Department of Toxic Substances Control

Edwin F. Lowry, Director
5796 Corporate Avenue
Cypress, California 90630

Winston H. Hickox
Agency Secretary
California Environmental
Protection Agency

Gray Davis
Governor

September 3, 2003

Ms. Pei-Fen Tamashiro
Naval Weapons Station, Seal Beach
800 Seal Beach Boulevard
Seal Beach, California 90740-5000

NAPALM REMOVAL ACTION: CERCLA COMPLETION REPORT, NAPALM PROCESSING FACILITY, NAVAL WEAPONS STATION, SEAL BEACH, DETACHMENT FALLBROOK, FALLBROOK, CALIFORNIA

Dear Ms.Tamashiro:

The Department of Toxic Substances Control (DTSC) has reviewed the CERCLA Completion Report dated February 12, 2002 and the Summary of Extended Site Inspection Data for Sites 52A, 52B and 52C, dated May 28, 2003. Based on our review. DTSC determines that the Napalm Removal is complete and concurs with the Navy's recommendation of no further action at Sites 52A, 52B and 52C.

If you have any questions, please call Ms. Katherine Leibel at (714) 484-5446.

Sincerely,

Shelia Lowe

Shelia Lowe
Unit Chief
Office of Military Facilities
Southern California Region

cc: Mr. Si Le
Remedial Project Manager
SWDIV Naval Facilities Engineering Command
1220 Pacific Coast Highway
San Diego, California 92132-5190

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CERCLA COMPLETION REPORT
NAPALM PROCESSING FACILITY

NAVAL WEAPONS STATION SEAL BEACH
DETACHMENT FALLBROOK
FALLBROOK, CALIFORNIA

MARCH 28, 2002

PREPARED FOR:

U.S. NAVY

PREPARED BY:

BATTELLE
505 KING AVENUE
COLUMBUS, OHIO 43201-2693

AND

SCHREIBER, YONLEY & ASSOCIATES
271 WOLFNER DRIVE
FENTON, MISSOURI 63026

PROJECT NO. 000154

DTSC
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Document belongs to Pei-Fen Tamashiro
(562) 626-7897.

Please return after completing your task.
Thanks

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ACRONYMS AND ABBREVIATIONS

ALIC	Air Lock Input Conveyor
ARAR	applicable or relevant and appropriate requirement
Cal/OSHA	California Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
COC	chain of custody
CSP	Certified Safety Professional
D&D	decontamination and disassembly
DRMO	Defense Reutilization and Marketing Office
E&E	E&E Industries, Inc.
EQL	estimated quantitation limit
FID	flame ionization detector
GAC	granular activated carbon
HASP	Health and Safety Plan
HPU	hydraulic power unit
HSM	Health and Safety Manager
LEL	lower explosive limit
MS/MSD	matrix spike/matrix spike duplicate
N/A	not applicable
NAVWPNSTA	Naval Weapons Station
NIOSH	National Institute for Occupational Safety and Health
OSHA	Occupational Safety and Health Administration
ppb	part(s) per billion
PPE	personal protective equipment
PQL	practical quantitation limit
PRG	preliminary remediation goal
PTES	Pacific Treatment Environmental Systems
RCRA	Resource Conservation and Recovery Act
SAP	Sampling and Analysis Plan
SSO	Site Safety Officer
SYA	Schreiber, Yonley & Associates
TSDF	treatment, storage, or disposal facility
U.S. EPA	U.S. Environmental Protection Agency
VOC	volatile organic compound
WE	Williams Engineering

EXECUTIVE SUMMARY

Vietnam War-era napalm canisters were previously stored at Naval Weapons Station (NAVWPNSTA) Seal Beach, Detachment Fallbrook in wooden crates since the early 1970s. As a part of a non-time-critical Comprehensive Environmental Response Compensation and Liability Act (CERCLA) Removal Action for the napalm, a napalm processing system construction began in May 1997. The processing of napalm canisters and the crates was initiated in February 1998. The napalm processing facility was used primarily to separate napalm from the canisters, to shred aluminum canisters and the wooden crates, and to arrange for the containerization and off-site shipment of the waste material. The following primary waste streams resulted from the napalm processing:

- Napalm;
- Napalm-contaminated shredded aluminum canisters; and,
- Shredded wooden crates

The removal action was completed in April 2001. By that time, approximately 23 million pounds of napalm had been shipped off-site for resource recovery as a fuel; approximately 2.5 million pounds of shredded aluminum had been shipped off-site for recycling; and approximately 6.5 million pounds of shredded wooden crates had been shipped off-site for resource recovery as fuel.

Upon the successful completion of the napalm processing effort, it was necessary to restore the site and verify the decontamination or disposal of all napalm-contaminated components. Therefore, a draft CERCLA Completion Plan dated February 16, 2001 was prepared for the U.S. Navy by Battelle and Schreiber, Yonley & Associates for decontamination and disassembly (D&D) operations at the napalm processing facility. The Plan was finalized on April 19, 2001. The CERCLA disassembly and decontamination activities began on May 7, 2001, after obtaining authorization to proceed from the U.S. Navy, and were completed by November 2001.

The CERCLA Completion Plan lists the applicable or relevant and appropriate requirements (ARARs) for the D&D operations at the site. These ARARs were complied with during D&D operations and provided the basis for a visual inspection standard for napalm removal, and the disposal of all California-regulated, non-Resource Conservation and Recovery Act (RCRA) wastes (e.g., oily rags and water).

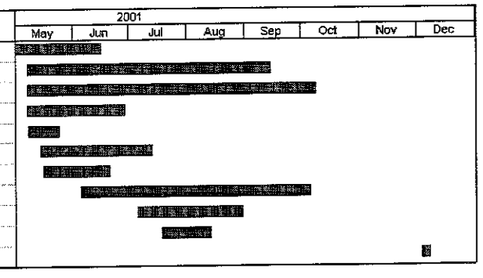
The D&D operations included visually inspecting each piece of equipment that may have contacted napalm to detect any contamination. If visual contamination was detected, then the equipment or component was decontaminated, except in a few isolated cases where the equipment/component was disposed of as hazardous waste rather than undergoing decontamination. Napalm was removed from the metal surfaces using hand scrapers and powered wire wheels. The napalm removed was containerized and shipped off-site as hazardous waste to an approved treatment, storage, or disposal facility (TSDF) site. Grease and oil residues were removed from process parts by use of an aerosol solvent and wiped off with rags. Used rags were containerized and disposed as oily waste in accordance with State of California regulations. Oil residues that were difficult to remove using rags were removed using a power washer. All rinsate from power washing was containerized and disposed as oily water waste in accordance with the State of California regulations. Each piece of equipment or component that underwent decontamination was inspected to ensure that the decontamination procedure resulted in a visually clean standard acceptable to the receiving party.

The Navy-requested items were disassembled, decontaminated as necessary, and were transported to Crane, IN. Other items judged to have reuse value were turned over to the Navy at the project site. Components/materials not requested by the Navy were recycled to the extent possible, including the

rebar separated on-site from the concrete removed. Other items were returned to the owners/vendors. Wastes generated during the disassembly and decontamination operations were disposed at hazardous waste permitted facilities, solid waste permitted facilities, or permitted treatment facilities.

A chronology of major activities during the D&D operations is provided below.

ID	Task Name
1	Removal of Electrical & Electronic Equipment
2	Decontamination of Equipment & Process Components
3	Disposal of Hazardous Waste
5	Removal of Process Components
4	Removal of Piping & Ducting
7	Removal of Structural Steel Support Components
6	Removal of Tension Fabric Structure
8	Disposal of Recycled Materials
9	Shipping of Navy-Requested Equipment
10	Removal of Concrete Foundations & Processing of Asphalt
11	Transfer of Surplus Equipment to the Navy



Soil sampling was conducted to evaluate whether operations at the napalm processing facility affected the soils in the project area. Based on the knowledge of the napalm composition (i.e., 33% gasoline, 21% benzene, and 46% polystyrene) and the fact that wooden crating material for the napalm canisters was treated with pentachlorophenol, contaminants of concern at the site were determined to be benzene, toluene, ethylbenzene, xylenes, styrene, and pentachlorophenol. Analytical results for these contaminants of concern from the soil sampling performed at the site indicated the results to be below the residential and industrial preliminary remediation goals established by the United States Environmental Protection Agency, Region 9. Based on these analytical results, no further action is needed for soil remediation at the site. In addition, the site can be used for unrestricted purpose because the soil concentrations of the constituents of concern were below the respective residential preliminary remediation goal (PRG) levels.

Section 1.0: INTRODUCTION

This section provides the background at Site 52A, Naval Weapons Station (NAVWPNSTA) Seal Beach, Detachment Fallbrook, located in Fallbrook, CA. This section also provides the objective and scope for the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) completion report.

1.1 Background

Vietnam War-era napalm canisters previously were stored at three physically distinct locations (Site 52A, Site 52B, and Site 52C) within NAVWPNSTA Seal Beach, Detachment Fallbrook. The NAVWPNSTA comprises approximately 9,000 acres immediately west of the city of Fallbrook, San Diego County, California. Within the NAVWPNSTA boundary, the three distinct sites have the following acreages and approximate number of canisters previously stored:

Site 52A: 5.3 acres (16,993 canisters)
Site 52B: 4.3 acres (12,706 canisters)
Site 52C: 4.3 acres (4,670 canisters)

The napalm canisters were packed individually in open-slot wooden crates during their storage at these three sites. Due to potential for release of contaminants into the environment from degradation of napalm canisters, a non-time-critical CERCLA Removal Action for the napalm was conducted. A napalm processing system was constructed on an approximately 102,000-ft^2 parcel within Site 52A, as indicated on Figure 1. Napalm canisters from Site 52B and Site 52C were brought in on flatbed trailers to the napalm processing system at Site 52A. The napalm canisters stored at Site 52A were brought to the napalm processing system by flatbed trailers or forklifts.

The napalm processing system construction began in May 1997. The processing of napalm canisters and the crates began in February 1998. The napalm processing facility was used primarily to separate napalm from the canisters, to shred aluminum canisters and the wooden crates, and to arrange for the containerization and shipment off-site of the waste material. The following primary waste streams resulted from the napalm processing:

- Napalm;
- Napalm-contaminated shredded aluminum canisters; and,
- Shredded wooden crates.

The napalm processing system at Site 52A consisted of a canister-processing system, an electric generator with an aboveground diesel fuel feed tank, an off-gas treatment system, a nitrogen purge gas system, a canister-handling apparatus, an isotanker loading station, and a process control trailer. The canister-processing equipment was located inside a temporary building (tension fabric structure) and consisted of an airlock, punch and drain station, napalm sump, canister elevator, two aluminum shredders, and drum loading equipment. Part of the building was used for drum handling and temporary storage prior to shipment off site. A wood shredder and associated shredded wood conveyor system also were located on site and were used to shred wooden crates used to store napalm canisters. Several concrete pads served as the foundation for major pieces of equipment. Approximately 360 yd^3 of concrete was present at the site. A detailed layout of the napalm processing system is shown on Figure 2.

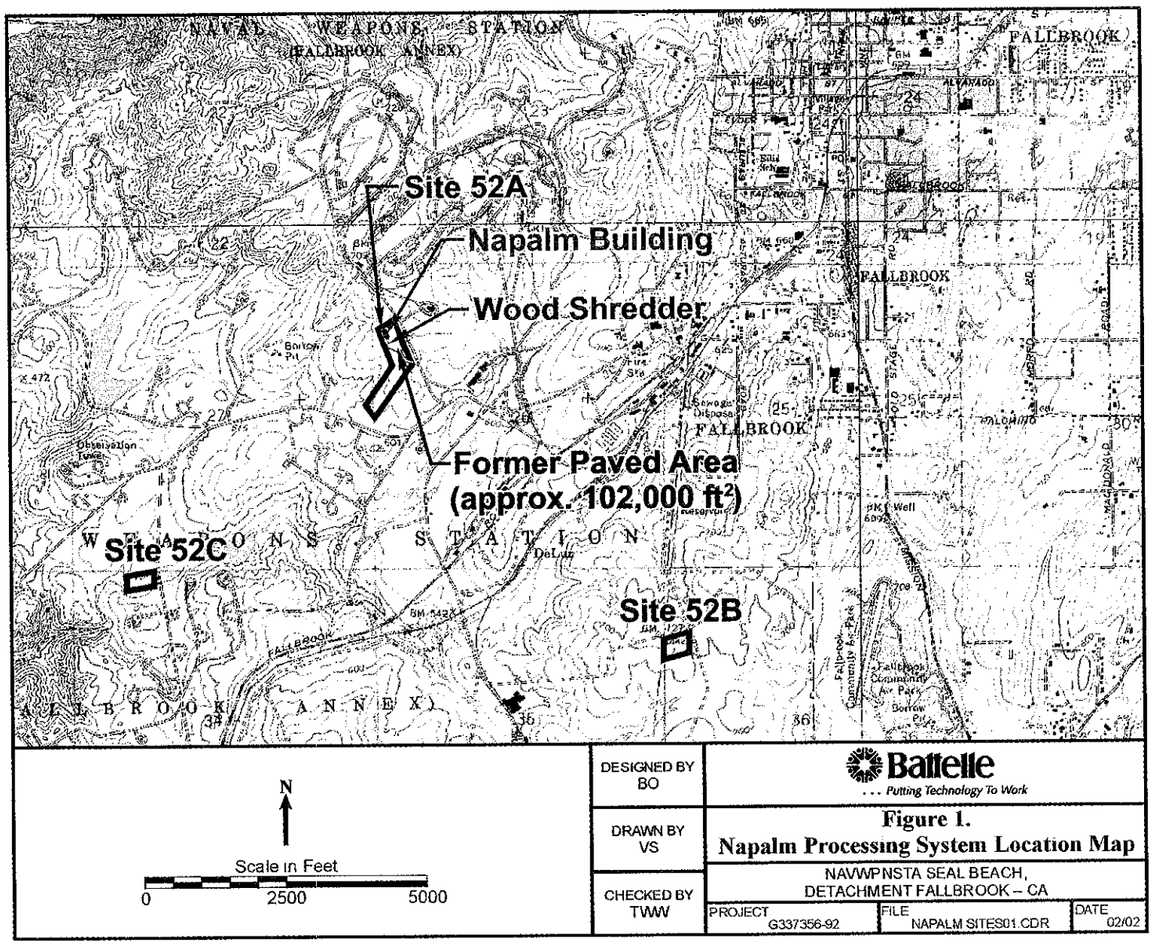


Figure 1. Napalm Processing System Location Map

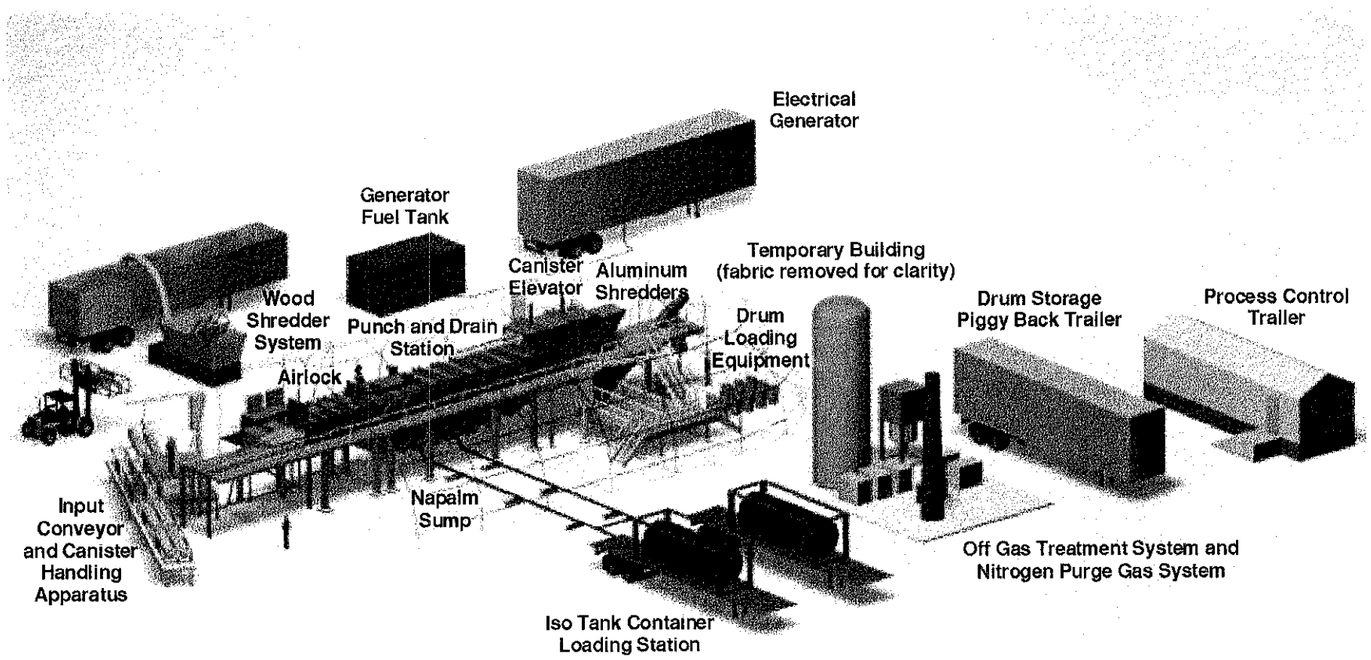


Figure 2. Detailed Layout of Napalm Processing Systems

The site also had a paved area (approximately 102,000 ft^2), which had been used for transportation operations and temporary storage of empty and full waste transportation containers.

The removal action was completed in April 2001. Over the course of the removal action, approximately 23 million pounds of napalm were shipped off-site for resource recovery as a fuel; approximately 2 5 million pounds of shredded aluminum were shipped off-site for recycling; and approximately 6.5 million pounds of shredded wooden crates were shipped off-site for resource recovery as fuel.

A draft CERCLA Completion Plan dated February 16, 2001 was prepared for the U.S. Navy by Battelle and Schreiber, Yonley & Associates, and was finalized on April 19, 2001. The CERCLA D&D activities began on May 7, 2001, after obtaining authorization to proceed from the U S. Navy, and were completed by November 2001.

1.2 Objectives

The objectives for this CERCLA completion report are to describe actions taken to safely remove equipment, components, and structures of the napalm processing system used at Site 52A at NAVWPNSTA Seal Beach, Detachment Fallbrook; and to describe the work performed in accordance with the Sampling and Analysis Plan (SAP) (Battelle, 2001) in order to verify whether the site is impacted by the napalm removal action.

1.3 Scope

The napalm removal action conducted by Battelle for the Navy under CERCLA involved the design and construction of an on-site napalm processing system and provision of an off-site logistical disposal network for the components of the napalm canisters (napalm, aluminum, wood). Upon the successful removal of all napalm inventory and related components, Battelle was required to safely shut down the on-site processing equipment and then provide for its decontamination and disassembly (D&D) and the ultimate disposition/disposal/recycling of all equipment, materials, and wastes Battelle also provided verification sampling of a statistically relevant number of sampling points that included the processing footprint and extending 10 feet beyond the asphalt pad. The purpose of the verification sampling was to evaluate whether operations at the napalm processing facility affected soils at the area The verification sampling activities are described in detail in Section 7 0 Based on the knowledge of the napalm composition (i e., 33% gasoline, 21% benzene, and 46% polystyrene) and the fact that wooden crating material for the napalm canisters was treated with pentachlorophenol, contaminants of concern at the site were determined to be benzene, toluene, ethylbenzene, xylenes, styrene, and pentachlorophenol Restoration of the site is not covered under this scope.

Section 2.0: CERCLA COMPLETION PLAN OBJECTIVES, PERFORMANCE STANDARDS, AND APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

2.1 CERCLA Completion Plan Objectives

The following primary objectives were established for the CERCLA Completion Plan (Battelle and SYA, 2001):

- Safely shut down and remove equipment, components, and structures of the napalm processing system located at Site 52A;
- Disassemble, decontaminate (as necessary), containerize, and transport Navy-requested components to Crane, IN;
- Reuse or recycle napalm processing system equipment and components not requested by the Navy to the extent possible through sales to private buyers;
- Appropriately dispose of wastes generated through decontamination and disassembly actions;
- Appropriately dispose of nonrecyclable or nonsaleable equipment and components; and,
- Verify the absence of contamination in soil comprising the processing site footprint through implementation of a sampling and analysis plan.

All of the above objectives were satisfied as described in Sections 3 through 8 of this report, with one exception. Instead of conducting a sale to private buyers, Battelle turned over clean/decontaminated reusable equipment to the Navy for reuse or recycling, as described in Section 6.8 of this report. Such equipment is marked with the end state "5" in Appendices A and C.

2.2 Performance Standards

The following performance standards were used during the completion of D&D activities:

- Visually inspect each piece of equipment and structure that may have contacted napalm or its components, or the crate wood, in order to detect contamination;
- Decontaminate any piece of equipment or structure to the degree acceptable to the receiving party, based on detection of visual contamination;
- Transport the decontaminated or clean equipment, components, or structures off-site to the Navy, vendors, or recyclers;
- Transport any wastes generated from the D&D activities to off-site hazardous waste permitted facilities, solid waste permitted facilities, or other permitted treatment facilities;
- Remove concrete from areas where the napalm processing system existed, and dispose of the material at an appropriate off-site disposal facility;

- Process a portion of the asphalt as roadbase aggregate as requested by the Navy for their removal and use elsewhere; and,

- Perform soil sampling covering the area of the napalm processing footprint to verify the absence of contamination.

The above-listed performance standards were met as described in Sections 3 through 8 of this report.

2.3 Applicable or Relevant and Appropriate Requirements

40 CFR 300.400(g) requires identification of the applicable or relevant and appropriate requirements (ARARs) that may apply to the remedial action at a CERCLA site. The goal for identifying the ARARs in a CERCLA action plan is to assure that activities at the site will comply with the identified ARARs. The CERCLA Completion Plan dated April 19, 2001 lists the ARARs for the D&D operations at the site. These ARARs were complied with during the D&D operations

Section 3.0: DECONTAMINATION AND DISASSEMBLY OPERATIONS

3.1 Process System Shutdown

After the final napalm canister was processed, process shutdown activities were initiated on April 5, 2001 and completed on May 1, 2001. Prior to final D&D authorization from the Navy, the following interim activities were conducted:

- May 2, 2001: Initiated disassembly of front-end conveyor.
- May 3, 2001: Completed disassembly of front-end conveyor and initiated cleaning of the same.
- May 4, 2001: Initiated and completed saw cutting of asphalt in order to delineate asphalt to be removed Completed cleaning of the front-end conveyor.

3.2 D&D Activities

By May 7, 2001, the Navy had provided final authorization for the D&D activities. Copies of daily reports for activities from May 7, 2001 to September 19, 2001 are included in Appendix B. The following methods were used for the decontamination:

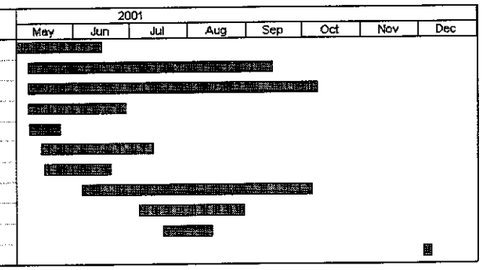
- Napalm was removed from metal surfaces using hand scrapers and powered wire wheels.
- Removed napalm was containerized and disposed as hazardous waste.
- Once decontaminated, all metal parts were inspected to verify that no napalm was visible on the component.
- The entire component was disposed as hazardous waste if the napalm removal standard of no visible contamination was considered to be unattainable.
- Grease and oil residue was removed from process parts by use of an aerosol solvent and wiped off with rags.
- Used rags were containerized and disposed as non-Resource Conservation and Recovery Act (RCRA) oily waste.
- Oil residue on parts difficult to clean with rags was removed with a power washer.
- Residue from power washing was containerized and disposed as non-RCRA oily water.
- All parts were inspected to verify the absence of smearable oil or grease.

A comprehensive list of equipment grouped by process category is included in Appendix A. In addition, a comprehensive material list grouped by actual end state is included in Appendix C. The column marked "Activities" in these lists indicates whether or not the equipment was decontaminated.

Table 1 provides a bar chart of the chronology of major activities conducted during D&D operations. A photographic log representing D&D activities conducted at the site is included as Appendix D.

Table 1. Bar Chart for Chronology of Major Activities

ID	Task Name
1	Removal of Electrical & Electronic Equipment
2	Decontamination of Equipment & Process Components
3	Disposal of Hazardous Waste
5	Removal of Process Components
4	Removal of Piping & Ducting
7	Removal of Structural Steel Support Components
6	Removal of Tension Fabric Structure
8	Disposal of Recycled Materials
9	Shipping of Navy-Requested Equipment
10	Removal of Concrete Foundations & Processing of Asphalt
11	Transfer of Surplus Equipment to the Navy



Section 4.0: PROJECT ORGANIZATION

D&D activities were carried out by Battelle and its subcontractors. Their project roles and responsibilities are described as follows:

Battelle: Battelle provided the overall project management, soil sampling, technical management, health and safety monitoring, and overall preparation of the D&D completion report. Battelle also released the clean, reusable items to the Navy in November 2001.

E&E Industries, Inc. (E&E): E&E performed the process system shutdown, the D&D operations, the containerization of waste, and loading of clean equipment onto the transportation units (e.g., trucks/trailers).

Pacific Treatment Environmental Systems (PTES): PTES provided transportation for the reusable equipment and recycled materials. PTES also provided/coordinated transportation for hazardous and nonhazardous waste disposal.

Williams Engineering (WE): Williams Engineering assisted Battelle in the overall planning of the D&D project. This assistance included input on decontamination methods and disposal options for hazardous waste and equipment that was recycled.

Schreiber, Yonley & Associates (SYA): SYA provided regulatory support to Battelle regarding the D&D activities and prepared the CERCLA completion plan and completion report with input from Battelle.

A Functional Management Chart is included as Figure 3.

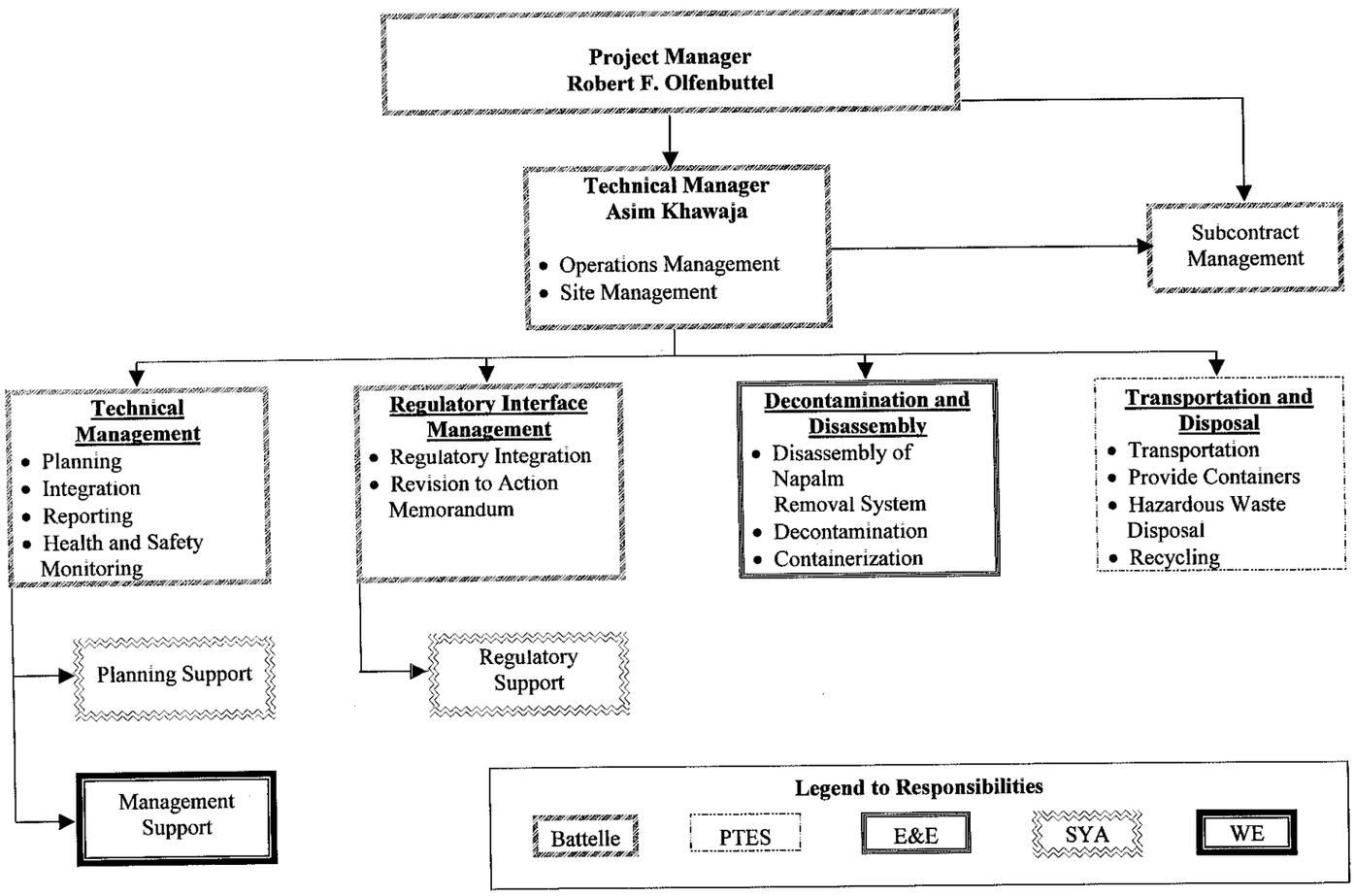


Figure 3. Functional Management Chart

Section 5.0: HEALTH AND SAFETY ACTIVITIES

The Health and Safety Plan (HASP) contained as Attachment 2 of the final CERCLA Completion Plan (Battelle and SYA, 2001) was followed during the D&D activities.

5.1 Regulatory Requirements

The Navy Napalm Removal Project was designated as a cleanup operation in accordance with CERCLA. The Occupational Safety and Health Administration (OSHA) and the California Occupational Safety and Health Administration (Cal/OSHA) regulations were implemented for the operation as they pertain to CERCLA. Both of these agencies have identical standards for these activities. In addition, Navy, National Consensus Standards, Battelle, and other state and local requirements were implemented when they were more stringent.

5.2 Health and Safety Plans

The HASP was developed for the operation in accordance with 29 CFR 1910.120 and other applicable OSHA and Cal/OSHA regulations. The HASP was developed and implemented in March 1998 for the commencement of work. The HASP was considered to be the project health and safety document and was the driver for site-specific HASPs that were implemented by the site subcontractors.

The project HASP was submitted to the client for review and comment. Comment resolution was documented and comments incorporated when appropriate. No external organizations were requested to review the HASP.

The HASP was revised occasionally to reflect changes that had occurred as a result of site activities. These changes were conveyed to all affected parties.

Project work was contracted to various subcontractors. All subcontractors assigned to the napalm sites on a routine basis were required to develop site-specific HASPs. These HASPs applied only to the scopes of work that were performed by their respective subcontractors. Visitors and subcontractors not performing routine work at the sites were required to comply with the project HASPs.

5.3 Health and Safety Coverage

The Navy relied on Battelle to provide on-site management of the health and safety task. Battelle designated a Site Safety Officer (SSO) to meet the Navy's requirement for the duration of the napalm removal operations. The SSO was required to be completely familiar with basic health and safety requirements and to understand the requirements of the HASP. The project also employed a Health and Safety Manager (HSM), who also was a Certified Safety Professional (CSP), located off-site. The SSO consulted with the HSM on a daily basis, if necessary. The HSM also visited the site on a routine basis to conduct industrial hygiene monitoring and to assess the routine work activities for health and safety discrepancies. Any discrepancies noted during these visits were discussed with the responsible subcontractor and resolved through contractual agreements.

The site subcontractors were required to provide an SSO. These SSOs were required to ensure the work activities for their respective work crews complied with all the health and safety requirements. Battelle maintained oversight for the overall site, while delegating the detailed compliance to subcontractor SSOs.

5.4 Industrial Hygiene Monitoring

Industrial hygiene monitoring was performed during the life of the project. Sampling methods included grab, direct, wipe, and active/integrated sampling. Battelle and the subcontractors used at least one or all of these methods to determine the levels of health hazards that workers could be exposed to during site activities. The most common method used was direct sampling for entry into confined spaces and to verify that engineering controls were operating to mitigate harmful process chemicals.

The HSM performed the sampling methods discussed above for an array of chemical and physical agents, including benzene, lead, pentachlorophenol, noise, illumination, and respirable dust. Worker sampling was performed using methods recommended by the National Institute for Occupational Safety and Health (NIOSH)/OSHA. This sampling was documented, and a certified laboratory was used to analyze the wipe and active/integrated samples. No chemicals exceeded the permissible exposure limits or threshold limit values. Some areas at the processing facility exceeded the 8-hour, time-weighted average for noise. These areas were posted, and hearing protection was required when necessary.

Workers assigned to the site participated in an annual medical monitoring program. This would be considered discretionary sampling in accordance with the Biological Exposure Indices. There were no biological exposures above prescribed levels for expected chemical exposures identified in the annual screenings.

5.5 Injuries and Illnesses

There were no reported illnesses during the duration of the project. Some minor injuries were reported during the duration of the project. None of the reported injuries resulted in lost workday cases. The incident rates for all the subcontractors were not compiled for the project. The incident rate for Battelle personnel was zero.

Section 6.0: TRANSPORTATION AND DISPOSAL

This section describes how the clean or decontaminated equipment and structures, and the materials generated during the D&D activities were transported and recycled or disposed.

6.1 Nonliquid Hazardous Waste

The following nonliquid materials were handled as hazardous wastes. Their removal dates from the site are listed in Appendix C.

- Dried napalm from decontamination of the napalm processing system components;
- Specific components for which complete napalm removal was considered unattainable included the transition boot from the napalm drainer assembly, diverter flap or "valve", two expansion joints from the drum loader, Civacon valves (ISO tank loading and venting connections), and four 6-inch expansion joints from the napalm transfer system;
- Contaminated materials from napalm pipe cleaning;
- Personal protective equipment (PPE) and rags used in decontamination;
- Carbon from granular activated carbon (GAC) beds;
- Compressed gas cylinders of isobutylene, benzene, pentane, and propane (these gases were used for equipment calibration at the site.);
- Soil contaminated with oil (four 55-gallon containers); and,
- Used aerosol cans.

Except for the carbon from the GAC beds, all of these items were containerized in 55-gallon drums. The GAC beds, along with the carbon within, were picked up by the vendor, U.S. Filter/Westates. Also, two unused 1,000-lb bags of GAC were shipped to Battelle for use at another Navy site. The rest of the nonliquid hazardous wastes in 55-gallon containers were transported by PTES to the following permitted treatment, storage, or disposal facilities (TSDFs):

- ENSCO West, Inc., Wilmington, CA;
- ENSCO, El Dorado, AR;
- Onyx Environmental Services, LLC; Azusa, CA; and,
- Treatment One, Houston, TX.

These nonliquid hazardous waste items are designated with the end state "1a" in Appendices A and C.

Copies of the hazardous waste manifests are included in Appendix E.

6.2 Liquid Hazardous Waste

The following liquid materials were shipped off-site as hazardous wastes. Their removal date from the site is listed in Appendix C.

- Liquid napalm collected from pipe draining in the napalm transfer system;
- Housekeeping wastes – liquid materials mostly from pressure washing efforts; and,
- Decontamination water generated during soil sampling.

Liquid napalm collected from pipe draining was placed in the last ISO tank shipment to GNI of Deer Park, TX, which is the napalm disposal vendor and a permitted TSDF. One shipment of oily water generated from cleaning the diesel tank and other equipment was made in a bulk tanker to Demenno/Kerdoon, a permitted TSDF in Compton, CA. The other waste streams described above were placed in 55-gallon drums and were transported by PTES to the following permitted TSDFs:

- Demenno/Kerdoon, Compton, CA;
- ENSCO West Inc., Wilmington, CA; and,
- ENSCO, El Dorado, AR.

These liquid hazardous waste items are designated with the end state "1b" in Appendices A and C, with the actual removal dates (as applicable) listed in Appendix C.

Hazardous waste manifests for these shipments are included in Appendix E.

6.3 Shredded Aluminum with Dried Napalm from Shredder Restack and 6-Inch-Diameter Aluminum Piping from Napalm Transfer System

These wastes were generated during the final shutdown of the process by removing them and feeding them through the shredding system prior to initiating the D&D work plan. All aluminum liners from the process system also were removed and shredded. These materials were collected in 55-gallon drums and were included with the last shipment to GNI (Deer Park, TX) of shredded napalm canisters to be cleaned and recycled. These items are designated with the end state "1c" in Appendices A and C. Actual shipment dates are provided in Appendix C.

6.4 Leased Items Collected by Owners/Vendors from the Site

The following uncontaminated items were picked up by Air Liquide:

- Liquid nitrogen tank and vaporizers;
- Condenser, condensate tank, and control panel;
- McCrometer V cone flow meter with differential pressure transmitter; and,
- Liquid nitrogen copper piping.

Four RB10 GAC beds, along with the contained carbon, were picked up by U.S. Filter/Westates. The generator was picked up by Hawthorne Power Systems. The diesel fuel tank and pump were removed by PTES. The piggypacker (i.e., intermodal container forklift) was disassembled and removed by the owner, MiJack. The flammable storage cabinet, asphalt road aggregate material, and miscellaneous railroad ties owned by the Navy were turned over to the Navy. The control trailer was picked up by Golden Office Trailers.

These items are designated with the end state "2a" in Appendices A and C, with the actual removal dates listed in Appendix C.

6.5 Leased Items Returned to Vendors FOB Destination

The following uncontaminated items generated from dismantling the Tension Fabric Structure were transported by PTES to Universal Fabric Structures in Las Vegas, Nevada:

- Tent fabric (7 main sections, 2 end sections, and various jumper sections);
- Fabric holddown hardware;
- Tent frame members (8 arch assemblies, 4 verticals);
- Purlins, tensioning cables, fabric holddowns, and miscellaneous hardware;
- Baseplates with anchor stakes; and,
- Man-doors and frames (6 doors, one with screen door).

Mobile Mini-Storage removed the 40-foot-long cargo container used by E&E for equipment storage. PTES removed the 20-foot-long cargo container used by them for storage. The computer components belonging to Battelle were collected by the same and returned.

These items are designated with the end state "2b" in Appendices A and C. Actual dates of removal are listed in Appendix C.

6.6 Navy Requested Items

The following clean/decontaminated equipment components were shipped to Crane Army Activity Building 106/107 in Crane, IN on seven trailers using PTES as the transporter:

- Wood shredder and structural support stand, conveyor, hydraulic power unit (HPU), feeder ram, and hopper;
- NESCO spray system pump and controllers, as well as spray nozzle arrays for wood shredder;
- Primary and secondary aluminum shredders, along with hydraulic motor and gear box;
- Two progressive cavity pumps;
- HPU for aluminum shredder system;
- Integrated control panel for aluminum shredder system;
- Maintenance cranes and hoists for aluminum shredder system;
- Structural steel, stairways, maintenance rails, and railing for aluminum shredder system;
- Platform grating for aluminum shredder system;
- Transition section (ancillary component of aluminum shredder system);

- Structural steel and platform grating (ancillary component of aluminum shredder system);
- Secondary aluminum shredder wedge;
- Platform grating for elevator;
- Platform grating for auger;
- Structural steel and railing for elevator and auger;
- Excess shredder teeth;
- Two crates of resharpened shredder teeth; and,
- One crate of new spacers.

Two remaining boxes of clean shredder teeth were shipped to Crane, IN, using a common carrier (Roadway).

These items are designated with the end state "3" in Appendices A and C. Some of the items not originally requested by the Navy initially were designated with the end state "3a" by Battelle because most of these items belonged with the requested items as a functional set. Actual shipment dates are listed in Appendix C; further explanation of the changes is provided in Section 6.17.3.

Bills of lading and packing lists for these shipments are included in Appendix F.

6.7 Equipment with Buyback Clauses

GAC beds (two V1200s and two V2000s) were picked up, along with the contained carbon, by U.S. Filter/Westates who exercised the buyback option. They are designated with the end state "4" in Appendices A and C. The date of removal is given in Appendix C.

6.8 Items with Potential Resale Value

The original plan anticipated that Battelle would conduct a sale/auction of the items with potential resale value. However, upon further review, Battelle concluded that the logistical arrangements of conducting a special sale of these items would not offset recovery and that use of existing military pathways for disposal of surplus equipment would be a more appropriate use of resources. The Navy concurred with this reasoning. Battelle turned over these uncontaminated items to the Navy. Items marked "5" as the end state in Appendices A and C were turned over to Navy control and were left at the site. The Navy has subsequently transferred these items to the Defense Reutilization and Marketing Office (DRMO) at Camp Pendleton, CA.

6.9 Items for Recycling – Bulk Aluminum Components

The following decontaminated bulk aluminum components were placed on two flatbed trailers, along with other bulk steel components, and were shipped for recycling to Pacific Steel, Inc., a scrap metal processor in National City, CA, with PTES as the transporter:

- Airlock housing – aluminum shell;
- Two airlock door assemblies; and,
- Aluminum drainer housing.

These items are designated with the end state "6a1" in Appendices A and C, with the dates of shipment listed in Appendix C.

Bills of lading for these shipments are contained in Appendix G. Certificates of processing are included in Appendix H.

6.10 Items for Recycling – Nonbulk Aluminum

The following uncontaminated items were placed inside the bulk aluminum items (i.e., airlock and drainer) and were included in the shipment for recycling as described in Section 6.9 above:

- Airlock ram assemblies;
- Aluminum spiral duct; and,
- Punch platen and saddle.

These items are designated with the end state "6a2" in Appendices A and C, with the dates of shipment listed in Appendix C.

Bills of lading for these shipments are contained in Appendix G. Certificates of processing are included in Appendix H.

6.11 Items for Recycling – Steel, Bulk Components

The following decontaminated items were shipped, using flatbed trailers (along with aluminum components described in Sections 6.9 and 6.10) to Pacific Steel, Inc., a scrap metal processor in National City, CA, for recycling, using PTES as the transporter:

- Conveyor rails and ram slider assembly from the Air Lock Input Conveyor (ALIC);
- Elevator housing, carriage, and pan;
- Binocular section; and,
- Crated shredder spacers.

These items are designated with the end state "6b1" in Appendices A and C, with the dates of shipment listed in Appendix C.

Bills of lading for these shipments are contained in Appendix G. Certificates of processing are included in Appendix H.

6.12 Items for Recycling – Nonbulk Steel

Items designated with the end state of "6b2" in Appendices A and C were placed in a total of four 40-yd^3 roll-offs and shipped to Pacific Steel, Inc., a scrap metal processor in National City, CA, for recycling. The galvanized steel spiral duct from the off-gas treatment system was cut into 10-foot or smaller sections and placed in the first roll-off shipped to Pacific Steel, Inc. The steel rebar was separated from the concrete removed on-site. Approximately 22,660 pounds of steel rebar was shipped to Pacific Steel, Inc. in two additional 40-yd^3 containers as part of the concrete removal task.

Dates of all container shipments are listed in Appendix C. Bills of lading for these shipments are contained in Appendix G. Certificates of processing are included in Appendix H

6.13 Items for Recycling – Stainless Steel

Stainless steel tubing from instrument air tubing was cut into approximately 5-foot sections, strapped onto a pallet, and shipped to CA Metals and Electronics, a nonferrous scrap metal processor in El Cajon, CA, for recycling along with copper wire (Section 6.14 below).

This item is designated with the end state "6c" in Appendices A and C.

The shipping date for this item is listed in Appendix C. The bill of lading for this shipment is contained in Appendix G. The certificate of processing is included in Appendix H.

6.14 Items for Recycling – Copper

Copper wire from the electrical support system and instrumentation was placed into two 1-yd^3 Gaylord boxes and onto nine pallets, and was shipped to CA Metals and Electronics, a nonferrous scrap metal processor in El Cajon, CA, for recycling. This item is designated with the end state "6d" in Appendices A and C, with the shipping date shown in Appendix C.

The bill of lading for this shipment is contained in Appendix G. The certificate of processing is included in Appendix H.

6.15 Items for Recycling – Hydraulic Fluid and Other Oil

The following oils were drained from equipment and were picked up by Asbury Environmental Services from the site and were delivered to DeMenno/Kerdoon, a permitted TSDF in Compton, CA:

- Hydraulic fluid from the hydraulic power unit of the aluminum shredder system;
- Hydraulic fluid from the wood shredder hydraulic power unit and ram; and,
- Barrier fluid from the progressive cavity napalm transfer pump seals.

These items are designated with the end state "6e" in Appendices A and C, with the date of shipment listed in Appendix C.

6.16 Rubbish and Debris

The following nonhazardous rubbish and debris were placed in the refuse dumpster served by Fallbrook Refuse (Fallbrook, CA), the local disposal service provider. The 2-yd^3 refuse hopper was emptied weekly. Two 40-yd^3 roll-offs were required for disposal of bulk or oversized items.

- Condensate system hoses;
- Three temperature transmitters;
- Nozzles and sensors from fire protection system;
- Hydraulic hoses and fittings;
- ISO tank vent hoses;
- Tent penetration frames (wood);
- Drywall;

- Wooden work platforms at the front end of the napalm processing system;
- Armored cable from electrical support systems;
- Underground conduit;
- Housekeeping wastes – solid materials (weekly basis); and,
- Rubbish from storage containers

In addition, approximately 360 yd^3 of concrete removed from the site was hauled by Bud's Trucking to Moody's Excavation, the facilitator of a land reclamation project for the City of Oceanside, CA. A total of 24 loads of approximately 15 yd^3 each were taken to the site and used for fill. The steel rebar from the concrete was separated on site and was shipped to Pacific Steel, Inc., a scrap metal processor in National City, CA, for recycling as mentioned in Section 6.12. The nitrogen system insulation was removed from the site by Air Liquide of San Diego CA. Also, the multipoint flame ionization detector (FID), which was sent to Battelle for attempted repair, eventually was disposed of in Richland, WA.

These items are designated with the end state "7" in Appendices A and C, with shipping dates given in Appendix C.

6.17 Variances from the Plan

Although the D&D project was planned carefully, some issues arose during the conduct of the project operation that required a change in the methods or outcomes. The following subsections describe the variances that occurred. The affected item numbers, as found in Appendices A and C, are listed as applicable.

6.17.1 Field Decisions. The following field decisions were made to amend the CERCLA Completion Plan based on circumstances encountered at the time. The decisions were approved by Battelle project management, and the Navy Technical Representative was kept apprised of the course of action In most instances a change in the item number and/or its end state resulted.

- As described in Sections 2.1 and 6.8, Battelle decided against using a unique effort to conduct a sale of used equipment, and instead excessed the components through existing military surplus equipment pathways. Items with potential reuse value were added to the surplus list rather than being disposed as rubbish. These included items such as sensors, railing, valves, and flame arrestors. (Affected items: 303, 325, 391, 401, 422, 427, 428, 430, 434, 435, 437, 438, 440, 471, 103b, 123b, 147b.)

- **Item 103, work platform frame and wood deck:** These items were separated into "a" and "b" components, respectively, as the frame was recycled as steel and the deck became rubbish.

- **Items 123 and 147:** Originally listed as structural steel and railing, these items were separated into "a" and "b" components, respectively. The structural steel was recycled as scrap metal (Section 6.12). The railings were separated as item b with value, described above.

- **Item 162:** The punches, platen, and saddle were made of both steel and aluminum. The parts were separated for proper scrap value, and the aluminum and steel parts renamed on the list to include an "a" and "b" suffix, respectively

- **Items 241, 261a, and 267:** Several items were originally assumed to need to be transported on a flatbed trailer to the steel recycler, but were actually able to be placed in the roll-off.

- **Item 261b:** The diverter flap (valve) was packed with napalm and more easily disposed as hazardous waste than decontaminated (Section 6.1). The rest of Item 261 (diverter section) was cleaned and recycled as scrap steel (Section 6.12).

- **Item 302:** It was originally assumed that galvanized materials would need to be sorted from the rest of the steel. Subsequently, the scrap dealer indicated that sorting was not necessary, and the galvanized materials were combined with the steel in the roll-off. This eliminated the "6b3" end state.

- **Item 306, GAC manifold:** It was originally assumed that U.S. Filter/Westates would buy back the low-flow GAC manifold and valves that the project specifically fabricated for the GAC beds. However, when U.S. Filter/Westates did not want them, the valves were removed and added to the surplus materials inventory and the manifold piping was scraped for recycled steel.

- **Item 439:** Position sensors on many of the process equipment components originally were intended to be removed and disposed as rubbish. Actually, they were not removed but were left on the component taken to the scrap recycler.

- **Item 441:** Instrument wire, originally intended as rubbish, was eventually included in the nonferrous scrap metal category (Section 6.14).

- **Item 470:** The armored cable was not easily sorted into valuable scrap components (steel, copper) and was disposed as rubbish (Section 6.16).

- **Item 509:** No hazardous materials were found in the flammable storage cabinet for disposal. Stored oils and greases were removed by the operating contractor for reuse.

- **Item 527:** The only housekeeping wastes generated were rubbish, not hazardous waste.

- **Item 535 (added):** Oil-stained soil was discovered beneath the asphalt during the concrete demolition and removal phase. The locations were consistent with areas where the hydraulic system had leaked during operations and had evidently soaked through the asphalt. All oil-stained soil was excavated and drummed for disposal as hazardous waste as described in Section 6.1. Two oil-stained locations were identified, and a total of four 55-gallon drums were removed.

6.17.2 Additional Items. The following items were not originally included in the comprehensive site materials list and were added during the course of the D&D action.

- **Item 107:** The lifting fixture was inadvertently left off the original list. It was disposed as scrap steel (Section 6.12).

- **Item 210:** A set of resharpened teeth and new spacers had been obtained from SSI (the shredder manufacturer) but never used and were added to the list. They were ultimately requested by the Navy as described below and in Section 6.6.

- **Item 445:** Partially used compressed calibration gas cylinders were left over from the project and required disposal as hazardous waste. They were not originally accounted for on the material disposition list and were subsequently added.

- **Items 530, 531, 532, and 533:** More than 500 shredder spacers and hundreds of other used shredder components required individual decontamination of napalm residue. Because of the quantity, these parts were added to the material disposition list. Most of the spacers were taken to the scrap metal recycler in crates rather than in a roll-off (Section 6.11). The other shredder parts were taken in the roll-offs (Section 6.12).

- **Item 534:** Used/empty aerosol cans, formerly containing brake cleaner, wasp/hornet killer, etc., originally were not accounted for on the material disposition list and were subsequently added. They were disposed as hazardous waste as described in Section 6.1.

- **Item 522b:** When it was discovered that the reinforcing steel (rebar) in the concrete foundations was removable with a slight increase in effort, that effort was taken. That allowed the concrete rubble to be disposed as fill material and the rebar to be recycled, as described in Sections 6.12 and 6.16. This action saved having to pay for landfill disposal of concrete containing rebar.

6.17.3 Navy Direction. The following decisions were made by the Navy, and Battelle was directed to make the corresponding change to the plan.

- End state 3 in Appendices A and C describes the Navy requested equipment. Originally, the Navy requested only the two aluminum shredders, the two napalm pumps, the wood shredder system equipment, and the forklift loading ramp for delivery to Crane Army Activity in Crane IN. In preparing the D&D Plan, Battelle anticipated that additional ancillary items would be necessary in order for the Navy to be able to implement a fully functioning shredder system. These items included the hydraulic power unit, control panels, steel superstructure. These additional anticipated items were originally identified as end state "3a". Upon further review, the Navy decided to accept Battelle's recommendation and requested the additional items. They also requested all excess cutter teeth. The Navy also advised that, contrary to their original request, the forklift ramp was not to be shipped to Crane and for Battelle to arrange for disposition. Battelle placed the forklift ramp with the surplus equipment (end state "5"). Affected items are 188, 189, 202, 204, 205, 206, 207, 209, 210, 221, 222, 244, 245, 366, and 367, requested; 504 unrequested.

Section 7.0: SOIL SAMPLING AND ANALYSIS ACTIVITIES

The main objective of sampling and analysis activities was to evaluate whether operations at the napalm processing facility affected soils in the project area, consisting of approximately 102,000 ft^2 of paved area. The sampling and analysis activities were conducted in accordance with the SAP included as Attachment 3 of the CERCLA Completion Plan dated April 19, 2001 (Battelle and SYA, 2001), and later amended on June 19, 2001 (Battelle, 2001).

7.1 Surface Soil Sampling

On August 23 and 24, 2001, the site was surveyed to mark 57 grids of 50 ft by 50 ft and their centers for soil sampling. The soil sampling grid map, along with corresponding grid numbers, is included as Figure 4.

On August 27, 2001, David Clexton of Battelle conducted a briefing on the D&D HASP to the sampling crew. Because all asphalt was not removed from the site, a drill rig (CME-75) was used at the sampling locations where asphalt was located to core through the asphalt. These corings were made on August 27, 2001 at sample locations in grid numbers 15, 16, 23, 24, 25, 26, 31, 32, 33, 34, 35, 36, 37, 41, 42, 43, 44, 45, and 46. Asphalt corings at sample locations within grid numbers 39, 40, and 49 were performed on August 28, 2001 using hand tools. The core holes in asphalt were cold-patched after soil sampling was completed.

On August 27, 2001, soil samples were collected from grid numbers 1 through 27. Remaining soil samples (i.e., from grids 28 through 57) were collected on August 28, 2001. At each location, at least two En Core® samples and one brass or stainless steel sleeve sample were taken.

Based on the knowledge of the napalm composition (i.e., 33% gasoline, 21% benzene, and 46% polystyrene) and the fact that wooden crating material for the napalm canisters was treated with pentachlorophenol, contaminants of concern at the site were determined to be benzene, toluene, ethylbenzene, xylenes, styrene, and pentachlorophenol. Soil samples were collected from the surface using at least two En Core® samplers with 5 grams of soil per sampler. These En Core® samples were collected for volatile organic compound (VOC) analyses by United States Environmental Protection Agency (U.S. EPA) Method SW-846 8260B for the parameters of benzene, toluene, ethylbenzene, xylenes, and styrene. From each sample location, a trowel or hand auger was used to remove soil from a depth of up to 6 inches. The soil was placed in a brass or stainless sleeve measuring one inch in diameter and six inches long. The sleeve samples were collected for pentachlorophenol analysis by U.S. EPA SW-846 Method 8270C. Analytical results of these samples are included in Appendix I.

7.2 Field Quality Control Samples

The following field quality control samples were collected during the implementation of the SAP.

