FINAL
SITE INVESTIGATION
AND
REMOVAL ACTION WORK PLAN
FOR
PIPING CHAMBER REMEDIATION

NAVAL STATION NEWPORT
MIDDLETOWN, RHODE ISLAND

Prepared For:

ENGINEERING FIELD ACTIVITY, NORTHEAST
NAVAL FACILITIES ENGINEERING COMMAND
10 INDUSTRIAL HIGHWAY
LESTER, PENNSYLVANIA 19113

Contract No. N62472-99-D-0032
Contract Task Order No. 0079

September 3, 2004

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EFANENAVFACENGCOM 4335/3 (Rev. 6/80)

CONTRACT NO.	CONTRACT TASK ORDER NO.	ACTIVITY LOCATION
N62472-99-D-0032	**0079**	**Naval Station Newport – Middletown, RI**

PROJECT TITLE:
Piping Chamber Remediation

FROM:	DATE
Tetra Tech FW, Inc.: Program QC Manager Thomas Kelly	September 3, 2004
TO:	DATE
B. Helland (CD-Copy)	September 3, 2004

1. THE CONTRACTOR SUBMITTALS LISTED BELOW ARE FORWARDED FOR YOUR REVIEW AND RECOMMENDATIONS.
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(b) RETAIN ONE (1) COPY OF THIS TRANSMITTAL FORM AND RETURN REMAINING COPIES WITH REVIEWED SUBMITTALS TO ROICC.

2. THESE SUBMITTALS SHOULD BE RETURNED TO THIS OFFICE BY _____

3. _____

CD-COPY TO: **EFANE:** C. Davis, R. Krivinskas
NSNPT: C. Mueller, A. Sylvester
NEHC: D. Coons

HARD COPY TO: **NSNPT:** A. Sylvester (3 copies)

☐ ROICC ☐ RPM ☐ CSO Thomas Joseph Kelly SEPTEMBER 3, 2004
SIGNATURE AND DATE

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FOR COMMANDING OFFICER, ENGINEERING FIELD ACTIVITY NORTHEAST - NAVAL FACILITIES ENGINEERING COMMAND — DATE

ITEM NO.	SUBMITTAL DESCRIPTION	PREPARED/ SUBMITTED BY	APPROVED	DISAPPROVED	REMARKS
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1.0 INTRODUCTION

Tetra Tech FW, Inc. (TtFW) has prepared this Work Plan for Contract Task Order (CTO) No. 0079, under the U.S. Navy Engineering Field Activity, Northeast (EFANE) Remedial Action Contract (RAC) Number N62472-99-D-0032. This Work Plan describes site investigation activities and petroleum contaminated soil removal at former piping chambers located at Naval Station (NAVSTA) Newport in Middletown, Rhode Island (the Site). The vicinity of NAVSTA Newport is depicted on Figure 1-1.

Site investigation and removal action activities include the following tasks:

- Excavation of soils exceeding the August 1996 amended Rhode Island Department of Environmental Management (RIDEM) Residential Direct Exposure Criteria (RDEC) for Total Petroleum Hydrocarbons (TPH), Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs), and total lead.
- Review of construction notes to determine if nineteen (19) chambers with no identified outlets are liquid-tight and in good condition with no pipe penetrations.
- Tracing of drain pipelines and location of discharge points on the three (3) previously demolished chambers and the eighteen (18) chambers with unknown discharge locations. If intrusive activities are required, samples will be collected for TPH, VOCs, SVOCs, and Target Analyte List (TAL) metals to identify possible areas of contamination.

This site investigation and removal action Work Plan has been divided into several sections as follows: the introduction is presented in Section 1.0; the site location and description is included in Section 2.0; Section 3.0 describes the implementation of site activities; project management is outlined in Section 4.0; Section 5.0 details field sampling and laboratory testing activities; and quality control, environmental protection and regulatory compliance, and waste management are presented in Sections 6.0, 7.0, and 8.0, respectively. A list of the former piping chambers are provided in Appendix A, RIDEM RDEC for VOCs and SVOCs are included in Appendix B, figures of the chamber locations are included in Appendix C, soil sample data sheets indicating the approximate sample locations are included in Appendix D, 2000 field activity sample results are included in Appendix E, and the project schedule is included in Appendix F.

A Site-Specific Health and Safety Plan (SHSP) for the project will be submitted under separate cover.

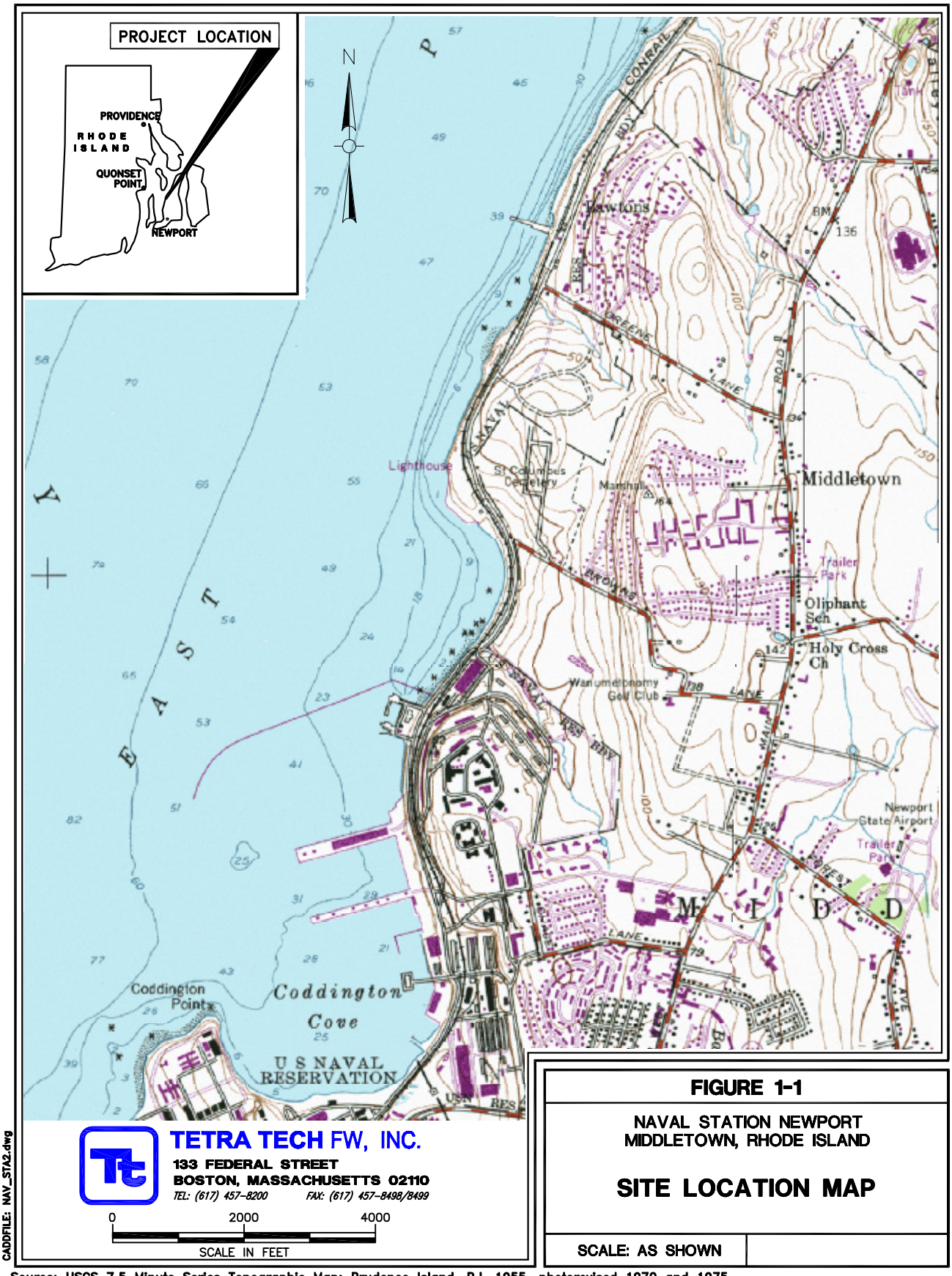


FIGURE 1-1

NAVAL STATION NEWPORT
MIDDLETOWN, RHODE ISLAND

SITE LOCATION MAP

SCALE: AS SHOWN

Source: USGS 7.5 Minute Series Topographic Map: Prudence Island, R.I. 1955, photorevised 1970 and 1975.
Digital base courtesy of Maptech, Inc. Greenland, Maine.

2.0 SITE LOCATION AND DESCRIPTION

In 2000, Foster Wheeler Environmental Corporation (now TtFW) was contracted by EFANE to perform the in-place cleaning and in-place abandonment of a 6-mile span of pipeline located at NAVSTA Newport. The pipeline was an inactive fuel line once used to transfer various fuels, including jet fuel (JP-5 and JP-8), marine diesel, Navy Special, No. 2 fuel oil, and No. 6 fuel oil from Tank Farms 1, 2, 3, 4, and 5 to various ship fueling stations at the nearby piers. The pipeline was located along Burma Road (Defense Highway), and extended from the Defense Energy Support Center to the Navy's Pier No. 1. The section of this pipeline that was cleaned and abandoned in-place was the main line that reaches from the North Booster Pump House (Building No. 58) to the supply lines for Pier No. 1 and Pier No. 2.

The diameter of the pipeline changes throughout its span. It begins at Building No. 58 as a 12-inch-diameter pipe, and increases to a 16-inch-diameter pipe at Chamber C-18 (at the corner of Stringham Road and Burma Road). Just south of Tank Farm 5, the pipeline increases to 24 inches and then reduces to 16 inches just prior to entering Building No. 73, where the pumping station that distributed fuel to Piers No. 1 and No. 2 is located.

There were a total of fifty (50) concrete chambers, including two which were co-located, situated between Chamber C-18 and Pier No. 1 and scheduled for demolition during the in-place abandonment process (refer to Appendix A). Five (5) of these chambers were previously demolished. The chambers were partially buried and were typically equipped with ladder access built into the sidewalls. A number of the chambers contained drains that discharged directly to the environment. A typical expansion chamber was approximately 10 feet wide by 14 feet long by 8 feet high. A typical anchor chamber was approximately 6 feet wide by 10 feet long by 8 feet high. These chambers served to provide access to valves, expansion joints, and reducers associated with the fuel pipeline.

During the field activities conducted in 2000, the fuel line was cleaned, pressure tested, and isolated from the Tank Farms, Piers, and any other distribution lines. The in-place abandonment process included asbestos abatement of the steam line insulation systems within the chambers to be demolished. Upon completion of the cleaning process and asbestos abatement, the soils below and adjacent to pipeline penetrations were sampled for the presence of TPH, VOCs, SVOCs, and TAL metals. Following sampling, Foster Wheeler Environmental Corporation (now TtFW) demolished and backfilled forty-four (44) chambers, including the two that were co-located.

3.0 IMPLEMENTATION OF SITE ACTIVITIES

3.1 Mobilization

The field staff will consist of a Project Superintendent, a Site Health and Safety Officer (SHSO), subcontractors, and craft labor. Mobilization activities will include the following:

- TtFW will work out of the water treatment plant at Tank Farm 5 using resources (electrical service, potable water, and sanitary facilities) already established. Cellular phone service will be used.
- Prior to any intrusive activities, TtFW will contact Dig Safe and the NAVSTA Newport Public Works Office to identify buried obstructions and utilities in the excavation area. Location of underground utilities and coordination with NAVSTA Newport personnel will be performed in conjunction with mobilization activities to confirm locations of all utilities within the work area.
- All Site personnel will be required to attend an initial health and safety meeting to discuss site-specific safety issues for this project. The meeting will be conducted by the SHSO and will take place prior to the start of fieldwork.
- On behalf of EFANE, TtFW will comply, to the maximum extent practicable, with the applicable policies of the Coastal Resources Management Program. EFANE will prepare a consistency determination, as required, for the proposed excavation and cleanup to the Coastal Resources Management Council (CRMC). Concurrence with the determination from the CRMC will be requested prior to commencement of shoreline activities. As such, EFANE will be notified a minimum of 96 hours before activities begin so that the CRMC can then be given the required 72 hour notification.

3.2 Site Preparation

Site control will occur in accordance with the SHSP. Site zones will be established to control contamination migration throughout the Site and off-site roadways. Specific zones (exclusion zone, contamination reduction zone, and support zone) will be established for on-site intrusive activities. The SHSO may need to adjust the boundaries of the specific zones as work progresses. A description of each zone is as follows:

- All intrusive activities, which may involve exposure to hazardous materials and/or conditions, will be contained within an exclusion zone (EZ). This zone will be clearly delineated by a fence, tape, cones, or other means. The area will be prepared to accommodate all intrusive activities, field personnel, and emergency equipment.
- The area just beyond the EZ is called the contamination reduction zone (CRZ). The CRZ contains the contamination reduction corridor which provides an area for decontamination of heavy equipment, hand-held equipment, and personnel. The CRZ will be used for EZ entry and egress in addition to access for heavy equipment and emergency support services.
- The support zone (SZ) is the uncontaminated area following the CRZ and will be the field support area for most operations. The SZ provides for field team communications and staging for emergency response. Appropriate safety equipment will be located in this zone.

As established in the SHSP, the initial level of personal protective equipment (PPE) will be modified Level D for all activities. Level C PPE may be required if action levels indicate the need to upgrade, although this is not anticipated.

3.3 Site Investigation and Removal Action Activities

Site investigation and removal action activities at NAVSTA Newport will include the following:*

- Excavation of soils above or below the groundwater table exceeding the August 1996 amended RIDEM RDEC for TPH (500 parts per million (ppm)) at chamber locations AV-1, AV-2, and AV-3.
- Soils above or below the groundwater table exceeding the August 1996 amended RIDEM RDEC for TPH (500 ppm) at chamber locations A-16 and E-22 will be addressed in a separate future submittal.
- Excavation of soils above or below the groundwater table exceeding the August 1996 amended RIDEM RDEC for VOCs (refer to Appendix B) at chamber location AV-2.
- Soils above or below the groundwater table exceeding the August 1996 amended RIDEM RDEC for SVOCs (refer to Appendix B) at chamber locations A-4, A-5, E-17, V-3, and S-1 will be addressed in a separate future submittal.
- Excavation of soils above or below the groundwater table exceeding the August 1996 amended RIDEM RDEC for lead (150 ppm) at chamber location AV-2.
- Review of construction notes to determine if the nineteen (19) chambers with no identified outlets are liquid-tight and in good condition with no pipe penetrations. These chambers include E-1, E-2, E-3, A-3, E-4, E-7, E-8, A-16, A-19, CT-51, CT-52, CT-56,* V-2, AV-1, S-1, V-3, AV-2, S-2, AV-3.
- Tracing the drain pipelines and locating discharge points on the three (3) previously demolished chambers (E-6, A-6, E-11) and the eighteen (18) chambers with unknown discharge locations (A-7, A-11, E-12, A-12, E-13, E-14, A-14, E-15, A-15, E-16, E-22, E-17, A-17, E-18, A-18,* E-19, CT-53/V-1 (co-located*).

3.4 Execution

3.4.1 Contaminated Soil Excavation and Disposal

The methodology to be used during contaminated soil removal activities is as follows:

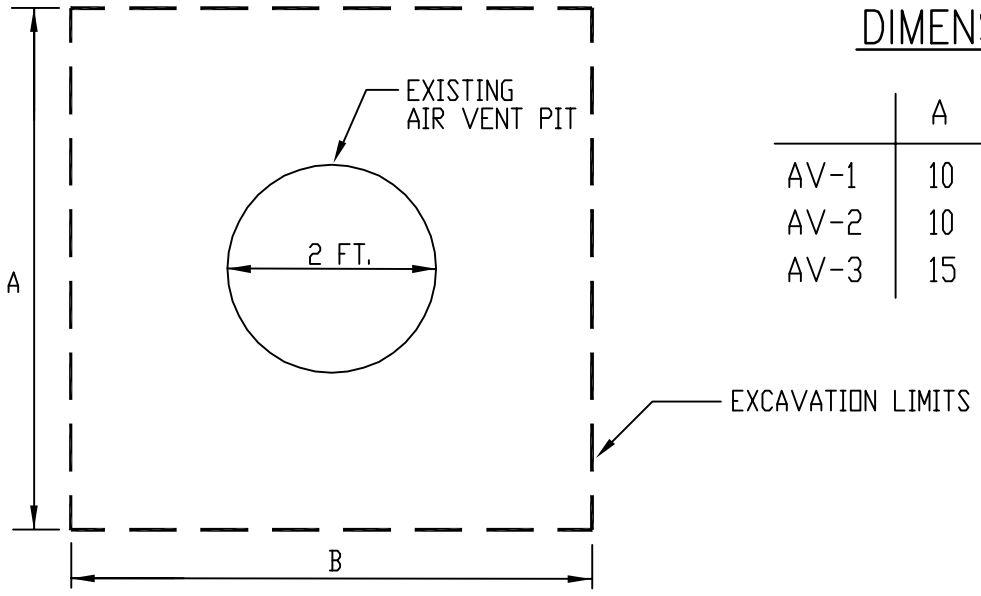
- All approximate sample locations which exhibited TPH, VOC, and/or total lead exceedances will be re-established with stakes prior to removal of contaminated soil. The sample exceedances and their approximate locations are provided in Table 3-1. The excavations, including initial dimensions and contaminated soil quantities, are included in Table 3-2 and Figure 3-1.

- Various drawings and tables from the Final Construction Completion Report for Fuel Line Closure Naval Station Newport (Foster Wheeler Environmental Corporation, June 2001) are included in appendices to this Work Plan to provide supporting documentation. Appendix C includes drawings which identify the locations of chambers to be excavated. Appendix D includes details where specific samples were taken during the 2000 field activities. Appendix E includes sample results for samples taken during the 2000 field activities.

* Investigation and removal actions related to chamber locations A-18, CT-53/V-1 (co-located), and CT-56 can be found in the Tank Farm 4/Tank Farm 5 (TF4/TF5) work plan.

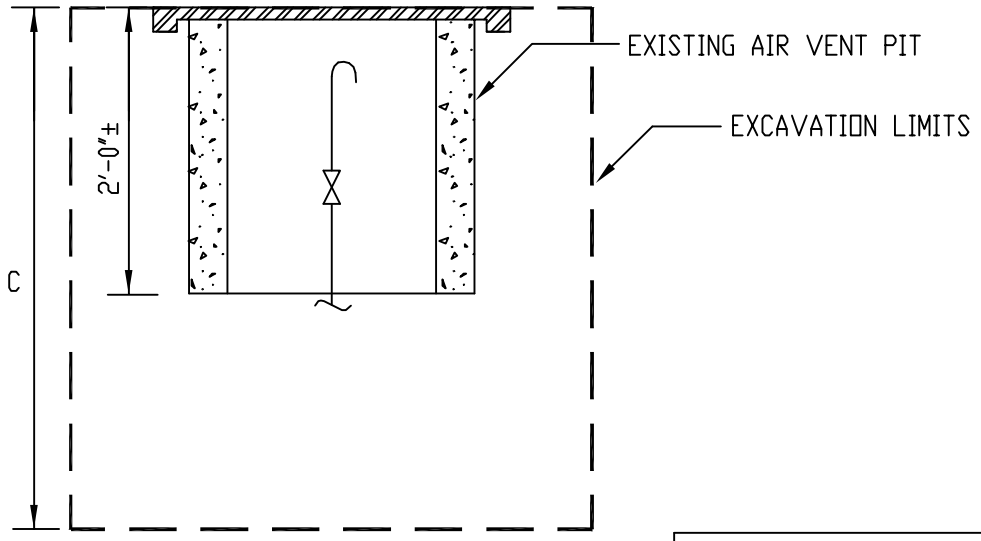
EXCAVATION DIMENSIONS

	A	B	C
AV-1	10	10	6
AV-2	10	10	10
AV-3	15	10	4



EXCAVATION PLAN FOR AV-1, AV-2, AV-3

NOT TO SCALE



EXISTING AIR VENT PIT EXCAVATION DETAIL

NOT TO SCALE

FIGURE 3-1

NAVAL STATION NEWPORT
MIDDLETOWN, RHODE ISLAND

AIR VENT PIT EXCAVATION PLAN

SCALE: AS SHOWN

CADDFILE: 2282_004.dwg

- Concrete (where contamination extends beneath the chambers) and soil removal will be performed with a track-mounted excavator and a rubber-tire loader. During excavation, soil will be evaluated for petroleum contamination using a combination of visual/olfactory evidence and field screening methodologies. Based on field screening results, potentially clean soil, to be used as backfill, and contaminated soil, to be disposed of off-site, will be staged separately on 10-mil polyethylene sheeting. Concrete debris, which is anticipated to be clean, will also be staged on 10-mil polyethylene sheeting.

- The site cleanup goal for soil contaminated with TPH will be the August 1996 and February 2004 amended RIDEM RDEC of 500 ppm; the cleanup goal for soil contaminated with VOCs will be the RIDEM RDEC included in Appendix B; and the cleanup goal for soil contaminated with lead will be the RIDEM RDEC of 150 ppm.

Table 3-1
Sample Exceedances

Chamber	FW Figure (NAVFAC Drawing)*	Sample No. (Exceedance)	Sample Location
AV-1	FW Fig. 5 (2041719)	VAV1-01	Beneath vent pipe, 3 ft bgs
AV-2	FW Fig. 5 (2041719)	VAV2-01	Beneath vent pipe, 3 ft bgs
AV-3	FW Fig. 6 (2041720)	VAV3-01	Beneath vent pipe, 2 ft bgs

* Refer to Appendix C for the NAVFAC Drawings (assigned FW Figure Nos. 5 and 6) which show the chamber locations.

Table 3-2
Estimated Contaminated Soil Excavations

Excavation	Length (ft)	Width (ft)	Depth (ft)	Quantity (cy)	Quantity (tons)
AV-1	10	10	6	19	28
AV-2	10	10	10	37	56
AV-3	15	10	4	22	33
Totals:				**78**	**117**

- Both the potentially clean and contaminated staged soil will be field screened for total organic vapor and TPH at a frequency of one sample per 100 cubic yards. If field headspace screening with a portable photoionization detector (PID) or flame ionization detector (FID) indicates that the concentration of total organic vapor is below 20 parts per million per volume (ppmv) and TPH field screening using Dexsil PetroFLAG™ kits indicates that the concentration of TPH is below 500 ppm,** the soil will be sampled for laboratory analysis at a frequency of one sample per 500 cubic yards. Samples will be analyzed for TPH, VOCs, SVOCs, and total lead to confirm that the material is suitable for backfill. If field headspace screening with a PID or FID indicates that the concentration of total organic vapor is above 20 ppmv and/or TPH field screening using Dexsil PetroFLAG™ kits indicates that the concentration of TPH is above 500 ppm, the soil will be analyzed for asphalt batch recycling parameters as indicated in Table 5-1. Staged material

** Screening criterion may be altered based on comparison of field and laboratory results as the project proceeds.

which is not suitable for backfill based on field screening or analytical results will also be sampled for off-site disposal at an asphalt batch recycling facility. Additional details on field screening methodology and potential backfill and contaminated soil sampling requirements are provided in Section 5.0 of this Work Plan. If soils are to be staged overnight, the staged material will be covered with 6-mil polyethylene sheeting to prevent rainfall infiltration and run-on/run-off.

- Confirmatory soil samples will be collected from the base and sidewalls of the excavation and field screened for total organic vapor using a PID or FID and TPH using Dexsil PetroFLAG™ kits. Once the field screening results indicate the total organic vapor and TPH concentrations to be below 20 ppmv and 500 ppm, respectively, the samples will be sent to the off-site laboratory for confirmation. Confirmatory sample collection, field screening, and laboratory analysis are explained in greater detail in Section 5.2.2 of this Work Plan.

- Dewatering during excavation activities will be conducted as necessary when removing contaminated soil at or below the groundwater table. Water generated will be collected in frac tanks and either disposed of off-site or treated using a mobile water treatment system and discharged on-site under an Order of Approval.

- If soil removal extends below the groundwater table, the excavation will be lined with polyethylene sheeting and then backfilled to its original grade pending field screening and laboratory analytical results. Backfill will consist of both staged clean material previously removed and imported fill (the former to be used above the groundwater table and the latter to be used below the groundwater table). The imported material will be required to be certified as clean by the source so as not to introduce contaminated material to the excavation site. If soil removal does not extend below the groundwater table, the excavation will remain open (surrounded by temporary fencing) until confirmatory sample results are received.

- If field screening results for samples collected from the base and/or sidewalls of the excavation indicate that the total organic vapor and TPH levels are in excess of 20 ppmv and/or 500 ppm, respectively, additional soil removal will be performed in the vicinity of the exceedances. Excavation activities will be considered complete when laboratory confirmatory sampling results indicate that the RIDEM RDEC for TPH, VOCs, SVOCs, and/or total lead have been met (refer to Table 5-3). If the laboratory analyses indicate that the concentrations of TPH, VOCs, SVOCs, and/or total lead in the reused backfill are above the applicable criteria, the soil will be removed and replaced with imported fill. All open excavations will be restored in accordance with Section 3.8 of this Work Plan.

- Upon completion of soil removal activities, or once sufficient accumulation has occurred, the contaminated soil will be loaded into dump trucks or roll-off containers for off-site disposal. Before the trucks leave the site, they will be inspected to ensure that there is no visible contaminated soil on the vehicle sides or tires and that the cover to tarp is secured. Vehicles will be decontaminated, as necessary, in accordance with the procedures outlined in Section 3.5 of this Work Plan.

- Areas will be scraped and sampled where equipment, traveling between the excavation and the staging and/or loading area(s), may have tracked potentially contaminated soil. Only areas that have potentially been contaminated will be scraped and sampled. Samples will be collected from the scraped surface at a frequency of one per 100 square feet and field screened for TPH. If any

samples do not pass the field screening criteria, the corresponding areas will be scraped and sampled again.

- All excavation activities will be conducted in accordance with the requirements of 29 CFR 1926, Subpart P and the United States Army Corps of Engineers (USACE) Safety and Health Requirements Manual EM-385-1-1.

3.4.2 Review Construction Notes

TtFW will review documentation, including field notes (Appendix D), photographs, and engineering plans (Appendix C) to determine if the nineteen (19) chambers with no outlets are liquid-tight and in good condition with no pipe penetrations. These chambers include E-1, E-2, E-3, A-3, E-4, E-7, E-8, A-16, A-19, CT-51, CT-52, CT-56,* V-2, AV-1, S-1, V-3, AV-2, S-2, AV-3. For each instance that this is not the case, test pits will be dug on either side of the chamber in an attempt to locate the drain line and discharge location. Samples will be collected from beneath, or downgradient from, piping joints and breaks, and at the point of discharge for field screening as well as TPH, VOC, SVOC, and TAL metals laboratory analysis. Additional details regarding field screening methodology and site investigation sampling procedures are provided in Section 5.2.1 of this Work Plan. Should the RIDEM RDEC be exceeded for any constituent of concern, contaminated soil will be removed in accordance with the procedures outlined in Section 3.4.1 of this Work Plan.

3.4.3 Drain Trace and Discharge Locations

Ground penetrating radar (GPR), in conjunction with historical engineering plans (refer to Appendix C) and photographs will be used to locate:

- Three (3) previously demolished chambers with unknown discharge locations (E-6, A-6, E-11).
- Eighteen (18) chambers with unknown discharge locations (A-7, A-11, E-12, A-12, E-13, E-14, A-14, E-15, A-15, E-16, E-22, E-17, A-17, E-18, A-18,* E-19, CT-53/V-1 (co-located*).

In the event that the drain line and discharge location associated with each chamber cannot be located by GPR survey or the review of historical engineering plans, test pits will be dug on either side of the chamber in an attempt to locate the line. If intrusive activities are required, samples will be collected from beneath, or downgradient from, piping joints and breaks, and at the point of discharge. Areas which exhibit evidence of contamination (i.e., visible staining, olfactory evidence, or elevated PID or FID readings) will be targeted. Samples will also be collected from beneath previously demolished chambers, regardless of drain line and discharge location (chambers E-6, AE-6, A-6, E-11, and V-2). Samples will be analyzed for jar field headspace screening and TPH field screening, as well TPH, VOCs, SVOCs, and TAL metals laboratory analysis. Additional details regarding field screening methodology and site investigation sampling procedures are provided in Section 5.2.1 of this Work Plan. Should the RIDEM RDEC be exceeded for any constituent of concern, contaminated soil will be removed in accordance with the procedures outlined in Section 3.4.1 of this Work Plan.

* Investigation and removal actions related to chamber locations A-18, CT-53/V-1 (co-located), and CT-56 can be found in the Tank Farm 4/Tank Farm 5 (TF4/TF5) work plan.

3.5 Heavy Equipment Decontamination

A temporary equipment decontamination pad will be constructed to decontaminate heavy equipment, as necessary, with a portable water tank or truck and a high-pressure washer. The pad will be constructed of an impervious barrier consisting of three (3) layers of 10-mil polyethylene sheeting with hay bales forming a berm around the perimeter. The pad will be sized so as to accommodate the largest piece of equipment to be used at the Site. A submersible electrical pump will be placed inside the pad, and all rinsate will be pumped into United States Department of Transportation (USDOT) specification drums. Accumulated solids will be segregated and containerized in a USDOT specification drum. At the conclusion of the project, the collected rinsate and solids will be characterized and disposed of off-site. The materials used to construct the pad will be handled and disposed of along with the PPE.

The following procedure will be used by TtFW personnel for the decontamination of any piece of heavy equipment that has come in contact with contaminated soil:

- Direct the driver on to the decontamination pad, or place the contaminated portion of the equipment (such as the bucket) over the decontamination pad.
- Remove all visible contaminated material from the piece of equipment with a high-pressure washer, working from top to bottom.
- Inspect the piece of equipment to verify that all visible contaminated material has been removed, and check that there are no visible leaks or releases of contaminated material.

3.6 Hand Held Equipment and Personnel Decontamination

Personnel and hand held equipment leaving the EZ will be thoroughly decontaminated in accordance with the SHSP. Small tubs of wash and rinse water, scrub brushes, and towels will be provided at the designated decontamination area within the CRZ. Used PPE will be placed in plastic bags and temporarily stored in receptacles equipped with lids. At the conclusion of the project, decontamination fluids and accumulated solids will be segregated and containerized in USDOT specification drums for waste characterization and off-site disposal.

3.7 Erosion and Sediment Control

Prior to any intrusive activities, TtFW will place silt fence and/or hay bales around area stormwater catch basins, as necessary. Additional erosion and sediment controls will be placed around each open excavation to prevent overland flow from entering an excavation and sediment from migrating beyond excavation limits during storm events and high groundwater conditions. These controls will be installed in accordance with the Rhode Island Soil Erosion and Sediment Control Handbook, and maintained in place until all site activities are completed. Erosion and sediment controls will be inspected weekly and after any significant precipitation event. Inspections will be documented, and any damages will be repaired immediately.

3.8 Site Restoration

Once the excavations are complete, and confirmatory sample results indicate that concentrations are below the cleanup criteria, the excavated areas will be restored. Restoration will include backfilling the excavations to the original grade with stockpiled clean material and/or imported common fill, and compacting in-place as needed. At the discretion of the Caretaker Site Office (CSO), up to 6 inches of topsoil will be placed and seeding of the excavation areas will be done by hand. Borrow materials will be required to be certified as clean by the borrow sources so as not to introduce contaminated material to the excavation site.

4.0 PROJECT MANAGEMENT

The project management team will be responsible for all technical and administrative aspects of the site investigation and removal action. The project management team is configured such that one person, Mr. Charles Collet, has overall administrative and technical responsibilities for this CTO. As the CTO Manager, Mr. Collet reports directly to Mr. Carl Tippman, the RAC Program Manager. Mr. Collet is responsible for planning and scheduling the removal actions, ensuring that project deliverables are submitted on a timely basis, tracking and managing budgets and schedules, and maintaining a safe work environment and a record of site activities. Mr. Collet will also attend bi-weekly Quality Control (QC) meetings to discuss schedule and progress updates with the Navy, as required. All coordination with the regulatory agencies will be the responsibility of the Navy.

4.1 Project Schedule

Mobilization is anticipated to occur in October 2004, and the project duration has been estimated to be two months (refer to Appendix F).

4.2 Project Staffing Plan

The field staff will consist of a Project Superintendent, a SHSO, subcontractors, and craft labor. The responsibilities of each role are discussed in the following sections. Procurement activities and Project Controls will be supported on a part-time basis through the Program Management Office (PMO) located in Langhorne, Pennsylvania. Ms. Vanessa Paolini will be responsible for management of subcontracts and will provide support on an as-needed basis from the PMO for the duration of the project. Ms. Maura McCandless will be responsible for procurement of materials at the Site and field accounting activities. Ms. Janis Hottinger will provide part-time site Project Controls services on an as-needed basis from the PMO. Once developed, the Project Controls function will include updating the project schedule and cost tracking databases, and preparing status reports and punch lists.

4.2.1 Project Superintendent

The Project Superintendent (to be determined) will be responsible for managing and directing all on-site activities. These activities include supervision of all field staff and subcontractors, Site procurement of materials, interfacing with the Navy Resident Officer In Charge of Construction (ROICC), and ensuring compliance with this Work Plan.

4.2.2 Site Health and Safety Officer

The SHSO (to be determined), who will be responsible for all site-related health and safety issues, will act on behalf of the Project Environmental and Safety Manager (PESM), Mr. Grey Coppi. The SHSO will enforce all aspects of the SHSP and has the authority to stop work if unsafe conditions arise.

4.2.3 Site Quality Control Manager

The SHSO will also serve as the Site Quality Control Manager (SQCM) and will act on behalf of the Program Quality Control Manager (PQCM), Mr. Tom Kelly. The SQCM will be responsible for all site-related QC activities, including the enforcement of the QC Plan (Section 6.0 of this Work Plan) and tracking all field documentation and submittals.

5.0 FIELD SAMPLING AND LABORATORY TESTING

Sampling and analysis will be performed in support of the site investigation and soil removal activities at NAVSTA Newport. The sampling programs for this project will include the following:

- Excavated soil field screening for total organic vapors using a portable PID or FID, and for TPH using Dexsil PetroFLAG™ kits in order to verify that the overlying soil is suitable for use as backfill.

- Sampling and laboratory analysis of excavated soil for TPH, VOCs, SVOCs, and/or total lead (depending on chamber location) prior to use as backfill.

- Confirmatory soil sampling and field screening of the excavation floor and sidewalls for total organic vapor and TPH using a PID/FID and Dexsil PetroFLAG™ kits.

- Laboratory analysis of excavation floor and sidewall samples for TPH VOCs, SVOCs, and/or total lead in order to ensure that the site cleanup criterion has been met and that excavation activities are complete. Sampling requirements for each chamber location are provided in Table 5-3.

- Sampling and laboratory analysis of contaminated soil and decontamination liquids and solids in order to characterize the materials for disposal.

- Sampling and analysis of dewatering treatment system influent and effluent, as applicable, in order to monitor the operation of the system and ensure compliance with discharge requirements.

- Real time air monitoring using a PID/FID for health and safety monitoring.

5.1 Quality Assurance/Quality Control (QA/QC) Procedures

Appropriate QA/QC procedures will be implemented to ensure that the data collected are representative, defensible, and accurate for the purposes of this project. QA/QC samples that will be collected for the purpose of quantitatively assessing the quality of the sampling effort and the laboratory analysis are discussed in this subsection. These samples include field duplicates, referee duplicates, equipment blanks, and matrix spike and matrix spike duplicates. The descriptions below include sampling methodologies, sample frequencies, and the purpose of the samples. QA/QC samples will not be collected for the waste characterization sampling program.

5.1.1 Field Duplicate Samples

Field duplicate samples are two samples of the same matrix, which are collected, to the extent possible, at the same time, from the same location, using the same techniques and are analyzed at the same laboratory. Duplicate soil samples will be collected into a disposable aluminum pie pan, homogenized, and then apportioned into sample containers. Field duplicates will be handled, containerized, preserved, stored and transported in the same manner. Duplicate samples will be collected for field screening at a frequency of 5% per sample matrix or one per day, and for laboratory analysis at a frequency of 10% per sample matrix. The sample will be analyzed as a “blind” duplicate to provide a measure of sampling variability.

5.1.2 Referee Duplicate QA Samples

Referee duplicates are samples which are collected in the same manner as field duplicates and are analyzed by different laboratories. Referee duplicates may be sent to a referee QA laboratory if the Navy or regulatory agencies collect split samples or if a special problem occurs in sample collection or analysis. Referee duplicates are not anticipated for this project at this time.

5.1.3 Equipment Blanks

Equipment blanks are samples consisting of reagent (analyte-free) water collected during a sampling event from a final rinse of sampling equipment after the decontamination procedure has been performed. The purpose of equipment blanks is to determine whether the sampling equipment is causing cross contamination of samples. Equipment blanks will be collected at a frequency of one per 20 samples when disposable sampling equipment is not used. Equipment blanks are not anticipated for this project at this time.

5.1.4 Matrix Spike and Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples are collected as additional aliquots of sample, as required, to be used by the laboratory as QC samples. The samples are spiked in the laboratory by adding a predetermined concentration of target analytes into the sample prior to sample extraction/digestion and analysis. The concentration of the target analytes determined during analysis are compared to the known concentration of the added spiked compound (percent recovery) to provide a measure of the accuracy of the laboratory method. Laboratory precision is assessed by measuring the relative percent difference (RPD) between two spiked samples. For this project, additional samples will be designated for laboratory QC at a frequency of one per 20 samples.

5.1.5 Trip Blanks

Trip blanks are containers of organic-free reagent water that are kept with the field sample containers from the time they leave the laboratory until they are returned to the laboratory. One trip blank will accompany each cooler containing samples to be analyzed for VOCs, and will be stored at the laboratory with the samples. Trip blanks will be analyzed in order to evaluate the effect of ambient site conditions and the sample shipment integrity, and to ensure proper sample container preparation and handling techniques.

5.1.6 Temperature Blanks

A temperature blank consisting of potable water will be included in each cooler to document cooler temperature upon receipt at the laboratory.

5.2 Sampling Programs

Several sampling programs for various media will be conducted as part of this site investigation and removal action. Specific sampling protocols are identified below. A summary of the sampling programs, analytical methods, and QC sample requirements anticipated for this project is included in Table 5-1. Sample containers, preservatives, and holding time requirements are included in Table 5-2.

Table 5-1
Summary of Sampling Programs, Analytical Methods, and QC Requirements

Sampling Program/Analysis	Analytical Method	Field Samples	Field Dup.	MS/MSD	Total Samples	TAT
SITE INVESTIGATION SAMPLING – FIELD SCREENING						
TPH	PetroFLAG™	20	1	na	21	24 hr
SITE INVESTIGATION SAMPLING – LABORATORY ANALYSIS						
TPH[1]	SW846 8015/8100M	20	2	1/1	24	72 hr
VOCs[2]	SW846 8260B	20	2	1/1	24	72 hr
SVOCs	SW846 8270B	20	2	1/1	24	72 hr
TAL Metals	SW846 6010/7000	20	2	1/1	24	72 hr
CONFIRMATORY SOIL SAMPLING – FIELD SCREENING						
TPH	PetroFLAG™	40	2	na	42	24 hr
CONFIRMATORY SOIL SAMPLING – LABORATORY ANALYSIS						
TPH[1]	SW846 8015/8100M	38	4	2/2	46	72 hr
VOCs[2]	SW846 8260B	12	2	1/1	16	72 hr
SVOCs	SW846 8270B	21	3	2/2	28	72 hr
Total Lead	SW846 6010	5	1	1/1	8	72 hr
DEWATERING TREATMENT SYSTEM SAMPLING						
TPH[1]	SW846 8015/8100M	15	2	1/1	19	24 hr
BTEX & MTBE	SW846 8260B	15	2	1/1	19	24 hr
Total Lead	SW846 6010	15	2	1/1	19	24 hr
TSS	USEPA Method 160.2	15	2	1/1	19	24 hr
WASTE CHARACTERIZATION SAMPLING						
Excavated Soil (Field Screening)						
TPH	PetroFLAG™	10	na	na	10	24 hr
Excavated Soil (Backfill Requirements)						
TPH[1]	SW846 8015/8100M	6	na	na	6	72 hr
VOCs[2]	SW846 8260B	2	na	na	2	72 hr
SVOCs	SW846 8270B	3	na	na	3	72 hr
Total Lead	SW846 6010	1	na	na	1	72 hr
Excavated Soil (Asphalt Batching Requirements)						
TPH[1]	SW846 8015/8100M	6	na	na	6	5 day
VOCs[2]	SW846 8260B	6	na	na	6	5 day
Flashpoint	SW846 1010 or 1020	2	na	na	2	5 day
pH	USEPA Method 150.1	2	na	na	2	5 day
Reactive Cyanide	SW846 Sec. 7.3.3.2/9010	2	na	na	2	5 day
Reactive Sulfide	SW846 Sec. 7.3.4.2/9030	2	na	na	2	5 day
PCBs	SW846 8082	2	na	na	2	5 day
RCRA 8 Metals	SW846 6010/7000	2	na	na	2	5 day
TOC	SW846 9060	2	na	na	2	5 day
Decontamination Liquids						
TPH[1]	SW846 8015/8100M	1	na	na	1	5 day
Flashpoint	SW846 1010 or 1020	1	na	na	1	5 day
Decontamination Solids (if Not Combined with Soil)						
TPH[1]	SW846 8015/8100M	1	na	na	1	5 day
TCLP Lead	SW846 1311/6010	1	na	na	1	5 day
TCLP Arsenic	SW846 1311/6010	1	na	na	1	5 day

Note: [1] gasoline range organics/diesel range organics (GRO/DRO)
[2] laboratory standard compound list
na not applicable

Table 5-2
Sample Containers, Preservatives, and Holding Times

Media/Analysis	Container	Preservative	Holding Time[1]
Solid Sampling			
TPH	(1) 40 mL vial (GRO) & (1) 4 oz wide mouth jar (moisture); and/or 4 oz wide mouth jar (DRO or GRO/DRO)	ice to 4º C, MeOH (40 ml vial)	Analyze or extract within 14 days.
VOCs	(1) 40 mL vial (VOC); (1) 4 oz wide mouth jar (moisture)	ice to 4º C, MeOH (40 ml vial)	Analyze within 14 days.
SVOCs	4 oz wide mouth jar	ice to 4º C	Extract within 14 days; analyze extract within 40 days.
Total Lead	4 oz wide mouth jar	ice to 4º C	Analyze within 6 months.
TAL Metals, RCRA 8 Metals	4 oz wide mouth jar	ice to 4º C	Analyze mercury within 28 days; analyze all other metals within 6 months.
TCLP Lead, TCLP Arsenic	4 oz wide mouth jar	ice to 4º C	Extract within 180 days; analyze extract within 180 days.
Flashpoint, pH, Reactivity	8 oz wide mouth jar	ice to 4º C	Analyze pH as soon as possible.
PCBs	4 oz wide mouth jar	ice to 4º C	Extract within 14 days; analyze extract within 40 days.
TOC	4 oz wide mouth jar	ice to 4º C	Analyze within 28 days.
Water Sampling			
TPH	1 L amber glass bottle	ice to 4º C, H_2SO_4 to pH<2	Analyze within 28 days.
BTEX & MTBE	(3) 40 mL vials	ice to 4º C, HCl to pH<2	Analyze within 14 days.
Total Lead	1 L plastic	ice to 4º C, HNO_3 to pH<2	Analyze within 6 months.
TSS	250 mL plastic	ice to 4º C	Analyze within 7 days.
Flashpoint	250 mL plastic	ice to 4º C	Analyze as soon as possible.

Note: [1] holding time is calculated from sampling date

5.2.1 Site Investigation Soil Sampling

In the event that intrusive activities are required to locate the drain lines and discharge locations, samples will be collected from beneath, or downgradient from, piping joints and breaks, and at the points of discharge. Areas which exhibit evidence of contamination (i.e., visible staining or olfactory evidence) will be targeted. These site investigation soil samples will be collected as grab samples, using disposable High Density Polyethylene (HDPE) scoops, to a depth of at least six inches below any exposed surface. Each sample will be placed into a disposable aluminum pie pan, homogenized, and then apportioned into the appropriate sample jars for TPH field screening using Dexsil PetroFLAG™ kits, as well as TPH (diesel range organics), SVOC, and TAL metals laboratory analysis. Additional grab samples will be collected using the disposable HDPE scoop for jar field headspace screening with a PID or FID, as well as TPH (gasoline range organics) and VOC laboratory analyses as follows:

- **Field Headspace Screening (Total Organic Vapor)** – Each soil sample for headspace screening will be placed in an 8-ounce glass jar, and the jar will be covered with aluminum foil and then capped for an "airtight" seal. The jar will be shaken gently for approximately two minutes and then allowed to sit untouched for an additional ten minutes. After that time, the cap will be removed and the tip of the PID or FID will be inserted into the jar through the aluminum foil and a total organic vapor reading will be obtained.

