISHED 10/10/00

APPROVED BY W. Akiyama, R.G. SAMPLE DIA. 1.5 in



DEPTH IN FEET	SAMPLE TYPE	RECOVERY (%)	P.I.D. READING (ppm)	ASTM D2488-00	PROFILE	
0						ASPHALT
						0.5'
1	SS	100	0	gp fill		POORLY GRADED GRAVEL with SAND; 70% gravel to 1.5" diameter, loose, dry, FILL.
2						No recovery 2' to 3'
3	SS	50	0			
4						4.0'
5	SS	100	0	cl fill		LEAN CLAY with about 5% very fine sand and subrounded gravel to 0.1" diameter, very dark gray, hard, dry, FILL.
						Becoming brown, stiff at 5.5'
6						No recovery 6'-7.5' (2" diameter chert gravel in sample shoe)
7	SS	25	0			
8						GRAVELLY LEAN CLAY; dry, firm, angular gravel to 1.5" diameter, FILL.
						8.5'
9	SS	100	0	cl fill		SANDY LEAN CLAY; brown with patches of gray, firm, dry to moist, 30% fine sand, FILL.
10						10.0'
	NS	NA	NA			TOTAL DEPTH OF DIRECT PUSH BORING IS 10 FEET.
11						This interval was not logged during well installation.
						11.5'
12						
13						
14						
15						
16						
17						

DEEP WELL: IR25SG065-10
TOTAL DEPTH IS 10 FEET
SHALLOW WELL: IR25SG065-5
TOTAL DEPTH IS 5 FEET

Direct push soil boring (for soil sampling and lithologic logging) and hollow stem auger boring (for well installation) were both drilled at the deep well location of this monitoring well pair. The soil boring was drilled first, followed by overdrilling with auger to install the well. The soil boring and well were not necessarily completed to the same depth.

No direct push soil boring was drilled at the shallow well location. The shallow and deep well locations are less than 4 feet apart.

Soil description from original field logs was revised or corrected to conform to ASTM D2488-00 Standard Practice for Description and Identification of Soils.

DRILLER : M. Flynn

DRILLING CO. : Precision Sampling Inc.

DRILLING METHOD : 8" Hollow Stem Auger (Well); Direct Push with 1.5" Diameter Sampler (Boring)

SAMPLING METHOD : California Modified Split Spoon Sampler (SS)

PROJECT : Hunters Point

LOCATION : Building 134

PROJECT NO. : 773247-53210606

DRAWN BY	RB	CHECKED BY	EEM 7/2/01	DRAWING NO. : 773247-A426
DATE	01/12/01	APPROVED BY		

IT CORPORATION

APPENDIX C
SYSTEM MONITORING LOG

ATTACHMENT 1
BASELINE

Baseline

Continue

OBSERVATION WELL MONITORING LOG FORM
for Hunters Point Naval Shipyard SVE Treatability Testing
San Francisco, CA (Project No. 773247)

SO - MB

Test Site: **IR25 (Building 134)**

Field Personnel's Name: DB/JL/JH

[redacted]de: **Baseline Condition**

Date and Time: 02/12/01 0925

Weather: Cold + Rainy

Monitoring Well Depth Measurement (from top of casing)		
Well ID	Depth (FT)	Time Measured (00:00)
IR25MW22A	7.27	1055
IR25MW16A	8.50	1115

Well ID	Monitoring Parameters PID (PPMv)	Monitoring Parameters Oxygen (%)	Well ID	Monitoring Parameters PID (PPMv)	Monitoring Parameters Oxygen (%)	Well ID	Monitoring Parameters PID (PPMv)	Monitoring Parameters Oxygen (%)	Notes/Remarks
IR25VW6-3A	12.8	19.9	IR25SG042S	3.9	20.0	IR25SG055S	6.5	20.2	
IR25VW6-4A	10.6	20.2	IR25SG042D	7.6	19.8	IR25SG055D	34.5	0	
IR25VW6-5A	10.6	19.6	IR25SG043S	11.9	20.6	IR25SG056S	8.6	20.4	
IR25VW6-6A	26.6	20.3	IR25SG043D	17.9	8.8	IR25SG056D	12.6	17.4	
IR25VW6-7A	18.0	20.5	IR25SG044S	11.6	20.8	IR25SG057S	44.2	18.9	
IR25VW6-8A	12.2	19.9	IR25SG044D	2.7	20.4	IR25SG057D	288	8.5	
IR25VW6-9A	19.8	19.6	IR25SG045S	4.1	19.4	IR25SG058S	65.3	17.7	
IR25VW6-10A	22.1	19.0	IR25SG045D	21	2.1	IR25SG058D	154	1.9	
IR25VW6-11A	10.3	20.1	IR25SG046S	11.5	20.0	IR25SG059S	21.9	18.5	
IR25VW6-12A	20.6	18.7	IR25SG046D	16.5	18.9	IR25SG059D	61.1	9.5	
[redacted]W6-13A	90.1	13.7	IR25SG047S	5.1	19.8	IR25SG060S	19.8	18.3	
IR25VW6-14A	8.4	19.8	IR25SG047D	7.8	14.5	IR25SG060D	19.9	17.5	
IR25VW6-15A	60.3	3.3	IR25SG048S	5.2	20.6	IR25SG061S	11.3	17.9	
IR25VW6-16A	8.0	17.7	IR25SG048D	17.9	19.3	IR25SG061D	9.4	20.2	
IR25VW6-17A	27.0	4.6	IR25SG049S	7.9	20.5	IR25SG062S	14.2	19.6	
IR25VW6-18A	27.5	19.0	IR25SG049D	5.7	20.4	IR25SG062D	17.1	17.2	
IR25VW6-19A	47.6	20.5	IR25SG050S	4.1	19.6	IR25SG063S	2.1	18.2	
[redacted]	[redacted]	[redacted]	IR25SG050D	4.9	16.5	IR25SG063D	3.5	12.9	
[redacted]	[redacted]	[redacted]	IR25SG051S	5.7	20.5	IR25SG064S	3.2	17.5	
[redacted]	[redacted]	[redacted]	IR25SG051D	52.5	1.2	IR25SG064D	4.8	13.9	
[redacted]	[redacted]	[redacted]	IR25SG052S	2.9	20.5	IR25SG065S	4.3	20.3	
[redacted]	[redacted]	[redacted]	IR25SG052D	68.5	1.4	IR25SG065D	3.7	20.2	
[redacted]	[redacted]	[redacted]	IR25SG053S	7.5	20.6	[redacted]			
[redacted]	[redacted]	[redacted]	IR25SG053D	20.8	.6	[redacted]			