7.2.1 Trip Blanks. A trip blank prepared by the analytical laboratory (i.e., one 40-mL vial) accompanied each of the two coolers during transportation and during the field sampling activities. The SAP stated that no trip blank will be collected for the project because trip blanks are applicable to VOC water samples. However, because equipment rinsate samples were contained in each of the two coolers, it was decided that trip blanks would be necessary. Analytical parameters were reported below the practical quantitation limits (PQLs), indicating that no external contamination had entered into the soil samples. Analytical results of the trip blanks are included in Appendix I.

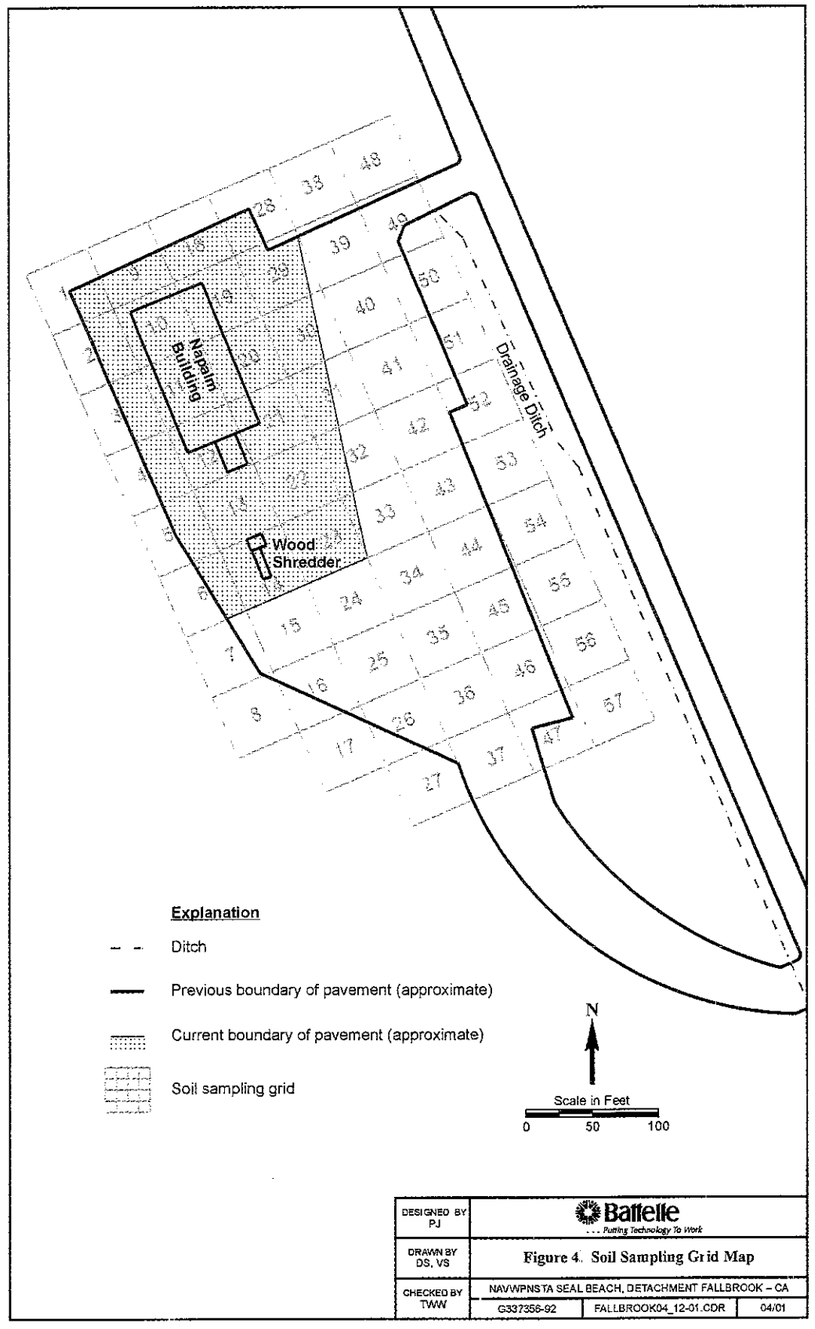


Figure 4. Soil Sampling Grid Map

7.2.2 **Field Duplicates.** As stated in the SAP, a field duplicate was collected at a frequency of at least one per 10 samples collected. A total of six duplicate samples were collected at sample locations within grid numbers 2, 10, 20, 31, 42, and 53. The field duplicate samples were assigned unique sample numbers to keep their identities "blind" to the analytical laboratory. These numbers were from 056-00A through 056-00F. The locations of these duplicate samples were recorded in the field logbook. Precision of the overall sample collection and analysis process was demonstrated as the analytical results for the original and duplicate samples were similar (i.e., below the PQLs). Analytical results of the field duplicates are included in Appendix I.

7.2.3 **Equipment Rinsate Samples.** One equipment rinsate sample was collected on each day of soil sampling activity. These two samples were collected by running deionized water over decontaminated sampling equipment (i.e., trowel or hand auger) and collecting the water in the sample jars. One amber, 2-L, glass bottle and three 40-ml glass vials with Teflon™ lids (provided by the analytical laboratory) were used for each equipment rinsate sample. These two samples are identified as 056-ERB1 and 056-ERB2. Effectiveness of the decontamination procedure was demonstrated as the analytical results of the equipment rinsate samples were all below PQLs. Analytical results of the equipment rinsate samples are included in Appendix I.

7.2.4 **Temperature Blank Samples.** Each cooler used in shipping the field samples to the analytical laboratory was provided with a temperature blank consisting of a 40-mL vial with Teflon™ lid. The purpose of the temperature blank was to verify that the field samples were cooled to a temperate of 4±2°C. The laboratory checked the temperature of the blank sample when it received the cooler. The results indicated that the measured temperature was within the specified range (i.e., 4±2°C).

7.3 Laboratory Quality Control Samples

A matrix spike/matrix spike duplicate (MS/MSD) sample was collected for every 20 project samples. Four additional En Core® samples and one additional sleeve sample were collected at sample locations within grid numbers 9, 18, and 28. These samples were identified on the chain-of-custody forms included in Appendix J. Percent recoveries and relative percent difference were within the quality control limits for the MS/MSD samples.

7.4 Decontamination Procedures

Decontamination of nondisposable sampling equipment (i.e., trowel or hand auger) was performed to prevent any introduction of extraneous materials into the samples and to prevent cross-contamination between samples. Decontamination procedures included washing the sampling equipment with aqueous Liquinox™ solution kept in a 5-gallon bucket, followed by washing with deionized water kept in a 5-gallon bucket. Finally, the sampling equipment was rinsed with deionized water by spraying it using a stainless steel Hudson-type sprayer while holding the sampling equipment over a 5-gallon bucket. All decontamination water generated during sampling was placed in one 55-gallon container. Sampling personnel used a new pair of nitrile gloves before collecting the samples at each location. The used gloves were placed in a 55-gallon drum for disposal. A sample of the decontamination water was collected on September 26, 2001 and was analyzed for the parameters of concern (i.e., benzene, toluene, ethylbenzene, xylenes, styrene, and pentachlorophenol). Laboratory analysis results indicated that all parameters analyzed were below the PQLs. However, the drum of decontamination water was shipped off site as hazardous waste on October 2, 2001. Based on the process knowledge, the drum containing PPE was considered nonhazardous because soil sample results were below the PQLs for constituents of concern. This PPE was picked up by Fallbrook Refuse Service of Fallbrook, CA, on September 8, 2001.

7.5 Sample Number, Labeling, Packaging, and Shipment

Samples were uniquely numbered according to the following format: 056-YYY, where 056 is the three-digit Battelle project number and YYY is the sequence number for the sample. The sample numbers were recorded in the field logbook and on the chain-of-custody (COC) form immediately after sample collection.

A sample label was filled out, affixed to each sample container, and covered with a clear tape immediately after sample collection. Each sample label contained the following information:

- Sample identification number;
- Sample collection date;
- Sample collection time (24-hour clock);
- Sampler's initials;
- Analyses to be performed; and,
- Preservation (if any).

Sample containers were placed in double resealable plastic bags to protect the samples from moisture during transportation to the laboratory.

One cooler was used for each day of sampling for transporting the samples to the laboratory. The sample cooler drain spout was taped from the inside and outside of the cooler to prevent any potential leakage. A sufficient amount of dry ice was placed in the cooler to keep samples at a temperature of 4±2°C during sampling and transportation. Two custody seals were taped across the cooler lid, with one in front and the other in the back of the cooler. A clear tape was placed over the custody seals. On each of the two sampling days, the cooler was initially transported by Battelle personnel (i.e., David Clexton) from the site to the Battelle Camp Pendleton field office, which is located approximately 3 miles west of the project site. From there, sample coolers were picked up by a laboratory-assigned courier for transportation to the laboratory (Applied Physics & Chemistry Laboratory in Chino, CA). A chain-of-custody form completed in accordance with the SAP was signed by the courier at the time of the pick-up and accompanied the cooler. Copies of the chain-of-custody forms are included in Appendix J.

7.6 Field Logbook

A permanently bound field logbook with consecutively numbered pages was used by Battelle to record the following information for each day of the sampling period:

- Project name and location;
- Date and time of each sample collection;
- Personnel names involved in the sampling;
- General weather information (i.e., temperature, wind condition, etc.);
- Description of work performed;
- Description of sampling performed, including location, depth of sample, sampling equipment, sample identification number, and type of laboratory analyses to be performed;

- Identification of field quality control samples (i.e., duplicate samples); and,
- Identification of laboratory matrix spike/matrix spike duplicate samples.

7.7 Laboratory Data Validation

Laboratory data validation was performed under U.S. EPA Level III and IV guidelines by an independent data validation company (i.e., Laboratory Data Consultants, Inc.). The laboratory analyses were validated using the following documents:

- U.S. EPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, October 1999
- U.S. EPA SW-846, Third Edition, Test Methods for Evaluating Solid Waste, Update I, July 1992; Update IIA, August 1993; Update II, September 1994; Update IIB, January 1995; Update III, December 1996.

The data validation report is included as Appendix K. Results of the validation review indicates that all samples had met the quality assurance/quality control requirements specified in the SAP dated June 19, 2001, except for the equipment rinsate sample collected on August 23, 2001. For this sample, surrogate recovery was outside the quality control limit. However, all other quality assurance/quality control requirements were satisfied for the equipment rinsate sample.

7.8 Laboratory Analytical Results

Copies of the laboratory analytical reports from Applied Physics & Chemistry Laboratory (Chino, CA) are included in Appendix I. The reports present the analytical results of all soil samples, field duplicates, equipment rinsate samples, trip blanks, MS/MSD samples, and temperature blanks. The soil sample results are summarized in Table 2. PQLs for all of the analyzed parameters were established in the Sampling and Analysis Plan (Battelle, 2001) as reporting limits (RLs). In addition, the method detection limit (MDL) for pentachlorophenol is reported in Table 2. Laboratory reports with the RLs and MDLs are included in Appendix I.

En Core® soil samples collected were analyzed by U.S. EPA SW-846 Method 8260B for benzene, toluene, ethylbenzene, xylenes, and styrene. Soil samples collected in brass or stainless steel sleeves were analyzed by U.S. EPA SW-846 Method 8270C for pentachlorophenol. Samples exhibited parameter concentrations below PQLs All results of the soil samples were below the residential and industrial preliminary remediation goals (PRGs) established by the U.S. EPA Region 9 (U.S. EPA, 2000). These results confirm that the napalm processing operations did not affect the soils within the project area; hence, no further action is needed for soil remediation at the site. In addition, the site can be used for unrestricted purpose because the soil concentrations of the constituents of concern were below the respective residential PRG levels.

Table 2. Soil Sampling Results (in parts per billion [ppb])

Sampling Grid Number	Parameters							
							Pentachlorophenol	
	Benzene	Ethylbenzene	Styrene	Toluene	*o*-Xylene	*m/p*-Xylene	RL	MDL
1	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<1,700	<180
2	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<1,800	<180
2 (Duplicate)	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<1,800	<180
3	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<3,500	<360
4	0.9*	<5.4	<5.4	<5.4	<5.4	<5.4	<3,500	<360
5	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<1,700	<180
6	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<1,700	<170
7	2.0*	<5.4	<5.4	<5.4	<5.4	<5.4	<1,700	<170
8	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1,700	<180
9	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<1,800	<180
10	1.0*	<5.5	<5.5	<5.5	<5.5	<5.5	<1,700	<180
10 (Duplicate)	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<1,800	<180
11	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<1,800	<190
12	<5.2	<5.2	<5.2	<5.2	<5.2	<5.2	<1,800	<180
13	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<1,800	<190
14	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<7,100	<730
15	<5.3	<5.3	<5.3	<5.3	<5.3	<5.3	<1,700	<180
16	0.7*	<5.1	<5.1	<5.1	<5.1	<5.1	<1,700	<180
17	0.6*	<4.9	<4.9	<4.9	<4.9	<4.9	<6,900	<710
18	<5.9	<5.9	<5.9	<5.9	<5.9	<5.9	<1,800	<180
19	<5.2	<5.2	<5.2	<5.2	<5.2	<5.2	<1,800	<180
20	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<1,700	<180
20 (Duplicate)	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<3,400	<350
21	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<1,700	<180
22	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<1,700	<170
23	1.0*	<5.1	<5.1	<5.1	<5.1	<5.1	<1,700	<180
24	1.0*	<6.0	<6.0	<6.0	<6.0	<6.0	<7,100	<730
25	<4.6	<4.6	<4.6	<4.6	0.5*	1.0*	<1,800	<180
26	<5.6	<5.6	<5.6	0.9*	<5.6	<5.6	<7,000	<720
27	<5.8	<5.8	<5.8	<5.8	<5.8	<5.8	<1,700	<170
28	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<6,700	<1,400
29	<5.6	<5.6	<5.6	<5.6	<5.6	<5.6	<1,700	<360
30	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<1,800	<370
31	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<1,700	<360
31 (Duplicate)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1,700	<360
32	3.0*	<6.4	<6.4	<6.4	<6.4	<6.4	<1,700	<370
33	<5.0	<5.0	<5.0	0.6*	<5.0	<5.0	<1,700	<370
34	2.0*	<5.1	<5.1	<5.1	<5.1	<5.1	<1,800	<370
35	2.0*	<5.8	<5.8	<5.8	<5.8	<5.8	<1,700	<370
36	0.9*	<5.3	<5.3	<5.3	<5.3	<5.3	<1,700	<360
37	<5.9	<5.9	<5.9	<5.9	<5.9	<5.9	<1,800	<370
38	<5.6	<5.6	<5.6	<5.6	<5.6	<5.6	<1,700	<360
39	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<1,700	<360
40	0.7*	<5.3	<5.3	<5.3	<5.3	<5.3	<3,500	<740
41	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<1,800	<380

Table 2. Soil Sampling Results (in parts per billion [ppb]) (Continued)

Sampling Grid Number	Parameters							
							Pentachlorophenol	
	Benzene	Ethylbenzene	Styrene	Toluene	*o*-Xylene	*m/p*-Xylene	RL	MDL
42	<5.6	<5.6	<5.6	<5.6	<5.6	<5.6	<1,800	<380
42 (Duplicate)	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<1,800	<180
43	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<1,800	<380
44	1.0*	<5.1	<5.1	<5.1	<5.1	<5.1	<3,500	<740
45	1.0*	<4.7	<4.7	<4.7	<4.7	<4.7	<7,000	<520
46	<6.8	<6.8	<6.8	<6.8	<6.8	<6.8	<6,900	<520
47	0.9*	<5.4	<5.4	<5.4	<5.4	<5.4	<1,800	<140
48	3.0*	<6.1	<6.1	<6.1	<6.1	<6.1	<1,700	<130
49	1.0*	<5.1	<5.1	<5.1	<5.1	<5.1	<1,800	<130
50	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<3,400	<250
51	<5.2	<5.2	<5.2	<5.2	<5.2	<5.2	<1,700	<130
52	3.0*	<4.9	<4.9	0.5*	<4.9	<4.9	<3,400	<250
53	1.0*	<4.7	<4.7	<4.7	<4.7	<4.7	<1,700	<130
53 (Duplicate)	<5.3	<5.3	<5.3	<5.3	<5.3	<5.3	<1,700	<180
54	0.7*	<4.7	<4.7	<4.7	<4.7	<4.7	<1,700	<130
55	<6.2	<6.2	<6.2	<6.2	<6.2	<6.2	<3,400	<250
56	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<6,800	<510
57	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	<3,400	<250
PRGs (Industrial)**	**1,500**	**230,000**	**1,700,000**	**520,000**	**210,000**	**210,000**	**11,000**	
PRGs (Residential)***	**650**	**230,000**	**1,700,000**	**520,000**	**210,000**	**210,000**	**3,000**	

Note: All values reported in this table as "<" refer to the Practical Quantitation Limits (PQLs) established by the laboratory after considering any dilutions, if made.

RL = Reporting limit established by Sampling and Analysis Plan (Battelle, 2001)
MDL = Method detection limit.

*Estimated result by the laboratory and below the PQL.
**Preliminary Remediation Goals (PRGs) established by U.S. EPA Region 9 and dated 11/22/00 for industrial soils.
***Preliminary Remediation Goals (PRGs) established by U.S. EPA Region 9 and dated 11/22/00 for residential soils.

Section 8.0: CONCRETE SAMPLING AND ANALYSIS ACTIVITIES

On July 9, 2001, samples of concrete from the foundation and support pads were taken by PTES to determine if concrete was contaminated by napalm processing operations conducted at the site. A total of four composite samples of concrete were taken. Each composite consisted of three individual samples. Locations of these individual samples are indicated on Figure 5.

At each individual sampling location, an electric roto-hammer with a 0 75-inch drill bit was used to break up concrete to a depth of 2 inches from the surface. New, disposable, nitrile gloves were used by the sampler at each sampling location. The drill bit was decontaminated after each sample using soap and water, followed by a deionized water rinse.

A set of three individual concrete samples were composited and placed in containers. Each of the four containers was labeled and placed in a cooler with ice. A sealing tape was placed around the cooler, and the cooler was transported to EnviroMatrix Analytical, Inc. in San Diego, CA.

The composite samples were analyzed for benzene, toluene, ethylbenzene, xylenes, and styrene. The laboratory analytical data are included in Appendix L. Benzene and toluene were below the practical quantitation limit (PQL) of 1 part per billion (ppb) for all four samples. Ethylbenzene and xylenes were below the PQL of 2 ppb for all four samples. Styrene was below the PQL of 2 ppb for two samples and was detected at 2.1 and 3.8 ppb for the other two samples. All sample results were below the estimated quantitation limit (EQL) of 5 ppb specified in the CERCLA Completion Plan dated April 19, 2001 (Battelle and SYA, 2001). Based on these results, it was determined that the concrete was a nonhazardous waste. Section 6.16 describes the transportation and disposal of the concrete removed from the site.

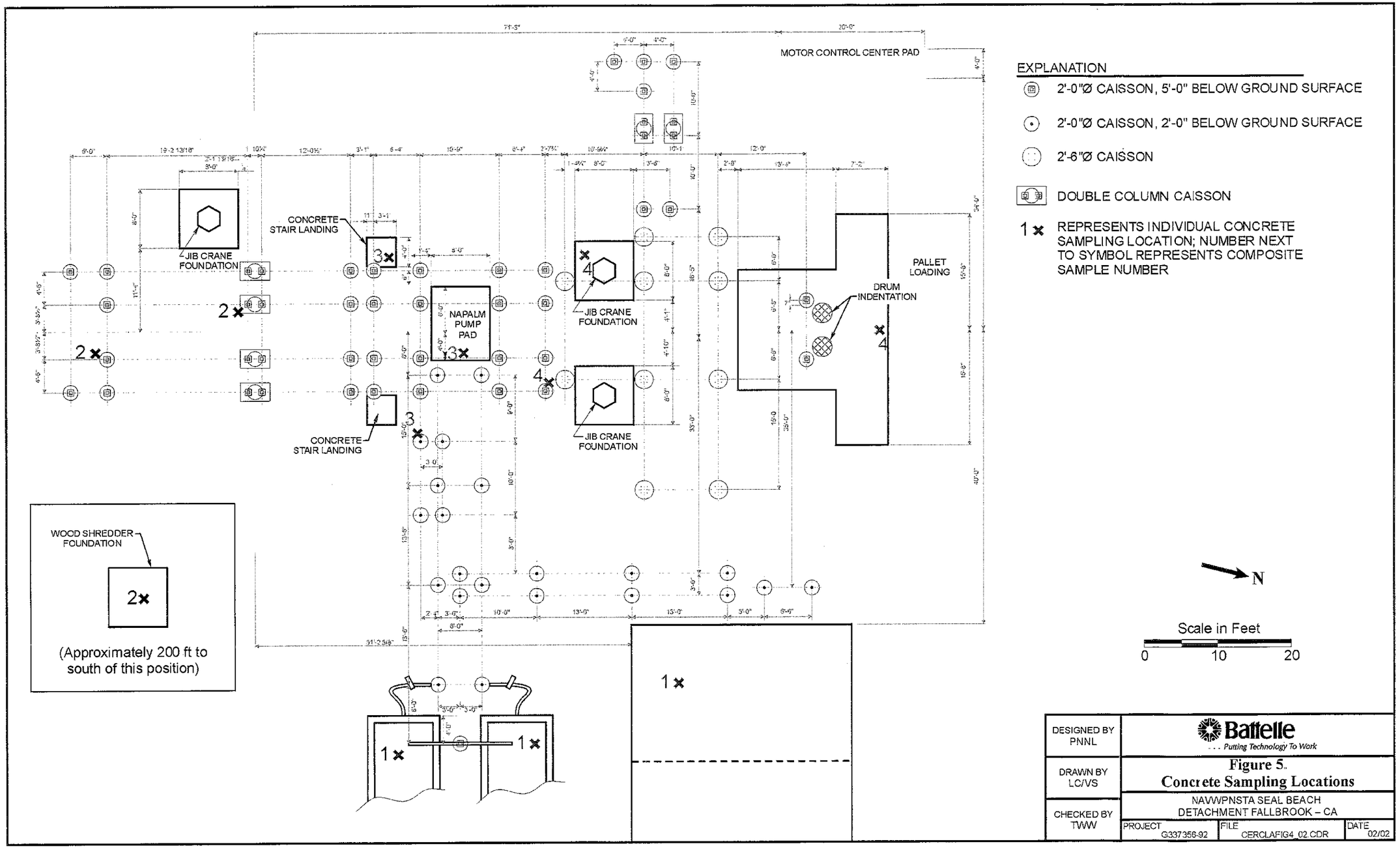


Figure 5. Concrete Sampling Locations

Section 9.0: PROJECT COMPLETION SUMMARY

The CERCLA D&D activities for the equipment, components, and structures of the napalm processing system were initiated on May 7, 2001 and were completed by November 2001. The Navy-requested items were disassembled, decontaminated (as necessary), and either transported to Crane, IN or turned over to the Navy at the site. Equipment/components not requested by the Navy were recycled as much as possible, including the rebar separated on site from the concrete removed. Other items were returned to owners/vendors. Wastes generated during the disassembly and decontamination operations were disposed of at approved hazardous waste permitted facilities, solid waste permitted facilities, or permitted treatment facilities.

Each piece of equipment sent to the Navy, owners/vendors, or recyclers was inspected to ensure either no decontamination was necessary or to ensure that the decontamination procedure resulted in a visually clean standard acceptable to the receiving party.

Soil sampling results at the site indicated that results were below the residential and industrial PRGs established by the U.S. EPA Region 9 (U.S. EPA, 2000). These results confirm that the napalm processing operations did not affect the soils within the project area. Hence, no further action is needed for soil remediation at the site. In addition, the site can be used for unrestricted purpose because the soil concentrations of the constituents of concern were below the respective residential PRG levels.

Section 10.0: REFERENCES

Battelle and SYA. 2001. *CERCLA Completion Plan, Napalm Processing Facility, Naval Weapons Station Seal Beach, Detachment Fallbrook, Fallbrook, California.* Prepared for SWDIV Naval Facilities Engineering Command, under Contract No. N47408-95-D-0730. April 19.

Battelle. 2001. *Sampling and Analysis Plan: CERCLA Completion Plan, Naval Weapons Station Seal Beach, Detachment Fallbrook, Fallbrook, California.* Prepared for SWDIV Naval Facilities Engineering Command, under Contract No. N47408-95-D-0730. June 25.

United States Environmental Protection Agency (U.S. EPA). 2000. Region 9 Preliminary Remediation Goals (PRGs) Table. Last updated on November 22. Available from http://www.epa.gov/region09/waste/sfund/prg/index.html.

APPENDIX A

COMPREHENSIVE MATERIAL LIST GROUPED BY PROCESS CATEGORY

Key to abbreviations used in Activities and End States descriptions

Tools and equipment

c10	10-ton hydro crane
c35	35-ton boom truck or crane
c100	100-ton crane
F4	forklift (3,000-lb capacity)
f10	10-ton forklift
LB	level B HazMat work, supplied air
LC	level C HazMat work, air purifying respirator
bh	backhoe with operator
ml	jlg man lift
T	torch
fl	front loader
pu	pick up

Material streams end states

1a	Hazardous waste - solid
1b	Hazardous waste - liquid
1c	process material with existing process waste streams to GNI
2a	Leased item, vendor collect FOB site
2b	Leased item, return to vendor FOB destination
3	Navy requested equipment, deliver to Crane, IN
3a	Equipment assumed to be needed by the Navy to augment their requested components
4	Vendor buyback item, transportation TBD
5	Items with potential resale value, Battelle runs sale/auction
6a1	Items for recycling - Aluminum, bulk component
6a2	Items for recycling - Aluminum, 20 yd rolloff
6b1	Items for recycling - Steel, bulk component
6b2	Items for recycling - Steel, 40 yd rolloff
6b3	Items for recycling - galvanized steel: segregate but send with steel in rolloff
6c	Items for recycling - Stainless steel (bundle in 55-gal drum)
6d	Items for recycling - Copper (1 yd Gaylord box)
6e	Items for recycling - Hydraulic fluid and other oil
7	Rubbish and debris

Item No.	Item Description	Comments	drain or decon	disconnect/ dismantle	remove &/or containerize	Activities	End State
100	**Front End**						
101	2 ton crane with fixed electric hoist			6/14/01	6/15/01	remove - c10	5
102	60 ft long, 5 ft wide, powered roller conveyor (2 10 hp motors w/ disconnects)		5/4/01	5/3/01	5/4/01	dismantle - f4 / c10	5
103a	Work platforms (metal frame)			5/3/01	7/23/01	dismantle - f4	6b2
103b	Railings and stairs (front end)			5/3/01	7/23/01		5
104	Work platforms (wood platform)			5/2/01	6/5/01	dismantle - f4	7
105	CP5 control panel (misc. power supplies, relays, I/O cards)			5/3/01	5/31/01	disconnect; remove - f4 / c10	5
106	E-stop switches (2) and cords				5/4/01	disconnect; remove	5
107	Lifting fixture		6/6/01		6/7/01	remove; pressure wash	6b2
120	**Air Lock Input Conveyor (ALIC)**						
121	Conveyor rails and ram slider assembly				6/25/01	dismantle - f4 / c10	6b1
122	Ram, 16' hyd cylinder, mostly steel hardware		4/25/01	6/15/01	6/19/01	disconnect; remove - f4	6b2
123a	Structural steel (ALIC)			7/13/01	7/16/01	dismantle - f4 / c10	6b2
123b	Railing (ALIC)			6/5/01	6/5/01	remove	5
124	Platform grating (ALIC)			6/5/01	7/13/01	remove - f4	5
125	Hydraulic manifold and solenoid valves		4/25/01	6/19/01	6/19/01	remove	5
126	Electronic position sensors	remain on item					6
127	Stairway				6/4/01	remove - f4/ c10	5
128	Bullnose (canister uprighter)			5/7/01	6/1/01	remove - f4	6b2
129	E-stop switch and cord				5/4/01	disconnect; remove	5
130	2 13' hydraulic cylinders		4/25/01	6/15/01	6/19/01	disconnect	6b2
140	**Air Lock**						
141	Air lock housing – Aluminum shell		5/9/01		6/25/01	decon-LC; remove-c100	6a1
142	Dried napalm removed from airlock	~1 drum collected			5/9/01	containerize	1a
143	Steel slide rails		6/5/01	5/8/01	6/6/01	remove	6b2
144	Airlock ram assemblies		6/25/01	5/8/01	6/28/01	remove	6a2
145	Air lock door hydraulic lift rams	(rams left attached to doors, cylinders removed)	4/25/01		6/18/01	drain, remove	6b2
146	2 Air lock door assemblies; mostly aluminum hardware	remains attached to airlock	5/21/01				6a1
147a	Structural steel (Airlock)		7/16/01	7/13/01	7/16/01	dismantle - f4 / c10	6b2
147b	Railing (Airlock)		7/16/01	7/13/01	7/16/01	dismantle - f4 / c11	5
148	Platform grating (Airlock)		8/1/01		7/13/01	remove - f4	5
149	2 steel stairways				7/13/01	remove - c10	5
150	Explosion proof light			5/9/01	5/9/01	remove	5
151	Electronic position sensors and wiring	(left on unit)		5/15/01			6
160	**Drainer**						
161	Aluminum drainer housing		5/21/01	6/20/01	6/25/01	decon-LC; remove-c100	6a1
162a	Mostly aluminum punch platten and saddle		6/26/01	5/14/01	6/28/01	decon-LC; remove	6a2
162b	Drainer punches		6/19/01	5/14/01	6/19/01	remove; decon	6b2
163	Dried napalm removed from drainer				5/21/01	containerize	1a
164	Punch hydraulic drive system: motor, 4 gear boxes, couplings, etc.		4/25/01	6/18/01	6/18/01	remove - c10	5
165	Structural steel (a) and railing (b) (drainer)		7/16/01	7/13/01	7/1601	dismantle - f4 / c10	6b2
166	Platform grating (drainer)		8/1/01		7/13/01	remove - f4	5
167	Transition boot				5/16/01	decon; remove	1a
180	**Elevator and Binocular**						
181	Elevator housing		5/23/01		6/20/01	decon-LC; remove-c100	6b1
182	Elevator carriage and ram heads		6/6, 5/23	5/16, 5/22	6/27, 6/6	decon; remove-f4	6b2
183	Elevator pan		6/6/01	5/15/01	6/26/01	decon; remove-f4	6b2
184	Binocular section		5/4/01	4/12/01	6/26/01	decon; remove-f4	6b1

Item No.	Item Description	Comments	drain or decon	disconnect/ dismantle	remove &/or containerize	Activities	End State
185	Dried napalm removed from elevator and binocular components				6/6/01	containerize	1a
186	Lift cylinders (2) and push ram cylinders (2)		4/25/01	5/22/01	6/19/01	drain; remove-f4	6b2
187	4 Photo eye pairs	(remain on equip)					6
188	Structural steel and railing (elevator)	Requested by Crane		7/11/01	8/7/01	dismantle - f4 / c10	3
189	Platform grating (elevator)	Requested by Crane			8/22/01	remove - f4	3
200	**Primary and Secondary Shredders with HPU and control panel**						
201	2 model 3200-H shear shredders by SSI, each w/ hyd motor and gear box		4/17P, 4/19S	4/20/01	6/26/01	decon; restack; remove-c100	3
202	HPU: Hydraulic power unit consisting of 2 200-HP motors, 1 150-HP motor, 900 gallon hydraulic fluid tank with heaters, 2 5-HP motors and heat exchanger/fans		6/6/01	6/5/01	6/27/01	disconnect; clean; remove-c10	3
203	Hydraulic fluid from HPU	(and wood shredder HP4, and other used oil)			5/17/01	drain	6e
204	Integrated control panel for remote control shredder system operation (CP1)			5/22/01	6/29/01	disconnect; remove-f4	3
205	Maintenance cranes and hoists			6/26/01	6/27/01	remove-c10/c100; dismantle	3
206	Structural steel, stairways, maintenance rails, and railing (shredders)			7/11/01	7/26/01	6/27/01	3
207	Platform grating (shredders)		6/1/01	7/11/01	8/22/01	7/26/01	3
208	Shredded aluminum with dried napalm from shredder restack				4/20/01	containerize	1c
209	Secondary shredder wedge	Replace on secondary shredder	5/23/01			remove, decon, replace	3
210	Set of sharpened teeth and new spacers	Remained crated from factory	8/4/01			Load out	3
220	**Ancillary Shredder Transition components**						
221	Transition section		4/20/01	6/26/01	6/26/01	decon; remove-c100	3
222	Structural steel and platform grating			7/11/01	8/3/01	dismantle, remove - f4/c10/c100	3
223	Shredded aluminum with dried napalm cleaned during shredder restack				4/20/01	containerize	1c
240	**Auger**						
241	Auger hopper and housing (4 sections)		8/3/01	7/17/01	6/26/01	remove-c10/c100; dismantle; decon	6b2
242	Auger screw		8/3/01	7/17/01	6/26/01	remove-f4/c10; cut; decon	6b2
243	Hydraulic motor and planetary gear set			7/17/01		drain; remove-c10	5
244	Structural steel and railing (auger)	Requested by Crane		7/11/01	8/3/01	dismantle - f4 / c10	3
245	Platform grating (auger)	Requested by Crane			8/22/01	remove - f4	3
246	Dried napalm and shredded aluminum removed from auger, hopper, and housing				8/2/01	chip, containerize	1a
260	**Diverter and drum loader**						
261a	Diverter (pant leg section)		6/5/01	5/30/01	6/5/01	remove-f4/c10; decon	6b2
261b	Diverter flap or 'valve'	disposed in drum. Too hard to clean		5/30/01	5/31/01	remove, containerize	1a
262	Hydraulic ram (diverter)		4/25/01		6/6/01	drain, remove	6b2
263	Drum loader fill tube expansion joint (2)			5/21/01	6/6/01	remove	1a
264	2 carbon steel drum fill tubes		6/5/01	5/14/01	6/6, 6/21	remove-f4; decon (minimal)	6b2
265	Aluminum drum fill liners	(shredded - sent to GNI)		4/6/01	5/4/01	remove; decon	1c
266	2 pneumatic knife gate valves		5/30/01	5/30/01	5/30/01	remove-f4; decon	5
267	2 drum lift platten assemblies		6/5/01	5/21/01	6/5/01	remove-f4	6b2
268	2 turntable assemblies		6/5/01	5/21/01	6/7/01	remove-f4	6b2
269	2 hydraulic cylinders	(drained again)	4/25, 6/5	5/21/01	6/5/01	drain, remove	6b2
270	4 photo eye pairs	(remain on equipment)					6
271	4 12' sections of roller conveyors			5/16/01	5/16/01	remove-f4	5
272	Structural steel				5/30/01	remove	6b2

Item No.	Item Description	Comments	drain or decon	disconnect/ dismantle	remove &/or containerize	Activities	End State
280	**Napalm Transfer system**						
281	6" dia. Aluminum pipe			4/11/01	5/4/01	drain, remove-f4, containerize	1c
282	Napalm collected from pipe draining				5/4/01	collect	1b
283	Napalm pipe cleaning contaminated materials				5/4/01	collect	1a
284	9 diaphragm valves		6/11/01	4/11/01	6/11/01	remove; decon	5
285	2 loading arms		9/19/01	4/12/01	9/19/01	dismantle, decon	6b2
286	Progressive cavity pumps with barrier fluid seals		6/14, 6/20	5/16/01	7/19/01	remove; decon	3
287	4 6" expansion joints	(too hard to clean, dispose as HW)		5/29/01	5/31/01	remove	1a
288	Dried napalm removed from napalm transfer system components				5/4/01	containerize	1a
289	Pipe supports			5/22/01	5/22/01	remove	6b2
290	Structural steel loading arm supports			5/21/01	5/22/01	remove-f4	6b2
291	ISO tank instrument tower			5/17/01	6/4/01	remove; cut	6b2
292	Civacon valves (napalm and ISO vent)	(too hard to clean, dispose as HW)		4/12/01	9/17/01	remove	1a
293	Solvent from cleaning Civacon valves				N/A	containerize	1b
294	ISO tank vent hoses				5/17/01	remove	7
295	Royal purple barrier fluid	(collected with item 203)			5/17/01	containerize	6e
	(level instruments, see electronics list)						
300	**Off-Gas treatment system**						
301	Aluminum spiral duct			5/22/01	6/26/01	remove; cut	6a2
302	Galvanized spiral duct	(no need to segregate galvanized from steel)		5/22/01	5/24/01	remove; cut	6b2
303	Various flame arrestors (6)			5/24/01	6/18/01	remove	5
304	GAC beds (2 V1200s, 2 V2000s)			5/23/01	7/19/01	remove-f4	4
305	Carbon from beds				7/19/01	remove	1a
306a	CS valve manifold (valves)			5/22/01	7/12/01	remove-f4	5
306b	CS valve manifold (piping)			5/22/01	7/12/01	remove	6b2
307	2 25' stack sections	with pressure, temperature, flow instruments intact			6/28/01	dismantle-ml; remove-c10	5
308	Building fan (6000 cfm, 2 in. H2O) with expansion joints and vibration dampers			5/23/01	6/18/01	remove-f4	5
309	Process fan (700 cfm; 30 in. H2O) with expansion joints and vibration dampers			5/23/01	5/24/01	remove-f4	5
310	Standby fan (50 cfm; 20 in. H2O) (2 units) with expansion joints and vibration dampers			5/22/01	5/24/01	remove	5
311	Liquid Nitrogen tank and vaporizers			5/8/01	5/8/01	disconnect; remove-c100	2a
312	Condenser, condensate tank, and control panel		4/5/01	5/1/01	5/8/01	drain; disconnect remove-c10	2a
313	Particulate filter housing			5/23/01	5/23/01	disconnect; remove	5
314	Sandpiper double diaphragm pump		5/1/01	4/6/01	5/1/01	disconnect; remove-c100	5
315	Structural steel supports			5/23/01	5/23/01	disassemble; remove	6b2
316	RB10 EAC Beds w/used carbon				5/9/01	disconnect, remove	2a
	(piping and valves in piping list)						
320	**Instrument Air System**						
321	2 5-hp compressors and tanks with disconnects			5/8/01	6/4/01	disconnect; remove-f4	5
322	2 10-hp compressors and tanks with DT disconnects			5/8/01	6/4/01	disconnect; remove-f4	5
323	Filter dryer system			5/8/01	6/1/01	disconnect; remove	5
324	Pressure regulators			5/11/01	5/24/01	disconnect; remove	5
325	Filter dryers			5/11/01	5/24/01	disconnect; remove	5
	(piping and valves in piping list)						

Item No.	Item Description	Comments	drain or decon	disconnect/ dismantle	remove &/or containerize	Activities	End State
340	**Instrumentation/compressor enclosure**						
341	Drywall				6/4/01	demolish; remove	7
342	Metal studs and structural iron (enclosure)				6/4/01	dismantle; remove	6b2
360	**Wood Shredder System**						
361	M85-E Wood shredder and structural support stand		4/9/01	4/10/01	6/27/01	disconnect; remove-c100	3
362	Hydraulic pallet feeder ram and HPU		4/8/01	6/20/01	6/27/01	disconnect; drain	3
363	Hydraulic fluid from wood shredder	(removed w/ item 203)			5/17/01	drain	6e
364	Discharge belt conveyor w/hopper		4/19/01	6/4/01	6/27/01	remove-c100	3
365	Moveable conveyor CS structural support with 1/2-hp drive motor			6/4/01	6/27/01	disassemble, remove-f4	3
366	NESCO spray system pump and controllers			4/16/01	7/19/01		3
367	Spray nozzle arrays		4/19/01	4/18/01	7/19/01		3
380	**Piping, ducting, and valves**						
381	Nitrogen piping (cut into 10' sections)			5/16/01	5/16/01	remove; cut-T	6b2
382	Hydraulic piping (cut into 10' sections)		5/18/01	5/14/01	5/18/01	remove; cut-T; clean	6b2
383	Off-gas piping (cut into 10' sections)			5/18/01	5/18/01	remove; cut-T	6b2
384	Pipe support stands and brackets				5/29/01	remove	6b2
385	Hydraulic hoses and fittings		4/25/01	5/4/01	5/17/01	remove; clean	7
386	Condensate return piping (cut into 10' sections)		4/5/01	5/18/01	5/18/01	disassemble; remove; cut	6b2
387	Condensate system hoses		4/5/01	4/5/01	4/5/01	disconnect	7
388	Fire protection system piping and conduit			5/16/01	5/16/01	disassemble	6b2
389	Instrument air piping			5/9/01	5/16/01	disassemble	6b2
390	Instrument air tubing (cut into 5' lengths)			5/17/01	5/29/01	disassemble	6c
391	Pneumatic operated position control valves (Fisher 3-1/2 valves)			5/24/01	6/7/01	disconnect	5
392	Pneumatic operated position control valves (Baumann, 8 valves)			5/16/01	6/7/01	disconnect	5
393	Hand valves (all)	most hand valves were scrapped due to instal method			5/24/01	disconnect	5
394	Liquid nitrogen copper piping	(removed by Air Liquide)		5/8/01	5/8/01	disassemble-T	2a
395	Insulation from liquid nitrogen piping	(removed by Air Liquide)			5/8/01	remove (if any)	7
400	**Fire Protection System**						
401	Control panel with auto dialer			5/14/01	5/17/01		5
402	10 CO2 tanks		Full	5/16/01	5/17/01		5
403	Tank manifolds			5/14/01	5/17/01		6b2
404	Nozzles				5/15/01		7
405	Sensors				5/15/01		7
	(electrical wiring, included in electrical list)						
	(distribution piping, included in piping list)						
420	**Electronics and instrumentation**						
421	Control panels (CP2, CP4, CP5, IO1)			5/15/01	5/29/01	disconnect; remove-f4	5
422	PLC and remote I/O cards			5/15/01	5/29/01	disconnect	5
423	PLC computer interface and monitor			5/21/01	5/29/01	disconnect	2b
424	MMI computer and monitor			5/15/01	5/15/01	disconnect	2b
425	Junction boxes			5/14/01	5/29/01	remove	5
426	Z-purge units for control panels	(removed from CP3, left on CP2)		5/16/01	5/16/01	remove	5
427	11 Rosemount pressure transmitters			5/14/01	5/14/01	disconnect; remove	5
428	3 Rosemount differential pressure transmitters			5/14/01	5/14/01	disconnect; remove	5
429	3 Temperature transmitters			5/14/01	5/14/01	disconnect; remove	7
430	4 pressure switches			5/14/01	5/14/01	disconnect; remove	5
431	Video monitoring system with 7 cameras, 6 lights, 6 monitors, 4 switch boxes			5/15/01	5/15/01	disconnect; remove	5
432	3 single point FIDs			5/14/01	5/14/01	disconnect; remove	5

Item No.	Item Description	Comments	drain or decon	disconnect/ dismantle	remove &/or containerize	Activities	End State
433	1 multipoint FID			5/9/01	5/10/01		7
434	3 sonic level transmitters			5/17/01	5/18/01	disconnect; remove	5
435	3 level probe/switches			5/17/01	5/18/01	disconnect; remove	5
436	Pressure gauges and magnehelics			5/14/01	5/14/01	disconnect; remove	5
437	10 oxygen sensor (MSA) with aspirator pump			5/16/01	5/16/01	disconnect; remove	5
438	1 LEL meter (MSA)			5/16/01	5/16/01	disconnect; remove	5
439	Numerous position sensors				5/24/01	most remain on equipment	6 (w/equip)
440	Stack flow meter	remains on stack		5/16/01		disconnect-ml	5
441	Instrument wire			5/16/01	7/10/01	disconnect; pull	6d
442	2 way radios (4) with holsters and base station with microphone				5/14/01		5
443	Public address system with microphone and speaker			5/14/01	5/15/01	disconnect	5
444	McCrometer Vcone flow meter with differential pressure transmitter			4/24/01	5/8/01	disconnect; remove	2a
445	Compressed calibration gas cylinders	Used for calibration of sensors and monitors			5/8/01	Containerize	1a
460	**Electrical support components**						
461	Motor control center			6/18/01	6/18/01	disconnect; disassemble-c10	5
462	Pad mounted transformer 13.8 kV - 480 V			9/17/01	9/17/01	disconnect; remove-f4	5
463	Pole mounted transformer (remains on site)					disconnect-ml; remove-ml,c10	5
464	1000-Amp bussed gutter			5/17/01	6/7/01	disconnect, remove	5
465	Breaker panels			5/16/01	6/7/01	disconnect, remove	5
466	Junction boxes			5/16/01	6/7/01	disconnect, remove	5
467	Overhead conduit			5/16/01	5/17/01	disconnect; remove	6b2
468	Underground conduit			8/15/01	8/21/01	trench-bh; remove	7
469	Wire			5/16/01	7/10/01	pull; coil	6d
470	Armored cable	mixed materials, not recyclable		6/7/01	6/8/01	remove-ml	7
471	Outlets	most remain on the JB they were attached to		5/15/01	6/7/01	disconnect; remove	5
472	UPSs (2)			5/15/01	6/7/01	disconnect; remove-f4	5
473	Fused disconnects			5/15/01	6/7/01	disconnect; remove	5
474	Double throw switch/disconnect			9/17/01	9/17/01	disconnect; remove	5
475	Generator			4/23/01	4/26/01	disconnect; transport	2b
476	Diesel fuel tank and pump		6/6/01	5/15/01	6/27/01	pump, disconnect, remove-c10	2a
480	**Electrical Lighting Fixtures**						
481	Lighting fixtures: (15) 400 W metal halide (277 V ballast)			6/7/01	6/11/01	disconnect-ml; remove-ml	5
482	Lighting fixtures: (3) 240 W metal halide (208 V ballast) NFPA Haz class rated			6/7/01	6/11/01	disconnect-ml; remove-ml	5
483	Exit lighting fixtures: (3) 120 V, NFPA Haz class rated			6/7/01	6/11/01	disconnect; remove	5
484	Fluorescent lighting fixtures: (3) 2-F40 coll white, 120V ballast			5/23/01	5/24/01	disconnect; remove	5
485	Porch lighting fixtures: (2) 175 W metal halide wall-pak with photo cell, 208 V			6/7/01	6/11/01	disconnect; remove	5
486	Temporary lighting fixtures: (2) 120 V contractor light string			5/2/01	5/4/01	remove	5
487	Temporary lighting fixtures: (2) dual 500 W halogen light stands, 120 V			never used		remove	5
488	Lighting fixtures: (2) 120V inc fixture in Haz class rated fixture			5/17/01	5/18/01	disconnect; remove	5
500	**Material Handling and Storage**						
501	Drum cart						5
502	HW liquid storage pallets					clean	5
503	Piggypacker					dismantle; remove	2a

Item No.	Item Description	Comments	drain or decon	disconnect/ dismantle	remove &/or containerize	Activities	End State
504	Forklift ramp	Navy did not want this at Crane		5/10/01		remove-c10	5
505	Process storage 40' cargo container		9/19/01	9/19/01	10/2/01	empty; clean	2b
506	Transportation storage 20' cargo container					empty; clean	2b
507	Rubbish from storage containers				9/20/01	dispose	7
508	Flammable storage cabinet		6/11/01			empty; clean	2a
509	Hazardous materials from flammable cabinet				6/18/01	containerize	1b
520	**Other**						
521	Asphalt			8/13/01		process some; leave all	2a
522	Concrete			7/30/01	7/31/01	excavate-bh; remove-fl	7
523	Misc railroad ties					remove-f4	2a
524	Excess shredder teeth	requested by Crane	8/22/01		8/23/01	clean	3
525	Dried napalm from shredder teeth and other used components				9/7/01	containerize	1a
526	Decon materials: PPE, rags, absorbent, oily debris, etc)				9/7/01	containerize	1a
527	Housekeeping wastes - solid materials (dust, etc.)				9/7/01	containerize	7
528	Housekeeping wastes - liquid materials (pressure washing or steam cleaning)				9/19/01	containerize	1b
529	Thermal Oxidizer				6/7/01	(ready to go)	5
530	Shredder spacers	boneyard materials	8/23/01		8/23/01		6b1
531	Shredder fingers	boneyard materials	9/19/01		9/19/01		6b2
532	Shredder cleaning finger brackets	boneyard materials	9/19/01		9/19/01		6b2
533	Other misc shredder components	boneyard materials	9/19/01		9/19/01		6b2
534	Used/empty aersol cans	Brake cleaner solvent for grease/oil decon			9/19/01	Containerize	1a
535	Dirt with oil	Dirt cleaned up from near hydraulic leaks			8/2/01	Containerize	1a
536	Decontamination water from soil sampling				10/2/01	55 gal drum	1b
540	Tent						
541	Tent fabric (7 main sections, 2 end sections, and various jumper sections)			6/12/01	6/13/01	clean; remove-f4/pu	2b
542	Fabric holddown hardware			5/17/01	6/13/01	remove	2b
543	Tent frame members (8 arch assemblies, 4 verticals)			6/12/01	6/13/01	remove-c35; dismantle-f4	2b
544	Purlins, tensioning cables, fabric holddowns, and misc hardware			6/12/01	6/13/01	remove-ml	2b
545	Baseplates with anchor stakes			6/12/01	6/13/01	pull-f4/c10; grind	2b
546	Foundation plates			6/12/01	6/13/01	remove-f4	6b1
547	Man doors and frames (6 doors, one with screen door)			5/21/01	6/4/01	dismantle, remove	2b
548	Tent penetration frames (wood)				6/1/01	dismantle, remove	7

APPENDIX B

DAILY REPORTS

From: "Tixier, John S Jr" <john.tixier@pnl.gov>
To: "Lamarche, Michelle N" <michelle.lamarche@pnl.gov>, "Khawaja, Asim" <Asim.Khawaja@pnl.gov>, "Olfenbuttel, Robert F" <olfenbur@battelle.org>, "Freier, Keith D" <keith.freier@pnl.gov>, "Miller, Peter L" <pete.miller@pnl.gov>, "Alzheimer, James M" <jim.alzheimer@pnl.gov>, "Hockett, Jack" <Jack.Hockett@pnl.gov>, "'Chip Randle (E-mail) '" <danr@ptesinc.com>, "Fullmer, Michael W" <mw.fullmer@pnl.gov>, "Whitworth, Diana L" <diana.whitworth@pnl.gov>, "'Eike H Hohenadl (E-mail)'" <hohenadl.eike@sbeach.navy.mil>, "Deforest, Thomas J" <thomas.deforest@pnl.gov>, 'Kim Shannon' <kims@ptesinc.com>, "'Abeln, Doug (SYA)'" <douga@syaeng.com>, 'Bill Gallagher' <cho@mail.airmail.net>, "Minister, Andrew G" <andrew.minister@pnl.gov>, "Tegrotenhuis, Ward E" <ward.tegrotenhuis@pnl.gov>, "Baker, Carl P" <Carl.Baker@pnl.gov>, "'Le, Si (SWDIV)'" <lest@efdsw.navfac.navy.mil>
Date: 5/7/01 6:18PM
Subject: May 7 D&D daily report

Monday 5/7/00
Day 1 Napalm Plant D&D

Activities initiated today:
* Disassemble and decontaminate airlock

The following activities were continued:
* Dismantle front end equipment (suspended upon receiving D&D authorization)

Activities planned for Tuesday:
* Continue decon of airlock
* Remove Air Liquide equipment (tank, vaporizors, condenser)
* Disconnect instrument air system
* Deliver any clean/refurbished wood box for off leasing
* Continue cleaning and refurbishing wood boxes

Today's shipping/receiving:
2 RB10 GAC beds removed for demobilization

Explanation of today's activities and issues:
* Lacking authorization to initiate D&D by COB last friday, skeleton work crews were scheduled for this week and only two workers were on site. Full crew complement is expected from now on.
* Work for the first hour or so this morning consisted of prep for removal of the ALIC. Once authorization to initiate D&D was received, that effort was abandoned and will be conducted later according to the project work schedule.
* No work done on site by PTES today; off-site training for staff.

Please call or reply with any questions.

John Tixier
Battelle Napalm Site Manager
760-731-3831
1-888-870-1890 pager

CC: "Tixier, John S Jr" <john.tixier@pnl.gov>

From: "Tixier, John S Jr" <john.tixier@pnl.gov>
To: "Lamarche, Michelle N" <michelle.lamarche@pnl.gov>, "Khawaja, Asim" <Asim.Khawaja@pnl.gov>, "Olfenbuttel, Robert F" <olfenbur@BATTELLE.ORG>, "Freier, Keith D" <keith.freier@pnl.gov>, "Miller, Peter L" <pete.miller@pnl.gov>, "Alzheimer, James M" <jim.alzheimer@pnl.gov>, "Hockett, Jack" <Jack.Hockett@pnl.gov>, "'Chip Randle (E-mail) '" <danr@ptesinc.com>, "Fullmer, Michael W" <mw.fullmer@pnl.gov>, "Whitworth, Diana L" <diana.whitworth@pnl.gov>, "'Eike H Hohenadl (E-mail)'" <hohenadl.eike@sbeach.navy.mil>, "Deforest, Thomas J" <thomas.deforest@pnl.gov>, 'Kim Shannon' <kims@ptesinc.com>, "'Abeln, Doug (SYA)'" <douga@syaeng.com>, 'Bill Gallagher' <cho@mail.airmail.net>, "Minister, Andrew G" <andrew.minister@pnl.gov>, "Tegrotenhuis, Ward E" <ward.tegrotenhuis@pnl.gov>, "Baker, Carl P" <Carl.Baker@pnl.gov>, "'Le, Si (SWDIV)'" <lest@efdsw.navfac.navy.mil>
Date: 5/9/01 4:00PM
Subject: RE: May 8 D&D daily report

I'm trying again to send this as I got an undeliverable reply for most of the non PNL folks,

-- John

> ----------
> From: Tixier, John S Jr
> Sent: Wednesday, May 9, 2001 11:42 AM
> To: Lamarche, Michelle N; Khawaja, Asim; Olfenbuttel, Robert F; Freier,
> Keith D; Miller, Peter L; Alzheimer, James M; Hockett, Jack; 'Chip Randle
> (E-mail) '; Fullmer, Michael W; Whitworth, Diana L; 'Eike H Hohenadl
> (E-mail)'; Deforest, Thomas J; 'Kim Shannon'; 'Abeln, Doug (SYA)'; 'Bill
> Gallagher'; Minister, Andrew G; Tegrotenhuis, Ward E; Baker, Carl P; 'Le,
> Si (SWDIV)'
> Cc: Tixier, John S Jr
> Subject: May 8 D&D daily report
>
> This may not have gone out when I sent it yesterday afternoon at 4:30
> because of the virus that shut down the PNNL email circuits.
>
> Tuesday 5/8/00
> Day 2 Napalm Plant D&D
>
> Activities initiated today:
> * Remove Air Liquide equipment (tank, vaporizors, condenser, etc.)
> (complete)
> * Dismantle Instrument air system
> * Disconnect and dismantle fire suppression system
>
> The following activities were continued:
> * Disassemble and decontaminate airlock
> * Clean and refurbish wood boxes
> * Transport chasis for off-leasing
>
> Activities planned for Wednesday:
> * Continue decon of airlock
> * Continue disconnect instrument air system and fire suppression
> system
> * Remove final 2 RB10 GAC beds
> * Deliver any clean/refurbished wood box for off leasing
> * Continue cleaning and refurbishing wood boxes
>

> Today's shipping/receiving:
> 1 trailer with Air Liquide's nitrogen tank
> 1 trailer with remaining Air Liquide components
> 3 chasis delivered for off-lease (2 additional delivered yesterday)
>
> Explanation of today's activities and issues:
> * Subcontract ammendment with Air Liquide authorized by Battelle
> contracts today to pay for removal of Air Liquide components. The
> additional cost of crane and services was more than off-set by the 2
> months rental savings realized in removing the equipment early.
> * Camp Pendleton Fire Department notified, per their request, that the
> fire suppression system is permanently off line.
>
>
> Please call or reply with any questions.
>
> John Tixier
> Battelle Napalm Site Manager
> 760-731-3831
> 1-888-870-1890 pager
>
>
>
>
>

CC: "Tixier, John S Jr" <john.tixier@pnl.gov>

From: "Tixier, John S Jr" <john.tixier@pnl.gov>
To: "Lamarche, Michelle N" <michelle.lamarche@pnl.gov>, "Khawaja, Asim" <Asim.Khawaja@pnl.gov>, "Olfenbuttel, Robert F" <olfenbur@BATTELLE.ORG>, "Freier, Keith D" <keith.freier@pnl.gov>, "Miller, Peter L" <pete.miller@pnl.gov>, "Alzheimer, James M" <jim.alzheimer@pnl.gov>, "Hockett, Jack" <Jack.Hockett@pnl.gov>, "'Chip Randle (E-mail) '" <danr@ptesinc.com>, "Fullmer, Michael W" <mw.fullmer@pnl.gov>, "Whitworth, Diana L" <diana.whitworth@pnl.gov>, "'Eike H Hohenadl (E-mail)'" <hohenadl.eike@sbeach.navy.mil>, "Deforest, Thomas J" <thomas.deforest@pnl.gov>, 'Kim Shannon' <kims@ptesinc.com>, "'Abeln, Doug (SYA)'" <douga@syaeng.com>, 'Bill Gallagher' <cho@mail.airmail.net>, "Minister, Andrew G" <andrew.minister@pnl.gov>, "Tegrotenhuis, Ward E" <ward.tegrotenhuis@pnl.gov>, "Baker, Carl P" <Carl.Baker@pnl.gov>, "'Le, Si (SWDIV)'" <lest@efdsw.navfac.navy.mil>
Date: 5/9/01 7:27PM
Subject: May 9 D&D daily report

Wednesday 5/9/00
> Day 3 Napalm Plant D&D
>
> Activities initiated today:
* Dismantle system piping (nitrogen, hydraulics, air, etc.)