- **VOC Laboratory Analysis** – In accordance with Method 5035A, a 5-gram sample will be collected with a disposable syringe from the soil (grab sample) obtained with the HDPE scoop as soon as possible after the surface of the soil has been exposed to the atmosphere (generally within a few minutes). This sample will be immediately placed in a vial containing 10 mL of purge-and-trap grade methanol. VOC samples will not be homogenized first. As part of this Method, an additional sample aliquot will be collected for the determination of moisture content. An alternative to field preservation is the use of an EnCore™ sampler (or equivalent) as a collection and storage device. Samples collected in this device must be immediately shipped to the laboratory where preservation is done within 24 hours of sample collection.

- **TPH (Gasoline Range Organics) Laboratory Analysis** – If the laboratory has to perform two analytical runs for a full gasoline range organics/diesel range organics (GRO/DRO) analysis under Method 8015/8100M, then soil samples for GRO analysis will be collected in the same manner as for VOC analysis (in accordance with Method 5035A and the procedure detailed above). If the laboratory can perform a full GRO/DRO analysis on a single analytical run under Method 8015/8100M (from benzene to the heavier compounds), then soil samples for both GRO and DRO analysis will be collected as grab samples and placed in 4-ounce jars with no headspace. For this case, a separate, homogenized sample will not be collected for DRO analysis as specified above.

The samples collected for laboratory analysis (TPH, VOCs, SVOCs, and TAL metals) will be sent to the laboratory if field screening results indicate the total organic vapor concentration to be below 20 ppmv and the TPH concentration to be below 500 ppm.** Should the concentrations of total organic vapor and TPH be above 20 ppmv and/or 500 ppm, respectively, the contaminated soil will be removed and confirmatory soil sample will be collected in accordance with Section 5.2.2 of this Work Plan.

5.2.2 Confirmatory Soil Sampling

5.2.2.1 Proposed Excavations

Soils exceeding the RIDEM RDEC for TPH, VOCs, SVOCs, and total lead will be removed at the chamber locations listed in Table 5-3. Upon completion of excavation activities, confirmatory soil samples will be collected and analyzed for the appropriate constituents (i.e., those compounds which were previously shown to have exceeded the applicable RIDEM RDEC). Table 5-3 specifies which analysis or analyses will be performed at the various excavations.

** Screening criterion may be altered based on comparison of field and laboratory results as the project proceeds.

Table 5-3
Confirmatory Sampling Requirements

Chamber	Total Organic Vapor	Petro-FLAG™	TPH	VOCs	SVOCs	Total Lead
AV-1	X	X	X			
AV-2	X	X	X	X	X	X
AV-3	X	X	X		X	

Confirmatory soil samples will be collected from the base of each excavation at a minimum frequency of one per 400 square feet, or from the center of a 20-foot by 20-foot grid. At a minimum, one confirmatory sample will be collected from the center of each excavation floor. Samples will also be collected from the midpoint of each excavation sidewall at a frequency of one per 20 linear feet of sidewall. In addition, if the excavation exceeds five feet, additional sidewall samples will collected at a frequency of one sample per every five feet vertical depth. At a minimum, one confirmatory sample will be collected from each sidewall of the excavations. Locations to be targeted include areas which currently exhibit, or formerly exhibited, evidence of contamination (i.e., visible staining or olfactory evidence). Samples will be collected for jar field headspace screening with a PID or FID and TPH field screening using Dexsil PetroFLAG™ kits, as well as TPH (GRO/DRO), VOC, SVOC, and/or total lead laboratory analyses in accordance with procedures outlined in Section 5.2.1 of this Work Plan. The samples collected for laboratory analysis (TPH, VOCs, SVOCs, and/or total lead) will be sent to the laboratory if field screening results indicate the total organic vapor concentration to be below 20 ppmv and the TPH concentration to be below 500 ppm.** Should the concentrations of total organic vapor and TPH be above 20 ppmv and/or 500 ppm, respectively, additional contaminated soil will be removed.

5.2.2.2 Future Excavations

Should removal or remediation of contaminated soil be required at additional chamber locations as a result of site investigation soil sampling exceedances, confirmatory sampling will be performed upon completion of excavation activities. Confirmatory soil samples will be collected from the base and sidewalls of each excavation at the minimum frequencies specified in Section 5.2.2.1 of this Work Plan. All samples will be collected for jar field headspace screening with a PID or FID and TPH field screening using Dexsil PetroFLAG™ kits, as well as TPH (GRO/DRO), VOC, SVOC, and TAL metals laboratory analysis in accordance with procedures outlined in Section 5.2.1 of this Work Plan. The samples collected for laboratory analysis (TPH, VOCs, SVOCs, and TAL metals) will be sent to the laboratory if field screening results indicate the total organic vapor concentration to be below 20 ppmv and the TPH concentration to be below 500 ppm.** Should the concentrations of total organic vapor and TPH be above 20 ppmv and/or 500 ppm, respectively, additional contaminated soil will be removed.

** Screening criterion may be altered based on comparison of field and laboratory results as the project proceeds.

5.2.3 Dewatering Treatment System Sampling

If a dewatering treatment system is used, the influent, effluent, and mid-carbon units will be sampled in order to monitor the operation of the system and ensure compliance with discharge requirements. Grab samples will be taken daily of the influent, effluent, and mid-carbon units for the first week of operation and every third day thereafter for the duration of the discharge period. Samples will be analyzed for TPH, Benzene, Toluene, Ethylbenzene and Xylene (BTEX), Methyl Tertiary-Butyl Ether (MTBE), total suspended solids (TSS), and lead as specified in Table 5-1. Samples will be submitted to the laboratory for fast turnaround (24 hours) in order to ensure compliance with discharge criteria. Sampling and analysis is proposed and may change based on Order of Approval requirements.

5.2.4 Waste Characterization

Several waste streams generated during site activities will be sampled in order to characterize the waste for disposal. Waste will include, but not be limited to, excavated soil, water generated during excavation and dewatering activities (if not treated on-site), decontamination liquids, decontamination solids, disposable sampling equipment, laboratory waste, and PPE. Additional testing may be required by the disposal/recycling facilities.

5.2.4.1 Excavated Soils

Both contaminated soil to be disposed of off-site and potentially clean soil to be used as backfill will be sampled to determine if the requirements for recycling and reuse have been met. Soils that are acceptable for asphalt batch recycling will be transported to a licensed recycling facility; soils that fail the asphalt batch recycling criteria will be disposed of at an appropriate licensed facility.

Contaminated Soil – Once soil removal activities are complete, the contaminated material in the staging areas will be sampled for the parameters indicated in Table 5-1 to determine asphalt batch recycling acceptability. Samples will be collected at a frequency of one sample per 100 cubic yards of soil for TPH and VOC analyses, and every 500 cubic yard for the remaining parameters. For VOC analysis, grab samples will be collected from 6 to 12 inches below the surface using a disposable HDPE scoop. In accordance with United States Environmental Protection Agency (USEPA) Method 5035A, a 5-gram sample will be collected with a disposable syringe from the soil obtained with the scoop as soon as possible after the surface of the soil has been exposed to the atmosphere (generally within a few minutes). This sample will be immediately placed in a vial containing 10 mL of purge-and-trap grade methanol. As part of this Method, an additional sample aliquot will be collected for the determination of moisture content. An alternative to field preservation is the use of an EnCore™ sampler (or equivalent) as a collection and storage device. Samples collected in this device must be immediately shipped to the laboratory where preservation is done within 24 hours of sample collection. For all other analyses, each grab sample obtained with the HDPE scoop will be placed into a disposable aluminum pie pan, homogenized, and then apportioned into the appropriate sample jars.

Potential Backfill – The staged soils considered as potential backfill will be field screened for total organic vapors and TPH at a frequency of one sample per 100 cubic yards. If the jar field headspace screening shows that total organic vapor concentrations are below 20 ppmv, and the PetroFLAG™ field screening indicates that TPH concentrations are below 500 ppm,** the soil will be sampled for TPH, VOC, SVOC, and/or total lead laboratory analysis (depending on chamber location) at a frequency of one sample per 500 cubic yards, or a minimum of one sample per chamber location. If the analytical results are below the applicable RDEC, the soil will be used as backfill. If the TPH field screening or laboratory

** Screening criterion may be altered based on comparison of field and laboratory results as the project proceeds.

analyses indicate that the soil is not suitable as backfill, it will be analyzed for asphalt batch recycling parameters as indicated in Table 5-1 and in accordance with the procedure detailed above.

5.2.4.2 Groundwater

Water generated during excavation and dewatering activities will be collected and stored on-site for eventual off-site disposal or on-site treatment. If the water is to be treated on-site, samples from the influent, effluent, and mid-carbon units will be collected and analyzed in accordance with Section 5.2.3 of this Work Plan. If the water generated during excavation and dewatering activities is to be disposed of off-site, a grab sample will be collected from the sample port on each storage, or frac tank and placed into the appropriate labeled sample bottles. The sample will be analyzed for TPH and flashpoint, but these parameters may be modified based on the requirements of the disposal facility.

5.2.4.3 Decontamination Liquids

A grab sample of decontamination fluids will be collected from a single drum (or at a frequency required by the disposal facility). A drum thief will be slowly lowered into the drum and the contents will be placed into the appropriate labeled sample bottles. The drum thief will ensure that the sample is taken over the entire depth of the drum. The sample will be analyzed for parameters as indicated in Table 5-1.

5.2.4.4 Decontamination Solids

An attempt will be made to combine the decontamination solids with the excavated contaminated soils. If this is not possible, a composite sample representative of the contents of the drum will be taken using a disposable HDPE scoop. The sample will be analyzed for parameters as indicated in Table 5-1.

5.2.4.5 All Other Waste Streams

The concrete debris, PPE, disposable sampling equipment, and laboratory waste will not be sampled. The solvent from spent PetroFLAG™ kits will be combined with the drummed decontamination fluids; and, if possible, the soil tested will be combined with the excavated soil. The remaining laboratory waste (disposable plastic equipment and residual soil), disposable sampling equipment, and PPE will be combined for off-site disposal. Clean concrete rubble will be disposed of off-site at a facility permitted to accept construction debris. If the concrete is visibly stained, it will disposed of at a permitted solid waste landfill.

5.2.5 Sample Identification

The sample identification system that will be used for this project will assign a unique sample identifier to each sample collected. Data management will be consistent with this sample identification system. The protocols for assigning field sample numbers are described below. Each sample collected will have its own identifier, which will apply for the duration of the project. The sample identifier will consist of an alphanumeric code that will identify the site designation, sample type, sampling round, sample number, and QC sample designation (if applicable). The QC sample identifier will also consist of an alphanumeric code that will identify the QC sample designation, sampling date, and sample number (if applicable). Note: All sample identifiers and their corresponding locations will be carefully logged in the field notebook and may be identified on figures or drawings.

Site designation:	NS	Naval Station Newport
Chamber designation:	AV1	Chamber AV-1
Sample types:	SS	Confirmatory Soil Sample (floor)
	SW	Confirmatory Soil Sample (sidewall)
	CS	Contaminated Soil Sample
	PB	Potential Backfill Sample
	DW	Decontamination Liquids/Water Sample
	DS	Decontamination Solids Sample
	GW	Groundwater (off-site disposal)
	IN	Water Treatment Influent Sample
	EF	Water Treatment Effluent Sample
	MID	Water Treatment Mid-carbon Unit Sample
Sampling round:	A	1st Round
	B	2nd Round
	C	3rd Round
QC sample designations:	TB	Trip Blank
	EB	Equipment Blank
	RD	Referee Duplicate
	MS/MSD	Matrix Spike/Matrix Spike Duplicate

Examples: **Soil Sample from Excavation Floor**

Identifier: NS-AV1-SS2-A

where: NS = Naval Station Newport
AV1 = Chamber AV-1
SS = Soil Sample (floor)
2 = Sample Number
A = 1st Round

Field Duplicate of Soil Sample: NS-AV1-SS200-A (100 x original sample number)

Trip Blank Collected on April 3, 2004: NS-TB-040304

MS/MSD: indicate on chain of custody form under remarks

5.2.6 Sample Labeling

Sample labels will be completed by field personnel in indelible ink. Labels will include the project identification, sample identification, date and time of collection, sampler's initials, sample matrix, type of sample (grab or composite), analyses to be performed, and preservative used (if applicable).

5.2.7 Sample Chain of Custody

To maintain and document sample possession, chain-of-custody procedures will be implemented. These procedures are necessary to insure the integrity of samples from the time of collection through data reporting. The chain-of-custody protocol provides the ability to trace possession and handling of samples. A sample is considered under custody if it is/was:

- In a person's possession.
- In a person's view after being in possession.
- In a person's possession and locked up.
- In a designated secure area.

Personnel collecting samples are responsible for the care and integrity of those samples until they are properly transferred or dispatched. Therefore, the number of people handling a sample will be kept to a minimum.

Chain-of-custody records will be completed by the sampler and will accompany the samples at all times. The following information will be indicated on the chain-of-custody record:

- Project identification.
- Signature of samplers.
- Sample identification, sample matrix, date and time of collection, grab or composite sample designation, number of containers corresponding to that sample identification, analyses required, remarks or sample location (if applicable), and preservation method(s).
- Signature of the individual relinquishing the samples.
- Name of the individual(s) receiving the samples and air bill number, if applicable.

The chain-of-custody preparer will then check the sample label and chain-of-custody record for accuracy and completeness.

5.3 Equipment Decontamination Procedures

For the sampling and analysis program, both disposable and non-disposable sampling equipment may be used. Non-disposable sampling equipment will be decontaminated prior to collecting each sample. The following sequence will be used:

- Remove all visible contaminants using laboratory detergent and potable water.
- Rinse with potable water.
- Rinse with deionized water.
- Rinse with methanol for organic sampling equipment. For inorganic sampling equipment, rinse with 10% nitric acid in water, followed by deionized water.

Decontamination fluids will be collected and stored on-site for eventual waste characterization and disposal.

6.0 QUALITY CONTROL

TtFW RAC Program Organization is specifically designed to control work performed by the TtFW team in accordance with the contract requirements. TtFW will manage this contract though the dedicated PMO located in Langhorne, Pennsylvania.

The RAC program is organized into four (4) elements under the Program Management Team:

- Contract Administration.
- QC.
- Health and Safety.
- Project Manager.

The PMO also provides support groups, which provide additional assistance to the Project Management Team on an as-needed basis.

The PMO support groups themselves are organized into five (5) elements:

- Procurement.
- Planning and Scheduling.
- Cost Estimating.
- Budgeting and Accounting.
- Technical and Regulatory Compliance.

Five (5) of the above elements (Contract Administration, Planning and Scheduling, Cost Estimating, Budgeting and Accounting, and Technical and Regulatory Compliance) are non-remediation related and are not addressed in this QC Plan. The major function of the QC Plan is to ensure that all organization elements perform the assigned actions in compliance with the contract.

The QC Plan provides for monitoring, auditing, and conducting field inspections to ensure compliance is being maintained. Maintenance on the project records and required reports and logs is also addressed. A program to ensure all submittals are correct and complete before forwarding to the Contracting Officer's Representative is included in this QC Plan.

6.1 Quality Control Group

The QC Group assigned to the Program is technically responsible to the TtFW Corporate Quality Assurance Officer. The Group is headed by the PQCM who receives administrative direction from the Program Manager for the purpose of coordinating QC activities with the CTO operations, testing sequences and schedule, and achieving timely resolution of quality issues.

The QC Group consists of the PQCM and the SQCM.

6.1.1 PQCM

The PQCM is responsible for:

- Approving the QC Plan for the project.
- Assuring that all relevant portions of the QC Plan are implemented during the project through audits and surveillance of the project activities.
- Issuing report to the CTO Manager on any deviation from the approved plans.
- Reviewing, modifying, or correcting all contract submittals prior to forwarding to the Contracting Officer's Representative.
- Authorizing the SQCM to act on his behalf for all site-related QC activities.

The PQCM, as stated in Section 4.0 of this Work Plan, is Mr. Tom Kelly.

6.1.2 SQCM

The SQCM will implement the TtFW QC Program and will have the sole responsibility of ensuring compliance with contract documents. The SQCM will have the authority to reject material or workmanship that does not comply. The SQCM, or a designated representative acceptable to the Navy, will be present at the project Site whenever removal actions are in progress. The major responsibilities of the SQCM as outlined in Section C, Part 6.0 of the Basic Contract include:

- Managing and implementing an effective QC Program.
- Notifying the Contracting Officer's Representative, the USEPA, and RIDEM at least one (1) week in advance of any field activities and at least 24 hours in advance of any cancellations in work.
- Conducting QC meetings at the Site with the Project Superintendent on a bi-weekly basis.
- Providing documentation of daily field activities in the Contractor Production Report and the Contractor QC Report.
- Identifying, controlling, and assuring resolution of deficiencies, including corrective action implementation.
- Maintaining project records as required by the Basic Contract.

The SHSO, as stated in Section 4.0 of this Work Plan, will also serve as the SQCM.

6.2 Submittals Processing

6.2.1 General

TtFW will use and maintain the Submittal Register to track submittals from issue to approval, and to comply with the Navy requirement for submittals under Section C, Part 7.0 of the Basic Contract. TtFW will forward submittals requiring Navy approval and will submit these items as listed on the Submittal Register.

Each submittal will be complete and in sufficient detail for ready determination with the contract requirements. All items will be checked and approved by the PQCM and will be transmitted via an

appropriate transmittal form which will be initiated and dated by the PQCM indicating that the accompanying submittal conforms or does not conform to contract requirements.

6.2.2 Receipt of Submittals

Submittals will be electronically submitted to:

- Department of the Navy – EFANE
  - Ms. Christi Davis
  - Mr. Brian Helland
  - Mr. Bob Krivinskas
- Naval Station Newport
  - Ms. Cornelia Mueller
  - Mr. Arthur Sylvester
- RIDEM (by Mr. Sylvester)
  - Mr. Paul Kulpa

Each submittal will be identified with:

- Contract Number and CTO Number.
- Unique sequential transmittal number.
- Name and address of the submitting organization.
- Date of submittal.
- Description of item being submitted.
- Approval of submitting organization indicating conformance to requirements.

The PQCM will enter each submittal into the Submittal Register, determine if approval is required by the Contracting Officer's Representative, and proceed with review of submitted material.

6.2.3 Review and Processing of Submittals Which Do Not Require Navy Approval

Material submitted for review by the PQCM or designated representative will indicate that it either conforms to established requirements or does not conform to established requirements. The PQCM will advise the submitter of the results of the review. The submittal log will be updated to indicate status. Note that the conforming submittals will be transmitted to Project and Navy personnel as determined by the distribution schedule; non-conforming submittals will be returned to the submitter for correction, resolution of comments, and re-submittal.

6.2.4 Review and Processing of Submittals Which Require Navy Approval

Material submitted for review by the PQCM or designated representative will be signed to indicate that it conforms to requirements. The submittal will then be transmitted in accordance with the project distribution schedule for review and approval. All items sent to the Navy will be done so through a transmittal form, which will indicate each item transmitted, the date reviewed by the PQCM, and its review status. Upon completion of reviewing, the Contracting Officer's Representative will return the submittal to the PQCM for further action.

The PQCM will advise the submitter of the results of the review in writing and include any comments. The submittal log will be updated to indicate status. Note that non-conforming submittals will be returned to the submitter for correction, resolution of comments, and re-submittal if required.

6.2.5 Revised Submittals

Revised submittals will be logged, reviewed, and processed in a manner identical with the initial submittal and will comply with the Navy requirements under Section C, Part 7.0 of the Basic Contract.

6.3 Quality Control Site Activities

6.3.1 Introduction

This section addresses all aspects of QC site activities, including:

- QC inspection activities.
- Identification of work features to be inspected.
- Control of subcontractors and vendors.

6.3.2 Three Phases of Control

The SQCM will perform the three phases of control to ensure that work complies with the Work Plan, SHSP, and all applicable federal, state, and local rules and regulations. The Three Phases of Control, as defined below, will adequately cover both on-site and off-site activities for each definable feature of work. A definable feature of work is a task that is separate and distinct from other tasks and requires separate control requirements.

6.3.2.1 Preparatory Phase

The SQCM will notify the Contracting Officer's Representative at least two (2) workdays in advance of each preparatory phase inspection to allow for his participation in the inspection, if desired. Preparatory phase inspections will be documented on the Preparatory Phase Inspection Checklist and in the Contractor's QC Report. The SQCM will perform the following prior to the commencement of each definable feature of work:

- Review each paragraph of the applicable Work Plan sections.
- Verify that appropriate shop drawings and submittals for materials and equipment have been submitted and approved. Verify receipt of approved factory test results, when required.
- Review the testing plan and ensure that provisions have been made to provide the required QC testing.
- Examine the work area to ensure that the required preliminary work has been completed.
- Examine the required materials, equipment, and sample work to ensure that they are on hand and conform to the approved shop drawings and submitted data.
- Review the SHSP and appropriate activity hazard analyses (AHAs) to ensure that applicable safety requirements are met, and that required Material Safety Data Sheets (MSDSs) are submitted.
- Discuss removal action methods.

6.3.2.2 Initial Phase

The SQCM will notify the Contracting Officer's Representative at least two (2) work days in advance of each initial phase inspection. When crews are ready to start work on a definable feature of work, the initial phase will be conducted with the SQCM and the Project Superintendent. The initial segment of the definable feature of work will be observed to ensure that the work complies with contract requirements. The results of the initial phase will be documented on the Initial Inspection Checklist and in the Daily QC Report. The initial phase will be repeated for each new crew to work on-site, or when acceptable levels of specified quality are not being met. The SQCM will perform the following for each definable feature of work:

- Establish the quality of workmanship required.
- Resolve conflicts.
- Review the SHSP and the appropriate AHAs to ensure that applicable safety requirements are met.
- Ensure that required testing is completed by an approved laboratory.

6.3.2.3 Follow-up Phase

Follow-up phase inspections are similar in content and approach to initial phase inspections, and will be performed daily during on-going work, or more frequently as necessary, until the completion of each definable feature of work. The follow-up phase inspection will be documented in the Daily QC Report. The SQCM will perform the following for each definable feature of work:

- Ensure the work is in compliance with contract requirements.
- Maintain the quality of workmanship required.
- Ensure that testing is performed by the approved laboratory.
- Ensure that rework items are being corrected.

6.3.3 Work Features Requiring Inspection or Testing

Prior to implementation of individual phases of work activities, the SQCM and Project Superintendent will meet to identify specific work requirements, including submittal information, scheduling, and QC requirements. This joint review allows close coordination of work and maximizes efficiency of operations. Project roles, potential problems, and procedures for resolving issues will be established up-front at these discussions to allow for clarification of direction and immediate response to any problem that may arise. As a result of this approach, QC activities will be maintained as an integral component of the overall project approach.

6.3.4 Completion Inspection

At the completion of all work or any increment thereof, the ROICC will conduct a completion inspection of the work.

6.3.5 Control of Subcontractors and Vendors

Construction subcontractor's qualification to perform the required work will be evaluated by the SQCM. All subcontractor activities will be subject to QC inspection in accordance with Section C, Part 6.0 of the Basic Contract.

6.4 Documentation

6.4.1 General

All inspection and testing activities performed will be documented by the SQCM.

6.4.2 Daily Quality Control Report

The SQCM or their designee will record their inspection activities in the Daily QC Report. The Daily QC Report will be submitted to the Contracting Officer's Representative daily. Reports for weekends and holidays will be included on the first working day's report following those periods.

6.4.3 Photographic Documentation

If permission is obtained from the Public Affairs Office photographs of the removal activities will be taken for use in the project Closeout Report.

6.5 Meetings

6.5.1 Pre-Construction Meeting

Prior to mobilization, the Project Superintendent will conduct a pre-construction meeting in the ROICC office. The ROICC will approve the date and time for the pre-construction meeting.

6.5.2 Daily Safety Meeting

Prior to starting work, a daily safety meeting will be conducted by the TtFW Project Superintendent or SHSO. All of the day's planned activities will be reviewed with particular attention focused on PPE and risk. All personnel are required to attend the meeting.

7.0 ENVIRONMENTAL PROTECTION AND REGULATORY COMPLIANCE

The purpose of this section is to identify the applicable environmental regulatory requirements relevant to the performance of this removal action, and to establish the appropriate project controls to meet these requirements. This section also identifies TtFW's environmental compliance procedures and training requirements for this project. The CTO Manger will be responsible for verifying that all project personnel are aware of the requirements outlined herein.

7.1 Environmental Regulatory Compliance

7.1.1 Cleanup Goal

As set forth under the August 1996 amended *Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases* (DEM-DSR-01-93):

- The Site cleanup goal for soils contaminated with TPH will be the RIDEM RDEC of 500 ppm.
- The Site cleanup goal for soils contaminated with VOCs and/or SVOCs will be the RIDEM RDEC included in Appendix B.
- The Site cleanup goal for soils contaminated with lead will be the RIDEM RDEC of 150 ppm.

7.1.2 Coastal Zone Consistency Determination

The NAVSTA Newport Environmental Department will complete a site specific Coastal Zone Consistency Determination for the project. Concurrence with the determination from the CRMC will be required prior to commencement of shoreline activities. During project implementation, TtFW will comply with the applicable policies of the Coastal Resources Management Program.

7.1.3 Hazardous Waste

It is anticipated that no Resource Conservation and Recovery Act (RCRA) hazardous wastes (40 CFR 261) will be generated during this removal action. If, however, any waste streams are characterized as hazardous wastes based on analytical sample results, the regulatory requirements outline in Section 8.0 of this Work Plan will be met.

7.1.4 Transportation

Regulatory requirements pertaining to waste transportation are addressed in Section 8.0 of this Work Plan.

7.1.5 Water Discharge

Dewatering during excavation activities will be conducted as necessary when removing contaminated soil at or below the groundwater table. Water generated will be collected in frac tanks and may be treated using a mobile water treatment system and discharged on-site under an Order of Approval.

7.2 Release Reporting

An Emergency Response Plan is included in the SHSP. The information contained therein details how TtFW will address spill control, prevention, and emergency response activities on-site. Any release of petroleum, hazardous substances, or hazardous waste to land, surface water, groundwater, or air is defined

as a reportable release by RIDEM. These releases must be immediately reported by the Project Superintendent or SHSO to the CTO Manager and then to the PESM or the project Regulatory Specialist. The PESM or Regulatory Specialist will determine the reporting requirements and the CTO Manager will notify the Navy of the release. The Navy has primary responsibility for release reporting, although they may delegate this authority to TtFW. The CTO Manager, PESM, or Regulatory Specialist (not field personnel) will perform agency notification (if so directed by the Navy). Prior to mobilization, TtFW will discuss notification requirements with the Navy, and attempt to establish the reporting responsibilities for each party. Note that releases which occur onto an impervious surface, or those which are contained, and are immediately cleaned up are not defined as reportable releases by RIDEM, but must still be reported internally.

If so directed by the Navy, TtFW will perform agency notification in the event of a release of petroleum, hazardous substances, or hazardous waste to land, surface water, groundwater, or air by notifying the following:

RIDEM - Division of Site Remediation
(401) 222-1360
(8:30 AM to 4:30 PM)

RIDEM - Emergency Response Section
(401) 222-3070
(24 hours)

RIDEM - Chemical Spills
(401) 222-3070
(8:30 AM to 4:30 PM)

Local Emergency Planning Committee - District 7
Ned McCarthy
Newport Fire Department
21 West Marlborough Street
Newport, RI 02840
(401) 847-2695

A written notification must be submitted to RIDEM within 48 hours of discovery of an Imminent Hazard or within 15 days after discovery of any other release.

7.3 Training and Certification Requirements for Project Personnel

As indicated in the SHSP, and pursuant to 29 CFR 1910.120, Site personnel performing any activities in an EZ must have received a minimum of 40 hours of initial health and safety training for hazardous waste site operations. In addition to the required initial training, each employee must have received three (3) days of directly supervised on-the-job training appropriate for the activities they will be required to perform. Annual 8-hour refresher training will be required of all hazardous waste site personnel in order to maintain their qualifications for fieldwork. The Project Superintendent or SHSO will also have received 24 hours of on-the-job supervised training, 8-hour supervisor training, and First Aid/Cardiopulmonary Resuscitation (CPR) with blood borne pathogens training.

Pursuant to 40 CFR 172 Subpart H, TtFW Site personnel involved in shipping any hazardous materials regulated by the USDOT will be trained per USDOT regulations. Site personnel responsible for RCRA hazardous waste management activities will receive annual training in accordance with 40 CFR 265.16.

Training is also required for those employees who perform hazardous materials transportation functions, including preparation of shipping papers/manifests and selection, filling, labeling, or marking of containers.

7.4 Inspection and Audit Procedures

7.4.1 Inspections by Regulatory Agencies

Site personnel will notify the Project Superintendent if contacted by a regulatory agency for a site inspection. The Project Superintendent will contact the CTO Manager who will notify the Navy and the TtFW Director of Environmental Health and Safety. In case of an unannounced inspection, the Navy and the TtFW Director of Environmental Health and Safety will be contacted immediately.

7.4.2 Inspections by Third Parties

Any outside party requesting access to the Site will be referred to the Project Superintendent who will initiate the appropriate notification of the CTO Manager and the Navy. TtFW field personnel will not grant site access or answer questions for unauthorized personnel.

8.0 WASTE MANAGEMENT

8.1 Objective

The objective of this section is to facilitate the proper handling, on-site management, transportation, and disposal of hazardous and non-hazardous wastes generated during this removal action. This objective will be achieved through compliance with federal, state, and local regulations. This section identifies the waste streams and waste management responsibilities of TtFW, the Navy, transporters, and disposal facilities. This section also describes the waste management practices that will be implemented for containing, classifying, segregating, staging, storing, marking, labeling, transporting, and disposing of the generated wastes.

8.2 Navy Assistance

The Navy Technical Representative (NTR) or their designee will review all submittals designated for Navy approval. These submittals will include waste analysis and classifications, waste profile/approval forms, Land Disposal Restriction certifications, manifests/shipping papers, and manifest discrepancy and exception reports. After the submittals have been approved by the NTR or their designee, no re-submittals will be given consideration unless accompanied by a written justification as to why a change is necessary. TtFW will rely on the Navy to provide approval of final waste characterizations and sign as the generator of all waste streams leaving the Site. Both the Navy and TtFW will approve all treatment/disposal facilities and transporters.

8.3 Waste Streams

The waste streams to be generated will include the following:

- Excavated soil.
- Concrete debris.
- Groundwater.
- Decontamination liquids.
- Decontamination solids.

The wastes will sampled and analyzed for the parameters indicated in Table 5-1. It is anticipated that all wastes will be characterized as non-hazardous.

8.4 Sample Shipment

Off-site laboratory services will be utilized for this project. If samples are shipped by overnight service which uses air transportation (e.g., Federal Express), site personnel will coordinate with the project Regulatory Specialist to determine if the samples must be packaged according to the International Air Transportation Association (IATA) Dangerous Goods Regulations. If samples are being shipped over the road by common carrier, a courier service used by the laboratory, or site personnel in a company or personal vehicle, the project Regulatory Specialist will be consulted to determine if the samples must be packaged according to USDOT hazardous materials regulations.

8.5 On-Site Waste Management

8.5.1 Containerization

All waste streams will be evaluated prior to generation to determine the most cost-effective method of handling and storage. Containerized wastes will be stored in USDOT specification containers conforming to 49 CFR 178 performance-oriented packaging requirements. Bulk and non-bulk containers will be considered based on the estimated volumes of waste to be generated. It is anticipated that excavated soil destined for off-site disposal may be temporarily stored and transported off-site in bulk containers ("roll-offs"); concrete debris will be temporarily stockpiled and transported off-site in dump trucks or roll-off containers; groundwater will be temporarily stored in bulk containers (frac tanks) prior to treatment or disposal off-site; decontamination water will be temporarily stored and transported off-site in non-bulk containers (1A1 or 1A2 drums); and decontamination solids may be temporarily stored in drums and then transferred to roll-off containers or dump trucks with excavated soil prior to transportation off-site. PPE, which is typically characterized as non-regulated material, may be bagged for off-site disposal as a non-hazardous solid waste. The solvent from spent PetroFLAG™ kits will be combined with the drummed decontamination fluids; and, if possible, the soil tested will be combined with the excavated soil in the roll-off containers. The remaining laboratory waste and disposable sampling equipment will be bagged and disposed of with the PPE.

8.5.2 Container Marking and Labeling

At the time of generation, all waste containers will be marked in indelible ink, paint, or grease pencil with the following information:

- Source and location.
- Contents of material in the container (type of material and expected hazards).
- Accumulation start date (the date the first drop of material was put in the container).
- Unique drum identifier.
- Date container was sampled.
- Special handling instructions.

Upon receipt of analytical results, containers will be immediately labeled with commercially available labels (either hazardous or non-hazardous waste labels will be used). Based upon final waste classification, the project Regulatory Specialist will select a USDOT shipping name for any USDOT hazardous material. The project Regulatory Specialist will direct application of any required USDOT markings and labels specific to the proper shipping name. Completion of the USEPA Hazardous Waste Label meets the USDOT requirements for consignor/consignee, name, address, and contents.

8.5.3 Accumulation/Storage

All containers will be staged at the designated central waste accumulation/storage area(s) on-site. Hazardous waste will be stored on-site for less than 90 days from the point of generation unless a generator storage limit extension is obtained from RIDEM. The Project Superintendent or SHSO will serve as the emergency coordinator of the waste accumulation/storage area(s) and will be responsible for coordinating any emergency response activities related to waste storage area spills/releases. The following information will be posted at the accumulation area(s) at all times:

- Name/phone number of emergency coordinator.
- Location of fire extinguisher and spill control materials.
- Telephone number of the base fire department.
- Signage: “Authorized Personnel Only”.
- Signage: “Hazardous Waste”, if hazardous wastes are present.

8.5.4 Container Inspections

Project personnel will inspect waste accumulation/storage area(s) weekly while the fieldwork is in progress to ensure proper labeling and secure closure, and to assess the condition of each container, the number of containers, and the condition of the storage area. Any signs of deterioration, leaking, or dents will be noted and containers will be immediately overpacked, if necessary. Inspection results and corrective actions will be documented in writing, and the date and time of inspection and the inspector’s signature will be provided on each inspection log.

8.5.5 Waste Container Inventory Log

A waste container inventory log will be prepared and maintained in the project file. The log will include the following information for each waste container:

- Unique drum ID number, as applicable.
- Date waste generated.
- Waste name/location generated.
- Date sampled.
- Waste classification.
- Date shipped or disposed of off-site.
- Disposal location.
- Manifest or Bill of Lading number.

8.6 Transportation and Disposal Plan

8.6.1 Treatment, Storage, and Disposal Facility (TSDF) Selection

The proposed TSDF must be approved under TtFW subcontracting policies and procedures which require that the facility:

- Is in physical compliance with RCRA or other applicable federal and state laws.
- Is not releasing any hazardous wastes, hazardous constituents, or hazardous substances.
- Meets minimum technology requirements.
- Has a corrective action program in place to address all releases, including environmentally significant releases at non-receiving units.

The TSDF must demonstrate a properly designed system, and must presently operate (and historically have operated) in a manner that controls the types of materials accepted for disposal. Landfill operators will return invoices verifying that the waste was received and properly disposed.

8.6.2 Waste Transporter Selection

To ensure safe transport of the waste, only transporters who have demonstrated competence and the required license and/or permits, as well as liability insurance coverage, for transporting waste will be used. If not already approved, the project Regulatory Specialist will perform a regulatory compliance review on all waste transporters to be used. TtFW policies and procedures for subcontracting will be followed. Transporter USEPA/State identification numbers will be kept in project and compliance files.

8.6.3 Land Disposal Restrictions

Land Disposal Restrictions (LDRs) prohibit placement of hazardous wastes on or in the land, except in an USEPA approved disposal or management unit. LDRs specify treatment technologies and treatment standards for RCRA hazardous wastes. All RCRA Characteristic wastes will be subject to the LDR treatment standards for any Underlying Hazardous Characteristic identified in the waste, in addition to the waste's primary hazardous characteristic. The project Regulatory Specialist will identify LDRs for site-generated RCRA wastes and will prepare Generator Land Disposal Restricted Waste Notification and Certification forms required for all off-site hazardous waste shipments. The Notification and Certification forms will be provided to the Navy for review and signature prior to off-site waste shipments.

8.6.4 USDOT Requirements

TtFW will comply with the following requirements for transporting any hazardous materials, including any hazardous sample shipments, for off-site disposal. Hazardous materials will be properly classed, described, packaged, marked, labeled, and in condition for shipment as required by 49 CFR 172.

Waste that does not exhibit one of the nine USDOT hazard class characteristics (i.e., explosive, flammable, poison, combustible, etc.) is not regulated under USDOT rules for the transportation of hazardous material. If waste is suspected to be hazardous, then it will be shipped under the suspected hazard class. If a particular hazard class is unable to be determined, then the soil or water may be shipped under either of the following:

Shipping Name	Hazard Class	ID Number	Packing Group	Label
Environmentally hazardous substances, liquid, n.o.s.	9	UN3082	III	CLASS 9
Environmentally hazardous substances, solid, n.o.s.	9	UN3077	III	CLASS 9

When using either one of these "n.o.s." (not otherwise specified) shipping names, at least two technical names must follow (i.e., "Environmentally hazardous substances, liquid, n.o.s. [Benzene and Acetone]").

The shipping name, identification number, packing group, instructions, cautions, weights, USEPA waste code numbers, and consignee/consignor designations will be marked on packages for shipment. Labeling provides information regarding the USDOT hazard class.

The label to be placed on the material will depend upon the results of sampling. Once the waste is characterized, reference will be made to the Hazardous Materials Table in 49 CFR 172.101 to determine the appropriate label. The package (or drum) will be marked and labeled as specified in 49 CFR 172.301.

The person offering hazardous material for shipment will provide placards (49 CFR 172.506). Any quantity of material listed in Table 1 of the regulations will be placarded. However, if there are less than 1,000 lbs. of a Table 2 material, no placard is required. No Class 9 placard is required for domestic shipments. If a placard is required, the label referenced above will be affixed on each side and each end of the vehicle(s).

Hazardous material shipping papers will have the following description of the hazardous material, in the following order:

- Proper shipping name.
- Hazard class or division.
- Identification number.
- Packaging group.
- Total quantity (must appear either before or after the above information).
- Technical and chemical group names may be entered in parentheses between the proper shipping name and hazard class or following the basic description (e.g., "Flammable liquids, n.o.s. [contains xylene and benzene], 3 UN1993, PG II").

Other required information includes:

- USEPA identification (manifests).
- Emergency Response Guidebook numbers.
- Twenty-four-hour emergency response number, supplied by the generator and answered by a knowledgeable person.
- Signatures.
- Shipper's certification.

All TtFW and subcontractor personnel involved in USDOT Hazardous Material Shipment activities will have been trained in accordance with personnel training requirements outlined in 49 CFR 172 Subpart H.

8.6.5 Complete Manifest Packages

Both hazardous and non-hazardous wastes may be generated during this project. The Rhode Island Uniform Hazardous Waste Manifest will be used unless the waste-receiving state has its own manifest requirements. Non-hazardous waste will be shipped on a Bill of Lading or non-hazardous waste manifest. The principal components of the completed manifest package that will be submitted to the Navy may include:

- Hazardous waste manifests, Bills of Lading, or other non-hazardous waste manifests.
- Waste profile sheets.
- LDR notification and certification forms.

Supporting information will contain:

- Waste disposal history.
- Analytical results.
- MSDSs.
- Information reviewed in identifying the proper waste code.
- USDOT waste packaging, labeling, marking, manifesting, and placard requirements.

8.6.6 Manifest Package Submittal

TtFW will submit to the Navy for review and signature a reproducible copy of the complete manifest package for each individual waste stream as soon as possible after waste classification and disposal facility approvals have been obtained. The Navy will be responsible for signing all hazardous waste manifests, LDR Waste Notification/Certification forms, and Bills of Lading for off-site waste shipments. The project Regulatory Specialist will hold the original complete manifest package and make corrections based on the Navy review prior to off-site shipment.

Within 24 hours of the transporter signature and off-site shipment, the project personnel will provide the Navy with two copies of the manifest and the remainder of the approved complete manifest package.

8.6.7 Record Keeping Requirements

Records must be kept for all hazardous waste activities. Records to be retained include all hazardous waste manifests, LDR Waste Notification/Certification forms, manifest exception reports, Bills of Lading/non-hazardous waste manifests for non-hazardous waste shipments, and records of any test results, waste analyses, and waste profile sheets for at least three years after the waste was disposed. TtFW will retain photocopies of all waste documentation in the project file and will forward original copies of all manifests, LDR forms, and Bills of Lading to the Navy.

8.6.8 Discrepancy Reports

Any discrepancies between the quantity and type of waste designated on the manifest or shipping papers and the quantity or type of waste a facility actually receives must be reported. TtFW will investigate these discrepancies, rectify the identified discrepancy, and report to the Navy within 15 days of receipt of the waste by the disposal facility.

8.6.9 Exceptions Reports

If, by the 35th day after the transporter signs the manifest, the Navy has not received a signed copy of the signed manifest from the TSDF, TtFW will contact the TSDF by phone to obtain a signed copy. If the Navy has not received a signed copy of the manifest by the 38th day, an exception report will be prepared. This exception report will be submitted to the Navy for review and approval no later than the 40th day. TtFW will document all calls to locate shipments and submit the documentation with the exception

report. The Navy will submit the signed exception report to the USEPA Regional Administrator prior to the 45th day.

8.7 Spill Prevention

Every effort will be made, through proper planning and management of the transportation process, to prevent the potential for a spill or release of hazardous substances. Contingency measures, however, will be in place in the case of such an occurrence. This includes providing personnel, equipment, and materials to control, contain, and cleanup any spilled material that may adversely affect the health of the public or the environment. Transporters responsible for taking waste materials to the designated disposal facilities will be required to provide and implement their own Emergency Response Plan which will be reviewed and approved by TtFW prior to the start of work. All vehicles will be inspected prior to leaving the area of contamination for leakage or materials adhering to the wheels or undercarriage.

The following equipment will be available at all times for quick response to unexpected spills:

- Sorbents and spill cleanup materials, including spill control pillows, absorbent booms, packs, and blankets.
- 55-gallon containers.
- Shovels, brooms, and similar hand tools.

Additional information relative to spill response can be found in the SHSP. A Spill Prevention Control and Countermeasure (SPCC) Plan, prepared according to 40 CFR Part 112, will not be required for this project.