> The following activities were continued:
> * Disassemble and decontaminate airlock (complete, pending inspection)
> * Clean and refurbish wood boxes
* Disassemble instrument air and fire suppression system piping and tubing
> * Transport wood boxes and chasis for off-leasing
>
> Activities planned for Wednesday:
* Initiate decon of drainer
> * Continue disconnect piping systems
> * Deliver any clean/refurbished wood box for off leasing
> * Continue cleaning and refurbishing wood boxes
>
> Today's shipping/receiving:
2 RB10 GAC beds for final de-mob
2 wood boxes and chasis delivered for off-lease

> Explanation of today's activities and issues:
* none

>
> Please call or reply with any questions.
>
> John Tixier
> Battelle Napalm Site Manager
> 760-731-3831
> 1-888-870-1890 pager
>
>
>
>
>

CC: "Tixier, John S Jr" <john.tixier@pnl.gov>

From: "Tixier, John S Jr" <john.tixier@pnl.gov>
To: "Lamarche, Michelle N" <michelle.lamarche@pnl.gov>, "Khawaja, Asim" <Asim.Khawaja@pnl.gov>, "Olfenbuttel, Robert F" <olfenbur@battelle.org>, "Freier, Keith D" <keith.freier@pnl.gov>, "Miller, Peter L" <pete.miller@pnl.gov>, "Alzheimer, James M" <jim.alzheimer@pnl.gov>, "Hockett, Jack" <Jack.Hockett@pnl.gov>, "'Chip Randle (E-mail) '" <danr@ptesinc.com>, "Fullmer, Michael W" <mw.fullmer@pnl.gov>, "Whitworth, Diana L" <diana.whitworth@pnl.gov>, "'Eike H Hohenadl (E-mail)'" <hohenadl.eike@sbeach.navy.mil>, "Deforest, Thomas J" <thomas.deforest@pnl.gov>, 'Kim Shannon' <kims@ptesinc.com>, "'Abeln, Doug (SYA)'" <douga@syaeng.com>, 'Bill Gallagher' <cho@mail.airmail.net>, "Minister, Andrew G" <andrew.minister@pnl.gov>, "Tegrotenhuis, Ward E" <ward.tegrotenhuis@pnl.gov>, "Baker, Carl P" <Carl.Baker@pnl.gov>, "'Le, Si (SWDIV)'" <lest@efdsw.navfac.navy.mil>
Date: 5/10/01 6:15PM
Subject: May 10 D&D daily report

Thursday 5/10/00
Day 4 Napalm Plant D&D

Activities initiated today:
* Dismantle and decontaminate drainer

The following activities were continued:
* Dismantle system piping (nitrogen, hydraulics, air, etc.)
* Clean and refurbish wood boxes
* Transport wood boxes and chasis for off-leasing
* Pick up empty wood box from San Bernardino

Activities planned for Monday (8-9s Friday off):
* Continue decon of drainer
* Continue disconnect piping systems
* Tour Navy representatives on shredders regarding potential reuse application
* Deliver any clean/refurbished wood box for off leasing
* Continue cleaning and refurbishing wood boxes

Today's shipping/receiving:
2 wood boxes and 1 chasis delivered for off-lease

Explanation of today's activities and issues:
* none

Please call or reply with any questions.

John Tixier
Battelle Napalm Site Manager
760-731-3831
1-888-870-1890 pager

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Date: 5/14/01 6:28PM
Subject: May 14 D&D daily report

Monday 5/14/00
Day 5 Napalm Plant D&D

Activities initiated today:
* Remove fire suppression system and misc sensors

The following activities were continued:
* Dismantle system piping (nitrogen, hydraulics, air, etc.)
* Clean and refurbish wood boxes
* Transport wood boxes and chasis for off-leasing
* Decontaminate drainer

Activities planned for Tuesday:
* Continue decon of drainer
* Continue disconnect piping systems
* Initiate electrical disconnects and wire pulls
* Remove elevator pan, initiate cleaning elevator components
* Deliver any clean/refurbished wood box for off leasing
* Continue cleaning and refurbishing wood boxes

Today's shipping/receiving:
1 wood boxes and 1 chasis delivered for off-lease

Explanation of today's activities and issues:
* Tour of Shredders for Navy representatives has been postponed by the Navy until further notice

Please call or reply with any questions.

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Date: 5/15/01 6:31PM
Subject: May 15 D&D daily report

Tuesday 5/15/00
Day 6 Napalm Plant D&D

Activities initiated today:
* Disconnect electrical panels, instruments; pull wire
* Remove elevator pan (complete)

The following activities were continued:
* Dismantle system piping
* Clean and refurbish wood boxes
* Transport wood boxes and chasis for off-leasing
* Decontaminate drainer

Activities planned for Wednesday:
* Continue decon of drainer
* Continue disconnect piping systems
* Continue electrical disconnects and wire pulls
* Initiate cleaning elevator components
* Deliver any clean/refurbished wood box for off leasing
* Continue cleaning and refurbishing wood boxes

Today's shipping/receiving:
1 chasis delivered for off-lease

Explanation of today's activities and issues:
Extra time is necessary due to unanticipated circumstances as follows:
* Napalm not peeling out of drainer as usual
* Elevator carriage has welded stops and need to be cut out for removal

Please call or reply with any questions.

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Date: 5/16/01 6:48PM
Subject: May 16 D&D daily report

Wednesday 5/16/00
Day 7 Napalm Plant D&D

Activities initiated today:
* Load scrap steel into rolloff
* Disconnect and remove napalm pumps
* remove exterior tent skirt holdowns
* personnel monitoring for Health and Safety

The following activities were continued:
* Dismantle system piping
* Disconnect electrical panels, instruments; pull wire
* Clean (complete) and refurbish wood boxes
* Transport wood boxes and chasis for off-leasing
* Decontaminate drainer
* remove elevator carriage (complete)

Activities planned for Thrusday:
* Continue decon of drainer
* Continue disconnect piping systems
* Continue electrical disconnects and wire pulls
* Initiate cleaning elevator components
* Deliver any clean/refurbished wood box for off leasing
* Continue refurbishing wood boxes
* finish removing tent holddowns
* tour tent owners for removal task assessment
* finish personnel H&S monitoring

Today's shipping/receiving:
3-20' chasis delivered for off-lease
2-40' chasis and wood boxes delivered for off-lease
1 - 40 yd rolloff received for scrap steel disposal

Explanation of today's activities and issues:
Extra time is necessary due to unanticipated circumstances as follows:
* Napalm not peeling out of drainer as usual

Battelle Health and Safety Manager (Mike Fullmer) on site for personnel monitoring tasks.

Please call or reply with any questions.

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Date: 5/17/01 6:30PM
Subject: May 17 D&D daily report

Thursday 5/17/00
Day 8 Napalm Plant D&D

Activities initiated today:
* Collect hydraulic fluid and used oil for recycling (complete)
* Remove tent panel hold downs
* Tour UFS (tent company) reps around tent for prejob assessment

The following activities were continued:
* personnel monitoring for Health and Safety (complete)
* Dismantle system piping
* Load scrap steel into rolloff
* Disconnect electrical panels, instruments; pull wire
* Refurbish wood boxes
* Transport wood boxes and chasis for off-leasing
* Decontaminate drainer
* drain removed hydraulic lines of free liquids

Activities planned for Friday:
* Continue decon of drainer
* Continue disconnect piping systems
* Continue electrical disconnects and wire pulls
* Initiate cleaning elevator components
* Deliver any clean/refurbished wood box for off leasing
* Continue refurbishing wood boxes
* finish removing interior and exterior tent holddowns

Today's shipping/receiving:
950 gallons of used oil shipped off-site for recycling

Explanation of today's activities and issues:
Nooks and crannies of drainer still being cleaned.
Battelle Health and Safety Manager (Mike Fullmer) on site for personnel monitoring tasks. No Benzene vapors detected in the work zone (or anywhere else on site).
Universal Fabric Structures reps reviewed the tent removal task; indicated that they would be able to meet our 6/11 start date for removal.

Please call or reply with any questions.

John Tixier
Battelle Napalm Site Manager

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Date: 5/18/01 7:31PM
Subject: May 18 D&D daily report

Friday 5/18/00
Day 9 Napalm Plant D&D

Activities initiated today:
* Remove enclosure (tent) doors

The following activities were continued:
* Remove tent panel hold downs (complete)
* Dismantle system piping (complete)
* Load scrap steel into rolloff
* Refurbish wood boxes
* Transport wood boxes and chasis for off-leasing
* Decontaminate drainer
* drain removed hydraulic lines of free liquids (complete)

Activities planned for Monday:
* Finish decon and inspection of drainer
* Continue electrical disconnects and wire pulls
* Initiate cleaning elevator components
* Deliver any clean/refurbished wood box for off leasing
* Continue refurbishing wood boxes

Today's shipping/receiving:
1 wood box and 1 chassis off-leased

Explanation of today's activities and issues:
Drainer inspection revealed only a small amount of napalm removal left. Will be completed monday.

A schedule status evaluation will be provided monday morning.

Please call or reply with any questions.

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Date: 5/21/01 6:42PM
Subject: May 21 D&D daily report

Monday 5/21/00
Day 10 Napalm Plant D&D

Activities initiated today:
* Pull power and instrument wiring from control trailer
* Remove drum loader components
* Remove elevator ram and lift cylinders, and pusher heads
* Decontaminate elevator

The following activities were continued:
* Remove enclosure (tent) doors (complete)
* Load scrap steel into rolloff
* Refurbish wood boxes
* Transport wood boxes and chasis for off-leasing
* Decontaminate drainer (complete)

Activities planned for Tuesday:
* Continue decon of elevator
* Continue removal of elevator components
* Continue electrical disconnects and wire pulls
* Deliver any clean/refurbished wood box for off leasing
* Continue refurbishing wood boxes

Today's shipping/receiving:
2-20' chassis off-leased

Explanation of today's activities and issues:
Drainer passed inspection today for complete removal of napalm.

After further discussion of a weekly schedule status format with Battelle project managment, a formal weekly status will begin at the end of this week using an agreed upon format.

Please call or reply with any questions.

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Date: 5/22/01 6:43PM
Subject: May 22 D&D daily report

Tuesday 5/22/00
Day 11 Napalm Plant D&D

Activities initiated today:
* Connect temporary power box for site D&D power (complete)
* Disconnect power to off-gas pad equipment
* Disconnect MCC power/controls
* Remove off-gas ducting

The following activities were continued:
* Remove elevator ram and lift cylinders, and pusher heads
* Remove pipe stands
* Remove flame arrestors and valves
* Load scrap steel into rolloff
* Decontaminate elevator
* Refurbish wood boxes
* Transport wood boxes and chasis for off-leasing

Activities planned for Wednesday:
* Continue decon of elevator
* Continue electrical disconnects and wire pulls
* Deliver any clean/refurbished wood box for off leasing
* Continue refurbishing wood boxes
* Continue removing pipe stands, valves, flame arrestors

Today's shipping/receiving:
1 wood box and chassis off-leased

Explanation of today's activities and issues:
none

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Date: 5/23/01 7:03PM
Subject: May 23 D&D daily report

Wednesday 5/23/00
Day 12 Napalm Plant D&D

Activities initiated today:
* Pull electrical and instrument wire on off-gas pad (complete)
* Remove off-gas pad equipment (complete, except for stack)

The following activities were continued:
* Remove elevator ram and lift cylinders, and pusher heads (complete)
* Remove pipe stands
* Remove off-gas ducting (complete)
* Disconnect MCC power/controls (complete except for building lights)
* Remove flame arrestors and valves
* Load scrap steel into rolloff
* Decontaminate elevator components
* Transport wood boxes and chasis for off-leasing

Activities planned for Thursday:
* Continue decon of elevator components
* Deliver any clean/refurbished wood box for off leasing
* Continue refurbishing wood boxes
* Continue removing pipe stands, valves, flame arrestors

Today's shipping/receiving:
2 wood box and chassis off-leased

Explanation of today's activities and issues:
none

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Date: 5/24/01 6:56PM
Subject: May 24 D&D daily report

Thursday 5/24/00
Day 13 Napalm Plant D&D

Activities initiated today:
* none

The following activities were continued:
* Dismantle and remove items from enclousre room (lights, compressors, UPS, etc)
* Remove all valves and flame arrestors (complete)
* Load scrap steel into rolloff (first bin full and ready for removal)
* Transport wood boxes and chasis for off-leasing

Activities planned for Tuesday (Friday is 8-9s day off, Monday is holiday):
* Continue decon of elevator components
* Deliver any clean/refurbished wood box for off leasing
* Continue refurbishing wood boxes
* Continue removing pipe stands
* Dismantle and demolish enclosure room

Today's shipping/receiving:
2 wood box and chassis off-leased

Explanation of today's activities and issues:
Extra time spent today in much needed housekeeping and general site cleanup.

Please call or reply with any questions.

John Tixier
Battelle Napalm Site Manager
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1-888-870-1890 pager (almost always on)

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Date: 5/29/01 7:03PM
Subject: May 29 D&D daily report

Tuesday 5/29/00
Day 14 Napalm Plant D&D

Activities initiated today:
* Decon napalm transfer pumps

The following activities were continued:
* Dismantle and remove items from enclousre room (lights, compressors, UPS, etc)
* Remove pipe stands, clean and stage as scrap steel for next roll-off
* Decon elevator parts

Activities planned for Wednesday:
* Continue decon of elevator components
* Deliver any clean/refurbished wood box for off leasing
* Continue refurbishing wood boxes
* Dismantle and demolish enclosure room

Today's shipping/receiving:
Last 2 wood boxes to TN

Explanation of today's activities and issues:
none

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CC: "Tixier, John S Jr" <john.tixier@pnl.gov>

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To: "Lamarche, Michelle N" <michelle.lamarche@pnl.gov>, "Khawaja, Asim" <Asim.Khawaja@pnl.gov>, "Olfenbuttel, Robert F" <olfenbur@battelle.org>, "Freier, Keith D" <keith.freier@pnl.gov>, "Miller, Peter L" <pete.miller@pnl.gov>, "Alzheimer, James M" <jim.alzheimer@pnl.gov>, "Hockett, Jack" <Jack.Hockett@pnl.gov>, "'Chip Randle (E-mail) '" <danr@ptesinc.com>, "Fullmer, Michael W" <mw.fullmer@pnl.gov>, "Whitworth, Diana L" <diana.whitworth@pnl.gov>, "'Eike H Hohenadl (E-mail)'" <hohenadl.eike@sbeach.navy.mil>, "Deforest, Thomas J" <thomas.deforest@pnl.gov>, 'Kim Shannon' <kims@ptesinc.com>, "'Abeln, Doug (SYA)'" <douga@syaeng.com>, 'Bill Gallagher' <cho@mail.airmail.net>, "Minister, Andrew G" <andrew.minister@pnl.gov>, "Tegrotenhuis, Ward E" <ward.tegrotenhuis@pnl.gov>, "Baker, Carl P" <Carl.Baker@pnl.gov>, "'Le, Si (SWDIV)'" <lest@efdsw.navfac.navy.mil>, "'Palsetia, Viraf (SYA)'" <virafp@syaeng.com>
Date: 5/30/01 7:13PM
Subject: May 30 D&D daily report

Wed 5/30/00
Day 15 Napalm Plant D&D

Activities initiated today:
* Demolish enclosure room
* Remove diverter (complete)

The following activities were continued:
* Decon napalm transfer pumps
* Remove pipe stands, clean and stage as scrap steel for next roll-off (complete)
* Decon elevator parts

Activities planned for Thursday:
* Continue decon of elevator components
* Deliver any clean/refurbished wood box for off leasing
* Continue refurbishing wood boxes
* Continue demolition of enclosure room

Today's shipping/receiving:
2 wood boxes and 3 - 40' chasis for off-lease

Explanation of today's activities and issues:
Viraf Palsetia of SYA (regulatory consultant subcontractor) on site for documentation surveilance.

Waiting on input from Navy regarding disposal of scrap steel viz. Mexicali smelter.

Please call or reply with any questions.

John Tixier
Battelle Napalm Site Manager
760-731-3831
1-888-870-1890 pager (almost always on)

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Date: 5/31/01 6:37PM
Subject: May 31 D&D daily report

Thursday 5/31/00
Day 16 Napalm Plant D&D

Activities initiated today:
* Dismantle ALIC
* Deliver 2nd scrap steel rolloff

The following activities were continued:
* Decon napalm transfer pumps
* Demolish enclosure room
* Decon elevator parts

Activities planned for Friday:
* Continue decon of elevator components
* Deliver any clean/refurbished wood box for off leasing
* Continue refurbishing wood boxes
* Continue demolition of enclosure room

Today's shipping/receiving:
2 40' chasis for off-lease

Explanation of today's activities and issues:
Viraf Palsetia of SYA (regulatory consultant subcontractor) concluded on site documentation surveilance. Fiindings will be discussed and acted on by pertinent staff

Input received from Navy regarding authorization for disposal of scrap steel by recycler using Mexicali smelter.

PTES investigating cost effectiveness of refurbishing last 9 wood boxes vs off-leasing and accepting any repair charges.

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Date: 6/1/01 7:18PM
Subject: June 1 D&D daily report

Friday 6/1/00
Day 17 Napalm Plant D&D

Activities initiated today:
* began dismantling ALIC and super structure (yesterday actually)

The following activities were continued:
* Decon napalm transfer pumps
* Demolish enclosure room
* Decon elevator and drumloader parts
* Decon diverter (complete)
* load scrap metal into rolloff

Activities planned for Monday:
* Continue decon of system components
* Deliver any clean/refurbished wood box for off leasing
* Continue refurbishing wood boxes
* Continue demolition of enclosure room
* continue dimantling ALIC

Today's shipping/receiving:
2 40' chasis for off-lease

Explanation of today's activities and issues:
PTES investigating cost effectiveness of refurbishing last 9 wood boxes vs off-leasing and accepting any repair charges.

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Date: 6/4/01 6:44PM
Subject: June 4 D&D daily report

Monday 6/4/00
Day 18 Napalm Plant D&D

Activities initiated today:
* Remove T-post (ISO tanker instrument bar) - complete
* Lowered wood conveyor to allow reassembly of covers
* Removed HPU tent - set up as cover for decon station (complete)

The following activities were continued:
* Decon napalm transfer pumps
* Demolish enclosure room (complete)
* Removed air compressors and instrument cabinets (complete)
* Dimantle ALIC
* Decon system parts
* load scrap metal into rolloff

Activities planned for Tuesday:
* Continue decon of system components
* Deliver any clean/refurbished wood box for off leasing
* Remove 1st scrap steel rolloff.
* continue dimantling ALIC

Today's shipping/receiving:
2 wood boxes/chasis for off-lease

Explanation of today's activities and issues:
PTES investigating cost effectiveness of refurbishing last 9 wood boxes vs off-leasing and accepting any repair charges.

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Date: 6/5/01 6:02PM
Subject: June 5 D&D daily report

Tuesday 6/5/01
Day 19 Napalm Plant D&D

Activities initiated today:
* Remove 1st scrap steel rolloff -8 tons of steel
* Reassemble wood shredder conveyor covers

The following activities were continued:
* Decon napalm transfer pumps
* Dismantle and remove HPU (complete)
* Dimantle ALIC
* Decon system parts
* Inventory spare parts and clean out cargo container
* load scrap metal into rolloff

Activities planned for Wednesday:
* Continue decon of system components
* Deliver any clean/refurbished wood box for off leasing
* Refurbish wood boxes
* clean diesel fuel tank
* continue dimantling ALIC

Today's shipping/receiving:
1 wood box and 2 chasis for off-lease
1 40 yd rolloff of scrap steel hauled off

Explanation of today's activities and issues:
PTES to continue refurbishing wood boxes in-house as a cheaper alternative to off-leasing unrepaired.

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Date: 6/6/01 6:28PM
Subject: June 6 D&D daily report

Wednesday 6/6/01
Day 20 Napalm Plant D&D

Activities initiated today:
* Clean HPU components and sump
* Clean out fuel tank (complete)

The following activities were continued:
* Reassemble wood shredder conveyor covers (complete)
* Dismantle ALIC
* Decon system parts
* load scrap metal into rolloff

Activities planned for Thursday:
* Continue decon of system components
* Deliver any clean/refurbished wood box for off leasing
* Refurbish wood boxes
* Receive delivery of manlift; begin removing building lights and building frames
* continue dimantling ALIC

Today's shipping/receiving:
500 gallons of oily waste water from tank and component pressure washing, shipped off site under manefest in PTES' tank truck.

Explanation of today's activities and issues:
PTES cleaned out diesel fuel tank heel and detergent washed tank. Also pressure washed several other oil covered components including HPU motor pans and system sumps, the HPU oil container secondary containment pallet that contained oily sludge, and a few other very oily system parts to save degreasing efforts. All work was done over the sump and all waste water collected for disposal (no discharge to environment). The compressor blowdown oily water sump (55 gal drum) was also drained into the tank truck and disposed in the same batch.

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Date: 6/7/01 6:40PM
Subject: June 7 D&D daily report

Thursday 6/7/01
Day 21 Napalm Plant D&D

Activities initiated today:
* Deliver manlift with 60' boom (complete)
* Disc/remove building lights and armored cable (complete)
* Disconnect MCC power and controls (complete)
* Remove ends of the tent (complete)

The following activities were continued:
* Decon system parts
* load scrap metal into rolloff

Activities planned for Monday (tomorrow off for 8-9s schedule):
* Fabricate trailer repair parts
* Remove fabric building panels; building subcontractor supervisor to be on site

Today's shipping/receiving:
none

Explanation of today's activities and issues:
A second man lift will be needed to complete removal of building structural parts and will be delivered monday. This was realized today and was not included in the original scope.

In order to ship the drainer off site safely, a traveling support fixture will need to be fabricated. The existing structural steel components will be used but will need to be field welded to fabricate. This was not included in the original scope.

Both of the above changes will be completed via work order with E&E.

Attached are two photos of today's work removing the ends of the tent.

<<P6070005.JPG>> <<P6070008.JPG>>
Please call or reply with any questions.

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Battelle Napalm Site Manager
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Date: 6/11/01 6:46PM
Subject: June 11 D&D daily report

Monday 6/11/01
Day 22 Napalm Plant D&D

Activities initiated today:
* Remove tent fabric panels, with support of UFS (tent vendor)

The following activities were continued:
* Decon system parts

Activities planned for Tuesday:
* Fabricate trailer repair parts
* Remove remaining fabric and building arches
* Remove some large components (stack, front end crane and maintenance cranes, ALIC)

Today's shipping/receiving:
A second manlift was delivered (but did not function and was taken off the clock)

Explanation of today's activities and issues:
The UFS construction supervisor arrived on site this morning and supervised and assisted in removal of tent structural components and fabric. Should be able to complete structure removal tomorrow and finish packaging on Wed for PTES to transport to Las Vegas.

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Date: 6/12/01 7:34PM
Subject: June 12 D&D daily report

Tuesday 6/12/01
Day 23 Napalm Plant D&D

Activities initiated today:
* Deliver 18 ton crane for tent removal (complete)
* Remove tent Tent frame, with support of UFS (complete)
* Remove tent base plates and stakes (complete)
* stage and package tent components for shipment
* Remove front end crane (complete)

The following activities were continued:
* Decon system parts
* transport wood boxes

Activities planned for Wednesday:
* Fabricate trailer repair parts
* Package and loadout tent components
* Remove some large components (stack, front end crane and maintenance cranes, ALIC)

Today's shipping/receiving:
PTES delivered 2 wood boxes to the site from San Bernardino.

Explanation of today's activities and issues:
To eliminate Battelle liability with shipping the tent components, UFS requires that their represtative supervises the load out. PTES has arranged to have the requested trailer on site for loading out in advance of the scheduled date (6/18).

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Date: 6/13/01 7:54PM
Subject: June 13 D&D daily report

Wednesday 6/13/01
Day 24 Napalm Plant D&D

Activities initiated today:
* package and load out tent components (complete)

The following activities were continued:
* Decon system parts

Activities planned for Thursday:
* Package and loadout tent components
* Decon system parts.
* Prep for large component removal, schduled for week of June 25.

Today's shipping/receiving:
PTES delivered step deck (single drop) flatbed trailer for load out of tent.
PTES delivered components to the site for finalizing repairs to the wood trailers.

Explanation of today's activities and issues:
Under UFS site rep supervision, all tent components were packaged and loaded out today on one trailer. Shipment back to UFS in Las Vegas is expected to be made on 6/19. Removal, packaging, and loading of the tent was completed in 3 days, 3 days ahead of schedule. Thanks especially to PTES for responding with trailer delivery 3 days early upon very short notice.

APCD called and would like to schedule a site visit/inspection next week, tues or wed.

I met with Kim Shannon of PTES today to status their schedule and tasks. They are planning to use Alfredo Tallez as site manager beginning next week and transfer Dan Randle to other operations. Thanks Dan for all your help. Dan will continue to stay involved in HW manefest issues.

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To: "Lamarche, Michelle N" <michelle.lamarche@pnl.gov>, "Khawaja, Asim" <Asim.Khawaja@pnl.gov>, "Olfenbuttel, Robert F" <olfenbur@battelle.org>, "Freier, Keith D" <keith.freier@pnl.gov>, "Miller, Peter L" <pete.miller@pnl.gov>, "Alzheimer, James M" <jim.alzheimer@pnl.gov>, "Hockett, Jack" <Jack.Hockett@pnl.gov>, "'Chip Randle (E-mail) '" <danr@ptesinc.com>, "Fullmer, Michael W" <mw.fullmer@pnl.gov>, "Whitworth, Diana L" <diana.whitworth@pnl.gov>, "'Eike H Hohenadl (E-mail)'" <hohenadl.eike@sbeach.navy.mil>, "Deforest, Thomas J" <thomas.deforest@pnl.gov>, 'Kim Shannon' <kims@ptesinc.com>, "'Abeln, Doug (SYA)'" <douga@syaeng.com>, 'Bill Gallagher' <cho@mail.airmail.net>, "Minister, Andrew G" <andrew.minister@pnl.gov>, "Tegrotenhuis, Ward E" <ward.tegrotenhuis@pnl.gov>, "Baker, Carl P" <Carl.Baker@pnl.gov>, "'Le, Si (SWDIV)'" <lest@efdsw.navfac.navy.mil>, "'Paisetia, Viraf (SYA)'" <virafp@syaeng.com>, "Hagen, Susan I" <Susan.Hagen@pnl.gov>
Date: 6/14/01 6:50PM
Subject: June 14 D&D daily report

Thursday 6/14/01
Day ~~24~~ 25 Napalm Plant D&D

Activities initiated today:
* Decon shredder teeth
* dismantle front end crane (complete)
* Disconnect and pull wiring between MCC and main transformer (complete - now all electrical disconnects and wire pulls are complete except the high voltage lines and line power to the trailer which will remain until the end of the D&D project)

The following activities were continued:
* Decon system parts

Activities planned for Friday:
* refurbish wood trailers
* dismantle and remove MCC
* Decon system parts.
* complete manifests for shipping 6 drums of HW on monday.
* weigh and stage trailer for return of building parts to UFS in Las Vegas next week.

Today's shipping/receiving:
Both manlifts were picked up by the rental vendor.
PTES delivered remaining components to the site for finalizing repairs to the wood trailers.

Explanation of today's activities and issues:
APCD scheduled a site visit/inspection for next tues (6/19) at 1:30 pm

Please call or reply with any questions.

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Battelle Napalm Site Manager
760-731-3831
1-888-870-1890 pager (almost always on)

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Date: 6/15/01 6:58PM
Subject: June 15 D&D daily report

Friday 6/15/01
Day 26 Napalm Plant D&D

Activities initiated today:
* Drain hydraulic oil from ALIC and Airlock rams
*

The following activities were continued:
* Decon pumps and other system parts
* Stage mtls for resale/auction
* weekly housekeeping/cleanup
* Secure tent load to trailer (complete)
* load scrap metal container

Activities planned for Monday:
* refurbish wood trailers
* dismantle and remove MCC
* Decon system parts.
* complete manifests for shipping 7 drums of HW on monday.
* weigh and haul away trailer with UFS tent components for deliver to UFSTuesday in Las Vegas.
* haul away 2nd scrap metal 40 yd rolloff; bring 3rd empty 40 yd rolloff for scrap metal.

Today's shipping/receiving:
Fallbrook Refuse picked up 40 yd rolloff of rubbish, filled about 1/3 of construction (destruction?) debris.

Explanation of today's activities and issues:
now that the tent is down and the work stations are outside, tools have begun to turn up missing. E&E will lock up all power tools nightly in the storage locker and all hand tools on weekends (if not daily).

The 40 yd refuse rolloff was used for the drywall enclosure demolition, and other bulk debris for the past 2 weeks. For the remainder of the project the 2 yd hopper, emptied weekly, will be sufficient for refuse disposal.

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Date: 6/18/01 7:01PM
Subject: June 18 D&D daily report

Monday 6/18/01
Day 27 Napalm Plant D&D

Activities initiated today:
* Remove motor control center (complete)
*

The following activities were continued:
* Decon pumps and other system parts
* Stage mtls for resale/auction
* refurbish wood trailers

Activities planned for Tuesday:
* refurbish wood trailers
* Decon system parts.
* deliver 3rd empty scrap metal 40 yd rolloff

Today's shipping/receiving:
Trailer of UFS tent components hauled away to UFS in Las Vegas for delivery tomorrow by PTES.
PTES removed 8 drums of hazardous waste from the 90 day storage for disposal.
PTES removed 2nd 40 yd rolloff filled with 10.9 tons of scrap steel for recycling.

Explanation of today's activities and issues:
All 8 HW drums removed today were initiated during the operations phase of the project. Remaining drums are all filled with materials generated during the D&D phase.

Dead cow discovered about 200 yds west, which explains the prevailing stench at the site today.

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Date: 6/19/01 6:42PM
Subject: June 19 D&D daily report

Tuesday 6/19/01
Day 28 Napalm Plant D&D

Activities initiated today:
* construct support fixture for drainer for travel to the scrap yard
*

The following activities were continued:
* Decon pumps, punches, cutters and other system parts
* Drain remaining hydraulic cylinders (complete)
* Place scrap metal in 40 yd rolloff
*

Activities planned for Wednesday:
* refurbish wood trailers
* Decon system parts.
* fabricate drainer fixture
*

Today's shipping/receiving:
PTES delivered 3rd empty 40 yd rolloff for scrap steel
note that trailer with UFS tent was successfully delivered and off-loaded in Las Vegas today.

Explanation of today's activities and issues:
APCD inspector visited the site to review any emissions issues associated with the ongoing site monitoring. No issues were identified at the Napalm D&D site or at the Palm plant. (A hive of bees was discovered at the Palm plant.) However, PTES' rolloff rig was still on site so the inspector examined the 54 hp motor on the rolloff trailer and found it to be without the required permit for >50 hp sources. A notice to comply was provide to PTES along with a permit application. No Navy representatives were able to be here for the inspection but the APCD guests did not appear to be disappointed with that.

The dead cow was hauled away by the rancher today so the prevailing stench at the site is beginning to deminish.

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Date: 6/20/01 6:11PM
Subject: June 20 D&D daily report

Wednesday 6/20/01
Day 29 Napalm Plant D&D

Activities initiated today:
* build crates for napalm pumps
*

The following activities were continued:
* Decon pumps, spacers, cutters and other system parts
* construct support fixture for drainer for travel to the scrap yard (complete)
* Wipe down hydraulic system components
* Place scrap metal in 40 yd rolloff
*

Activities planned for Thursday:
* refurbish wood trailers
* Decon system parts.
* construct crates for pumps
* any other prep for crane next week, including trailer delivery

Today's shipping/receiving:
PTES delivered 3 flatbed trailers in preparation for equipment loadout next week.

Explanation of today's activities and issues:
none

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Date: 6/22/01 12:38AM
Subject: June 21 D&D daily report

Thursday 6/21/01
Day 30 Napalm Plant D&D

Activities initiated today:
* unbolt process components in preparation for load out on monday
*

The following activities were continued:
* Decon, spacers, cutters and other system parts
* Wipe down remaining oils from process system components
* Place scrap metal in 40 yd rolloff
* refurbish wood boxes

Activities planned for Monday (no work on site friday, 8-9s schedule):
* refurbish wood trailers
* Decon system parts.
* Deliver 100 ton crane and load out large process components
*

Today's shipping/receiving:
PTES delivered 3 flatbed trailers in preparation for equipment loadout next week.
PTES delivered 1 wood box and 40' chasis for off-leasing

Explanation of today's activities and issues:
none

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Date: 6/25/01 6:57PM
Subject: June 25 D&D daily report

Monday 6/25/01
Day 31 Napalm Plant D&D

Activities initiated today:
* Deliver 80 ton crane
* Rig and load out equipment (ALIC, Airlock, drainer, elevator - complete)
* Place aluminum duct in drainer cavity for transport to scrapyard
* Audit HW manifests

The following activities were continued:
* Decon, spacers, cutters and other system parts
* refurbish wood boxes

Activities planned for Tuesday:
* refurbish wood trailers
* Decon system parts.
* Load out large system components with 80 ton crane
*

Today's shipping/receiving:
PTES delivered 2 flatbed trailers in preparation for equipment loadout this week.
PTES delivered 1 wood box and 40' chasis for off-leasing
E&E had 2 drums of gear oil delivered for mothballing shredder components

Explanation of today's activities and issues:
Ken Harrison of PNNL is on site this week to conduct an internal records review of the Hazardous Waste Manefest and disposal paper trail

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Date: 6/26/01 6:45PM
Subject: June 26 D&D daily report

Tuesday 6/26/01
Day 32 Napalm Plant D&D

Activities initiated today:
* none

The following activities were continued:
* Decon, spacers, cutters and other system parts
* Rig and load out equipment (Primary and secondary shredders, ancillary structural components, auger, maintenance cranes - complete)
* Audit HW manifests

Activities planned for Wednesday:
* refurbish wood trailers
* Decon system parts.
* Complete load out large system components with 80 ton crane
*

Today's shipping/receiving:
none

Explanation of today's activities and issues:
none

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Date: 6/27/01 7:00PM
Subject: June 27 D&D daily report

Wednesday 6/27/01
Day 33 Napalm Plant D&D

Activities initiated today:
* none

The following activities were continued:
* Decon, spacers, cutters and shredder cleaning fingers
* Rig and load out equipment (Wood shredder and conveyor, off-gas stack, HPU components - complete)
* Audit HW manifests
* refurbish wood trailers

Activities planned for Wednesday:
* refurbish wood trailers
* Decon system parts.
* Dismantle structural steel components
* clean, secure, and inspect loads for transport
*

Today's shipping/receiving:
PTES hauled away one flatbed with the drainer, elevator, binocular section and elevator pan to the steel scrapyard. They also returned the rental trailer.

Explanation of today's activities and issues:
Don Gratzer confirmed today that all requested shredding system components need to be sent to Crane, IN, including the structural steel for the shredding system. He also confirmed that the Navy does not wish to retain the forklift ramp or the spray-mist system for the wood shredder.

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Date: 6/28/01 6:30PM
Subject: June 28 D&D daily report

Thursday 6/28/01
Day 34 Napalm Plant D&D

Activities initiated today:
* none

The following activities were continued:
* Decon, spacers, cutters and shredder cleaning fingers
* Secure and degrease (wipe down) shredding system equipment loaded on trailers
* Stage remaining items in auction laydown yard.

Activities planned for Friday:
* refurbish wood trailers
* Decon system parts.
* Dismantle structural steel components
* clean, secure, and inspect loads for transport
*

Today's shipping/receiving:
PTES hauled away one flatbed with the airlock, ALIC, elevator carriage, and remainder of aluminum parts to the steel scrapyard. They also returned the rental trailer.

Explanation of today's activities and issues:
Almost all materials designated for excess/resale have been placed in the 'auction lay down yard'. Preparation for the auction can begin any time.

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To: "Lamarche, Michelle N" <michelle.lamarche@pnl.gov>, "Khawaja, Asim" <Asim.Khawaja@pnl.gov>, "Olfenbuttel, Robert F" <olfenbur@battelle.org>, "Freier, Keith D" <keith.freier@pnl.gov>, "Miller, Peter L" <pete.miller@pnl.gov>, "Alzheimer, James M" <jim.alzheimer@pnl.gov>, "Hockett, Jack" <Jack.Hockett@pnl.gov>, "'Chip Randle (E-mail) '" <danr@ptesinc.com>, "Fullmer, Michael W" <mw.fullmer@pnl.gov>, "Whitworth, Diana L" <diana.whitworth@pnl.gov>, "'Eike H Hohenadl (E-mail)'" <hohenadl.eike@sbeach.navy.mil>, "Deforest, Thomas J" <thomas.deforest@pnl.gov>, 'Kim Shannon' <kims@ptesinc.com>, "'Abeln, Doug (SYA)'" <douga@syaeng.com>, 'Bill Gallagher' <cho@mail.airmail.net>, "Minister, Andrew G" <andrew.minister@pnl.gov>, "Tegrotenhuis, Ward E" <ward.tegrotenhuis@pnl.gov>, "Baker, Carl P" <Carl.Baker@pnl.gov>, "'Le, Si (SWDIV)'" <lest@efdsw.navfac.navy.mil>, "'Palsetia, Viraf (SYA)'" <virafp@syaeng.com>, "Hagen, Susan I" <Susan.Hagen@pnl.gov>
Date: 6/29/01 5:18PM
Subject: June 29 D&D daily report

Friday 6/29/01
Day 35 Napalm Plant D&D

Activities initiated today:
* disassemble auger

The following activities were continued:
* Decon, spacers, cutters and shredder cleaning fingers
* Secure and degrease (wipe down) shredding system equipment loaded on trailers
* disassemble structural steel

Activities planned for Monday:
* refurbish wood trailers
* Decon system parts.
* Dismantle structural steel components
* clean, secure, and inspect loads for transport
*

Today's shipping/receiving:

Explanation of today's activities and issues:
none

Please call or reply with any questions.

John Tixier
Battelle Napalm Site Manager
760-731-3831
1-888-870-1890 pager (almost always on)

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Date: 7/2/01 7:04PM
Subject: July 2 D&D daily report

Monday 7/02/01
Day 36 Napalm Plant D&D

Activities initiated today:
* none

The following activities were continued:
* Decon shredder cleaning fingers
* Secure shredding system equipment loaded on trailers
* build crates for napalm pumps

Activities planned for Tuesday:
* Pick up last wood trailer; off-lease refurbished trailers
* refurbish wood trailers (2 remaining including last trailer in San Bernardino)
* Decon system parts.
* Dismantle structural steel components
* Final inspect loads for transport
* Build pump crates

Today's shipping/receiving:
none

Explanation of today's activities and issues:
Navy has requested all the cutter teeth for the shredders. This will require two additional trailers for transport back to Crane; however, I expect we will still be within the original estimate of 8 trailers.

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Date: 7/3/01 6:14PM
Subject: July 3 D&D daily report

Tuesday 7/03/01
Day 37 Napalm Plant D&D

Activities initiated today:
* prepare paperwork for shippping equipment to Crane (complete)

The following activities were continued:
* Decon shredder cleaning fingers
* Final inspection of equipment loaded on trailers
* Refurbish wood trailers

Activities planned for Thursday:
* Drivers begin transporting 2 trailers to Crane (monday delivery expected)
* Pick up last wood trailer in San Bernardino
* Deliver wood box and chassis for off-lease

Activites planned for Monday (no work Friday, 8-9s schedule)
* Decon system parts.
* Dismantle structural steel components

Today's shipping/receiving:
Returned 2 flatbed rented trailers that were not used.

Explanation of today's activities and issues:
5 flatbed trailers have been used for the Navy equipmet. We managed to get all the equipment loaded out with 2 trailers left over; those were returned today.

Please call or reply with any questions. Happy 4th of July

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1-888-870-1890 pager (almost always on)

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Date: 7/9/01 6:42PM
Subject: July 9 D&D daily report

Monday 7/09/01
Day 38 Napalm Plant D&D

Activities initiated today:
* Sample concrete (complete)

The following activities were continued:
* Decon shredder cleaning fingers

Activities planned for Tuesday:
* Decon system parts.
* Dismantle structural steel components
* reassemble napalm pump

Today's shipping/receiving:
First two flatbeds of Navy equipment arrived and were off-loaded today at the Crane Army Ammunition Activity. Trailers were shipped on Thursday.

Explanation of today's activities and issues:
none

Please call or reply with any questions.

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Battelle Napalm Site Manager
760-731-3831
1-888-870-1890 pager (almost always on)

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Date: 7/10/01 6:03PM
Subject: July 10 D&D daily report

Tuesday 7/10/01
Day 39 Napalm Plant D&D

Activities initiated today:

The following activities were continued:
* Decon shredder teeth
* Dismantle SSI structural steel
* Cataloging of Salvage items

Activities planned for Wednesday:
* Decon system parts.
* Dismantle structural steel components
* reassemble napalm pump

Today's shipping/receiving:
none.

Explanation of today's activities and issues:

Please call or reply with any questions.

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Date: 7/11/01 7:01PM
Subject: July 11 D&D daily report

Wednesday 7/11/01
Day 40 Napalm Plant D&D

Activities initiated today:

The following activities were continued:
* Decon shredder teeth
* Dismantle SSI structural steel (complete) and Merrick structural steel
*

Activities planned for Wednesday:
* Decon system parts.
* Dismantle structural steel components
*

Today's shipping/receiving:
none.

Explanation of today's activities and issues:
none

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Date: 7/12/01 6:32PM
Subject: July 12 D&D daily report

Thursday 7/12/01
Day 41 Napalm Plant D&D

Activities initiated today:

The following activities were continued:
* Decon shredder teeth
* Dismantle Merrick structural steel
* Load additional components on trailers for Navy destined for Crane IN

Activities planned for Friday:
* Decon system parts.
* Dismantle structural steel components
*

Today's shipping/receiving:
none.

Explanation of today's activities and issues:
none

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Date: 7/13/01 6:36PM
Subject: July 13 D&D daily report

Friday 7/13/01
Day 42 Napalm Plant D&D

Activities initiated today:
none

The following activities were continued:
* Decon shredder teeth
* Dismantle Merrick structural steel (complete)
* Reassemble napalm pumps (complete)
* clean and cut apart structural steel
* Load additional components on trailers for Navy destined for Crane IN

Activities planned for Monday:
* Decon system parts.
* Clean and cut structural steel components for scrap or Crane
* Load additional components on trailers for Navy destined for Crane IN
*

Today's shipping/receiving:
none.

Explanation of today's activities and issues:
none

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Date: 7/16/01 6:22PM
Subject: July 16 D&D daily report

Monday 7/16/01
Day 43 Napalm Plant D&D

Activities initiated today:
none

The following activities were continued:
* Decon shredder teeth
* clean and cut apart structural steel; load into scrap metal bin (complete)
* Load additional components on trailers for Navy destined for Crane IN

Activities planned for Tuesday:
* Decon system parts.
* Clean and cut structural steel components for Crane
* Load additional components on trailers for Navy destined for Crane IN
*

Today's shipping/receiving:
none.

Explanation of today's activities and issues:
none

Please call or reply with any questions.

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Date: 7/17/01 6:50PM
Subject: July 17 D&D daily report

Tuesday 7/17/01
Day 44 Napalm Plant D&D

Activities initiated today:
Disassemble Auger (complete)

The following activities were continued:
* Decon shredder teeth
* clean and cut apart structural steel
* Prepare trailers for transport to Crane IN

Activities planned for Wed:
* Decon system parts.
* Clean and cut structural steel components for Crane
* Load additional components on trailers for Navy destined for Crane IN, prepare shipping papers and secure the loads
*

Today's shipping/receiving:
none.

Explanation of today's activities and issues:
none

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Date: 7/19/01 12:36AM
Subject: July 18 D&D daily report

(network difficulties prevented a timely report today)

Wednesday 7/18/01
Day 45 Napalm Plant D&D

Activities initiated today:
Remove concrete

The following activities were continued:
* Decon shredder teeth
* clean and cut apart structural steel
* Prepare trailers for transport to Crane IN (prepare manefests, fabricate crates for small parts, secure the loads, etc)

Activities planned for Thursday:
* Decon system parts.
* Clean and cut structural steel components for Crane
* Destroy concrete foundations
* Final preparations of component shipment to Crane (sign manefests, final loadout and securing, etc.)
*

Today's shipping/receiving:
Third 40 yd container of scrap steel removed for recycling.

Explanation of today's activities and issues:
PTES began dismantling ISO tanker pads today, completing demolition of 1-1/2 pads and staging about 1/3 of the concrete. It appears that the rebar is readily separating from the concrete, which will make it possible to seek disposal at a concrete recycling facility or even clean fill rather than landfilling as waste.

The next 2 trailers to Crane will contain a few large components (e.g., primary shredder, wood shredder conveyor) and many smaller components and crates with smaller items and remaining spare parts. The loads should be finalized tomorrow with shipment initiating on Friday.

Seal Beach environmental (Pei-Fen) did not receive their copies yesterday or today of the RCRA Closure Plan that were Fed Ex'd on Monday. Therefore, we made arrangements to have the two copies that were received in Fallbrook carried to Seal Beach by a San Diego courrier (no personnel from Detachment Fallbrook could

be identified that were traveling to Seal Beach) today so that Seal Beach could deliver the document to DTSC on schedule.

Please call or reply with any questions.

John Tixier
Battelle Napalm Site Manager
760-731-3831
1-888-870-1890 pager (almost always on)

CC: "Tixier, John S Jr" <john.tixier@pnl.gov>

From: "Tixier, John S Jr" <john.tixier@pnl.gov>
To: "Lamarche, Michelle N" <michelle.lamarche@pnl.gov>, "Khawaja, Asim" <Asim.Khawaja@pnl.gov>, "Olfenbuttel, Robert F" <olfenbur@battelle.org>, "Freier, Keith D" <keith.freier@pnl.gov>, "Miller, Peter L" <pete.miller@pnl.gov>, "Alzheimer, James M" <jim.alzheimer@pnl.gov>, "Hockett, Jack" <Jack.Hockett@pnl.gov>, "'Chip Randle (E-mail) '" <danr@ptesinc.com>, "Fullmer, Michael W" <mw.fullmer@pnl.gov>, "Whitworth, Diana L" <diana.whitworth@pnl.gov>, "'Eike H Hohenadl (E-mail)'" <hohenadl.eike@sbeach.navy.mil>, "Deforest, Thomas J" <thomas.deforest@pnl.gov>, 'Kim Shannon' <kims@ptesinc.com>, "'Abeln, Doug (SYA)'" <douga@syaeng.com>, "Minister, Andrew G" <andrew.minister@pnl.gov>, "Tegrotenhuis, Ward E" <ward.tegrotenhuis@pnl.gov>, "Baker, Carl P" <Carl.Baker@pnl.gov>, "'Le, Si (SWDIV)'" <lest@efdsw.navfac.navy.mil>, "'Palsetia, Viraf (SYA)'" <virafp@syaeng.com>, "Hagen, Susan I" <Susan.Hagen@pnl.gov>
Date: 7/19/01 7:26PM
Subject: July 19 D&D daily report

Thursday 7/19/01
> Day 46 Napalm Plant D&D
>
> Activities initiated today:
none

> The following activities were continued:
> * Decon shredder teeth
> * clean and stage structural steel
> * Prepare trailers for transport to Crane IN (prepare manefests,
> fabricate crates for small parts, secure the loads, etc)
>
> Activities planned for Friday:
> * Decon system parts.
> * Destroy concrete foundations
* Initiate component shipment to Crane
> *
>
> Today's shipping/receiving:
1 40' chassis and wood box off leased (one set also off leased yesterday) by PTES
7 cal gas bottles disposed as HW by PTES
US Filter picked up 4 GAC beds and RB10 hoses, carbon in beds manefested as HW

> Explanation of today's activities and issues:
Concrete demolition continued today, completing the N ISO tank pad and the first quarter of the off-gas pad (hardest one - foundation for the N2 tank)

Empty napalm canisters being stored for museum were brought back to the napalm site from the storage area at the request of Navy.

Tomorrow is the normal Friday off for E&E. However, since PTES is working 8 hr days for concrete demo and will be here tomorrow, E&E staff will also come in on overtime to decon parts.

> Please call or reply with any questions.
>
> John Tixier
> Battelle Napalm Site Manager
> 760-731-3831

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Date: 7/23/01 12:58AM
Subject: July 20 D&D daily report

Friday 7/20/01
Day 47 Napalm Plant D&D

Activities initiated today:
Transport next pair of trailers (#3 and #4) to Crane IN

The following activities were continued:
* Decon shredder teeth
* Demolish concrete foundations
* Finalize preparations for trailer shipment

Activities planned for Monday:
* Decon system parts.
* Demolish concrete foundations
* cut and clean structural steel
*

Today's shipping/receiving:
2 trailers of system parts left the site for Crane IN.
40 yd rolloff delivered today for scrap steel rebar from the concrete demolition

Explanation of today's activities and issues:
Concrete demolition continued today, completing the remainder of the off-gas pad and just starting on the first crane foundation. Rebar continues to separate from the concrete with a small amount of extra effort, which is worthwhile since the job is going well.

Concrete sampling results came in showing all samples non-detect for BTEX analytes in all analytical protocols (TCLP, TTLC, and STLC).

For those who have not been counting, there are 2 wood boxes left to off-lease, one of which still needs to have the bars repaired. Repairs and off-leasing should be completed this week.

Please call or reply with any questions.

John Tixier
Battelle Napalm Site Manager
760-731-3831
1-888-870-1890 pager (almost always on)

From: "Tixier, John S Jr" <john.tixier@pnl.gov>
To: "Lamarche, Michelle N" <michelle.lamarche@pnl.gov>, "Khawaja, Asim" <Asim.Khawaja@pnl.gov>, "Olfenbuttel, Robert F" <olfenbur@battelle.org>, "Freier, Keith D" <keith.freier@pnl.gov>, "Miller, Peter L" <pete.miller@pnl.gov>, "Alzheimer, James M" <jim.alzheimer@pnl.gov>, "Hockett, Jack" <Jack.Hockett@pnl.gov>, "'Chip Randle (E-mail) '" <danr@ptesinc.com>, "Fullmer, Michael W" <mw.fullmer@pnl.gov>, "Whitworth, Diana L" <diana.whitworth@pnl.gov>, "'Eike H Hohenadl (E-mail)'" <hohenadl.eike@sbeach.navy.mil>, "Deforest, Thomas J" <thomas.deforest@pnl.gov>, 'Kim Shannon' <kims@ptesinc.com>, "'Abeln, Doug (SYA)'" <douga@syaeng.com>, "Minister, Andrew G" <andrew.minister@pnl.gov>, "Tegrotenhuis, Ward E" <ward.tegrotenhuis@pnl.gov>, "Baker, Carl P" <Carl.Baker@pnl.gov>, "'Le, Si (SWDIV)'" <lest@efdsw.navfac.navy.mil>, "'Palsetia, Viraf (SYA)'" <virafp@syaeng.com>, "Hagen, Susan I" <Susan.Hagen@pnl.gov>
Date: 7/23/01 6:51PM
Subject: July 23 D&D daily report

Monday 7/23/01
Day 48 Napalm Plant D&D

Activities initiated today:
none

The following activities were continued:
* Decon shredder teeth
* Demolish concrete foundations and remove caissons
* cut and clean scrap steel and load into hopper

Activities planned for Tuesday:
* Decon system parts.
* Demolish concrete foundations and remove caissons
* clean structural steel and stage for loading
*

Today's shipping/receiving:
none

Explanation of today's activities and issues:
Concrete demolition continued today, completing rubblizing all three crane foundations and removing 5 caissons. Rubble removal was hampered by several flat tires.

Please call or reply with any questions.