APPENDIX A

Summary of Piping Chambers

Summary of Piping Chambers

Chamber ID	Chamber Type	Demolished by Foster Wheeler (nowTtFW)	Previously Demolished by Others	Not Demolished
C-18				X
E-1	Expansion	X		
E-2	Expansion	X		
E-3	Expansion	X		
A-3	Anchor	X		
E-4	Expansion	X		
A-4	Anchor	X		
E-5	Expansion	X		
A-5	Anchor	X		
E-6	Expansion		X	
AE-6			X	
A-6	Anchor		X	
E-7	Expansion	X		
A-7	Anchor	X		
E-8	Expansion	X		
A-8	Anchor	X		
E-9	Expansion	X		
A-9	Anchor	X		
E-10	Expansion	X		
A-10	Anchor	X		
E-11	Expansion		X	
A-11	Anchor	X		
E-12	Expansion	X		
A-12	Anchor	X		
E-13	Expansion	X		
A-13	Anchor	X		
E-14	Expansion	X		
A-14	Anchor	X		
E-15	Expansion	X		
A-15	Anchor	X		
E-16	Expansion	X		
E-22	Expansion	X		
A-16	Anchor	X		
E-17	Expansion	X		
A-17	Anchor	X		
E-18	Expansion	X		
A-18	Anchor	X		
E-19	Expansion	X		
A-19	Anchor	X		
CT-51	Tank	X		
CT-52	Tank	X		
CT-56	Tank	X		
CT-53/V-1	Tank/Valve	X		
V-2	Valve		X	
AV-1	Air Vent	X		
S-1	Pipe Pit	X		
V-3	Valve	X		
AV-2	Air Vent	X		
S-2	Pipe Pit	X		
AV-3	Air Vent	X		
TOTALS:		**44**	**5**	**1**

APPENDIX B

RIDEM Residential Direct Exposure Criteria for VOCs and SVOCs

Table 1
Direct Exposure Criteria

Substance	Residential (mg/kg)	Industrial / Commercial (mg/kg)
Volatile Organics		
Acetone	7,800	10,000
Benzene	2.5	200
Bromodichloromethane	10	92
Bromoform	81	720
Bromomethane	0.8	2900
Carbon tetrachloride	1.5	44
Chlorobenzene	210	10,000
Chloroform	1.2	940
Dibromochloromethane	7.6	68
1,2- Dibromo-3-chloropropane (DBCP)	0.5	4.1
1,1-Dichloroethane	920	10,000
1,2-Dichloroethane	0.9	63
1,1-Dichloroethene	0.2	9.5
cis-1,2-Dichloroethene	630	10,000
Trans-1,2-Dichloroethene	1,100	10,000
1,2-Dichloropropane	1.9	84
Ethylbenzene	71	10,000
Ethylene dibromide (EDB)	0.01	0.07
Isopropyl benzene	27	10,000
Methyl ethyl ketone	10,000	10,000
Methyl isobutyl ketone	1,200	10,000
Methyl tertiary-butyl ether (MTBE)	390	10,000
Methylene chloride	45	760
Styrene	13	190
1,1,1,2-Tetrachloroethane	2.2	220
1,1,2,2-Tetrachloroethane	1.3	29
Tetrachloroethene	12	110
Toluene	190	10,000
1,1,1-Trichloroethane	540	10,000
1,1,2-Trichloroethane	3.6	100
Trichloroethene	13	520
Vinyl chloride	0.02	3.0
Xylenes (Total)	110	10,000
Semivolatiles		
Acenaphthene	43	10,000
Acenaphthylene	23	10,000
Anthracene	35	10,000
Benzo(a)anthracene	0.9	7.8
Benzo(a)pyrene [a]	0.4	0.8

Substance	Residential (mg/kg)	Industrial / Commercial (mg/kg)
Benzo(b)fluoranthene	0.9	7.8
Benzo(g,h,i)perylene	0.8	10,000
Benzo(k)fluoranthene	0.9	78
1,1-Biphenyl	0.8	10,000
Bis(2-ethylhexyl)phthalate	46	410
Bis(2-chloroethyl)ether	0.6	5.2
Bis(2-chloroisopropyl)ether	9.1	82
4-Chloroaniline (p-)	310	8200
2-Chlorophenol	50	10,000
Chrysene	0.4	780
Dibenzo(a,h)anthracene [a]	0.4	0.8
1,2-Dichlorobenzene (o-DCB)	510	10,000
1,3-Dichlorobenzene (m-DCB)	430	10,000
1,4-Dichlorobenzene (p-DCB)	27	240
3,3-Dichlorobenzidine	1.4	13
2,4-Dichlorophenol	30	6,100
Diethyl phthalate	340	10,000
2,4-Dimethyl phenol	1,400	10,000
Dimethyl phthalate	1,900	10,000
2,4-Dinitrophenol	160	4,100
2,4-Dinitrotoluene	0.9	8.4
Fluoranthene	20	10,000
Fluorene	28	10,000
Hexachlorobenzene	0.4	3.6
Hexachlorobutadiene	8.2	73
Hexachloroethane	46	410
Indeno(1,2,3-cd)pyrene	0.9	7.8
2-Methyl naphthalene	123	10,000
Naphthalene	54	10,000
Pentachlorophenol	5.3	48
Phenanthrene	40	10,000
Phenol	6,000	10,000
Pyrene	13	10,000
1,2,4-Trichlorobenzene	96	10,000
2,4,5-Trichlorophenol	330	10,000
2,4,6-Trichlorophenol	58	520
Pesticides/PCBs		
Chlordane	0.5	4.4
Dieldrin	0.04	0.4
Polychlorinated biphenyls (PCBs) [b]	10	10

Substance	Residential (mg/kg)	Industrial / Commercial (mg/kg)
Inorganics		
Antimony	10	820
Arsenic [c]	7.0	7.0
Barium	5,500	10,000
Beryllium [c]	0.4	1.3
Cadmium	39	1,000
Chromium III (Trivalent)	1,400	10,000
Chromium VI (Hexavalent)	390	10,000
Copper	3,100	10,000
Cyanide	200	10,000
Lead [d]	150	500
Manganese	390	10,000
Mercury	23	610
Nickel	1,000	10,000
Selenium	390	10,000
Silver	200	10,000
Thallium	5.5	140
Vanadium	550	10,000
Zinc	6,000	10,000

[a] Estimated quantitation limits

[b] Direct exposure criteria for PCBs consistent with the Toxic Substance Control Act (TSCA)

[c] Background Levels of Priority Pollutant Metals In Rhode Island Soils, T. O'Connor, RIDEM . For arsenic, see Section 12.0

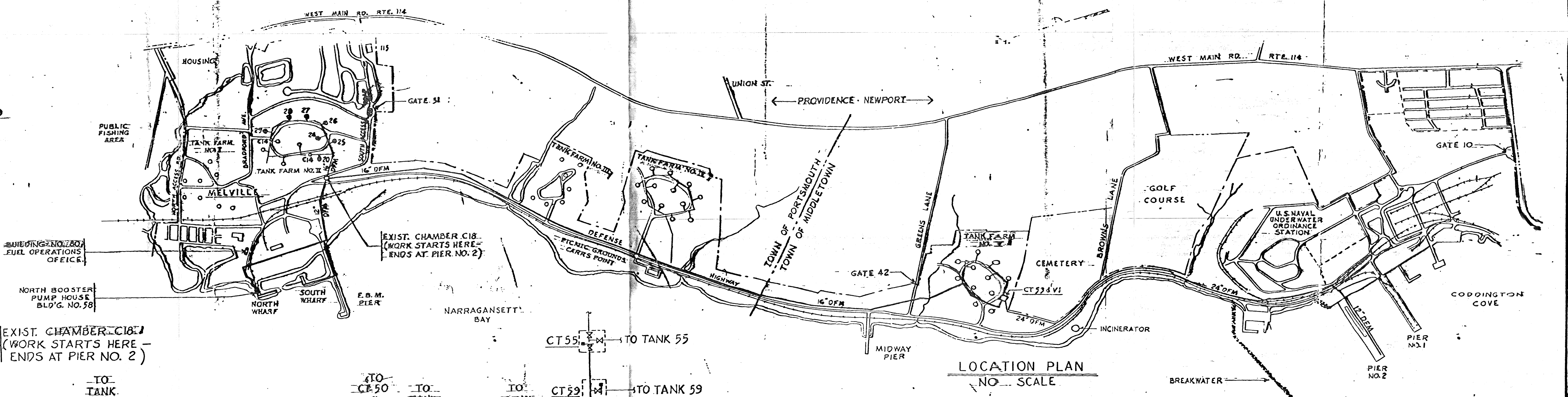
[d] Direct exposure criteria for Lead consistent with the Rhode Island Department of Health Rules and Regulations for Lead Poisoning Prevention [R23-24.6-PB], as amended

APPENDIX C

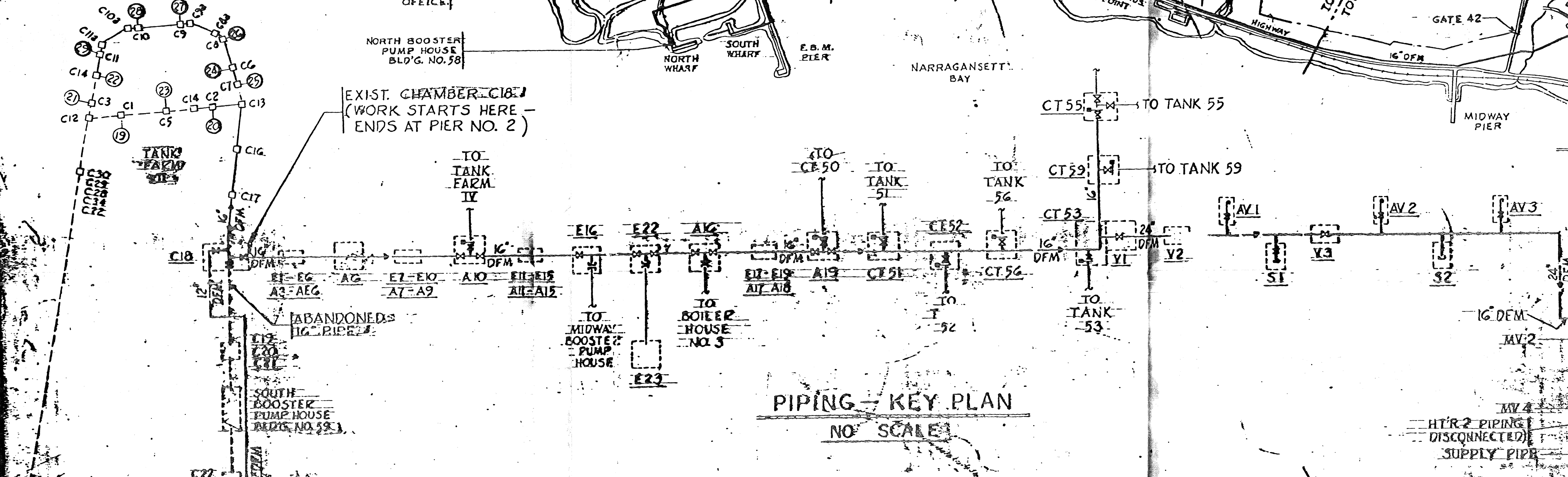
Figures/Drawings

LTR	DESCRIPTION	PREP'D BY	DATE	APPROVED
	AS BUILT	D.B.	2-12-81	D.B.

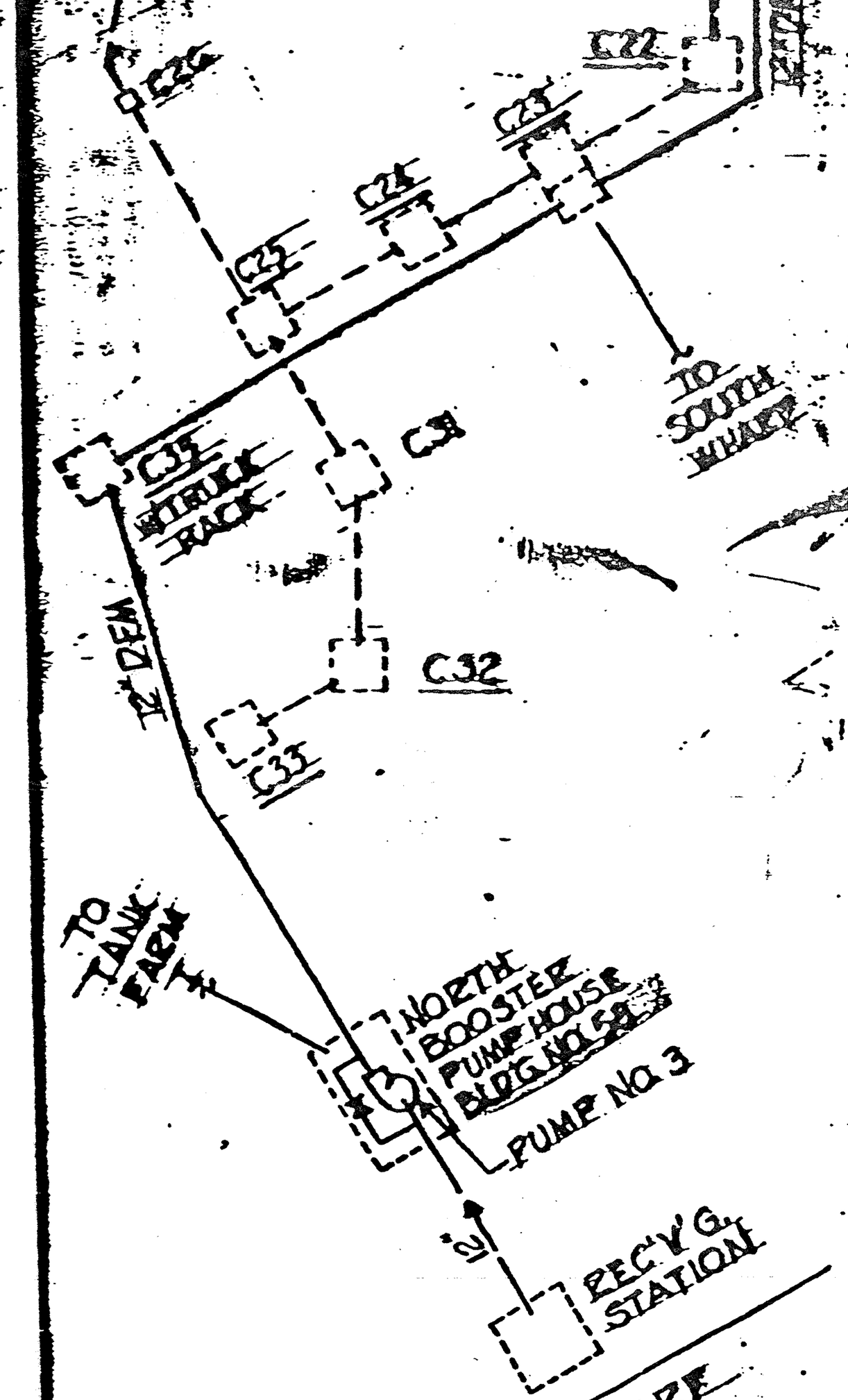
TYPICAL FOR TANKS 20, 24, 25, 26, 27, 28, AND 29
TANKS ARE UNDERGROUND PRESTRESSED CONC.
TANK CAPACITY = 60,000 BARRELS.
DISPENSING PUMPS-
DE LAVAL ROTARY SCREW TYPE.
ELECTRIC MOTOR DRIVEN.
1867 G.P.M.
@ 30' LIFT.
DISCHARGE 126 P.S.I.

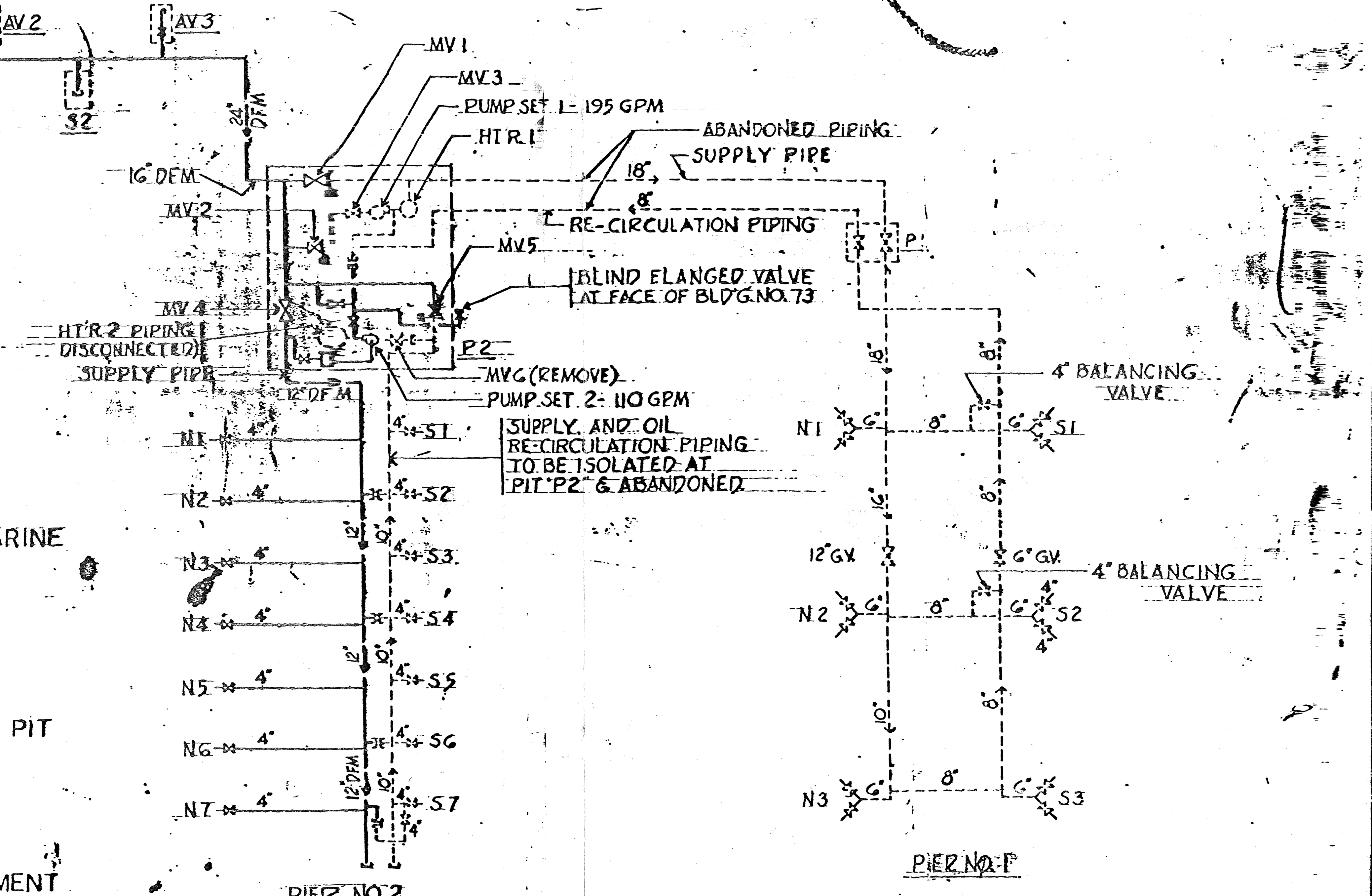


LOCATION PLAN
NO SCALE



PIPING - KEY PLAN
NO SCALE





LIST OF DRAWINGS

NAVFAC DWG. NO.		
2041715	M-1	LOCATION PLAN AND FUEL OIL PIPING KEY PLAN
2041716	M-2	PLAN-FUEL PIPELINE-CHAMBER C18 TO MATCHLINE "3"
2041717	M-3	PLAN-FUEL PIPELINE-MATCHLINES "3" TO "5"
2041718	M-4	PLAN-FUEL PIPELINE-MATCHLINES "5" TO "7"
2041719	M-5	PLAN-FUEL PIPELINE-MATCHLINES "7" TO "10"
2041720	M-6	PLAN-FUEL PIPELINE-MATCHLINE "10" TO FACE OF BULKHEAD AT PIER NO. 2
2041721	M-7	PLAN-FUEL PIPELINE-FACE OF BULKHEAD AT PIER NO. 2 TO BENT 27
2041722	M-8	PLAN-FUEL PIPELINE-BENTS 27 TO 53
2041723	M-9	PLAN-FUEL PIPELINE-BENTS 53 TO 79
2041724	M-10	PLAN-FUEL PIPELINE-BENTS 79 TO 105
2041725	M-11	PLAN-FUEL PIPELINE-BENTS 105 TO 131
2041726	M-12	PLAN-FUEL PIPELINE-BENTS 131 TO 153
2041727	M-13	PLAN & DETAILS-BLD'G 73 & PIT P2

SYMBOL LIST

SYMBOL	DESCRIPTION
16" DFM	DIESEL FUEL-MARINE
	VALVE
	CHECK VALVE
	REDUCER
	EXPANSION JOINT
B.F.	BLIND FLANGE
EG	EXPANSION JOINT PIT
AG	ANCHOR PIT
V1	VALVE PIT
AV1	AIR VENT PIT
S1	PIPE PIT
	CONCRETE MONUMENT
	BLINDING DISC (FRYING PAN)
	EXISTING PIPING

GENERAL NOTES

1. DATUM PLANE FOR ELEVATIONS NOTED ON DRAWINGS: MEAN LOW WATER = 0.00
2. EXISTING PIPE LINES FROM CHAMBER C18 TO CT53 WERE LAST USED FOR NO. 2 HEATING OIL IN 1975.

2. (CONT.) EXISTING PIPE LINE FROM CHAMBER CT53 TO PIER NO. 2 WAS LAST USED FOR DARK DISTILLATE FUEL. BOTH SECTIONS OF PIPELINE WERE EVACUATED OF FUEL BY APPLICATION OF COMPRESSED AIR & REMOVAL OF FUEL INTO TRUCK OR BARGE. THESE LINES SHOULD CONTAIN ONLY A SMALL AMOUNT OF RESIDUAL FUEL.

CHECK GRAPHIC SCALES BEFORE USING

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PROVIDENCE, R.I.
CONSULTING ENGINEERS

DANIEL McLELLAN

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
NORTHERN DIVISION
NAVAL BASE PHILADELPHIA, PA.
NAVAL EDUCATION AND TRAINING CENTER - NEWPORT, R.I.
REPAIR OF FUEL OIL SYSTEM - NORTH SIDE OF PIER 2
LOCATION PLAN AND FUEL OIL PIPING KEY PLAN

2041715

NSTC DWG. NO. 2221-54232


REVISIONS
LTR
DESCRIPTION
PREP'D BY
DATE
APPROVED
AS BUILT
D.B.
D.B.
DIAMETER CHANGE
SEE DETAILS THIS SHEET
TREES ± 6" Ø & BRUSH
SEE NOTE 1.
16" DFM
12" DFM
C-18
C-19
C-20
E-1
E-2
E-3
E-4
E-5
A-3
A-4
U.S. BOUNDRY
DEFENSE HIGHWAY
EXIST 16" PIPE (ABANDONED)
PLAN
SCALE 1" = 100'-0"
STA. 626+72.37
STA. 630
STA. 620
STA. 613+56.5
TREES ± 2" Ø & GRASS
SEE NOTE 1.
TREES ± 4" Ø & BRUSH
SEE NOTE 1.
SURFACE RUN OFF
MATCHLINE "1"
MATCHLINE "2"
MATCHLINE "3"
TANK FARM 3
TANK FARM 4
RESERVOIR
GRASSED
SEE NOTE 2.
A-5
A-6
A-7
E-6
E-7
AE-6
PIPE TO ROAD
FLOW
DAM
NARRAGANSETT BAY
U.S. BOUNDARY
DEMOLISHED
TO STREAM
FROM E5
TO E6
DEFENSE HWY
CATCH BASIN
REMOVE EXIST. VALVE & PRESSURE GAUGE & PROVIDE NEW VALVE & NEW PRESSURE GAUGE.
REMOVE EXIST. 16"×16"×12" "Y" BRANCH FITTING w/ BLINDING DISC & PROVIDE NEW 16"×16"×12" "Y" BRANCH FITTING TO PERMIT "FLOW THRU".
TO & FROM TANK FARM II
TO CHAMBER E-1
EXIST. EXPANSION JOINT
EXIST. BLINDING DISC WELDED INSIDE FITTING
PROVIDE NEW CONNECTION TO MAIN, NEW VALVE & NEW PRESSURE GAUGE
12" DFM FROM N. BOOSTER PUMP HOUSE
EXIST. EXPANSION JOINT
REMOVE EXIST. 16" VALVE. PROVIDE NEW (2) 16" BLIND FLANGES w/ 6" PIPE STRUT (SPOOL PIECE).
CHAMBER C-18
SCALE 1/4" = 1'-0"
E-8
E-9
E-10
E-11
A-8
A-9
A-10
A-11
16" DFM
TREES ± 5" Ø & BRUSH
SEE NOTE 1.
TREES ± 4" Ø & BRUSH
SEE NOTE 1.
SEE DETAILS THIS SHEET
FOR CONT. SEE NAVFAC DWG. NO. 2041717.
TO TANK FARM IV
EXIST. 16" PIPE (ISOLATED & ABANDONED)
8" STEAM
3" COND.
PROVIDE NEW BLINDING DISC ("FRYING PAN")
EXIST. 16" VALVE. PROVIDE CHAIN WITH LOCK & LOCK IN CLOSED POSITION
16" DFM
FROM CHAMBER E-10
TO CHAMBER E-11
FL. EL. 18.79'
4" COND.
10" STEAM
8" STEAM
CHAMBER A-10
SCALE 1/4" = 1'-0"
SITE CLEARING NOTES:
1. REMOVE TREES, BRUSH, STUMPS (TO 6" BELOW GRADE) AND DEBRIS. WHERE STUMPS ARE REMOVED AND EXISTING GRADING PERMITS, FINISH GRADE THE SURFACE SUITABLE FOR GRASS MOWING. SEED AREA WITH GRASS.
2. REMOVE DEBRIS AND MOW GRASS. SPOT GRADE TO PROVIDE SURFACE SUITABLE FOR GRASS MOWING. SPOT SEED WITH GRASS.
3. CLEAR AREA AROUND PERIMETER OF PIT OPENINGS TO 7'-6" IN ALL DIRECTIONS.
ALL WORK SHOWN IS EXISTING UNLESS OTHERWISE INDICATED.
GRAPHIC SCALES:
1" = 100'
0 100 200 300 400 500
1/4" = 1'-0"
0 1 2 3 4 8 12 16 20
CHECK GRAPHIC SCALES BEFORE USING
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PROVIDENCE, R. I.
CONSULTING ENGINEERS
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
NORTHERN DIVISION
PHILADELPHIA, PA.
NAVAL EDUCATION AND TRAINING CENTER NEWPORT, R. I.
REPAIR OF FUEL OIL SYSTEM, — NORTH SIDE OF PIER 2
PLAN - FUEL PIPELINE
CHAMBER C18 TO MATCHLINE "3"
DANIEL McCLELLAN
REGISTERED

FW FIGURE 2

U.S. BOUNDRY
PORTSMOUTH
MIDDLETOWN
FOR CONT. SEE NAVFAC DWG NO. 2041716
MATCHLINE "3"
DEFENSE HIGHWAY
PLAN
SCALE 1" = 100'-0"
WIDTH OF CLEARING WORK (TYPICAL)
TREES ±5"ø & BRUSH SEE NOTE 1.
GRASSED SEE NOTE 2.
CHAMBER E-16
SCALE 1/4" = 1'-0"
FROM CHAMBER A-15
TO CHAMBER E-22
10" STEAM
4" COND.
2 1/2" COND.
EXIST. 16" B.F.
NEW 8"ø PIPE STRUT WELDED TO 16" B.F.S (SPOOL PIECE)
NEW 16" B.F.
CHAMBER CT-56
SCALE 1/4" = 1'-0"
PROVIDE NEW BLINDING DISC. ("FRYING PAN")
EXIST. 10" VALVE. PROVIDE CHAIN WITH LOCK & LOCK VALVE IN CLOSED POSITION.
REMOVE 10" VALVE & PUT 2-10" BLIND FLANGES ON LINES 1-1 1/2" VALVE FOR RELIEF ON ACTIVE SIDE OF LINE.
TO CHAMBER CT-53
FROM CHAMBER CT-52
CHAMBER CT-55
SCALE 1/4" = 1'-0"
NEW AIR VENT & RETURN BEND PROVIDE NEW CONN. TO 16" MAIN & 1" VALVE.
FROM CHAMBER CT-59
CHAMBER CT-59
SCALE 1/4" = 1'-0"
TO CHAMBER CT-55
REMOVE 10" VALVE & INSTALLED 2-10" BLIND FLANGES ON LINE 1-1 1/2" VALVE FOR RELIEF ON ACTIVE SIDE OF LINE.
16" DFM DEAD END IN CHAMBER CT-55. SEE DETAIL THIS SHEET.
TANK 55
TANK 51
TANK 59
TANK 56
TANK 52
TANK 53
REMOVE TREE ±20"ø LOCATED 10' WEST OF PIT V-1, SEE NOTE 1.
FOR DETAILS IN CHAMBER CT-53/V1 SEE NAVFAC DWG. NO. 2041718.
MATCHLINE "5"
FOR CONT. SEE NAVFAC DWG. NO. 2041718.
BRUSH ±3"ø & GRASSED SEE NOTE 1.
DIRT ROAD
GREENE
CHAMBER E'-22
SCALE 1/4" = 1'-0"
FROM CHAMBER E-16
NEW 2" DRAIN w/ BRASS CAP NATIONAL HOSE THREAD
NEW CONN. TO 16" MAIN
TO CHAMBER A-16
4" STRIPPER LINE
6" STEAM
EXIST. 16" VALVE. PROVIDE CHAIN WITH LOCK & LOCK VALVE IN CLOSED POSITION.
CHAMBER A-16
SCALE 1/4" = 1'-0"
FROM CHAMBER E-22
TO CHAMBER E-17
EXIST. 4" B.F.S.
NEW 2"ø PIPE STRUT WELDED TO 4" B.F.S (SPOOL PIECE).
CHAMBER A-19
SCALE 1/4" = 1'-0"
FROM CHAMBER E-19
TO CHAMBER CT-51
CHAMBER CT-51
SCALE 1/4" = 1'-0"
FROM CHAMBER A-19
TO CHAMBER CT-52
REMOVED 10" VALVE & INSTALLED 2-10" BLIND FLANGES ON LINE 1-1 1/2" VALVES FOR RELIEF ON ACTIVE SIDE OF LINE
CHAMBER CT-52
SCALE 1/4" = 1'-0"
FROM CHAMBER CT-51
TO CHAMBER CT-56
NOTES 1 & 2 SEE NAVFAC DWG. NO. 2041716
ALL WORK SHOWN IS EXISTING UNLESS OTHERWISE INDICATED.
GRAPHIC SCALES:
1" = 100'
1/4" = 1'-0"
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NAVAL EDUCATION AND TRAINING CENTER NEWPORT, R.I.
REPAIR OF FUEL OIL SYSTEM, NORTH SIDE OF PIER 2
PLAN - FUEL PIPELINE MATCHLINES 3 TO 5
80091
2041717
DANIEL MacLELLAN No. 2723 REGISTERED PROFESSIONAL ENGINEER
NETC DWG NO. 22217-229

FW FIGURE 3

TANK 56
3" Ø WATER PIPE
PIT V1
CHAMBER CT-53
RING ANCHOR NO. 1
24" DFM
FOR CONT. SEE NAVFAC DWG. NO. 2041717
MATCHLINE "5"
CEMETERY
CHAIN LINK FENCE 6'-0" HIGH
GRASSED SEE NOTE 2.
TREES ≤ 4" Ø & BRUSH SEE NOTE 1.
6'-0"
7'-6"
WIDTH OF CLEARING WORK. (TYPICAL)
MATCHLINE "6"
PLAN SCALE: 1"=40'-0"
ROAD
DEFENSE
HIGHWAY
PIPE TO FENCE
MATCHLINE "7"
FOR CONT. SEE NAVFAC DWG. NO. 2041719
REMOVED 10" VALVE & INSTALLED 2-10" BLIND FLANGES ON LINE. 1-1/2" VALVE FOR RELIEF ON ACTIVE SIDE OF LINE.
REMOVE EXIST. 16" BLIND FLANGE.
INSTALL NEW GOVERNMENT FURNISHED 16" VALVE.
16" DFM TO CHAMBER CT-59
FL. EL. 75.92'
3" COND.
8" STEAM
16" DFM FROM CHAMBER CT-56
4" DSW
24"×16" ECCENTRIC REDUCER
DIAMETER CHANGE
24" DFM TO PIT V2
PROVIDE NEW BLINDING DISC. ("FRYING PAN")
EXIST. 10" VALVE-PROVIDE CHAIN WITH LOCK & LOCK VALVE IN CLOSED POSITION.
REMOVE EXIST. 16" FLANGE & EXIST. 10" STUB PIPING.
CHAMBER CT-53/PIT V1
SCALE 1/4" = 1'-0"
NOTES 1 & 2-SEE NAVFAC DWG. NO. 2041716
ALL WORK SHOWN IS EXISTING UNLESS OTHERWISE INDICATED.
GRAPHIC SCALES:
1" = 40'
1/4" = 1'-0"
CHECK GRAPHIC SCALES BEFORE USING
MacLELLAN & DORMER, INC. PROVIDENCE, R. I. CONSULTING ENGINEERS
DEPARTMENT OF THE NAVY - NAVAL FACILITIES ENGINEERING COMMAND
NORTHERN DIVISION
PHILADELPHIA, PA.
NAVAL EDUCATION AND TRAINING CENTER NEWPORT, R.I.
REPAIR OF FUEL OIL SYSTEM, - NORTH SIDE OF PIER 2
PLAN - FUEL PIPELINE MATCHLINES "5" TO "7"
DANIEL MacLELLAN No. 2723 REGISTERED PROFESSIONAL ENGINEER
SATISFACTORY TO:
SIZE F
CODE IDENT. NO. 80091
NAVFAC DRAWING NO. 2041718
CONSTR. CONTR. NO. N62472-79-C-0213
SCALE: AS NOTED
SPEC. 04-79-0213
NETC DWG. NO. 28218-229


REVISED AS BUILT
FOR CONT. SEE NAVFAC DWG. NO. 2041718
MATCHLINE "7"
PIT V2
GATE NO. 40
TREES ≥ 4" & BRUSH SEE NOTE 1.
AIR VENT PIT AV1
GOLF COURSE
ROAD
DEFENSE
HIGHWAY
PIPE TO FENCE
GRASSED SEE NOTE 2.
WIDTH OF CLEARING WORK (TYPICAL)
MATCHLINE "8"
24" DFM
INSTALL NEW GOVERNMENT FURNISHED 16" O.S.&Y. GATE VALVE
EXISTING 2 DRAINS W/ BRASS CAPS NATIONAL HOSE THREAD
REMOVE EXIST. 16" BLIND FLANGES
GALV'I' CAPS
PLAN - PIT V2
SCALE 1/4" = 1'-0"
PLAN
SCALE 1" = 40'-0"
METAL COVER
1" PIPE W/ RETURN BEND
GRADE
1" GATE VALVE
REMOVED
1" VENT PIPE
GRAVEL
DETAIL - AIR VENT PITS AV1 & AV2
NO SCALE
WATER METER PITS
PIT S1
BLD'G 112
LOADING PLATFORM
MATCHLINE "9"
CONC. ROAD
PIPE TO ROAD
R.R. RIGHT OF WAY
MAIN LINE
GATE NO. 32
ROAD - DEFENSE HIGHWAY
2" DRAIN W/ BRASS CAP NATIONAL HOSE THREAD
PLAN - PIT S1
SCALE 1/4" = 1'-0"
BLD'G 134
BLD'G 113
BLD'G 115
PIT V3
DIAMETER CHANGE NO OUTLET NO SUMP
R.R. RT OF WAY
GATE NO. 31
GATE NO. 30
BIT. PVMT.
STEAM TRENCHES
BIT. PVMT. OVER CONC.
S.M.H.
AIR VENT PIT AV2
MATCHLINE "10" FOR CONT. SEE NAVFAC DWG. NO. 2041720
1" VENT PIPE
16" O.S.&Y. GATE VALVE
2" DRAIN W/ BRASS CAP NATIONAL HOSE THREAD
PLAN - PIT V3
SCALE 1/4" = 1'-0"
NOTES 1 & 2 - SEE NAVFAC DWG. NO. 2041716
ALL WORK SHOWN IS EXISTING UNLESS OTHERWISE INDICATED.
CHECK GRAPHIC SCALES BEFORE USING
GRAPHIC SCALES
1" = 40'
1/4" = 1'-0"
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DANIEL MacLELLAN No. 2723 REGISTERED PROFESSIONAL ENGINEER
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
NORTHERN DIVISION
PHILADELPHIA, PA.
NAVAL EDUCATION AND TRAINING CENTER NEWPORT, R.I.
REPAIR OF FUEL OIL SYSTEM, - NORTH SIDE OF PIER 2
PLAN - FUEL PIPELINE MATCHLINES "7" TO "10"
SIZE F
CODE IDENT. NO. 80091
NAVFAC DRAWING NO. 2041719
CONSTR. CONTR. NO. N62472-79-C-0213
SPEC. 04-79-0213
NETC DWG. NO. 22218-229
FW FIGURE 5


REVISIONS
REVISED AS BUILT
N.
DETAIL
AIR VENT PIT - AV-3
SCALE 3/4"=1'-0"
METAL COVER
1"⌀ PIPE w/ RETURN BEND
GRADE
REMOVED (A)
1" GATE VALVE
REMOVE EXCESS GRAVEL TO 2" BELOW VALVE BOTTOM.
1"⌀ VENT PIPE
1' GRAVEL
FOR CONT SEE NAVFAC DW'G. NO. 2041719.
MATCHLINE "10"
24" DFM.
RR RIGHT OF WAY
MAIN LINE NY, NH & H.R.R.
PIT S-2
BIT. PVMT.
PIT AV-3
CHAIN LINK FENCE
WOOD STAIRWAY
GRASSED SEE NOTE 2.
DEFENSE HIGHWAY
BRUSH 12"⌀ & GRASSED SEE NOTE 1.
WIDTH OF CLEARING WORK (TYPICAL)
MATCHLINE "11"
PLAN
SCALE 1"=40'-0"
FROM PIT "V-3"
TO PIT "P-2"
24"⌀ PIPE
2" DRAIN w/ BRASS CAP NATIONAL HOSE THREAD
24"x16" ECCENTRIC REDUCER
16"⌀ BLIND FLANGE
PLAN - PIT S-2
SCALE 1/4"=1'-0"
DIAMETER CHANGE
24" DFM
PAVED WALK
GUARD RAIL
PAVED ROAD
MATCHLINE "11"
16" DFM
BLDG. NO. 72
BLDG NO. 75 & PIT "P-2" BELOW. SEE DETAILS: NAVFAC DWG. NO. 2041727.
18" & 8" FUEL LINES (ABANDONED).
SUB-STATION NO. 17
ST. MH
SEWAGE PUMPING STA. BLDG. NO. 74
SAN. MH "X"
12" DFM
10" FUEL LINE ISOLATED & ABANDONED (AT PIT P2).
PAVED PARKING AREA
SUB STATION NO. 16
CONCRETE APRON
FACE OF BULKHEAD AT PIER 2
FOR CONT SEE NAVFAC DW'G. NO. 2041721
PIER NO. 2
STEEL BULKHEAD
PIER NO. 1
PLAN
SCALE 1"=40'-0"
NOTES 1 & 2 - SEE NAVFAC DWG. NO. 2041716
ALL WORK SHOWN IS EXISTING UNLESS OTHERWISE INDICATED.
GRAPHIC SCALES:
1" = 40'
0 20 40 80 120 160 200 240
CHECK GRAPHIC SCALES BEFORE USING
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PROVIDENCE, R. I.
CONSULTING ENGINEERS
DANIEL MacLELLAN
REGISTERED PROFESSIONAL ENGINEER
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
NORTHERN DIVISION
PHILADELPHIA, PA.
NAVAL EDUCATION AND TRAINING CENTER NEWPORT, R.I.
REPAIR OF FUEL OIL SYSTEM, NORTH SIDE OF PIER 2
PLAN - FUEL PIPELINE - MATCHLINE "10" TO FACE OF BULKHEAD AT PIER NO. 2.
SUBMITTED BY D. MacLELLAN
FIRM MEMBER PRESIDENT 7-22-75
APPROVED
OFFICER IN CHARGE
SATISFACTORY TO:
NORTHDIV FOR COMMANDER NAVFAC
SIZE F
CODE IDENT. NO. 80091
NAVFAC DRAWING NO. 2041720
SCALE: AS NOTED
NETC DWG. NO. 22220-229

FW FIGURE 6

APPENDIX D

Soil Sample Data Sheets

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 8/23/00

Location : Newport, RI — Recorded by: J Holden

Client : U. S. Navy - Northern Division

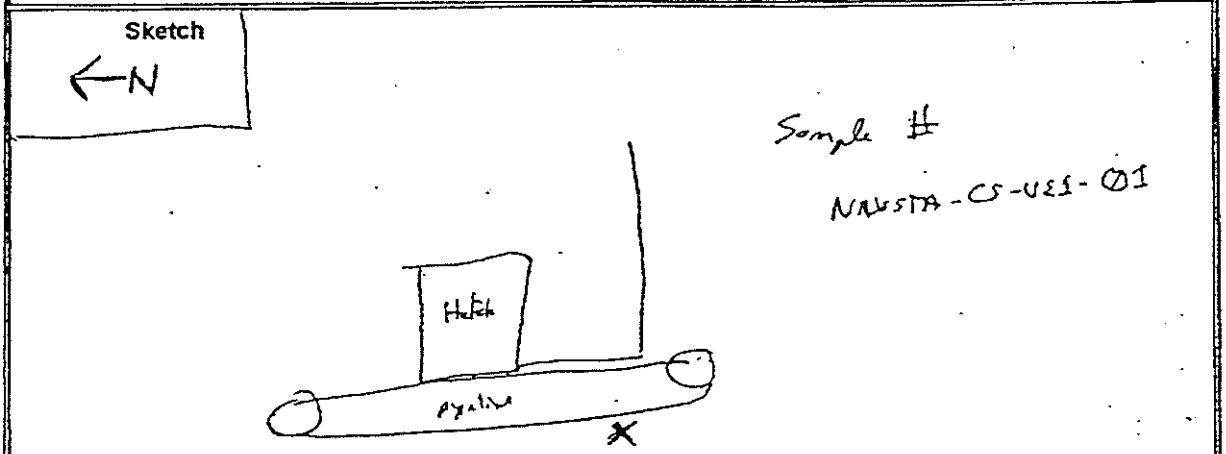
From Chamber : E1 — Sample Depth 6 ft bgs

Time Collected : 1510

Analysis :		
	VOCs (methanol and Sodium bisulfate)	3 voa vials
	SVOCs (Method 8270)	8oz
	TAL Metals	
	TPH (method 418.1)	8oz
	TPH (method 8015)	

dkr Headspace = 0

Sketch



Sample #

NAVSTA-CS-VE1-01

pipe is outside chamber

Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure
Location : Newport, RI
Client : U. S. Navy - Northern Division

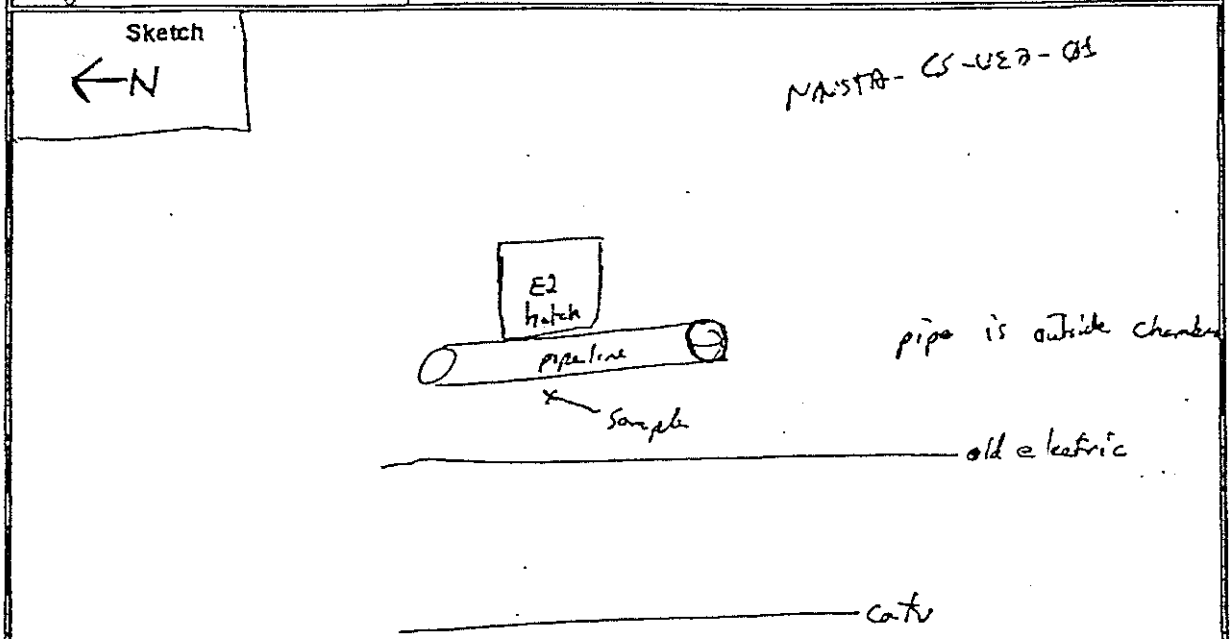
Date : 8/23/00
Recorded by: J Holden

From Chamber : E2 Sample Depth 6.5' ft bgs
Time Collected : 1535

Analysis :		
	VOCs (methanol and Sodium bisulfate)	3 Voa Vials
	SVOCs (Method 8270)	8oz
	TAL Metals	
	TPH (method 418.1)	8oz
	TPH (method 8015)	

for Headspace = 0 ppm

Sketch



Sample ID scheme :

NAVSTA-CS-VE1-01
CS = confirmation sample
VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 9/19/00

Location : Newport, RI — Recorded by: Holden

Client : U. S. Navy - Northern Division

From Chamber : E-3 — Sample Depth ~8' ft bgs

Time Collected : 1540

Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

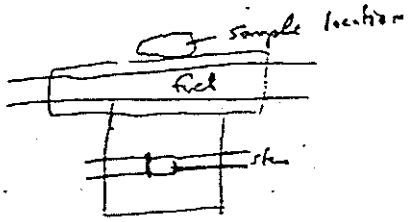
Screening Result : 0 PPMV

Sketch

North ←

Sample ID : NAVSTA - CS - VE3 - 01

No oil present,
no odor present



Brian RA

Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure
Location : Newport, RI
Client : U. S. Navy - Northern Division

Date : 9/5/00
Recorded by: J Holden

From Chamber : A-3 Sample Depth ft bgs
Time Collected : 1400

Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : 0 PPMV

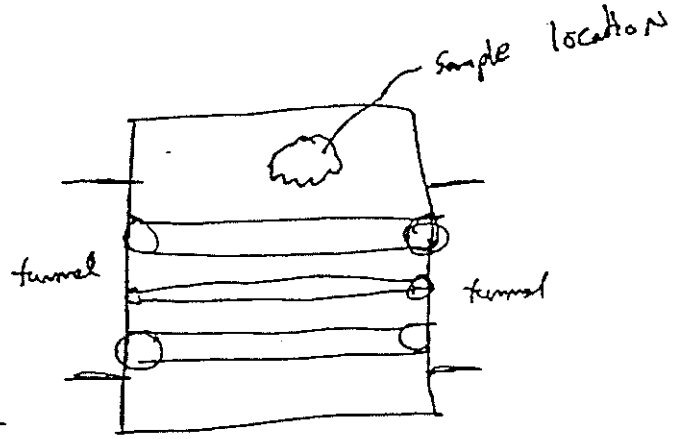
Sketch
North

Sample ID : NAVSTA - CS - VA3-01

VOCs collected 3" below soil surface

- hammer hole through Concrete w/ 3000 lb hammer

- pipes are inside tunnel/chamber



Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 9/28/00

Location : Newport, RI — Recorded by: Holder

Client : U. S. Navy - Northern Division

From Chamber : E4 — Sample Depth 10' ft bgs

Time Collected : 0900

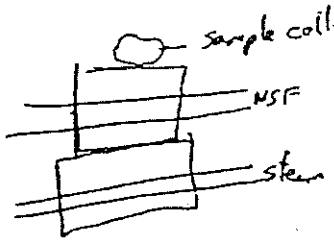
Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : 0.2 PPMV

Sketch

North ←

Sample ID : NAUSTA - CS - VE4 - 01



Burma Rd

no oil present
no drains present

Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 9/7/00 / 1300

Location : Newport, RI — Recorded by: Holder

Client : U. S. Navy - Northern Division

From Chamber : ~~A3~~ ~~A4~~ A4 — Sample Depth ~9' ft bgs

Time Collected : 13:00

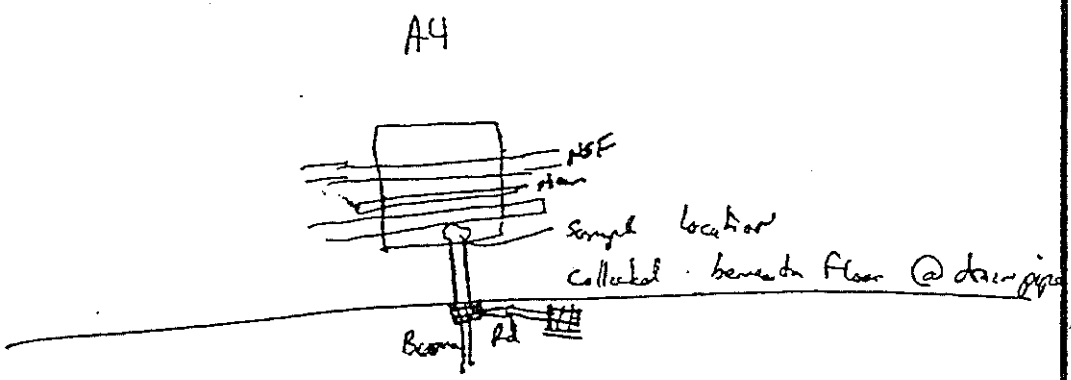
Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : 0.5 PPMV

Sketch

North ←

Sample ID : NAVSTA-CS-VA4-01



no oil in chamber

Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 9/25/00

Location : Newport, RI — Recorded by: Hilton

Client : U. S. Navy - Northern Division

From Chamber : E5 — Sample Depth ~(0.5 ft bgs

Time Collected : 0930

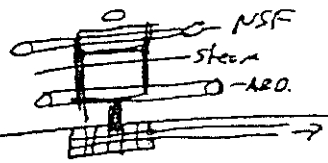
Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : 0.3 PPMV

Sketch

North ←

Sample ID : NAVSTA-CS-UE5-01



BARNEY RD

no oil present
no material in drain.
Sample next to pipeline chamber

Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 9/7/00

Location : Newport, RI — Recorded by: Holder

Client : U. S. Navy - Northern Division

From Chamber : A-5 — Sample Depth — ft bgs

Time Collected : 1540

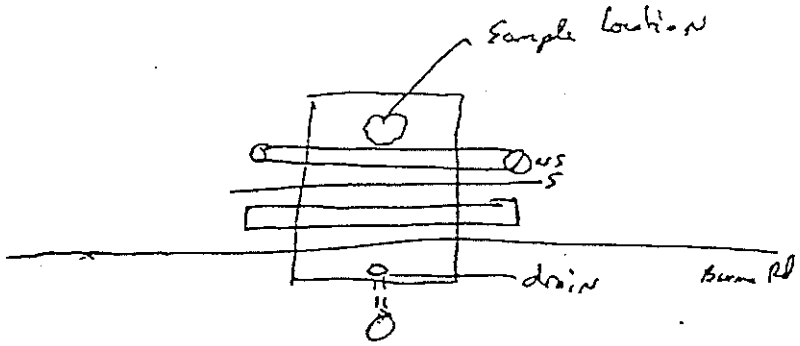
Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : PPMV

Sketch

North ←

Sample ID : NAVSTA-CS-VA5-01



no oil in chamber

Sample ID scheme :

Sample Collected

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

E6

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : _____

Location : Newport, RI — Recorded by: _____

Client : U. S. Navy - Northern Division

From Chamber : — Sample Depth — ft bgs

Time Collected :

Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : PPMV

Sketch
North

Sample ID : NA

E6 – Destroyed, Video inspected

Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

AE6

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : _____

Location : Newport, RI — Recorded by: _____

Client : U. S. Navy - Northern Division

From Chamber : — Sample Depth — ft bgs

Time Collected :

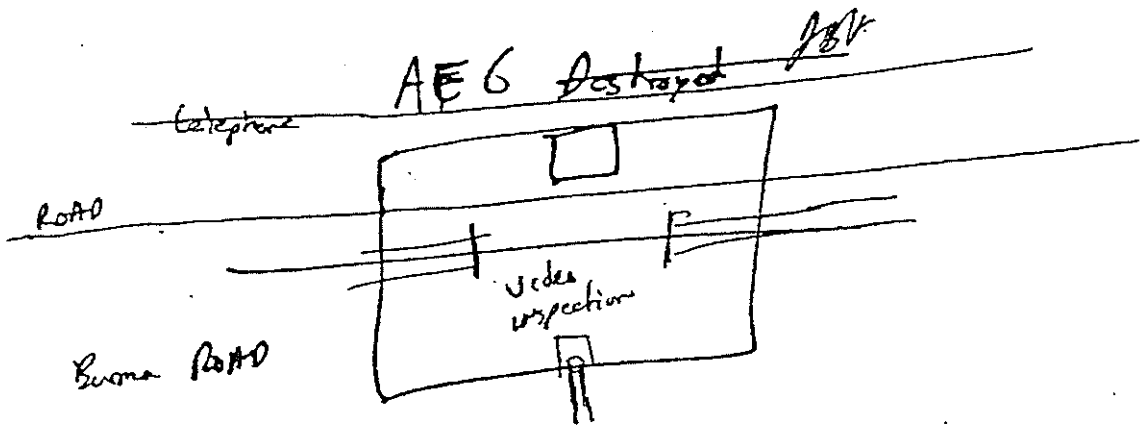
Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : PPMV

Sketch

North ←

Sample ID : _____



Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

A6

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : _____

Location : Newport, RI — Recorded by: _____

Client : U. S. Navy - Northern Division

From Chamber : — Sample Depth — ft bgs

Time Collected :

Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	
Screening Result :	PPMV	

Sketch
North

Sample ID : _____

A6 Destroyed ; Video Inspekt

Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure
Location : Newport, RI
Client : U. S. Navy - Northern Division

Date : 09-19-2000
Recorded by: John LANE

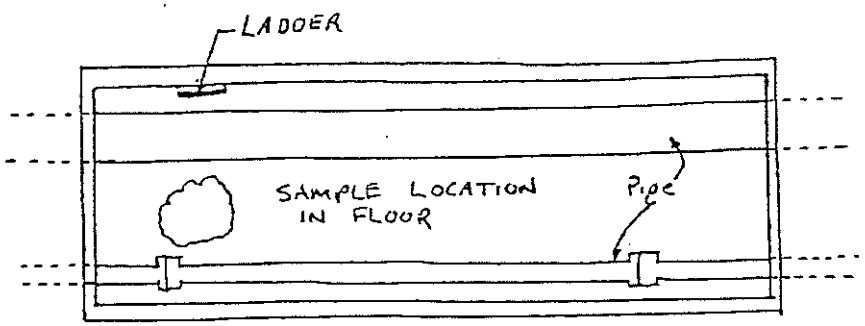
From Chamber : E-7
Sample Depth ~ 2' into soils ft bgs
Time Collected : 1335

Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : Ø PPMV

Sketch
North
← N

Sample ID : NAVSTA-CS-VE7-01



Sample ID scheme : NAVSTA-CS-VE7-01
VAULT # VE-7

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 09-12-2000

Location : Newport, RI — Recorded by : E. URBANEK

Client : U. S. Navy - Northern Division

From Chamber : A7 — Sample Depth — ft bgs

Time Collected : 0730

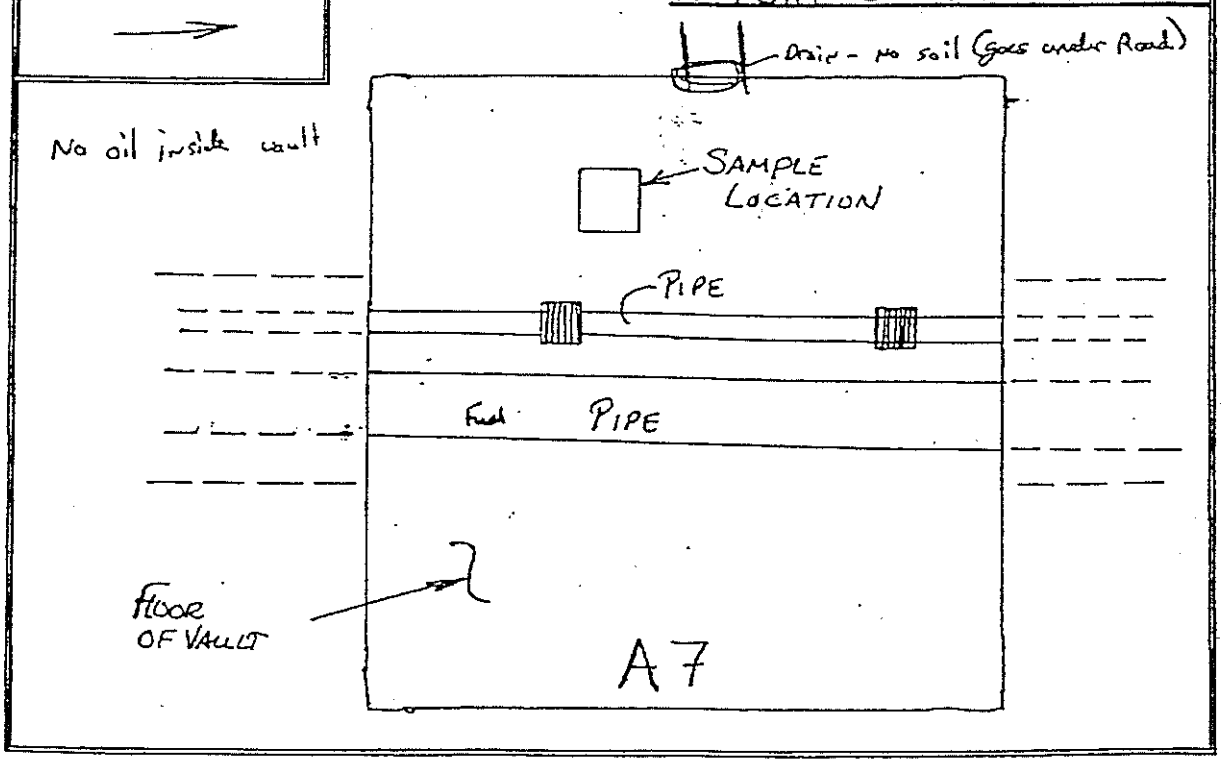
Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : Ø PPMV

Sketch

North →

Sample ID : NAVSTA - CS - VA7 - 01



Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure
Location : Newport, RI
Client : U. S. Navy - Northern Division

Date : 09-12-2000
Recorded by: E. URBANEK

From Chamber : E-8 Sample Depth ft bgs

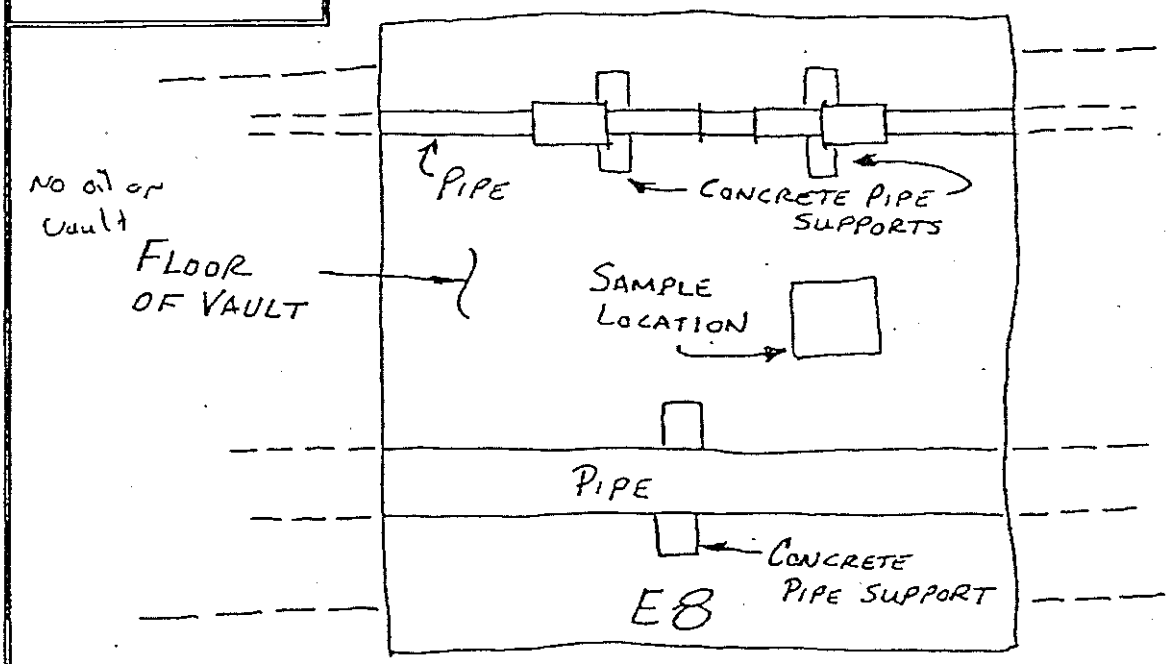
Time Collected : 0830

Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : 0.2 PPMV

Sketch
North →

Sample ID : NAVSTA-CS-VE8-01



Sample ID scheme :

→ Water flowing south out of tunnel

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 9/11/00

Location : Newport, RI — Recorded by: Holden

Client : U. S. Navy - Northern Division

From Chamber : A8 — Sample Depth ~18' bgs ft bgs

Time Collected : 1310

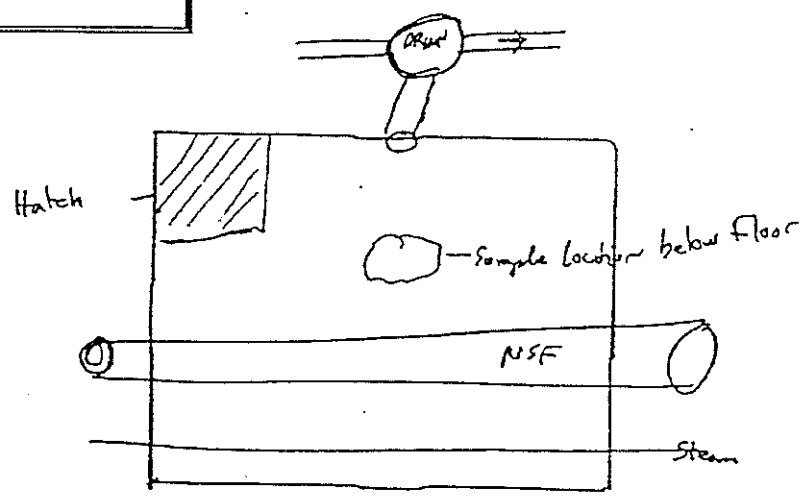
Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : 0.2 PPMV

Sketch

North ←

Sample ID : NAVSTA-CS-VA8-01



A-8

Barna Rd

Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure
Location : Newport, RI
Client : U. S. Navy - Northern Division

Date : 09-13-2000
Recorded by: Ed URBANEK

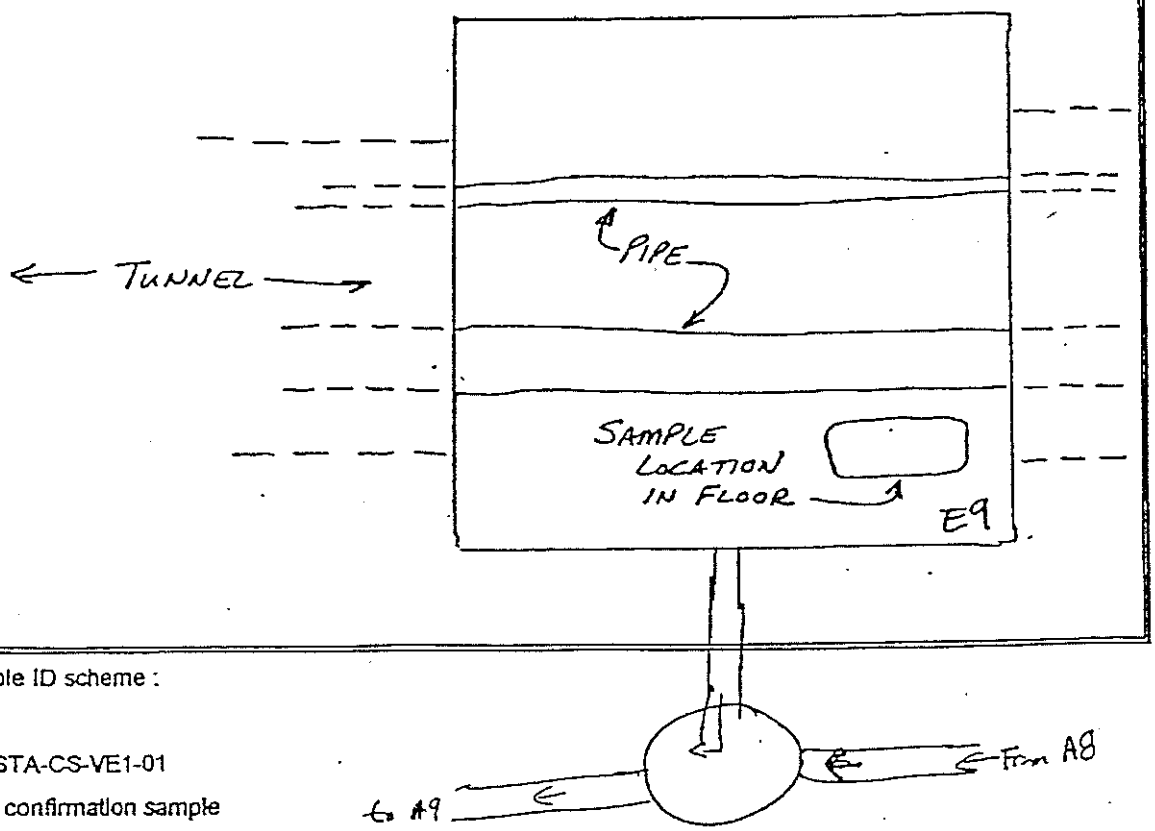
From Chamber : E9
Sample Depth ft bgs
Time Collected : 1600

Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : PPMV

Sketch
North →

Sample ID : NAVSTA-CS-VE9-01



Sample ID scheme :

NAVSTA-CS-VE1-01
CS = confirmation sample
VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 9-13-2000

Location : Newport, RI — Recorded by: Ed Urbanek

Client : U. S. Navy - Northern Division

From Chamber : A 9 — Sample Depth ft bgs

Time Collected : 1345

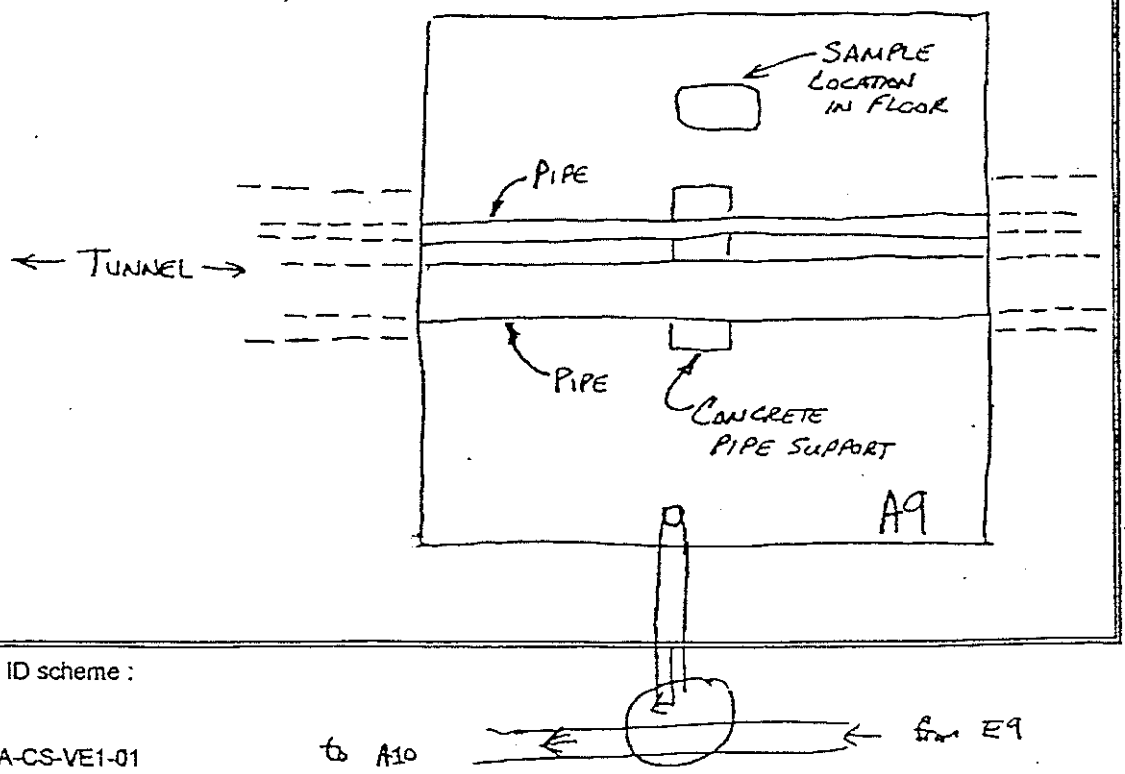
Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : 0.4 PPMV

Sketch

North →

Sample ID : NAVSTA - CS-VA9-01



Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 09-13-2000

Location : Newport, RI — Recorded by: Ed URBANEK

Client : U. S. Navy - Northern Division

From Chamber : E-10 — Sample Depth ft bgs

Time Collected : 1315

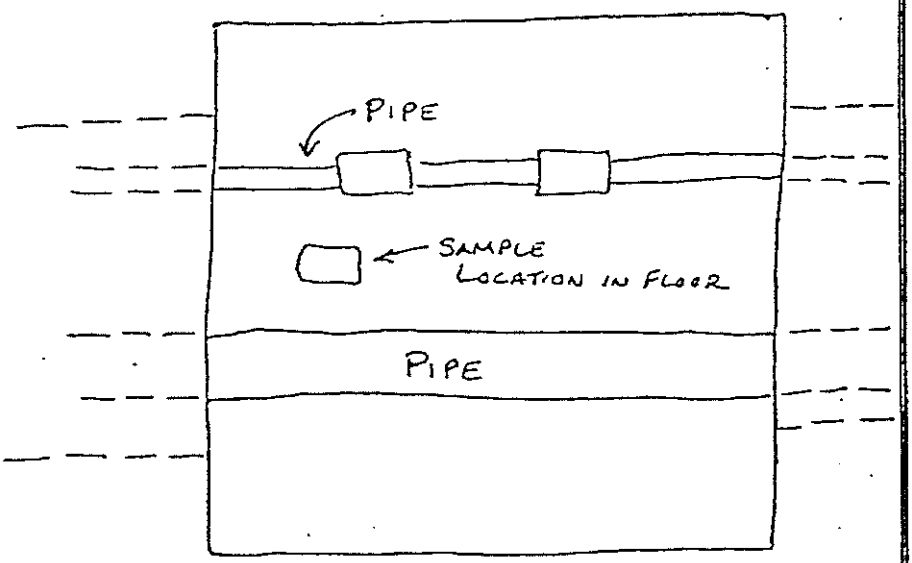
Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : PPMV

Sketch

North →

Sample ID : NAVSTA-CS-VE10-01

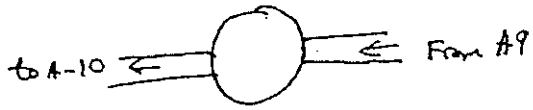


Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1



SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 9-28-00

Location : Newport, RI — Recorded by: JOHN LANE

Client : U. S. Navy - Northern Division

From Chamber : A-10 — Sample Depth — ft bgs

Time Collected : 1445

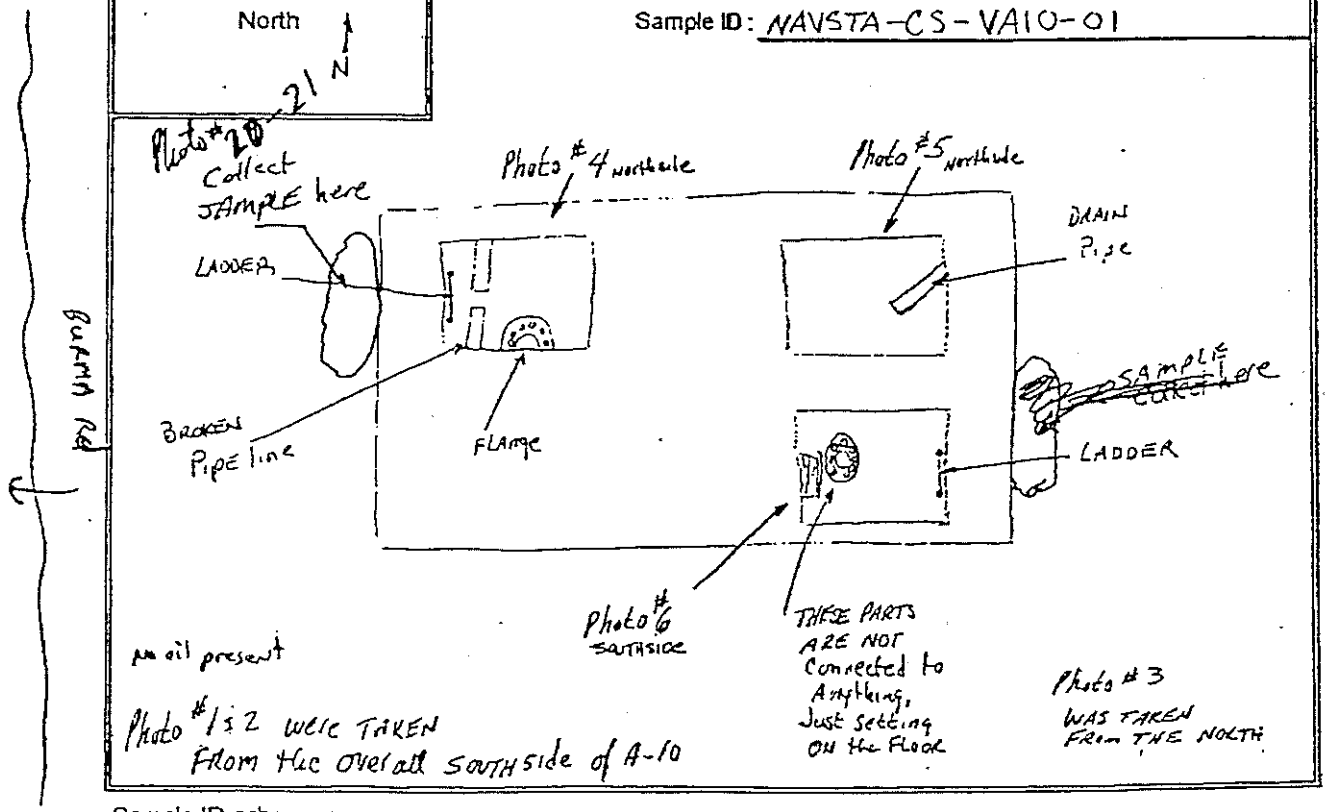
Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : PPMV

Sketch

North ↑ N

Sample ID : NAVSTA-CS-VA10-01



Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

E 11

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 10/4/00

Location : Newport, RI — Recorded by: [illegible]

Client : U. S. Navy - Northern Division

From Chamber : — Sample Depth — ft bgs

Time Collected :

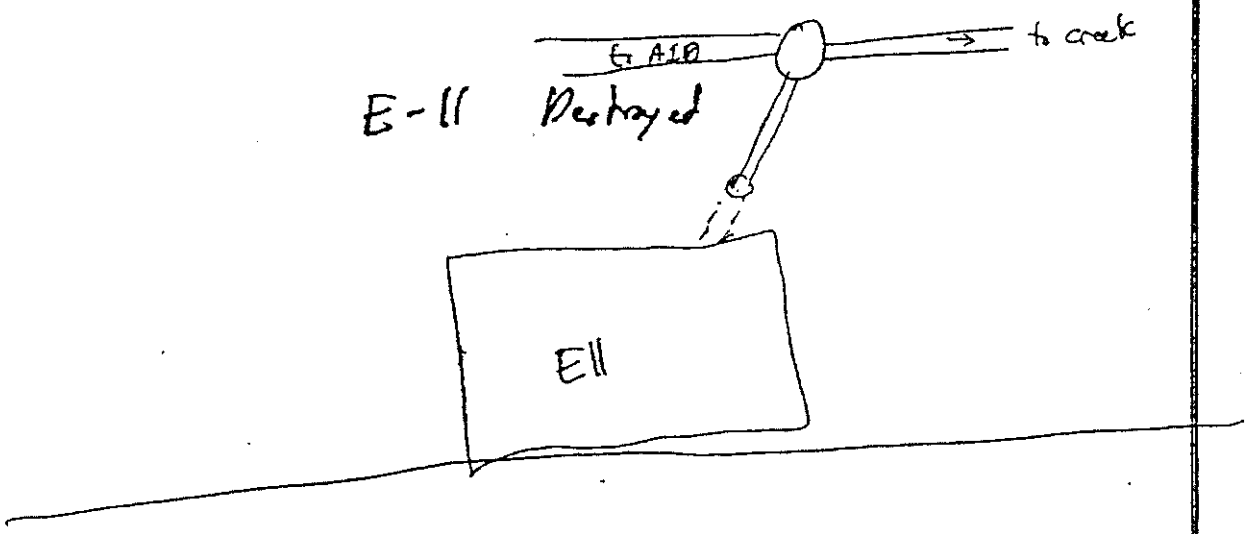
Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : PPMV

Sketch

North ←

Sample ID : NO SAMPLE



Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 9-20-00

Location : Newport, RI — Recorded by: J. Lane

Client : U. S. Navy - Northern Division

From Chamber : A-11 — Sample Depth — ft bgs

Time Collected : 1455

Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : Ø PPMV

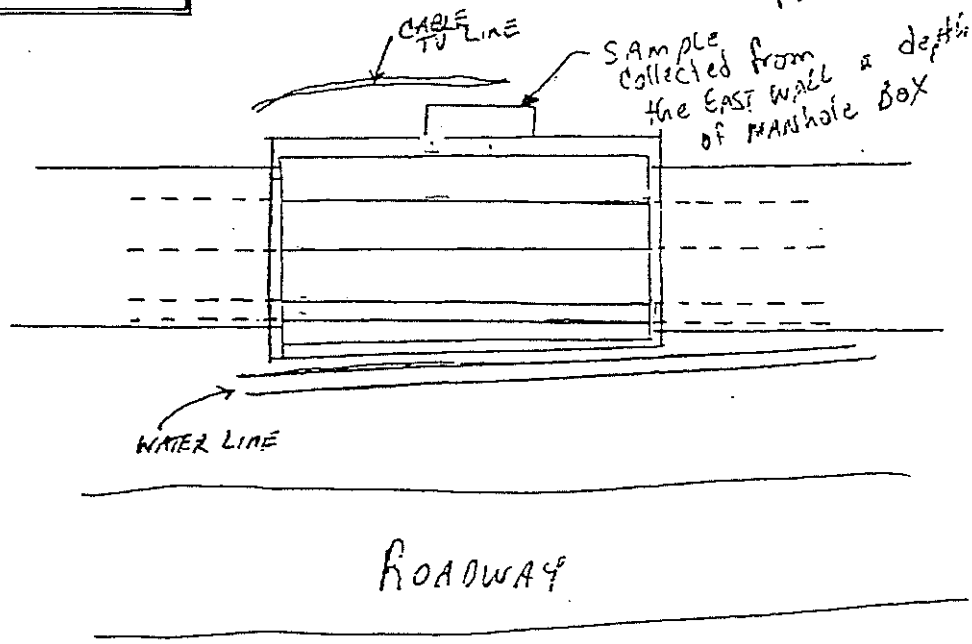
Sketch

North

← N

Sample ID : NAVSTA-CS-VA11-01

Photo #5



Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure
Location : Newport, RI
Client : U. S. Navy - Northern Division

Date : 9-20-00
Recorded by: JOHN LANE

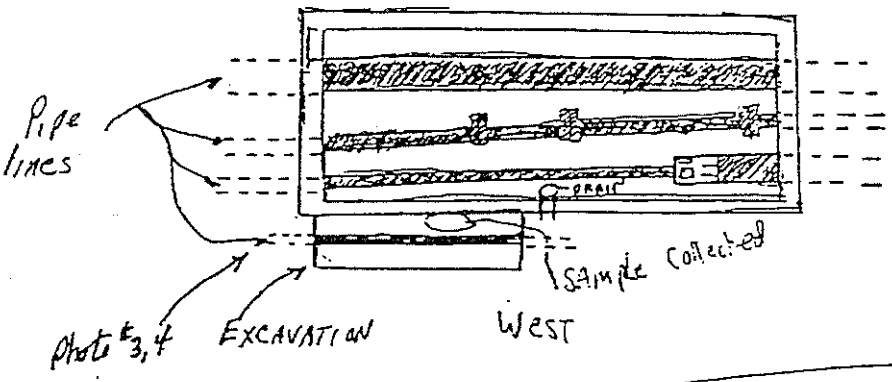
From Chamber : E-12 Sample Depth ft bgs
Time Collected : ~~1430~~ 1330

Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : Ø PPMV

Sketch
North
N ←

Sample ID : NAVSTA-CS-VE12-01



Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 9-20-00

Location : Newport, RI — Recorded by: J. Lane

Client : U. S. Navy - Northern Division

From Chamber : A-12 — Sample Depth — ft bgs

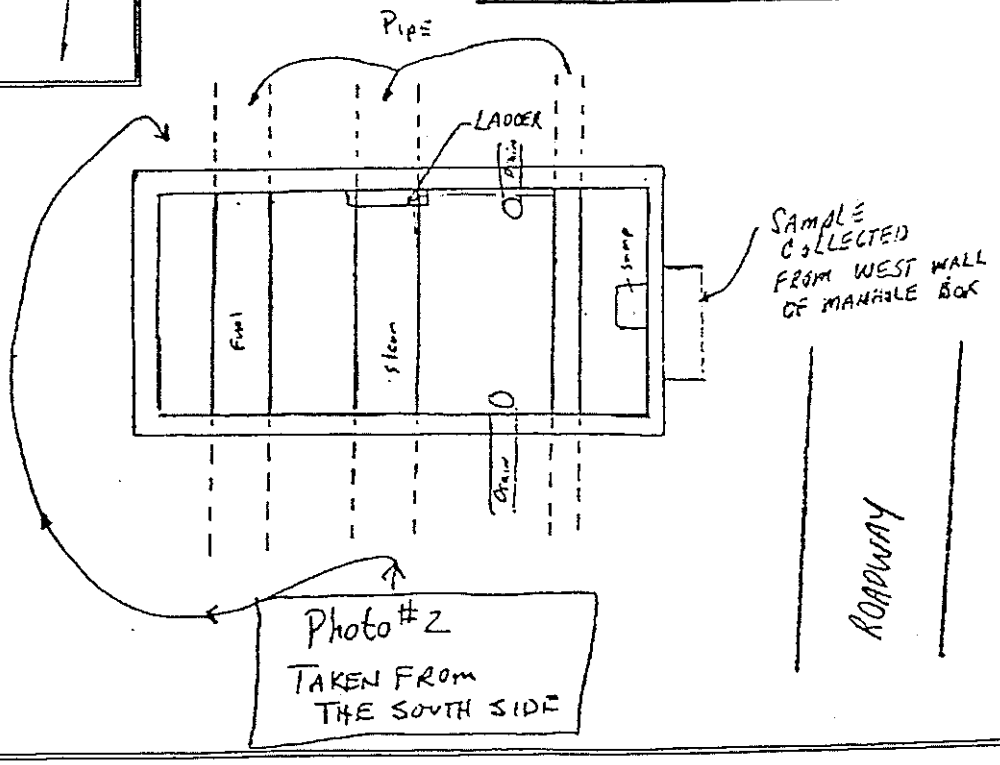
Time Collected : 1520

Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : 0 PPMV

Sketch North

Sample ID : NAVSTA-CS-VA12-01



Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 9-21-00

Location : Newport, RI — Recorded by: J. Lane

Client : U. S. Navy - Northern Division

From Chamber : E-13 — Sample Depth — ft bgs

Time Collected : 1345

Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

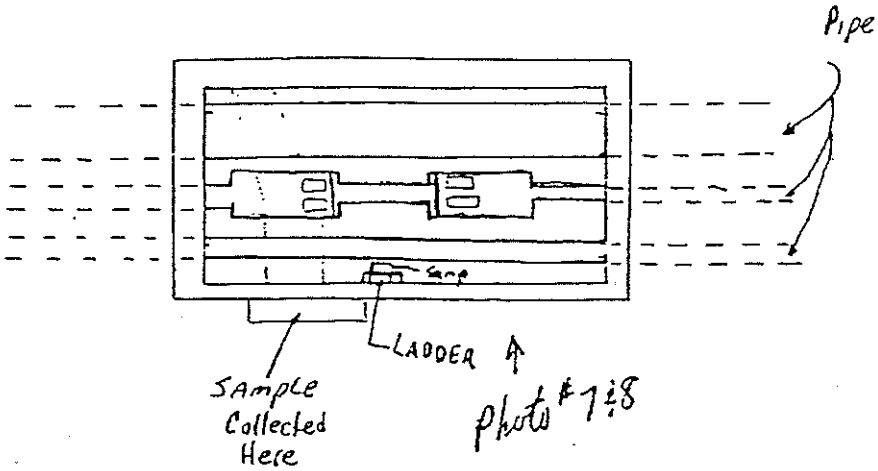
Screening Result : PPMV

Sketch

North

← N

Sample ID : NAVSTA-CS-VE13-01



Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 9-21-00

Location : Newport, RI — Recorded by: J. Lane

Client : U. S. Navy - Northern Division

From Chamber : A-13 — Sample Depth — ft bgs

Time Collected : ~~1315~~ 1320

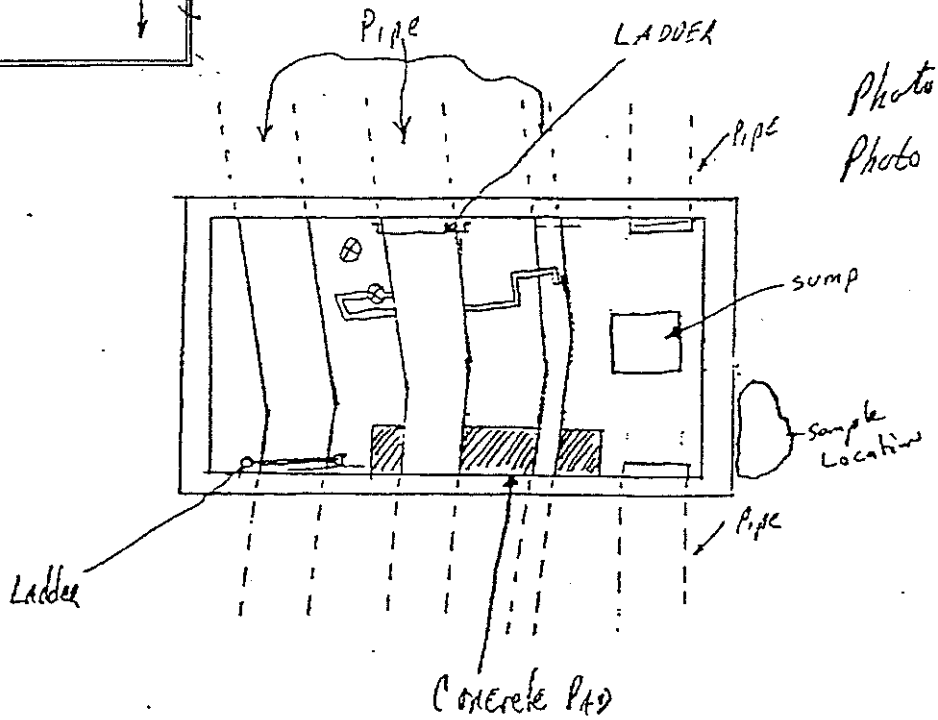
Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : 22.1 PPMV Spikes/ Wood was noticed in Excavation

Sketch

North N

Sample ID : NAVSTA-CS-VA13-01



Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure
Location : Newport, RI
Client : U. S. Navy - Northern Division