John Tixier
Battelle Napalm Site Manager
760-731-3831
1-888-870-1890 pager (almost always on)

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From: "Tixier, John S Jr" <john.tixier@pnl.gov>
To: "Lamarche, Michelle N" <michelle.lamarche@pnl.gov>, "Khawaja, Asim" <Asim.Khawaja@pnl.gov>, "Olfenbuttel, Robert F" <olfenbur@battelle.org>, "Freier, Keith D" <keith.freier@pnl.gov>, "Miller, Peter L" <pete.miller@pnl.gov>, "Alzheimer, James M" <jim.alzheimer@pnl.gov>, "Hockett, Jack" <Jack.Hockett@pnl.gov>, "'Chip Randle (E-mail) '" <danr@ptesinc.com>, "Fullmer, Michael W" <mw.fullmer@pnl.gov>, "Whitworth, Diana L" <diana.whitworth@pnl.gov>, "'Eike H Hohenadl (E-mail)'" <hohenadl.eike@sbeach.navy.mil>, "Deforest, Thomas J" <thomas.deforest@pnl.gov>, 'Kim Shannon' <kims@ptesinc.com>, "'Abeln, Doug (SYA)'" <douga@syaeng.com>, "Minister, Andrew G" <andrew.minister@pnl.gov>, "Tegrotenhuis, Ward E" <ward.tegrotenhuis@pnl.gov>, "Baker, Carl P" <Carl.Baker@pnl.gov>, "'Le, Si (SWDIV)'" <lest@efdsw.navfac.navy.mil>, "'Palsetia, Viraf (SYA)'" <virafp@syaeng.com>, "Hagen, Susan I" <Susan.Hagen@pnl.gov>
Date: 7/25/01 9:18AM
Subject: July 24 D&D daily report

Tuesday 7/24/01
Day 49 Napalm Plant D&D

Activities initiated today:
none

The following activities were continued:
* Decon shredder teeth
* Demolish concrete foundations and remove caissons
* Load rebar into scrap steel hopper
* Load structural steel onto next trailer for Crane

Activities planned for Wednesday:
* Decon system parts.
* Demolish concrete foundations and remove caissons
* load out rebar
* Load structural steel onto trailers
*

Today's shipping/receiving:
none

Explanation of today's activities and issues:
none

Please call or reply with any questions.

John Tixier
Battelle Napalm Site Manager
760-731-3831
1-888-870-1890 pager (almost always on)

CC: "Tixier, John S Jr" <john.tixier@pnl.gov>

From: "Tixier, John S Jr" <john.tixier@pnl.gov>
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Date: 7/25/01 6:40PM
Subject: July 25 D&D daily report

Wednesday 7/25/01
Day 50 Napalm Plant D&D

Activities initiated today:
none

The following activities were continued:
* Decon shredder teeth
* Demolish concrete foundations and remove caissons
* Load rebar into scrap steel hopper
* Load structural steel onto next trailer for Crane, inventory grating and railing

Activities planned for Wednesday:
* Decon system parts.
* Demolish concrete foundations and remove caissons
* load out rebar
* Load structural steel onto trailers
*

Today's shipping/receiving:
none

Explanation of today's activities and issues:
Expect concrete demolition to be complete this week and begin hauling away next week.

2 trailers were received and off-loaded at Crane yesterday without incedent.

Bob Coyle was supposed to show up on site this afternoon to tour a few people around. Security came by at about 3 pm to say he was at the Redeye guard station with a bus. I told them as far as I was concerned, as a contractor, they were welcome to come aboard and I would be happy to tour them. Eike had left early due to a personal family emergency. I guess because the 'tour' had not been cleared in advance, they were not allowed into the magazine as I didn't hear anything more about it.

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Date: 7/26/01 6:13PM
Subject: July 26 D&D daily report

Thursday 7/26/01
Day 51 Napalm Plant D&D

Activities initiated today:
* decontaminate auger

The following activities were continued:
* Decon shredder teeth
* Demolish concrete foundations and remove caissons
* Load rebar into scrap steel hopper
* Stage structural steel for next trailer to Crane

Activities planned for Friday:
* Decon system parts.
* Demolish concrete foundations and remove caissons
* Load structural steel onto trailers
*

Today's shipping/receiving:
none

Explanation of today's activities and issues:
none

Please call or reply with any questions.

John Tixier
Battelle Napalm Site Manager
760-731-3831
1-888-870-1890 pager (almost always on)

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Date: 7/27/01 7:00PM
Subject: July 27 D&D daily report

Friday 7/27/01
Day 52 Napalm Plant D&D

Activities initiated today:
* none

The following activities were continued:
* Decon shredder teeth and auger
* Demolish concrete foundations and remove caissons
* Separate rebar for loading into scrap steel hopper
* Stage structural steel for next trailer to Crane

Activities planned for Monday:
* Decon system parts.
* Demolish concrete foundations and remove caissons
* Load structural steel onto trailers
*

Today's shipping/receiving:
none

Explanation of today's activities and issues:
All but 2 caissons are removed and demolished. All foundations except the diesel fuel tank pad and the high voltage transformer pad are removed and demolished. The former will be done monday. The latter will remain through decon as it is needed to power the air compressor which is needed for decon. Suggest that E&E can break up and remove this small pad and dispose in the dumpster.

Loading out of the trailer with structual steel happens a little here and a little there. It is not a full time activity every day, in case anyone was wondering. 2 more trailers should be ready to ship on schedule next week.

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Date: 7/30/01 7:45PM
Subject: July 30 D&D daily report

Monday 7/30/01
Day 53 Napalm Plant D&D

Activities initiated today:
* replace top soil
* remove concrete (to recycler)

The following activities were continued:
* Decon shredder teeth and auger (auger complete)
* Demolish caissons (complete)
* Separate rebar for loading into scrap steel hopper
*

Activities planned for tuesday:
* Decon system parts.
* Demolish last concrete foundation (fuel tank pad)
* Haul away concrete rubble
* replace top soil
* Load structural steel onto trailers
*

Today's shipping/receiving:
hauled away 20 loads of concrete rubble (at about 15 yds/load = about 300 cu. yd)
brought in 4 loads of top soil (at about 20 yds/load = about 80 yds)

Explanation of today's activities and issues:
none

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Date: 7/31/01 7:18PM
Subject: July 31 D&D daily report

Tuesday 7/31/01
Day 54 Napalm Plant D&D

Activities initiated today:
* power wash grating to remove oil residue

The following activities were continued:
* Decon shredder teeth
* Back fill top soil into concrete excavations (complete)
* Stage structural steel for transport to Crane
* Haul away concrete rubble (complete)

Activities planned for Wednesday:
* Decon system parts and complete power washing of grating
* level remaining backfill areas and clean up site
* remove a 40 yd bin of steel rebar
* Load structural steel onto trailers and prep for shipment to Crane
*

Today's shipping/receiving:
hauled away remaing concrete rubble

Explanation of today's activities and issues:
because some of the grating is quite laden with oily residue and very difficult to clean by hand, a power washer was rented to clean the grating. Washing is conducted over a water collection container and will be disposed of with other oily water already being generated on the project.

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Date: 8/1/01 7:14PM
Subject: Aug 1 D&D daily report

Wednesday 8/1/01
> Day 55 Napalm Plant D&D
>
> Activities initiated today:
* none

> The following activities were continued:
> * Decon shredder teeth
> * power wash grating to remove oil residue (complete)
* Level soil back fill and sweep dirt from asphalt (complete)
> * Stage and load structural steel for transport to Crane
> *
>
> Activities planned for Thursday:
> * Decon system parts and complete power washing of remaining greasy
> components
> * remove a 40 yd bin of steel rebar
* Finalize loading structural steel onto trailers and prep for shipment to Crane
* excavate oil soaked soil from 2 locations that were known to have leaked hydraulic oil during processing

> Today's shipping/receiving:
removed one flatbed trailer and delivered low-boy for transport of odd sized components to Crane.

> Explanation of today's activities and issues:
The portable berm was set up under the power washing station to collect any runoff from the process.

Navy and subcontractors met on site today for Task review meeting on the RCRA (Palm) closure project which is anticipated to begin site activity for removal of above ground structures on/about 8/13/01.

> Please call or reply with any questions.
>
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> Battelle Napalm Site Manager
> 760-731-3831
> 1-888-870-1890 pager (almost always on)

From: "Tixier, John S Jr" <john.tixier@pnl.gov>
To: "Lamarche, Michelle N" <michelle.lamarche@pnl.gov>, "Khawaja, Asim" <Asim.Khawaja@pnl.gov>, "Olfenbuttel, Robert F" <olfenbur@battelle.org>, "Freier, Keith D" <keith.freier@pnl.gov>, "Miller, Peter L" <pete.miller@pnl.gov>, "Alzheimer, James M" <jim.alzheimer@pnl.gov>, "Hockett, Jack" <Jack.Hockett@pnl.gov>, "'Chip Randle (E-mail) '" <danr@ptesinc.com>, "Fullmer, Michael W" <mw.fullmer@pnl.gov>, "Whitworth, Diana L" <diana.whitworth@pnl.gov>, "'Eike H Hohenadl (E-mail)'" <hohenadl.eike@sbeach.navy.mil>, "Deforest, Thomas J" <thomas.deforest@pnl.gov>, 'Kim Shannon' <kims@ptesinc.com>, "'Abeln, Doug (SYA)'" <douga@syaeng.com>, "Minister, Andrew G" <andrew.minister@pnl.gov>, "Tegrotenhuis, Ward E" <ward.tegrotenhuis@pnl.gov>, "Baker, Carl P" <Carl.Baker@pnl.gov>, "'Le, Si (SWDIV)'" <lest@efdsw.navfac.navy.mil>, "'Palsetia, Viraf (SYA)'" <virafp@syaeng.com>, "Hagen, Susan I" <Susan.Hagen@pnl.gov>, "'Vanderstaay, Jesse (PTES)'" <jessev@ptesinc.com>, "Clexton, David W" <clextond@battelle.org>
Date: 8/2/01 6:35PM
Subject: Aug 2 D&D daily report

Thursday 8/2/01
Day 56 Napalm Plant D&D

Activities initiated today:
* remove oil contaminated soil (complete)

The following activities were continued:
* power wash oily parts to remove oil residue
* Load out rebar as scrap steel
* Stage and load structural steel for transport to Crane
*

Activities planned for Friday:
* finalize grading and soil leveling
* complete rebar load out
* Finalize loading structural steel onto trailers and prep for shipment to Crane

Today's shipping/receiving:
removed one 40 yd bin of steel rebar for scrap and returned empty bin for remainder.

Explanation of today's activities and issues:
loading of trailers was not completed but will be tomorrow. If securing the load and finalizing the paperwork takes too long, drivers will leave Saturday for Wed arrival. Contact with Crane will be made in any case to confirm shipment

4 drums of oil contaminated soil were excavated using a visual standard since it was rather noticeable where the oil stain was in the ground. The existing sampling and analysis plan will be followed regarding confirmation of cleanup.

Please call or reply with any questions.

John Tixier
Battelle Napalm Site Manager
760-731-3831
1-888-870-1890 pager (almost always on)

From: "Tixier, John S Jr" <john.tixier@pnl.gov>
To: "Lamarche, Michelle N" <michelle.lamarche@pnl.gov>, "Khawaja, Asim" <Asim.Khawaja@pnl.gov>, "Olfenbuttel, Robert F" <olfenbur@battelle.org>, "Freier, Keith D" <keith.freier@pnl.gov>, "Miller, Peter L" <pete.miller@pnl.gov>, "Alzheimer, James M" <jim.alzheimer@pnl.gov>, "Hockett, Jack" <Jack.Hockett@pnl.gov>, "'Chip Randle (E-mail) '" <danr@ptesinc.com>, "Fullmer, Michael W" <mw.fullmer@pnl.gov>, "Whitworth, Diana L" <diana.whitworth@pnl.gov>, "'Eike H Hohenadl (E-mail)'" <hohenadl.eike@sbeach.navy.mil>, "Deforest, Thomas J" <thomas.deforest@pnl.gov>, 'Kim Shannon' <kims@ptesinc.com>, "'Abeln, Doug (SYA)'" <douga@syaeng.com>, "Minister, Andrew G" <andrew.minister@pnl.gov>, "Tegrotenhuis, Ward E" <ward.tegrotenhuis@pnl.gov>, "Baker, Carl P" <Carl.Baker@pnl.gov>, "'Le, Si (SWDIV)'" <lest@efdsw.navfac.navy.mil>, "'Palsetia, Viraf (SYA)'" <virafp@syaeng.com>, "Hagen, Susan I" <Susan.Hagen@pnl.gov>, "'Vanderstaay, Jesse (PTES)'" <jessev@ptesinc.com>, "Clexton, David W" <clextond@battelle.org>
Date: 8/3/01 5:31PM
Subject: Aug 3 D&D daily report

Friday 8/3/01
Day 57 Napalm Plant D&D

Activities initiated today:
* none

The following activities were continued:
* Load out rebar as scrap steel
* Stage and load structural steel for transport to Crane (complete)
* final grading of back fill on napalm site.
*

Activities planned for monday:
* decon system parts.

Today's shipping/receiving:
Heavy equipment used for concrete removal and soil replacement was taken away today.

Explanation of today's activities and issues:
Loading of trailers was completed today. Drivers will leave tomorrow morning and expect to arrive in Crane IN on Wed 8/8)

I will be off site next week, back in Richland. Asim will be site manager next week.

Please call or reply with any questions.

John Tixier
Battelle Napalm Site Manager
760-731-3831
1-888-870-1890 pager (almost always on)

From: "Khawaja, Asim" <Asim.Khawaja@pnl.gov>
To: "Lamarche, Michelle N" <michelle.lamarche@pnl.gov>, "Khawaja, Asim" <Asim.Khawaja@pnl.gov>, "Olfenbuttel, Robert F" <olfenbur@battelle.org>, "Freier, Keith D" <keith.freier@pnl.gov>, "Miller, Peter L" <pete.miller@pnl.gov>, "Alzheimer, James M" <jim.alzheimer@pnl.gov>, "Hockett, Jack" <Jack.Hockett@pnl.gov>, "'Chip Randle (E-mail) '" <danr@ptesinc.com>, "Fullmer, Michael W" <mw.fullmer@pnl.gov>, "Whitworth, Diana L" <diana.whitworth@pnl.gov>, "'Eike H Hohenadl (E-mail)'" <hohenadl.eike@sbeach.navy.mil>, "Deforest, Thomas J" <thomas.deforest@pnl.gov>, 'Kim Shannon' <kims@ptesinc.com>, "'Abeln, Doug (SYA)'" <douga@syaeng.com>, "Minister, Andrew G" <andrew.minister@pnl.gov>, "Tegrotenhuis, Ward E" <ward.tegrotenhuis@pnl.gov>, "Baker, Carl P" <Carl.Baker@pnl.gov>, "'Le, Si (SWDIV)'" <lest@efdsw.navfac.navy.mil>, "'Palsetia, Viraf (SYA)'" <virafp@syaeng.com>, "Hagen, Susan I" <Susan.Hagen@pnl.gov>, "'Vanderstaay, Jesse (PTES)'" <jessev@ptesinc.com>, "Clexton, David W" <clextond@battelle.org>
Date: 8/6/01 10:49PM
Subject: Aug 6 D&D daily report

Monday 8/6/01
Day 58 Napalm Plant D&D

Activities initiated today:
* PTE demobilized from the site.

The following activities were continued:
* Decon of auger hopper completed and loaded into container for removal from site
* Completed decon of 14 cutters.
*

Activities planned for tuesday:
* decon system parts.
* move decon operation to east side of asphalt to accomodate asphalt shredding planned for next week.

Today's shipping/receiving:
None.

Asim Khawaja
Sr. Research Engineer
(509) 375-3861
Fax: 375-2534
Cell: 308-2052

From: "Khawaja, Asim" <Asim.Khawaja@pnl.gov>
To: "Khawaja, Asim" <Asim.Khawaja@pnl.gov>, "Lamarche, Michelle N" <michelle.lamarche@pnl.gov>, "Olfenbuttel, Robert F" <olfenbur@battelle.org>, "Freier, Keith D" <keith.freier@pnl.gov>, "Miller, Peter L" <pete.miller@pnl.gov>, "Alzheimer, James M" <jim.alzheimer@pnl.gov>, "Hockett, Jack" <Jack.Hockett@pnl.gov>, "'Chip Randle (E-mail) '" <danr@ptesinc.com>, "Fullmer, Michael W" <mw.fullmer@pnl.gov>, "Whitworth, Diana L" <diana.whitworth@pnl.gov>, "'Eike H Hohenadl (E-mail)'" <hohenadl.eike@sbeach.navy.mil>, 'Kim Shannon' <kims@ptesinc.com>, "'Abeln, Doug (SYA)'" <douga@syaeng.com>, "Minister, Andrew G" <andrew.minister@pnl.gov>, "Tegrotenhuis, Ward E" <ward.tegrotenhuis@pnl.gov>, "Baker, Carl P" <Carl.Baker@pnl.gov>, "'Le, Si (SWDIV)'" <lest@efdsw.navfac.navy.mil>, "'Palsetia, Viraf (SYA)'" <virafp@syaeng.com>, "Hagen, Susan I" <Susan.Hagen@pnl.gov>, "'Vanderstaay, Jesse (PTES)'" <jessev@ptesinc.com>, "Clexton, David W" <clextond@battelle.org>, "'Robbie Knight (E-mail)'" <knight.robert@sbeach.navy.mil>, "'Suzanne Benoit Albertsen (E-mail)'" <benoitsd@nfesc.navy.mil>
Date: 8/8/01 10:35AM
Subject: RE: Aug 7 D&D daily report

Please note corrected date.

Thanks

Asim Khawaja
Sr. Research Engineer
(509) 375-3861
Fax: 375-2534
Cell: 308-2052

-----Original Message-----
From: Khawaja, Asim
Sent: Wednesday, August 08, 2001 8:32 AM
To: Lamarche, Michelle N; Khawaja, Asim; Olfenbuttel, Robert F, Freier, Keith D; Miller, Peter L; Alzheimer, James M; Hockett, Jack; 'Chip Randle (E-mail) '; Fullmer, Michael W; Whitworth, Diana L; 'Eike H Hohenadl (E-mail)'; 'Kim Shannon'; 'Abeln, Doug (SYA)'; Minister, Andrew G; Tegrotenhuis, Ward E; Baker, Carl P; 'Le, Si (SWDIV)'; 'Palsetia, Viraf (SYA)'; Hagen, Susan I; 'Vanderstaay, Jesse (PTES)'; Clexton, David W; Robbie Knight (E-mail); Suzanne Benoit Albertsen (E-mail)
Cc: Quadrel, Marilyn J
Subject: Aug 6 D&D daily report

Monday 8/7/01
Day 59 Napalm Plant D&D

Activities initiated today:
* Meeting held at site with Steve Montgomery, certified wild life biologist, to address US F&W Department requirements for conducting closure action of the Palm Enterprise Plant. The meeting was attended by Battelle, PTES, SYA and Navy personnel. A summary of the discussion and decisions will be forwarded to all attending and involved parties seperately. The RCRA closure schedule, tentatively, is to initiate removal of of the above ground structures by August 15.

The following activities were continued:
* Completed decon of 21 cutters

Activities planned for tuesday:

* decon system parts.
* move decon operation to east side of asphalt to accomodate asphalt shredding planned for next week.

Today's shipping/receiving:
None.

Asim Khawaja
Sr. Research Engineer
(509) 375-3861
Fax: 375-2534
Cell: 308-2052

CC: "Quadrel, Marilyn J" <marilyn.quadrel@pnl.gov>

From: "Khawaja, Asim" <Asim.Khawaja@pnl.gov>
To: "Khawaja, Asim" <Asim.Khawaja@pnl.gov>, "Lamarche, Michelle N" <michelle.lamarche@pnl.gov>, "Olfenbuttel, Robert F" <olfenbur@battelle.org>, "Freier, Keith D" <keith.freier@pnl.gov>, "Miller, Peter L" <pete.miller@pnl.gov>, "Alzheimer, James M" <jim.alzheimer@pnl.gov>, "Hockett, Jack" <Jack.Hockett@pnl.gov>, "'Chip Randle (E-mail) '" <danr@ptesinc.com>, "Fullmer, Michael W" <mw.fullmer@pnl.gov>, "Whitworth, Diana L" <diana.whitworth@pnl.gov>, "'Eike H Hohenadl (E-mail)'" <hohenadl.eike@sbeach.navy.mil>, 'Kim Shannon' <kims@ptesinc.com>, "'Abeln, Doug (SYA)'" <douga@syaeng.com>, "Minister, Andrew G" <andrew.minister@pnl.gov>, "Tegrotenhuis, Ward E" <ward.tegrotenhuis@pnl.gov>, "Baker, Carl P" <Carl.Baker@pnl.gov>, "'Le, Si (SWDIV)'" <lest@efdsw.navfac.navy.mil>, "'Palsetia, Viraf (SYA)'" <virafp@syaeng.com>, "Hagen, Susan I" <Susan.Hagen@pnl.gov>, "'Vanderstaay, Jesse (PTES)'" <jessev@ptesinc.com>, "Clexton, David W" <clextond@battelle.org>, "'Robbie Knight (E-mail)'" <knight.robert@sbeach.navy.mil>, "'Suzanne Benoit Albertsen (E-mail)'" <benoitsd@nfesc.navy.mil>, "Larry Moore (E-mail)" <larrym@ptesinc.com>
Date: 8/9/01 11:25AM
Subject: Aug 8 D&D daily report

Monday 8/8/01
Day 60 Napalm Plant D&D

Activities initiated today:
* Discussions to identify RCRA Closure start date. Presently, plans are to initiate action on August 15.

The following activities were continued:
* Completed decon of 26 cutters

Activities planned for Friday:
* decon system parts.
* complete move of decon operation to east side of asphalt to accomodate asphalt shredding planned for next week.

Today's shipping/receiving:
None.

Asim Khawaja
Sr. Research Engineer
(509) 375-3861
Fax: 375-2534
Cell: 308-2052

From: "Khawaja, Asim" <Asim.Khawaja@pnl.gov>
To: "Khawaja, Asim" <Asim.Khawaja@pnl.gov>, "Lamarche, Michelle N" <michelle.lamarche@pnl.gov>, "Olfenbuttel, Robert F" <olfenbur@battelle.org>, "Freier, Keith D" <keith.freier@pnl.gov>, "Miller, Peter L" <pete.miller@pnl.gov>, "Alzheimer, James M" <jim.alzheimer@pnl.gov>, "Hockett, Jack" <Jack.Hockett@pnl.gov>, "'Chip Randle (E-mail) '" <danr@ptesinc.com>, "Fullmer, Michael W" <mw.fullmer@pnl.gov>, "Whitworth, Diana L" <diana.whitworth@pnl.gov>, "'Eike H Hohenadl (E-mail)'" <hohenadl.eike@sbeach.navy.mil>, 'Kim Shannon' <kims@ptesinc.com>, "'Abeln, Doug (SYA)'" <douga@syaeng.com>, "Minister, Andrew G" <andrew.minister@pnl.gov>, "Tegrotenhuis, Ward E" <ward.tegrotenhuis@pnl.gov>, "Baker, Carl P" <Carl.Baker@pnl.gov>, "'Le, Si (SWDIV)'" <lest@efdsw.navfac.navy.mil>, "'Palsetia, Viraf (SYA)'" <virafp@syaeng.com>, "Hagen, Susan I" <Susan.Hagen@pnl.gov>, "'Vanderstaay, Jesse (PTES)'" <jessev@ptesinc.com>, "Clexton, David W" <clextond@battelle.org>, "'Robbie Knight (E-mail)'" <knight.robert@sbeach.navy.mil>, "'Suzanne Benoit Albertsen (E-mail)'" <benoitsd@nfesc.navy.mil>, "'Larry Moore (E-mail)'" <larrym@ptesinc.com>
Date: 8/16/01 11:30AM
Subject: Aug 9 D&D daily report

Thursday 8/9/01
Day 61 Napalm Plant D&D

Activities initiated today:
* Relocation of decon station was initiated and completed.

The following activities were continued:
* Completed decon of 16 cutters

Activities planned for Friday:
* decon system parts.

Today's shipping/receiving:
None.

Asim Khawaja
Sr. Research Engineer
(509) 375-3861
Fax: 375-2534
Cell: 308-2052

From: "Tixier, John S Jr" <john.tixier@pnl.gov>
To: "Lamarche, Michelle N" <michelle.lamarche@pnl.gov>, "Khawaja, Asim" <Asim.Khawaja@pnl.gov>, "Olfenbuttel, Robert F" <olfenbur@battelle.org>, "Freier, Keith D" <keith.freier@pnl.gov>, "Miller, Peter L" <pete.miller@pnl.gov>, "Alzheimer, James M" <jim.alzheimer@pnl.gov>, "Hockett, Jack" <Jack.Hockett@pnl.gov>, "'Chip Randle (E-mail) '" <danr@ptesinc.com>, "Fullmer, Michael W" <mw.fullmer@pnl.gov>, "Whitworth, Diana L" <diana.whitworth@pnl.gov>, "'Eike H Hohenadl (E-mail)'" <hohenadl.eike@sbeach.navy.mil>, "Deforest, Thomas J" <thomas.deforest@pnl.gov>, 'Kim Shannon' <kims@ptesinc.com>, "'Abeln, Doug (SYA)'" <douga@syaeng.com>, "Minister, Andrew G" <andrew.minister@pnl.gov>, "Tegrotenhuis, Ward E" <ward.tegrotenhuis@pnl.gov>, "Baker, Carl P" <Carl.Baker@pnl.gov>, "'Le, Si (SWDIV)'" <lest@efdsw.navfac.navy.mil>, "'Palsetia, Viraf (SYA)'" <virafp@syaeng.com>, "Hagen, Susan I" <Susan.Hagen@pnl.gov>, "'Vanderstaay, Jesse (PTES)'" <jessev@ptesinc.com>, "Clexton, David W" <clextond@battelle.org>
Date: 8/16/01 11:29AM
Subject: Aug 13 D&D daily report

Monday 8/13/01
Day 62 Napalm Plant D&D

Activities initiated today:
* Process asphalt (complete)
* remove underground conduit

The following activities were continued:
* Load out rebar as scrap steel
* decon shredder teeth

Activities planned for tuesday:
* decon system parts.
* remove underground conduit
*

Today's shipping/receiving:
Asphalt processing machine was delivered and removed today.

Backhoe for digging up conduit was delivered today

1 40-yd bin of rebar was delivered for recycling and returned empty to the site.

Explanation of today's activities and issues:
none

Please call or reply with any questions.

John Tixier
Battelle Napalm Site Manager
760-731-3831
1-888-870-1890 pager (almost always on)

From: "Tixier, John S Jr" <john.tixier@pnl.gov>
To: "Lamarche, Michelle N" <michelle.lamarche@pnl.gov>, "Khawaja, Asim" <Asim.Khawaja@pnl.gov>, "Olfenbuttel, Robert F" <olfenbur@battelle.org>, "Freier, Keith D" <keith.freier@pnl.gov>, "Miller, Peter L" <pete.miller@pnl.gov>, "Alzheimer, James M" <jim.alzheimer@pnl.gov>, "Hockett, Jack" <Jack.Hockett@pnl.gov>, "'Chip Randle (E-mail) '" <danr@ptesinc.com>, "Fullmer, Michael W" <mw.fullmer@pnl.gov>, "Whitworth, Diana L" <diana.whitworth@pnl.gov>, "'Eike H Hohenadl (E-mail)'" <hohenadl.eike@sbeach.navy.mil>, "Deforest, Thomas J" <thomas.deforest@pnl.gov>, 'Kim Shannon' <kims@ptesinc.com>, "'Abeln, Doug (SYA)'" <douga@syaeng.com>, "Minister, Andrew G" <andrew.minister@pnl.gov>, "Tegrotenhuis, Ward E" <ward.tegrotenhuis@pnl.gov>, "Baker, Carl P" <Carl.Baker@pnl.gov>, "'Le, Si (SWDIV)'" <lest@efdsw.navfac.navy.mil>, "'Palsetia, Viraf (SYA)'" <virafp@syaeng.com>, "Hagen, Susan I" <Susan.Hagen@pnl.gov>, "'Vanderstaay, Jesse (PTES)'" <jessev@ptesinc.com>, "Clexton, David W" <clextond@battelle.org>
Date: 8/16/01 11:29AM
Subject: Aug 14 D&D daily report

Please note that as of today, the RCRA daily report will be included in the second part of this message.

Tuesday 8/14/01
Day 63 Napalm Plant D&D

Activities initiated today:
* none

The following activities were continued:
* remove underground conduit
* decon shredder teeth

Activities planned for Wednesday:
* decon system parts.
* finish remove underground conduit
* stage/remove ground asphalt roadbase material

Today's shipping/receiving:
none

Explanation of today's activities and issues:
The asphalt that was ground up into roadbase yesterday was ground up so well and included some of below-lying soil, that it created some consternation about whether it was acceptable to public works as roadbase. However, the company that performed the work (Pavement Recycling Systems) assured us that the product they delivered to us by grinding up the asphalt is indeed roadbase. PW reevaluated the product and their application and decided to accept the material after all. PW will begin to remove the material tomorrow.

Day 1 Palm Plant D&D

Activities initiated today:
* train staff in SKR issues (complete)
* Inspect site for SKR and gnatcatcher
* install fence around project work site

The following activities were continued:
* (obviously none on day 1)

Activities planned for Wednesday:
* decon system parts.
* finish remove underground conduit
* stage/remove ground asphalt roadbase material

Explanation of today's activities and issues:
Steve Montgomery (wildlife biologist) came on site to conduct training of project staff in SKR recognition as well as penalties for harm to the animals or their habitat. Then Steve conducted a survey of the project work area and did find several active burrows in the vicinity. PTES adjusted their work boundary so as to exclude the burrows from the work site. The work site boundary was made smaller than desired on the affected corner, but not unduly so.

Please call or reply with any questions.

John Tixier
Battelle Napalm Site Manager
760-731-3831
1-888-870-1890 pager (almost always on)

CC: "Tixier, John S Jr" <john.tixier@pnl.gov>

From: "Tixier, John S Jr" <john.tixier@pnl.gov>
To: "Lamarche, Michelle N" <michelle.lamarche@pnl.gov>, "Khawaja, Asim" <Asim.Khawaja@pnl.gov>, "Olfenbuttel, Robert F" <olfenbur@battelle.org>, "Freier, Keith D" <keith.freier@pnl.gov>, "Miller, Peter L" <pete.miller@pnl.gov>, "Alzheimer, James M" <jim.alzheimer@pnl.gov>, "Hockett, Jack" <Jack.Hockett@pnl.gov>, "'Chip Randle (E-mail) '" <danr@ptesinc.com>, "Fullmer, Michael W" <mw.fullmer@pnl.gov>, "Whitworth, Diana L" <diana.whitworth@pnl.gov>, "'Eike H Hohenadl (E-mail)'" <hohenadl.eike@sbeach.navy.mil>, "Deforest, Thomas J" <thomas.deforest@pnl.gov>, 'Kim Shannon' <kims@ptesinc.com>, "'Abeln, Doug (SYA)'" <douga@syaeng.com>, "Minister, Andrew G" <andrew.minister@pnl.gov>, "Tegrotenhuis, Ward E" <ward.tegrotenhuis@pnl.gov>, "Baker, Carl P" <Carl.Baker@pnl.gov>, "'Le, Si (SWDIV)'" <lest@efdsw.navfac.navy.mil>, "'Palsetia, Viraf (SYA)'" <virafp@syaeng.com>, "Hagen, Susan I" <Susan.Hagen@pnl.gov>, "'Vanderstaay, Jesse (PTES)'" <jessev@ptesinc.com>, "Clexton, David W" <clextond@battelle.org>
Date: 8/16/01 11:28AM
Subject: Aug 15 D&D daily report

Wednesday 8/15/01
Day 64 Napalm Plant D&D

Activities initiated today:
* stage and remove ground asphalt roadbase material (by Public Works)

The following activities were continued:
* remove underground conduit (complete)
* decon shredder teeth (60 teeth inspected and passed)

Activities planned for Thursday:
* decon system parts.
* load out underground conduit as refuse
* stage/remove ground asphalt roadbase material

Today's shipping/receiving:
1 flatbed trailer returned

Explanation of today's activities and issues:
Public works began staging and removing the asphalt materials. Will probably take about 2 more days to complete.

The soil sampling activity was to begin tomorrow with site survey. This activity has been postponed by 1 week to ensure completion of the asphalt removal task.

Day 2 Palm Plant D&D

Activities initiated today:
* install cover over work area
* begin dismantling extruder

The following activities were continued:
* none

Activities planned for Thursday:
* continue dismantling extruder

Explanation of today's activities and issues:
The canvas porch, formerly used at the napalm site over the compressors, was moved to the work area to provide shelter from the high heat.

Dismantling of the exrtruder began with draining the oil, but ran into difficulties when it was discovered that the segments of the extruder are all welded together in one continuous piece. Since the extruder is made of stainless steel, this complicates dismantling.

Please call or reply with any questions.

John Tixier
Battelle Napalm Site Manager
760-731-3831
1-888-870-1890 pager (almost always on)

CC: "Tixier, John S Jr" <john.tixier@pnl.gov>

From: "Tixier, John S Jr" <john.tixier@pnl.gov>
To: "Lamarche, Michelle N" <michelle.lamarche@pnl.gov>, "Khawaja, Asim" <Asim.Khawaja@pnl.gov>, "Olfenbuttel, Robert F" <olfenbur@battelle.org>, "Freier, Keith D" <keith.freier@pnl.gov>, "Miller, Peter L" <pete.miller@pnl.gov>, "Alzheimer, James M" <jim.alzheimer@pnl.gov>, "Hockett, Jack" <Jack.Hockett@pnl.gov>, "'Chip Randle (E-mail) '" <danr@ptesinc.com>, "Fullmer, Michael W" <mw.fullmer@pnl.gov>, "Whitworth, Diana L" <diana.whitworth@pnl.gov>, "'Eike H Hohenadl (E-mail)'" <hohenadl.eike@sbeach.navy.mil>, "Deforest, Thomas J" <thomas.deforest@pnl.gov>, 'Kim Shannon' <kims@ptesinc.com>, "'Abeln, Doug (SYA)'" <douga@syaeng.com>, "Minister, Andrew G" <andrew.minister@pnl.gov>, "Tegrotenhuis, Ward E" <ward.tegrotenhuis@pnl.gov>, "Baker, Carl P" <Carl.Baker@pnl.gov>, "'Le, Si (SWDIV)'" <lest@efdsw.navfac.navy.mil>, "'Palsetia, Viraf (SYA)'" <virafp@syaeng.com>, "Hagen, Susan I" <Susan.Hagen@pnl.gov>, "'Vanderstaay, Jesse (PTES)'" <jessev@ptesinc.com>, "Clexton, David W" <clextond@battelle.org>
Date: 8/16/01 5:38PM
Subject: Aug 16 D&D daily report

Thursday 8/16/01
Day 65 Napalm Plant D&D

Activities initiated today:
none

The following activities were continued:
* decon shredder teeth
* stage and remove ground asphalt roadbase material (by Public Works)
*

Activities planned for Friday:
* decon system parts.
* load out underground conduit as refuse
* stage/remove ground asphalt roadbase material

Today's shipping/receiving:
none

Explanation of today's activities and issues:
none

Day 3 Palm Plant D&D

Activities initiated today:
* dismantle oil pump and heater

The following activities were continued:
* dismantle extruder (base section completed and scraped)

Activities planned for Friday:
* continue dismantling above ground components

Explanation of today's activities and issues:
The base of the extruder was cut up into manageable pieces and loaded into the scrap steel container. The stainless steel extruder was set aside. A plasma torch is being considered for sectioning the extruder.

From: "Tixier, John S Jr" <john.tixier@pnl.gov>
To: "Lamarche, Michelle N" <michelle.lamarche@pnl.gov>, "Khawaja, Asim" <Asim.Khawaja@pnl.gov>, "Olfenbuttel, Robert F" <olfenbur@battelle.org>, "Freier, Keith D" <keith.freier@pnl.gov>, "Miller, Peter L" <pete.miller@pnl.gov>, "Alzheimer, James M" <jim.alzheimer@pnl.gov>, "Hockett, Jack" <Jack.Hockett@pnl.gov>, "'Chip Randle (E-mail) '" <danr@ptesinc.com>, "Fullmer, Michael W" <mw.fullmer@pnl.gov>, "Whitworth, Diana L" <diana.whitworth@pnl.gov>, "'Eike H Hohenadl (E-mail)'" <hohenadl.eike@sbeach.navy.mil>, "Deforest, Thomas J" <thomas.deforest@pnl.gov>, 'Kim Shannon' <kims@ptesinc.com>, "'Abeln, Doug (SYA)'" <douga@syaeng.com>, "Minister, Andrew G" <andrew.minister@pnl.gov>, "Tegrotenhuis, Ward E" <ward.tegrotenhuis@pnl.gov>, "Baker, Carl P" <Carl.Baker@pnl.gov>, "'Le, Si (SWDIV)'" <lest@efdsw.navfac.navy.mil>, "'Palsetia, Viraf (SYA)'" <virafp@syaeng.com>, "Hagen, Susan I" <Susan.Hagen@pnl.gov>, "'Vanderstaay, Jesse (PTES)'" <jessev@ptesinc.com>, "Clexton, David W" <clextond@battelle.org>
Date: 8/17/01 4:51PM
Subject: Aug 17 D&D daily report

Friday 8/17/01
Day 66 Napalm Plant D&D

Activities initiated today:
none

The following activities were continued:
* decon shredder teeth
*
*

Activities planned for Monday:
* decon system parts.
* load out underground conduit as refuse
* stage/remove ground asphalt roadbase material

Today's shipping/receiving:
Rolloff for refuse dropped off (yesterday) by Fallbrook Refuse for the underground conduit

Explanation of today's activities and issues:
overtime worked today to make progress on teeth cleaning

As of today, the following cutter teeth info is provided.

11 boxes of 20 cutters/box shipped to Crane already		= 220 cutters
9 boxes of 20 cutters on site		= 180 cutters
cutters clean and ready to be boxed		= 51 cutters
cutters remaining to be cleaned	= 45 cutters (< 10% of cutters!!)	
Total cutters		= 496 cutters = 16 sets of 31 cutters

Day 3 Palm Plant D&D

Activities initiated today:
* dismantle piping

The following activities were continued:
* dismantle and clean oil pump

* load out scrap metal in recycle bin

Activities planned for Monday:
* continue dismantling above ground components

Explanation of today's activities and issues:
none.

Please call or reply with any questions.

John Tixier
Battelle Napalm Site Manager
760-731-3831
1-888-870-1890 pager (almost always on)

CC: "Tixier, John S Jr" <john.tixier@pnl.gov>

From: "Tixier, John S Jr" <john.tixier@pnl.gov>
To: "Lamarche, Michelle N" <michelle.lamarche@pnl.gov>, "Khawaja, Asim" <Asim.Khawaja@pnl.gov>, "Olfenbuttel, Robert F" <olfenbur@battelle.org>, "Freier, Keith D" <keith.freier@pnl.gov>, "Miller, Peter L" <pete.miller@pnl.gov>, "Alzheimer, James M" <jim.alzheimer@pnl.gov>, "Hockett, Jack" <Jack.Hockett@pnl.gov>, "'Chip Randle (E-mail) '" <danr@ptesinc.com>, "Fullmer, Michael W" <mw.fullmer@pnl.gov>, "Whitworth, Diana L" <diana.whitworth@pnl.gov>, "'Eike H Hohenadl (E-mail)'" <hohenadl.eike@sbeach.navy.mil>, "Deforest, Thomas J" <thomas.deforest@pnl.gov>, 'Kim Shannon' <kims@ptesinc.com>, "'Abeln, Doug (SYA)'" <douga@syaeng.com>, "Minister, Andrew G" <andrew.minister@pnl.gov>, "Tegrotenhuis, Ward E" <ward.tegrotenhuis@pnl.gov>, "Baker, Carl P" <Carl.Baker@pnl.gov>, "'Le, Si (SWDIV)'" <lest@efdsw.navfac.navy.mil>, "'Palsetia, Viraf (SYA)'" <virafp@syaeng.com>, "Hagen, Susan I" <Susan.Hagen@pnl.gov>, "'Vanderstaay, Jesse (PTES)'" <jessev@ptesinc.com>, "Clexton, David W" <clextond@battelle.org>
Date: 8/20/01 6:23PM
Subject: Aug 20 Napalm (CERCLA) D&D daily report

Note, for recordkeeping purposes, as of today the RCRA and CERCLA project daily reports will come in separate messages.

Monday 8/20/01
Day 67 Napalm Plant D&D

Activities initiated today:
none

The following activities were continued:
* decon shredder teeth
* roadbase removal (by PW)
*

Activities planned for Tuesday:
* decon system parts.
* load out underground conduit as refuse
* stage/remove ground asphalt roadbase material

Today's shipping/receiving:
Frontloader/backhoe rented by E&E for underground conduit removal was picked up this morning by the vendor.

Explanation of today's activities and issues:
none

Please call or reply with any questions.

John Tixier
Battelle Napalm Site Manager
760-731-3831
1-888-870-1890 pager (almost always on)

From: "Tixier, John S Jr" <john.tixier@pnl.gov>
To: "Lamarche, Michelle N" <michelle.lamarche@pnl.gov>; "Khawaja, Asim" <Asim.Khawaja@pnl.gov>; "Olfenbuttel, Robert F" <olfenbur@battelle.org>; "Freier, Keith D" <keith.freier@pnl.gov>; "Miller, Peter L" <pete.miller@pnl.gov>; "Alzheimer, James M" <jim.alzheimer@pnl.gov>; "Hockett, Jack" <Jack.Hockett@pnl.gov>; "'Chip Randle (E-mail) '" <danr@ptesinc.com>; "Fullmer, Michael W" <mw.fullmer@pnl.gov>; "Whitworth, Diana L" <diana.whitworth@pnl.gov>; "'Eike H Hohenadl (E-mail)'" <hohenadl.eike@sbeach.navy.mil>; "Deforest, Thomas J" <thomas.deforest@pnl.gov>; 'Kim Shannon' <kims@ptesinc.com>; "'Abeln, Doug (SYA)'" <douga@syaeng.com>; "Minister, Andrew G" <andrew.minister@pnl.gov>; "Tegrotenhuis, Ward E" <ward.tegrotenhuis@pnl.gov>; "Baker, Carl P" <Carl.Baker@pnl.gov>; "'Le, Si (SWDIV)'" <lest@efdsw.navfac.navy.mil>; "'Palsetia, Viraf (SYA)'" <virafp@syaeng.com>; "Hagen, Susan I" <Susan.Hagen@pnl.gov>; "'Vanderstaay, Jesse (PTES)'" <jessev@ptesinc.com>; "Clexton, David W" <clextond@battelle.org>
Date: 8/21/01 6:31PM
Subject: Aug 21 Napalm (CERCLA) D&D daily report

Tuesday 8/21/01
Day 68 Napalm Plant D&D

Activities initiated today:
* load out underground conduit into refuse hopper (complete)

The following activities were continued:
* decon shredder teeth (Complete!)
* decon other shredder components
* inventory hazardous waste drums for removal in the next few days

Activities planned for Wednesday:
* decon system parts.
* stage/remove ground asphalt roadbase material

Today's shipping/receiving:
none.

Explanation of today's activities and issues:
PW did not show up today for removal of roadbase. Inquiry calls by Eike went unanswered. The piles are still large and threaten to impact soil sampling scheduled for thursday.

The last cutter tooth was cleaned today. Shipment of cutters and grating to Crane is scheduled for Thursday.

Please call or reply with any questions.

John Tixier
Battelle Napalm Site Manager
760-731-3831
1-888-870-1890 pager (almost always on)

From: "Tixier, John S Jr" <john.tixier@pnl.gov>
To: "Lamarche, Michelle N" <michelle.lamarche@pnl.gov>, "Khawaja, Asim" <Asim.Khawaja@pnl.gov>, "Olfenbuttel, Robert F" <olfenbur@battelle.org>, "Freier, Keith D" <keith.freier@pnl.gov>, "Miller, Peter L" <pete.miller@pnl.gov>, "Alzheimer, James M" <jim.alzheimer@pnl.gov>, "Hockett, Jack" <Jack.Hockett@pnl.gov>, "'Chip Randle (E-mail) '" <danr@ptesinc.com>, "Fullmer, Michael W" <mw.fullmer@pnl.gov>, "Whitworth, Diana L" <diana.whitworth@pnl.gov>, "'Eike H Hohenadl (E-mail)'" <hohenadl.eike@sbeach.navy.mil>, "Deforest, Thomas J" <thomas.deforest@pnl.gov>, 'Kim Shannon' <kims@ptesinc.com>, "'Abeln, Doug (SYA)'" <douga@syaeng.com>, "Minister, Andrew G" <andrew.minister@pnl.gov>, "Tegrotenhuis, Ward E" <ward.tegrotenhuis@pnl.gov>, "Baker, Carl P" <Carl.Baker@pnl.gov>, "'Le, Si (SWDIV)'" <lest@efdsw.navfac.navy.mil>, "'Palsetia, Viraf (SYA)'" <virafp@syaeng.com>, "Hagen, Susan I" <Susan.Hagen@pnl.gov>, "'Vanderstaay, Jesse (PTES)'" <jessev@ptesinc.com>, "Clexton, David W" <clextond@battelle.org>
Date: 8/22/01 7:14PM
Subject: Aug 22 Napalm (CERCLA) D&D daily report

Wednesday 8/22/01
Day 69 Napalm Plant D&D

Activities initiated today:
* prep items for next shipment to crane

The following activities were continued:
* decon other shredder components (spacers, brackets, etc)
*

Activities planned for Thursday:
* decon system parts.
* stage/remove ground asphalt roadbase material
* load out 14 crates of cutters and 4 pallets of grating
* Survey the site for soil sampling locations

Today's shipping/receiving:
none.

Explanation of today's activities and issues:
PW did not show up again today for removal of roadbase. Eike has been told that they will be out in force tomorrow to continue removal of roadbase material. survey for sample locations will take place around the soil removal to the extent possible.

The grating for the Shredder system was inventoried and banded to pallets in preparation for shipment. The remaining crates of cutters will be sealed and these items will be loaded tomorow for shipment to Crane.

Please call or reply with any questions.

John Tixier
Battelle Napalm Site Manager
760-731-3831
1-888-870-1890 pager (almost always on)

From: "Tixier, John S Jr" <john.tixier@pnl.gov>
To: "Lamarche, Michelle N" <michelle.lamarche@pnl.gov>, "Khawaja, Asim" <Asim.Khawaja@pnl.gov>, "Olfenbuttel, Robert F" <olfenbur@battelle.org>, "Freier, Keith D" <keith.freier@pnl.gov>, "Miller, Peter L" <pete.miller@pnl.gov>, "Alzheimer, James M" <jim.alzheimer@pnl.gov>, "Hockett, Jack" <Jack.Hockett@pnl.gov>, "'Chip Randle (E-mail) '" <danr@ptesinc.com>, "Fullmer, Michael W" <mw.fullmer@pnl.gov>, "Whitworth, Diana L" <diana.whitworth@pnl.gov>, "'Eike H Hohenadl (E-mail)'" <hohenadl.eike@sbeach.navy.mil>, "Deforest, Thomas J" <thomas.deforest@pnl.gov>, 'Kim Shannon' <kims@ptesinc.com>, "'Abeln, Doug (SYA)'" <douga@syaeng.com>, "Minister, Andrew G" <andrew.minister@pnl.gov>, "Tegrotenhuis, Ward E" <ward.tegrotenhuis@pnl.gov>, "Baker, Carl P" <Carl.Baker@pnl.gov>, "'Le, Si (SWDIV)'" <lest@efdsw.navfac.navy.mil>, "'Palsetia, Viraf (SYA)'" <virafp@syaeng.com>, "Hagen, Susan I" <Susan.Hagen@pnl.gov>, "'Vanderstaay, Jesse (PTES)'" <jessev@ptesinc.com>, "Clexton, David W" <clextond@battelle.org>
Date: 8/23/01 6:34PM
Subject: Aug 23 Napalm (CERCLA) D&D daily report

Thursday 8/23/01
Day 70 Napalm Plant D&D

Activities initiated today:
* Survey site for sampling points
* load out trailer for last shipment to crane

The following activities were continued:
* decon other shredder components (186 spacers decontaminated for scrap metal)
* clean up storage container and site

Activities planned for Friday:
* decon system parts.
* finalize trailer loading
* Survey the site for soil sampling locations

Today's shipping/receiving:
one chasis and wood box off-leased (last one).

Explanation of today's activities and issues:
Although PW began removing roadbase material this morning, we had to call them off in order to set the sampling locations. They will be asked to resume next wednesday when the sampling is completed. The surveying was initiated today and about 3/4 finished. It will be completed tomorrow and sampling will be initiated on monday.

The 14 crates of cutters and 4 pallets of grating were loaded onto a trailer today, but ended up being just a few thousand pounds over weight on the front axle. Several attempts were made to adjust the position of the rear axles and the kingpin but the trailer could not be brought within weight limits. After discussing the situation with PTES, it was decided instead of splitting the load and sending a second trailer and all the component rearrangement that it would take, they will just send 2 crates to Crane via common carrier.

Please call or reply with any questions.

John Tixier
Battelle Napalm Site Manager
760-731-3831

From: "Tixier, John S Jr" <john.tixier@pnl.gov>
To: "Lamarche, Michelle N" <michelle.lamarche@pnl.gov>, "Khawaja, Asim" <Asim.Khawaja@pnl.gov>, "Olfenbuttel, Robert F" <olfenbur@battelle.org>, "Freier, Keith D" <keith.freier@pnl.gov>, "Miller, Peter L" <pete.miller@pnl.gov>, "Alzheimer, James M" <jim.alzheimer@pnl.gov>, "Hockett, Jack" <Jack.Hockett@pnl.gov>, "'Chip Randle (E-mail) '" <danr@ptesinc.com>, "Fullmer, Michael W" <mw.fullmer@pnl.gov>, "Whitworth, Diana L" <diana.whitworth@pnl.gov>, "'Eike H Hohenadl (E-mail)'" <hohenadl.eike@sbeach.navy.mil>, "Deforest, Thomas J" <thomas.deforest@pnl.gov>, 'Kim Shannon' <kims@ptesinc.com>, "'Abeln, Doug (SYA)'" <douga@syaeng.com>, "Minister, Andrew G" <andrew.minister@pnl.gov>, "Tegrotenhuis, Ward E" <ward.tegrotenhuis@pnl.gov>, "Baker, Carl P" <Carl.Baker@pnl.gov>, "'Le, Si (SWDIV)'" <lest@efdsw.navfac.navy.mil>, "'Palsetia, Viraf (SYA)'" <virafp@syaeng.com>, "Hagen, Susan I" <Susan.Hagen@pnl.gov>, "'Vanderstaay, Jesse (PTES)'" <jessev@ptesinc.com>, "Clexton, David W" <clextond@battelle.org>
Date: 8/24/01 7:29PM
Subject: Aug 24 Napalm (CERCLA) D&D daily report

Friday 8/24/01
Day 71 Napalm Plant D&D

Activities initiated today:
* none

The following activities were continued:
* decon shredder components
* load out trailer for last shipment to crane (complete)
* Survey site for sampling points (complete)

Activities planned for Monday:
* decon system parts.
* Ship trailer #7 to Crane (actually, leave Saturday)
* Initiate soil sampling

Today's shipping/receiving:
none

Explanation of today's activities and issues:
none

Please call or reply with any questions.

John Tixier
Battelle Napalm Site Manager
760-731-3831
1-888-870-1890 pager (almost always on)

From: "Tixier, John S Jr" <john.tixier@pnl.gov>
To: "Lamarche, Michelle N" <michelle.lamarche@pnl.gov>, "Khawaja, Asim" <Asim.Khawaja@pnl.gov>, "Olfenbuttel, Robert F" <olfenbur@battelle.org>, "Freier, Keith D" <keith.freier@pnl.gov>, "Miller, Peter L" <pete.miller@pnl.gov>, "Alzheimer, James M" <jim.alzheimer@pnl.gov>, "Hockett, Jack" <Jack.Hockett@pnl.gov>, "'Chip Randle (E-mail) '" <danr@ptesinc.com>, "Fullmer, Michael W" <mw.fullmer@pnl.gov>, "Whitworth, Diana L" <diana.whitworth@pnl.gov>, "'Eike H Hohenadl (E-mail)'" <hohenadl.eike@sbeach.navy.mil>, "Deforest, Thomas J" <thomas.deforest@pnl.gov>, 'Kim Shannon' <kims@ptesinc.com>, "'Abeln, Doug (SYA)'" <douga@syaeng.com>, "Minister, Andrew G" <andrew.minister@pnl.gov>, "Tegrotenhuis, Ward E" <ward.tegrotenhuis@pnl.gov>, "Baker, Carl P" <Carl.Baker@pnl.gov>, "'Le, Si (SWDIV)'" <lest@efdsw.navfac.navy.mil>, "'Palsetia, Viraf (SYA)'" <virafp@syaeng.com>, "Hagen, Susan I" <Susan.Hagen@pnl.gov>, "'Vanderstaay, Jesse (PTES)'" <jessev@ptesinc.com>, "Clexton, David W" <clextond@battelle.org>
Date: 8/27/01 7:08PM
Subject: Aug 27 Napalm (CERCLA) D&D daily report (corrected)

Note the shipping and receiving change from the previous report

Monday 8/27/01
Day 72 Napalm Plant D&D

Activities initiated today:
* soil sampling per SAP
* ship last flatbed of system components to Crane (Saturday)

The following activities were continued:
* decon shredder components

Activities planned for Tuesday:
* decon system parts.
* continue soil sampling
* ship out last 2 crates of teeth via Roadway

Today's shipping/receiving:
15 drums of hazardous waste generated on the project were removed today for disposal by PTES.

Explanation of today's activities and issues:
Asphalt was cored for access to soil for sampling. Sampling at 27 locations was completed leaving 30 locations to do tomorrow. Asphalt will be cold patched once sampling is complete.

Please call or reply with any questions.

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Battelle Napalm Site Manager
760-731-3831
1-888-870-1890 pager (almost always on)

From: "Tixier, John S Jr" <john.tixier@pnl.gov>
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Date: 8/28/01 7:46PM
Subject: Aug 28 Napalm (CERCLA) D&D daily report

Tuesday 8/28/01
Day 73 Napalm Plant D&D

Activities initiated today:
* none

The following activities were continued:
* decon shredder components (spacers complete)
* soil sampling per SAP (complete, including deliver samples and patch asphalt)

Activities planned for Wednesday:
* decon system parts.
* ship out last 2 crates of teeth via Roadway

Today's shipping/receiving:
none (Roadway did not show up)

Explanation of today's activities and issues:
Steve Hinojosa has found new employment. Tomorrow will be his last day with E&E.

Current estimate is that decon of all system parts will be complete by the end of next week.

Please call or reply with any questions.

John Tixier
Battelle Napalm Site Manager
760-731-3831
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Date: 8/29/01 6:31PM
Subject: Aug 29 Napalm (CERCLA) D&D daily report

Wednesday 8/29/01
Day 74 Napalm Plant D&D

Activities initiated today:
* none

The following activities were continued:
* decon shredder components

Activities planned for Thursday:
* ship out last 2 crates of teeth via Roadway

Today's shipping/receiving:
The 7th and last trailer of shredder equipment was successfully delivered to Crane today.
Roadway rescheduled for tomorrow to pick up the last 2 crates of cutters.

Explanation of today's activities and issues:
No work tomorrow due to unavailability of E&E crew. Decon still on track for completion by next week.

Remaining tasks include finishing removal of the asphalt roadbase (by PW), disconnecting power to the site and water to the trailer once all work is complete, removal of job site trailer once disconnections are complete, and disposal of scrap steel and hazardous waste drums.

Please call or reply with any questions.

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Battelle Napalm Site Manager
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1-888-870-1890 pager (almost always on)

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Date: 8/31/01 1:41PM
Subject: Aug 30 Napalm (CERCLA) D&D daily report

Thursday 8/30/01
Day 75 Napalm Plant D&D

Activities initiated today:
* none

The following activities were continued:
* haul away roadbase material (by PW)

Activities planned for Thursday:
* decon shredder components

Today's shipping/receiving:
* Roadway picked up the last 2 crates of cutters for delivery to Crane.
* 9000 lbs of decontaminated shredder spacers taken to the steel scrap yard.
* one 20 ft chassis off-leased (the bent one)

Explanation of today's activities and issues:
none

Please call or reply with any questions.

John Tixier
Battelle Napalm Site Manager
760-731-3831
1-888-870-1890 pager (almost always on)

From: "Clexton, David W" <clextond@battelle.org>
To: "Khawaja, Asim" <Asim.Khawaja@pnl.gov>
Date: 9/4/01 6:31PM
Subject: FW: Sept 4 Napalm (CERCLA) D&D daily report

Asim,

I forgot to put my name and contact information at the end of the message. I'll send you an updated one.

David

-----Original Message-----
From: Clexton, David W
To: Khawaja, Asim
Cc: Clexton, David W
Sent: 9/4/01 7:28 PM
Subject: Sept 4 Napalm (CERCLA) D&D daily report

Tuesday 9/4/01
Day 76 Napalm Plant D&D

Activities initiated today:

none

The following activities were continued:

haul away roadbase material (by PW)

decon shredder components

Activities planned for Wednesday:

haul away roadbase material (by PW)

decon shredder components

Today's shipping/receiving:

none

Explanation of today's activities and issues:
none

Please call or reply with any questions.

From: "Clexton, David W" <clextond@BATTELLE.ORG>
To: "Lamarche, Michelle N" <michelle.lamarche@pnl.gov>, "Khawaja, Asim" <Asim.Khawaja@pnl.gov>, "Olfenbuttel, Robert F" <olfenbur@BATTELLE.ORG>, "Freier, Keith D" <keith.freier@pnl.gov>, "Miller, Peter L" <pete.miller@pnl.gov>, "Alzheimer, James M" <jim.alzheimer@pnl.gov>, "Hockett, Jack" <Jack.Hockett@pnl.gov>, "'Chip Randle (E-mail) '" <danr@ptesinc.com>, "Fullmer, Michael W" <mw.fullmer@pnl.gov>, "Whitworth, Diana L" <diana.whitworth@pnl.gov>, "'Eike H Hohenadl (E-mail)'" <hohenadl.eike@sbeach.navy.mil>, "Deforest, Thomas J" <thomas.deforest@pnl.gov>, 'Kim Shannon' <kims@ptesinc.com>, "'Abeln, Doug (SYA)'" <douga@syaeng.com>, "Minister, Andrew G" <andrew.minister@pnl.gov>, "Tegrotenhuis, Ward E" <ward.tegrotenhuis@pnl.gov>, "Baker, Carl P" <Carl.Baker@pnl.gov>, "'Le, Si (SWDIV)'" <lest@efdsw.navfac.navy.mil>, "'Palsetia, Viraf (SYA)'" <virafp@syaeng.com>, "Hagen, Susan I" <Susan.Hagen@pnl.gov>, "'Vanderstaay, Jesse (PTES)'" <jessev@ptesinc.com>, "Clexton, David W" <clextond@BATTELLE.ORG>, "Tixier, John S Jr" <john.tixier@pnl.gov>
Date: 9/5/01 8:45PM
Subject: Sept 5 Napalm (CERCLA) D&D daily report

Wednesday 9/5/01
Day 77 Napalm Plant D&D

Activities initiated today:

none

The following activities were continued:

decon shredder components

Activities planned for Thursday:

haul away roadbase material (by PW)

decon shredder components

Today's shipping/receiving:

none

Explanation of today's activities and issues:
none

Please call or reply with any questions.

(UPDATE) Napalm trailer phone 760-731-3831
Cell 760-427-8013

David Clexton

Battelle Carlsbad Operations
Environmental Restoration Department
760-476-9144 (phone)
760-476-9148 (fax)
clextond@battelle.org
<<Clexton, David W.vcf>>

From: "Clexton, David W" <clextond@BATTELLE.ORG>
To: "Lamarche, Michelle N" <michelle.lamarche@pnl.gov>, "Khawaja, Asim" <Asim.Khawaja@pnl.gov>, "Olfenbuttel, Robert F" <olfenbur@BATTELLE.ORG>, "Freier, Keith D" <keith.freier@pnl.gov>, "Miller, Peter L" <pete.miller@pnl.gov>, "Alzheimer, James M" <jim.alzheimer@pnl.gov>, "Hockett, Jack" <Jack.Hockett@pnl.gov>, "'Chip Randle (E-mail) '" <danr@ptesinc.com>, "Fullmer, Michael W" <mw.fullmer@pnl.gov>, "Whitworth, Diana L" <diana.whitworth@pnl.gov>, "'Eike H Hohenadl (E-mail)'" <hohenadl.eike@sbeach.navy.mil>, "Deforest, Thomas J" <thomas.deforest@pnl.gov>, 'Kim Shannon' <kims@ptesinc.com>, "'Abeln, Doug (SYA)'" <douga@syaeng.com>, "Minister, Andrew G" <andrew.minister@pnl.gov>, "Tegrotenhuis, Ward E" <ward.tegrotenhuis@pnl.gov>, "Baker, Carl P" <Carl.Baker@pnl.gov>, "'Le, Si (SWDIV)'" <lest@efdsw.navfac.navy.mil>, "'Palsetia, Viraf (SYA)'" <virafp@syaeng.com>, "Hagen, Susan I" <Susan.Hagen@pnl.gov>, "'Vanderstaay, Jesse (PTES)'" <jessev@ptesinc.com>, "Clexton, David W" <clextond@BATTELLE.ORG>, "Tixier, John S Jr" <john.tixier@pnl.gov>
Date: 9/7/01 7:09AM
Subject: Sept 6 Napalm (CERCLA) D&D daily report

Thursday 9/6/01
Day 78 Napalm Plant D&D

Activities initiated today:

none

The following activities were continued:

decon shredder components

Activities planned for Friday:

haul away roadbase material (by PW)

decon shredder components

Today's shipping/receiving:

none

Explanation of today's activities and issues:
none

Please call or reply with any questions.

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Date: 9/10/01 9:19AM
Subject: Sept 7 Napalm (CERCLA) D&D daily report

Friday 9/7/01
Day 79 Napalm Plant D&D

Activities initiated today:

transport of thermal oxidizer unit

The following activities were continued:

decon shredder components

Activities planned for Monday:

haul away roadbase material (by PW)

decon shredder components

Today's shipping/receiving:

none

Explanation of today's activities and issues:

thermal oxidizer unit was loaded onto a PTES flatbed trailer for transport to Battelle's Camp Pendleton laydown yard. the unit is being transferred to Camp Pendleton.

Please call or reply with any questions.

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Environmental Restoration Department
760-476-9144 (phone)
760-476-9148 (fax)
clextond@battelle.org

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Date: 9/10/01 5:27PM
Subject: Sept 10 Napalm (CERCLA) D&D daily report

Monday 9/10/01
Day 80 Napalm Plant D&D

Activities initiated today:

preparation of E & E equipment for demobilization

The following activities were continued:

transport of thermal oxidizer unit completed

decon of shredder parts completed

Activities planned for Tuesday:

haul away roadbase material (by PW) as PW's schedule permits

prepare equipment for E & E's demobilization

Today's shipping/receiving:

thermal oxidizer unit was transported to Camp Pendleton using a PTES flatbed trailer.

Explanation of today's activities and issues:

none

Please call or reply with any questions.

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Environmental Restoration Department
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760-476-9148 (fax)

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Date: 9/12/01 9:25AM
Subject: Sept 11 Napalm (CERCLA) D&D daily report

Tuesday 9/11/01
Day 81 Napalm Plant D&D

Activities initiated today:

* none

The following activities were continued:

* none

Activities planned for Wednesday:

* none

Today's shipping/receiving:

* none

Explanation of today's activities and issues:

* Because of the national tragedy that occurred Tuesday, and heightened security at the site, meetings/work operations were cancelled for the day.

Please call or reply with any questions.

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Cell 760-427-8013

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Environmental Restoration Department
760-476-9144 (phone)
760-476-9148 (fax)
clextond@battelle.org
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Date: 9/12/01 4:24PM
Subject: Sept 12 Napalm (CERCLA) D&D daily report

Wednesday 9/12/01
Day 82 Napalm Plant D&D

Activities initiated today:

* none

The following activities were continued:

* none

Activities planned for Thursday:

* none

Today's shipping/receiving:

* none

Explanation of today's activities and issues:

* Because of the national tragedy that occurred Tuesday, and heightened security at the site, meetings/work operations were cancelled for the day.

Please call or reply with any questions.

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Date: 9/18/01 12:37AM
Subject: Sept 17 Napalm (CERCLA) D&D daily report

Monday 9/17/01
Day ~~86~~ 83 Napalm Plant D&D

Activities initiated today:

* disconnect of E&E trailer including telephone and electric lines (sewer line remains connected)

The following activities were continued:

* preparation of site and equipment for E&E demobilization

Activities planned for Tuesday:

* continue preparation of site and equipment for E&E demobilization
* haul away roadbase material (by PW) as PW's schedule permits

Today's shipping/receiving:

* none

Explanation of today's activities and issues:

* none

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760-476-9148 (fax)
clextond@battelle.org
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Date: 9/20/01 2:12PM
Subject: Sept 19 Napalm (CERCLA) D&D daily report

Wednesday 9/19/01
Day ~~86~~ 84 Napalm Plant D&D

Activities initiated today:

* remove job site control trailer by ovner, Golden Office Trailers (complete)

The following activities were continued:

* preparation of site and equipment for E&E demobilization
* inpsection of remaining decontaminated steel components and placement of same in scrap steel bin (or haz waste container for the parts that were too difficult to clean)
* general clean up

Activities planned for Thursday:

* removal of sealan container (parts and equipment storage) by the owner for E&E.
* pick up sewage tanks, as scheduled by vendor.
* haul away roadbase material (by PW) as PW's schedule permits

Today's shipping/receiving:

* control trailer returned picked up by vendor.

Explanation of today's activities and issues:

* All wastes from satellite storage were moved to 90 day storage.
* The 2 drums of wastes generated during the soil sampling are pending analyisis and were moved to a satellite storage location at the RCRA site (still on the asphalt pad).
* With the exception of disposal of the 7 remaining drums of hazardous waste and other scrap materials from the CERCLA project, all site tasks are essentiall complete.
* It was an emotional moment for me as I walked the jobsite for the last time yesterday afternoon. Thanks for the memories.

Please call or reply with any questions.

APPENDIX C

COMPREHENSIVE MATERIAL LIST GROUPED BY ACTUAL END STATE AND DATE OF REMOVAL FROM THE SITE

Key to abbreviations used in Activities and End States descriptions

Tools and equipment

c10	10-ton hydro crane
c35	35-ton boom truck or crane
c100	100-ton crane
F4	forklift (3,000-lb capacity)
f10	10-ton forklift
LB	level B HazMat work, supplied air
LC	level C HazMat work, air purifying respirator
bh	backhoe with operator
ml	jlg man lift
T	torch
fl	front loader
pu	pick up

Material streams end states

1a	Hazardous waste - solid
1b	Hazardous waste - liquid
1c	process material with existing process waste streams to GNI
2a	Leased item, vendor collect FOB site
2b	Leased item, return to vendor FOB destination
3	Navy requested equipment, deliver to Crane, IN
3a	Equipment assumed to be needed by the Navy to augment their requested components
4	Vendor buyback item, transportation TBD
5	Items with potential resale value, Battelle runs sale/auction
6a1	Items for recycling - Aluminum, bulk component
6a2	Items for recycling - Aluminum, 20 yd rolloff
6b1	Items for recycling - Steel, bulk component
6b2	Items for recycling - Steel, 40 yd rolloff
6b3	Items for recycling - galvanized steel: segregate but send with steel in rolloff
6c	Items for recycling - Stainless steel (bundle in 55-gal drum)
6d	Items for recycling - Copper (1 yd Gaylord box)
6e	Items for recycling - Hydraulic fluid and other oil
7	Rubbish and debris

Material List Sorted and Grouped by End States

Item No.	Item Description	Activities	End State: Proposed (if different)	End State: Final	Date Removed	Comments
Hazardous Waste Disposal						
142	Dried napalm removed from airlock (placed in HW satellite 5/9/01)	containerize		1a	6/18/01	55 gal drum
163	Dried napalm removed from drainer (placed in HW satellite 5/21/01)	containerize		1a	6/18/01	55 gal drum
167	Transition boot (placed in HW satellite 5/16/01)	decon; remove		1a	6/18/01	55 gal drum
185	Dried napalm removed from elevator and binocular components	containerize		1a	6/18/01	55 gal drum
246	Dried napalm and shredded aluminum removed from auger, hopper, and housing	scrape, containerize		1a	8/27/01	55 gal drum
261b	Diverter flap or 'valve'		N/A	1a	8/27/01	55 gal drum
263	Drum loader fill tube expansion joint (2)	remove; decon		1a	6/18/01	55 gal drum
283	Napalm pipe cleaning contaminated materials	collect		1a	6/18/01	55 gal drum
287	4 6" expansion joints	remove; decon	6c	1a	8/27/01	in 55 gal drum; too hard to clean
288	Dried napalm removed from napalm transfer system components	containerize		1a	6/18/01	55 gal drum
292	Civacon valves (napalm and ISO vent)	remove, decon	5	1a	10/2/01	55 gal drum; too hard to clean
305	Carbon from beds	remove		1a	7/19/01	Picked up by USF/W in beds
445	Compressed calibration gas cylinders	Containerize		1a	7/19/01	Containerize
525	Dried napalm from shredder teeth and other used components	containerize		1a	6/18, 8/27, 10/2	55 gallon drums
526	Decon materials: PPE, rags, absorbent, oily debris, etc)	containerize		1a	6/18, 8/27, 10/2	55 gallon drums
534	Used/empty aerosol cans	Containerize	N/A	1a	8/27, 10/2	55 gallon drum
535	Dirt with oil	Excavate; containerize	N/A	1a	8/27, 10/2	55 gallon drum
282	Napalm collected from pipe draining	collect		1b	5/4/01	last ISO tank shipment
293	Solvent from cleaning Civacon valves	containerize		1b	N/A	none generated
509	Hazardous materials from flammable cabinet	containerize		1b	N/A	No waste generated
528	Housekeeping wastes - liquid materials (pressure washing or steam cleaning)	containerize		1b	10/2/01	55 gal drums
536	Decontamination water from soil sampling	Containerize	N/A	1b	10/2/01	55 gallon drum
208	Shredded aluminum with dried napalm from shredder restack	containerize		1c	5/4/01	last piggyback shipment
223	Shredded aluminum with dried napalm cleaned during shredder restack	containerize		1c	5/4/01	last piggyback shipment
265	Aluminum drum fill liners	remove; decon	6a2	1c	5/4/01	shredded, drummed, sent to GNI
281	6" dia. Aluminum pipe	drain, remove-f4, containerize		1c	5/4/01	shredded, drummed, shipped to GNI
Return Leased Items to Vendors						
311	Liquid Nitrogen tank and vaporizers	disconnect; remove-c100		2a	5/8/01	Picked up by Air Liquide
312	Condenser, condensate tank, control panel	drain; disconnect, remove-c10		2a	5/8/01	Picked up by Air Liquide
316	RB10 GAC Beds (4)			2a	5/9/01	2 bins, 2 bins on 5/7, by USF/W
394	Liquid nitrogen copper piping (returned w/Airliq equip)	disassemble-T	6d	2a	5/8/01	removed by Air Liquide
444	McCrometer Vcone flow meter with differential pressure transmitter	disconnect; remove		2a	5/8/01	Picked up by Air Liquide
475	Generator	disconnect; transport	2b	2a	4/26/01	retrieved by Hawthorne
476	Diesel fuel tank and pump	pump, disconnect, remove-c10		2a	12/3/01	
503	Piggypacker	dismantle; remove		2a		
508	Flammable storage cabinet	empty; clean		2a	**TBD**	
521	Asphalt	process; leave		2a	9/19/01	Navy completed desired roadbase

Item No.	Item Description	Activities	End State		Date Removed	Comments
			Proposed (if different)	Final		
						removal
523	Misc railroad ties	remove-f4		2a	6/20/01	returned to Navy
423	PLC computer interface and monitor	disconnect		2b	**TBD**	
424	MMI computer and monitor	disconnect		2b	**TBD**	
505	Process storage 40' cargo container	empty; clean		2b	10/1/01	picked up by mini storage vendor
506	Transportation storage 20' cargo container	empty; clean		2b		
541	Tent fabric (7 main sections, 2 end sections, and various jumper sections)	clean; remove-f4/pu		2b	6/18/01	PTES delivered to UFS in Las Vegas
542	Fabric holddown hardware	remove		2b	6/18/01	PTES delivered to UFS in Las Vegas
543	Tent frame members (8 arch assemblies, 4 verticals)	remove-c35; dismantle-f4		2b	6/18/01	PTES delivered to UFS in Las Vegas
544	Purlins, tensioning cables, fabric holddowns, and misc hardware	remove-ml		2b	6/18/01	PTES delivered to UFS in Las Vegas
545	Baseplates with anchor stakes	pull-f4/c10; grind		2b	6/18/01	PTES delivered to UFS in Las Vegas
547	Man doors and frames (6 doors, one with screen door)	dismantle, remove		2b	6/18/01	PTES delivered to UFS in Las Vegas
Navy Requested Equipment						
188	Structural steel and railing (elevator)	dismantle - f4 / c10	6b2	3	8/4/01	T5, T6
189	Platform grating (elevator)	remove - f4	5	3	8/25/01	T7 to Crane
201	2 model 3200-H shear shredders by SSI, each w/ hyd motor and gear box	decon; restack; remove-c100		3	7/5, 7/20	Secondary-T2/Primary-T3
202	HPU: Hydraulic power unit consisting of 2 200-HP motors, 1 150-HP motor, 900 gallon hydraulic fluid tank with heaters, 2 5-HP motors and heat exchanger/fans	disconnect; clean; remove-c10	3a	3	7/5/01	Dual motor, tank/radiator T1; Single motor, 2 Pans, T2
204	Integrated control panel for remote control shredder system operation (CP1)	disconnect; remove-f4	3a	3	7/5/01	CP1, CP3 on T1, MCC w/ soft start T2
205	Maintenance cranes and hoists	remove-c10/c100; dismantle	3a	3	7/20, 8/4	hoists, booms, mast heads T3 masts T5
206	Structural steel, stairways, maintenance rails, and railing (shredders)	dismantle - f4 / c10	3a	3	8/4/01	T5, T6
207	Platform grating (shredders)	remove - f4	3a	3	8/25/01	T7
209	Secondary shredder wedge		3a	3	7/5/01	T2
221	Transition section	decon; remove-c100	3a	3	7/20/01	T3
222	Structural steel and platform grating	dismantle, remove - f4/c10/c100	3a	3	8/4/01	T5, T6, grating T7
244	Structural steel and railing (auger)	dismantle - f4 / c10	6b2	3	8/4/01	T5, T6
245	Platform grating (auger)	remove - f4	5	3	8/25/01	T7 to Crane
286	Progressive cavity pumps with barrier fluid seals	remove; decon		3	20-Jul	T3
361	M85-E Wood shredder and structural support stand	disconnect; remove-c100		3	7/20/01	T1
362	Hydraulic pallet feeder ram and HPU	disconnect; drain		3	7/5/01	T1
364	Discharge belt conveyor w/hopper	remove-c100		3	7/20/01	T4
365	Moveable conveyor CS structural support with 1/2-hp drive motor	disassemble, remove-f4		3	7/5/01	T1
366	NESCO spray system pump and controllers	Disconnect	3a	3	7/20/01	T4
367	Spray nozzle arrays	Disconnect	3a	3	7/20/01	T4
524	Excess shredder teeth	clean	6b2	3	8/4, 8/25, 8/30	T5,6 - 11 boxes (+3 boxes resharpened cutters/spacers), T7-12 boxes, 2 boxes Roadway
Equipment with Buyback Clauses						
304	GAC beds (2 V1200s, 2 V2000s)	remove-f4		4	7/19/01	Picked up by USFW
Equipment with Potential Resale Value						
101	2 ton crane with fixed electric hoist	remove - c10		5	12/3/01	
102	60 ft long, 5 ft wide, powered roller conveyor (2 10 hp motors w/ disconnects)	dismantle - f4 / c10		5	12/3/01	

Item No.	Item Description	Activities	End State		Date Removed	Comments
			Proposed (if different)	Final		
103b	Railings and stairs (front end)	remove	6b2	5	12/3/01	
105	CP5 control panel (misc. power supplies, relays, I/O cards)	disconnect; remove - f4 / c10		5	12/3/01	
106	E-stop switches (2) and cords	disconnect; remove		5	12/3/01	
123b	Railing (ALIC)	remove	6b2	5	12/3/01	
124	Platform grating (ALIC)	remove - f4		5	12/3/01	
125	Hydraulic manifold and solenoid valves	remove		5	12/3/01	
127	Stairway	remove - f4/ c10		5	12/3/01	
129	E-stop switch and cord	disconnect; remove		5	12/3/01	
147b	Railing (Airlock)	remove	6b2	5	12/3/01	
148	Platform grating (Airlock)	remove - f4		5	12/3/01	
149	2 steel stairways	remove - c10		5	12/3/01	
150	Explosion proof light (airlock)	remove		5	12/3/01	
164	Punch hydraulic drive system: motor, 4 gear boxes, couplings, etc.	remove - c10		5	12/3/01	
166	Platform grating (drainer)	remove - f4		5	12/3/01	
243	Hydraulic motor and planetary gear set	drain; remove-c10		5	12/3/01	
266	2 pneumatic knife gate valves	remove-f4; decon		5	12/3/01	
271	4 12' sections of roller conveyors	remove-f4		5	12/3/01	
284	9 diaphragm valves	remove; decon		5	12/3/01	
303	Various flame arrestors (6)	remove	6b2	5	12/3/01	
306a	CS GAC manifold valves	remove-f4	4	5	12/3/01	did not have a buyback clause
307	2 25' stack sections (w/ Panametrics electronic flow meter, press & temp sensors)	dismantle-ml; remove-c10		5	12/3/01	
308	Building fan (6000 cfm, 2 in. H2O) with expansion joints and vibration dampers	remove-f4		5	12/3/01	
309	Process fan (700 cfm; 30 in. H2O) with expansion joints and vibration dampers	remove-f4		5	12/3/01	
310	Standby fan (50 cfm; 20 in. H2O) (2) with expansion joints and vibration dampers	remove		5	12/3/01	
313	Particulate filter housing	disconnect; remove		5	12/3/01	
314	Sandpiper double diaphragm pump	disconnect; remove-c100		5	12/3/01	
321	2 5-hp compressors and tanks with disconnects	disconnect; remove-f4		5	12/3/01	
322	2 10-hp compressors and tanks with DT disconnects	disconnect; remove-f4		5	12/3/01	
323	Filter dryer system	disconnect; remove		5	12/3/01	
324	Pressure regulators	disconnect; remove		5	12/3/01	
325	Filter dryers	disconnect; remove	7	5	12/3/01	
391	Pneumatic operated position control valves (Fisher 3-1/2 valves)	disconnect	4	5	12/3/01	did not have a buyback clause
392	Pneumatic operated position control valves (Baumann, 8 valves)	disconnect	7	5	12/3/01	
393	Hand valves (all)	disconnect		5	12/3/01	
401	Control panel with auto dialer	Disconnect, remove	7	5	12/3/01	
402	10 CO2 tanks	Disconnect, remove		5	**TBD**	
421	Control panels (CP2, CP4, CP5, IO1)	disconnect; remove-f4		5	12/3/01	
422	PLC and remote I/O cards	disconnect; remove as necessary	7	5	12/3/01	remain in CP4 and IO1
425	Junction boxes	remove		5	12/3/01	
426	Z-purge units for control panels	remove		5	12/3/01	
427	11 Rosemount pressure transmitters	disconnect; remove	7	5	12/3/01	
428	3 Rosemount differential pressure transmitters	disconnect; remove	7	5	12/3/01	
430	4 pressure switches	disconnect; remove	7	5	12/3/01	

Item No.	Item Description	Activities	End State		Date Removed	Comments
			Proposed (if different)	Final		
431	Video monitoring system with 7 cameras, 6 lights, 6 monitors, 4 switch boxes	disconnect; remove		5	12/3/01	
432	3 single point FIDs	disconnect; remove		5	12/3/01	
434	3 sonic level transmitters	disconnect; remove	7	5	12/3/01	
435	3 level probe/switches	disconnect; remove	7	5	12/3/01	
436	Pressure gauges and magnehelics	disconnect; remove		5	12/3/01	
437	10 oxygen sensor (MSA) with aspirator pump	disconnect; remove	7	5	12/3/01	
438	1 LEL meter (MSA)	disconnect; remove	7	5	12/3/01	
440	Stack flow meter (on stack)	disconnect-ml; remove-ml	7	5	12/3/01	remains on stack
442	2 way radios (4) with holsters and base station with microphone			5	12/3/01	
443	Public address system with microphone and speaker	disconnect		5	12/3/01	
461	Motor control center	disconnect; disassemble-c10		5	12/3/01	
462	Pad mounted transformer 13.8 kV - 480 V	disconnect; remove-f4		5	12/3/01	
463	Pole mounted transformer	disconnect-ml; remove-ml,c10		5	12/3/01	
464	1000-Amp bussed gutter	disconnect, remove		5	12/3/01	
465	Breaker panels	disconnect, remove		5	12/3/01	
466	Junction boxes	disconnect, remove		5	12/3/01	
471	Outlets	disconnect; remove	7	5	12/3/01	most remain on JBs (item 466)
472	UPSs (2)	disconnect; remove-f4		5	12/3/01	
473	Fused disconnects	disconnect; remove		5	12/3/01	
474	Double throw switch/disconnect	disconnect; remove		5	12/3/01	
481	Lighting fixtures: (15) 400 W metal halide (277 V ballast)	disconnect-ml; remove-ml		5	12/3/01	
482	Lighting fixtures: (3) 240 W metal halide (208 V ballast) NFPA Haz class rated	disconnect-ml; remove-ml		5	12/3/01	
483	Exit lighting fixtures: (3) 120 V, NFPA Haz class rated	disconnect; remove		5	12/3/01	
484	Fluorescent lighting fixtures: (3) 2-F40 coll white, 120V ballast	disconnect; remove		5	12/3/01	
485	Porch lighting fixtures: (2) 175 W metal halide wall-pak with photo cell, 208 V	disconnect; remove		5	12/3/01	
486	Temporary lighting fixtures: (2) 120 V contractor light string	remove		5	12/3/01	
487	Temporary lighting fixtures: (2) dual 500 W halogen light stands, 120 V	remove		5	12/3/01	
488	Lighting fixtures: (2) 120V inc fixture in Haz class rated fixture	disconnect; remove		5	12/3/01	
501	Drum cart			5	12/3/01	
502	HW liquid storage pallets	clean		5	12/3/01	
504	Forklift ramp	remove-c10	3	5	12/3/01	
529	Thermal Oxidizer	(ready to go)		5	9/7/01	Removed by Battelle to CP
Material with Recycle Value						
126	Electronic position sensors (ALIC)		7	6	6/28/01	remained on ALIC
151	Electronic position sensors and wiring (Airlock)		7	6	6/28/01	remained on airlock
187	4 Photo eye pairs (elevator)		7	6	6/27/01	not removed from equip
270	4 Photo eye pairs (Drum Loader)		7	6	6/18/01	not removed from equip
141	Air lock housing – Aluminum shell	decon-LC; remove-c100		6a1	6/28/01	scrap metal flat bed #2
146	2 Air lock door assemblies; mostly aluminum hardware			6a1	6/28/01	attached to item 141
161	Aluminum drainer housing	decon-LC; remove-c100		6a1	6/27/01	scrap metal flatbed #1
162a	Mostly aluminum punch platten and saddle		N/A	6a2	6/28/01	inside airlock (item 141)
144	Airlock ram assemblies	remove		6a2	6/28/01	inside airlock
301	Aluminum spiral duct	remove; cut		6a2	6/27/01	inside drainer

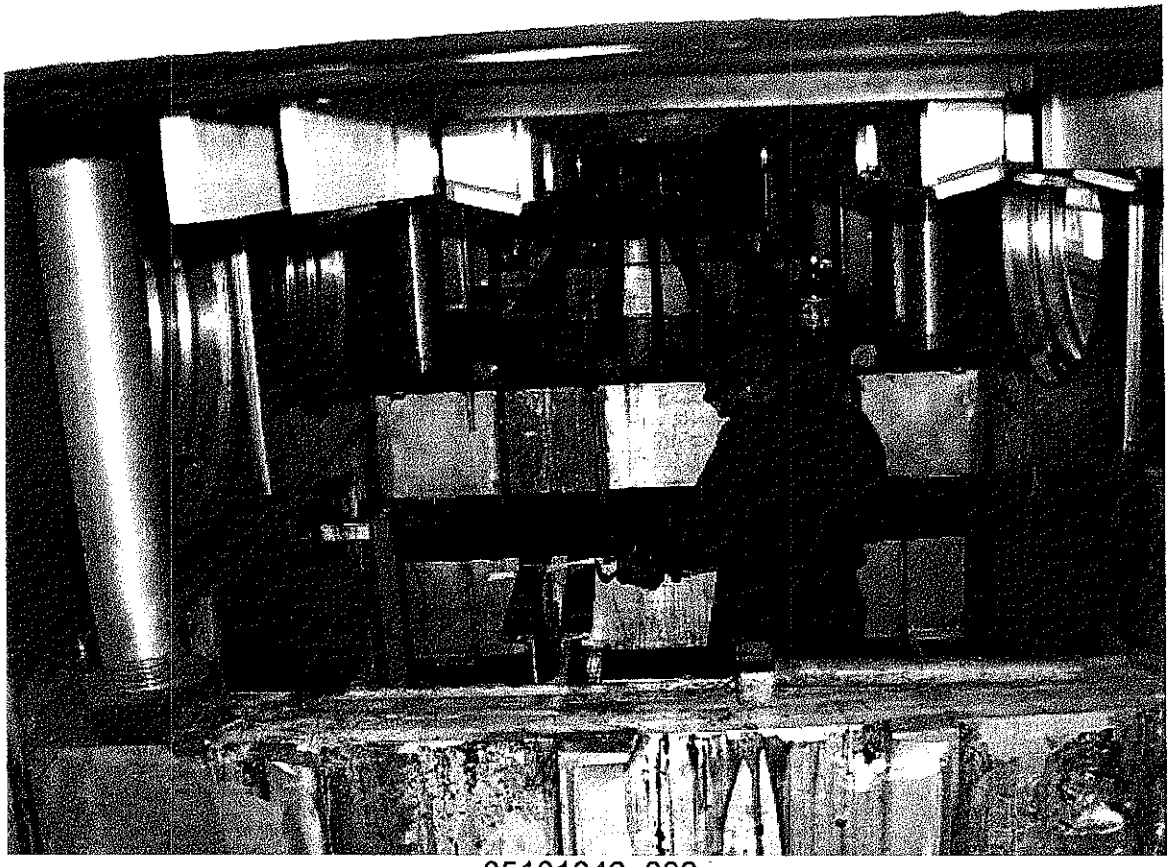
Item No.	Item Description	Activities	End State		Date Removed	Comments
			Proposed (if different)	Final		
121	Conveyor rails and ram slider assembly (ALIC)	dismantle - f4 / c10		6b1	6/28/01	scrap metal flatbed #2
181	Elevator housing	decon-LC; remove-c100		6b1	6/27/01	scrap metal flatbed #1
184	Binocular section	decon; remove-f4		6b1	6/27/01	scrap metal flatbed #1
530	Shredder spacers		N/A	6b1	8/30/01	on flatbed w/trailer for RCRA scrap
546	Foundation plates	remove-f4		6b1	6/18/01	scrap steel bin #2
107	Lifting fixture		N/A	6b2	6/18/01	scrap steel bin #2
122	Ram, 16' hyd cylinder, mostly steel hardware	disconnect; remove - f4		6b2	7/18/01	scrap steelbin #3
128	Bullnose (canister uprighter)	remove - f4		6b2	6/18/01	scrap steel bin #2
130	2 13' hydraulic cylinders	disconnect		6b2	7/18/01	scrap steel bin #3
143	Steel slide rails	remove		6b2	6/18/01	scrap steel bin #2
145	Air lock door hydraulic lift rams	drain, remove		6b2	6/28/01	on airlock
165	Structural steel and railing (drainer)	dismantle - f4 / c10		6b2	7/18/01	scrap bin #3
182	Elevator carriage and ram heads	decon; remove-f4		6b2	6/18/01	plungers in bin #2
183	Elevator pan	decon; remove-f4		6b2	6/27/01	scrap metal flatbed #1
186	Lift cylinders (2) and push ram cylinders (2)	drain; remove-f4		6b2	7/18/01	bin3 (1 worn ram cyl in bin 1, 6/27)
241	Auger hopper and housing (4 sections)	remove-c10/c100; dismantle; decon	6b1	6b2	9/28/01	scrap steel bin #4
242	Auger screw	remove-f4/c10; cut; decon		6b2	9/28/01	scrap metal bin #4
262	Hydraulic ram (diverter)	drain, remove		6b2	6/18/01	bin #2
264	2 carbon steel drum fill tubes	remove-f4; decon (minimal)		6b2	6/18, 7/18	one in bin #2, one in bin #3
267	2 drum lift platten assemblies (loaded into bin #2)	remove-f4	6b1	6b2	6/18/01	scrap steel bin #2
268	2 turntable assemblies	remove-f4		6b2	6/18/01	scrap steel bin #2
269	2 hydraulic cylinders (drum lift)	drain, remove		6b2	6/18/01	scrap steel bin #2
272	Structural steel (drum lift)	remove		6b2	6/18/01	scrap steel bin #2
285	2 loading arms	dismantle, decon		6b2	9/28/01	scrap metal bin #4
289	Pipe supports (napalm system)	remove		6b2	6/5/01	scrap steel bin #1
290	Structural steel loading arm supports	remove-f4		6b2	6/5/01	scrap steel bin #1
291	ISO tank instrument tower	remove; cut		6b2	6/18/01	scrap steel bin #2
302	Galvanized spiral duct	remove; cut	6b3	6b2	6/5/01	scrap steel bin #1
315	Structural steel supports (off-gas pipe/duct on pad)	disassemble; remove		6b2	6/5, 6/18	most in 1a, rest in 2a
342	Metal studs and structural iron (enclosure)	dismantle; remove		6b2	6/18/01	scrap steel bin #2
381	Nitrogen piping (cut into 10' sections)	remove; cut-T		6b2	6/5/01	scrap steel bin #1
382	Hydraulic piping (cut into 10' sections)	remove; cut-T; clean		6b2	6/5/01	scrap steel bin #1
383	Off-gas piping (cut into 10' sections)	remove; cut-T		6b2	6/5/01	scrap steel bin #1
384	Pipe support stands and brackets (all pipe/duct supports)	remove		6b2	6/5, 6/18	most in scrap steel bin #1, rest in #2
386	Condensate return piping (cut into 10' sections)	disassemble; remove; cut		6b2	6/5/01	scrap steel bin #1
388	Fire protection system piping and conduit	disassemble		6b2	6/5/01	scrap steel bin #1
389	Instrument air piping	disassemble		6b2	6/5/01	scrap steel bin #1
403	Tank manifolds (w/388)			6b2	6/5/01	scrap steel bin #1
467	Overhead conduit	disconnect; remove		6b2	6/5/01	scrap steel bin #1
531	Shredder fingers		N/A	6b2	9/28/01	scrap steel bin #4
532	Shredder cleaning finger brackets		N/A	6b2	9/28/01	scrap steel bin #4
533	Other misc shredder components		N/A	6b2	9/28/01	scrap steel bin #4
103a	Work platforms (metal frame)	dismantle - f4		6b2	9/28/01	scrap steel bin #4

Item No.	Item Description	Activities	End State		Date Removed	Comments
			Proposed (if different)	Final		
123a	Structural steel (ALIC)	dismantle - f4 / c10		6b2	7/18/01	scrap steel bin #3
147a	Structural steel (Airlock)	dismantle - f4 / c10		6b2	7/18/01	scrap steel bin #3
162b	10 4" dia. Steel punches	decon-LC; remove		6b2	7/18/01	scrap bin #3
261a	Diverter (pant leg section)	remove-f4/c10; decon	6b1	6b2	6/18/01	scrap steel bin #2
306b	CS GAC manifold piping	disassemble	4	6b2	7/18/01	Scrap steel bin #3
390	Instrument air tubing (cut into 5' lengths)	disassemble		6c	9/28/01	
441	Instrument wire	disconnect; pull	7	6d	9/28/01	
469	Wire	pull; coil		6d	9/28/01	
203	Hydraulic fluid from HPU	drain		6e	5/17/01	Collected onsite by Asbury Env.
295	Royal purple barrier fluid	containerize		6e	5/17/01	Collected onsite by Asbury Env.
363	Hydraulic fluid from wood shredder	drain		6e	5/17/01	Collected onsite by Asbury Env.
Rubbish and Debris						
104	Work platforms (wood platform)	dismantle - f4		7	6/15/01	Loaded into Fallbrook Ref. Rolloff
294	ISO tank vent hoses	remove		7	5/24/01	Fallbrook Refuse
341	Drywall	demolish; remove		7	6/15/01	Fallbrook Refuse Rolloff
385	Hydraulic hoses and fittings	remove; clean		7	5/17/01	Fallbrook Refuse
387	Condensate system hoses	disconnect		7	4/12/01	Fallbrook Refuse
395	Insulation from liquid nitrogen piping	remove		7	5/8/01	removed by Air Liquide
404	Nozzles			7	5/17/01	Fallbrook Refuse
405	Sensors			7	5/17/01	Fallbrook Refuse
429	3 Temperature transmitters	disconnect; remove		7	5/17/01	(1 remains with item 307)
433	1 multipoint FID			7	**TBD**	Disposed of in Richland
439	Numerous position sensors		7	n/a	various	with equipment
468	Underground conduit	trench-bh; remove		7	8/23/01	Fallbrook Ref Rolloff #2
470	Armored cable	remove-ml	6b2	7	6/7, 6/14	Fbk refulse, mixed mtls-not recyclable
507	Rubbish from storage containers	dispose		7	9/20/01	Fallbrook refuse
522	Concrete	excavate-bh; remove-fl		7	7/31/01	
527	Housekeeping wastes - solid materials (dust, etc.)	containerize	1a	7	non haz mtls disposed wkly by Fallbrook Refuse	
548	Tent penetration frames (wood)	dismantle, remove		7	6/15/01	Fallbrook Ref Rolloff #1

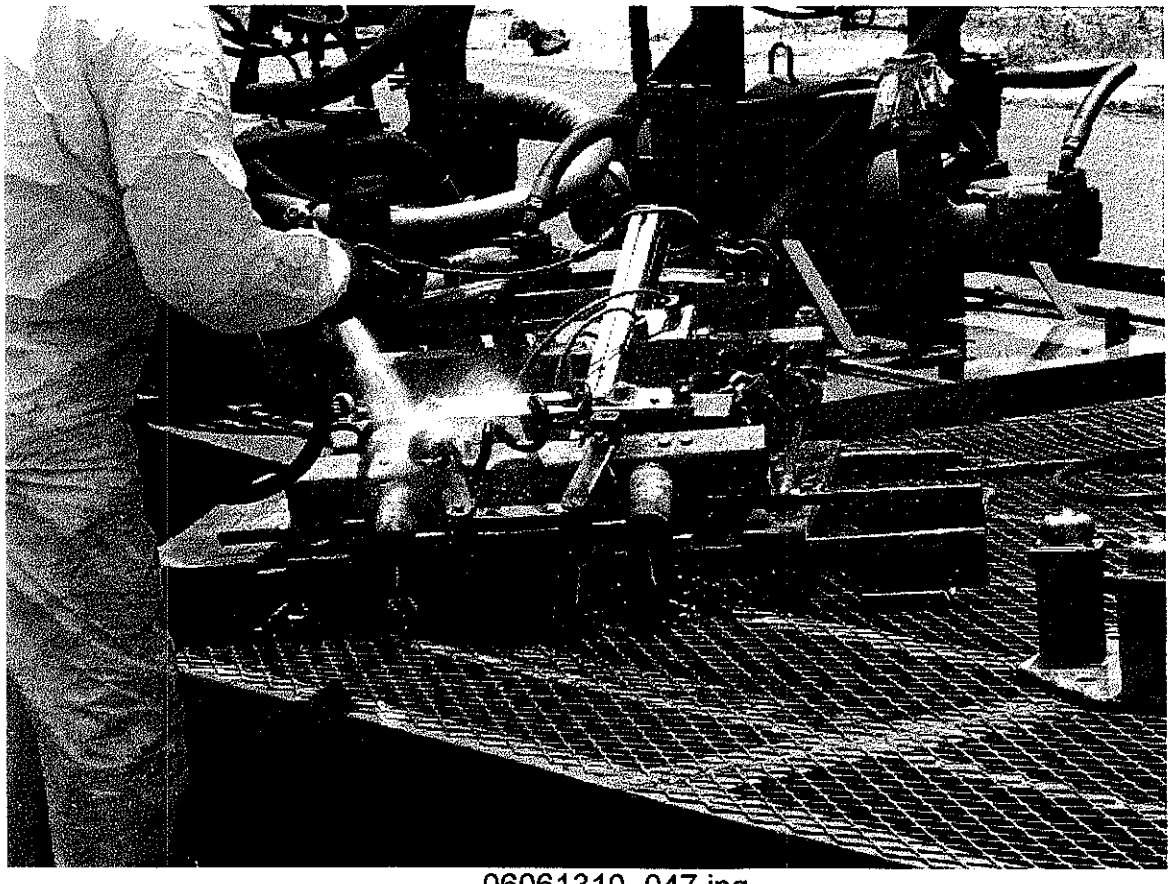
APPENDIX D

PHOTOGRAPHIC LOG

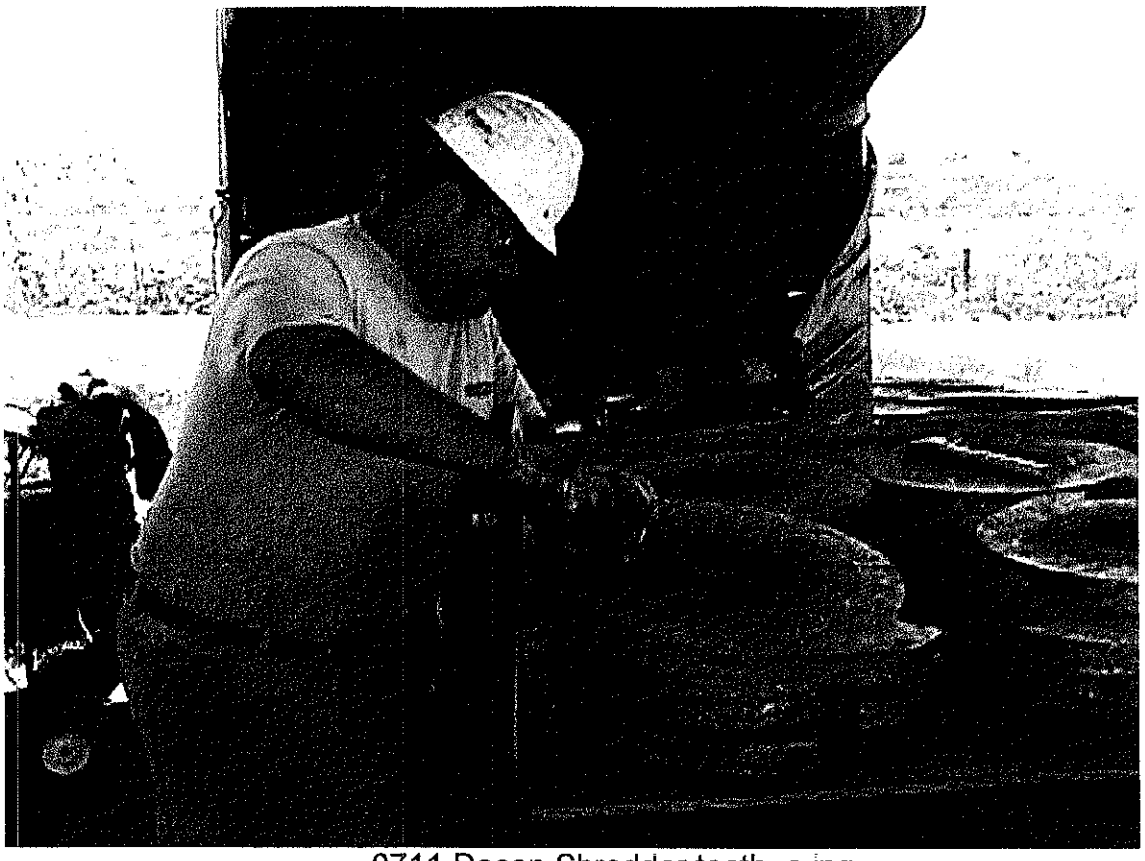
DECONTAMINATION OF EQUIPMENT AND PROCESS COMPONENTS



05101346_008.jpg
Using a wire wheel to remove dried napalm from inside drainer



06061310_047.jpg
Using a pressure washer to remove oil and grease from lifting fixture



0711 Decon Shredder teeth_a.jpg
Decontaminating shredder teeth using wire wheel

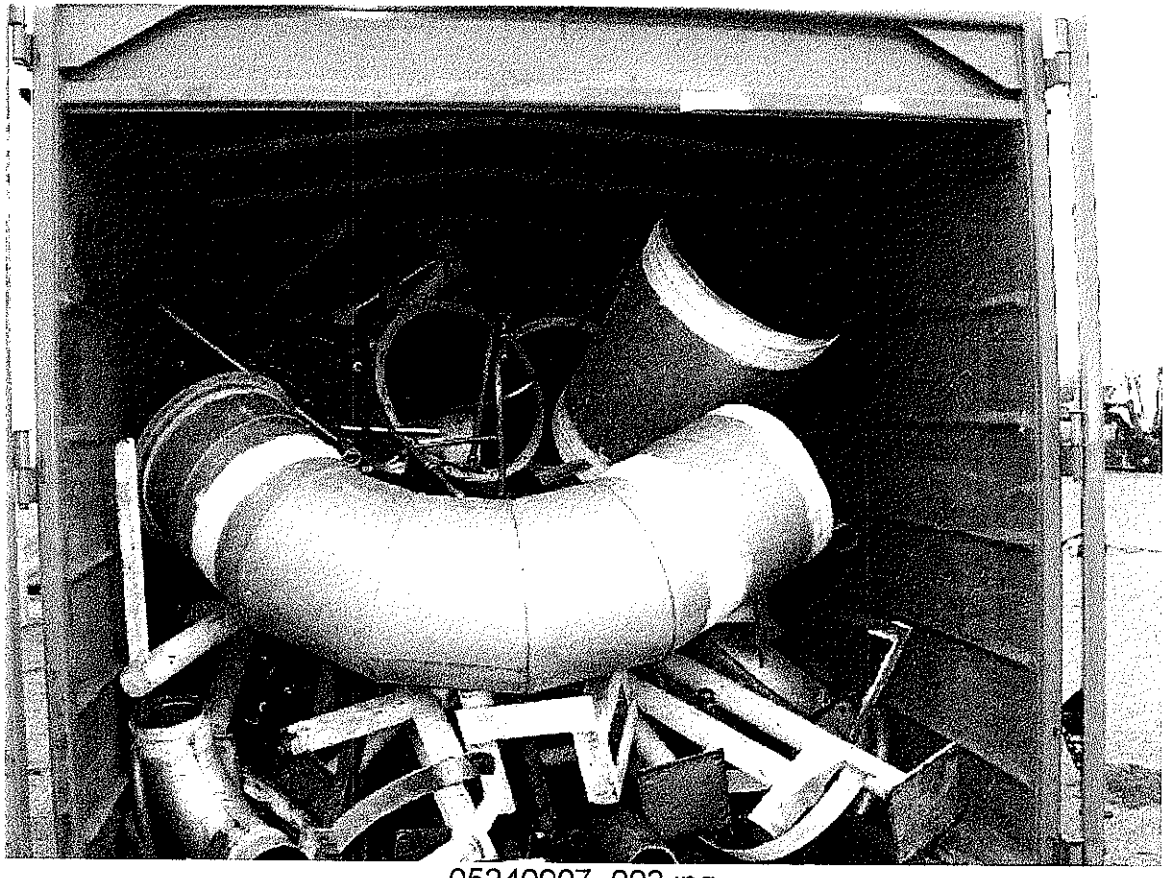
07201524_045.jpg
60 cutter teeth cleaned, inspected, and ready for packaging

DISPOSAL OF HAZARDOUS WASTE

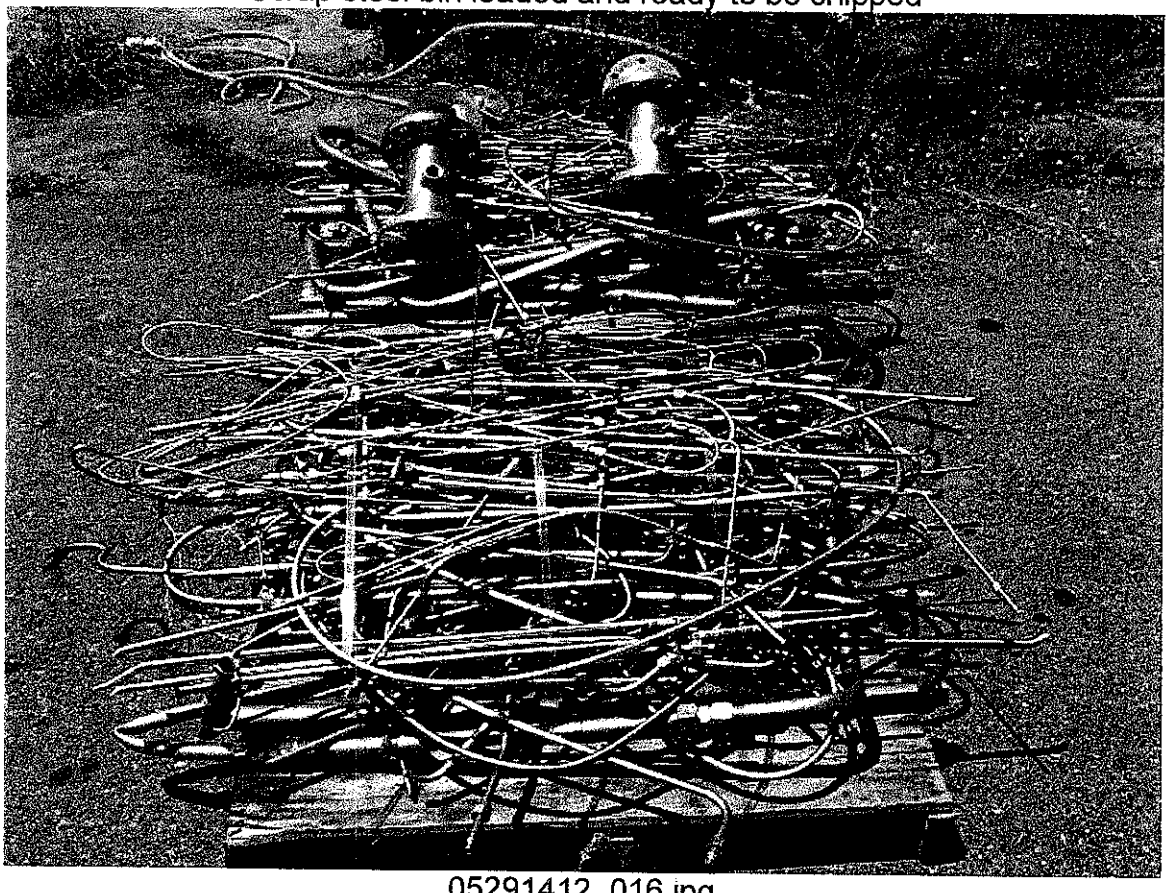
08270920_001

Hazardous waste drums being prepared for loading out for disposal

DISPOSAL OF RECYCLED MATERIALS



05240907_003.jpg
Scrap steel bin loaded and ready to be shipped



05291412_016.jpg

Two pallets of stainless steel tubing and other parts ready for recycling

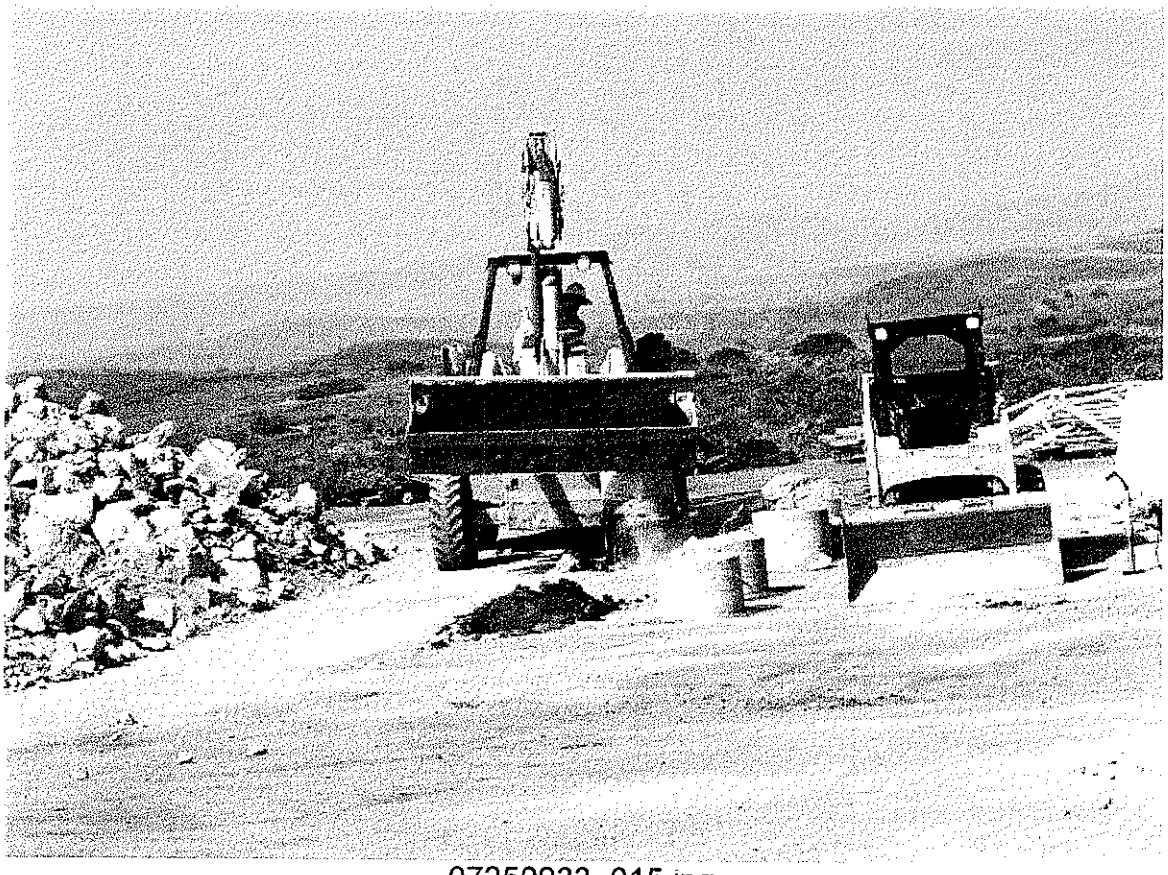
05310904_037.jpg
Removal of scrap metal bin for transport to recycler