Date : ~~09-~~2000 9/21/2000
Recorded by: J. Lane

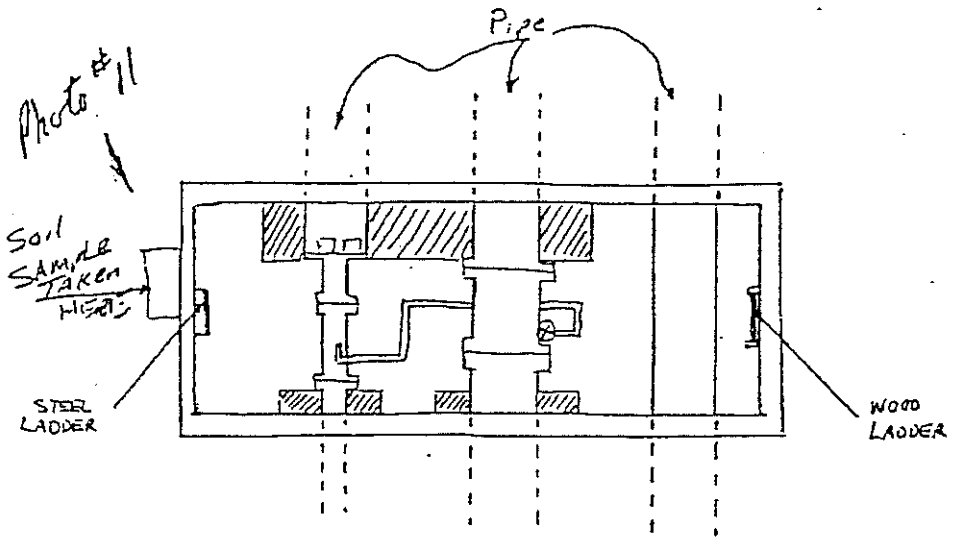
From Chamber : E-14 Sample Depth ft bgs
Time Collected : 1300

Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : Ø PPMV

Sketch
North
N

Sample ID : NAVSTA-CS-VE14-01



NOTE: TIGHT WORK AREA FOR HAMMER to PLACE a hole in the FLOOR ~ ½" of water

Sample ID scheme : NAVSTA-CS-VE14-01
VAULT # VE-14

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : ~~04 2000~~ 9/26/00

Location : Newport, RI — Recorded by: John Lane

Client : U. S. Navy - Northern Division

From Chamber : A-14 — Sample Depth ft bgs

Time Collected : 1405

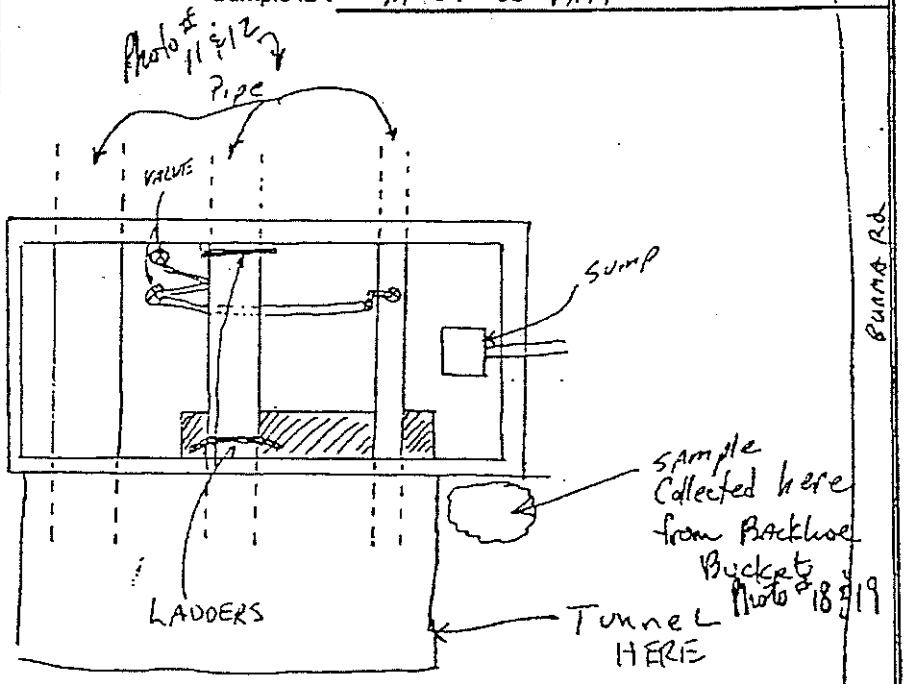
Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : Ø PPMV

Sketch

North N

Sample ID : NAVSTA-CS-VA14-01



No oil present

ABOUT 6" OF WATER IS ON THE FLOOR

Sample ID scheme : NAVSTA-CS-VA14-01

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 9-28-00

Location : Newport, RI — Recorded by: JOHN LANE

Client : U. S. Navy - Northern Division

From Chamber : E-15 — Sample Depth — ft bgs

Time Collected : 1235

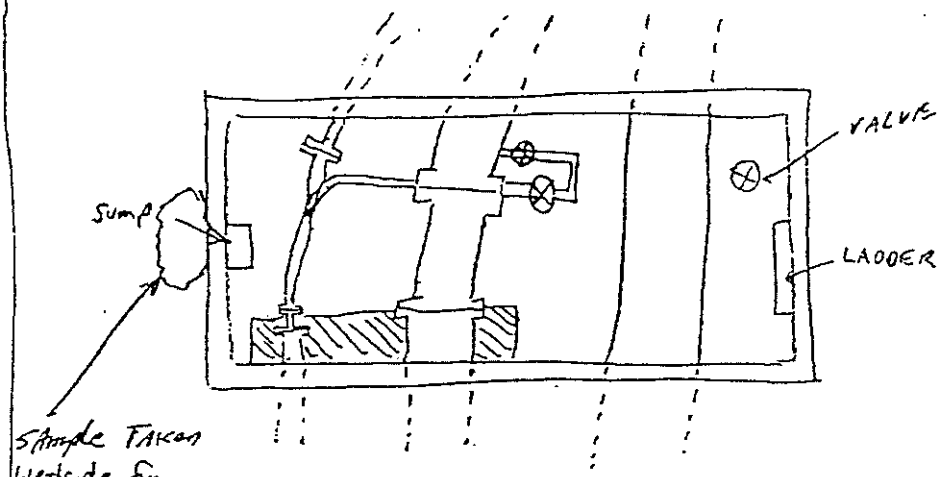
Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : ∅ PPMV

Sketch

North N

Sample ID : NAVSTA-CS-VE1S-01



Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 9-26-00

Location : Newport, RI — Recorded by: JOHN LANE

Client : U. S. Navy - Northern Division

From Chamber : A-15 — Sample Depth ~ 4-5 ft bgs

Time Collected : 1210

Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : Ø PPMV

Sketch

North N

Sample ID : NAVSTA - CS - VA15 - 01

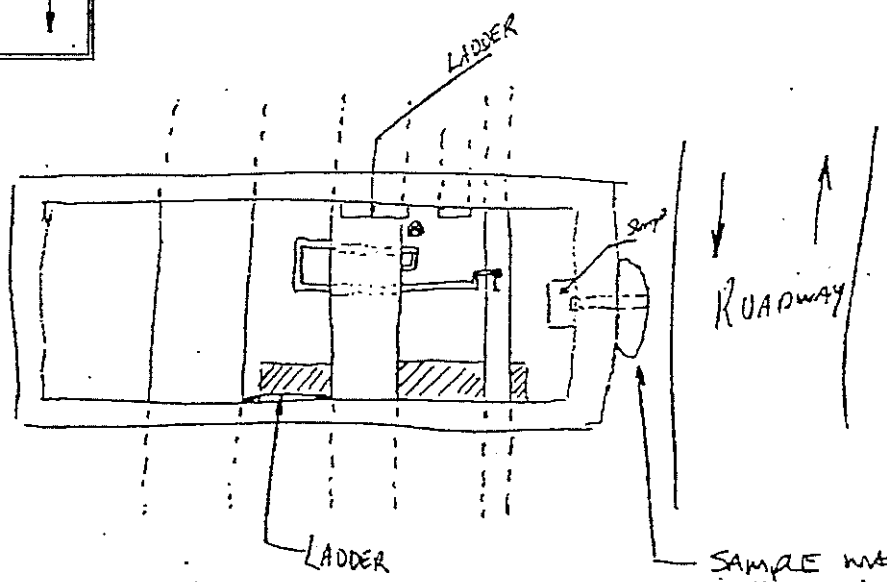


Photo #14 & 15 WERE TAKEN FROM THE NORTH SIDE OF A-15 CHAMBER

Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 10-30-00

Location : Newport, RI — Recorded by: J. LANE

Client : U. S. Navy - Northern Division

From Chamber : E-16 — Sample Depth Below Chamber ft bgs

Time Collected : 1435

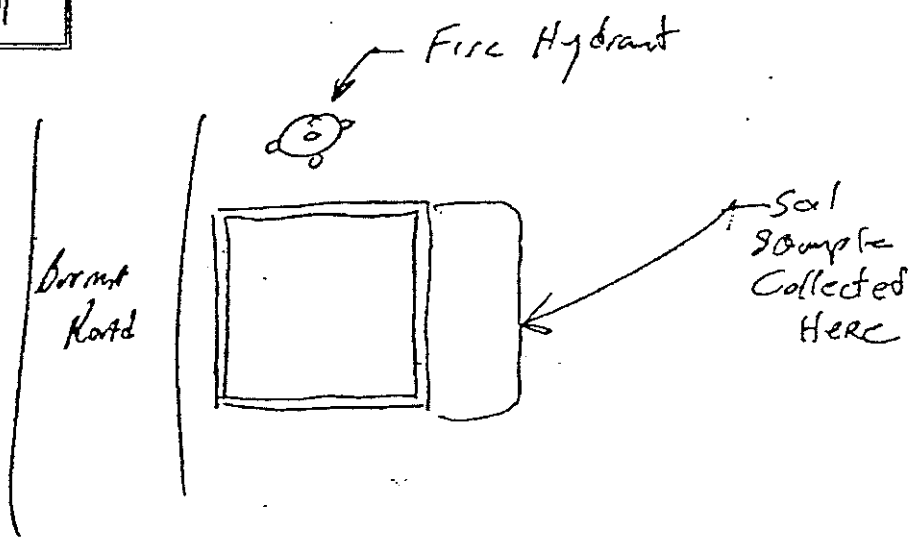
Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : Ø PPMV

Sketch

North

Sample ID : NAVSTA-CS-VE16-01



Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

Photo # 5

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure
Location : Newport, RI
Client : U. S. Navy - Northern Division

Date : 10-30-00
Recorded by: J. Lane

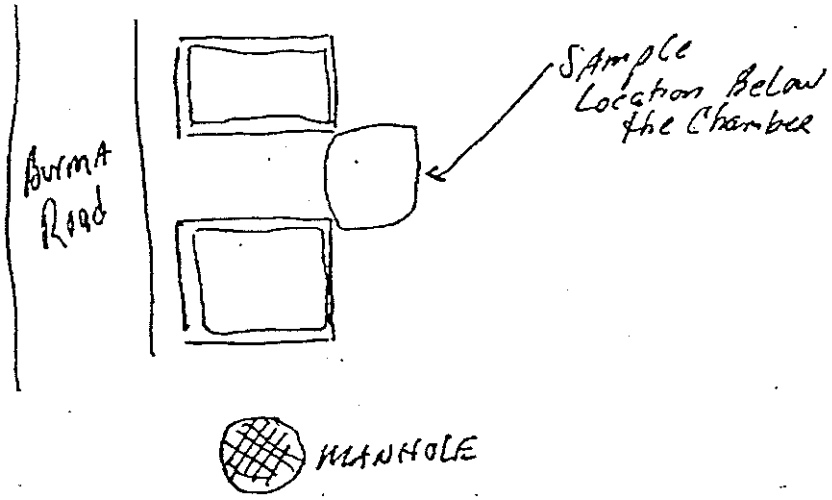
From Chamber : E-22
Sample Depth Below Chamber ft bgs
Time Collected : 1510

Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 6270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : 2.39 PPMV

Sketch
North

Sample ID : NAVSTA-CS-VE22-01



Sample ID scheme :

NAVSTA-CS-VE1-01
CS = confirmation sample
VE1 = Vault E1

Photo #6 Shows the Sample Location

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 11/6/00

Location : Newport, RI — Recorded by: Holden

Client : U. S. Navy - Northern Division

From Chamber : A16 — Sample Depth — ft bgs

Time Collected :

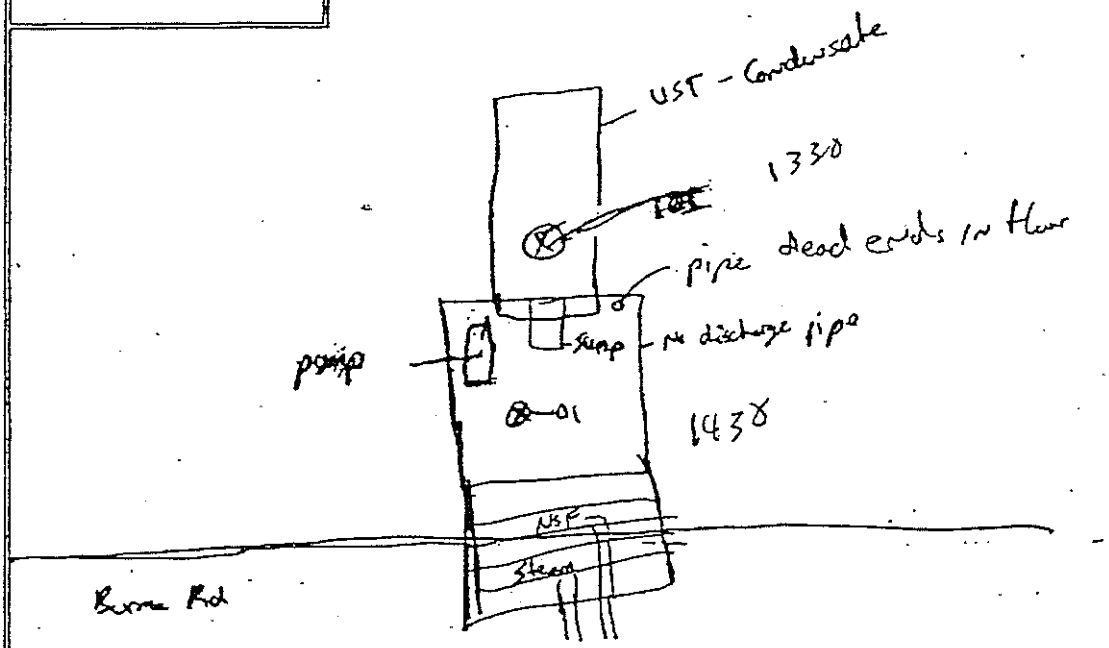
Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : 0.4 PPMV

Sketch

North ←

Sample ID :



Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 10-3-00

Location : Newport, RI — Recorded by: JOHN LANE

Client : U. S. Navy - Northern Division

From Chamber : E-17 — Sample Depth ~10' ft bgs

Time Collected : ~~1105~~ 1105

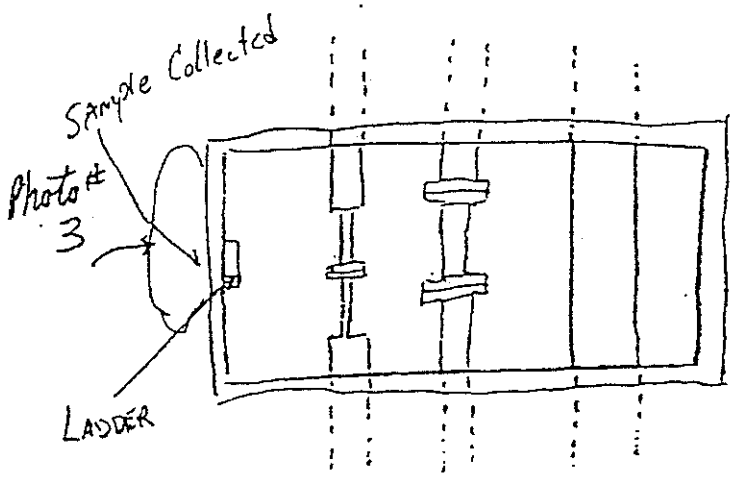
Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : PPMV

Sketch

North ↑ N

Sample ID : NAVSTA-CS-VE17-01



Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure
Location : Newport, RI
Client : U. S. Navy - Northern Division

Date : 10-3-00
Recorded by: JOHN LANE

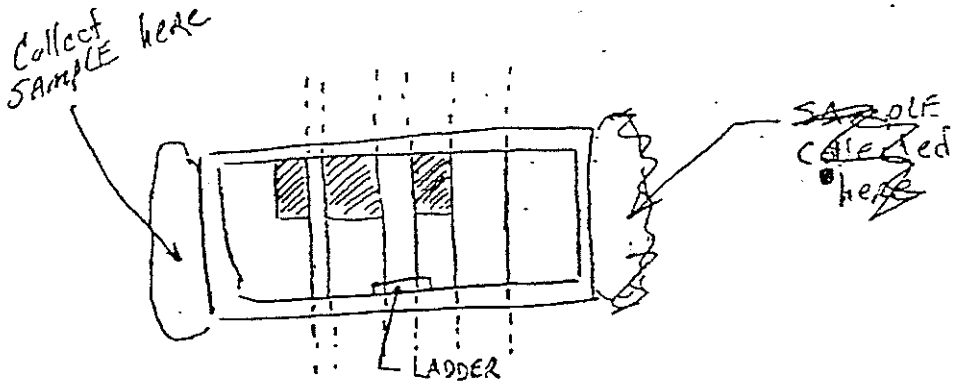
From Chamber : A-17
Sample Depth ~10ft ft bgs
Time Collected : ~~1150~~ 1250

Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : 0 PPMV

Sketch
North ↑ N

Sample ID : NAVSTA-CS-VA17-01



Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 10-4-00

Location : Newport, RI — Recorded by: John LANE

Client : U. S. Navy - Northern Division

From Chamber : E-18 — Sample Depth ~ 6 ft bgs

Time Collected : 0925

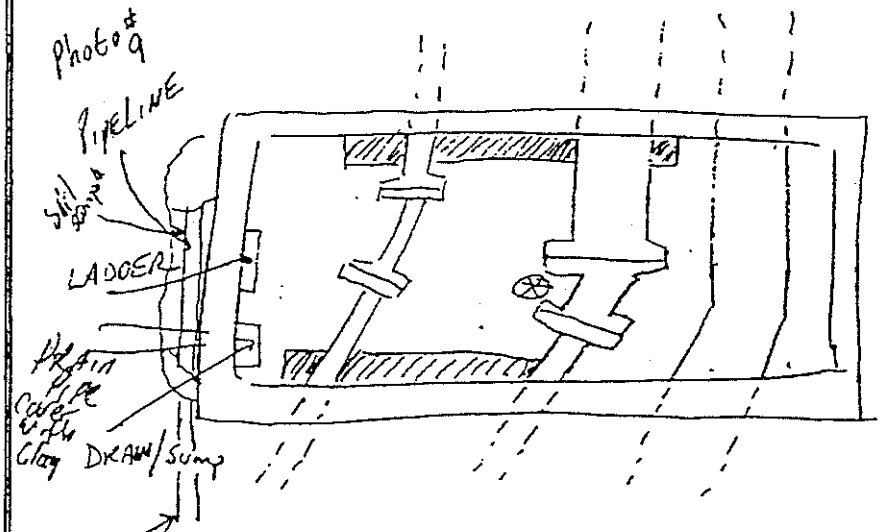
Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : 0 PPMV

Sketch

North ↑ N

Sample ID : NAVSTA-CS-VE18-01



↳ get inside Tunnel someplace, Follows Tunnel to CHAMBER A-18 (See A-18 Chamber)

Sample ID scheme : No oil present

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 10-4-00

Location : Newport, RI — Recorded by: John Lane

Client : U. S. Navy - Northern Division

From Chamber : A-18 — Sample Depth — ft bgs

Time Collected : 1000

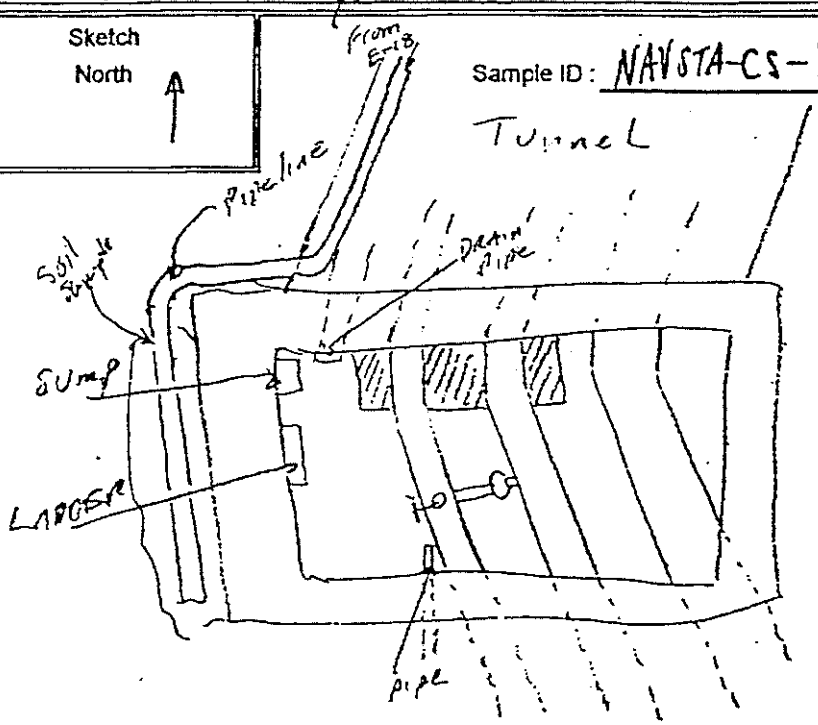
Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : 0 PPMV

Sketch

North ↑

Sample ID : NAVSTA-CS-VA18-01



No oil present

Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure
Location : Newport, RI
Client : U. S. Navy - Northern Division

Date : 10-4-00
Recorded by: John Lane

From Chamber : E-19
Sample Depth 6' ft bgs
Time Collected : 1110

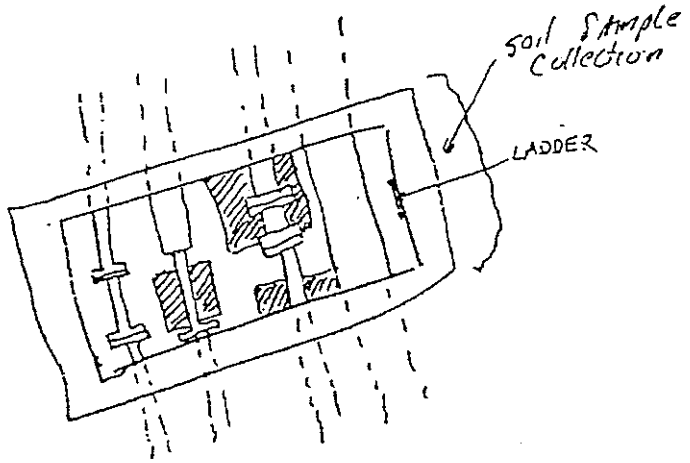
Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : Ø PPMV

Sketch
North ↑ N

Sample ID : NAVSTA-CS-VE19-01

Photo # 12



No oil present

Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 10-4-00

Location : Newport, RI — Recorded by: John Lane

Client : U. S. Navy - Northern Division

From Chamber : A-19 — Sample Depth — ft bgs

Time Collected : 0735 / 1330 / 10/17/00 A19-02

Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : 0 PPMV

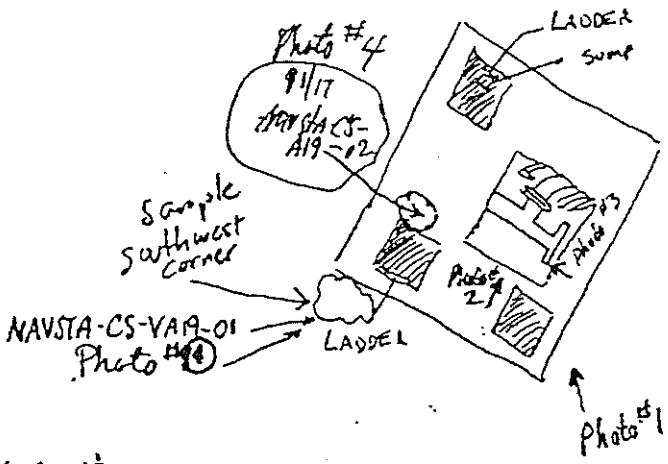
Sketch

North ↑ N

Sample ID : 0735 NAVSTA-CS-VA19-01 outside corner

10/17/00 NAVSTA-CS-VA19-02 inside corner

Sample Collected @ 1330



Photos = 1, 2, 3, 5

Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

1 gal of water = 8.3 LBS

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 10-5-00

Location : Newport, RI — Recorded by: John LANE

Client : U. S. Navy - Northern Division

From Chamber : CT-51 — Sample Depth — ft bgs

Time Collected : 1410

Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : Ø PPMV

Sketch

North ↑ N

Sample ID : NAVSTA-CS-VCT51-01 1410

NAVSTA-CS-VCT51-02 1555

NAVSTA-CS-VCT51-03 1610

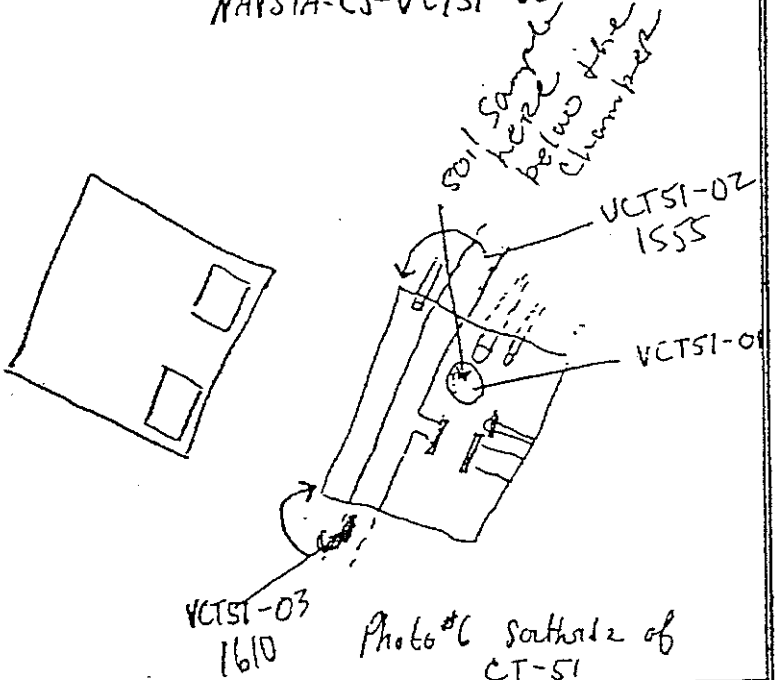


Photo # 4

Photo #6 Southside of CT-51

Photo #7 Westside of CT-51

Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

couldn't get under pipes VCT51-02 Sample on NW corner

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 10-11-00

Location : Newport, RI — Recorded by: John LANE

Client : U. S. Navy - Northern Division

From Chamber : CT-52 — Sample Depth — ft bgs

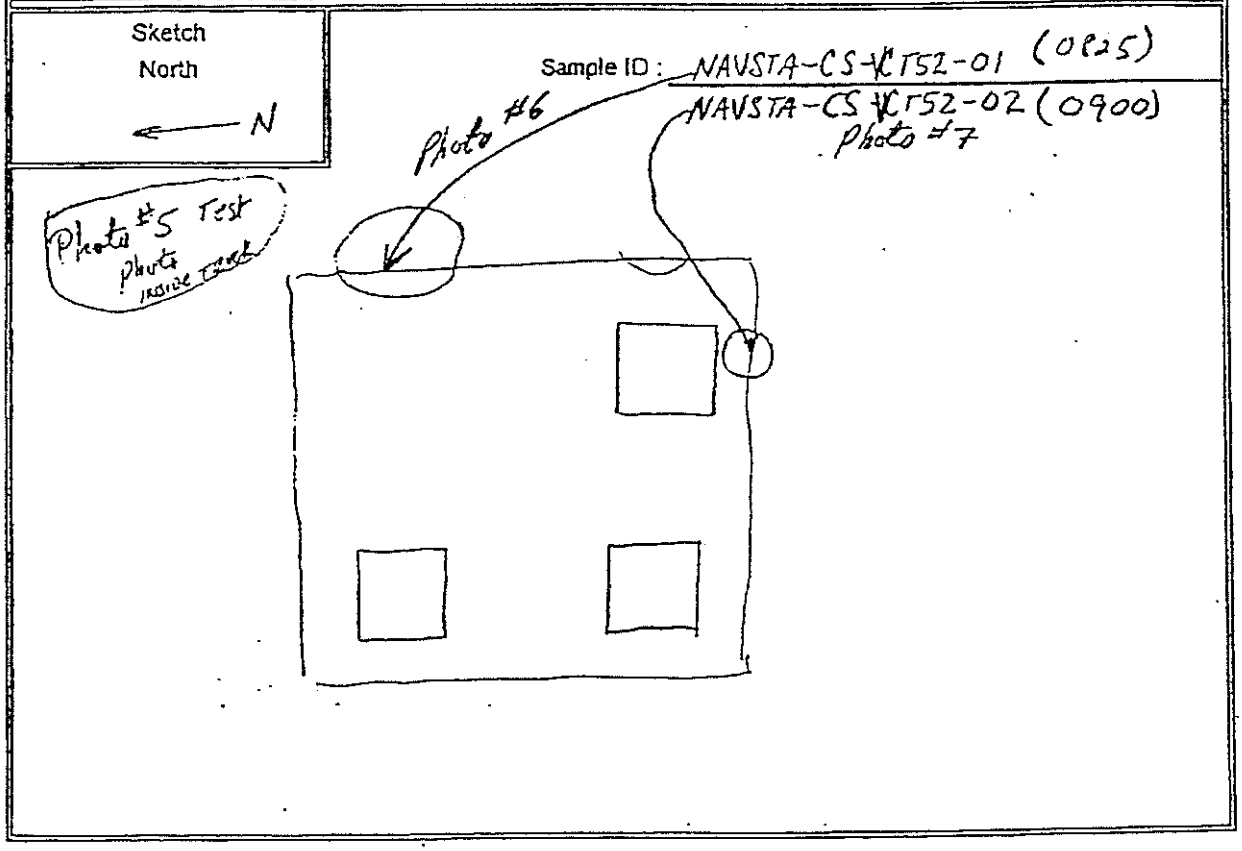
Time Collected : 0825/0900

Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : PPMV

Sketch

North



Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 10-18-00

Location : Newport, RI — Recorded by: J. Lane

Client : U. S. Navy - Northern Division

From Chamber : CT-52 — Sample Depth — ft bgs

Time Collected :

Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : PPMV

Sketch

North ↑ N

Sample ID : NAVSTA-CS-VCT-52

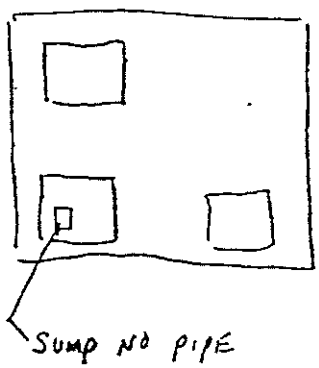


Photo # 5

Sump has no drain pipe see Photo #5

Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date: 10-11-00

Location : Newport, RI — Recorded by: John Lane

Client : U. S. Navy - Northern Division

From Chamber : CT-56 — Sample Depth — ft bgs

Time Collected : 0935/ 0950 (11.0 ppm)

Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

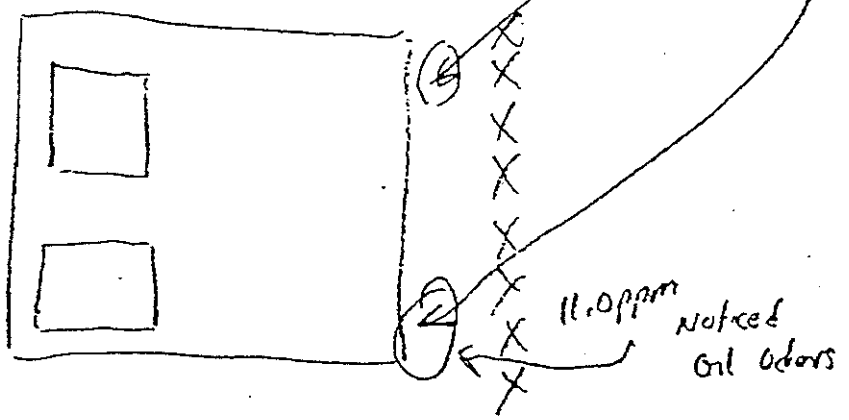
Screening Result : 56-01 = 0 PPMV 56-02 = 11.0 ppm

Sketch

North N

Sample ID : NAVSTA-CS-VCT56-01 Photo #8 CF35

NAVSTA-CS-VCT56-02 Photo #9 0950



Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 10-19-00

Location : Newport, RI — Recorded by: J. LANE

Client : U. S. Navy - Northern Division

From Chamber : CT-56 — Sample Depth — ft bgs

Time Collected : 1000

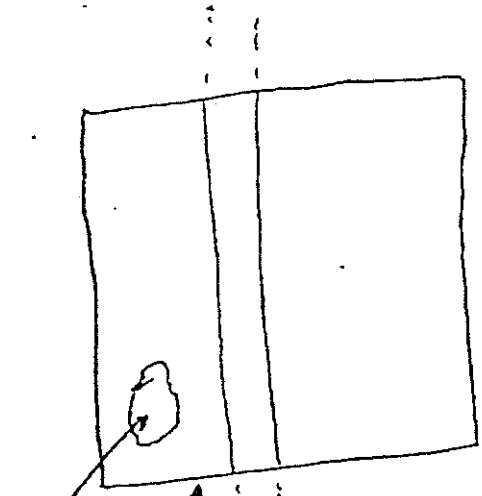
Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : ~~5~~ 8.10 PPMV Hits petro odors

Sketch

North

Sample ID : ~~NAVSTA-CS-VCT56-03~~ NAVSTA-CS-VCT56-03



CT-56-03

Photo #7 Shows Sample Location

Soil Sample Photo #6 From South West wall during Demo

Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 10-25-00

Location : Newport, RI — Recorded by: Josh Collect Sample

Client : U. S. Navy - Northern Division

From Chamber : V-1/CT-53 — Sample Depth — ft bgs

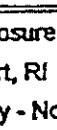
Time Collected :

Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : PPMV

Sketch

North



Sample ID : NAVSTA-CS-~~VH1-02~~ VCT53-02

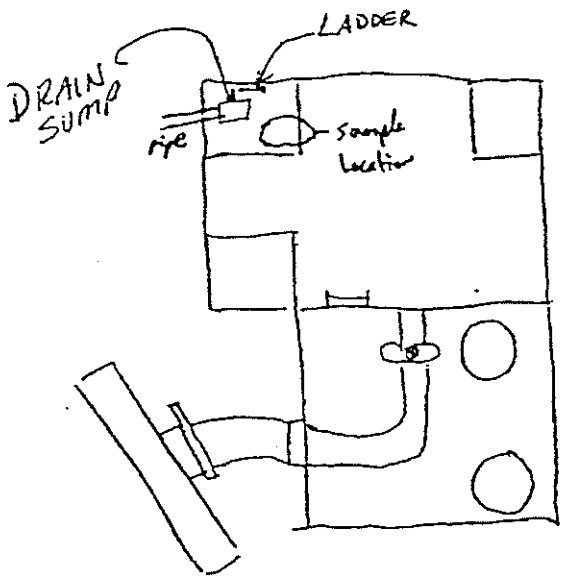


Photo # 9 was taken from the NE side of Chamber during Demolition

DRAIN ~~H2O~~ WATER Forced INSIDE (But DYE water got clogged up)

Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 10-11-00

Location : Newport, RI — Recorded by: JOHN LANE

Client : U. S. Navy - Northern Division

From Chamber : CT-53 — Sample Depth — ft bgs

Time Collected : 1255/1245

Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

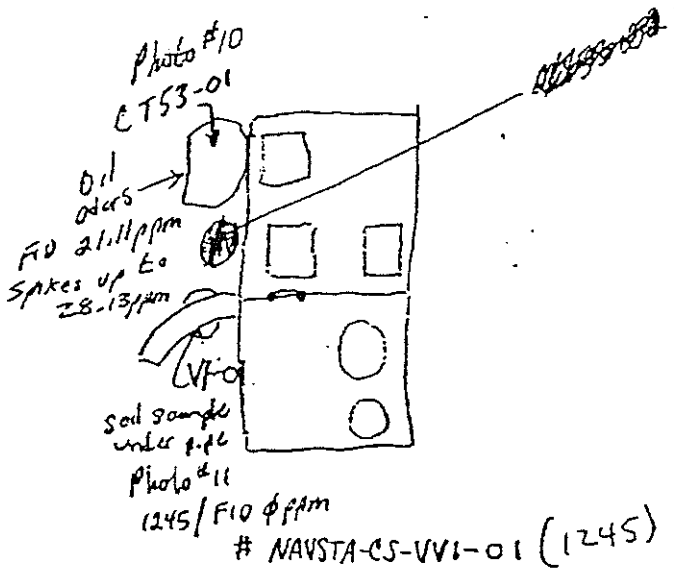
Screening Result : 53-01 21.11 PPMV / 53-02

Sketch

North ↑ N

Sample ID : NAVSTA-CS-CT53-01 1255 (21.11 ppm)

NAVSTA-CS-CT53-02 ~~1245~~



Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure
Location : Newport, RI
Client : U. S. Navy - Northern Division

Date : 10-2-00
Recorded by: John Lane

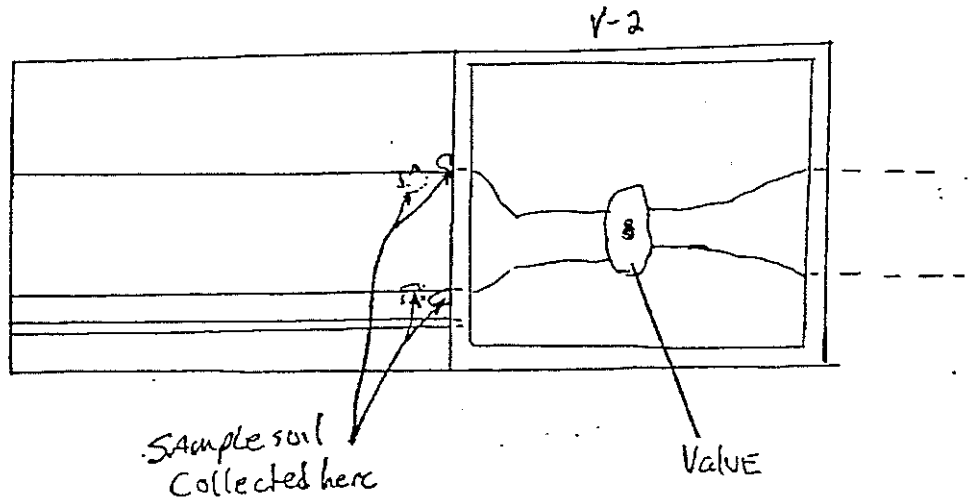
From Chamber : Pipeline South of V-2 Sample Depth Below Pipe ft bgs
Time Collected : 0645

Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : 0 PPMV

Sketch
North
N →

Sample ID : NAVSTA-CS-V2-01



Sample ID scheme :

NAVSTA-CS-VE1-01
CS = confirmation sample
VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 10-26-00

Location : Newport, RI — Recorded by: JOHN LANE

Client : U. S. Navy - Northern Division

From Chamber : ~~VAT M1~~ AU1 — Sample Depth ~ 3' ft bgs

Time Collected : 1150

Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : Ø PPMV

Sketch

North ↑

Sample ID : NAVSTA-CS-VVA1-01

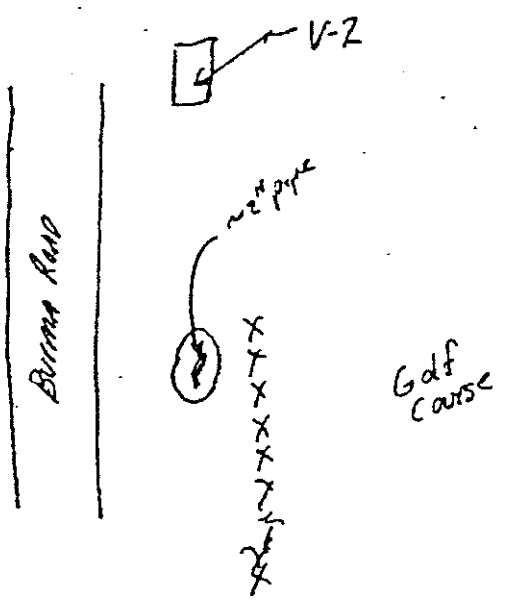


Photo # 5 Shows Soil Sample Location

Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 10-30-00

Location : Newport, RI — Recorded by: J. Lane

Client : U. S. Navy - Northern Division

From Chamber : S1 — Sample Depth Below Pipeline ft bgs

Time Collected : 1215 VS1-01, 1240 VS1-02

Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

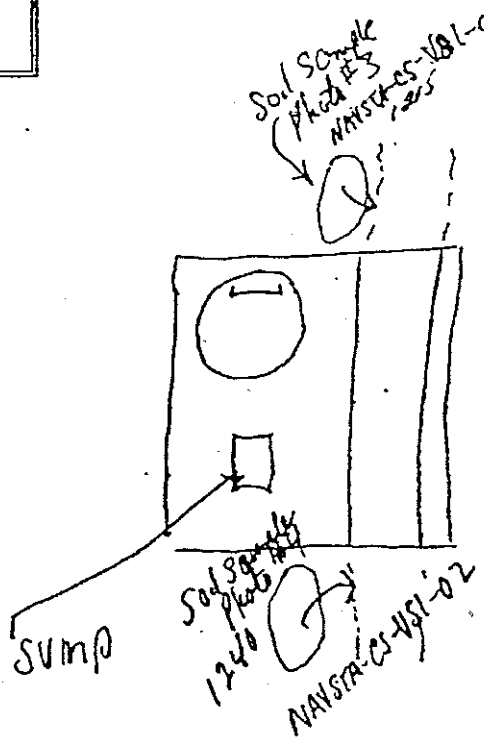
Screening Result : Ø PPMV Both Soil Samples

Sketch

North

N

Sample ID : NAVSTA-CS-VS1-01 -02



Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

To difficult to excess inside vault to collect soil sample, Samples were collected from the North and Southside of the Vault underneath the 24" Pipeline

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure
Location : Newport, RI
Client : U. S. Navy - Northern Division

Date : 11-1-00
Recorded by: J. Lane

From Chamber : V-3 Sample Depth ft bgs

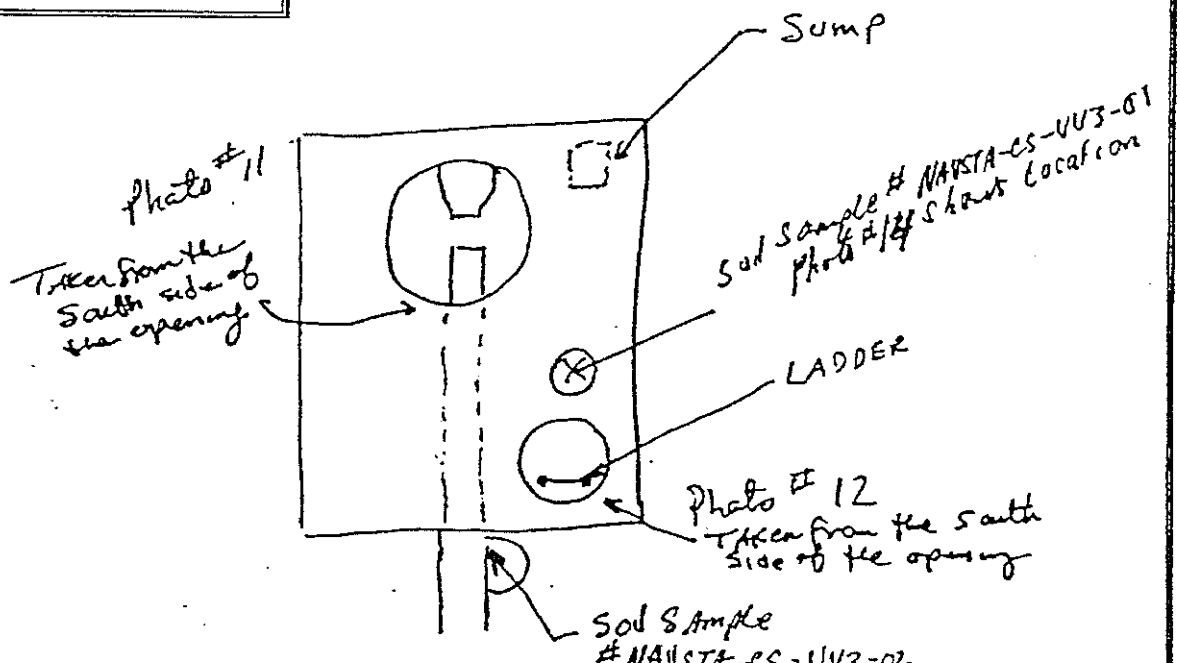
Time Collected : 0900 / 1200

Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : Ø PPMV / 0 PPMV

Sketch
North

Sample ID : NAVSTA-CS-VV3-01
NAVSTA-CS-VV3-02



Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 10-30-00

Location : Newport, RI — Recorded by: J. Lane

Client : U. S. Navy - Northern Division

From Chamber : AV2 — Sample Depth ~ 3' ft bgs

Time Collected : ~~0850~~ 0750

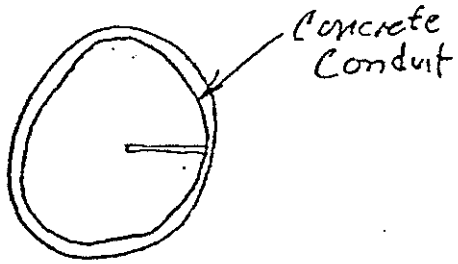
Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : 101.39 PPMV oil odors

Sketch

North ↑ N

Sample ID : NAVSTA-CS-VAV2-01



Photos #1 & 2

Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

Photo #1 Shows pipeline in ground

Photo #2 Shows disconnect valve on ground surface near open hole

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure
Location : Newport, RI
Client : U. S. Navy - Northern Division

Date : 11-2-00
Recorded by: J. LANE

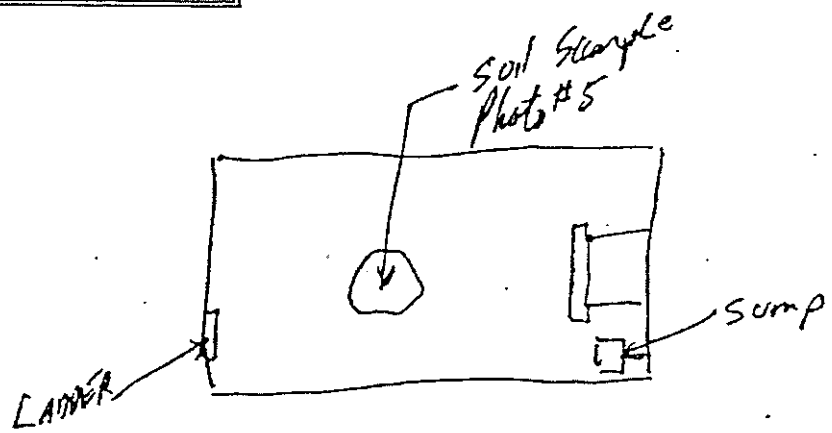
From Chamber : S2
Sample Depth ~ 10 ft bgs
Time Collected : 0930

Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : ⌀ PPMV

Sketch
North

Sample ID : NAVSTA-CS-VS2-01



Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 11-2-00

Location : Newport, RI — Recorded by: J. LANE

Client : U. S. Navy - Northern Division

From Chamber : AV-3 — Sample Depth 2' ft bgs

Time Collected : 0730

Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : 0 PPMV

Sketch

North

N →

Sample ID : NAVSTA-CS-VAV3-01

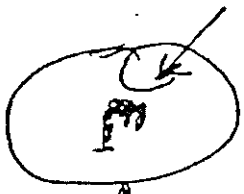


Photo #3 taken from EAST side

Photo #4 Shows Soil Sample Location

Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure — Date : 11-1-00

Location : Newport, RI — Recorded by: J. Lane

Client : U. S. Navy - Northern Division

From Chamber : Bldg. 73 (VB73-01 — Sample Depth ~10' ft bgs

Time Collected : 1340

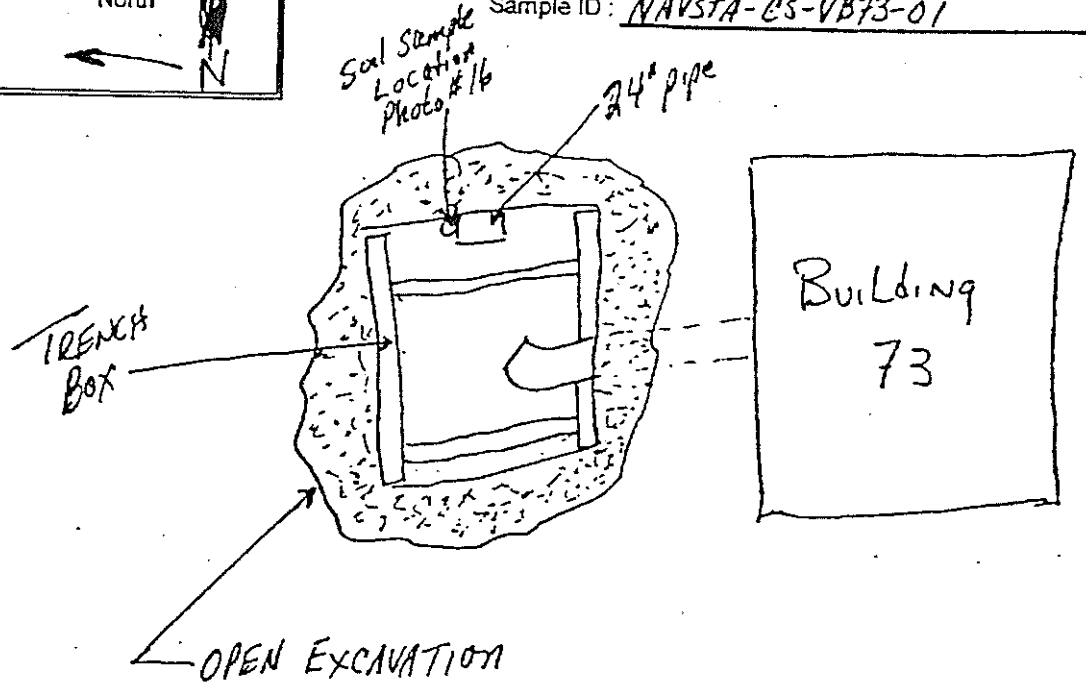
Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : 0.58 PPMV ABOVE THE BACKGROUND

Sketch

North

Sample ID : NAVSTA-CS-VB73-01



Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

SOIL SAMPLE SHEET

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Site : Fuel line closure
Location : Newport, RI
Client : U. S. Navy - Northern Division

Date : 10-16-00
Recorded by: JOHN LANE

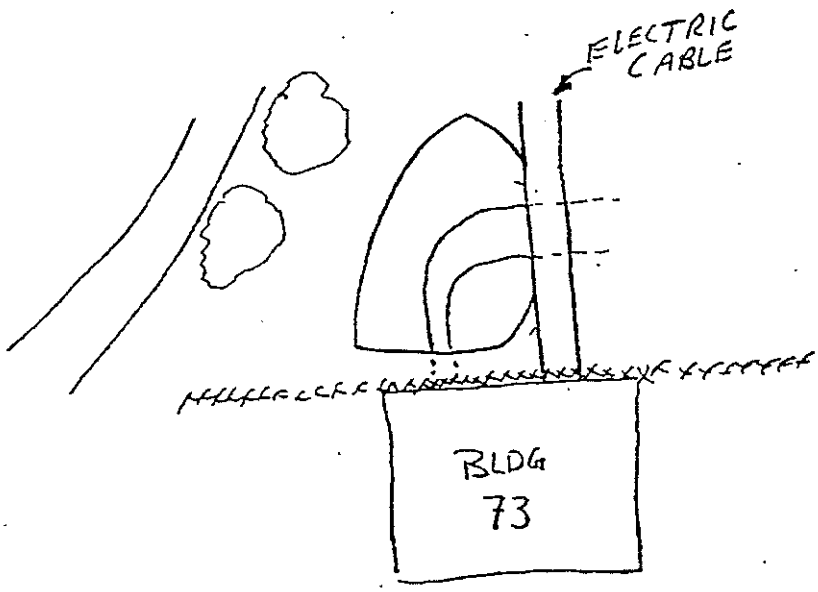
From Chamber : BLDG #73 Sample Depth ft bgs

Time Collected :

Analysis :		
	VOCs (methanol (10cc) and Sodium bisulfate (5cc))	3 40 ml Vials
	SVOCs (Method 8270)	1 8 oz jar
	TAL Metals	
	TPH (method 418.1)	1 8 oz jar
	TPH (method 8015)	

Screening Result : PPMV

Sketch
North



Sample ID : _____

Sample ID scheme :

NAVSTA-CS-VE1-01

CS = confirmation sample

VE1 = Vault E1

APPENDIX E

2000 Field Activity Sampling Results

FINAL CONSTRUCTION COMPLETION REPORT
REMEDIAL ACTION CONTRACT N62472-94-D-0398
DELIVERY ORDER NO. 0065
FUEL LINE CLOSURE
NAVAL STATION NEWPORT
MIDDLETOWN, RHODE ISLAND

Table 6-1

TPH Results

Method	RDEC	Detection Limit	VE1-01	VE2-01	VA3-01	VA8-01	VA7-01	VE8-01	VA4-01	VA5-01	VE10-01
418.1	500	29	<29	<28	<28	<29	<28	<28	<29	<29	<28
8015 C6-C9	500	12	<12	<12	<12	<12	<12	<12	<12	<12	<12
8015 C9-C24	500	4	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	15	54	<4.0
8015 C24-C36	500	20	<20	<20	<20	<20	<20	<20	61	110	<20
8015 Total	500	36	0	0	0	0	0	0	76	164	0

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
(C6-C9) = Gasoline Range
(C9-C24) = Diesel Range (#2)
(C24-C36) = Heavy Range (#6)

Table 6-1

TPH Results

Method	RDEC	VE9-01	VA9-01	VE7-01	VE3-01	VE12-01	VA11-01	VA12-01	VE13-01	VA13-01	VE14-01
418.1	500	<30	<30	<27	<27	<29	<29	<29	<31	<29	<29
8015 C6-C9	500	<12	<12	<12	<12	<12	<12	<12	<12	<12	<12
8015 C9-C24	500	<4.0	<4.0	12	4.7	43	<4.0	<4.0	<4.0	49	20
8015 C24-C36	500	<20	<20	97	63	<20	<20	<20	<20	<20	<20
8015 Total	500	0	0	109	68	43	0	0	0	49	20

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
(C6-C9) = Gasoline Range
(C9-C24) = Diesel Range (#2)
(C24-C36) = Heavy Range (#6)

Table 6-1

TPH Results

Method	RDEC	VA10-01	VA14-01	VE15-01	VA15-01	VE4-01	VE5-01	V2-01	VE17-01	VA17-01	VE19-01
418.1	500	<28	<28	430	190	<30	<29	<27	<28	<28	<29
8015 C6-C9	500	<12	<12	<12	<12	<12	<12	<12	<12	<12	<12
8015 C9-C24	500	<4.0	<4.0	6	11	42	40	47	<4.0	<4.0	<4.0
8015 C24-C36	500	<20	<20	<20	44	50	47	37	<20	<20	<20
8015 Total	500	0	0	6	55	92	87	84	0	0	0

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
(C6-C9) = Gasoline Range
(C9-C24) = Diesel Range (#2)
(C24-C36) = Heavy Range (#6)

FINAL CONSTRUCTION COMPLETION REPORT
REMEDIAL ACTION CONTRACT N62472-94-D-0398
DELIVERY ORDER NO. 0065
FUEL LINE CLOSURE
NAVAL STATION NEWPORT
MIDDLETOWN, RHODE ISLAND

Table 6-1

TPH Results

Method	RDEC	**VA18-01**	VE18-01	VCT51-01	VCT51-02	VCT51-03	VA19-01	VCT52-01	VCT52-02	**VCT53-01**	**VV1-01**
418.1	500	490	<29	<29	<28	<28	<28	38	<26	**2,400**	54
8015 C6-C9	500	<12	<12	<12	<12	<12	<12	<12	<12	<12	<12
8015 C9-C24	500	370	<4.0	350	<4.0	<4.0	<4.0	<4.0	<4.0	**11,000**	**1,700**
8015 C24-C36	500	**950**	<20	33	<20	<20	<20	<20	<20	**2,700**	**2,600**
8015 Total	500	**1,320**	0	383	0	0	0	0	0	**13,700**	**4,300**

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
(C6-C9) = Gasoline Range
(C9-C24) = Diesel Range (#2)
(C24-C36) = Heavy Range (#6)

Table 6-1

TPH Results

Method	RDEC	VCT56-01	**VCT56-02**	**VCT56-03**	VA19-02	VCT53-02	**VAV1-01**	VS1-02	VS1-01	**VAV2-01**	VE16-01
418.1	500	<28	440	2,100	<27	<28	**1,400**	120	80	**23,000**	190
8015 C6-C9	500	<12	<12	<12	<12	<12	<12	<12	<12	<12	<12
8015 C9-C24	500	<4.0	**1,100**	**6,100**	<4.0	<4.0	**4,300**	50	150	**35,000**	150
8015 C24-C36	500	<20	110	90	<20	<20	**2,100**	51	93	63	330
8015 Total	500	0	**1,210**	**6,190**	0	0	**6,400**	101	243	**35,063**	480

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
(C6-C9) = Gasoline Range
(C9-C24) = Diesel Range (#2)
(C24-C36) = Heavy Range (#6)

FINAL CONSTRUCTION COMPLETION REPORT
REMEDIAL ACTION CONTRACT N62472-94-D-0398
DELIVERY ORDER NO. 0065
FUEL LINE CLOSURE
NAVAL STATION NEWPORT
MIDDLETOWN, RHODE ISLAND

Table 6-1

TPH Results

Method	RDEC	**VE22-01**	VV3-01	VV3-02	VB73-01	**VAV3-01**	VS2-01	VA16-T01	**VA16-01**
418.1	500	**3,000**	<27	150	82	**950**	<28	<29	**700**
8015 C6-C9	500	<12	<12	<12	<12	<12	<12	<12	<12
8015 C9-C24	500	**1,100**	76	250	19	**2,800**	<4.0	<4.0	**860**
8015 C24-C36	500	140	<20	210	29	440	<20	<20	**620**
8015 Total	500	**1,240**	76	460	48	**3,240**	0	0	**1,480**

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
(C6-C9) = Gasoline Range
(C9-C24) = Diesel Range (#2)
(C24-C36) = Heavy Range (#6)

FINAL CONSTRUCTION COMPLETION REPORT
REMEDIAL ACTION CONTRACT N62472-94-D-0398
DELIVERY ORDER NO. 0065
FUEL LINE CLOSURE
NAVAL STATION NEWPORT
MIDDLETOWN, RHODE ISLAND

Table 6-2

VOC Results

			8/23/00	8/23/00	9/5/00	9/7/00	9/7/00	9/12/00
PARAMETER	MDL	RDEC	VE1-01	VE2-01	VA3-01	VA4-01	VA5-01	VA8-01
BENZENE	0.004	2.5	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
BROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
BROMOCHLOROMETHANE	0.008		<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
BROMODICHLOROMETHANE	0.004	10	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
BROMOFORM	0.004	81	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
BROMOMETHANE	0.02	0.8	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-BUTYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
SEC-BUTYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TERT-BUTYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CARBON TETRACHLORIDE	0.004	1.5	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CHLOROBENZENE	0.004	210	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CHLOROETHANE	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
CHLOROFORM	0.004	1.2	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CHLOROMETHANE	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2-CHLOROTOLUENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
4-CHLOROTOLUENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
DIBROMOCHLOROMETHANE	0.004	7.6	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2-DIBROMO-3-CHLOROPROPANE	0.008	0.5	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
1,2-DIBROMOETHANE (EDB)	0.004	0.01	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
DIBROMOMETHANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2-DICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,3-DICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,4-DICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
DICHLORODIFLUOROMETHANE	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
1,1-DICHLOROETHANE	0.004	920	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VCT56-03 and VAV2-01) caused by sample dilution

FINAL CONSTRUCTION COMPLETION REPORT
REMEDIAL ACTION CONTRACT N62472-94-D-0398
DELIVERY ORDER NO. 0065
FUEL LINE CLOSURE
NAVAL STATION NEWPORT
MIDDLETOWN, RHODE ISLAND

Table 6-2

VOC Results

			8/23/00	8/23/00	9/5/00	9/7/00	9/7/00	9/12/00
PARAMETER	MDL	RDEC	VE1-01	VE2-01	VA3-01	VA4-01	VA5-01	VA8-01
1,2-DICHLOROETHANE	0.004	0.9	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1-DICHLOROETHENE	0.004	0.2	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CIS-1,2-DICHLOROETHENE	0.004	630	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TRANS-1,2-DICHLOROETHENE	0.004	1100	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2-DICHLOROPROPANE	0.004	1.9	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,3-DICHLOROPROPANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
2,2-DICHLOROPROPANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1-DICHLOROPROPENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
ETHYLBENZENE	0.004	71	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
HEXACHLOROBUTADIENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
ISOPROPYLBENZENE	0.004	27	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
P-ISOPROPYLTOLUENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
METHYLENE CHLORIDE	0.01	45	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
NAPHTHALENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
N-PROPYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
STYRENE	0.004	13	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1,1,2-TETRACHLOROETHANE	0.004	2.2	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1,2,2-TETRACHLOROETHANE	0.004	1.3	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TETRACHLOROETHENE	0.004	12	<0.004	<0.004	<0.004	0.010	0.004	<0.004
TOLUENE	0.004	190	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2,3-TRICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2,4-TRICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1,1-TRICHLOROETHANE	0.004	540	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1,2-TRICHLOROETHANE	0.004	3.6	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TRICHLOROETHENE	0.004	13	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VCT56-03 and VAV2-01) caused by sample dilution

Table 6-2

VOC Results

			8/23/00	8/23/00	9/5/00	9/7/00	9/7/00	9/12/00
PARAMETER	MDL	RDEC	VE1-01	VE2-01	VA3-01	VA4-01	VA5-01	VA8-01
TRICHLOROFLUOROMETHANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2,3-TRICHLOROPROPANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2,4-TRIMETHYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,3,5-TRIMETHYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
VINYL CHLORIDE	0.004	0.02	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
O-XYLENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
M&P-XYLENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
MTBE	0.008	390	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
XYLENES (TOTAL)		110	0	0	0	0	0	0

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VCT56-03 and VAV2-01) caused by sample dilution

Table 6-2

VOC Results

			9/12/00	9/12/00	9/13/00	9/13/00	9/13/00	9/19/00
PARAMETER	MDL	RDEC	VA7-01	VE8-01	VE10-01	VE9-01	VA9-01	VE7-01
BENZENE	0.004	2.5	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
BROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
BROMOCHLOROMETHANE	0.008		<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
BROMODICHLOROMETHANE	0.004	10	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
BROMOFORM	0.004	81	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
BROMOMETHANE	0.02	0.8	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-BUTYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
SEC-BUTYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TERT-BUTYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CARBON TETRACHLORIDE	0.004	1.5	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CHLOROBENZENE	0.004	210	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CHLOROETHANE	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
CHLOROFORM	0.004	1.2	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CHLOROMETHANE	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2-CHLOROTOLUENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
4-CHLOROTOLUENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
DIBROMOCHLOROMETHANE	0.004	7.6	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2-DIBROMO-3-CHLOROPROPANE	0.008	0.5	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
1,2-DIBROMOETHANE (EDB)	0.004	0.01	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
DIBROMOMETHANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2-DICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,3-DICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,4-DICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
DICHLORODIFLUOROMETHANE	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
1,1-DICHLOROETHANE	0.004	920	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VCT56-03 and VAV2-01) caused by sample dilution

Table 6-2

VOC Results

			9/12/00	9/12/00	9/13/00	9/13/00	9/13/00	9/19/00
PARAMETER	MDL	RDEC	VA7-01	VE8-01	VE10-01	VE9-01	VA9-01	VE7-01
1,2-DICHLOROETHANE	0.004	0.9	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1-DICHLOROETHENE	0.004	0.2	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CIS-1,2-DICHLOROETHENE	0.004	630	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TRANS-1,2-DICHLOROETHENE	0.004	1100	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2-DICHLOROPROPANE	0.004	1.9	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,3-DICHLOROPROPANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
2,2-DICHLOROPROPANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1-DICHLOROPROPENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
ETHYLBENZENE	0.004	71	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
HEXACHLOROBUTADIENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
ISOPROPYLBENZENE	0.004	27	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
P-ISOPROPYLTOLUENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
METHYLENE CHLORIDE	0.01	45	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
NAPHTHALENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
N-PROPYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
STYRENE	0.004	13	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1,1,2-TETRACHLOROETHANE	0.004	2.2	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1,2,2-TETRACHLOROETHANE	0.004	1.3	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TETRACHLOROETHENE	0.004	12	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TOLUENE	0.004	190	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2,3-TRICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2,4-TRICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1,1-TRICHLOROETHANE	0.004	540	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1,2-TRICHLOROETHANE	0.004	3.6	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TRICHLOROETHENE	0.004	13	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VCT56-03 and VAV2-01) caused by sample dilution

Table 6-2

VOC Results

			9/12/00	9/12/00	9/13/00	9/13/00	9/13/00	9/19/00
PARAMETER	MDL	RDEC	VA7-01	VE8-01	VE10-01	VE9-01	VA9-01	VE7-01
TRICHLOROFLUOROMETHANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2,3-TRICHLOROPROPANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2,4-TRIMETHYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,3,5-TRIMETHYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
VINYL CHLORIDE	0.004	0.02	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
O-XYLENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
M&P-XYLENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
MTBE	0.008	390	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
XYLENES (TOTAL)		110	0	0	0	0	0	0

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VCT56-03 and VAV2-01) caused by sample dilution

Table 6-2

VOC Results

			9/19/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00
PARAMETER	MDL	RDEC	VE3-01	VE12-01	VA11-01	VA12-01	VE13-01	VA13-01
BENZENE	0.004	2.5	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
BROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
BROMOCHLOROMETHANE	0.008		<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
BROMODICHLOROMETHANE	0.004	10	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
BROMOFORM	0.004	81	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
BROMOMETHANE	0.02	0.8	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-BUTYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
SEC-BUTYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TERT-BUTYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CARBON TETRACHLORIDE	0.004	1.5	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CHLOROBENZENE	0.004	210	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CHLOROETHANE	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
CHLOROFORM	0.004	1.2	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CHLOROMETHANE	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2-CHLOROTOLUENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
4-CHLOROTOLUENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
DIBROMOCHLOROMETHANE	0.004	7.6	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2-DIBROMO-3-CHLOROPROPANE	0.008	0.5	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
1,2-DIBROMOETHANE (EDB)	0.004	0.01	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
DIBROMOMETHANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2-DICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,3-DICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,4-DICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
DICHLORODIFLUOROMETHANE	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
1,1-DICHLOROETHANE	0.004	920	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VCT56-03 and VAV2-01) caused by sample dilution

Table 6-2

VOC Results

			9/19/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00
PARAMETER	MDL	RDEC	VE3-01	VE12-01	VA11-01	VA12-01	VE13-01	VA13-01
1,2-DICHLOROETHANE	0.004	0.9	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1-DICHLOROETHENE	0.004	0.2	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CIS-1,2-DICHLOROETHENE	0.004	630	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TRANS-1,2-DICHLOROETHENE	0.004	1100	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2-DICHLOROPROPANE	0.004	1.9	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,3-DICHLOROPROPANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
2,2-DICHLOROPROPANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1-DICHLOROPROPENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
ETHYLBENZENE	0.004	71	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
HEXACHLOROBUTADIENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
ISOPROPYLBENZENE	0.004	27	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
P-ISOPROPYLTOLUENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
METHYLENE CHLORIDE	0.01	45	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
NAPHTHALENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
N-PROPYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
STYRENE	0.004	13	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1,1,2-TETRACHLOROETHANE	0.004	2.2	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1,2,2-TETRACHLOROETHANE	0.004	1.3	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TETRACHLOROETHENE	0.004	12	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TOLUENE	0.004	190	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2,3-TRICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2,4-TRICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1,1-TRICHLOROETHANE	0.004	540	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1,2-TRICHLOROETHANE	0.004	3.6	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TRICHLOROETHENE	0.004	13	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
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Elevated detection limits (VCT56-03 and VAV2-01) caused by sample dilution

Table 6-2

VOC Results

			9/19/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00
PARAMETER	MDL	RDEC	VE3-01	VE12-01	VA11-01	VA12-01	VE13-01	VA13-01
TRICHLOROFLUOROMETHANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2,3-TRICHLOROPROPANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2,4-TRIMETHYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,3,5-TRIMETHYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
VINYL CHLORIDE	0.004	0.02	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
O-XYLENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
M&P-XYLENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
MTBE	0.008	390	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
XYLENES (TOTAL)		110	0	0	0	0	0	0

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VCT56-03 and VAV2-01) caused by sample dilution

Table 6-2

VOC Results

			9/20/00	9/28/00	9/28/00	9/28/00	9/28/00	9/28/00
PARAMETER	MDL	RDEC	VE14-01	VA10-01	VA14-01	VE15-01	VA15-01	VE4-01
BENZENE	0.004	2.5	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
BROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
BROMOCHLOROMETHANE	0.008		<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
BROMODICHLOROMETHANE	0.004	10	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
BROMOFORM	0.004	81	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
BROMOMETHANE	0.02	0.8	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-BUTYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
SEC-BUTYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TERT-BUTYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CARBON TETRACHLORIDE	0.004	1.5	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CHLOROBENZENE	0.004	210	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CHLOROETHANE	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
CHLOROFORM	0.004	1.2	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CHLOROMETHANE	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2-CHLOROTOLUENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
4-CHLOROTOLUENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
DIBROMOCHLOROMETHANE	0.004	7.6	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2-DIBROMO-3-CHLOROPROPANE	0.008	0.5	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
1,2-DIBROMOETHANE (EDB)	0.004	0.01	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
DIBROMOMETHANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2-DICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,3-DICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,4-DICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
DICHLORODIFLUOROMETHANE	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
1,1-DICHLOROETHANE	0.004	920	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VCT56-03 and VAV2-01) caused by sample dilution

Table 6-2

VOC Results

			9/20/00	9/28/00	9/28/00	9/28/00	9/28/00	9/28/00
PARAMETER	MDL	RDEC	VE14-01	VA10-01	VA14-01	VE15-01	VA15-01	VE4-01
1,2-DICHLOROETHANE	0.004	0.9	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1-DICHLOROETHENE	0.004	0.2	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CIS-1,2-DICHLOROETHENE	0.004	630	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TRANS-1,2-DICHLOROETHENE	0.004	1100	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2-DICHLOROPROPANE	0.004	1.9	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,3-DICHLOROPROPANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
2,2-DICHLOROPROPANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1-DICHLOROPROPENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
ETHYLBENZENE	0.004	71	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
HEXACHLOROBUTADIENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
ISOPROPYLBENZENE	0.004	27	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
P-ISOPROPYLTOLUENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
METHYLENE CHLORIDE	0.01	45	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
NAPHTHALENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
N-PROPYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
STYRENE	0.004	13	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1,1,2-TETRACHLOROETHANE	0.004	2.2	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1,2,2-TETRACHLOROETHANE	0.004	1.3	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TETRACHLOROETHENE	0.004	12	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TOLUENE	0.004	190	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2,3-TRICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2,4-TRICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1,1-TRICHLOROETHANE	0.004	540	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1,2-TRICHLOROETHANE	0.004	3.6	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TRICHLOROETHENE	0.004	13	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VCT56-03 and VAV2-01) caused by sample dilution

Table 6-2

VOC Results

			9/20/00	9/28/00	9/28/00	9/28/00	9/28/00	9/28/00
PARAMETER	MDL	RDEC	VE14-01	VA10-01	VA14-01	VE15-01	VA15-01	VE4-01
TRICHLOROFLUOROMETHANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2,3-TRICHLOROPROPANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2,4-TRIMETHYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,3,5-TRIMETHYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
VINYL CHLORIDE	0.004	0.02	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
O-XYLENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
M&P-XYLENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
MTBE	0.008	390	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
XYLENES (TOTAL)		110	0	0	0	0	0	0

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VCT56-03 and VAV2-01) caused by sample dilution

Table 6-2

VOC Results

			9/28/00	10/2/00	10/2/00	10/2/00	10/4/00	10/4/00
PARAMETER	MDL	RDEC	VE5-01	V2-01	VE17-01	VA17-01	VE19-01	VA18-01
BENZENE	0.004	2.5	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
BROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
BROMOCHLOROMETHANE	0.008		<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
BROMODICHLOROMETHANE	0.004	10	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
BROMOFORM	0.004	81	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
BROMOMETHANE	0.02	0.8	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-BUTYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
SEC-BUTYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TERT-BUTYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CARBON TETRACHLORIDE	0.004	1.5	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CHLOROBENZENE	0.004	210	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CHLOROETHANE	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
CHLOROFORM	0.004	1.2	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CHLOROMETHANE	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2-CHLOROTOLUENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
4-CHLOROTOLUENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
DIBROMOCHLOROMETHANE	0.004	7.6	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2-DIBROMO-3-CHLOROPROPANE	0.008	0.5	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
1,2-DIBROMOETHANE (EDB)	0.004	0.01	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
DIBROMOMETHANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2-DICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,3-DICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,4-DICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
DICHLORODIFLUOROMETHANE	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
1,1-DICHLOROETHANE	0.004	920	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VCT56-03 and VAV2-01) caused by sample dilution

Table 6-2

VOC Results

			9/28/00	10/2/00	10/2/00	10/2/00	10/4/00	10/4/00
PARAMETER	MDL	RDEC	VE5-01	V2-01	VE17-01	VA17-01	VE19-01	VA18-01
1,2-DICHLOROETHANE	0.004	0.9	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1-DICHLOROETHENE	0.004	0.2	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CIS-1,2-DICHLOROETHENE	0.004	630	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TRANS-1,2-DICHLOROETHENE	0.004	1100	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2-DICHLOROPROPANE	0.004	1.9	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,3-DICHLOROPROPANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
2,2-DICHLOROPROPANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1-DICHLOROPROPENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
ETHYLBENZENE	0.004	71	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
HEXACHLOROBUTADIENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
ISOPROPYLBENZENE	0.004	27	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
P-ISOPROPYLTOLUENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
METHYLENE CHLORIDE	0.01	45	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
NAPHTHALENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
N-PROPYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
STYRENE	0.004	13	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1,1,2-TETRACHLOROETHANE	0.004	2.2	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1,2,2-TETRACHLOROETHANE	0.004	1.3	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TETRACHLOROETHENE	0.004	12	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TOLUENE	0.004	190	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2,3-TRICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2,4-TRICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1,1-TRICHLOROETHANE	0.004	540	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1,2-TRICHLOROETHANE	0.004	3.6	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TRICHLOROETHENE	0.004	13	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VCT56-03 and VAV2-01) caused by sample dilution

Table 6-2

VOC Results

			9/28/00	10/2/00	10/2/00	10/2/00	10/4/00	10/4/00
PARAMETER	MDL	RDEC	VE5-01	V2-01	VE17-01	VA17-01	VE19-01	VA18-01
TRICHLOROFLUOROMETHANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2,3-TRICHLOROPROPANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2,4-TRIMETHYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,3,5-TRIMETHYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
VINYL CHLORIDE	0.004	0.02	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
O-XYLENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
M&P-XYLENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
MTBE	0.008	390	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
XYLENES (TOTAL)		110	0	0	0	0	0	0

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VCT56-03 and VAV2-01) caused by sample dilution

Table 6-2

VOC Results

			10/4/00	10/5/00	10/5/00	10/5/00	10/11/00	10/11/00
PARAMETER	MDL	RDEC	VE18-01	VCT51-01	VCT51-02	VCT51-03	VCT53-01	VCT52-02
BENZENE	0.004	2.5	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
BROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
BROMOCHLOROMETHANE	0.008		<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
BROMODICHLOROMETHANE	0.004	10	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
BROMOFORM	0.004	81	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
BROMOMETHANE	0.02	0.8	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-BUTYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	0.035	0.006
SEC-BUTYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	0.043	<0.004
TERT-BUTYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CARBON TETRACHLORIDE	0.004	1.5	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CHLOROBENZENE	0.004	210	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CHLOROETHANE	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
CHLOROFORM	0.004	1.2	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CHLOROMETHANE	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2-CHLOROTOLUENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
4-CHLOROTOLUENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
DIBROMOCHLOROMETHANE	0.004	7.6	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2-DIBROMO-3-CHLOROPROPANE	0.008	0.5	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
1,2-DIBROMOETHANE (EDB)	0.004	0.01	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
DIBROMOMETHANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2-DICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,3-DICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,4-DICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
DICHLORODIFLUOROMETHANE	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
1,1-DICHLOROETHANE	0.004	920	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VCT56-03 and VAV2-01) caused by sample dilution

Table 6-2

VOC Results

			10/4/00	10/5/00	10/5/00	10/5/00	10/11/00	10/11/00
PARAMETER	MDL	RDEC	VE18-01	VCT51-01	VCT51-02	VCT51-03	VCT53-01	VCT52-02
1,2-DICHLOROETHANE	0.004	0.9	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1-DICHLOROETHENE	0.004	0.2	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CIS-1,2-DICHLOROETHENE	0.004	630	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TRANS-1,2-DICHLOROETHENE	0.004	1100	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2-DICHLOROPROPANE	0.004	1.9	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,3-DICHLOROPROPANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
2,2-DICHLOROPROPANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1-DICHLOROPROPENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
ETHYLBENZENE	0.004	71	<0.004	<0.004	<0.004	<0.004	0.013	<0.004
HEXACHLOROBUTADIENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
ISOPROPYLBENZENE	0.004	27	<0.004	<0.004	<0.004	<0.004	0.018	<0.004
P-ISOPROPYLTOLUENE	0.004		<0.004	<0.004	<0.004	<0.004	0.036	<0.004
METHYLENE CHLORIDE	0.01	45	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
NAPHTHALENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
N-PROPYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	0.037	<0.004
STYRENE	0.004	13	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1,1,2-TETRACHLOROETHANE	0.004	2.2	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1,2,2-TETRACHLOROETHANE	0.004	1.3	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TETRACHLOROETHENE	0.004	12	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TOLUENE	0.004	190	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2,3-TRICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2,4-TRICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1,1-TRICHLOROETHANE	0.004	540	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1,2-TRICHLOROETHANE	0.004	3.6	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TRICHLOROETHENE	0.004	13	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VCT56-03 and VAV2-01) caused by sample dilution

Table 6-2

VOC Results

			10/4/00	10/5/00	10/5/00	10/5/00	10/11/00	10/11/00
PARAMETER	MDL	RDEC	VE18-01	VCT51-01	VCT51-02	VCT51-03	VCT53-01	VCT52-02
TRICHLOROFLUOROMETHANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2,3-TRICHLOROPROPANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2,4-TRIMETHYLBENZENE	0.004		<0.004	0.004	0.004	<0.004	0.135	0.011
1,3,5-TRIMETHYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	0.023	<0.004
VINYL CHLORIDE	0.004	0.02	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
O-XYLENE	0.004		<0.004	<0.004	<0.004	<0.004	0.007	<0.004
M&P-XYLENE	0.004		<0.004	<0.004	<0.004	<0.004	0.012	<0.004
MTBE	0.008	390	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
XYLENES (TOTAL)		110	0	0	0	0	0.019	0

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VCT56-03 and VAV2-01) caused by sample dilution

Table 6-2

VOC Results

			10/11/00	10/11/00	10/11/00	10/11/00	10/11/00	10/17/00
PARAMETER	MDL	RDEC	VV1-01	VA19-01	VCT52-01	VCT56-02	VCT56-01	VA19-02
BENZENE	0.004	2.5	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
BROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
BROMOCHLOROMETHANE	0.008		<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
BROMODICHLOROMETHANE	0.004	10	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
BROMOFORM	0.004	81	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
BROMOMETHANE	0.02	0.8	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-BUTYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
SEC-BUTYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TERT-BUTYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CARBON TETRACHLORIDE	0.004	1.5	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CHLOROBENZENE	0.004	210	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CHLOROETHANE	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
CHLOROFORM	0.004	1.2	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CHLOROMETHANE	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2-CHLOROTOLUENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
4-CHLOROTOLUENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
DIBROMOCHLOROMETHANE	0.004	7.6	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2-DIBROMO-3-CHLOROPROPANE	0.008	0.5	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
1,2-DIBROMOETHANE (EDB)	0.004	0.01	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
DIBROMOMETHANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2-DICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,3-DICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,4-DICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
DICHLORODIFLUOROMETHANE	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
1,1-DICHLOROETHANE	0.004	920	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VCT56-03 and VAV2-01) caused by sample dilution

Table 6-2

VOC Results

			10/11/00	10/11/00	10/11/00	10/11/00	10/11/00	10/17/00
PARAMETER	MDL	RDEC	VV1-01	VA19-01	VCT52-01	VCT56-02	VCT56-01	VA19-02
1,2-DICHLOROETHANE	0.004	0.9	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1-DICHLOROETHENE	0.004	0.2	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CIS-1,2-DICHLOROETHENE	0.004	630	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TRANS-1,2-DICHLOROETHENE	0.004	1100	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2-DICHLOROPROPANE	0.004	1.9	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,3-DICHLOROPROPANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
2,2-DICHLOROPROPANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1-DICHLOROPROPENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
ETHYLBENZENE	0.004	71	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
HEXACHLOROBUTADIENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
ISOPROPYLBENZENE	0.004	27	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
P-ISOPROPYLTOLUENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
METHYLENE CHLORIDE	0.01	45	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
NAPHTHALENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
N-PROPYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
STYRENE	0.004	13	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1,1,2-TETRACHLOROETHANE	0.004	2.2	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1,2,2-TETRACHLOROETHANE	0.004	1.3	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TETRACHLOROETHENE	0.004	12	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TOLUENE	0.004	190	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2,3-TRICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2,4-TRICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1,1-TRICHLOROETHANE	0.004	540	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1,2-TRICHLOROETHANE	0.004	3.6	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TRICHLOROETHENE	0.004	13	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VCT56-03 and VAV2-01) caused by sample dilution

Table 6-2

VOC Results

			10/11/00	10/11/00	10/11/00	10/11/00	10/11/00	10/17/00
PARAMETER	MDL	RDEC	VV1-01	VA19-01	VCT52-01	VCT56-02	VCT56-01	VA19-02
TRICHLOROFLUOROMETHANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2,3-TRICHLOROPROPANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2,4-TRIMETHYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,3,5-TRIMETHYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
VINYL CHLORIDE	0.004	0.02	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
O-XYLENE	0.004		0.016	<0.004	<0.004	<0.004	<0.004	<0.004
M&P-XYLENE	0.004		0.032	<0.004	<0.004	<0.004	<0.004	<0.004
MTBE	0.008	390	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
XYLENES (TOTAL)		110	0.048	0	0	0	0	0

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VCT56-03 and VAV2-01) caused by sample dilution

FINAL CONSTRUCTION COMPLETION REPORT
REMEDIAL ACTION CONTRACT N62472-94-D-0398
DELIVERY ORDER NO. 0065
FUEL LINE CLOSURE
NAVAL STATION NEWPORT
MIDDLETOWN, RHODE ISLAND

Table 6-2

VOC Results

			10/19/00	10/25/00	10/26/00	10/30/00	10/30/00	10/30/00
PARAMETER	MDL	RDEC	**VCT56-03**	VCT53-02	VAV1-01	VS1-02	VS1-01	**VAV2-01**
BENZENE	0.004	2.5	<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
BROBENZENE	0.004		<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
BROMOCHLOROMETHANE	0.008		<0.2	<0.008	<0.008	<0.008	<0.008	<0.8
BROMODICHLOROMETHANE	0.004	10	<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
BROMOFORM	0.004	81	<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
BROMOMETHANE	0.02	0.8	<1.0	<0.02	<0.02	<0.02	<0.02	<2
N-BUTYLBENZENE	0.004		2.2	<0.004	<0.004	<0.004	<0.004	9.8
SEC-BUTYLBENZENE	0.004		1.2	<0.004	<0.004	<0.004	<0.004	4.4
TERT-BUTYLBENZENE	0.004		<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
CARBON TETRACHLORIDE	0.004	1.5	<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
CHLOROBENZENE	0.004	210	<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
CHLOROETHANE	0.01		<0.5	<0.01	<0.01	<0.01	<0.01	<1
CHLOROFORM	0.004	1.2	<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
CHLOROMETHANE	0.01		<0.5	<0.01	<0.01	<0.01	<0.01	<1
2-CHLOROTOLUENE	0.004		<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
4-CHLOROTOLUENE	0.004		<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
DIBROMOCHLOROMETHANE	0.004	7.6	<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
1,2-DIBROMO-3-CHLOROPROPANE	0.008	0.5	<0.4	<0.008	<0.008	<0.008	<0.008	<0.8
1,2-DIBROMOETHANE (EDB)	0.004	0.01	<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
DIBROMOMETHANE	0.004		<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
1,2-DICHLOROBENZENE	0.004		<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
1,3-DICHLOROBENZENE	0.004		<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
1,4-DICHLOROBENZENE	0.004		<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
DICHLORODIFLUOROMETHANE	0.01		<0.5	<0.01	<0.01	<0.01	<0.01	<1
1,1-DICHLOROETHANE	0.004	920	<0.2	<0.004	<0.004	<0.004	<0.004	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VCT56-03 and VAV2-01) caused by sample dilution

Table 6-2

VOC Results

			10/19/00	10/25/00	10/26/00	10/30/00	10/30/00	10/30/00
PARAMETER	MDL	RDEC	**VCT56-03**	VCT53-02	VAV1-01	VS1-02	VS1-01	**VAV2-01**
1,2-DICHLOROETHANE	0.004	0.9	<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
1,1-DICHLOROETHENE	0.004	0.2	<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
CIS-1,2-DICHLOROETHENE	0.004	630	<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
TRANS-1,2-DICHLOROETHENE	0.004	1100	<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
1,2-DICHLOROPROPANE	0.004	1.9	<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
1,3-DICHLOROPROPANE	0.004		<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
2,2-DICHLOROPROPANE	0.004		<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
1,1-DICHLOROPROPENE	0.004		<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
ETHYLBENZENE	0.004	71	0.3	<0.004	<0.004	<0.004	<0.004	7.8
HEXACHLOROBUTADIENE	0.004		<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
ISOPROPYLBENZENE	0.004	27	0.4	<0.004	<0.004	<0.004	<0.004	3.1
P-ISOPROPYLTOLUENE	0.004		1.3	<0.004	<0.004	<0.004	<0.004	5.2
METHYLENE CHLORIDE	0.01	45	<0.5	<0.01	<0.01	<0.01	<0.01	<1
NAPHTHALENE	0.004		<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
N-PROPYLBENZENE	0.004		0.9	<0.004	<0.004	<0.004	<0.004	7.3
STYRENE	0.004	13	<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
1,1,1,2-TETRACHLOROETHANE	0.004	2.2	<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
1,1,2,2-TETRACHLOROETHANE	0.004	1.3	<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
TETRACHLOROETHENE	0.004	12	<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
TOLUENE	0.004	190	<0.2	<0.004	0.004	<0.004	<0.004	8.5
1,2,3-TRICHLOROBENZENE	0.004		<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
1,2,4-TRICHLOROBENZENE	0.004		<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
1,1,1-TRICHLOROETHANE	0.004	540	<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
1,1,2-TRICHLOROETHANE	0.004	3.6	<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
TRICHLOROETHENE	0.004	13	<0.2	<0.004	<0.004	<0.004	<0.004	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VCT56-03 and VAV2-01) caused by sample dilution