06271247_036.jpg
Components loaded for delivery to scrap metals yard

REMOVAL OF CONCRETE FOUNDATIONS AND PROCESSING OF ASPHALT

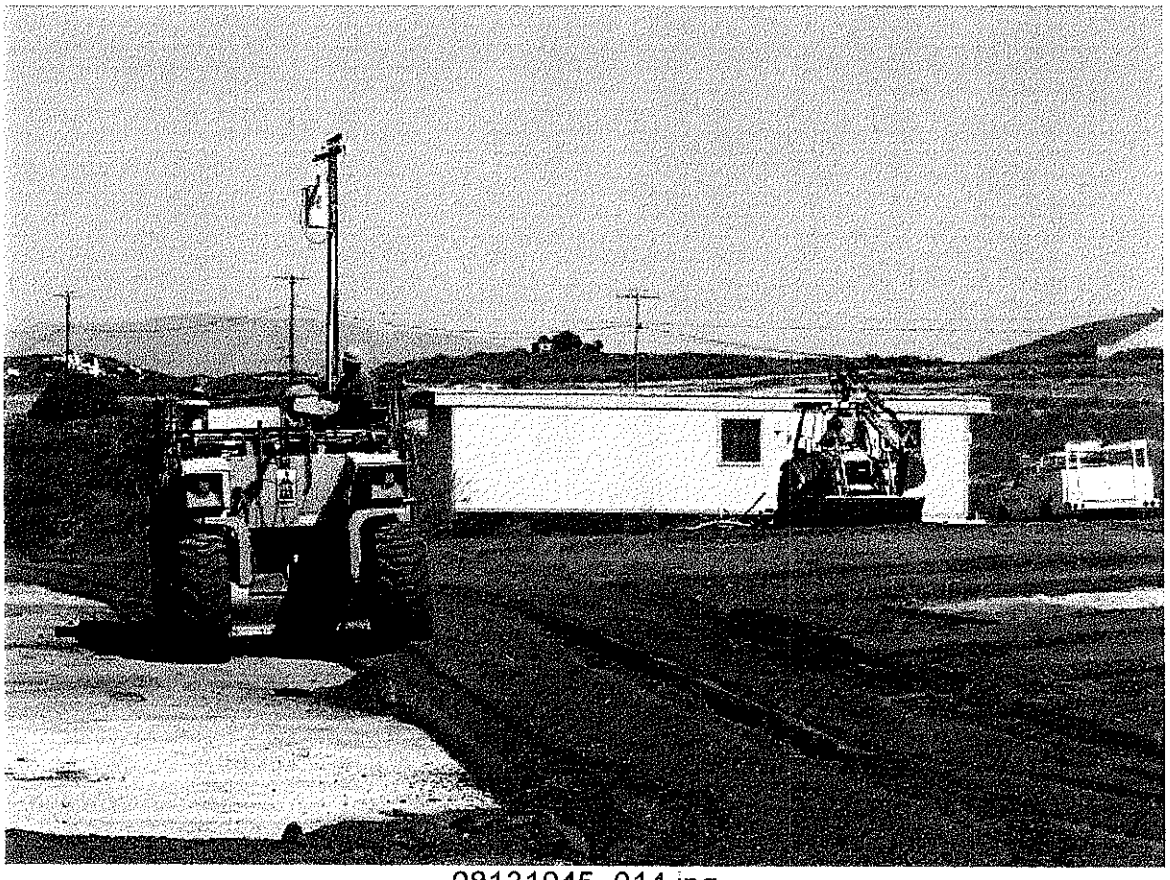
07180832_008.jpg
Initiating concrete demolition

07181344_016.jpg
Staging concrete rubble for removal



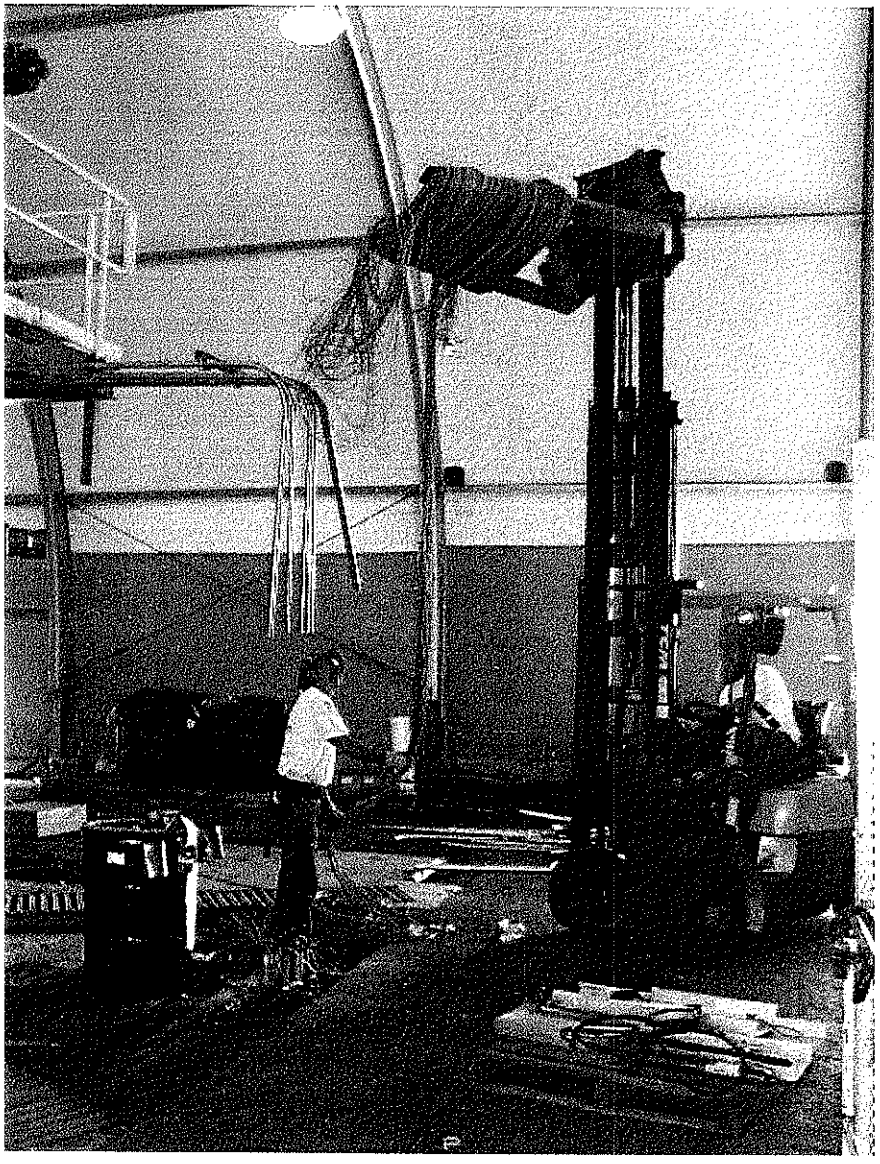
07250933_015.jpg
Removing concrete caissons with a front loader

08030826_005.jpg
Loading out scrap metal rebar separated from the concrete foundations



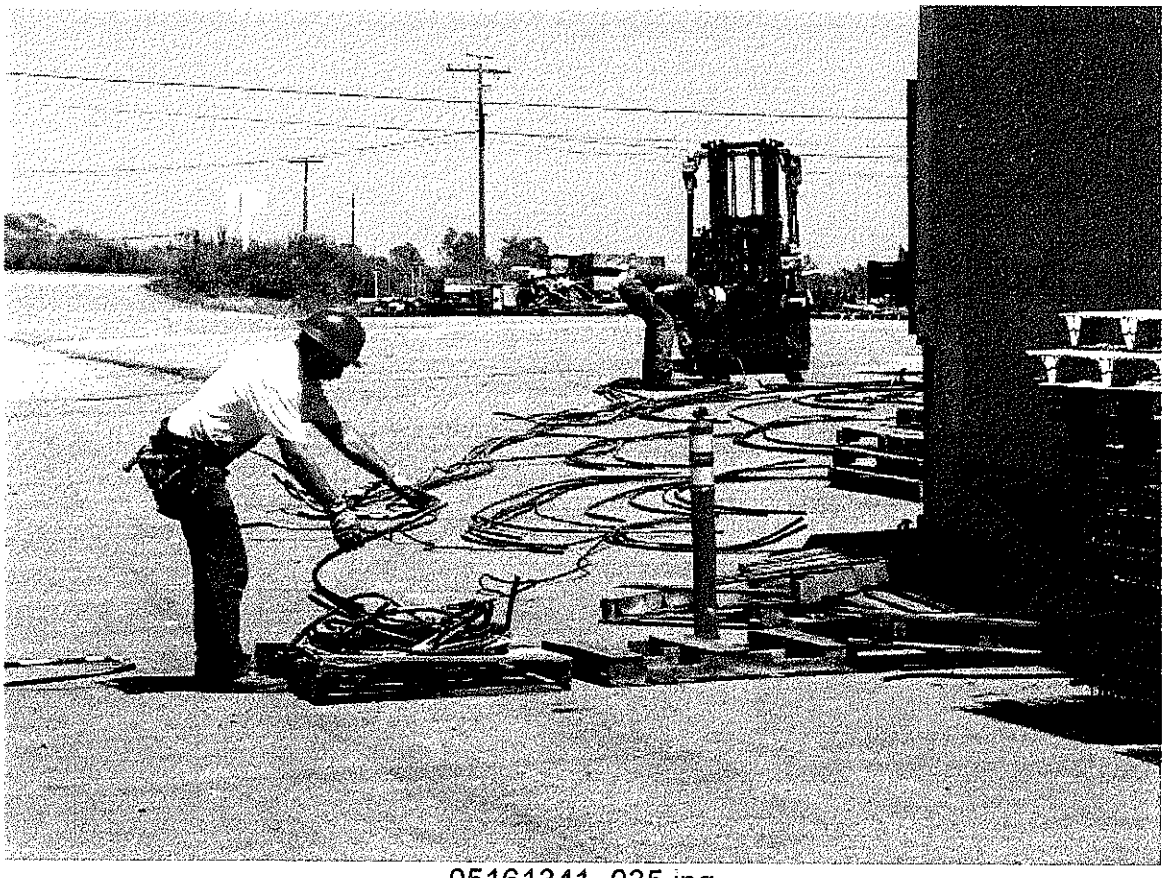
08131045_014.jpg
Grinding asphalt into roadbase

REMOVAL OF ELECTRICAL AND ELECTRONIC EQUIPMENT



05151129_019.jpg

Using a forklift with rotating forks to pull electrical wire from conduit



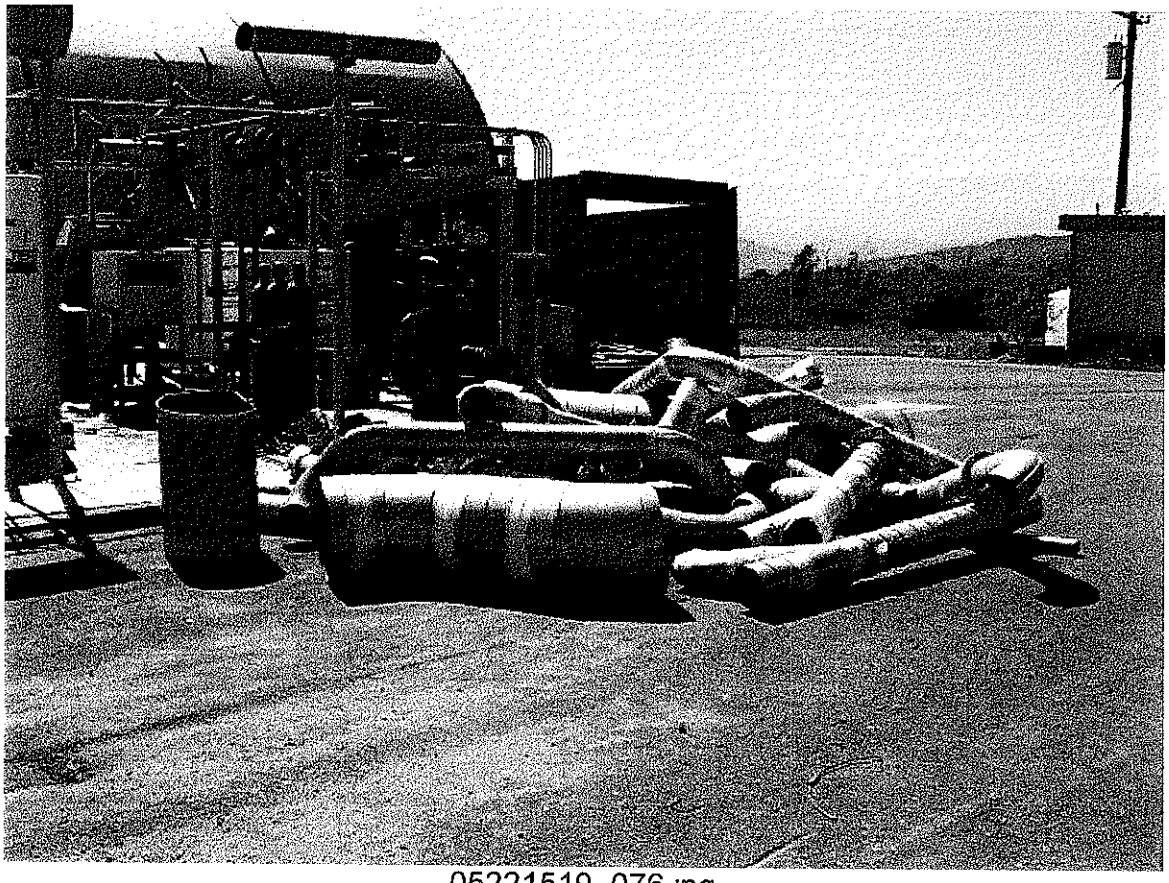
05161341_035.jpg

Coiling electrical wire for recycling

REMOVAL OF PIPING AND DUCTING

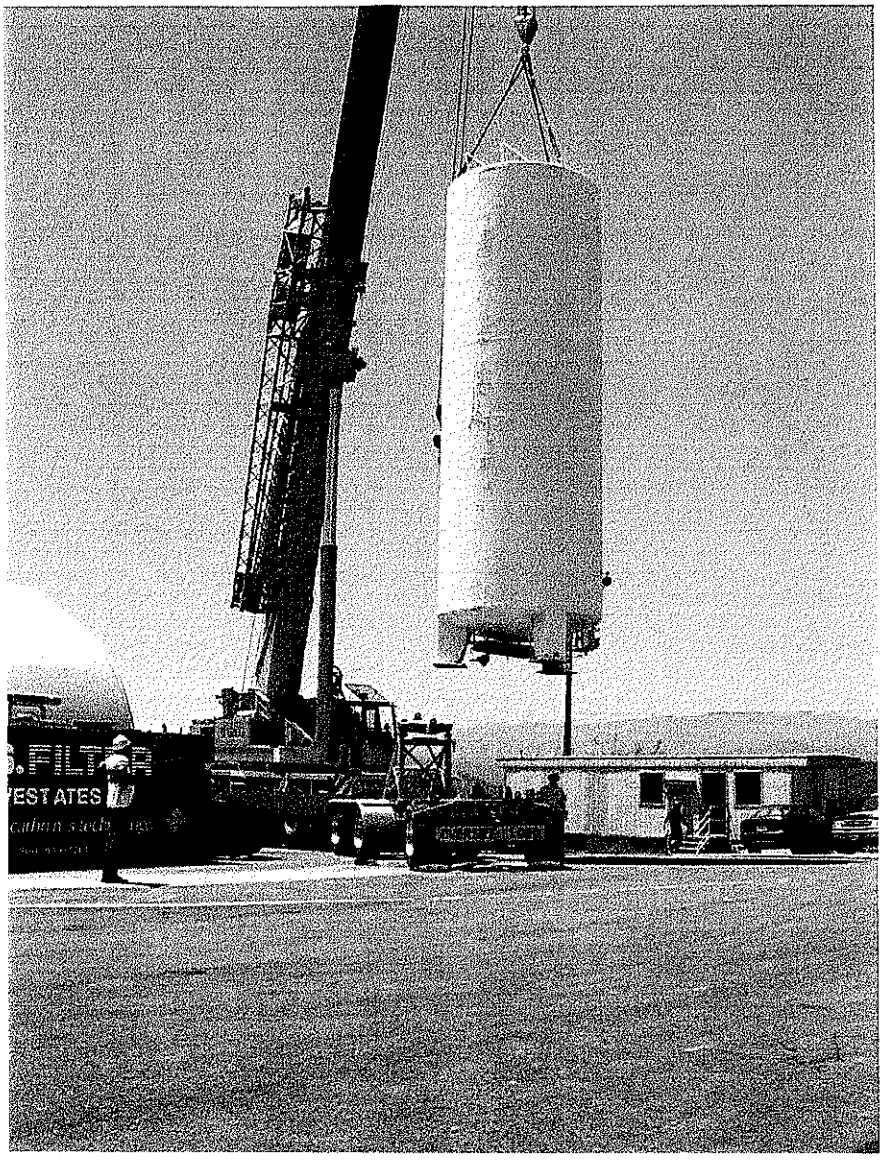
05160910_030.jpg
Hydraulic, CO2, N2, and Off-gas piping removed and staged for cleaning

05171330_050.jpg
Removing N2 piping and off-gas ducting



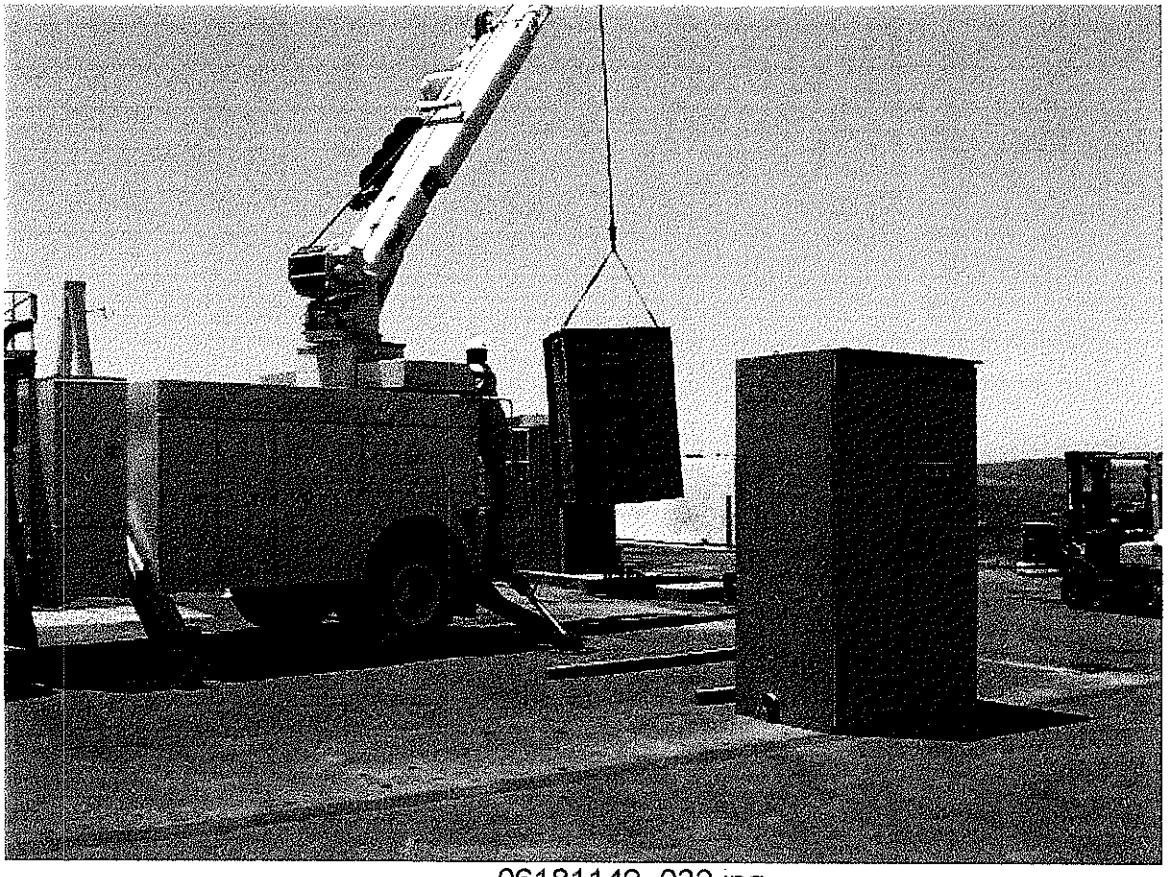
05221519_076.jpg
Ducting removed and staged for loading into recycled steel bin

REMOVAL OF PROCESS COMPONENTS

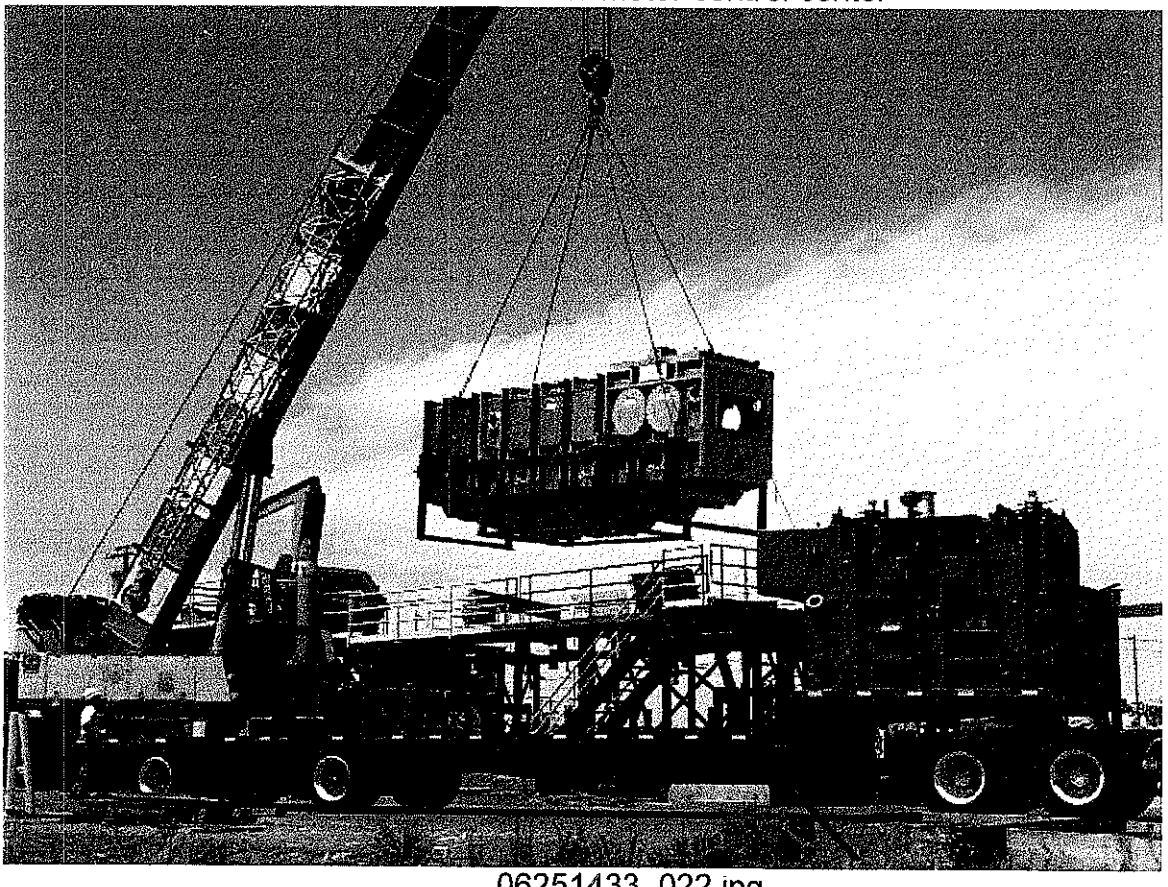


05081137_008.jpg

Removal of liquid nitrogen tank by vendor

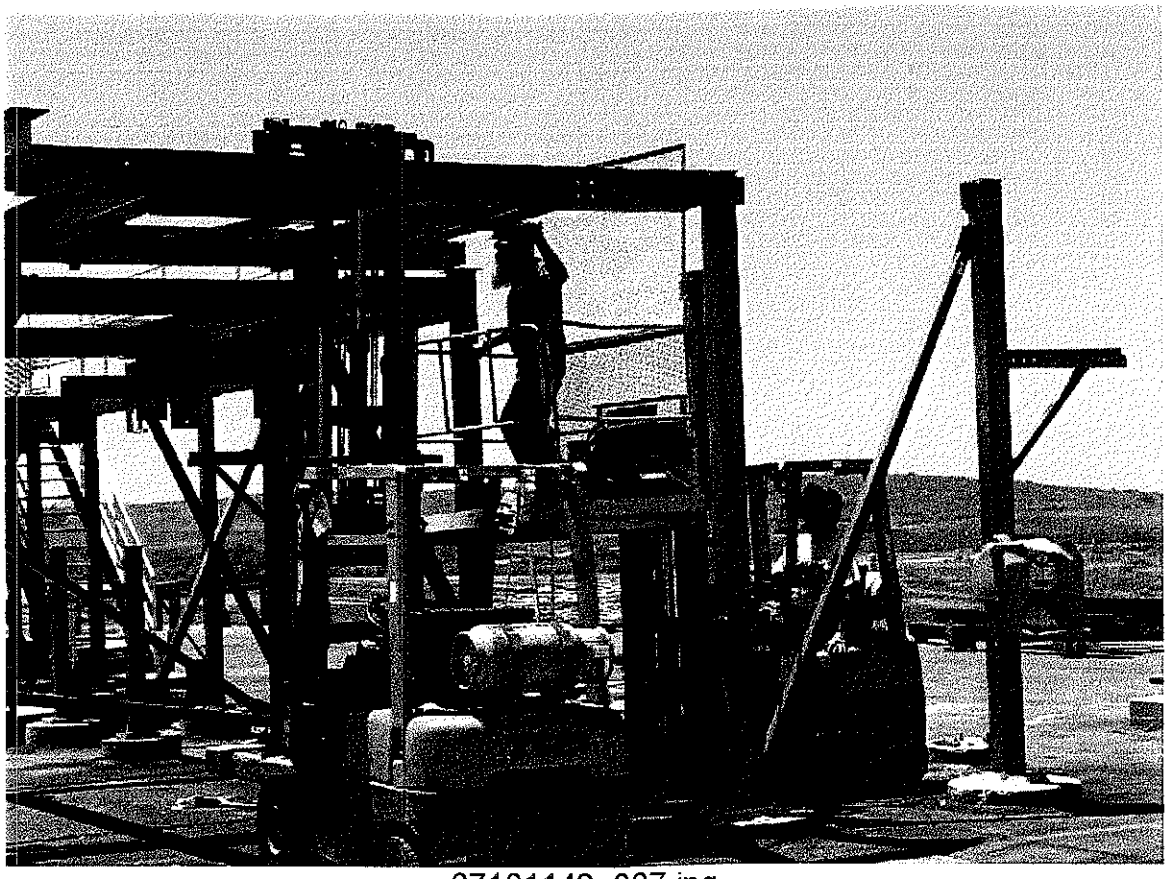


06181149_032.jpg
Removal of the motor control center

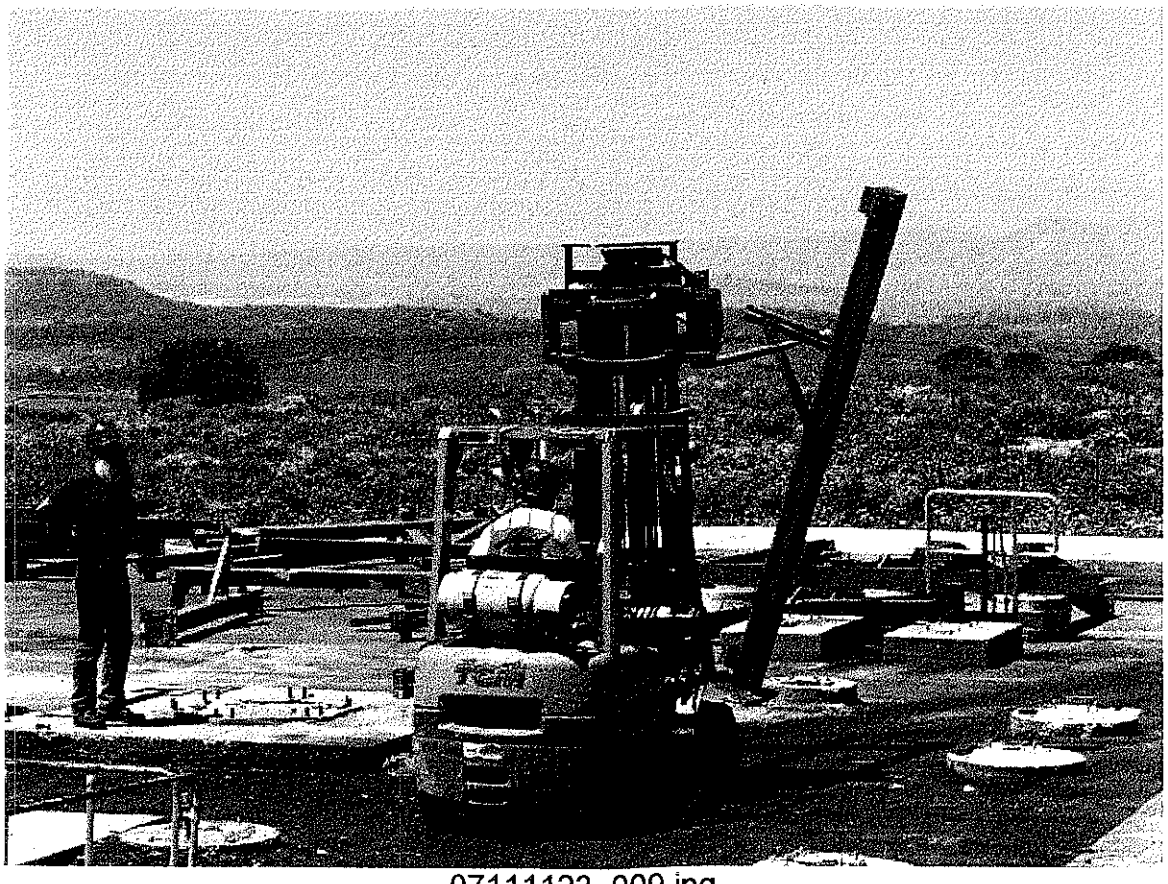


06251433_022.jpg
Removal of the drainer

REMOVAL OF STRUCTURAL STEEL SUPPORT COMPONENTS

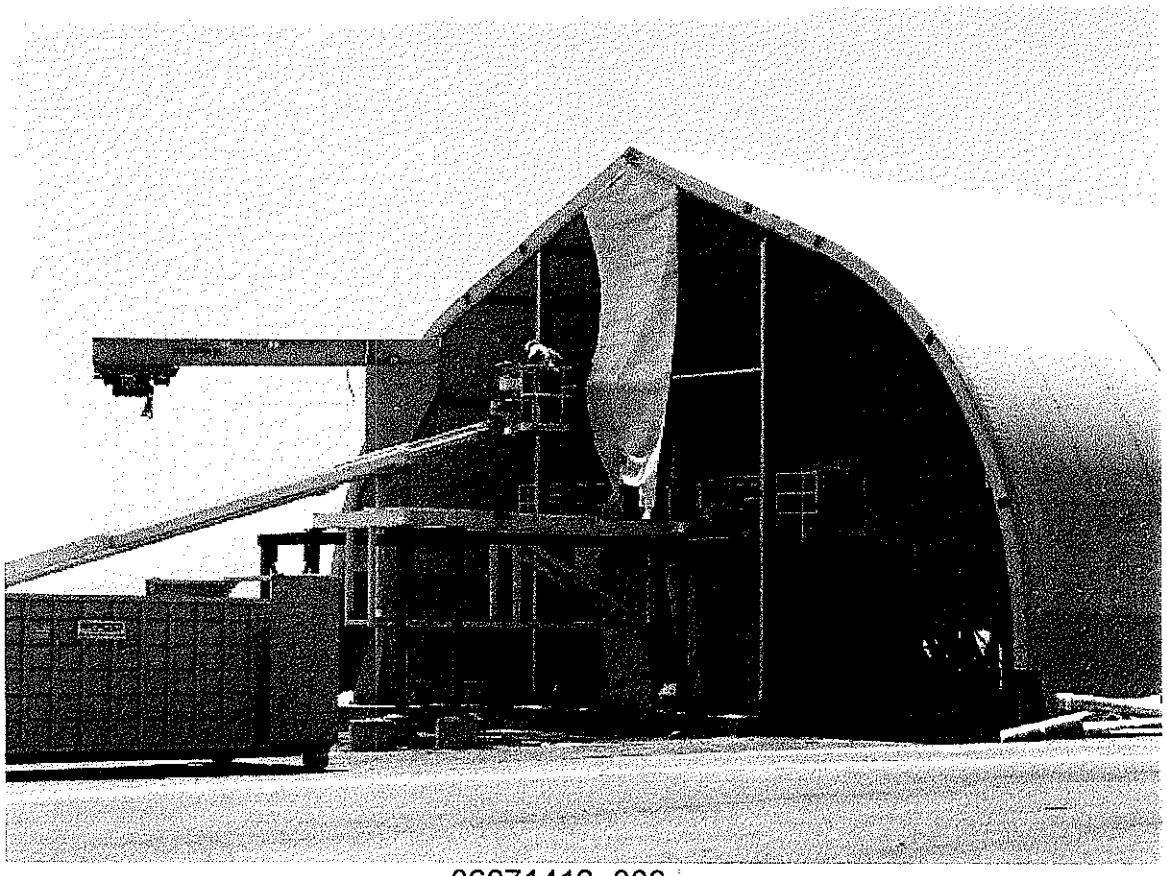


07101142_007.jpg
Removal of SSI structural steel



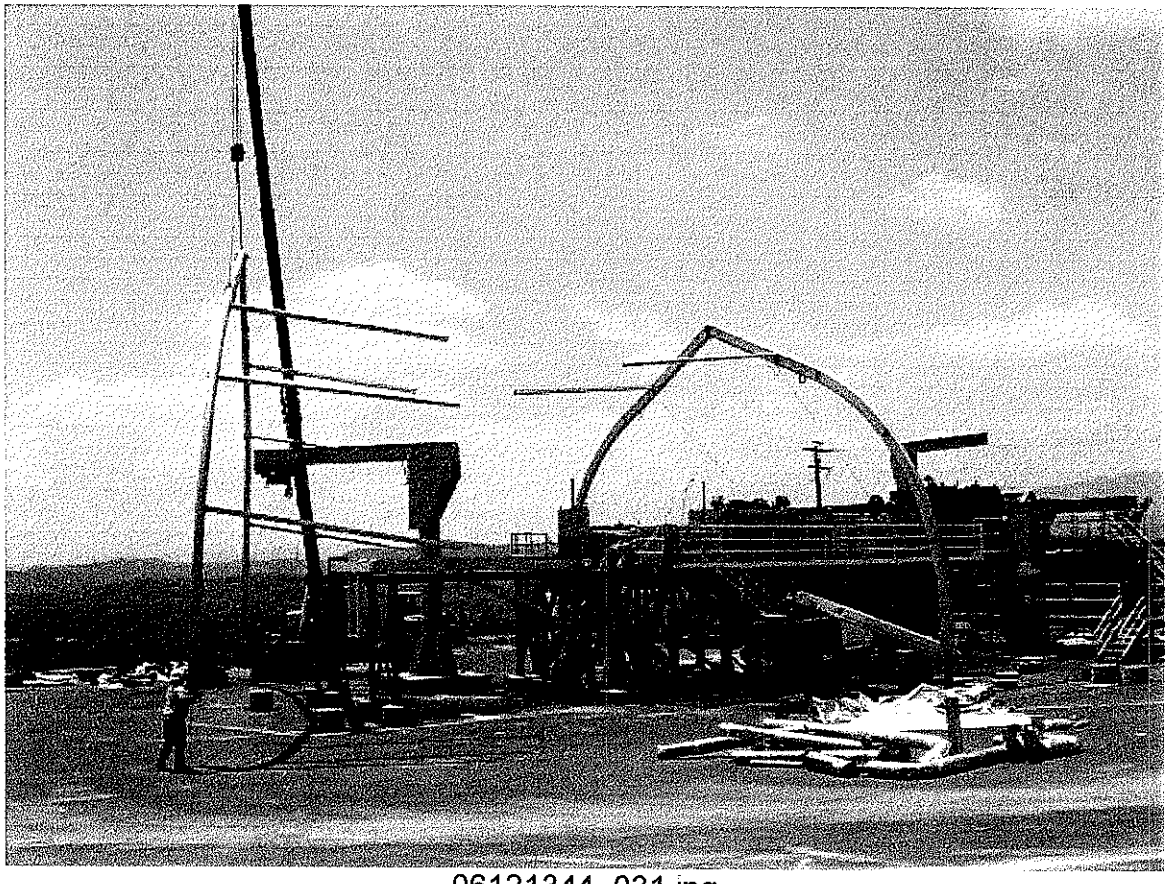
07111123_009.jpg
Removal of last component of structural steel

REMOVAL OF TENSION FABRIC STRUCTURE

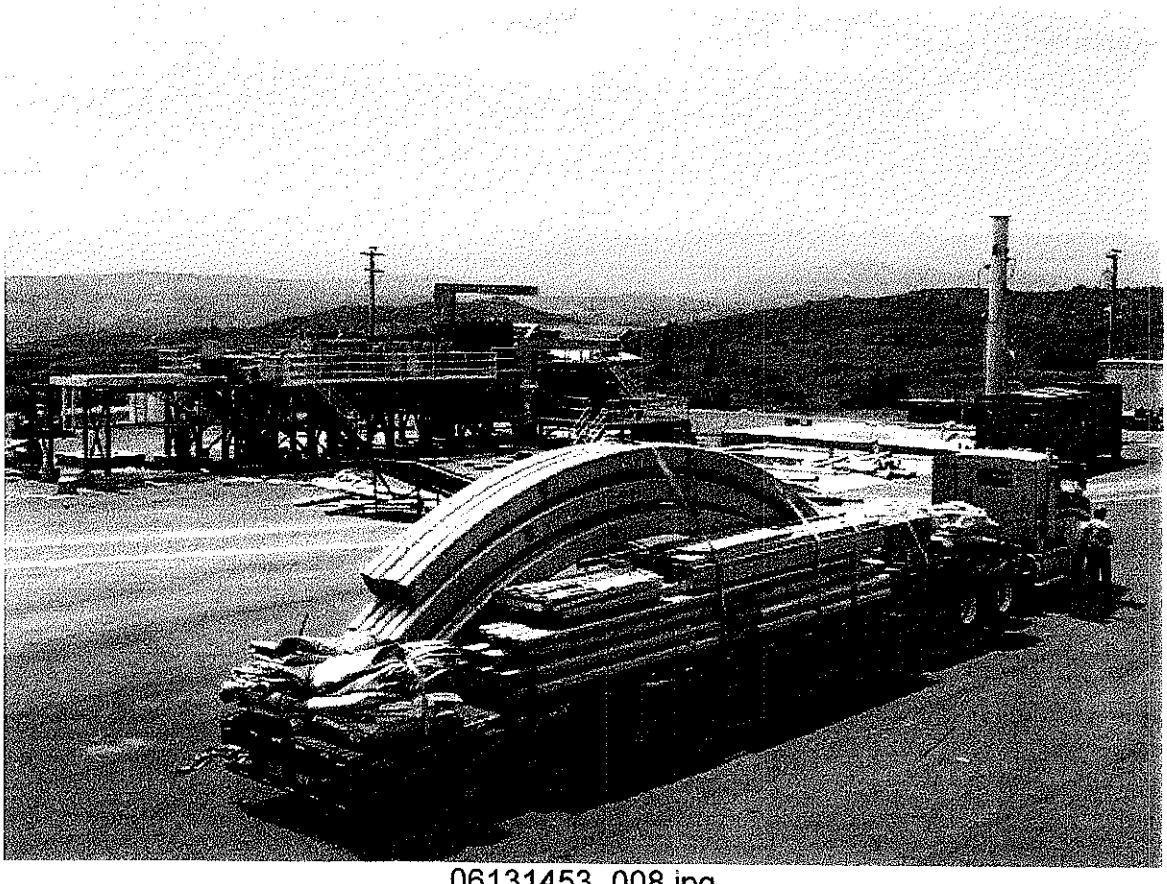


06071412_009.jpg
Removal of south end of fabric building

06111516_021.jpg
Fabric building with fabric removed from all but one bay



06121344_031.jpg
Removing the last two structural arches from the fabric building



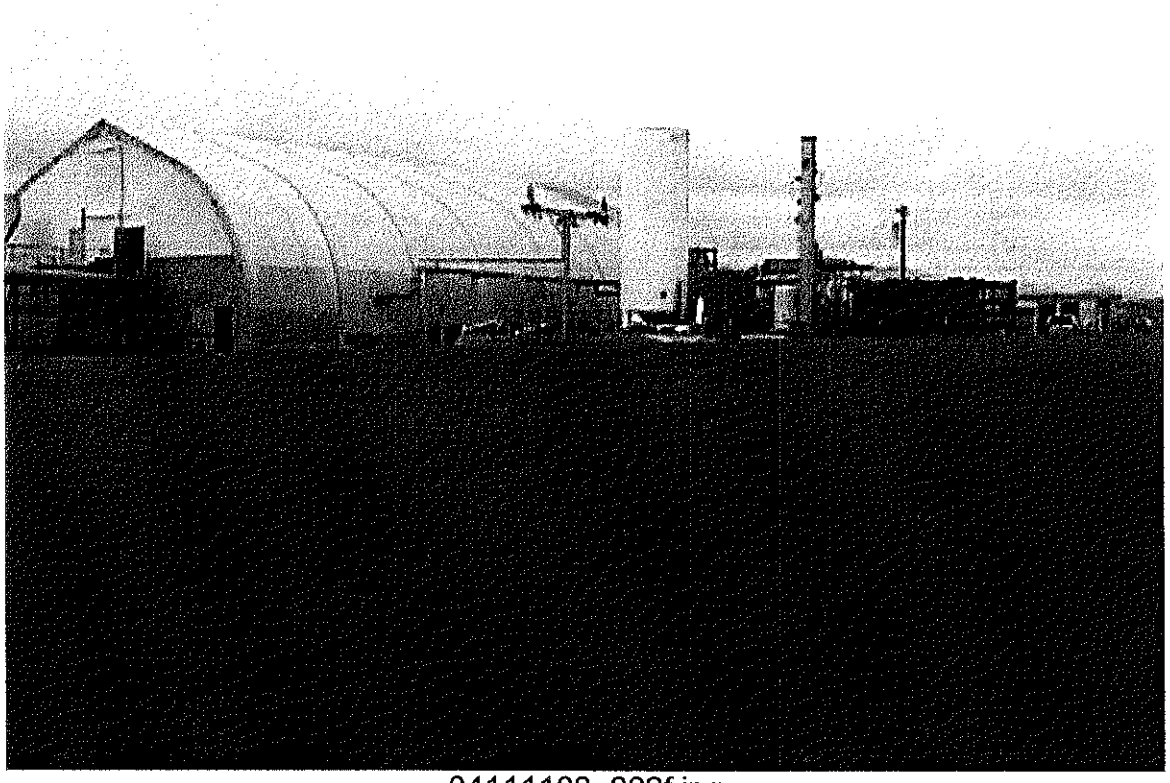
06131453_008.jpg
Fabric building components packaged and loaded for transport to vendor

SHIPPING OF NAVY-REQUESTED EQUIPMENT

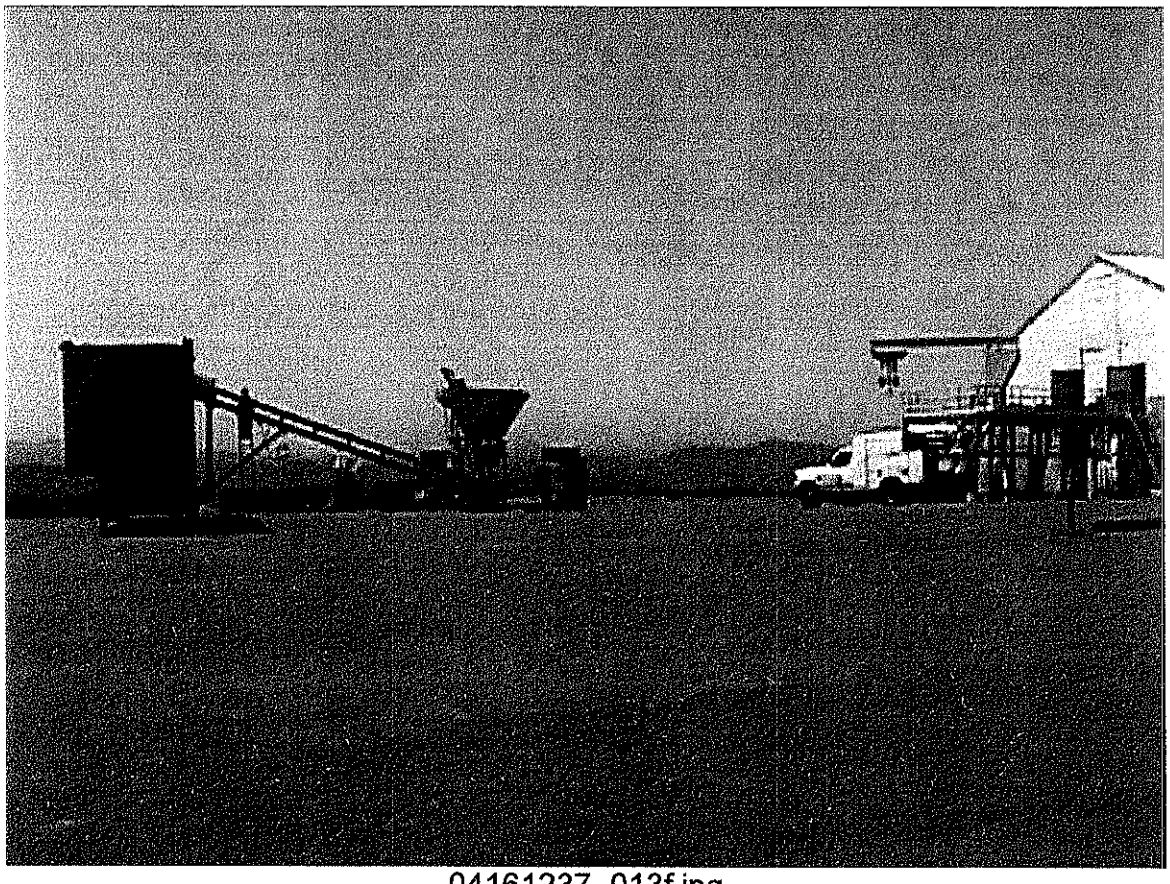
08031254_007.jpg

Trailers 5 and 6 ready to ship to Crane

SHUTDOWN STATUS



04111108_002f.jpg
Distant view of process site with ISO tankers removed, napalm transfer pipe dismantled



04161237_013f.jpg
Distant view of front end and wood shredder (cleaning/reassembly in process)

APPENDIX E

HAZARDOUS WASTE MANIFESTS

TEXAS NATURAL RESOURCE
CONSERVATION COMMISSION
P.O. Box 13087
Austin, Texas 78711-3087

TR 359
Box# 329477

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form approved. OMB No. 2050-0039.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. C A 1 1 7 0 0 9 0 2 1 0 | Manifest Document No. 88979

2. Page 1 of 2

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
US NAVY-NAVAL WEAPONS STATION
700 AMMUNITION ROAD, BLDG. 343
FALLBROOK, CA 92028-3187
4. Generator's Phone (760)731-3863

A. State Manifest Document Number: 02288979
B. State Generator's ID: 9 9 9 0 6

5. Transporter 1 Company Name: PACIFIC TREATMENT ENV. SERVICES
6. US EPA ID Number: C A D 9 8 1 4 1 2 3 5 6
C. State Transporter's ID: 84301
D. Transporter's Phone: (619)441-1818

7. Transporter 2 Company Name: BNSF
8. US EPA ID Number: M N D 0 4 8 3 4 1 7 8 8
E. State Transporter's ID:
F. Transporter's Phone:

9. Designated Facility Name and Site Address
DISPOSAL SYSTEMS, INC.
2525 BATTLEGROUND ROAD
DEER PARK, TX 77536
10. US EPA ID Number: T X D 0 0 0 7 1 9 5 1 8
G. State Facility's ID: 32299BD
H. Facility's Phone: (281) 930-2525

11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, ID Number and Packing Group)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	(A) Waste No.
X	a. RQ, WASTE FLAMMABLE LIQUIDS, N.O.S., 3, UN1993, PG II, (BENZENE, LEAD / D001, D008, D018)	043	DM	09245	P	D018, D001, D008 OUTS307H
	b.					
	c.					
	d.					

J. Additional Descriptions for Materials Listed Above
a: 82071098 GASOLINE, BENZENE AND POLYSTYRENE MIXTURE
b:
c:
d:

K. Handling Codes for Wastes Listed Above
11A-M032

15. Special Handling Instructions and Additional Information
ERG# 128 24HR PHONE# 619-441-1818, RAILCAR# WC 36090, CONTAINER# SCZU 329477 Seal # 83260
RAIL ROUTE BSNF, RAIL PRICE AUTHORITY QTBATTELLE, WO#21279, STANDARD TRANSPORTATION COMMODITY CODE FOR FLAMMABLE LIQUID# 4810321

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked, and labelled/placarded, and are in all respects in proper condition for transport by ~~highway~~ RAIL according to applicable international and national government regulations, including applicable state regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed/Typed Name: EIKE H. HOHENADL | Signature: Eike H. Hohenadl | Month Day Year: 05 03 01

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials | Date
Printed/Typed Name: DAN E RANDLE III | Signature: D E Randle III | Month Day Year: 05 03 01

18. Transporter 2 Acknowledgement of Receipt of Materials | Date
Printed/Typed Name: John S Tixier (for BNSF) | Signature: | Month Day Year: 05 04 01

19. Discrepancy Indication Space

FACILITY

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. | Date
Printed/Typed Name: Lorenzo Lopez | Signature: | Month Day Year: 05 16 01

TNRCC-0311 (Rev. 07/01/97) White - original Pink-TSD Facility Yellow-Transporter Green-Generator's first copy

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION
P.O. Box 13087
Austin, Texas 78711-3087

@1130 WO# 198558

TR 359
ISO# 876609

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form approved. OMB No. 2050-0039.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CA1170090210 — Manifest Document No.: 75324
2. Page 1 of 2

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
US NAVY-NAVAL WEAPONS STATION
700 AMMUNITION ROAD, BLDG. 343
FALLBROOK, CA 92028-3187

4. Generator's Phone (760) 731-3863

A. State Manifest Document Number: 02075324
B. State Generator's ID: 99906

5. Transporter 1 Company Name: PACIFIC TREATMENT ENV. SERVICES
6. US EPA ID Number: CAD981412356
C. State Transporter's ID:
D. Transporter's Phone: (619)441-1818

7. Transporter 2 Company Name: BNSF
8. US EPA ID Number: MND048341788
E. State Transporter's ID:
F. Transporter's Phone: (800)832-5452

9. Designated Facility Name and Site Address
DISPOSAL SYSTEMS, INC.
2525 BATTLEGROUND ROAD
DEER PARK, TX 77536

10. US EPA ID Number: TXD000719518
G. State Facility's ID:
H. Facility's Phone: (281) 930-2525

11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, ID Number and Packing Group)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
X	a. RQ, WASTE FLAMMABLE LIQUIDS, N.O.S., 3, UN1993, PG II. (BENZENE, LEAD / D001, D008, D018)	001	TP	03472	G	D008, D018 D001 D045219H
	b.			26070	P	
	c.					
	d.					