Table 6-2

VOC Results

			10/19/00	10/25/00	10/26/00	10/30/00	10/30/00	10/30/00
PARAMETER	MDL	RDEC	**VCT56-03**	VCT53-02	VAV1-01	VS1-02	VS1-01	**VAV2-01**
TRICHLOROFLUOROMETHANE	0.004		<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
1,2,3-TRICHLOROPROPANE	0.004		<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
1,2,4-TRIMETHYLBENZENE	0.004		5.6	<0.004	<0.004	<0.004	<0.004	110
1,3,5-TRIMETHYLBENZENE	0.004		2.1	<0.004	<0.004	<0.004	<0.004	25
VINYL CHLORIDE	0.004	0.02	<0.2	<0.004	<0.004	<0.004	<0.004	<0.4
O-XYLENE	0.004		<0.2	<0.004	<0.004	<0.004	<0.004	19
M&P-XYLENE	0.004		0.2	<0.004	<0.004	<0.004	<0.004	41
MTBE	0.008	390	<0.4	<0.008	<0.008	<0.008	<0.008	<0.8
XYLENES (TOTAL)		110	0.2	0	0	0	0	60

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VCT56-03 and VAV2-01) caused by sample dilution

Table 6-2

VOC Results

			10/30/00	10/30/00	11/1/00	11/1/00	11/1/00	11/2/00
PARAMETER	MDL	RDEC	VE16-01	VE22-01	VV3-01	VV3-02	VB73-01	VAV3-01
BENZENE	0.004	2.5	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
BROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
BROMOCHLOROMETHANE	0.008		<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
BROMODICHLOROMETHANE	0.004	10	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
BROMOFORM	0.004	81	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
BROMOMETHANE	0.02	0.8	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-BUTYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
SEC-BUTYLBENZENE	0.004		<0.004	0.117	<0.004	<0.004	<0.004	<0.004
TERT-BUTYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CARBON TETRACHLORIDE	0.004	1.5	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CHLOROBENZENE	0.004	210	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CHLOROETHANE	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
CHLOROFORM	0.004	1.2	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CHLOROMETHANE	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2-CHLOROTOLUENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
4-CHLOROTOLUENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
DIBROMOCHLOROMETHANE	0.004	7.6	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2-DIBROMO-3-CHLOROPROPANE	0.008	0.5	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
1,2-DIBROMOETHANE (EDB)	0.004	0.01	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
DIBROMOMETHANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2-DICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,3-DICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,4-DICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
DICHLORODIFLUOROMETHANE	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
1,1-DICHLOROETHANE	0.004	920	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VCT56-03 and VAV2-01) caused by sample dilution

Table 6-2

VOC Results

			10/30/00	10/30/00	11/1/00	11/1/00	11/1/00	11/2/00
PARAMETER	MDL	RDEC	VE16-01	VE22-01	VV3-01	VV3-02	VB73-01	VAV3-01
1,2-DICHLOROETHANE	0.004	0.9	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1-DICHLOROETHENE	0.004	0.2	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
CIS-1,2-DICHLOROETHENE	0.004	630	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TRANS-1,2-DICHLOROETHENE	0.004	1100	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2-DICHLOROPROPANE	0.004	1.9	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,3-DICHLOROPROPANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
2,2-DICHLOROPROPANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1-DICHLOROPROPENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
ETHYLBENZENE	0.004	71	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
HEXACHLOROBUTADIENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
ISOPROPYLBENZENE	0.004	27	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
P-ISOPROPYLTOLUENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
METHYLENE CHLORIDE	0.01	45	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
NAPHTHALENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
N-PROPYLBENZENE	0.004		<0.004	0.023	<0.004	<0.004	<0.004	<0.004
STYRENE	0.004	13	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1,1,2-TETRACHLOROETHANE	0.004	2.2	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1,2,2-TETRACHLOROETHANE	0.004	1.3	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TETRACHLOROETHENE	0.004	12	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TOLUENE	0.004	190	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2,3-TRICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2,4-TRICHLOROBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1,1-TRICHLOROETHANE	0.004	540	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,1,2-TRICHLOROETHANE	0.004	3.6	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TRICHLOROETHENE	0.004	13	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VCT56-03 and VAV2-01) caused by sample dilution

Table 6-2

VOC Results

			10/30/00	10/30/00	11/1/00	11/1/00	11/1/00	11/2/00
PARAMETER	MDL	RDEC	VE16-01	VE22-01	VV3-01	VV3-02	VB73-01	VAV3-01
TRICHLOROFLUOROMETHANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2,3-TRICHLOROPROPANE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,2,4-TRIMETHYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
1,3,5-TRIMETHYLBENZENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
VINYL CHLORIDE	0.004	0.02	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
O-XYLENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
M&P-XYLENE	0.004		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
MTBE	0.008	390	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
XYLENES (TOTAL)		110	0	0	0	0	0	0

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VCT56-03 and VAV2-01) caused by sample dilution

Table 6-2

VOC Results

			11/2/00	11/6/00	11/6/00
PARAMETER	MDL	RDEC	VS2-01	VA16-T01	VA16-01
BENZENE	0.004	2.5	<0.004	<0.004	<0.004
BROBENZENE	0.004		<0.004	<0.004	<0.004
BROMOCHLOROMETHANE	0.008		<0.008	<0.008	<0.008
BROMODICHLOROMETHANE	0.004	10	<0.004	<0.004	<0.004
BROMOFORM	0.004	81	<0.004	<0.004	<0.004
BROMOMETHANE	0.02	0.8	<0.02	<0.02	<0.02
N-BUTYLBENZENE	0.004		<0.004	<0.004	0.005
SEC-BUTYLBENZENE	0.004		<0.004	<0.004	0.022
TERT-BUTYLBENZENE	0.004		<0.004	<0.004	<0.004
CARBON TETRACHLORIDE	0.004	1.5	<0.004	<0.004	<0.004
CHLOROBENZENE	0.004	210	<0.004	<0.004	<0.004
CHLOROETHANE	0.01		<0.01	<0.01	<0.01
CHLOROFORM	0.004	1.2	<0.004	<0.004	<0.004
CHLOROMETHANE	0.01		<0.01	<0.01	<0.01
2-CHLOROTOLUENE	0.004		<0.004	<0.004	<0.004
4-CHLOROTOLUENE	0.004		<0.004	<0.004	<0.004
DIBROMOCHLOROMETHANE	0.004	7.6	<0.004	<0.004	<0.004
1,2-DIBROMO-3-CHLOROPROPANE	0.008	0.5	<0.008	<0.008	<0.008
1,2-DIBROMOETHANE (EDB)	0.004	0.01	<0.004	<0.004	<0.004
DIBROMOMETHANE	0.004		<0.004	<0.004	<0.004
1,2-DICHLOROBENZENE	0.004		<0.004	<0.004	<0.004
1,3-DICHLOROBENZENE	0.004		<0.004	<0.004	<0.004
1,4-DICHLOROBENZENE	0.004		<0.004	<0.004	<0.004
DICHLORODIFLUOROMETHANE	0.01		<0.01	<0.01	<0.01
1,1-DICHLOROETHANE	0.004	920	<0.004	<0.004	<0.004

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VCT56-03 and VAV2-01) caused by sample dilution

Table 6-2

VOC Results

			11/2/00	11/6/00	11/6/00
PARAMETER	MDL	RDEC	VS2-01	VA16-T01	VA16-01
1,2-DICHLOROETHANE	0.004	0.9	<0.004	<0.004	<0.004
1,1-DICHLOROETHENE	0.004	0.2	<0.004	<0.004	<0.004
CIS-1,2-DICHLOROETHENE	0.004	630	<0.004	<0.004	<0.004
TRANS-1,2-DICHLOROETHENE	0.004	1100	<0.004	<0.004	<0.004
1,2-DICHLOROPROPANE	0.004	1.9	<0.004	<0.004	<0.004
1,3-DICHLOROPROPANE	0.004		<0.004	<0.004	<0.004
2,2-DICHLOROPROPANE	0.004		<0.004	<0.004	<0.004
1,1-DICHLOROPROPENE	0.004		<0.004	<0.004	<0.004
ETHYLBENZENE	0.004	71	<0.004	<0.004	<0.004
HEXACHLOROBUTADIENE	0.004		<0.004	<0.004	<0.004
ISOPROPYLBENZENE	0.004	27	<0.004	<0.004	<0.004
P-ISOPROPYLTOLUENE	0.004		<0.004	<0.004	<0.004
METHYLENE CHLORIDE	0.01	45	<0.01	<0.01	<0.01
NAPHTHALENE	0.004		<0.004	<0.004	<0.004
N-PROPYLBENZENE	0.004		<0.004	<0.004	<0.004
STYRENE	0.004	13	<0.004	<0.004	<0.004
1,1,1,2-TETRACHLOROETHANE	0.004	2.2	<0.004	<0.004	<0.004
1,1,2,2-TETRACHLOROETHANE	0.004	1.3	<0.004	<0.004	<0.004
TETRACHLOROETHENE	0.004	12	<0.004	<0.004	<0.004
TOLUENE	0.004	190	<0.004	<0.004	<0.004
1,2,3-TRICHLOROBENZENE	0.004		<0.004	<0.004	<0.004
1,2,4-TRICHLOROBENZENE	0.004		<0.004	<0.004	<0.004
1,1,1-TRICHLOROETHANE	0.004	540	<0.004	<0.004	<0.004
1,1,2-TRICHLOROETHANE	0.004	3.6	<0.004	<0.004	<0.004
TRICHLOROETHENE	0.004	13	<0.004	<0.004	<0.004

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VCT56-03 and VAV2-01) caused by sample dilution

Table 6-2

VOC Results

			11/2/00	11/6/00	11/6/00
PARAMETER	MDL	RDEC	VS2-01	VA16-T01	VA16-01
TRICHLOROFLUOROMETHANE	0.004		<0.004	<0.004	<0.004
1,2,3-TRICHLOROPROPANE	0.004		<0.004	<0.004	<0.004
1,2,4-TRIMETHYLBENZENE	0.004		<0.004	<0.004	0.01
1,3,5-TRIMETHYLBENZENE	0.004		<0.004	<0.004	<0.004
VINYL CHLORIDE	0.004	0.02	<0.004	<0.004	<0.004
O-XYLENE	0.004		<0.004	<0.004	<0.004
M&P-XYLENE	0.004		<0.004	<0.004	<0.004
MTBE	0.008	390	<0.008	<0.008	<0.008
XYLENES (TOTAL)		110	0	0	0

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VCT56-03 and VAV2-01) caused by sample dilution

FINAL CONSTRUCTION COMPLETION REPORT
REMEDIAL ACTION CONTRACT N62472-94-D-0398
DELIVERY ORDER NO. 0065
FUEL LINE CLOSURE
NAVAL STATION NEWPORT
MIDDLETOWN, RHODE ISLAND

Table 6-3

SVOC Results

				8/23/00	8/23/00	9/5/00	9/7/00	9/7/00
PARAMETER	MDL	RDEC	I/CDEC	VE1-01	VE2-01	VA3-01	**VA4-01**	**VA5-01**
ACENAPHTHENE	0.4	43	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
ACENAPHTHYLENE	0.4	23	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
ANTHRACENE	0.4	35	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
BENZIDINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(A)ANTHRACENE	0.4	0.9	7.8	<0.4	<0.4	<0.4	0.7	<0.4
BENZO(B)FLUORANTHENE	0.4	0.9	7.8	<0.4	<0.4	<0.4	0.6	0.4
BENZO(K)FLUORANTHENE	0.4	0.9	78	<0.4	<0.4	<0.4	**1.1**	0.7
BENZO(G,H,I)PERYLENE	0.4	0.8	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(A)PYRENE	0.2	0.4	0.8	<0.2	<0.2	<0.2	**0.6**	0.3
BIS(2-CHLOROETHYL) ETHER	0.4	0.6	5.2	<0.4	<0.4	<0.4	<0.4	<0.4
BIS(2-CHLOROETHOXY) METHANE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
BIS(2-CHLOROISOPROPL) ETHER	0.4	9.1	82	<0.4	<0.4	<0.4	<0.4	<0.4
BIS(2-ETHYLHEXYL) PHTHALATE	0.4	46	410	<0.4	<0.4	<0.4	<0.4	<0.4
4-BROMOPHENYL PHENYL ETHER	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
BUTYL BENZYL PHTHALATE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
2-CHLORONAPHTHALENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
4-CHLOROPHENYL PHENYL ETHER	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
CHRYSENE	0.4	0.4	780	<0.4	<0.4	<0.4	**0.8**	**0.4**
DIBENZO(A,H)ANTHRACENE	0.4	0.4	0.8	<0.4	<0.4	<0.4	<0.4	<0.4
1,2-DICHLOROBENZENE	0.4	510	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
1,3-DICHLOROBENZENE	0.4	430	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-DICHLOROBENZENE	0.4	27	240	<0.4	<0.4	<0.4	<0.4	<0.4
3,3'-DICHLOROBENZIDINE	0.4	1.4	13	<0.4	<0.4	<0.4	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				8/23/00	8/23/00	9/5/00	9/7/00	9/7/00
PARAMETER	MDL	RDEC	I/CDEC	VE1-01	VE2-01	VA3-01	**VA4-01**	**VA5-01**
DIETHYL PHTHALATE	0.4	340	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
DIMETHYL PHTHALATE	0.4	1,900	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DINITROTOLUENE	0.4	0.9	8.4	<0.4	<0.4	<0.4	<0.4	<0.4
2,6-DINITROTOLUENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
DI-N-OCTYLPHTHALATE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
1,2-DIPHENYLHYDRAZINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
FLUORANTHENE	0.4	20	10,000	<0.4	<0.4	<0.4	1.5	0.7
FLUORENE	0.4	28	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROBENZENE	0.4	0.4	3.6	<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROBUTADIENE	0.4	8.2	73	<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROCYCLOPENTADIENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROETHANE	0.4	56	410	<0.4	<0.4	<0.4	<0.4	<0.4
INDENO(1,2,3-CD)PYRENE	0.4	0.9	7.8	<0.4	<0.4	<0.4	<0.4	<0.4
ISOPHORONE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
NAPHTHALENE	0.4	54	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
NITROBENZENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
N-NITROSODIMETHYLAMINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
N-NITROSODIPHENYLAMINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
N-NITROSODI-N-PROPYLAMINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
PHENANTHRENE	0.4	40	10,000	<0.4	<0.4	<0.4	1	<0.4
PYRENE	0.4	13	10,000	<0.4	<0.4	<0.4	1.2	0.6
1,2,4-TRICHLOROBENZENE	0.4	96	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
4-CHLORO-3-METHYLPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				8/23/00	8/23/00	9/5/00	9/7/00	9/7/00
PARAMETER	MDL	RDEC	I/CDEC	VE1-01	VE2-01	VA3-01	**VA4-01**	**VA5-01**
2-CHLOROPHENOL	0.4	50	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DICHLOROPHENOL	0.4	30	6,100	<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DIMETHYLPHENOL	0.4	1,400	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,-METHYL-4,6DINITROPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DINITROPHENOL	0.4	160	4,100	<0.4	<0.4	<0.4	<0.4	<0.4
2-NITROPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
4-NITROPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
PENTACHLOROPHENOL	0.4	5.3		<0.4	<0.4	<0.4	<0.4	<0.4
PHENOL	0.4	6,000	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,4,6-TRICHLOROPHENOL	0.4	58	520	<0.4	<0.4	<0.4	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				9/12/00	9/12/00	9/12/00	9/13/00	9/13/00
PARAMETER	MDL	RDEC	I/CDEC	VA8-01	VA7-01	VE8-01	VE10-01	VE9-01
ACENAPHTHENE	0.4	43	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
ACENAPHTHYLENE	0.4	23	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
ANTHRACENE	0.4	35	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
BENZIDINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(A)ANTHRACENE	0.4	0.9	7.8	<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(B)FLUORANTHENE	0.4	0.9	7.8	<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(K)FLUORANTHENE	0.4	0.9	78	<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(G,H,I)PERYLENE	0.4	0.8	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(A)PYRENE	0.2	0.4	0.8	<0.2	<0.2	<0.2	<0.2	<0.2
BIS(2-CHLOROETHYL) ETHER	0.4	0.6	5.2	<0.4	<0.4	<0.4	<0.4	<0.4
BIS(2-CHLOROETHOXY) METHANE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
BIS(2-CHLOROISOPROPL) ETHER	0.4	9.1	82	<0.4	<0.4	<0.4	<0.4	<0.4
BIS(2-ETHYLHEXYL) PHTHALATE	0.4	46	410	<0.4	<0.4	<0.4	<0.4	<0.4
4-BROMOPHENYL PHENYL ETHER	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
BUTYL BENZYL PHTHALATE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
2-CHLORONAPHTHALENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
4-CHLOROPHENYL PHENYL ETHER	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
CHRYSENE	0.4	0.4	780	<0.4	<0.4	<0.4	<0.4	<0.4
DIBENZO(A,H)ANTHRACENE	0.4	0.4	0.8	<0.4	<0.4	<0.4	<0.4	<0.4
1,2-DICHLOROBENZENE	0.4	510	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
1,3-DICHLOROBENZENE	0.4	430	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-DICHLOROBENZENE	0.4	27	240	<0.4	<0.4	<0.4	<0.4	<0.4
3,3'-DICHLOROBENZIDINE	0.4	1.4	13	<0.4	<0.4	<0.4	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				9/12/00	9/12/00	9/12/00	9/13/00	9/13/00
PARAMETER	MDL	RDEC	I/CDEC	VA8-01	VA7-01	VE8-01	VE10-01	VE9-01
DIETHYL PHTHALATE	0.4	340	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
DIMETHYL PHTHALATE	0.4	1,900	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DINITROTOLUENE	0.4	0.9	8.4	<0.4	<0.4	<0.4	<0.4	<0.4
2,6-DINITROTOLUENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
DI-N-OCTYLPHTHALATE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
1,2-DIPHENYLHYDRAZINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
FLUORANTHENE	0.4	20	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
FLUORENE	0.4	28	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROBENZENE	0.4	0.4	3.6	<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROBUTADIENE	0.4	8.2	73	<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROCYCLOPENTADIENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROETHANE	0.4	56	410	<0.4	<0.4	<0.4	<0.4	<0.4
INDENO(1,2,3-CD)PYRENE	0.4	0.9	7.8	<0.4	<0.4	<0.4	<0.4	<0.4
ISOPHORONE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
NAPHTHALENE	0.4	54	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
NITROBENZENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
N-NITROSODIMETHYLAMINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
N-NITROSODIPHENYLAMINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
N-NITROSODI-N-PROPYLAMINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
PHENANTHRENE	0.4	40	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
PYRENE	0.4	13	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
1,2,4-TRICHLOROBENZENE	0.4	96	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
4-CHLORO-3-METHYLPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				9/12/00	9/12/00	9/12/00	9/13/00	9/13/00
PARAMETER	MDL	RDEC	I/CDEC	VA8-01	VA7-01	VE8-01	VE10-01	VE9-01
2-CHLOROPHENOL	0.4	50	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DICHLOROPHENOL	0.4	30	6,100	<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DIMETHYLPHENOL	0.4	1,400	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,-METHYL-4,6DINITROPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DINITROPHENOL	0.4	160	4,100	<0.4	<0.4	<0.4	<0.4	<0.4
2-NITROPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
4-NITROPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
PENTACHLOROPHENOL	0.4	5.3		<0.4	<0.4	<0.4	<0.4	<0.4
PHENOL	0.4	6,000	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,4,6-TRICHLOROPHENOL	0.4	58	520	<0.4	<0.4	<0.4	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				9/13/00	9/19/00	9/19/00	9/20/00	9/20/00
PARAMETER	MDL	RDEC	I/CDEC	VA9-01	VE7-01	VE3-01	VE12-01	VA11-01
ACENAPHTHENE	0.4	43	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
ACENAPHTHYLENE	0.4	23	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
ANTHRACENE	0.4	35	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
BENZIDINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(A)ANTHRACENE	0.4	0.9	7.8	<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(B)FLUORANTHENE	0.4	0.9	7.8	<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(K)FLUORANTHENE	0.4	0.9	78	<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(G,H,I)PERYLENE	0.4	0.8	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(A)PYRENE	0.2	0.4	0.8	<0.2	<0.2	<0.2	<0.2	<0.2
BIS(2-CHLOROETHYL) ETHER	0.4	0.6	5.2	<0.4	<0.4	<0.4	<0.4	<0.4
BIS(2-CHLOROETHOXY) METHANE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
BIS(2-CHLOROISOPROPL) ETHER	0.4	9.1	82	<0.4	<0.4	<0.4	<0.4	<0.4
BIS(2-ETHYLHEXYL) PHTHALATE	0.4	46	410	<0.4	<0.4	<0.4	<0.4	<0.4
4-BROMOPHENYL PHENYL ETHER	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
BUTYL BENZYL PHTHALATE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
2-CHLORONAPHTHALENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
4-CHLOROPHENYL PHENYL ETHER	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
CHRYSENE	0.4	0.4	780	<0.4	<0.4	<0.4	<0.4	<0.4
DIBENZO(A,H)ANTHRACENE	0.4	0.4	0.8	<0.4	<0.4	<0.4	<0.4	<0.4
1,2-DICHLOROBENZENE	0.4	510	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
1,3-DICHLOROBENZENE	0.4	430	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-DICHLOROBENZENE	0.4	27	240	<0.4	<0.4	<0.4	<0.4	<0.4
3,3'-DICHLOROBENZIDINE	0.4	1.4	13	<0.4	<0.4	<0.4	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				9/13/00	9/19/00	9/19/00	9/20/00	9/20/00
PARAMETER	MDL	RDEC	I/CDEC	VA9-01	VE7-01	VE3-01	VE12-01	VA11-01
DIETHYL PHTHALATE	0.4	340	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
DIMETHYL PHTHALATE	0.4	1,900	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DINITROTOLUENE	0.4	0.9	8.4	<0.4	<0.4	<0.4	<0.4	<0.4
2,6-DINITROTOLUENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
DI-N-OCTYLPHTHALATE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
1,2-DIPHENYLHYDRAZINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
FLUORANTHENE	0.4	20	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
FLUORENE	0.4	28	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROBENZENE	0.4	0.4	3.6	<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROBUTADIENE	0.4	8.2	73	<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROCYCLOPENTADIENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROETHANE	0.4	56	410	<0.4	<0.4	<0.4	<0.4	<0.4
INDENO(1,2,3-CD)PYRENE	0.4	0.9	7.8	<0.4	<0.4	<0.4	<0.4	<0.4
ISOPHORONE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
NAPHTHALENE	0.4	54	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
NITROBENZENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
N-NITROSODIMETHYLAMINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
N-NITROSODIPHENYLAMINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
N-NITROSODI-N-PROPYLAMINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
PHENANTHRENE	0.4	40	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
PYRENE	0.4	13	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
1,2,4-TRICHLOROBENZENE	0.4	96	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
4-CHLORO-3-METHYLPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				9/13/00	9/19/00	9/19/00	9/20/00	9/20/00
PARAMETER	MDL	RDEC	I/CDEC	VA9-01	VE7-01	VE3-01	VE12-01	VA11-01
2-CHLOROPHENOL	0.4	50	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DICHLOROPHENOL	0.4	30	6,100	<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DIMETHYLPHENOL	0.4	1,400	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,-METHYL-4,6DINITROPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DINITROPHENOL	0.4	160	4,100	<0.4	<0.4	<0.4	<0.4	<0.4
2-NITROPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
4-NITROPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
PENTACHLOROPHENOL	0.4	5.3		<0.4	<0.4	<0.4	<0.4	<0.4
PHENOL	0.4	6,000	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,4,6-TRICHLOROPHENOL	0.4	58	520	<0.4	<0.4	<0.4	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				9/20/00	9/20/00	9/20/00	9/20/00	9/28/00
PARAMETER	MDL	RDEC	I/CDEC	VA12-01	VE13-01	VA13-01	VE14-01	VA10-01
ACENAPHTHENE	0.4	43	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
ACENAPHTHYLENE	0.4	23	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
ANTHRACENE	0.4	35	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
BENZIDINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(A)ANTHRACENE	0.4	0.9	7.8	<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(B)FLUORANTHENE	0.4	0.9	7.8	<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(K)FLUORANTHENE	0.4	0.9	78	<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(G,H,I)PERYLENE	0.4	0.8	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(A)PYRENE	0.2	0.4	0.8	<0.2	<0.2	<0.2	<0.2	<0.2
BIS(2-CHLOROETHYL) ETHER	0.4	0.6	5.2	<0.4	<0.4	<0.4	<0.4	<0.4
BIS(2-CHLOROETHOXY) METHANE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
BIS(2-CHLOROISOPROPL) ETHER	0.4	9.1	82	<0.4	<0.4	<0.4	<0.4	<0.4
BIS(2-ETHYLHEXYL) PHTHALATE	0.4	46	410	<0.4	<0.4	<0.4	<0.4	<0.4
4-BROMOPHENYL PHENYL ETHER	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
BUTYL BENZYL PHTHALATE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
2-CHLORONAPHTHALENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
4-CHLOROPHENYL PHENYL ETHER	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
CHRYSENE	0.4	0.4	780	<0.4	<0.4	<0.4	<0.4	<0.4
DIBENZO(A,H)ANTHRACENE	0.4	0.4	0.8	<0.4	<0.4	<0.4	<0.4	<0.4
1,2-DICHLOROBENZENE	0.4	510	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
1,3-DICHLOROBENZENE	0.4	430	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-DICHLOROBENZENE	0.4	27	240	<0.4	<0.4	<0.4	<0.4	<0.4
3,3'-DICHLOROBENZIDINE	0.4	1.4	13	<0.4	<0.4	<0.4	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				9/20/00	9/20/00	9/20/00	9/20/00	9/28/00
PARAMETER	MDL	RDEC	I/CDEC	VA12-01	VE13-01	VA13-01	VE14-01	VA10-01
DIETHYL PHTHALATE	0.4	340	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
DIMETHYL PHTHALATE	0.4	1,900	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DINITROTOLUENE	0.4	0.9	8.4	<0.4	<0.4	<0.4	<0.4	<0.4
2,6-DINITROTOLUENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
DI-N-OCTYLPHTHALATE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
1,2-DIPHENYLHYDRAZINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
FLUORANTHENE	0.4	20	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
FLUORENE	0.4	28	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROBENZENE	0.4	0.4	3.6	<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROBUTADIENE	0.4	8.2	73	<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROCYCLOPENTADIENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROETHANE	0.4	56	410	<0.4	<0.4	<0.4	<0.4	<0.4
INDENO(1,2,3-CD)PYRENE	0.4	0.9	7.8	<0.4	<0.4	<0.4	<0.4	<0.4
ISOPHORONE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
NAPHTHALENE	0.4	54	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
NITROBENZENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
N-NITROSODIMETHYLAMINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
N-NITROSODIPHENYLAMINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
N-NITROSODI-N-PROPYLAMINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
PHENANTHRENE	0.4	40	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
PYRENE	0.4	13	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
1,2,4-TRICHLOROBENZENE	0.4	96	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
4-CHLORO-3-METHYLPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				9/20/00	9/20/00	9/20/00	9/20/00	9/28/00
PARAMETER	MDL	RDEC	I/CDEC	VA12-01	VE13-01	VA13-01	VE14-01	VA10-01
2-CHLOROPHENOL	0.4	50	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DICHLOROPHENOL	0.4	30	6,100	<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DIMETHYLPHENOL	0.4	1,400	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,-METHYL-4,6DINITROPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DINITROPHENOL	0.4	160	4,100	<0.4	<0.4	<0.4	<0.4	<0.4
2-NITROPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
4-NITROPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
PENTACHLOROPHENOL	0.4	5.3		<0.4	<0.4	<0.4	<0.4	<0.4
PHENOL	0.4	6,000	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,4,6-TRICHLOROPHENOL	0.4	58	520	<0.4	<0.4	<0.4	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				9/28/00	9/28/00	9/28/00	9/28/00	9/28/00
PARAMETER	MDL	RDEC	I/CDEC	VA14-01	VE15-01	VA15-01	VE4-01	VE5-01
ACENAPHTHENE	0.4	43	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
ACENAPHTHYLENE	0.4	23	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
ANTHRACENE	0.4	35	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
BENZIDINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(A)ANTHRACENE	0.4	0.9	7.8	<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(B)FLUORANTHENE	0.4	0.9	7.8	<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(K)FLUORANTHENE	0.4	0.9	78	<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(G,H,I)PERYLENE	0.4	0.8	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(A)PYRENE	0.2	0.4	0.8	<0.2	<0.2	<0.2	<0.2	<0.2
BIS(2-CHLOROETHYL) ETHER	0.4	0.6	5.2	<0.4	<0.4	<0.4	<0.4	<0.4
BIS(2-CHLOROETHOXY) METHANE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
BIS(2-CHLOROISOPROPL) ETHER	0.4	9.1	82	<0.4	<0.4	<0.4	<0.4	<0.4
BIS(2-ETHYLHEXYL) PHTHALATE	0.4	46	410	<0.4	<0.4	<0.4	<0.4	<0.4
4-BROMOPHENYL PHENYL ETHER	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
BUTYL BENZYL PHTHALATE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
2-CHLORONAPHTHALENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
4-CHLOROPHENYL PHENYL ETHER	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
CHRYSENE	0.4	0.4	780	<0.4	<0.4	<0.4	<0.4	<0.4
DIBENZO(A,H)ANTHRACENE	0.4	0.4	0.8	<0.4	<0.4	<0.4	<0.4	<0.4
1,2-DICHLOROBENZENE	0.4	510	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
1,3-DICHLOROBENZENE	0.4	430	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-DICHLOROBENZENE	0.4	27	240	<0.4	<0.4	<0.4	<0.4	<0.4
3,3'-DICHLOROBENZIDINE	0.4	1.4	13	<0.4	<0.4	<0.4	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				9/28/00	9/28/00	9/28/00	9/28/00	9/28/00
PARAMETER	MDL	RDEC	I/CDEC	VA14-01	VE15-01	VA15-01	VE4-01	VE5-01
DIETHYL PHTHALATE	0.4	340	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
DIMETHYL PHTHALATE	0.4	1,900	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DINITROTOLUENE	0.4	0.9	8.4	<0.4	<0.4	<0.4	<0.4	<0.4
2,6-DINITROTOLUENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
DI-N-OCTYLPHTHALATE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
1,2-DIPHENYLHYDRAZINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
FLUORANTHENE	0.4	20	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
FLUORENE	0.4	28	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROBENZENE	0.4	0.4	3.6	<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROBUTADIENE	0.4	8.2	73	<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROCYCLOPENTADIENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROETHANE	0.4	56	410	<0.4	<0.4	<0.4	<0.4	<0.4
INDENO(1,2,3-CD)PYRENE	0.4	0.9	7.8	<0.4	<0.4	<0.4	<0.4	<0.4
ISOPHORONE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
NAPHTHALENE	0.4	54	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
NITROBENZENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
N-NITROSODIMETHYLAMINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
N-NITROSODIPHENYLAMINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
N-NITROSODI-N-PROPYLAMINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
PHENANTHRENE	0.4	40	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
PYRENE	0.4	13	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
1,2,4-TRICHLOROBENZENE	0.4	96	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
4-CHLORO-3-METHYLPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				9/28/00	9/28/00	9/28/00	9/28/00	9/28/00
PARAMETER	MDL	RDEC	I/CDEC	VA14-01	VE15-01	VA15-01	VE4-01	VE5-01
2-CHLOROPHENOL	0.4	50	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DICHLOROPHENOL	0.4	30	6,100	<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DIMETHYLPHENOL	0.4	1,400	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,-METHYL-4,6DINITROPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DINITROPHENOL	0.4	160	4,100	<0.4	<0.4	<0.4	<0.4	<0.4
2-NITROPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
4-NITROPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
PENTACHLOROPHENOL	0.4	5.3		<0.4	<0.4	<0.4	<0.4	<0.4
PHENOL	0.4	6,000	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,4,6-TRICHLOROPHENOL	0.4	58	520	<0.4	<0.4	<0.4	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				10/2/00	10/2/00	10/2/00	10/4/00	10/4/00
PARAMETER	MDL	RDEC	I/CDEC	V2-01	**VE17-01**	VA17-01	VE19-01	VA18-01
ACENAPHTHENE	0.4	43	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
ACENAPHTHYLENE	0.4	23	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
ANTHRACENE	0.4	35	10,000	<0.4	0.5	<0.4	<0.4	<0.4
BENZIDINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(A)ANTHRACENE	0.4	0.9	7.8	<0.4	0.6	<0.4	<0.4	<0.4
BENZO(B)FLUORANTHENE	0.4	0.9	7.8	<0.4	0.5	<0.4	<0.4	<0.4
BENZO(K)FLUORANTHENE	0.4	0.9	78	<0.4	0.4	<0.4	<0.4	<0.4
BENZO(G,H,I)PERYLENE	0.4	0.8	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(A)PYRENE	0.2	0.4	0.8	<0.2	**0.4**	<0.2	<0.2	<0.2
BIS(2-CHLOROETHYL) ETHER	0.4	0.6	5.2	<0.4	<0.4	<0.4	<0.4	<0.4
BIS(2-CHLOROETHOXY) METHANE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
BIS(2-CHLOROISOPROPL) ETHER	0.4	9.1	82	<0.4	<0.4	<0.4	<0.4	<0.4
BIS(2-ETHYLHEXYL) PHTHALATE	0.4	46	410	<0.4	<0.4	<0.4	<0.4	<0.4
4-BROMOPHENYL PHENYL ETHER	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
BUTYL BENZYL PHTHALATE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
2-CHLORONAPHTHALENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
4-CHLOROPHENYL PHENYL ETHER	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
CHRYSENE	0.4	0.4	780	<0.4	**0.7**	<0.4	<0.4	<0.4
DIBENZO(A,H)ANTHRACENE	0.4	0.4	0.8	<0.4	<0.4	<0.4	<0.4	<0.4
1,2-DICHLOROBENZENE	0.4	510	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
1,3-DICHLOROBENZENE	0.4	430	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-DICHLOROBENZENE	0.4	27	240	<0.4	<0.4	<0.4	<0.4	<0.4
3,3'-DICHLOROBENZIDINE	0.4	1.4	13	<0.4	<0.4	<0.4	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				10/2/00	10/2/00	10/2/00	10/4/00	10/4/00
PARAMETER	MDL	RDEC	I/CDEC	V2-01	**VE17-01**	VA17-01	VE19-01	VA18-01
DIETHYL PHTHALATE	0.4	340	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
DIMETHYL PHTHALATE	0.4	1,900	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DINITROTOLUENE	0.4	0.9	8.4	<0.4	<0.4	<0.4	<0.4	<0.4
2,6-DINITROTOLUENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
DI-N-OCTYLPHTHALATE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
1,2-DIPHENYLHYDRAZINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
FLUORANTHENE	0.4	20	10,000	<0.4	1.8	<0.4	<0.4	<0.4
FLUORENE	0.4	28	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROBENZENE	0.4	0.4	3.6	<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROBUTADIENE	0.4	8.2	73	<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROCYCLOPENTADIENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROETHANE	0.4	56	410	<0.4	<0.4	<0.4	<0.4	<0.4
INDENO(1,2,3-CD)PYRENE	0.4	0.9	7.8	<0.4	<0.4	<0.4	<0.4	<0.4
ISOPHORONE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
NAPHTHALENE	0.4	54	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
NITROBENZENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
N-NITROSODIMETHYLAMINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
N-NITROSODIPHENYLAMINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
N-NITROSODI-N-PROPYLAMINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
PHENANTHRENE	0.4	40	10,000	<0.4	1.3	<0.4	<0.4	<0.4
PYRENE	0.4	13	10,000	<0.4	1.4	<0.4	<0.4	<0.4
1,2,4-TRICHLOROBENZENE	0.4	96	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
4-CHLORO-3-METHYLPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				10/2/00	10/2/00	10/2/00	10/4/00	10/4/00
PARAMETER	MDL	RDEC	I/CDEC	V2-01	**VE17-01**	VA17-01	VE19-01	VA18-01
2-CHLOROPHENOL	0.4	50	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DICHLOROPHENOL	0.4	30	6,100	<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DIMETHYLPHENOL	0.4	1,400	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,-METHYL-4,6DINITROPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DINITROPHENOL	0.4	160	4,100	<0.4	<0.4	<0.4	<0.4	<0.4
2-NITROPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
4-NITROPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
PENTACHLOROPHENOL	0.4	5.3		<0.4	<0.4	<0.4	<0.4	<0.4
PHENOL	0.4	6,000	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,4,6-TRICHLOROPHENOL	0.4	58	520	<0.4	<0.4	<0.4	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				10/4/00	10/5/00	10/5/00	10/5/00	10/11/00
PARAMETER	MDL	RDEC	I/CDEC	VE18-01	VCT51-01	VCT51-02	VCT51-03	VCT53-01
ACENAPHTHENE	0.4	43	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
ACENAPHTHYLENE	0.4	23	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
ANTHRACENE	0.4	35	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
BENZIDINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(A)ANTHRACENE	0.4	0.9	7.8	<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(B)FLUORANTHENE	0.4	0.9	7.8	<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(K)FLUORANTHENE	0.4	0.9	78	<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(G,H,I)PERYLENE	0.4	0.8	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(A)PYRENE	0.2	0.4	0.8	<0.2	<0.2	<0.2	<0.2	<0.2
BIS(2-CHLOROETHYL) ETHER	0.4	0.6	5.2	<0.4	<0.4	<0.4	<0.4	<0.4
BIS(2-CHLOROETHOXY) METHANE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
BIS(2-CHLOROISOPROPL) ETHER	0.4	9.1	82	<0.4	<0.4	<0.4	<0.4	<0.4
BIS(2-ETHYLHEXYL) PHTHALATE	0.4	46	410	<0.4	<0.4	<0.4	<0.4	<0.4
4-BROMOPHENYL PHENYL ETHER	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
BUTYL BENZYL PHTHALATE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
2-CHLORONAPHTHALENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
4-CHLOROPHENYL PHENYL ETHER	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
CHRYSENE	0.4	0.4	780	<0.4	<0.4	<0.4	<0.4	<0.4
DIBENZO(A,H)ANTHRACENE	0.4	0.4	0.8	<0.4	<0.4	<0.4	<0.4	<0.4
1,2-DICHLOROBENZENE	0.4	510	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
1,3-DICHLOROBENZENE	0.4	430	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-DICHLOROBENZENE	0.4	27	240	<0.4	<0.4	<0.4	<0.4	<0.4
3,3'-DICHLOROBENZIDINE	0.4	1.4	13	<0.4	<0.4	<0.4	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				10/4/00	10/5/00	10/5/00	10/5/00	10/11/00
PARAMETER	MDL	RDEC	I/CDEC	VE18-01	VCT51-01	VCT51-02	VCT51-03	VCT53-01
DIETHYL PHTHALATE	0.4	340	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
DIMETHYL PHTHALATE	0.4	1,900	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DINITROTOLUENE	0.4	0.9	8.4	<0.4	<0.4	<0.4	<0.4	<0.4
2,6-DINITROTOLUENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
DI-N-OCTYLPHTHALATE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
1,2-DIPHENYLHYDRAZINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
FLUORANTHENE	0.4	20	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
FLUORENE	0.4	28	10,000	<0.4	<0.4	<0.4	<0.4	0.8
HEXACHLOROBENZENE	0.4	0.4	3.6	<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROBUTADIENE	0.4	8.2	73	<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROCYCLOPENTADIENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROETHANE	0.4	56	410	<0.4	<0.4	<0.4	<0.4	<0.4
INDENO(1,2,3-CD)PYRENE	0.4	0.9	7.8	<0.4	<0.4	<0.4	<0.4	<0.4
ISOPHORONE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
NAPHTHALENE	0.4	54	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
NITROBENZENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
N-NITROSODIMETHYLAMINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
N-NITROSODIPHENYLAMINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
N-NITROSODI-N-PROPYLAMINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
PHENANTHRENE	0.4	40	10,000	<0.4	<0.4	<0.4	<0.4	1.2
PYRENE	0.4	13	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
1,2,4-TRICHLOROBENZENE	0.4	96	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
4-CHLORO-3-METHYLPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				10/4/00	10/5/00	10/5/00	10/5/00	10/11/00
PARAMETER	MDL	RDEC	I/CDEC	VE18-01	VCT51-01	VCT51-02	VCT51-03	VCT53-01
2-CHLOROPHENOL	0.4	50	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DICHLOROPHENOL	0.4	30	6,100	<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DIMETHYLPHENOL	0.4	1,400	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,-METHYL-4,6DINITROPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DINITROPHENOL	0.4	160	4,100	<0.4	<0.4	<0.4	<0.4	<0.4
2-NITROPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
4-NITROPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
PENTACHLOROPHENOL	0.4	5.3		<0.4	<0.4	<0.4	<0.4	<0.4
PHENOL	0.4	6,000	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,4,6-TRICHLOROPHENOL	0.4	58	520	<0.4	<0.4	<0.4	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				10/11/00	10/11/00	10/11/00	10/11/00	10/11/00
PARAMETER	MDL	RDEC	I/CDEC	VCT52-02	**VV1-01**	VA19-01	VCT52-01	VCT56-02
ACENAPHTHENE	0.4	43	10,000	<0.4	12	<0.4	<0.4	<0.4
ACENAPHTHYLENE	0.4	23	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
ANTHRACENE	0.4	35	10,000	<0.4	**72**	<0.4	<0.4	<0.4
BENZIDINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(A)ANTHRACENE	0.4	0.9	7.8	<0.4	**51**	<0.4	<0.4	<0.4
BENZO(B)FLUORANTHENE	0.4	0.9	7.8	<0.4	**22**	<0.4	<0.4	<0.4
BENZO(K)FLUORANTHENE	0.4	0.9	78	<0.4	**35**	<0.4	<0.4	<0.4
BENZO(G,H,I)PERYLENE	0.4	0.8	10,000	<0.4	**2.9**	<0.4	<0.4	<0.4
BENZO(A)PYRENE	0.2	0.4	0.8	<0.2	**29**	<0.2	<0.2	<0.2
BIS(2-CHLOROETHYL) ETHER	0.4	0.6	5.2	<0.4	<0.4	<0.4	<0.4	<0.4
BIS(2-CHLOROETHOXY) METHANE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
BIS(2-CHLOROISOPROPL) ETHER	0.4	9.1	82	<0.4	<0.4	<0.4	<0.4	<0.4
BIS(2-ETHYLHEXYL) PHTHALATE	0.4	46	410	<0.4	<0.4	<0.4	<0.4	<0.4
4-BROMOPHENYL PHENYL ETHER	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
BUTYL BENZYL PHTHALATE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
2-CHLORONAPHTHALENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
4-CHLOROPHENYL PHENYL ETHER	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
CHRYSENE	0.4	0.4	780	<0.4	**47**	<0.4	<0.4	<0.4
DIBENZO(A,H)ANTHRACENE	0.4	0.4	0.8	<0.4	**0.9**	<0.4	<0.4	<0.4
1,2-DICHLOROBENZENE	0.4	510	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
1,3-DICHLOROBENZENE	0.4	430	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-DICHLOROBENZENE	0.4	27	240	<0.4	<0.4	<0.4	<0.4	<0.4
3,3'-DICHLOROBENZIDINE	0.4	1.4	13	<0.4	<0.4	<0.4	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				10/11/00	10/11/00	10/11/00	10/11/00	10/11/00
PARAMETER	MDL	RDEC	I/CDEC	VCT52-02	**VV1-01**	VA19-01	VCT52-01	VCT56-02
DIETHYL PHTHALATE	0.4	340	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
DIMETHYL PHTHALATE	0.4	1,900	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DINITROTOLUENE	0.4	0.9	8.4	<0.4	<0.4	<0.4	<0.4	<0.4
2,6-DINITROTOLUENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
DI-N-OCTYLPHTHALATE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
1,2-DIPHENYLHYDRAZINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
FLUORANTHENE	0.4	20	10,000	<0.4	**150**	<0.4	<0.4	<0.4
FLUORENE	0.4	28	10,000	<0.4	16	<0.4	<0.4	<0.4
HEXACHLOROBENZENE	0.4	0.4	3.6	<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROBUTADIENE	0.4	8.2	73	<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROCYCLOPENTADIENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROETHANE	0.4	56	410	<0.4	<0.4	<0.4	<0.4	<0.4
INDENO(1,2,3-CD)PYRENE	0.4	0.9	7.8	<0.4	**3.5**	<0.4	<0.4	<0.4
ISOPHORONE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
NAPHTHALENE	0.4	54	10,000	<0.4	2.2	<0.4	<0.4	<0.4
NITROBENZENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
N-NITROSODIMETHYLAMINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
N-NITROSODIPHENYLAMINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
N-NITROSODI-N-PROPYLAMINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
PHENANTHRENE	0.4	40	10,000	<0.4	**160**	<0.4	<0.4	<0.4
PYRENE	0.4	13	10,000	<0.4	**110**	<0.4	<0.4	<0.4
1,2,4-TRICHLOROBENZENE	0.4	96	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
4-CHLORO-3-METHYLPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				10/11/00	10/11/00	10/11/00	10/11/00	10/11/00
PARAMETER	MDL	RDEC	I/CDEC	VCT52-02	**VV1-01**	VA19-01	VCT52-01	VCT56-02
2-CHLOROPHENOL	0.4	50	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DICHLOROPHENOL	0.4	30	6,100	<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DIMETHYLPHENOL	0.4	1,400	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,-METHYL-4,6DINITROPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DINITROPHENOL	0.4	160	4,100	<0.4	<0.4	<0.4	<0.4	<0.4
2-NITROPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
4-NITROPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
PENTACHLOROPHENOL	0.4	5.3		<0.4	<0.4	<0.4	<0.4	<0.4
PHENOL	0.4	6,000	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,4,6-TRICHLOROPHENOL	0.4	58	520	<0.4	<0.4	<0.4	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				10/11/00	10/17/00	10/19/00	10/25/00	10/26/00
PARAMETER	MDL	RDEC	I/CDEC	VCT56-01	VA19-02	VCT56-03	VCT53-02	VAV1-01
ACENAPHTHENE	0.4	43	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
ACENAPHTHYLENE	0.4	23	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
ANTHRACENE	0.4	35	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
BENZIDINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(A)ANTHRACENE	0.4	0.9	7.8	<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(B)FLUORANTHENE	0.4	0.9	7.8	<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(K)FLUORANTHENE	0.4	0.9	78	<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(G,H,I)PERYLENE	0.4	0.8	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(A)PYRENE	0.2	0.4	0.8	<0.2	<0.2	<0.2	<0.2	<0.2
BIS(2-CHLOROETHYL) ETHER	0.4	0.6	5.2	<0.4	<0.4	<0.4	<0.4	<0.4
BIS(2-CHLOROETHOXY) METHANE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
BIS(2-CHLOROISOPROPL) ETHER	0.4	9.1	82	<0.4	<0.4	<0.4	<0.4	<0.4
BIS(2-ETHYLHEXYL) PHTHALATE	0.4	46	410	<0.4	<0.4	<0.4	<0.4	<0.4
4-BROMOPHENYL PHENYL ETHER	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
BUTYL BENZYL PHTHALATE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
2-CHLORONAPHTHALENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
4-CHLOROPHENYL PHENYL ETHER	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
CHRYSENE	0.4	0.4	780	<0.4	<0.4	<0.4	<0.4	<0.4
DIBENZO(A,H)ANTHRACENE	0.4	0.4	0.8	<0.4	<0.4	<0.4	<0.4	<0.4
1,2-DICHLOROBENZENE	0.4	510	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
1,3-DICHLOROBENZENE	0.4	430	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-DICHLOROBENZENE	0.4	27	240	<0.4	<0.4	<0.4	<0.4	<0.4
3,3'-DICHLOROBENZIDINE	0.4	1.4	13	<0.4	<0.4	<0.4	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				10/11/00	10/17/00	10/19/00	10/25/00	10/26/00
PARAMETER	MDL	RDEC	I/CDEC	VCT56-01	VA19-02	VCT56-03	VCT53-02	VAV1-01
DIETHYL PHTHALATE	0.4	340	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
DIMETHYL PHTHALATE	0.4	1,900	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DINITROTOLUENE	0.4	0.9	8.4	<0.4	<0.4	<0.4	<0.4	<0.4
2,6-DINITROTOLUENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
DI-N-OCTYLPHTHALATE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
1,2-DIPHENYLHYDRAZINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
FLUORANTHENE	0.4	20	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
FLUORENE	0.4	28	10,000	<0.4	<0.4	0.9	<0.4	<0.4
HEXACHLOROBENZENE	0.4	0.4	3.6	<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROBUTADIENE	0.4	8.2	73	<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROCYCLOPENTADIENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROETHANE	0.4	56	410	<0.4	<0.4	<0.4	<0.4	<0.4
INDENO(1,2,3-CD)PYRENE	0.4	0.9	7.8	<0.4	<0.4	<0.4	<0.4	<0.4
ISOPHORONE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
NAPHTHALENE	0.4	54	10,000	<0.4	<0.4	0.7	<0.4	<0.4
NITROBENZENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
N-NITROSODIMETHYLAMINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
N-NITROSODIPHENYLAMINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
N-NITROSODI-N-PROPYLAMINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
PHENANTHRENE	0.4	40	10,000	<0.4	<0.4	1.5	<0.4	<0.4
PYRENE	0.4	13	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
1,2,4-TRICHLOROBENZENE	0.4	96	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
4-CHLORO-3-METHYLPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				10/11/00	10/17/00	10/19/00	10/25/00	10/26/00
PARAMETER	MDL	RDEC	I/CDEC	VCT56-01	VA19-02	VCT56-03	VCT53-02	VAV1-01
2-CHLOROPHENOL	0.4	50	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DICHLOROPHENOL	0.4	30	6,100	<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DIMETHYLPHENOL	0.4	1,400	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,-METHYL-4,6DINITROPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DINITROPHENOL	0.4	160	4,100	<0.4	<0.4	<0.4	<0.4	<0.4
2-NITROPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
4-NITROPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
PENTACHLOROPHENOL	0.4	5.3		<0.4	<0.4	<0.4	<0.4	<0.4
PHENOL	0.4	6,000	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,4,6-TRICHLOROPHENOL	0.4	58	520	<0.4	<0.4	<0.4	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				10/30/00	10/30/00	10/30/00	10/30/00	10/30/00
PARAMETER	MDL	RDEC	I/CDEC	**VS1-02**	VS1-01	**VAV2-01**	VE16-01	VE22-01
ACENAPHTHENE	0.4	43	10,000	<0.4	<0.4	<4	<0.4	<0.4
ACENAPHTHYLENE	0.4	23	10,000	<0.4	<0.4	<4	<0.4	<0.4
ANTHRACENE	0.4	35	10,000	<0.4	<0.4	<4	<0.4	<0.4
BENZIDINE	0.4			<0.4	<0.4	<4	<0.4	<0.4
BENZO(A)ANTHRACENE	0.4	0.9	7.8	0.4	<0.4	<4	<0.4	<0.4
BENZO(B)FLUORANTHENE	0.4	0.9	7.8	0.6	<0.4	<4	<0.4	<0.4
BENZO(K)FLUORANTHENE	0.4	0.9	78	<0.4	<0.4	<4	<0.4	<0.4
BENZO(G,H,I)PERYLENE	0.4	0.8	10,000	<0.4	<0.4	<4	<0.4	<0.4
BENZO(A)PYRENE	0.2	0.4	0.8	0.2	<0.2	<2	<0.2	<0.2
BIS(2-CHLOROETHYL) ETHER	0.4	0.6	5.2	<0.4	<0.4	<4	<0.4	<0.4
BIS(2-CHLOROETHOXY) METHANE	0.4			<0.4	<0.4	<4	<0.4	<0.4
BIS(2-CHLOROISOPROPL) ETHER	0.4	9.1	82	<0.4	<0.4	<4	<0.4	<0.4
BIS(2-ETHYLHEXYL) PHTHALATE	0.4	46	410	<0.4	<0.4	<4	<0.4	<0.4
4-BROMOPHENYL PHENYL ETHER	0.4			<0.4	<0.4	<4	<0.4	<0.4
BUTYL BENZYL PHTHALATE	0.4			<0.4	<0.4	<4	<0.4	<0.4
2-CHLORONAPHTHALENE	0.4			<0.4	<0.4	<4	<0.4	<0.4
4-CHLOROPHENYL PHENYL ETHER	0.4			<0.4	<0.4	<4	<0.4	<0.4
CHRYSENE	0.4	0.4	780	**0.4**	<0.4	<4	<0.4	<0.4
DIBENZO(A,H)ANTHRACENE	0.4	0.4	0.8	<0.4	<0.4	<4	<0.4	<0.4
1,2-DICHLOROBENZENE	0.4	510	10,000	<0.4	<0.4	<4	<0.4	<0.4
1,3-DICHLOROBENZENE	0.4	430	10,000	<0.4	<0.4	<4	<0.4	<0.4
1,4-DICHLOROBENZENE	0.4	27	240	<0.4	<0.4	<4	<0.4	<0.4
3,3'-DICHLOROBENZIDINE	0.4	1.4	13	<0.4	<0.4	<4	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				10/30/00	10/30/00	10/30/00	10/30/00	10/30/00
PARAMETER	MDL	RDEC	I/CDEC	**VS1-02**	VS1-01	**VAV2-01**	VE16-01	VE22-01
DIETHYL PHTHALATE	0.4	340	10,000	<0.4	<0.4	<4	<0.4	<0.4
DIMETHYL PHTHALATE	0.4	1,900	10,000	<0.4	<0.4	<4	<0.4	<0.4
2,4-DINITROTOLUENE	0.4	0.9	8.4	<0.4	<0.4	<4	<0.4	<0.4
2,6-DINITROTOLUENE	0.4			<0.4	<0.4	<4	<0.4	<0.4
DI-N-OCTYLPHTHALATE	0.4			<0.4	<0.4	<4	<0.4	<0.4
1,2-DIPHENYLHYDRAZINE	0.4			<0.4	<0.4	<4	<0.4	<0.4
FLUORANTHENE	0.4	20	10,000	0.8	<0.4	<4	<0.4	<0.4
FLUORENE	0.4	28	10,000	<0.4	<0.4	9	<0.4	<0.4
HEXACHLOROBENZENE	0.4	0.4	3.6	<0.4	<0.4	<4	<0.4	<0.4
HEXACHLOROBUTADIENE	0.4	8.2	73	<0.4	<0.4	<4	<0.4	<0.4
HEXACHLOROCYCLOPENTADIENE	0.4			<0.4	<0.4	<4	<0.4	<0.4
HEXACHLOROETHANE	0.4	56	410	<0.4	<0.4	<4	<0.4	<0.4
INDENO(1,2,3-CD)PYRENE	0.4	0.9	7.8	<0.4	<0.4	<4	<0.4	<0.4
ISOPHORONE	0.4			<0.4	<0.4	<4	<0.4	<0.4
NAPHTHALENE	0.4	54	10,000	<0.4	<0.4	17	<0.4	<0.4
NITROBENZENE	0.4			<0.4	<0.4	<4	<0.4	<0.4
N-NITROSODIMETHYLAMINE	0.4			<0.4	<0.4	<4	<0.4	<0.4
N-NITROSODIPHENYLAMINE	0.4			<0.4	<0.4	<4	<0.4	<0.4
N-NITROSODI-N-PROPYLAMINE	0.4			<0.4	<0.4	<4	<0.4	<0.4
PHENANTHRENE	0.4	40	10,000	0.6	<0.4	15	<0.4	0.6
PYRENE	0.4	13	10,000	1	0.5	<4	<0.4	<0.4
1,2,4-TRICHLOROBENZENE	0.4	96	10,000	<0.4	<0.4	<4	<0.4	<0.4
4-CHLORO-3-METHYLPHENOL	0.4			<0.4	<0.4	<4	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				10/30/00	10/30/00	10/30/00	10/30/00	10/30/00
PARAMETER	MDL	RDEC	I/CDEC	**VS1-02**	VS1-01	**VAV2-01**	VE16-01	VE22-01
2-CHLOROPHENOL	0.4	50	10,000	<0.4	<0.4	<4	<0.4	<0.4
2,4-DICHLOROPHENOL	0.4	30	6,100	<0.4	<0.4	<4	<0.4	<0.4
2,4-DIMETHYLPHENOL	0.4	1,400	10,000	<0.4	<0.4	<4	<0.4	<0.4
2,-METHYL-4,6DINITROPHENOL	0.4			<0.4	<0.4	<4	<0.4	<0.4
2,4-DINITROPHENOL	0.4	160	4,100	<0.4	<0.4	<4	<0.4	<0.4
2-NITROPHENOL	0.4			<0.4	<0.4	<4	<0.4	<0.4
4-NITROPHENOL	0.4			<0.4	<0.4	<4	<0.4	<0.4
PENTACHLOROPHENOL	0.4	5.3		<0.4	<0.4	<4	<0.4	<0.4
PHENOL	0.4	6,000	10,000	<0.4	<0.4	<4	<0.4	<0.4
2,4,6-TRICHLOROPHENOL	0.4	58	520	<0.4	<0.4	<4	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				11/1/00	11/1/00	11/1/00	11/2/00	11/2/00
PARAMETER	MDL	RDEC	I/CDEC	VV3-01	**VV3-02**	VB73-01	**VAV3-01**	VS2-01
ACENAPHTHENE	0.4	43	10,000	<0.4	<0.4	<0.4	0.5	<0.4
ACENAPHTHYLENE	0.4	23	10,000	<0.4	<0.4	<0.4	0.8	<0.4
ANTHRACENE	0.4	35	10,000	<0.4	0.6	<0.4	<0.4	<0.4
BENZIDINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
BENZO(A)ANTHRACENE	0.4	0.9	7.8	<0.4	**1.1**	<0.4	**1.7**	<0.4
BENZO(B)FLUORANTHENE	0.4	0.9	7.8	<0.4	0.7	<0.4	**1.3**	<0.4
BENZO(K)FLUORANTHENE	0.4	0.9	78	<0.4	<0.4	<0.4	**1.6**	<0.4
BENZO(G,H,I)PERYLENE	0.4	0.8	10,000	<0.4	<0.4	<0.4	**1.0**	<0.4
BENZO(A)PYRENE	0.2	0.4	0.8	<0.2	**0.8**	<0.2	**1.6**	<0.2
BIS(2-CHLOROETHYL) ETHER	0.4	0.6	5.2	<0.4	<0.4	<0.4	<0.4	<0.4
BIS(2-CHLOROETHOXY) METHANE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
BIS(2-CHLOROISOPROPL) ETHER	0.4	9.1	82	<0.4	<0.4	<0.4	<0.4	<0.4
BIS(2-ETHYLHEXYL) PHTHALATE	0.4	46	410	<0.4	<0.4	<0.4	<0.4	<0.4
4-BROMOPHENYL PHENYL ETHER	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
BUTYL BENZYL PHTHALATE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
2-CHLORONAPHTHALENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
4-CHLOROPHENYL PHENYL ETHER	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
CHRYSENE	0.4	0.4	780	<0.4	**1.0**	<0.4	**1.7**	<0.4
DIBENZO(A,H)ANTHRACENE	0.4	0.4	0.8	<0.4	<0.4	<0.4	<0.4	<0.4
1,2-DICHLOROBENZENE	0.4	510	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
1,3-DICHLOROBENZENE	0.4	430	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-DICHLOROBENZENE	0.4	27	240	<0.4	<0.4	<0.4	<0.4	<0.4
3,3'-DICHLOROBENZIDINE	0.4	1.4	13	<0.4	<0.4	<0.4	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				11/1/00	11/1/00	11/1/00	11/2/00	11/2/00
PARAMETER	MDL	RDEC	I/CDEC	VV3-01	**VV3-02**	VB73-01	**VAV3-01**	VS2-01
DIETHYL PHTHALATE	0.4	340	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
DIMETHYL PHTHALATE	0.4	1,900	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DINITROTOLUENE	0.4	0.9	8.4	<0.4	<0.4	<0.4	<0.4	<0.4
2,6-DINITROTOLUENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
DI-N-OCTYLPHTHALATE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
1,2-DIPHENYLHYDRAZINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
FLUORANTHENE	0.4	20	10,000	<0.4	2.6	<0.4	3.7	<0.4
FLUORENE	0.4	28	10,000	<0.4	<0.4	<0.4	0.5	<0.4
HEXACHLOROBENZENE	0.4	0.4	3.6	<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROBUTADIENE	0.4	8.2	73	<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROCYCLOPENTADIENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
HEXACHLOROETHANE	0.4	56	410	<0.4	<0.4	<0.4	<0.4	<0.4
INDENO(1,2,3-CD)PYRENE	0.4	0.9	7.8	<0.4	<0.4	<0.4	**0.9**	<0.4
ISOPHORONE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
NAPHTHALENE	0.4	54	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
NITROBENZENE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
N-NITROSODIMETHYLAMINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
N-NITROSODIPHENYLAMINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
N-NITROSODI-N-PROPYLAMINE	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
PHENANTHRENE	0.4	40	10,000	<0.4	2.2	<0.4	3.6	<0.4
PYRENE	0.4	13	10,000	<0.4	1.9	<0.4	2.8	<0.4
1,2,4-TRICHLOROBENZENE	0.4	96	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
4-CHLORO-3-METHYLPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				11/1/00	11/1/00	11/1/00	11/2/00	11/2/00
PARAMETER	MDL	RDEC	I/CDEC	VV3-01	**VV3-02**	VB73-01	**VAV3-01**	VS2-01
2-CHLOROPHENOL	0.4	50	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DICHLOROPHENOL	0.4	30	6,100	<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DIMETHYLPHENOL	0.4	1,400	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,-METHYL-4,6DINITROPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
2,4-DINITROPHENOL	0.4	160	4,100	<0.4	<0.4	<0.4	<0.4	<0.4
2-NITROPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
4-NITROPHENOL	0.4			<0.4	<0.4	<0.4	<0.4	<0.4
PENTACHLOROPHENOL	0.4	5.3		<0.4	<0.4	<0.4	<0.4	<0.4
PHENOL	0.4	6,000	10,000	<0.4	<0.4	<0.4	<0.4	<0.4
2,4,6-TRICHLOROPHENOL	0.4	58	520	<0.4	<0.4	<0.4	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				11/6/00	11/6/00
PARAMETER	MDL	RDEC	I/CDEC	VA16-T01	VA16-01
ACENAPHTHENE	0.4	43	10,000	<0.4	<0.4
ACENAPHTHYLENE	0.4	23	10,000	<0.4	<0.4
ANTHRACENE	0.4	35	10,000	<0.4	<0.4
BENZIDINE	0.4			<0.4	<0.4
BENZO(A)ANTHRACENE	0.4	0.9	7.8	<0.4	<0.4
BENZO(B)FLUORANTHENE	0.4	0.9	7.8	<0.4	<0.4
BENZO(K)FLUORANTHENE	0.4	0.9	78	<0.4	<0.4
BENZO(G,H,I)PERYLENE	0.4	0.8	10,000	<0.4	<0.4
BENZO(A)PYRENE	0.2	0.4	0.8	<0.2	<0.2
BIS(2-CHLOROETHYL) ETHER	0.4	0.6	5.2	<0.4	<0.4
BIS(2-CHLOROETHOXY) METHANE	0.4			<0.4	<0.4
BIS(2-CHLOROISOPROPL) ETHER	0.4	9.1	82	<0.4	<0.4
BIS(2-ETHYLHEXYL) PHTHALATE	0.4	46	410	<0.4	<0.4
4-BROMOPHENYL PHENYL ETHER	0.4			<0.4	<0.4
BUTYL BENZYL PHTHALATE	0.4			<0.4	<0.4
2-CHLORONAPHTHALENE	0.4			<0.4	<0.4
4-CHLOROPHENYL PHENYL ETHER	0.4			<0.4	<0.4
CHRYSENE	0.4	0.4	780	<0.4	<0.4
DIBENZO(A,H)ANTHRACENE	0.4	0.4	0.8	<0.4	<0.4
1,2-DICHLOROBENZENE	0.4	510	10,000	<0.4	<0.4
1,3-DICHLOROBENZENE	0.4	430	10,000	<0.4	<0.4
1,4-DICHLOROBENZENE	0.4	27	240	<0.4	<0.4
3,3'-DICHLOROBENZIDINE	0.4	1.4	13	<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				11/6/00	11/6/00
PARAMETER	MDL	RDEC	I/CDEC	VA16-T01	VA16-01
DIETHYL PHTHALATE	0.4	340	10,000	<0.4	<0.4
DIMETHYL PHTHALATE	0.4	1,900	10,000	<0.4	<0.4
2,4-DINITROTOLUENE	0.4	0.9	8.4	<0.4	<0.4
2,6-DINITROTOLUENE	0.4			<0.4	<0.4
DI-N-OCTYLPHTHALATE	0.4			<0.4	<0.4
1,2-DIPHENYLHYDRAZINE	0.4			<0.4	<0.4
FLUORANTHENE	0.4	20	10,000	<0.4	<0.4
FLUORENE	0.4	28	10,000	<0.4	<0.4
HEXACHLOROBENZENE	0.4	0.4	3.6	<0.4	<0.4
HEXACHLOROBUTADIENE	0.4	8.2	73	<0.4	<0.4
HEXACHLOROCYCLOPENTADIENE	0.4			<0.4	<0.4
HEXACHLOROETHANE	0.4	56	410	<0.4	<0.4
INDENO(1,2,3-CD)PYRENE	0.4	0.9	7.8	<0.4	<0.4
ISOPHORONE	0.4			<0.4	<0.4
NAPHTHALENE	0.4	54	10,000	<0.4	<0.4
NITROBENZENE	0.4			<0.4	<0.4
N-NITROSODIMETHYLAMINE	0.4			<0.4	<0.4
N-NITROSODIPHENYLAMINE	0.4			<0.4	<0.4
N-NITROSODI-N-PROPYLAMINE	0.4			<0.4	<0.4
PHENANTHRENE	0.4	40	10,000	<0.4	<0.4
PYRENE	0.4	13	10,000	<0.4	<0.4
1,2,4-TRICHLOROBENZENE	0.4	96	10,000	<0.4	<0.4
4-CHLORO-3-METHYLPHENOL	0.4			<0.4	<0.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Elevated detection limits (VAV2-01) caused by sample dilution

Table 6-3

SVOC Results

				11/6/00	11/6/00
PARAMETER	MDL	RDEC	I/CDEC	VA16-T01	VA16-01
2-CHLOROPHENOL	0.4	50	10,000	<0.4	<0.4
2,4-DICHLOROPHENOL	0.4	30	6,100	<0.4	<0.4
2,4-DIMETHYLPHENOL	0.4	1,400	10,000	<0.4	<0.4
2,-METHYL-4,6DINITROPHENOL	0.4			<0.4	<0.4
2,4-DINITROPHENOL	0.4	160	4,100	<0.4	<0.4
2-NITROPHENOL	0.4			<0.4	<0.4
4-NITROPHENOL	0.4			<0.4	<0.4
PENTACHLOROPHENOL	0.4	5.3		<0.4	<0.4
PHENOL	0.4	6,000	10,000	<0.4	<0.4
2,4,6-TRICHLOROPHENOL	0.4	58	520	<0.4	<0.4

Units = mg/kg
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Elevated detection limits (VAV2-01) caused by sample dilution

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Table 6-4

TAL Metals Results

			8/23/00	8/23/00	9/5/00	9/7/00	9/7/00	9/12/00
PARAMETER	RDEC	I/CDEC	VE1-01	VE2-01	VA3-01	**VA4-01**	VA5-01	VA8-01
ALUMINUM	-	-	16,300	16,600	12,400	20,600	21,900	6,310
ANTIMONY	10	820	<4.13	<4.27	<2.8	<4	<4	<2.89
ARSENIC	1.70	3.80	**22.70**	**8.55**	**13.90**	**9.13**	**16.20**	**7.22**
BARIUM	5,500	10,000	17.50	17.20	12.40	31.90	29.20	20.20
BERYLLIUM	0.400	1.300	0.330	0.260	0.330	**0.440**	0.390	0.260
CADMIUM	39.00	1,000	2.77	1.96	2.35	1.41	1.51	1.84
CHROMIUM	390.00	10,000	17.40	14.70	14.80	17.50	16.00	11.60
COBALT	-	-	16.70	13.50	15.00	10.50	11.00	11.00
COPPER	3,100	10,000	19.40	141.00	18.90	7.94	5.69	15.80
IRON	-	-	42,100	42,300	32,000	32,300	36,200	26,800
LEAD	150	500	7.85	2.35	3.34	3.17	3.38	6.36
MAGNESIUM	-	-	4,230	2,640	4,580	3,770	3,290	2,730
MERCURY	23	610	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
NICKEL	1,000	10,000	27.10	22.20	27.60	17.30	16.20	24.70
POTASSIUM	-	-	117	188	350	460	509	766
SELENIUM	390	10,000	<4.13	<4.27	<2.8	<4	<4	<2.89
SILVER	200	10,000	<0.41	<0.43	<0.28	0.40	0.36	0.58
SODIUM	-	-	<101	<103	<42	85	79	72
THALLIUM	5.5	140.0	<2.1	<2.14	<1.4	<2	2.1	<1.44
VANADIUM	550	10,000	18.6	17.9	12.5	18.0	16.4	12.9
ZINC	6,000	10,000	67.4	47.0	53.8	37.9	34.5	54.2

Units = mg/kg
BOLD = Exceedance
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RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Note : the average for arsenic is 15.65 mg/kg

Table 6-4

TAL Metals Results

			9/12/00	9/12/00	9/13/00	9/13/00	9/13/00	9/19/00
PARAMETER	RDEC	I/CDEC	VA7-01	VE8-01	VE10-01	VE9-01	VA9-01	VE7-01
ALUMINUM	-	-	7,430	6,180	5,930	7,670	4,100	14,000
ANTIMONY	10	820	<2.86	<2.78	<2.9	<2.9	<3.15	<5.7
ARSENIC	1.70	3.80	**10.00**	**9.72**	**7.29**	**7.29**	**3.15**	**11.00**
BARIUM	5,500	10,000	18.30	16.90	17.20	28.60	12.50	15.90
BERYLLIUM	0.400	1.300	0.280	0.250	0.320	0.280	0.170	0.310
CADMIUM	39.00	1,000	2.00	1.82	1.44	1.14	0.98	2.39
CHROMIUM	390.00	10,000	11.70	10.30	8.02	10.90	4.73	13.90
COBALT	-	-	12.30	12.50	9.33	7.29	5.20	18.80
COPPER	3,100	10,000	16.40	17.90	11.40	9.33	7.41	21.90
IRON	-	-	32,900	29,800	20,000	19,100	12,300	45,800
LEAD	150	500	6.86	5.83	5.25	12.50	4.10	5.40
MAGNESIUM	-	-	3,160	1,220	1,720	2,870	1,440	4,030
MERCURY	23	610	<0.25	<0.25	<0.25	<0.25	<0.25	<0.10
NICKEL	1,000	10,000	32.40	22.50	15.70	15.40	10.90	34.10
POTASSIUM	-	-	528	930	450	641	430	410
SELENIUM	390	10,000	<2.86	<2.78	<2.9	<2.9	<3.15	<5.7
SILVER	200	10,000	0.57	0.42	<0.29	<0.29	<0.32	<0.57
SODIUM	-	-	60	100	60	102	80	<90
THALLIUM	5.5	140.0	<1.43	<1.39	<1.46	<1.5	<1.58	<2.8
VANADIUM	550	10,000	13.0	12.4	10.0	10.2	5.8	14.5
ZINC	6,000	10,000	58.8	51.5	36.3	32.5	24.6	69.9

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BOLD = Exceedance
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RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Note : the average for arsenic is 15.65 mg/kg

Table 6-4

TAL Metals Results

			9/19/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00
PARAMETER	RDEC	I/CDEC	VE3-01	VE12-01	**VA11-01**	VA12-01	VE13-01	VA13-01
ALUMINUM	-	-	6,400	5,680	10,970	5,930	9,730	8,420
ANTIMONY	10	820	<6.0	<2.7	<2.9	<2.8	<3.0	<2.9
ARSENIC	1.70	3.80	**6.00**	**5.43**	**8.70**	**8.40**	**9.10**	**7.30**
BARIUM	5,500	10,000	12.20	16.60	22.50	15.00	27.00	23.20
BERYLLIUM	0.400	1.300	0.270	0.300	**0.420**	0.330	0.320	0.290
CADMIUM	39.00	1,000	0.51	1.38	1.62	2.28	1.38	1.12
CHROMIUM	390.00	10,000	5.12	8.56	12.30	9.47	10.40	8.87
COBALT	-	-	2.41	8.83	12.40	15.40	8.79	7.99
COPPER	3,100	10,000	2.41	14.40	15.90	23.40	14.20	11.80
IRON	-	-	9,300	26,800	26,800	37,800	22,700	19,900
LEAD	150	500	2.11	10.90	4.48	5.71	13.90	10.30
MAGNESIUM	-	-	1,470	1,660	2,920	758	2,590	1,850
MERCURY	23	610	<0.10	<0.09	<0.09	<0.12	<0.12	<0.09
NICKEL	1,000	10,000	3.01	16.30	18.40	21.00	16.40	16.60
POTASSIUM	-	-	800	454	663	444	503	500
SELENIUM	390	10,000	<6.0	<2.7	<2.9	<2.8	<3.0	<2.9
SILVER	200	10,000	<.60	<0.27	<0.29	<0.28	<0.30	<0.29
SODIUM	-	-	<90	<40	43	<40	<45	44
THALLIUM	5.5	140.0	<3.0	<1.36	<1.4	<1.4	<1.5	<1.4
VANADIUM	550	10,000	5.4	10.9	15.5	14.2	14.1	11.3
ZINC	6,000	10,000	27.7	43.9	39.0	37.6	68.5	36.3

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Table 6-4

TAL Metals Results

			9/20/00	9/28/00	9/28/00	9/28/00	9/28/00	9/28/00
PARAMETER	RDEC	I/CDEC	VE14-01	VA10-01	VA14-01	VE15-01	VA15-01	**VE4-01**
ALUMINUM	-	-	8,100	7,920	10,800	11,300	8,110	16,400
ANTIMONY	10	820	<2.9	2.3	<2.3	<2.3	<2.2	<2.6
ARSENIC	1.70	3.80	**4.30**	**11.50**	**5.90**	**9.30**	**6.60**	**22.00**
BARIUM	5,500	10,000	21.00	20.70	20.60	26.30	18.60	25.40
BERYLLIUM	0.400	1.300	0.250	0.310	0.258	0.303	0.332	**0.465**
CADMIUM	39.00	1,000	0.98	3.00	1.36	1.95	1.47	2.44
CHROMIUM	390.00	10,000	6.96	18.70	10.10	12.80	8.63	17.40
COBALT	-	-	4.64	17.80	8.45	12.80	8.41	12.50
COPPER	3,100	10,000	7.83	23.60	9.15	17.80	12.00	17.00
IRON	-	-	15,600	42,000	23,600	33,000	21,300	30,220
LEAD	150	500	4.06	11.00	11.40	19.10	15.23	51.00
MAGNESIUM	-	-	1,330	2,140	2,300	3,140	1,910	3,760
MERCURY	23	610	<0.10	<0.25	<0.25	<0.25	<0.25	<0.25
NICKEL	1,000	10,000	9.85	38.50	17.80	21.20	14.50	23.00
POTASSIUM	-	-	412	440	333	502	377	421
SELENIUM	390	10,000	<2.9	<2.3	<2.3	<2.3	<2.3	<2.6
SILVER	200	10,000	<0.29	0.34	<0.23	<0.23	<0.22	<0.26
SODIUM	-	-	<43	92	<35	47	44	<39
THALLIUM	5.5	140.0	<1.4	<1.1	<1.2	<1.2	<1.1	<1.3
VANADIUM	550	10,000	10.1	14.2	11.7	14.0	10.3	23.8
ZINC	6,000	10,000	60.1	121.0	36.8	16.7	35.6	64.5

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Table 6-4

TAL Metals Results

			9/28/00	10/2/00	10/2/00	10/2/00	10/4/00	10/4/00
PARAMETER	RDEC	I/CDEC	VE5-01	V2-01	VE-17-01	VA-17-01	**VE19-01**	VA18-01
ALUMINUM	-	-	21,400	6,490	8,180	9,120	13,300	11,500
ANTIMONY	10	820	<2.5	<2.16	<2.3	<2.3	<2.4	<2.4
ARSENIC	1.70	3.80	**19.90**	**9.70**	**17.40**	**9.20**	**19.40**	**18.20**
BARIUM	5,500	10,000	16.40	9.95	16.00	21.60	28.20	17.40
BERYLLIUM	0.400	1.300	0.336	0.216	0.320	0.360	**0.510**	0.304
CADMIUM	39.00	1,000	3.02	1.18	2.23	2.13	2.47	3.10
CHROMIUM	390.00	10,000	19.90	7.87	11.00	11.60	12.20	11.60
COBALT	-	-	16.20	7.44	15.50	12.60	9.33	13.70
COPPER	3,100	10,000	17.50	12.40	21.20	17.10	10.80	20.20
IRON	-	-	50,020	19,800	33,800	31,800	27,180	29,200
LEAD	150	500	59.10	11.10	11.70	14.00	28.70	13.40
MAGNESIUM	-	-	5,140	2,530	2,720	2,530	2,230	3,080
MERCURY	23	610	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
NICKEL	1,000	10,000	29.50	12.70	30.40	23.00	16.20	27.20
POTASSIUM	-	-	305	296	346	422	335	330
SELENIUM	390	10,000	<2.5	<2.16	<2.3	<2.3	<2.4	<2.4
SILVER	200	10,000	<0.25	<0.22	<0.23	<0.23	<0.24	<0.24
SODIUM	-	-	37	<323	<348	<344	36	<36
THALLIUM	5.5	140.0	<1.2	<1.08	<1.2	<1.2	<1.2	<1.2
VANADIUM	550	10,000	19.3	8.8	12.2	13.5	16.8	14.0
ZINC	6,000	10,000	74.8	33.6	54.2	45.8	48.8	62.3

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Table 6-4

TAL Metals Results

			10/4/00	10/5/00	10/5/00	10/5/00	10/11/00	10/11/00
PARAMETER	RDEC	I/CDEC	**VE18-01**	VCT51-01	VCT51-02	VCT51-03	VCT53-01	VCT52-02
ALUMINUM	-	-	16,090	11,190	9,560	13,040	9,740	9,460
ANTIMONY	10	820	<2.3	<2.3	<2.2	<2.3	<2.3	<2.1
ARSENIC	1.70	3.80	**11.60**	**34.50**	**51.30**	**26.80**	**21.80**	**38.50**
BARIUM	5,500	10,000	24.80	21.20	12.10	12.70	13.70	8.72
BERYLLIUM	0.400	1.300	**0.470**	0.391	0.294	0.286	0.287	0.354
CADMIUM	39.00	1,000	2.31	3.27	3.69	3.14	1.46	2.10
CHROMIUM	390.00	10,000	10.40	11.40	9.82	9.09	13.60	10.40
COBALT	-	-	9.21	12.40	15.90	12.80	10.00	15.40
COPPER	3,100	10,000	14.00	14.20	16.80	14.40	11.50	15.40
IRON	-	-	18,670	38,440	38,820	34,260	24,400	33,740
LEAD	150	500	16.60	22.10	8.29	7.34	15.80	10.50
MAGNESIUM	-	-	2,280	2,290	2,570	1,860	2,480	2,890
MERCURY	23	610	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
NICKEL	1,000	10,000	17.10	24.50	26.50	22.70	20.00	28.30
POTASSIUM	-	-	399	370	230	260	363	183
SELENIUM	390	10,000	<2.3	<2.3	<2.2	<2.3	<2.3	<2.1
SILVER	200	10,000	<0.23	<0.23	<0.22	<0.23	<0.23	<0.21
SODIUM	-	-	47	100	<33	<35	<34	<33
THALLIUM	5.5	140.0	<1.2	<1.1	<1.1	<1.2	<1.1	<1.0
VANADIUM	550	10,000	14.3	10.6	10.7	10.6	10.6	10.9
ZINC	6,000	10,000	39.6	49.8	89.4	39.9	54.0	51.3

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TAL Metals Results

			10/11/00	10/11/00	10/11/00	10/11/00	10/11/00	10/17/00
PARAMETER	RDEC	I/CDEC	VV1-01	VA19-01	VCT52-01	VCT56-02	VCT56-01	VA19-02
ALUMINUM	-	-	7,700	9,850	10,940	8,020	6,790	10,300
ANTIMONY	10	820	<2.2	<2.2	<2.4	<2.2	<2.2	<2.3
ARSENIC	1.70	3.80	**16.20**	**32.30**	**37.30**	**25.90**	**26.80**	**13.60**
BARIUM	5,500	10,000	13.10	15.80	13.00	11.60	10.80	18.50
BERYLLIUM	0.400	1.300	0.270	0.301	0.312	0.281	0.268	0.373
CADMIUM	39.00	1,000	1.18	2.06	1.80	1.90	1.85	2.31
CHROMIUM	390.00	10,000	7.46	9.69	9.86	9.12	8.48	10.90
COBALT	-	-	9.52	13.20	14.70	14.90	13.80	10.30
COPPER	3,100	10,000	8.11	13.20	13.70	17.60	15.70	15.70
IRON	-	-	20,340	34,090	32,210	32,070	27,280	26,900
LEAD	150	500	12.00	11.50	12.50	8.78	7.81	8.82
MAGNESIUM	-	-	1,960	2,970	2,210	2,860	2,470	3,880
MERCURY	23	610	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
NICKEL	1,000	10,000	16.00	25.30	25.50	25.10	24.60	18.70
POTASSIUM	-	-	230	277	305	290	340	463
SELENIUM	390	10,000	<2.2	<2.2	<2.4	<2.2	<2.2	<2.3
SILVER	200	10,000	<0.22	<0.22	<0.24	<0.22	<0.22	<0.23
SODIUM	-	-	<32	<33	<36	<34	45	45
THALLIUM	5.5	140.0	<1.1	<1.1	<1.2	<1.1	<1.1	<1.1
VANADIUM	550	10,000	10.0	11.2	11.5	10.0	9.4	13.9
ZINC	6,000	10,000	33.6	62.3	46.5	51.4	47.4	44.2

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TAL Metals Results

			10/19/00	10/25/00	10/26/00	10/30/00	10/30/00	10/30/00
PARAMETER	RDEC	I/CDEC	VCT56-03	VCT53-01	VAV1-01	VS1-02	VS1-01	**VAV2-01**
ALUMINUM	-	-	11,500	7,160	7,760	9,555	4,090	13,550
ANTIMONY	10	820	<2.2	<2.8	<2.6	<2.3	<2.4	2.3
ARSENIC	1.70	3.80	**17.00**	**16.50**	**10.40**	**25.80**	**13.00**	**13.60**
BARIUM	5,500	10,000	31.50	13.40	12.50	11.30	5.19	10.20
BERYLLIUM	0.400	1.300	0.290	0.495	0.196	0.293	0.106	0.249
CADMIUM	39.00	1,000	1.68	2.12	1.80	1.80	0.91	2.10
CHROMIUM	390.00	10,000	8.79	8.54	9.11	11.80	5.08	10.80
COBALT	-	-	8.68	9.91	7.46	10.80	3.66	9.39
COPPER	3,100	10,000	11.70	15.80	13.20	12.40	7.68	15.80
IRON	-	-	35,100	15,100	19,800	26,230	13,600	33,000
LEAD	150	500	8.35	7.99	17.30	19.00	14.90	**6350.00**
MAGNESIUM	-	-	2,490	2,094	2,490	2,295	863	3,190
MERCURY	23	610	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
NICKEL	1,000	10,000	15.90	17.60	13.70	19.80	8.16	18.80
POTASSIUM	-	-	376	176	266	152	70	147
SELENIUM	390	10,000	<2.2	<2.8	<2.6	<2.3	<2.4	<2.3
SILVER	200	10,000	<0.22	0.41	<0.26	0.35	<0.24	0.45
SODIUM	-	-	78	<41	52	146	<35	<34
THALLIUM	5.5	140.0	<1.1	<1.4	<1.3	<1.2	<1.2	<1.1
VANADIUM	550	10,000	10.4	8.7	11.7	12.9	5.4	17.6
ZINC	6,000	10,000	34.6	39.0	44.8	53.3	76.1	123.0

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Note : the average for arsenic is 15.65 mg/kg

FINAL CONSTRUCTION COMPLETION REPORT
REMEDIAL ACTION CONTRACT N62472-94-D-0398
DELIVERY ORDER NO. 0065
FUEL LINE CLOSURE
NAVAL STATION NEWPORT
MIDDLETOWN, RHODE ISLAND

Table 6-4

TAL Metals Results

			10/30/00	10/30/00	11/1/00	11/1/00	11/1/00	11/2/00
PARAMETER	RDEC	I/CDEC	VE16-01	VE22-01	VV3-01	VV3-02	VB73-01	VAV3-01
ALUMINUM	-	-	6,470	7,600	16,260	14,630	5,980	10,590
ANTIMONY	10	820	<2.3	<2.2	<2.2	<2.2	<2.3	<2.2
ARSENIC	1.70	3.80	**16.20**	**14.50**	**23.10**	**19.10**	**8.10**	**19.50**
BARIUM	5,500	10,000	13.00	12.90	8.15	8.39	8.81	27.50
BERYLLIUM	0.400	1.300	0.267	0.290	0.220	0.247	0.128	0.304
CADMIUM	39.00	1,000	2.02	1.78	3.30	2.85	1.48	2.67
CHROMIUM	390.00	10,000	7.42	7.58	18.50	14.70	6.05	10.70
COBALT	-	-	14.40	11.20	15.60	17.10	5.12	8.89
COPPER	3,100	10,000	16.60	14.00	23.60	20.20	6.16	33.40
IRON	-	-	26,200	23,840	41,900	38,310	23,100	25,140
LEAD	150	500	7.19	9.02	14.40	21.30	5.35	47.00
MAGNESIUM	-	-	1,800	2,500	5,549	4,160	1,960	2,440
MERCURY	23	610	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
NICKEL	1,000	10,000	24.20	20.80	37.40	28.80	9.88	21.50
POTASSIUM	-	-	452	400	292	146	181	238
SELENIUM	390	10,000	<2.3	<2.2	<2.2	<2.2	<2.3	<2.2
SILVER	200	10,000	<0.23	<0.22	<0.22	0.45	<0.23	<0.22
SODIUM	-	-	<35	<33	77	45	<35	<33
THALLIUM	5.5	140.0	<1.2	<1.1	<1.1	<1.1	<1.2	<1.1
VANADIUM	550	10,000	8.7	10.0	13.4	14.0	7.2	17.9
ZINC	6,000	10,000	35.7	33.2	55.6	56.8	24.9	186.0

Units = mg/kg
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RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Note : the average for arsenic is 15.65 mg/kg

Table 6-4

TAL Metals Results

			11/2/00	11/6/00	11/6/00
PARAMETER	RDEC	I/CDEC	VS2-01	VA16-T01	VA16-01
ALUMINUM	-	-	30,500	8,540	7,820
ANTIMONY	10	820	<2.3	<2.2	<2.4
ARSENIC	1.70	3.80	**15.80**	**11.20**	**7.00**
BARIUM	5,500	10,000	9.68	15.20	27.00
BERYLLIUM	0.400	1.300	0.226	0.268	0.188
CADMIUM	39.00	1,000	4.95	2.57	1.64
CHROMIUM	390.00	10,000	22.80	9.62	8.94
COBALT	-	-	13.60	11.60	5.18
COPPER	3,100	10,000	12.70	17.20	21.40
IRON	-	-	72,890	30,700	16,400
LEAD	150	500	13.80	104.00	57.00
MAGNESIUM	-	-	8,744	2,060	3,780
MERCURY	23	610	<0.25	<0.25	<0.25
NICKEL	1,000	10,000	22.80	27.40	13.00
POTASSIUM	-	-	282	324	388
SELENIUM	390	10,000	<2.3	<2.2	<2.4
SILVER	200	10,000	<0.23	<0.22	<0.24
SODIUM	-	-	90	<34	200
THALLIUM	5.5	140.0	<1.1	<1.1	<1.2
VANADIUM	550	10,000	43.8	10.5	7.5
ZINC	6,000	10,000	69.2	50.3	69.4

Units = mg/kg
BOLD = Exceedance
MDL = Method Detection Limit
RDEC = Residential Direct Exposure Criteria
I/CDEC = Industrial/commercial Direct Exposure Criteria
Note : the average for arsenic is 15.65 mg/kg

APPENDIX F

Project Schedule

An Updated Schedule will be Submitted at Least 1 Week Prior to Commencement of Field Activities.