J. Additional Descriptions for Materials Listed Above
a: 83071098 GASOLINE, BENZENE & POLYSTYRENE MIXTURE

K. Handling Codes for Wastes Listed Above
M061

15. Special Handling Instructions and Additional Information
ERG# 128 24HR PHONE# 619-441-1818, RAILCAR# RTTX 973152,
ISO TANKER# 876609, RAIL ROUTE BNSF, RAIL PRICE AUTHORITY TKTBATTELL,
STANDARD TRANSPORTATION COMMODITY CODE FOR FLAMMABLE LIQUID#4810214,
PLACARDED FLAMMABLE W.O.#21752

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked, and labelled/placarded, and are in all respects in proper condition for transport by ~~highway~~ RAIL according to applicable international and national government regulations, including applicable state regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: EIKE H. HOHENADL — Signature: Eike H. Hohenadl — Month Day Year: 05 03 01

17. Transporter 1 Acknowledgement of Receipt of Materials — Date
Printed/Typed Name: DAN E RANDLE III — Signature: DERR III — Month Day Year: 05 03 01

18. Transporter 2 Acknowledgement of Receipt of Materials — Date
Printed/Typed Name: John S. Tixier (for BNSF) — Signature: John S. Tixier — Month Day Year: 05 04 01

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. — Date
Printed/Typed Name: Nita Griffin — Signature: Nita Griffin — Month Day Year: 05 17 01

GENERATOR / TRANSPORTER / FACILITY

TNRCC-0311 (Rev. 07/01/97)

White - original Pink-TSD Facility Yellow-Transporter Green-Generator's first copy

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION @855
P.O. Box 13087
Austin, Texas 78711-3087 WO# 198579

TR 359
ISO# 876601

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Form approved. OMB No. 2050-0039.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. C A 1 1 7 0 0 9 0 2 1 0 | Manifest Document No. 75325

2. Page 1 of 2

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
US NAVY-NAVAL WEAPONS STATION
700 AMMUNITION ROAD, BLDG. 343
FALLBROOK, CA 92028-3187
4. Generator's Phone (760) 731-3863

A. State Manifest Document Number: 02075325
B. State Generator's ID: 9 9 9 0 6

5. Transporter 1 Company Name: PACIFIC TREATMENT ENV. SERVICES
6. US EPA ID Number: C A D 9 8 1 4 1 2 3 5 6
C. State Transporter's ID:
D. Transporter's Phone: (619)441-1818

7. Transporter 2 Company Name: BNSF
8. US EPA ID Number: M N D 0 4 8 3 4 1 7 8 8
E. State Transporter's ID:
F. Transporter's Phone: (800)832-5452

9. Designated Facility Name and Site Address
DISPOSAL SYSTEMS, INC.
2525 BATTLEGROUND ROAD
DEER PARK, TX 77536
10. US EPA ID Number: T X D 0 0 0 7 1 9 5 1 8
G. State Facility's ID:
H. Facility's Phone: (281) 930-2525

11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, ID Number and Packing Group)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
X	a. RQ, WASTE FLAMMABLE LIQUIDS, N.O.S., 3, UN1993, PG II, (BENZENE, LEAD / D001, D008, D018)	001	TP	00393	G	D008, D018 D 0 0 1 OUTS2194
	b.			2950	P	
	c.					
	d.					

J. Additional Descriptions for Materials Listed Above
a: 83071098 GASOLINE, BENZENE & POLYSTYRENE MIXTURE

K. Handling Codes for Wastes Listed Above
M061

15. Special Handling Instructions and Additional Information
ERG# 128 24HR PHONE# 619-441-1818. RAILCAR# RTTX 973152
ISO TANKER# 876601. RAIL ROUTE BNSF, RAIL PRICE AUTHORITY TKTBATTELL.
STANDARD TRANSPORTATION COMMODITY CODE FOR FLAMMABLE LIQUID#4810214.
PLACARDED FLAMMABLE W.O.#21752

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked, and labelled/placarded, and are in all respects in proper condition for transport by ~~highway~~ RAIL according to applicable international and national government regulations, including applicable state regulations.
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GENERATOR

Printed/Typed Name: EIKE H. HOHENADL
Signature: Eike H. Hohenadl
Date: Month 05 Day 03 Year 01

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: DAN E. RANDLE III
Signature: D. E. Randle III
Date: Month 05 Day 03 Year 01

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: John S Tinier (for BNSF)
Signature: John Tinier
Date: Month 05 Day 04 Year 01

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Nita Griffin
Signature: Nita Griffin
Date: Month 05 Day 18 Year 01

White - original Pink-TSD Facility Yellow-Transporter Green-Generator's first copy

TEXAS NATURAL RESOURCE
CONSERVATION COMMISSION
P.O. Box 13087
Austin, Texas 78711-3087

TR 359
Box # 669692

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UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CA1700902101 Manifest Document No. 88974

2. Page 1 of 2

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
US NAVY-NAVAL WEAPONS STATION
700 AMMUNITION ROAD, BLDG. 343
FALLBROOK, CA 92028-3187
4. Generator's Phone (760) 731-3863

A. State Manifest Document Number: 02288974
B. State Generator's ID: 99906

5. Transporter 1 Company Name: PACIFIC TREATMENT ENV SERVICES
6. US EPA ID Number: CAD981412356
C. State Transporter's ID: 84301
D. Transporter's Phone: (619)441-1818

7. Transporter 2 Company Name: BNSF
8. US EPA ID Number: MND048341788
E. State Transporter's ID:
F. Transporter's Phone:

9. Designated Facility Name and Site Address
DISPOSAL SYSTEMS, INC
2525 BATTLEGROUND ROAD
DEER PARK, TX 77536
10. US EPA ID Number: TXD000719518
G. State Facility's ID: 32299
H. Facility's Phone: (281) 930-2525

GENERATOR

11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, ID Number and Packing Group)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
X	a. RQ, WASTE FLAMMABLE LIQUIDS, N.O.S., 3, UN1993, PG II, (BENZENE, LEAD / D001, D008, D018)	136	DM	28560	P	D018 D001,D008 OUTS307H
	b.					
	c.					
	d.					

J. Additional Descriptions for Materials Listed Above
a. 82071098 GASOLINE, BENZENE AND POLYSTYRENE MIXTURE
b.
c.
d.

K. Handling Codes for Wastes Listed Above
11A. M032

15. Special Handling Instructions and Additional Information
ERG# 128 24HR PHONE# 619-441-1818. RAILCAR# RTTX 979841 ,CONTAINER# GSTU 669692 RAIL ROUTE BSNF. RAIL PRICE AUTHORITY QTBATTELLE, WO#21279, STANDARD TRANSPORTATION COMMODITY CODE FOR FLAMMABLE LIQUID# 4810321 Seal # 8346

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked, and labelled/placarded, and are in all respects in proper condition for transport by ~~highway~~ RAIL according to applicable international and national government regulations, including applicable state regulations.
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Printed/Typed Name: EIKE H. HOHENADL
Signature: Eike H. Hohenadl
Month Day Year: 05 03 01

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: DAN E RANDLE III
Signature: D.E. Randle III
Date: Month Day Year 05 03 01

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: Tom DeForest (for BNSF)
Signature: Tom DeForest
Date: Month Day Year 05 04 01

19. Discrepancy Indication Space

FACILITY

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Michael J. Bodmer
Signature: Michael J. Bodmer
Date: Month Day Year 05 15 01

TNRCC-0311 (Rev. 07/01/97) White - original Pink-TSD Facility Yellow-Transporter Green-Generator's first copy

TEXAS NATURAL RESOURCE
CONSERVATION COMMISSION
P.O. Box 13087
Austin, Texas 78711-3087

TR 359
BOX # 669713

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UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. C A 1 1 7 0 0 9 0 2 1 0 — Manifest Document No.

2. Page 1 of 2

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
US NAVY-NAVAL WEAPONS STATION
700 AMMUNITION ROAD, BLDG. 343
FALLBROOK, CA 92028-3187

4. Generator's Phone (760)731-3863

A. State Manifest Document Number: 02111111

B. State Generator's ID: 99906

5. Transporter 1 Company Name: PACIFIC TREATMENT ENV. SERVICES

6. US EPA ID Number: C A D 9 8 1 4 1 2 3 5 6

C. State Transporter's ID: 84301

D. Transporter's Phone: (619)441-1818

7. Transporter 2 Company Name: BNSF

8. US EPA ID Number: M N D 0 4 8 3 4 1 7 8 8

E. State Transporter's ID:

F. Transporter's Phone:

9. Designated Facility Name and Site Address
DISPOSAL SYSTEMS, INC.
2525 BATTLEGROUND ROAD
DEER PARK, TX 77536

10. US EPA ID Number: T X D 0 0 0 7 1 9 5 1 8

G. State Facility's ID: 32299 BP

H. Facility's Phone: (281) 930-2525

11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, ID Number and Packing Group)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
X	aRQ, WASTE FLAMMABLE LIQUIDS, N.O.S., 3, UN1993, PG II, (BENZENE, LEAD / D001, D008, D018)	136	DM	28560	P	D018 D001, D008 OUTS307H
	b.					
	c.					
	d.					

J. Additional Descriptions for Materials Listed Above
a: 82071098 GASOLINE, BENZENE AND POLYSTYRENE MIXTURE
b:
c:
d:

K. Handling Codes for Wastes Listed Above
11A. M032

15. Special Handling Instructions and Additional Information
ERG# 128 24HR PHONE# 619-441-1818, RAILCAR# RTTX 979841, CONTAINER# GSTU 669713
RAIL ROUTE BSNF, RAIL PRICE AUTHORITY QTBATTELLE, WO#20445, STANDARD
~~TRANSPORTATION COMMODITY CODE FOR FLAMMABLE LIQUID# 4810321~~ Seal # 8329

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked, and labelled/placarded, and are in all respects in proper condition for transport by ~~highway~~ RAIL according to applicable international and national government regulations, including applicable state regulations.
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Printed/Typed Name: EIKE H. HOHENADL — Signature: Eike H. Hohenadl — Month Day Year: 05 03 01

17. Transporter 1 Acknowledgement of Receipt of Materials — Date

Printed/Typed Name: DAN E RANDLE III — Signature: D. E. Randle III — Month Day Year: 05 03 01

18. Transporter 2 Acknowledgement of Receipt of Materials — Date

Printed/Typed Name: Tom DeForest (for BNSF) — Signature: Tom DeForest — Month Day Year: 05 03 01

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. — Date

Printed/Typed Name: Lorenzo Lopez — Signature: Lorenzo Lopez — Month Day Year: 05 16 01

GENERATOR — TRANSPORTER — FACILITY

TNRCC-0311 (Rev. 07/01/97) White - original Pink - SD Facility Yellow-Transporter Green-Generator's first copy

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
Please print or type. Form designed for use on elite (12-pitch) typewriter.

See instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CA1170090210674 13 — Manifest Document No.
2. Page 1 of
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
U.S. Navy - Fallbrook Weapons Station
700 Ammunition Rd. Fallbrook, CA 92028

4. Generator's Phone (760) 731-3863

A. State Manifest Document Number 20467413

B. State Generator's ID HAHQ360432 62

5. Transporter 1 Company Name: Sturgeon + Son
6. US EPA ID Number: CAD004778742

C. State Transporter's ID [Reserved.]

D. Transporter's Phone 661-322.4408

7. Transporter 2 Company Name
8. US EPA ID Number

E. State Transporter's ID [Reserved.]

F. Transporter's Phone

9. Designated Facility Name and Site Address
Westates Carbon - Arizona Inc
2523 Mutahar St
Parker, AZ 85344
10. US EPA ID Number: AZD982441263

G. State Facility's ID

H. Facility's Phone 320.669.5758

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. Hazardous Waste, Solid, N.O.S. (D018), 9, NA3077, PG III	002	CM	20480	P	State 331; EPA/Other D018
b.					State; EPA/Other
c.					State; EPA/Other
d.					State; EPA/Other

J. Additional Descriptions for Materials Listed Above
11a Profile Number - 980108RH-1
Spent Carbon

K. Handling Codes for Wastes Listed Above
a. b. c. d.

15. Special Handling Instructions and Additional Information
Wear Appropriate Safety Equipment - Use ERG#171
24-Hour Emergency Number -

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: EIKE H. HOHENADL — Signature: [signature] — Month 05 Day 07 Year 01

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: CARL DIXON — Signature: [signature] — Month 05 Day 07 Year 01

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Jose Garcia — Signature: [signature] — Month 05 Day 08 Year 01

DO NOT WRITE BELOW THIS LINE.

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS (Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

GENERATOR

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

CU401413

DTSC 8022A (1/99)
EPA 8700—22

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CA1170090210 — Manifest Document No.: 67414
2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: [illegible]
4. Generator's Phone: (760) 731-3865

A. State Manifest Document Number: 20467414
B. State Generator's ID: HAHQ360432621

5. Transporter 1 Company Name: Sturgeon & Son
6. US EPA ID Number: CAD004778742

C. State Transporter's ID [Reserved.]
D. Transporter's Phone: 661.322.4408

7. Transporter 2 Company Name:
8. US EPA ID Number:

E. State Transporter's ID [Reserved.]
F. Transporter's Phone:

9. Designated Facility Name and Site Address: [illegible] Inc. [illegible] Mutanar St. Parker AZ 85344
10. US EPA ID Number:

G. State Facility's ID:
H. Facility's Phone: 320.669.5758

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. Hazardous Waste Ind N.O.S (D018), 9, NA3077 PG111	002	CM	21540	lbs	State 331; EPA/Other D018
b.					State; EPA/Other
c.					State; EPA/Other
d.					State; EPA/Other

J. Additional Descriptions for Materials Listed Above: Mat. Profile Number - 980108 RH-1 Spent Carbon

K. Handling Codes for Wastes Listed Above: a. b. c. d.

15. Special Handling Instructions and Additional Information: [illegible] safety & [illegible] - 086 ERG #171 [illegible] Emergency Number -

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name: EIKE H. HOHENADL — Signature: Eike H. Hohenadl — Month 05 Day 09 Year 01

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: CARL DIXON — Signature: Carl Dixon — Month 05 Day 09 Year 01

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: — Signature: — Month Day Year

19. Discrepancy Indication Space: Line 14 Pounds Should be indicated with A "P" not lbs)

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Jose Garcia — Signature: [signature] — Month 05 Day 10 Year 01

DO NOT WRITE BELOW THIS LINE.

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS. (Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

DTSC 8022A (1/99)
EPA 8700—22

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

GENERATOR — TRANSPORTER — FACILITY

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Cont
Sacramento, California

20962716

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CA1170090210 — Manifest Document No.: 62716
2. Page 1 of 1
Information in the shaded areas is not required by Federal law

3. Generator's Name and Mailing Address
US NAVY-NAVAL WEAPONS STATION
700 AMMUNITION ROAD, BLDG. 343
FALLBROOK, CA 92028-3187
4. Generator's Phone (760) 731-3863

A. State Manifest Document Number: 20962716
B. State Generator's ID: HAH036043264

5. Transporter 1 Company Name: PACIFIC TREATMENT ENV. SERVICES
6. US EPA ID Number: CAD981412356
C. State Transporter's ID [Reserved.]
D. Transporter's Phone: (619)441-1818

7. Transporter 2 Company Name:
8. US EPA ID Number:
E. State Transporter's ID [Reserved.]
F. Transporter's Phone:

9. Designated Facility Name and Site Address
DEMENNO / KERDOON
2000 NORTH ALAMEDA ST
COMPTON, CA 90222
10. US EPA ID Number: CAT080013352
G. State Facility's ID: CAT080013352
H. Facility's Phone: (310) 537-7100

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. NONRCRA HAZARDOUS WASTE, LIQUID, (WATER WITH RED DYE DIESEL AND OIL)	001	TT	04000	P	State 133 / EPA/Other NR
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

THIS WASTE STREAM HAS BEEN QUALIFIED FOR RECYCLING/TREATMENT AT THE DeMENNO/KERDOON FACILITY IN COMPTON, CALIFORNIA. THIS FACILITY HAS THE NECESSARY PERMITS TO RECEIVE YOUR WASTE STREAM AS QUALIFIED. OUR EPA NUMBER IS CAT080013352.

J. Additional Descriptions for Materials Listed Above
a: WATER FROM TANK CLEAN OUT
b:
c:
d:

K. Handling Codes for Wastes Listed Above
a. 01
b.
c.
d.

15. Special Handling Instructions and Additional Information: EMERGENCY RESPONSE GUIDE: a:#N/A b:# c:# d:#
EMERGENCY CONTACT # 619-441-1818, LOAD # Work order 22339

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name: EIKE H HOHENEDL — Signature: [signature] — Month / Day / Year: 06 / 06 / 01

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: KEVIN P EDEN — Signature: [signature] — Month / Day / Year: 06 / 06 / 01

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: — Signature: — Month / Day / Year:

19. Discrepancy Indication Space
Quantity discrepancy greater than 10% variation reconciled with generator/transporter of ____ Received 6/18/01 with 575 gallons
KEVIN P EDEN

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: JOE CAMPBELL — Signature: [signature] — Month / Day / Year: 06 / 06 / 01

DO NOT WRITE BELOW THIS LINE.

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS. (Generators who submit hazardous waste for transport out-of-state produce completed copy of this copy and send to DTSC within 30 days.)

DTSC 8022A (1/99)
EPA 8700—22

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CA11700902106 — Manifest Document No.: 62755
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
US NAVY-NAVAL WEAPONS STATION
700 AMMUNITION ROAD, BLDG 342
FALLBROOK, CA 92028-3187
4. Generator's Phone (760) 731-3862

A. State Manifest Document Number: 20962755
B. State Generator's ID: HAHQ36043262

5. Transporter 1 Company Name: PACIFIC TREATMENT ENV SERVICES
6. US EPA ID Number: CAD981412356
C. State Transporter's ID [Reserved.]
D. Transporter's Phone: (619)441-1818

7. Transporter 2 Company Name:
8. US EPA ID Number:
E. State Transporter's ID [Reserved.]
F. Transporter's Phone:

9. Designated Facility Name and Site Address
ENSCO WEST, INC.
1737 E. DENNY ST
WILMINGTON, CA 90744
10. US EPA ID Number: CAD044429835
G. State Facility's ID: CAD044429835
H. Facility's Phone: (310) 835-9998

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. NONRCRA HAZAROUDS WASTE, SOLID, (ABSORBENT AND RAGS WITH OIL)	002	DM	00200	P	State 223 / EPA/Other NR
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above
a: 521060 OILY ABSORBENT 2x55
b:
c:
d:

K. Handling Codes for Wastes Listed Above
a. 99/03
b.
c.
d.

15. Special Handling Instructions and Additional Information EMERGENCY RESPONSE GUIDE: a:#N/A b:# c:# d:# EMERGENCY CONTACT # 619-441-1818 LOAD # Work Order # 224[illegible]

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name	Signature	Month	Day	Year
THOMAS "D" FLETCHER JR	[signature] AUTHORIZED AGENT	06	18	01

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
J. Cerretto Antonio	[signature]	06	18	01

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
[illegible]	[signature]	06	22	01

DO NOT WRITE BELOW THIS LINE.

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS. (Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

DTSC 8022A (1/99)
EPA 8700—22

...e of California—Environmental Protection Agency
...m Approved OMB No. 2050-0039 (Expires 9-30-99)
...ease print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CA1170090210 — Manifest Document No. 62756
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
US NAVY-NAVAL WEAPONS STATION
700 AMMUNITION ROAD, BLDG. 342
FALLBROOK, CA 92028-3115
4. Generator's Phone (760) 731-3803

A. State Manifest Document Number: 20962756
B. State Generator's ID: HAHQ36043262
C. State Transporter's ID [Reserved.]
D. Transporter's Phone: (619)441-1818
E. State Transporter's ID [Reserved.]
F. Transporter's Phone
G. State Facility's ID: CAD008302903
H. Facility's Phone: (626) 334-5117

5. Transporter 1 Company Name: PACIFIC TREATMENT ENV. SERVICES
6. US EPA ID Number: CAD981412356
7. Transporter 2 Company Name:
8. US EPA ID Number:
9. Designated Facility Name and Site Address
ONYX ENVIRONMENTAL SERVICES, L.L.C.
1704 WEST FIRST STREET
AZUSA, CA 91702
10. US EPA ID Number: CAD008302903

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. RQ WASTE FLAMMABLE SOLIDS, ORGANIC, N.O.S., 4.1, UN1325, PG III (POLYSTYRENE DEBRIS WITH BENZENE/ D001, D018, D008)	006	DM	00980	P	State 352; EPA/Other D001
b.					State; EPA/Other
c.					State; EPA/Other
d.					State; EPA/Other

J. Additional Descriptions for Materials Listed Above
a: 522823 FLAMMABLE DEBRIS 6X55
b:
c:
d:

K. Handling Codes for Wastes Listed Above
a. 14
b.
c.
d.

15. Special Handling Instructions and Additional Information EMERGENCY RESPONSE GUIDE a:#131 b:# c:# d:#
EMERGENCY CONTACT # 619-441-1818, LOAD # Work Order 22416

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name: THOMAS D. FLETCHER JR — Signature: [signature] AUTHORIZED AGENT — Month 06 Day 18 Year 01

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: J. CUTOERTO Montana — Signature: [signature] — Month 06 Day 18 Year 01

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: [signature] — Signature: [signature] — Month 06 Day 26 Year 01

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

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Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS.
(Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

DTSC 8022A (1/99)
EPA 8700—22

TEXAS NATURAL RESOURCE
CONSERVATION COMMISSION
P.O. Box 13087
Austin, Texas 78711-3087

ase print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form approved. OMB No. 2050-0039.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CA1170090210 Manifest Document No. 75404

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
US NAVY-NAVAL WEAPONS STATION
700 AMMUNITION ROAD, BLDG. 343
FALLBROOK, CA 92028-3187

4. Generator's Phone (760) 731-3863

A. State Manifest Document Number: 02075404

B. State Generator's ID: 99906

5. Transporter 1 Company Name: PACIFIC TREATMENT ENV. SERVICES

6. US EPA ID Number: CAD981412356

C. State Transporter's ID: 84301

D. Transporter's Phone: (619)441-1818

7. Transporter 2 Company Name: SCT ENVIRONMENTAL INC

8. US EPA ID Number: ILD981957336

E. State Transporter's ID: A0285T

F. Transporter's Phone: (847) 537-9221

9. Designated Facility Name and Site Address
TREATMENT ONE
5743 CHESWOOD
HOUSTON, TX 77087

10. US EPA ID Number: TXD055135388

G. State Facility's ID: 50267

H. Facility's Phone: (713) 645-8710

11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, ID Number and Packing Group)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
	a. COMPRESSED GAS, N.O.S., 2.2, UN1956, (CONTAINS ISOBUTYLENE)	002	CY	00002	P	N R DUTS 8011
X	b. WASTE COMPRESSED GAS, N.O.S., 2.2, UN1956, (CONTAINS BENZENE/U019, D018)	002	CY	00002	P	D 0 1 8 DUTS 801H
	c. COMPRESSED GAS, N.O.S., 2.2, UN1956, (CONTAINS PENTANE)	001	CY	00001	P	N R DUTS 8011
	d. COMPRESSED GAS, N.O.S., 2.2, UN1956, (CONTAINS PROPANE)	002	CY	00002	P	N R DUTS 8011

J. Additional Descriptions for Materials Listed Above
a: 285-29025 ISOBUTYLENE (EMPTY)- 2 CYLINDERS
b: 285-29025 BENZENE (EMPTY)- 2 CYLINDERS
c: 285-29025 PENTANE (EMPTY)- 1 CYLINDERS
d: 285-29025 PROPANE (EMPTY)- 2 CYLINDERS
285-29799

K. Handling Codes for Wastes Listed Above
a - M141
b - M141
c - M141
d - M141

15. Special Handling Instructions and Additional Information EMERGENCY RESPONSE GUIDE: a:#126 b:#126 c:#126 d:#126
EMERGENCY CONTACT # 619-441-1818, LOAD # Work Order 22630
CYLINDERS ARE IN ~~12~~ 55 GAL DRUM FOR TRANSPORTATIONB ONLY

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked, and labelled/placarded, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations.
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Printed/Typed Name: THOMAS "D" FLETCHER JR | Signature: AUTHORIZED AGENT | Month Day Year: 07 19 01

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials | Date

Printed/Typed Name: Alfredo Felez | Signature | Month Day Year: 07 19 01

18. Transporter 2 Acknowledgement of Receipt of Materials | Date

Printed/Typed Name: Brock R Thompson | Signature | Month Day Year: 07 20 01

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. | Date

Printed/Typed Name: KATHLEEN HANNA | Signature: KATHLEEN HANNA | Month Day Year: 08 02 01

TNRCC-0311 (Rev. 07/01/97) White - original Pink-TSD Facility Yellow-Transporter Green-Generator's first copy

...e of California—Environmental Protection Agency
...rm Approved OMB No. 2050-0039 (Expires 9-30-99)
...lease print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

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GENERATOR

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CA 1170090210 E.R. ~~CAP000047060~~ | Manifest Document No. 67567 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: U.S. NAVY, 700 AMMUNITION RD, BLDG 323, FALLBROOK, CA 92028-

4. Generator's Phone: 760 731-3505

A. State Manifest Document Number: 20467567

B. State Generator's ID:

5. Transporter 1 Company Name: Westates Carbon

6. US EPA ID Number: CAR000034918

C. State Transporter's ID [Reserved.]

D. Transporter's Phone: 562-229-9746

7. Transporter 2 Company Name: TRIAD TRANSPORT INC

8. US EPA ID Number: OKD981588DV

E. State Transporter's ID [Reserved.]

F. Transporter's Phone: 800-364-1139

9. Designated Facility Name and Site Address: Westates Carbon-Arizona, Inc., 2523 Mutahar st., Parker, AZ 85344

10. US EPA ID Number: AZD982441263

G. State Facility's ID:

H. Facility's Phone: 520-669-5758

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. Hazardous Waste Solid, N.O.S. (D018) 9, NA3077, PG III	904	E.R. ~~DM~~ TP	10,600	P.	State 331 / EPA/Other
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above

11a) Profile number # 980108RH-1
Spent Carbon

K. Handling Codes for Wastes Listed Above: a. b. c. d.

15. Special Handling Instructions and Additional Information

Wear Proper Protective clothing when handling, Gloves & Goggles
ERG# 171
24 Emergency Contact: x 619-441-1818

Site: NAVAL W CAPON STATION FALLBROOK 700 AMMUNITION FALLBROOK CA, 920

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name	Signature	Month	Day	Year
X THOMAS "D" FLETCHER JR	X [signature] AUTHORIZED AGENT	07	19	01

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
ELIAS RAMIREZ JR	[signature]	07	19	01

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
ANDREW FINNEY	[signature]	07	26	01

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
Jose Garcia	[signature]	07	30	01

DO NOT WRITE BELOW THIS LINE.

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS. (Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

DTSC 8022A (1/99)
EPA 8700—22

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
Please print or type. Form designed for use on elite (12-pitch) typewriter.

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CA1170090210 — Manifest Document No.: 61456
2. Page 1 of 2
Information in the shaded areas is not required by Federal law. 345010

3. Generator's Name and Mailing Address
US NAVY-NAVAL WEAPONS STATION
700 AMMUNITION ROAD, BLDG. 343
FALLBROOK, CA 92028-3187
4. Generator's Phone (760) 731-3863

A. State Manifest Document Number: 20861456
B. State Generator's ID: HAHQ36043262

5. Transporter 1 Company Name: PACIFIC TREATMENT ENV. SERVICES
6. US EPA ID Number: CAD981412356
C. State Transporter's ID [Reserved.]
D. Transporter's Phone: (619)441-1818

7. Transporter 2 Company Name:
8. US EPA ID Number:
E. State Transporter's ID [Reserved.]
F. Transporter's Phone:

9. Designated Facility Name and Site Address
ENSCO WEST, INC.
1737 E. DENNI ST
WILMINGTON, CA 90744
10. US EPA ID Number: CAD044429835
G. State Facility's ID: CAD044429835
H. Facility's Phone: (310) 835-9998

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. RQ WASTE FLAMMABLE SOLIDS, ORGANIC, N.O.S., 4.1, UN1325 PG III, (POLYSTYRENE DEBRIS WITH BENZENE/ D001, D018, D008)	005	DM	00750	P	State 352; EPA/Other D001
b. WASTE CONSUMER COMMODITY ORM-D	001	DM	00075	P	State 331; EPA/Other NR
c. NONRCRA HAZARDOUS WASTE, LIQUID, (OILY WATER)	003	DM	01200	P	State 223; EPA/Other NR
d. NONRCRA HAZAROUDS WASTE, SOLID, (ABSORBENT AND RAGS WITH OIL)	003	DM	00600	P	State 223; EPA/Other NR

J. Additional Descriptions for Materials Listed Above
a: 89993 FLAMMABLE DEBRIS 5X55
b: ~~89995~~ AEROSOLS 1X55 51755
c: 521061 OILY WATER 3X55
d: 521060 OILY ABSORBENT 3X55

K. Handling Codes for Wastes Listed Above
a. 99/07 b. 99/07
c. 99/15 d. 99/03

15. Special Handling Instructions and Additional Information EMERGENCY RESPONSE GUIDE: a:#133 b:#N/A c:#N/A d:#N/A
EMERGENCY CONTACT # 619-441-1818. LOAD # Work Order 22949

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: EIKE H. HOHENADL — Signature: Eike H. Hohenadl — Month 08 Day 27 Year 01

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: J. Cutberto Montano — Signature: [signature] — Month 08 Day 27 Year 01

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: — Signature: — Month Day Year

19. Discrepancy Indication Space 11B) WINDS # CHANGE TO 187464 ph 83101

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: REGGIE SANTOS — Signature: [signature] — Month 08 Day 31 Year 01

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

DO NOT WRITE BELOW THIS LINE.

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS.
(Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

DTSC 8022A (1/99)
EPA 8700—22

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039.

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator's US EPA ID No.: CA1170090210

Manifest Document No.: 61456

22. Page 2 of 2

Information in the shaded areas is not required by Federal law.

23. Generator's Name
US NAVY-NAVAL WEAPONS STATION
700 AMMUNITION ROAD, BLDG. 343
FALLBROOK, CA 92028-3187
760 731-3863

L. State Manifest Document Number: 20861456

M. State Generator's ID: HAHQ36043262

24. Transporter Company Name: PACIFIC TREATMENT ENV. SERVICES

25. US EPA ID Number: CAD981412356

N. State Transporter's ID:

O. Transporter's Phone: (619)441-1818

26. Transporter Company Name:

27. US EPA ID Number:

P. State Transporter's ID:

Q. Transporter's Phone:

	28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	HM	29. Containers No.	Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a.	NONRCRA HAZARDOUS WASTE, SOLID, (OILY SOIL)		003	DM	02400	P	NR 223
b.							
c.							
d.							
e.							
f.							
g.							
h.							
i.							

S. Additional Descriptions for Materials Listed Above
a: 521060 OILY SOIL 5X55
b:
c:
d:
e:
f:

T. Handling Codes for Wastes Listed Above
A. 99/03

32. Special Handling Instructions and Additional Information
EMERGENCY RESPONSE GUIDE: a:#N/A b:# c:# d:# e:#
EMERGENCY CONTACT # 619-441-1818, LOAD #

Work Order 22949

33. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: J. Cutberto Montano

Signature: [signature]

Date: Month 08 Day 27 Year 01

34. Transporter ____ Acknowledgement of Receipt of Materials

Printed/Typed Name:

Signature:

Date: Month Day Year

35. Discrepancy Indication Space

GENERATOR

TRANSPORTER

FACILITY

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CA1170090210 — Manifest Document No.: 61578
2. Page 1 of 1
Information in the shaded areas is not required by Federal law: 378715

3. Generator's Name and Mailing Address:
US NAVY-NAVAL WEAPONS STATION
700 AMMUNITION ROAD, BLDG. 343
FALLBROOK, CA 92028-3187
4. Generator's Phone (760) 731-3863

A. State Manifest Document Number: 20861578
B. State Generator's ID: HAHQ36043262

5. Transporter 1 Company Name: PACIFIC TREATMENT ENV. SERVICES
6. US EPA ID Number: CAD981412356
C. State Transporter's ID [Reserved.]
D. Transporter's Phone: (619)441-1818

7. Transporter 2 Company Name:
8. US EPA ID Number:
E. State Transporter's ID [Reserved.]
F. Transporter's Phone:

9. Designated Facility Name and Site Address:
ENSCO WEST, INC.
1737 E. DENNI ST
WILMINGTON, CA 90744
10. US EPA ID Number: CAD044429835
G. State Facility's ID: CAD044429835
H. Facility's Phone: (310) 835-9998

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. NONRCRA HAZARDOUS WASTE, LIQUID, (OILY WATER)	002	DM	01050 ~~0009~~	P 10/02/01	State 223 / EPA/Other NR
b. NONRCRA HAZARDOUS WASTE, SOLID, (OILY SOIL)	001	DM	00500	P	State 223 / EPA/Other NR
c. NONRCRA Hazardous waste, (oily Rags) SOLID	001	DM	00150	P	State 223 / EPA/Other NR
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above
a: 521061 OILY WATER
b: 521060 OILY SOIL
c: 521062 oily Rags
d:

K. Handling Codes for Wastes Listed Above
a. 99/15 b. 99/03
c. 99/03 d.

15. Special Handling Instructions and Additional Information EMERGENCY RESPONSE GUIDE: a:#N/A b:#N/A c:# d:#
EMERGENCY CONTACT # 619-441-1818. LOAD # Work Order 23209

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: EIKE H. HOHENADL — Signature: Eike H. Hohenadl — Month Day Year: 10 02 01

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Angel Rios Jr — Signature: [signature] — Month Day Year: 10 02 01

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: — Signature: — Month Day Year:

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Ruggie Santos — Signature: [signature] — Month Day Year: 10 02 01

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

DO NOT WRITE BELOW THIS LINE.

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS. (Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

DTSC 8022A (1/99)
EPA 8700—22

Arkansas Department of Environmental Quality
Hazardous Waste Division
P.O. Box 8913, Little Rock, AR 72219-8913
Telephone: (501) 682-0833

1

Please print or type. *(Form designed for use on elite (12-pitch) typewriter.)* *Form Approved. OMB No. 2050-0039*

AR-2-99

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CA1170090210
Manifest Document No. 62503
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
US NAVY-NAVAL WEAPONS STATION
700 AMMUNITION ROAD, BLDG. 343
FALLBROOK, CA 92028-3187
760 731-3863

4. Generator's Phone ( )

A. State Manifest Document Number: AR-1262503
B. State Generator's ID:

5. Transporter 1 Company Name: PACIFIC TREATMENT ENV. SERVICES
6. US EPA ID Number: CAD981412356
C. State Transporter's ID: H-866
D. Transporter's Phone: (619)441-1818

7. Transporter 2 Company Name: DIVISION TRANSPORT
8. US EPA ID Number: ARD069748192
E. State Transporter's ID: H-
F. Transporter's Phone: 870-863-7173

9. Designated Facility Name and Site Address
ENSCO
309 AMERICAN CIRCLE
EL DORADO, AR 71730
10. US EPA ID Number: ARD069748192
G. State Facility's ID:
H. Facility's Phone: (870) 863-7173

11. US DOT Description *(Including Proper Shipping Name, Hazard Class and ID Number)*	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ WASTE FLAMMABLE SOLIDS, ORGANIC, N.O.S., 4.1, UN1325, PG III, (POLYSTYRENE DEBRIS WITH BENZENE/ D001, D018, D008)	002	DM	00820	P	D001
b. RQ HAZARDOUS WASTE, LIQUID, N.O.S., 9, NA3082, PG III, (DECON WATER FROM GASOLINE POLYSTYRENE CONTAMINATED EQUIPMENT/D008, D018)	001	DM	00350	P	D008
c. WASTE CONSUMER COMMODITY ORM-D	001	DM	00060	P	NR
d.					

J. Additional Description for Materials Listed Above
a: 89993 FLAMMABLE DEBRIS
b: 223759 DECON WATER
c: 189464 AEROSOLS
d:

if no alternate TSDF, return to generator 1529

K. Emergency Response Information:

15. Special Handling Instructions and Additional Information
EMERGENCY RESPONSE GUIDE: a:#133 b:#171 c:#N/A d:#
EMERGENCY CONTACT # 619-441-1818, LOAD #

Work Order 23209

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked, and labeled/placarded, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and Arkansas state regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: EIKE H. HOHENADL
Signature: Eike H. Hohenadl
Month Day Year: 10020

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Angel Rios Jr
Signature:
Month Day Year: 10020

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: Juan Briones
Signature: Juan Briones
Month Day Year: 100501

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Clarke
Signature: Clarke
Month Day Year: 10001

GENERATOR / TRANSPORTER / FACILITY

EPA Form 8700-22 (Rev. 9-88) Previous edition is obsolete.

NOTICE: THE ORIGINAL AND NOT LESS THAN TWO (2) COPIES MUST MOVE WITH THE HAZARDOUS WASTE SHIPMENT. ONCE DELIVERED, THE TREATMENT/

APPENDIX F

BILLS OF LADING FOR EQUIPMENT DELIVERED TO CRANE, INDIANA

STRAIGHT BILL OF LADING

ORIGINAL—NOT NEGOTIABLE

Shipper No. BL2746

Page 1 of 1

Pacific treatment ENV. SERV.
(Name of carrier) (SCAC)

Carrier No. 070501-1

Date July 5/2001

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec. 1.

TO:
Consignee Crane Army Activity Bldg 106/107
Street 300 Highway 361
City CRANE State IN Zip Code 47522

FROM:
Shipper WPNSUPPFACSB DET FELLBROOK
Street 700 Ammunition RD
City FELLBROOK State CA. Zip Code 92028
24 hr. Emergency Contact Tel. No. (619) 441-1818

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTION Proper Shipping Name, Hazard Class, Identification Number (UN or NA), Packing Group, per 172.101, 172.202, 172.203	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
~~10~~ ~~8~~ 10 Hshims		Machinery see attached inventory	34,100#			
		Received Barbara Quigley	SMASH-EAS	7-9-01		

PLACARDS TENDERED: YES ☐ NO ☒

REMIT C.O.D. TO: ADDRESS

Note — Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.
The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding

$ _____ per _____

I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

_____ Signature

COD Amt: $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

_____ (Signature of Consignor)

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

TOTAL CHARGES: $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

RECEIVED, subject to the classifications and lawfully filed tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.
Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER BATTELLE / NAVY
R Ethe Hohenadl 07/05/01

CARRIER Pacific treatment ENV. SERV.
PER [signature]
DATE July 5/2001

1

Permanent post-office address of shipper.

STYLE F60 LABELMASTER, An American Labelmark Co., Chicago, IL 60648 800/621-5808

PRINTED ON RECYCLED PAPER USING SOYBEAN INK PRINTED WITH SOY INK

Battle
Navy Napalm D&D Project

Navy Requested Equipment
Shipping Inventory
Trailer # 1 (Xtra Lease, VIN 13N24830-3-X 1587267)

Shipper No. _____
Carrier No. 070501-1
Bill of Lading _____

Ship to:

Crane Army Activitiy, bldg 106/107

300 Highway 361

Crane, IN 47522-5000

Attn: Barbara Quigly 812-854-4696

Item	Description	Quantity	Weight (lbs)
✓1	Dual motor (200 HP ea) HPU section ✓	1	6000
✓2	Wood shredder hopper ✓	1	5200
✓3	HPU tank and dual radiator section ✓	1	4700
✓4	M85E Wood shredder with HPU** ✓	1	17000
✓5	wheel base for shredded wood conveyor ✓	1	300
✓6	Main shredding system control panel w/ detached shelf ✓	1	300
✓7	Auxiliary shredding system control panel	1	100
✓8	A-frame structural support for shredded wood conv. ✓	1	500
✓9	Shredding system O&M manual (inside main control panel)	1	
✓10	Wood shredder O&M manual (inside main control panel)	1	
		~~DID NOT RECEIVE~~ KB.	

Notes:
** Item contains gear oil in gear box and planetary gear reducer. MSDS attached.

Rec'd @ R19 CAAA Kathy Grimes 7-9-01

Special shipping instructions:
Crane Army Activity works a 4-10s (7am to 5:30 pm) schedule and does not staff the plant on Fridays. Crane Army Activity further requests deliveries be made in the morning hours.

I certify that the above listed ~~10~~ 10 KB items were loaded onto the identified flatbed trailer in good condition and working order.
I further certify that no materials containing PCBs were ever used in the operation of any of the above listed equipment, all of which was purchased new in 1997 or later.

John Tixier / Battelle - Site Manager — signature — 7/3/01
print name / title — signature — date

STRAIGHT BILL OF LADING

ORIGINAL—NOT NEGOTIABLE

Shipper No. BC 2145

Carrier No. 070501-2

Page 1 of 1

Pacific treatment ENV. Serv.

(Name of carrier) (SCAC)

Date July 5/2001

...ffect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec. 1.

TO:
...nsignee CRANE ARMY Activity
...reet 300 HIGHWAY 361
...y CRANE State IN Zip Code 47522

FROM:
Shipper WPNSUPPFACSB DET FALLBROOK
Street 700 AMMUNITION RD.
City FALLBROOK State CA. Zip Code 92028

24 hr. Emergency Contact Tel. No.

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTON Proper Shipping Name, Hazard Class, Identification Number (UN or NA), Packing Group, per 172.101, 172.202, 172.203	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
4		MACHinery see ATTACHED	39,200#			
		INVENTORY				
		Rec'd @ R19 CAAA Kathy Grimes 7-9-01				

PLACARDS TENDERED: YES ☐ NO ☐

Note – (1) Where the rate is dependent on value, shippeers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____."
(2) Where the applicable tariff provisions specify a limitation of the carrier's liability absent a release or a value declaration by the shipper and the shipper does not release the carrier's liability or declare a value, the carrier's liability shall be limited to the extent provided by such provisions. See NMFC Item 172.
(3) Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation. See section 2(e) of item 360, Bills of Lading, Freight Bills and Statements of Charges and Section 1(a) of the Contract Terms and Conditions for a list of such articles.

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

_____ Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor)

TOTAL CHARGES: $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

RECEIVED, subject to classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.
Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER BATTELLE / NAVY

PER Eike H. Hohenade 7/5/01

CARRIER Pacific treatment ENV. Se

PER Dennis L. Moore

DATE July 5/2001

1

Permanent post-office address of shipper

(Alt. 11/97) STYLE F160-3 LABELMASTER® (800) 621-5808 www.labelmaster.com

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Battelle
Navy Napalm D&D Project

Navy Requested Equipment
Shipping Inventory
Trailer # 2 (Xtra Lease, VIN 13N14820-3-W-1583340)

Shipper No. _____
Carrier No. 070501-2
Bill of Lading _____

Ship to:

Crane Army Activitiy, bldg 106/107

300 Highway 361

Crane, IN 47522-5000

Attn: Barbara Quigly 812-854-4696

Item	Description	Quantity	Weight (lbs)
✓1	HPU containment pans	✓2	4700
✓2	Single motor (150 HP) HPU section	✓1	4000
✓3	Secondary shredder **	✓1	29500
✓4	HPU motor control center with soft start	✓1	1000

Notes:
** Item contains gear oil in gear box and planetary gear reducer. MSDS attached.

Special shipping instructions:
Crane Army Activity works a 4-10s (7am to 5:30 pm) schedule and does not staff the plant on Fridays. Crane Army Activity further requests deliveries be made in the morning hours.

Rec'd @ R19 CAAA Kathy Thomas 7-9-01

I certify that the above listed 4 items were loaded onto the identified flatbed trailer in good condition and working order.
I further certify that no materials containing PCBs were ever used in the operation of any of the above listed equipment, all of which was purchased new in 1997 or later.

John Tixier / Battelle - Site Manager — signature — 7/3/01
print name / title — date

ATTENTION SHIPPERS! FREIGHT CHARGES ARE PREPAID ON THIS BILL OF LADING UNLESS MARKED COLLECT.

STRAIGHT BILL OF LADING

ORIGINAL–NOT NEGOTIABLE

Shipper No. BL2747

Page 1 of 1

Pacific Treatment Env Srv (Name of carrier) (SCAC)

Carrier No. 070501-

Date 7-20-0

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec. 1.

TO:
Consignee Crane Army Activity Bldg 106/12
Street 300 Highway 361
City Crane State IN Zip Code 47522

FROM:
Shipper WPnSuppFacSB Det Fallbro
Street 700 Ammunition Rd
City Fallbrook State CA Zip Code 92028
24 hr. Emergency Contact Tel. No. 619-441-1818

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTON Proper Shipping Name, Hazard Class, Identification Number (UN or NA), Packing Group, per 172.101, 172.202, 172.203	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
11		machinery - see attached Inventory	35,200#			

Received 7-24-01 Barbara Quigley

PLACARDS TENDERED: YES ☐ NO ☐

Note – (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____."
(2) Where the applicable tariff provisions specify a limitation of the carrier's liability absent a release or a value declaration by the shipper and the shipper does not release the carrier's liability or declare a value, the carrier's liability shall be limited to the extent provided by such provisions. See NMFC Item 172.
(3) Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation. See section 2(e) of Item 360, Bills of Lading, Freight Bills and Statements of Charges and Section 1(a) of the Contract Terms and Conditions for a list of such articles.

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

X _____ Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

_____ (Signature of Consignor)

TOTAL CHARGES: $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

RECEIVED, subject to classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.
Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER Battelle

PER [signature]

CARRIER Pacific treatment ENV. SRV.

PER Dennis L. Yoder

DATE July 20/2001

Permanent post-office address of shipper

(Alt. 11/97) STYLE F160-3 LABELMASTER® (800) 621-5808 www.labelmaster.com

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Battelle
Navy Napalm D&D Project

Navy Requested Equipment
Shipping Inventory
Trailer # 3 (Xtra Lease, VIN GRDM9621XMX020009)
UNIT #Q51719

Shipper No. BL2747
Carrier No. 070501-3
Bill of Lading 2747

Ship to:
Crane Army Activitiy, bldg 106/107
300 Highway 361
Crane, IN 47522-5000
Attn: Barbara Quigly 812-854-4696

Item	Description	Quantity	Weight (lbs)	
1	Primary shredder structural support/transition section	1	6000	
2	Primary shredder **	1	26000	
3	Maintenance crane masts (banded together)	2	150	est
4	Maintenance crane booms (banded together)	2		
5	Maintenance crane hoists (banded to steel pallet) w/ manual	2	200	est
6	Model 2CL10H-CDF Progressive Cavity Pump, Crate #4	1	1000	est
7	Model 2CL10H-CDF Progressive Cavity Pump, Crate #5	1	1000	est
8	55 Gallon Drum gear oil for shredders **	1	400	est
9	Spare parts - Crate #1	1	150	est
10	Spare parts - Crate #2	1	200	est
11	Spare parts - Crate #3	1	75	est

Notes:
** Item contains gear oil in gear box and planetary gear reducer. MSDS attached.
See attached packing list for crate inventories

Special shipping instructions:
Crane Army Activity works a 4-10s (7am to 5:30 pm) schedule and does not staff the plant on Fridays.
Crane Army Activity further requests deliveries be made in the morning hours.

I certify that the above listed 11 items were loaded onto the identified flatbed trailer in good condition and working order.
I further certify that no materials containing PCBs were ever used in the operation of any of the above listed equipment, all of which was purchased new in 1997 or later.

John Tixier / Site Manager — John Tixier — 7/20/01
print name / title — signature — date

Rec'd 7-24-01 Barbara Quigley

BL 2847
Carrier 070501-3

Battelle
Navy Napalm D&D Project

Spare Parts Crates

Shipped on Trailer #3 July 19, 2001

Packing List

Item	Description	Quantity	Weight (lbs)
Crate 1			est 300
1	Auxillary hydraulic pump	1	
2	Shaft sleeves for Primary/Secondary shredder restack	2	
3	Shaft sleeves for Wood shredder restack	2	
Crate 2			est 200
1	Primary/Secondary shredder hydraulic pump	1	
2	Auxillary hydraulic pump	1	
3	cutter teeth lifting fixture	2	
4	Spanner wrench	1	
5	Slotted Rear	2	
6	Hub	3	
7	O-rings for Hubs	3	
8	Box of parts for maintenance cranes	2	
9	Solenoid for HPU	1	
10	cleaning finger spacers	misc.	
Crate 3			est 100
1	Bearing seals for shredder shafts	10	
2	gear box seals for shredder shafts	8	
3	motor coupling (3 parts)	1	
4	door interlock switch	1	
5	HPU accumulators	3	
6	hydraulic manifolds	2	
7	flow relief valves	2	
8	pressure switch	2	
9	HPU tank heater element	2	
10	bolts	misc.	
Crate 4			est 1000
1	Model 2CL10H-CDF Continental progressing cavity pump with cast iron body, viton stator	1	
2	John Crane mechanical seal reservoir	1	
3	Spare Viton Stator	1	
4	Electrical disconnect switch - 30 A, 30 HP	1	
5	Literature pack with manuals	1	
Crate 5			est 1000
1	Model 2CL10H-CDF Continental progressing cavity pump with cast iron body, viton stator	1	
2	John Crane mechanical seal reservoir	1	
3	Electrical disconnect switch - 30 A, 30 HP	1	
4	Literature pack with manuals	1	

From

Napiam Project Site
Seal Beach Naval Weapons Station, Detachment Fallbrook
700 Ammunition Rd
Fall Brook CA 92028
Contact: John Tixier, Battelle, 760-731-3831

Ship To

Crane Army Activitiy, bldg 106/107
300 Highway 361
Crane, IN 47522-5000
Attn: Barbara Quigly 812-854-4696

BQ
7-24-01

ATTENTION SHIPPERS! FREIGHT CHARGES ARE PREPAID ON THIS BILL OF LADING UNLESS MARKED COLLECT.

STRAIGHT BILL OF LADING

ORIGINAL—NOT NEGOTIABLE

Shipper No. BL2747

Page 1 of 1

Pacific Treatment Env Srv (Name of carrier) (SCAC) Carrier No. 070501-3

Date 7-20-01

n Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec. 1.

TO:
Consignee Crane Army Activity Bldg 1060
Street 300 Highway 361
City Crane State In Zip Code 47522

FROM:
Shipper WPnSuppf-acSB Det Fallbro
Street 700 Ammunition Rd
City Fallbrook State CA Zip Code 92028
24 hr. Emergency Contact Tel. No. 619-441-1818

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTION Proper Shipping Name, Hazard Class, Identification Number (UN or NA), Packing Group, per 172.101, 172.202, 172.203	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
11		machinery - see attached Inventory	35,200#			

PLACARDS TENDERED: YES ☐ NO ☐

Note – (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____"
(2) Where the applicable tariff provisions specify a limitation of the carrier's liability absent a release or a value declaration by the shipper and the shipper does not release the carrier's liability or declare a value, the carrier's liability shall be limited to the extent provided by such provisions. See NMFC Item 172.
(3)Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation. See section 2(e) of Item 360, Bills of Lading, Freight Bills and Statements of Charges and Section 1(a) of the Contract Terms and Conditions for a list of such articles.

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

X _____ Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor)

TOTAL CHARGES: $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

RECEIVED, subject to classifications and tariffs in effect on the date of the issue of the Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.
Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER Battelle

PER

CARRIER Pacific treatment ENV. SERV.

PER

DATE July 20/2001

Permanent post-office address of shipper

(Alt. 11/97) STYLE F160-3 LABELMASTER® (800) 621-5808 www.labelmaster.com

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Battelle
Navy Napalm D&D Project

Navy Requested Equipment

Shipping Inventory

Trailer # 3 (Xtra Lease, VIN GRDM9621XMX020009)

UNIT #Q51719

Shipper No. BL2747

Carrier No. 070501-3

Bill of Lading 2747

Ship to:

Crane Army Activitiy, bldg 106/107

300 Highway 361

Crane, IN 47522-5000

Attn: Barbara Quigly 812-854-4696

Item	Description	Quantity	Weight (lbs)	
1	Primary shredder structural support/transition section	1	6000	
2	Primary shredder **	1	26000	
3	Maintenance crane masts (banded together)	2	150	est
4	Maintenance crane booms (banded together)	2		
5	Maintenance crane hoists (banded to steel pallet) w/ manual	2	200	est
6	Model 2CL10H-CDF Progressive Cavity Pump, Crate #4	1	1000	est
7	Model 2CL10H-CDF Progressive Cavity Pump, Crate #5	1	1000	est
8	55 Gallon Drum gear oil for shredders **	1	400	est
9	Spare parts - Crate #1	1	150	est
10	Spare parts - Crate #2	1	200	est
11	Spare parts - Crate #3	1	75	est

Notes:

** Item contains gear oil in gear box and planetary gear reducer. MSDS attached.
See attached packing list for crate inventories

Special shipping instructions:

Crane Army Activity works a 4-10s (7am to 5:30 pm) schedule and does not staff the plant on Fridays. Crane Army Activity further requests deliveries be made in the morning hours.

I certify that the above listed 11 items were loaded onto the identified flatbed trailer in good condition and working order.
I further certify that no materials containing PCBs were ever used in the operation of any of the above listed equipment, all of which was purchased new in 1997 or later.

John Tixier / Site Manager — John Tixier — 7/20/01

print name / title — signature — date

BL 2847
Carrier 070501-3

Battelle
Navy Napalm D&D Project

Spare Parts Crates

Shipped on Trailer #3 July 19, 2001

Packing List

Item	Description	Quantity	Weight (lbs)
Crate 1			est 300
1	Auxillary hydraulic pump	1	
2	Shaft sleeves for Primary/Secondary shredder restack	2	
3	Shaft sleeves for Wood shredder restack	2	
Crate 2			est 200
1	Primary/Secondary shredder hydraulic pump	1	
2	Auxillary hydraulic pump	1	
3	cutter teeth lifting fixture	2	
4	Spanner wrench	1	
5	Slotted Rear	2	
6	Hub	3	
7	O-rings for Hubs	3	
8	Box of parts for maintenance cranes	2	
9	Solenoid for HPU	1	
10	cleaning finger spacers	misc.	
Crate 3			est 100
1	Bearing seals for shredder shafts	10	
2	gear box seals for shredder shafts	8	
3	motor coupling (3 parts)	1	
4	door interlock switch	1	
5	HPU accumulators	3	
6	hydraulic manifolds	2	
7	flow relief valves	2	
8	pressure switch	2	
9	HPU tank heater element	2	
10	bolts	misc.	
Crate 4			est 1000
1	Model 2CL10H-CDF Continental progressing cavity pump with cast iron body, viton stator	1	
2	John Crane mechanical seal reservoir	1	
3	Spare Viton Stator	1	
4	Electrical disconnect switch - 30 A, 30 HP	1	
5	Literature pack with manuals	1	
Crate 5			est 1000
1	Model 2CL10H-CDF Continental progressing cavity pump with cast iron body, viton stator	1	
2	John Crane mechanical seal reservoir	1	
3	Electrical disconnect switch - 30 A, 30 HP	1	
4	Literature pack with manuals	1	

From

Naplam Project Site
Seal Beach Naval Weapons Station, Detachment Fallbrook
700 Ammunition Rd
Fall Brook CA 92028
Contact: John Tixier, Battelle, 760-731-3831

Ship To

Crane Army Activitiy, bldg 106/107
300 Highway 361
Crane, IN 47522-5000
Attn: Barbara Quigly 812-854-4696

ATTENTION SHIPPERS! FREIGHT CHARGES ARE PREPAID ON THIS BILL OF LADING UNLESS MARKED COLLECT.

STRAIGHT BILL OF LADING

ORIGINAL—NOT NEGOTIABLE

Shipper No. BL2748

Carrier No. 070501-4

Page 1 of 1

Pacific Treatment Env Srv (Name of carrier) (SCAC)

Date 7-20-01

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec. 1.

TO: Consignee Crane Army Activity Bldg 106/107

Street 300 Highway 361

City Crane State In Zip Code 47522

FROM: Shipper WPnSupp FacSB Det Fallbrook

Street 700 Amunition Rd

City Fallbrook State CA Zip Code 92028

24 hr. Emergency Contact Tel. No. 619-441-1818

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTION Proper Shipping Name, Hazard Class, Identification Number (UN or NA), Packing Group, per 172.101, 172.202, 172.203	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
9		machinery - See attached Inventory	10,240#			
		Received 7-24-01 Barbara Quigley				

PLACARDS TENDERED: YES ☐ NO ☐

Note – (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____."
(2) Where the applicable tariff provisions specify a limitation of the carrier's liability absent a release or a value declaration by the shipper and the shipper does not release the carrier's liability or declare a value, the carrier's liability shall be limited to the extent provided by such provisions. See NMFC Item 172.
(3) Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation. See section 2(e) Item 360, Bills of Lading, Freight Bills and Statements of Charges and Section 1(a) of the Contract Terms and Conditions for a list of such articles.

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

X _____ Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor)

TOTAL CHARGES: $

FREIGHT CHARGES

FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

RECEIVED, subject to classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked consigned, and destined as indicated above, which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.
Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER Battelle

PER [signature]

CARRIER Pacific treatment Env. Serv

PER Alfredo Tellez

DATE July 20 | 2001

1

Permanent post-office address of shipper

(Alt. 11/97) STYLE F160-3 LABELMASTER® (800) 621-5808 www.labelmaster.com

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Battelle
Navy Napalm D&D Project

Navy Requested Equipment

Shipping Inventory

Trailer # 4 (Ryder, VIN 1UYFS24831A530301)
UNIT # 211268

Shipper No. BL2748

Carrier No. 070501-4

Bill of Lading 2748

Ship to:
Crane Army Activitiy, bldg 106/107
300 Highway 361
Crane, IN 47522-5000
Attn: Barbara Quigly 812-854-4696

Item	Description	Quantity	Weight (lbs)	
1	Krause belt conveyor for shredded wood w/ conduit/rack	1	5900	
2	Metal pallet containing:	1	200	est
	Feed hopper support brackets	2		
	Conveyor pivot kingpin plate	1		
	Shredder discharge chute plate	2		
3	Wood shredder breaker bar	1	250	est
4	set of 2 support brackets for conveyor legs w/ hardware	1	200	est
5	wood shredder conveyor system control panel	1	200	est
6	Crate #1 with cool zone mist system components	1	250	est
7	box #2 with mist system parts	1	40	est
8	Crate #3 with wood shredder cutters and spacers	1	1500	
9	Crate #4 with wood shredder cutters and spacers	1	1700	

Notes:
See attached packing list for crate inventories

Special shipping instructions:
Crane Army Activity works a 4-10s (7am to 5:30 pm) schedule and does not staff the plant on Fridays. Crane Army Activity further requests deliveries be made in the morning hours.

I certify that the above listed 9 items were loaded onto the identified flatbed trailer in good condition and working order, with the following exceptions:
some flex conduit on item 1 is broken.
wood shredder teeth are used and need to be refurbished prior to reuse.
I further certify that no materials containing PCBs were ever used in the operation of any of the above listed equipment, all of which was purchased new in 1997 or later.

John Tixier / Site Manager — signature — 7/20/01
print name / title — signature — date

Rec'd 7-24-01 Barbara Quigley

Battelle
Navy Napalm D&D Project

BL2748
Carrier 070501-4

Spare Parts Crates

Shipped on Trailer #4 to Crane, IN July 19, 2001

Packing List

Item	Description	Quantity	Weight (lbs)
Crate 1			est 250
1	Cool Zone Mist System pump and housing assembly	1	
2	zone control panel	2	
3	480:120, single phase step down transformer	1	
4	120 outdoor outlet	1	
5	small junction box	1	
Box #2			est 40
1	Mist system hose/nozzle set	3	
2	extra mist system hose	misc lengths	
3	gpm flow totalizer with pressure gauge	1	
4	box of misc spare nozzles, fittings, etc.	1	
Crate 3			1500
1	Wood shredder cutter teeth	16	
2	Wood shredder spacers	15	
Crate 4			1700
1	Wood shredder cutter teeth	17	
2	Wood shredder spacers	17	

From

Naplam Project Site
Seal Beach Naval Weapons Station, Detachment Fallbrook
700 Ammunition Rd
Fall Brook CA 92028
Contact: John Tixier, Battelle, 760-731-3831

Ship To

Crane Army Activitiy, bldg 106/107
300 Highway 361
Crane, IN 47522-5000
Attn: Barbara Quigly 812-854-4696

BQ
7-24-01

ATTENTION SHIPPERS! FREIGHT CHARGES ARE PREPAID ON THIS BILL OF LADING UNLESS MARKED COLLECT.

STRAIGHT BILL OF LADING

ORIGINAL—NOT NEGOTIABLE

Shipper No. BL2748

Page 1 of 1

Pacific Treatment Env SRv (Name of carrier) (SCAC)

Carrier No. 070501-4

Date 7-20-01

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec. i.

TO:
Consignee Crane Army Activity Bldg 106/107
Street 300 Highway 361
City Crane State In Zip Code 47522

FROM:
Shipper WPnSupp FacSB Det Fallbrook
Street 700 Amunition Rd
City Fallbrook State CA Zip Code 92028
24 hr. Emergency Contact Tel. No. 619-441-1818

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTON. Proper Shipping Name, Hazard Class, Identification Number (UN or NA), Packing Group, per 172.101, 172.202, 172.203	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
9		machinery - See attached Inventory	10,240#			

PLACARDS TENDERED: YES ☐ NO ☐

Note – (1) Where the rate is dependent on value, shippeers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____
(2) Where the applicable tariff provisions specify a limitation of the carrier's liability absent a release or a value declaration by the shipper and the shipper does not release the carrier's liability or declare a value, the carrier's liability shall be limited to the extent provided by such provisions. See NMFC Item 172.
(3)Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation. See section 2(e) of Item 360, Bills of Lading, Freight Bills and Statements of Charges and Section 1(a) of the Contract Terms and Conditions for a list of such articles.

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

X _____ Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor)

TOTAL CHARGES: $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

RECEIVED, subject to classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.
Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER Battelle

PER [signature]

CARRIER Pacific treatment ENV. Serv

PER Alfredo Tellez

DATE July 20 2001

Permanent post-office address of shipper

(Alt. 11/97) STYLE F160-3 LABELMASTER® (800) 621-5808 www.labelmaster.com

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Battelle
Navy Napalm D&D Project

Navy Requested Equipment

Shipping Inventory

Trailer # 4 (Ryder, VIN 1UYFS24831A530301)
UNIT # 211268

Shipper No. BL2748

Carrier No. 070501-4

Bill of Lading 2748

Ship to:
Crane Army Activitiy, bldg 106/107
300 Highway 361
Crane, IN 47522-5000
Attn: Barbara Quigly 812-854-4696

Item	Description	Quantity	Weight (lbs)	
1	Krause belt conveyor for shredded wood w/ conduit/rack	1	5900	
2	Metal pallet containing:	1	200	est
	Feed hopper support brackets	2		
	Conveyor pivot kingpin plate	1		
	Shredder discharge chute plate	2		
3	Wood shredder breaker bar	1	250	est
4	set of 2 support brackets for conveyor legs w/ hardware	1	200	est
5	wood shredder conveyor system control panel	1	200	est
6	Crate #1 with cool zone mist system components	1	250	est
7	box #2 with mist system parts	1	40	est
8	Crate #3 with wood shredder cutters and spacers	1	1500	
9	Crate #4 with wood shredder cutters and spacers	1	1700	

Notes:
See attached packing list for crate inventories

Special shipping instructions:
Crane Army Activity works a 4-10s (7am to 5:30 pm) schedule and does not staff the plant on Fridays. Crane Army Activity further requests deliveries be made in the morning hours.

I certify that the above listed 9 items were loaded onto the identified flatbed trailer in good condition and working order, with the following exceptions:
some flex conduit on item 1 is broken.
wood shredder teeth are used and need to be refurbished prior to reuse.
I further certify that no materials containing PCBs were ever used in the operation of any of the above listed equipment, all of which was purchased new in 1997 or later.

John Tixier / Site Manager — print name / title
signature
7/20/01 — date

Battelle
Navy Napalm D&D Project

BL2748
Carrier 070501-4

Spare Parts Crates

Shipped on Trailer #4 to Crane, IN July 19, 2001

Packing List

Item	Description	Quantity	Weight (lbs)
Crate 1			est 250
1	Cool Zone Mist System pump and housing assembly	1	
2	zone control panel	2	
3	480:120, single phase step down transformer	1	
4	120 outdoor outlet	1	
5	small junction box	1	
Box #2			est 40
1	Mist system hose/nozzle set	3	
2	extra mist system hose	misc lengths	
3	gpm flow totalizer with pressure gauge	1	
4	box of misc spare nozzles, fittings, etc.	1	
Crate 3			1500
1	Wood shredder cutter teeth	16	
2	Wood shredder spacers	15	
Crate 4			1700
1	Wood shredder cutter teeth	17	
2	Wood shredder spacers	17	

From

Naplam Project Site
Seal Beach Naval Weapons Station, Detachment Fallbrook
700 Ammunition Rd
Fall Brook CA 92028
Contact: John Tixier, Battelle, 760-731-3831

Ship To

Crane Army Activitiy, bldg 106/107
300 Highway 361
Crane, IN 47522-5000
Attn: Barbara Quigly 812-854-4696

ATTENTION SHIPPERS! FREIGHT CHARGES ARE PREPAID ON THIS BILL OF LADING UNLESS MARKED COLLECT.

STRAIGHT BILL OF LADING

ORIGINAL–NOT NEGOTIABLE

Shipper No. BL2753

Carrier No. 070501-5

Page 1 of 1

Pacific treatment Env. Serv.

(Name of carrier) (SCAC)

Date

In Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec. 1.

TO: Consignee Crane Army Activity Bldg 106/107

Street 300 Highway 361

City Crane State IN Zip Code 47522

FROM: Shipper WPNSUPP FACSB Det Fallbrook

Street 700 Ammunition Rd.

City Fallbrook State CA Zip Code 92028

24 hr. Emergency Contact Tel. No (619) 441-1818

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTION Proper Shipping Name, Hazard Class, Identification Number (UN or NA), Packing Group, per 172.101, 172.202, 172.203	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
11		STRUCTURES, Frames, CRATES:	11	39,011		
		see attached Inventory				
		Received 8Aug01 by Barbara Quigley				

PLACARDS TENDERED: YES ☐ NO ☐

Note – (1) Where the rate is dependent on value, shippeers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____"
(2) Where the applicable tariff provisions specify a limitation of the carrier's liability absent a release or a value declaration by the shipper and the shipper does not release the carrier's liability or declare a value, the carrier's liability shall be limited to the extent provided by such provisions. See NMFC Item 172.
(3)Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation. See section 2(e) of Item 360, Bills of Lading, Freight Bills and Statements of Charges and Section 1(a) of the Contract Terms and Conditions for a list of such articles.

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor)

TOTAL CHARGES: $

FREIGHT CHARGES

FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

RECEIVED, subject to classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.
Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER Battelle

PER

CARRIER Pacific Treatment

PER D.L. Moore

DATE 8-4-01

1

Permanent post-office address of shipper

(Alt. 11/97) STYLE F160-3 LABELMASTER® (800) 621-5808 www.labelmaster.com

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Battelle
Navy Napalm D&D Project

Navy Requested Equipment

Shipping Inventory

Trailer # 5 (Ryder, VIN 1UYFS24841A530301)
UNIT # 211277

Shipper No. BL2753

Carrier No. 070501-5

Bill of Lading 2753

Ship to:
Crane Army Activitiy, bldg 106/107
300 Highway 361
Crane, IN 47522-5000
Attn: Barbara Quigly 812-854-4696

Item	Description	Quantity	Weight (lbs)	
1	Box #1 (1 of 2) Resharpened cutter teeth (16 pieces)	1	2400	
2	Box #2 (2 of 2) Resharpened cutter teeth (16 pieces)	1	2400	
3	Box #3 Spacers for Resharpened cutters	1	700	
4	Secondary Shredder maintenance crane mast	1	2000	
5	Primary Shredder maintenance crane mast	1	3000	
6	Rack of structural steel (18 pieces per attached Inventory)	18	10626	
7	Box #4 Bolts and hardware for structural steel	1	200	est
8	Box of 20 used cutters for shredders	5	15000	
9	Bundle #1 Strucutral tube steel (13 pcs per att inv)	1	740	
10	Bundle #6 Structural columns (2 pcs per att inv)	1	1063	
11	Structural steel legs (assm 6-A, per att inv)	1	882	

Notes:
See attached inventory for structural steel parts

Special shipping instructions:
Crane Army Activity works a 4-10s (7am to 5:30 pm) schedule and does not staff the plant on Fridays. Crane Army Activity further requests deliveries be made in the morning hours.

I certify that the above listed 11 items were loaded onto the identified flatbed trailer in good condition and working order, with the following exceptions:
some flex conduit on item 1 is broken.
wood shredder teeth are used and need to be returbished prior to reuse.
I further certify that no materials containing PCBs were ever used in the operation of any of the above listed equipment, all of which was purchased new in 1997 or later.

John Tixier / Site Manager — print name / title
signature
8/3/01 — date

Rec'd 8 Aug 01 by Barbara Quigley

Battelle
Navy Napalm D&D Project

Navy Requested Equipment

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John Tiner / Site Manager — print name / title
signature
8/3/01 — date

TTENTION SHIPPERS! FREIGHT CHARGES ARE PREPAID ON THIS BILL OF LADING UNLESS MARKED COLLECT.

STRAIGHT BILL OF LADING

ORIGINAL–NOT NEGOTIABLE

Shipper No. BL2754

Carrier No. 070501-6

Page 1 of 1

Pacific treatment ENV. Serv.

(Name of carrier) (SCAC)

Date 8/4/2001

n Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec. i.

TO:
onsignee Crane Army Activity Bldg 106/107
treet 300 Highway 361
ity CRANE State CA. Zip Code 47522

FROM:
Shipper WPNSUPP FACSB Det FALLBROOK
Street 700 AMMUNITION RD
City FALLBROOK State CA Zip Code 92028
24 hr. Emergency Contact Tel. No. (619) 441-1818

oute

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTON Proper Shipping Name, Hazard Class, Identification Number (UN or NA), Packing Group, per 172.101, 172.202, 172.203	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
10		STRUCTURES, FRAMES, CRATES:	10	29,270		
		see attached inventory				
		Received 8 Aug 01 by Barbara Quigley				

PLACARDS TENDERED: YES ☐ NO ☐

lote – (1) Where the rate is dependent on value, shippeers are required to state ecifically in writing the agreed or declared value of the property, as follows: "The reed or declared value of the property is hereby specifically stated by the shipper to not exceeding _____ per _____."
Where the applicable tariff provisions specify a limitation of the carrier's liability sent a release or a value declaration by the shipper and the shipper does not release carrier's liability or declare a value, the carrier's liability shall be limited to the extent vided by such provisions. See NMFC Item 172.
Commodities requiring special or additional care or attention in handling or stowing st be so marked and packaged as to ensure safe transportation. See section 2(e) Item 360, Bills of Lading, Freight Bills and Statements of Charges and Section 1(a) he Contract Terms and Conditions for a list of such articles.

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor)

TOTAL CHARGES: $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked
Check box if charges are to be collect ☐

RECEIVED, subject to classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.
Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

IPPER Battelle

R

CARRIER Pacific treatment ENV. Serv

PER Alfredo Tellez

DATE 8/4/2001

1

manent post-office address of shipper

(Alt. 11/97) STYLE F160-3 LABELMASTER® (800) 621-5808 www.labelmaster.com

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Battelle
Navy Napalm D&D Project

Navy Requested Equipment

Shipping Inventory

Trailer # 6 (Xtralease, VIN 13N-24830-7-X1597269)
UNIT # Q52177

Shipper No. BL2754

Carrier No. 070501-6

Bill of Lading 2754

Ship to:
Crane Army Activitiy, bldg 106/107
300 Highway 361
Crane, IN 47522-5000
Attn: Barbara Quigly 812-854-4696

Item	Description	Quantity	Weight (lbs)
1	Structural Steel (11 pieces per attached inventory)	11	2773
2	Bundle #7 Ladders (3 pieces per attached inventory)	1	1300
3	Bundle #4 hand rails (11 pieces per attached inventory)	1	723
4	Bundle #5 hand rails (16 pieces per attached inventory)	1	1287
5	Bundle #3 short structural channels (6 pieces per att inv)	1	219
6	Bundle #2 W-beams (6 pieces per attached inventory)	1	1812
7	Bundle #8 Structural channels (7 pieces per att inv)	1	585
8	Bundle #9 Structural channels on steel pallet (4 pieces...)	1	499
9	Bundle #10 Structural columns (6 pieces per att inv)	1	2072
10	Crate of 20 used cutter teeth	6	18000

Notes:
See attached inventory for structural steel parts

Special shipping instructions:
Crane Army Activity works a 4-10s (7am to 5:30 pm) schedule and does not staff the plant on Fridays. Crane Army Activity further requests deliveries be made in the morning hours.

I certify that the above listed 10 items were loaded onto the identified flatbed trailer in good condition and working order, with the following exceptions:
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I further certify that no materials containing PCBs were ever used in the operation of any of the above listed equipment, all of which was purchased new in 1997 or later.

John Tiner / Site Manager — signature — 8/3/01
print name / title — date

Rec'd 8 Aug 01 by Barbara Quigley

Battelle
Navy Napalm D&D Project

Navy Requested Equipment

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John Tiller / Site Manager — print name / title
signature
8/3/01 — date

SSI Shredder Structural Steel Inventory

Sorted by shipper

Shipping Key: T = Trailer; B = Bundle

Part #	Description	WT.	QTY.	Disassembled	Shipped	Received
ASSM 6-A	W8 x 31 x 17' - 7" with 2x6B legs	882	1	X	T5	
15E	TS 3 x 3 x 1/4 x 14' - 7 3/8"	129	1	X	T5 B1	
15G	TS 3 x 3 x 1/4 x 12' - 2 3/16"	107	1	X	T5 B1	
15H	TS 3 x 3 x 1/4 x 10' - 2 3/4"	90	1	X	T5 B1	
16A	TS 3 x 3 x 1/4 x 10' - 2 13/16"	90	1	X	T5 B1	
16F	TS 3 x 3 x 1/4 x 12' - 9"	112	1	X	T5 B1	
15F	TS 3 x 3 x 1/4 x 6' - 8 7/16"	59	2	XX	T5 B1 x2	
16C	TS 3 x 3 x 1/4 x 8' - 7 1/8"	76	2	XX	T5 B1 x2	
16D	TS 3 x 3 x 1/4 x 5' - 3 5/16"	46	2	XX	T5 B1 x2	
16E	TS 3 x 3 x 1/4 x 3' - 6 3/4"	30	2	XX	T5 B1 x2	
COL 7C	column TS 6 x 6 x 3/8 x 11' - 3 3/4" w/ outrigger	540	1	X	T5 B6	
COL 7D	column TS 6 x 6 x 3/8 x 10' - 7 11/16" w/ outrigger	523	1	X	T5 B6	
10A	W8 x 31 x 14' - 11 11/16"	465	1	X	T5 rack	
10G	W12 x 35 x 12' - 9"	446	1	X	T5 rack	
11B	W8 x 31 x 9' - 6"	295	1	X	T5 rack	
11D	W8 x 31 x 9' - 6"	295	1	X	T5 rack	
11F	W8 x 31 x 10' -2 3/4"	317	1	X	T5 rack	
11H	W8 x 31 x 10' - 2 3/4"	317	1	X	T5 rack	
12A	W8 x 31 x 12' - 9"	395	1	X	T5 rack	
12B	W8 x 31 x 12' - 9"	395	1	X	T5 rack	
12D	W8 x 31 13' - 3/8"	403	1	X	T5 rack	
12J	W8 x 31 x 13' - 3/8"	403	1	X	T5 rack	
13H	W8 x 28 x 13' - 2 1/2"	370	1	X	T5 rack	
14C	W8 x 28 13' - 3 1/2" w/ step	371	1	X	T5 rack	
14F	W8 x 28 x 13' - 3 1/2"	372	1	X	T5 rack	
15A	W8 x 28 x 18' - 5 5/8"	516	1	X	T5 rack	
15B	W8 x 28 x 18' - 5 5/8"	516	1	X	T5 rack	
9L	W8 x 31 x 14' - 11 11/16"	465	1	X	T5 rack	
9M	W8 x 31 x 13' - 3 11/16"	410	1	X	T5 rack	
ASSM 9-A	3 x 3 rail support	3875	1	X	T5 rack	
10B	W8 x 28 x 4' - 11 11/16"	140	1	X	T6	
10C	W8 x 28 x 4' - 11 11/16"	140	1	X	T6	
10D/10E/10F	W8 x 28 x 14' - 8 3/8" x 8' "Tee"	635	1	X	T6	
11A	W8 x 28 x 5' - 3 11/16"	150	1	X	T6	
12E	W8 x 31 x 5' - 11 11/16"	186	1	X	T6	
12F	W8 x 28 x 6' - 7 3/16"	184	2	XX	T6 x2	
13A	W8 x 31 x 5' - 5"	168	1	X	T6	
13E	W8 x 28 x 7' - 11 11/16"	222	1	X	T6	
ASSM 16-A	2 x TS 3 x 3 x 1/4 yoke (2x16B)	92	1	X	T6	
COL 8E/8F/8G	column ("H" assm) TS 6 x 6 x 3/8 x 10' - 7 11/16"	896	1	X	T6	
COL 7A	column TS 6 x 6 x 3/8	312	1	X	T6 B10	
COL 7B	column TS 6 x 6 x 3/8	312	1	X	T6 B10	
COL 8A	column TS 6 x 6 x 3/8 x 10' - 7 11/16"	352	1	X	T6 B10	
COL 8B	column TS 6 x 6 x 3/8 x 11' - 3 3/4"	384	1	X	T6 B10	
COL 8C	column TS 6 x 6 x 3/8 x 10' -7 11/16"	344	1	X	T6 B10	
COL 8D	column TS 6 x 6 x 3/8 x 11' - 3 3/4"	368	1	X	T6 B10	

Napalm D8/3/01 project

SSI Shredder Structural Steel Inventory

Sorted by shipper

Shipping Key:
T = Trailer; B = Bundle

Part #	Description	WT.	QTY.	Disassembled	Shipped	Received
14A	W8 x 31 x 10' - 3/16"	312	1	X	T6 B2	
14B	W8 x 31 x 10' - 3/16"	312	1	X	T6 B2	
11C	W8 x 28 x 9' -3 11/16"	261	2	XX	T6 B2 x2	
11G	W8 x 31 x 10' - 9 7/16"	333	2	XX	T6 B2 x2	
12G	C8 x 11.5 x 3' - 3 11/16"	38	1	X	T6 B3	
12H	C8 x 11.5 x 3' - 3 11/16"	38	1	X	T6 B3	
13C	C8 x 11.5 x 2' - 7 11/16"	30	1	X	T6 B3	
14E	C8 x 11.5 x 3' - 5 1/8"	39	1	X	T6 B3	
15C	C8 x 11.5 x 3' - 5 3/8"	37	1	X	T6 B3	
15D	C8 x 11.5 x 3' - 5 3/8"	37	1	X	T6 B3	
HR 19-B	hand rail	47	1	X	T6 B4	
HR 19-C	hand rail	45	1	X	T6 B4	
HR 19-G	hand rail	75	1	X	T6 B4	
HR 19-J	hand rail	48	1	X	T6 B4	
HR 19-M	hand rail	29	1	X	T6 B4	
HR 19-S	hand rail	80	1	X	T6 B4	
HR 19-T	hand rail	79	1	X	T6 B4	
HR 19-Y	hand rail	42	1	X	T6 B4	
HR 19-R	hand rail	77	2	XX	T6 B4 x2	
HR 19-D	hand rail	67	1	X	T6 B5	
HR 19-E	hand rail	68	1	X	T6 B5	
HR 19-K	hand rail	60	1	X	T6 B5	
HR 19-L	hand rail	64	1	X	T6 B5	
HR 19-P	hand rail	65	1	X	T6 B5	
HR 19-Q	hand rail	71	1	X	T6 B5	
HR 19-U	hand rail	85	1	X	T6 B5	
HR 19-V	hand rail	96	1	X	T6 B5	
HR 19-W	hand rail	78	1	X	T6 B5	
HR 19-X	hand rail	89	1	X	T6 B5	
HR 19-Z	hand rail	88	1	X	T6 B5	
HR 19-A	hand rail	81	2	XX	T6 B5 x2	
HR 19-H	hand rail	60	2	XX	T6 B5 x2	
HR 19-F	hand rail	74	2	XX	T6 B5/B6	
HR 19-N	hand rail		2	doesn't exist		
ASSM 18-A	long stair	640	1	X	T6 B7	
ASSM 17-A	short stair	330	2	XX	T6 B7 x2	
12C	C8 x 11.5 x 5' - 11 11/16"	69	1	X	T6 B8	
13B	C8 x 11.5 x 7' - 11 11/16"	92	1	X	T6 B8	
13D	C8 x 11.5 x 7' - 11 11/16"	92	1	X	T6 B8	
13F	C8 x 11.5 x 7' - 11 11/16"	92	1	X	T6 B8	
14D	C8 x 11.5 x 10' - 3/16"	116	1	X	T6 B8	
14G	C8 x 11.5 x 5' - 5 1/8"	62	1	X	T6 B8	
14H	C8 x 11.5 x 5' - 5 1/8"	62	1	X	T6 B8	
11E	C8 x 11.5 x 7' - 2 11/16"	83	1	X	T6 B9	
13G	C8 x 11.5 x 7' - 11 11/16"	92	1	X	T6 B9	
9J	C8 x 11.5 x 14' - 11 11/16"	172	1	X	T6 B9	
9K	C8 x 11.5 x 13' - 3 11/16"	152	1	X	T6 B9	

SSI Shredder Structural Steel Inventory

Sorted by part #

Shipping Key: T = Trailer; B = Bundle

Part #	Description	WT.	QTY.	Disassembled	Shipped	Received
9J	C8 x 11.5 x 14' - 11 11/16"	172	1	X	T6 B9	
9K	C8 x 11.5 x 13' - 3 11/16"	152	1	X	T6 B9	
9L	W8 x 31 x 14' - 11 11/16"	465	1	X	T5 rack	
9M	W8 x 31 x 13' - 3 11/16"	410	1	X	T5 rack	
10A	W8 x 31 x 14' - 11 11/16"	465	1	X	T5 rack	
10B	W8 x 28 x 4' - 11 11/16"	140	1	X	T6	
10C	W8 x 28 x 4' - 11 11/16"	140	1	X	T6	
10D/10E/10F	W8 x 28 x 14' - 8 3/8" x 8' "Tee"	635	1	X	T6	
10G	W12 x 35 x 12' - 9"	446	1	X	T5 rack	
11A	W8 x 28 x 5' - 3 11/16"	150	1	X	T6	
11B	W8 x 31 x 9' - 6"	295	1	X	T5 rack	
11C	W8 x 28 x 9' -3 11/16"	261	2	XX	T6 B2 x2	
11D	W8 x 31 x 9' - 6"	295	1	X	T5 rack	
11E	C8 x 11.5 x 7' - 2 11/16"	83	1	X	T6 B9	
11F	W8 x 31 x 10' -2 3/4"	317	1	X	T5 rack	
11G	W8 x 31 x 10' - 9 7/16"	333	2	XX	T6 B2 x2	
11H	W8 x 31 x 10' - 2 3/4"	317	1	X	T5 rack	
12A	W8 x 31 x 12' - 9"	395	1	X	T5	
12B	W8 x 31 x 12' - 9"	395	1	X	T5	
12C	C8 x 11.5 x 5' - 11 11/16"	69	1	X	T6 B8	
12D	W8 x 31 13' - 3/8"	403	1	X	T5	
12E	W8 x 31 x 5' - 11 11/16"	186	1	X	T6	
12F	W8 x 28 x 6' - 7 3/16"	184	2	XX	T6 x2	
12G	C8 x 11.5 x 3' - 3 11/16"	38	1	X	T6 B3	
12H	C8 x 11.5 x 3' - 3 11/16"	38	1	X	T6 B3	
12J	W8 x 31 x 13' - 3/8"	403	1	X	T5 rack	
13A	W8 x 31 x 5' - 5"	168	1	X	T6	
13B	C8 x 11.5 x 7' - 11 11/16"	92	1	X	T6 B8	
13C	C8 x 11.5 x 2' - 7 11/16"	30	1	X	T6 B3	
13D	C8 x 11.5 x 7' - 11 11/16"	92	1	X	T6 B8	
13E	W8 x 28 x 7' - 11 11/16"	222	1	X	T6	
13F	C8 x 11.5 x 7' - 11 11/16"	92	1	X	T6 B8	
13G	C8 x 11.5 x 7' - 11 11/16"	92	1	X	T6 B9	
13H	W8 x 28 x 13' - 2 1/2"	370	1	X	T5 rack	
14A	W8 x 31 x 10' - 3/16"	312	1	X	T6 B2	
14B	W8 x 31 x 10' - 3/16"	312	1	X	T6 B2	
14C	W8 x 28 13' - 3 1/2" w/ step	371	1	X	T5 rack	
14D	C8 x 11.5 x 10' - 3/16"	116	1	X	T6 B8	
14E	C8 x 11.5 x 3' - 5 1/8"	39	1	X	T6 B3	
14F	W8 x 28 x 13' - 3 1/2"	372	1	X	T5 rack	
14G	C8 x 11.5 x 5' - 5 1/8"	62	1	X	T6 B8	
14H	C8 x 11.5 x 5' - 5 1/8"	62	1	X	T6 B8	
15A	W8 x 28 x 18' - 5 5/8"	516	1	X	T5 rack	
15B	W8 x 28 x 18' - 5 5/8"	516	1	X	T5 rack	
15C	C8 x 11.5 x 3' - 5 3/8"	37	1	X	T6 B3	
15D	C8 x 11.5 x 3' - 5 3/8"	37	1	X	T6 B3	
15E	TS 3 x 3 x 1/4 x 14' - 7 3/8"	129	1	X	T5 B1	

Napalm D8/3/01 project

SSI Shredder Structural Steel Inventory

Sorted by part #

Shipping Key: T = Trailer; B = Bundle

Part #	Description	WT.	QTY.	Disassembled	Shipped	Received
15F	TS 3 x 3 x 1/4 x 6' - 8 7/16"	59	2	XX	T5 B1 x2	
15G	TS 3 x 3 x 1/4 x 12' - 2 3/16"	107	1	X	T5 B1	
15H	TS 3 x 3 x 1/4 x 10' - 2 3/4"	90	1	X	T5 B1	
16A	TS 3 x 3 x 1/4 x 10' - 2 13/16"	90	1	X	T5 B1	
16C	TS 3 x 3 x 1/4 x 8' - 7 1/8"	76	2	XX	T5 B1 x2	
16D	TS 3 x 3 x 1/4 x 5' - 3 5/16"	46	2	XX	T5 B1 x2	
16E	TS 3 x 3 x 1/4 x 3' - 6 3/4"	30	2	XX	T5 B1 x2	
16F	TS 3 x 3 x 1/4 x 12' - 9"	112	1	X	T5 B1	
ASSM 6-A	W8 x 31 x 17' - 7" with 2x6B legs	882	1	X	T5	
ASSM 9-A	3 x 3 rail support	3875	1	X	T5 rack	
ASSM 16-A	2 x TS 3 x 3 x 1/4 yoke (2x16B)	92	1	X	T6	
ASSM 17-A	short stair	330	2	XX	T6 B7 x2	
ASSM 18-A	long stair	640	1	X	T6 B7	
COL 7A	column TS 6 x 6 x 3/8	312	1	X	T6 B10	
COL 7B	column TS 6 x 6 x 3/8	312	1	X	T6 B10	
COL 7C	column TS 6 x 6 x 3/8 x 11' - 3 3/4" w/ outrigger	540	1	X	T5 B6	
COL 7D	column TS 6 x 6 x 3/8 x 10' - 7 11/16" w/ outrigger	523	1	X	T5 B6	
COL 8A	column TS 6 x 6 x 3/8 x 10' - 7 11/16"	352	1	X	T6 B10	
COL 8B	column TS 6 x 6 x 3/8 x 11' - 3 3/4"	384	1	X	T6 B10	
COL 8C	column TS 6 x 6 x 3/8 x 10' -7 11/16"	344	1	X	T6 B10	
COL 8D	column TS 6 x 6 x 3/8 x 11' - 3 3/4"	368	1	X	T6 B10	
COL 8E/8F/8G	column ("H" assm) TS 6 x 6 x 3/8 x 10' - 7 11/16"	896	1	X	T6	
HR 19-A	hand rail	81	2	XX	T6 B5 x2	
HR 19-B	hand rail	47	1	X	T6 B4	
HR 19-C	hand rail	45	1	X	T6 B4	
HR 19-D	hand rail	67	1	X	T6 B5	
HR 19-E	hand rail	68	1	X	T6 B5	
HR 19-F	hand rail	74	2	XX	T6 B5/B6	
HR 19-G	hand rail	75	1	X	T6 B4	
HR 19-H	hand rail	60	2	XX	T6 B5 x2	
HR 19-J	hand rail	48	1	X	T6 B4	
HR 19-K	hand rail	60	1	X	T6 B5	
HR 19-L	hand rail	64	1	X	T6 B5	
HR 19-M	hand rail	29	1	X	T6 B4	
HR 19-N	hand rail		2	doesn't exist		
HR 19-P	hand rail	65	1	X	T6 B5	
HR 19-Q	hand rail	71	1	X	T6 B5	
HR 19-R	hand rail	77	2	XX	T6 B4 x2	
HR 19-S	hand rail	80	1	X	T6 B4	
HR 19-T	hand rail	79	1	X	T6 B4	
HR 19-U	hand rail	85	1	X	T6 B5	
HR 19-V	hand rail	96	1	X	T6 B5	
HR 19-W	hand rail	78	1	X	T6 B5	
HR 19-X	hand rail	89	1	X	T6 B5	
HR 19-Y	hand rail	42	1	X	T6 B4	
HR 19-Z	hand rail	88	1	X	T6 B5	

ATTENTION SHIPPERS! FREIGHT CHARGES ARE PREPAID ON THIS BILL OF LADING UNLESS MARKED COLLECT.

BL 2771

STRAIGHT BILL OF LADING

ORIGINAL—NOT NEGOTIABLE

Shipper No. BL2771

Page 1 of 1

Pacific treatment ENV. Services (Name of carrier) (SCAC)

Carrier No. 070501-7

Date 8/25/01

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec. 1.

TO: Consignee Crane Army Activity Bldg 06/107

Street 300 Highway 361

City Crane State IN Zip Code 47522

ATT. BARBARA Quigley (812) 854-4696

FROM: Shipper WPNSUPP FacSB Det. Fallbrook

Street 700 Ammunition Rd

City Fallbrook State CA. Zip Code 92028

24 hr. Emergency Contact Tel. No. (619) 441-1818

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTION Proper Shipping Name, Hazard Class, Identification Number (UN or NA), Packing Group, per 172.101, 172.202, 172.203	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
12 cw		Crates of steel parts	37,200 P			
1 dm		1x55 gallon drum gear oil	400 P			
4 cm		pallet w/ steel grating	7200 P			
1		steel beam	200 P			
		Received by Barbara Quigley 29 Aug 01				

PLACARDS TENDERED: YES ☐ NO ☐

Note – (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to not exceeding _____ per _____."
(2) Where the applicable tariff provisions specify a limitation of the carrier's liability absent a release or a value declaration by the shipper and the shipper does not release the carrier's liability or declare a value, the carrier's liability shall be limited to the extent provided by such provisions. See NMFC Item 172.
(3)Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation. See section 2(e) Item 360, Bills of Lading, Freight Bills and Statements of Charges and Section 1(a) the Contract Terms and Conditions for a list of such articles.

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor)

TOTAL CHARGES: $

FREIGHT CHARGES

FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

RECEIVED, subject to classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.
Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER Battelle

PER

CARRIER Pacific treatment ENV. Ser

PER Alfredo Tellez

DATE 8/25/01

1

Permanent post-office address of shipper

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Battelle
Navy Napalm D&D Project

Navy Requested Equipment

Shipping Inventory

Trailer # 7 (Ryder VIN 1UYFS24831A530301)
UNIT # 211268

Shipper No. BL2771

Carrier No. 070501-7

Bill of Lading 2771

Ship to:
Crane Army Activitiy, bldg 106/107
300 Highway 361
Crane, IN 47522-5000
Attn: Barbara Quigly - 812-854-4696

Item	Description	Quantity	Weight (lbs)	
1	Crate of used cutter teeth crates 1 - 11 contain 20 pieces, crate 12 contains 16 pcs	12	37200	
2	55 Gallon Drum gear oil for shredders **	1	400	est
3	Bundle #11 steel grating per attached inventory	1	1400	
4	Bundle #12 steel grating per attached inventory	1	1600	
5	Bundle #13 steel grating per attached inventory	1	2100	
6	Bundle #14 steel grating per attached inventory	1	2100	
7	Steel beam - Secondary Shredder Maintenance part	1	200	est

Notes:
** Item contains gear oil in gear box and planetary gear reducer. MSDS attached.
See attached inventory for grating packaging distribution

Special shipping instructions:
Crane Army Activity works a 4-10s (7am to 5:30 pm) schedule and does not staff the plant on Fridays.
Crane Army Activity further requests deliveries be made in the morning hours.

I certify that the above listed 7 items were loaded onto the identified flatbed trailer in good condition and working order.

I further certify that no materials containing PCBs were ever used in the operation of any of the above listed equipment, all of which was purchased new in 1997 or later.

John Tixier / Site Manager — 8-24-01
print name / title — signature — date

Rec'd by Barbara Quigley 29 Aug 01

Battelle
Navy Napalm D&D Project

Navy Requested Equipment

Shipping Inventory

Trailer # 7 (Ryder VIN 1UYFS24831A530301)
UNIT # 211268

Shipper No. BL2771

Carrier No. 070501-7

Bill of Lading 2771

Ship to:
Crane Army Activitiy, bldg 106/107
300 Highway 361
Crane, IN 47522-5000
Attn: Barbara Quigly 812-854-4696

Item	Description	Quantity	Weight (lbs)	
1	Crate of used cutter teeth	12	37200	
	crates 1 - 11 contain 20 pieces, crate 12 contains 16 pcs			
2	55 Gallon Drum gear oil for shredders **	1	400	est
3	Bundle #11 steel grating per attached inventory	1	1400	
4	Bundle #12 steel grating per attached inventory	1	1600	
5	Bundle #13 steel grating per attached inventory	1	2100	
6	Bundle #14 steel grating per attached inventory	1	2100	
7	Steel beam - Secondary Shredder Maintenance part	1	200	est

Notes:
** Item contains gear oil in gear box and planetary gear reducer. MSDS attached.
See attached inventory for grating packaging distribution

Special shipping instructions:
Crane Army Activity works a 4-10s (7am to 5:30 pm) schedule and does not staff the plant on Fridays.
Crane Army Activity further requests deliveries be made in the morning hours.

I certify that the above listed 7 items were loaded onto the identified flatbed trailer in good condition and working order.

I further certify that no materials containing PCBs were ever used in the operation of any of the above listed equipment, all of which was purchased new in 1997 or later.

John Tixier / Site Manager — signature — 8-24-01

print name / title — signature — date

Trailer 7 Grating inventory
8/24/01

Part #	Description	WT.	QTY.	Disassembled	Shipped B11	B12	B13	B14	Received
GR 21-A	15/16" CC galvanized grating	600	5	xxxxx	5				
GR 21-B	15/16" CC galvanized grating	530	5	xxxxx	2			3	
GR 21-C	15/16" CC galvanized grating	1010	7	xxxxxxx	2		1	4	
GR 21-D	15/16" CC galvanized grating	274	2	xx			1	1	
GR 21-E	15/16" CC galvanized grating	1114	7	xxxxxxx			3	4	
GR 21-F	15/16" CC galvanized grating	218	2	xx	1			1	
GR 21-G	15/16" CC galvanized grating	437	4	xxxx		4			
GR 21-H	15/16" CC galvanized grating	437	4	xxxx	4				
GR 21-J	15/16" CC galvanized grating	343	3	xxx		3			
GR 21-K	15/16" CC galvanized grating			does not exist					
GR 21-L	15/16" CC galvanized grating	430	4	xxxx		2	1	1	
GR 21-M	15/16" CC galvanized grating	712	5	xxxxx			5		
GR 21-N	15/16" CC galvanized grating	610	4	xxxx	1		3		
GR 21-P	15/16" CC galvanized grating	215	3	xxx		2		1	
GR 21-Q	15/16" CC galvanized grating	215	3	xxx		2		1	
GR 21-R	15/16" CC galvanized grating	235	3	xxx		3			
				Pcs per bundle	15	16	14	16	

Wt per bundle (w/ 100 lb steel pallet)

1400			
	1600		
		2100	
			2100

Battelle
Navy Napalm D&D Project

Navy Requested Equipment
Shipping Inventory
Shipped by Roadway

Shipper No. BL2772
Carrier No. 070501-8
Bill of Lading 2772

Ship to:
Crane Army Activitiy, bldg 106/107
300 Highway 361
Crane, IN 47522-5000
Attn: Barbara Quigly 812-854-4696

Item	Description	Quantity	Weight (lbs)
1	Crate of used cutter teeth each crate contains 20 pieces	2	6200

Special shipping instructions:
Crane Army Activity works a 4-10s (7am to 5:30 pm) schedule and does not staff the plant on Fridays. Crane Army Activity further requests deliveries be made in the morning hours.

I certify that the above listed 1 items were shipped from Fallbrook in good condition and working order; cutters need refurbishing prior to reuse.

I further certify that no materials containing PCBs were ever used in the operation of any of the above listed equipment, all of which was purchased new in 1997 or later.

John Tixier / Site Manager — signature — 8-28-01
print name / title — signature — date

ORIGINAL—NOT NEGOTIABLE

Carrier No. 070501-B

Page 1 of 1

ROADWAY
(Name of carrier) (SCAC)

Date

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec. I.

TO:
Consignee Crane Army Activity Bldg 106/107
Street 300 Highway 361
City Crane State IN Zip Code 47522

FROM:
Shipper WPNSUPP FACSB Det FALLBROOK
Street 700 AMMUNITION RD
City FALLBROOK State CA Zip Code 92028
24 hr. Emergency Contact Tel. No. (619) 441-1818

ATT. BARBARA QUIGLEY (812) 854-4696

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTION Proper Shipping Name, Hazard Class, Identification Number (UN or NA), Packing Group, per 172.101, 172.202, 172.203	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
2 CW		Crates of Steel Parts	6200 P			
		FOR SHIPMENT STATUS CALL 1-800-ROADWAY 837-349085-X				
		Rec'd by Barbara Quigley 9-5-01				

PLACARDS TENDERED: YES ☐ NO ☐

Note – (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____"
(2) Where the applicable tariff provisions specify a limitation of the carrier's liability absent a release or a value declaration by the shipper and the shipper does not release the carrier's liability or declare a value, the carrier's liability shall be limited to the extent provided by such provisions. See NMFC Item 172.
(3)Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation. See section 2(e) of Item 360, Bills of Lading, Freight Bills and Statements of Charges and Section 1(a) of the Contract Terms and Conditions for a list of such articles.

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

TOTAL CHARGES: $

FREIGHT CHARGES

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor)

RECEIVED, subject to classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.
Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER Battelle
PER

CARRIER Red
PER
DATE 8-30-01 (2)

1

Permanent post-office address of shipper

(Alt. 11/97) STYLE F160-3 LABELMASTER® (800) 621-5808 www.labelmaster.com

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APPENDIX G

BILLS OF LADING FOR SCRAP METAL RECYCLING

ATTENTION SHIPPERS! FREIGHT CHARGES ARE PREPAID ON THIS BILL OF LADING UNLESS MARKED COLLECT.

STRAIGHT BILL OF LADING

ORIGINAL–NOT NEGOTIABLE

Shipper No. _____

Carrier No. 060501-1

Page 1 of 1

(Name of carrier) (SCAC)

Date 6-05-01

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec. 1.

TO:
Consignee
Street
City State Zip Code

FROM:
Shipper
Street
City State Zip Code
24 hr. Emergency Contact Tel. No.

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTON Proper Shipping Name, Hazard Class, Identification Number (UN or NA), Packing Group, per 172.101, 172.202, 172.203	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
1X40 YRD			16060 P			
		PS. INC				
		Melba Mendoza				
		6-5-01				

PLACARDS TENDERED: YES ☐ NO ☐

Note – (1) Where the rate is dependent on value, shippeers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____.
(2) Where the applicable tariff provisions specify a limitation of the carrier's liability absent a release or a value declaration by the shipper and the shipper does not release the carrier's liability or declare a value, the carrier's liability shall be limited to the extent provided by such provisions. See NMFC Item 172.
(3)Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation. See section 2(e) of item 360, Bills of Lading, Freight Bills and Statements of Charges and Section 1(a) of the Contract Terms and Conditions for a list of such articles.

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

E.H. Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor)

TOTAL CHARGES: $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

RECEIVED, subject to classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.
Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER [signature] US Navy
PER [signature]
6/5/01

CARRIER PTES
PER [signature] Angel Rios
DATE 6-5-01

1

Permanent post-office address of shipper

(Alt. 11/97) STYLE F160-3 LABELMASTER® (800) 621-5808 www.labelmaster.com

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Alfredo.

Entregale esta copia a John T de Battelle
Por Fabor

Angel.

BL2731 Intended solely for filing of record.

Page ____ of ____

PACIFIC TREATMENT ENV. SERVICES (619)441-1818 Carrier No. [illegible]-2

(Name of carrier) (SCAC)

Date June 18

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec. 1.

TO: (619) 474-7081
PACIFIC STEEL, INC.
Consignee

Street 1700 CLEVELAND AVE.

City NATIONAL CITY State CA Zip Code 91950

FROM: US NAVY-NAVAL WEAPONS STATION 760 731-3863
Shipper

Street 700 AMMUNITION ROAD

City FALLBROOK State CA Zip Code 92028-318

24 hr. Emergency Contact Tel. No. (619)441-1818

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTON Proper Shipping Name, Hazard Class, Identification Number (UN or NA), Packing Group, per 172.101, 172.202, 172.203	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
1		SCRAP METALS FOR RECYCLING	$ 27840 P			

PLACARDS TENDERED: YES ☐ NO ☐

Note – (1) Where the rate is dependent on value, shippeers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____"
(2) Where the applicable tariff provisions specify a limitation of the carrier's liability absent a release or a value declaration by the shipper and the shipper does not release the carrier's liability or declare a value, the carrier's liability shall be limited to the extent provided by such provisions. See NMFC Item 172.
(3)Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation. See section 2(e) of Item 360, Bills of Lading, Freight Bills and Statements of Charges and Section 1(a) of the Contract Terms and Conditions for a list of such articles.

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

[signature] Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor)

TOTAL CHARGES: $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

RECEIVED, subject to classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.
Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER Battelle

PER [signature]

CARRIER PTES

PER Alfredo Tellez

DATE June 18/2001

3

Permanent post-office address of shipper

PRINTED ON RECYCLED PAPER USING SOYBEAN INK PRINTED WITH SOY INK

(Alt. 11/97) STYLE F160-3 LABELMASTER ® (800) 621-5808 www.labelmaster.com

ATTENTION SHIPPERS! FREIGHT CHARGES ARE PREPAID ON THIS BILL OF LADING UNLESS MARKED COLLECT.

STRAIGHT BILL OF LADING

ORIGINAL–NOT NEGOTIABLE

BL 2738

Shipper No. _____

Page ____ of ____

Pacific treatment ENV. serv.

(Name of carrier) (SCAC)

Carrier No. 062701

Date June 27/2001

Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec. 1.

To: Consignee Pacific Steel, INC (619) 474-7081

Street 1700 Cleveland AVE.

City NATIONAL city State CA. Zip Code 91950

FROM: Shipper US NAVY – NAVAL WEAPONS STATION

Street 700 AMMUNITION RD

City FALLBROOK State CA. Zip Code 92028-3187

24 hr. Emergency Contact Tel. No. (619) 441-1818

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTON Proper Shipping Name, Hazard Class, Identification Number (UN or NA), Packing Group, per 172.101, 172.202, 172.203	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
		SCRAP metal for recycling				
		as follows:				
/		Large Aluminum Housing w/steel supports	14,000#			
/		large steel Housing	14,600#			
/		steel drain pan	700#			
/		stell transition pcs	1,500#			
		MISC. Al. parts inside Housing	200#			

PLACARDS TENDERED: YES ☐ NO ☐

Note – (1) Where the rate is dependent on value, shippeers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____."
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[signature] Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor)

TOTAL CHARGES: $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

RECEIVED, subject to classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.
Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER Battelle

[signature]

[signature] REC. 6-27-01

Permanent ~~[illegible]~~ Shipper

CARRIER Pacific treatment ENV. Serv.

PER [signature]

DATE June 27/2001

1

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ATTENTION SHIPPERS! FREIGHT CHARGES ARE PREPAID ON THIS BILL OF LADING UNLESS MARKED COLLECT.

STRAIGHT BILL OF LADING

ORIGINAL—NOT NEGOTIABLE

Work Order 22501

BL2738

Page 9 of 9

Shipper No.

Carrier No. 062801-1

PACIFIC TREATMENT ENV. SERVICES (619)441-1818

(Name of carrier) (SCAC)

Date

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec. 1.

TO: (619) 474-7081 PACIFIC STEEL, INC.
Consignee

Street 1700 CLEVELAND AVE.

City NATIONAL CITY State CA Zip Code 91950

FROM Shipper US NAVY-NAVAL WEAPONS STATION 760 731-3863

Street 700 AMMUNITION ROAD

City FALLBROOK State CA Zip Code 92028-3187

24 hr. Emergency Contact Tel. No. (619)441-1818

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTON Proper Shipping Name, Hazard Class, Identification Number (UN or NA), Packing Group, per 172.101, 172.202, 172.203	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
		METALS FOR RECYCLING				
1		Steel Frame	5000#			
1		Aluminum Housing	4000#			
1		Steel "Binocular" Part	3600#			
Misc		Aluminum parts/Shapes inside Housing	1000#			

PLACARDS TENDERED: YES ☐ NO ☐

Note – (1) Where the rate is dependent on value, shippeers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____"
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(3)Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation. See section 2(e) of item 360, Bills of Lading, Freight Bills and Statements of Charges and Section 1(a) of the Contract Terms and Conditions for a list of such articles.

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor)

TOTAL CHARGES: $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

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Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER Battelle

PER

Anguiano / RRC 6-28-01

CARRIER Pacific treatment ENV. Serv

PER

DATE June 28 2001

1

Permanent post-office address of shipper

PACIFIC STEEL

(Alt. 11/97) STYLE F160-3 LABELMASTER® (800) 621-5808 www.labelmaster.com

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BL2740

Page ____ of ____

PACIFIC TREATMENT ENV. SERVICES (619)441-1818

(Name of carrier) (SCAC)

Carrier No. C7/801-01

Date 7-18-01

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec. 1.

TO: (619) 474-7081
PACIFIC STEEL, INC.
Consignee

Street 1700 CLEVELAND AVE.

City NATIONAL CITY State CA Zip Code 91950

FROM: US NAVY-NAVAL WEAPONS STATION 760 731-3863
Shipper

Street 700 AMMUNITION ROAD

City FALLBROOK State CA Zip Code 92028-3187

24 hr. Emergency Contact Tel. No. (619)441-1818

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTON Proper Shipping Name, Hazard Class, Identification Number (UN or NA), Packing Group, per 172.101, 172.202, 172.203	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
1		METALS FOR RECYCLING (40 yd box)	33,500#			
Recv.		M. Mendoza 7/19/01				

PLACARDS TENDERED: YES ☐ NO ☐

Note – (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____."
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Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

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(Signature of Consignor)

TOTAL CHARGES: $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

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Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER Battelle

PER [signature]

CARRIER Pacific treatment ENV. Sa

PER Alfredo Tellez

DATE July 18 2001

2

Permanent post-office address of shipper

(Alt. 11/97) STYLE F160-3 LABELMASTER® (800) 621-5808 www.labelmaster.com

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STRAIGHT BILL OF LADING

ORIGINAL—NOT NEGOTIABLE

Shipper No. [illegible]

Carrier No. _____

Page 1 of 1

Pacific Treatment (Name of carrier) (SCAC)

Date 8-30-01

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec. 1.

TO:
Consignee Pacific Steel
Street Comercial ST
City Nat Cty State CA Zip Code

FROM:
Shipper Navy WPNSTA SB Fallbrook
Street 200 Ammunition Rd
City Fallbrook State CA Zip Code 92002
24 hr. Emergency Contact Tel. No. 619-441-1818

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTON Proper Shipping Name, Hazard Class, Identification Number (UN or NA), Packing Group, per 172.101, 172.202, 172.203	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
1 - CM		Scrap Steel for Rec.	28'000P			
		(★ 9000lb from CERCIA site)				
		Gross WT		55260		
		Tare WT		25700		
		Net WT		29560		

PLACARDS TENDERED: YES ☐ NO ☐

Note – (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____"
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[signature] Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

TOTAL CHARGES: $

FREIGHT CHARGES
FREIGHT PREPAID except when box of right is checked ☐ Check box if charges and to be collect

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(Signature of Consignor)

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SHIPPER Pacific Treatment
PER [signature]

CARRIER PACIFIC TREATMENT
PER [signature]
DATE 8/30/01

1

Permanent post-office address of shipper

(Alt. 11/97) STYLE F160-3 LABELMASTER® (800) 621-5808 www.labelmaster.com

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(Name of carrier) (SCAC) Date 9-28-01

n Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec. 1.

TO: (619) 474-7081
Consignee PACIFIC STEEL, INC.

Street 1700 CLEVELAND AVE.

City NATIONAL CITY State CA Zip Code 91950

FROM: Shipper US NAVY-NAVAL WEAPONS STATION 760 731-3863

Street 700 AMMUNITION ROAD

City FALLBROOK State CA Zip Code 92028-3187

24 hr. Emergency Contact Tel. No. (619)441-1818

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTON Proper Shipping Name, Hazard Class, Identification Number (UN or NA), Packing Group, per 172.101, 172.202, 172.203	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
1 CM		SCRAP METAL For Recycling	30000 P			
		Gross	67080			
		Tare	36780			
		Net	30,300 <			
		X [signature]				

PLACARDS TENDERED: YES ☐ NO ☐

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[signature] Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

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The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor)

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

TOTAL CHARGES: $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

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Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER Bottelle

PER [signature] (For Bottelle)

CARRIER Pacific Treatment

PER [signature]

DATE 9-28-01

2

Permanent post-office address of shipper

(Alt. 11/97) STYLE F160-3 LABELMASTER® (800) 621-5808 www.labelmaster.com

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3

ATTENTION SHIPPERS! FREIGHT CHARGES ARE PREPAID ON THIS BILL OF LADING UNLESS MARKED COLLECT.

STRAIGHT BILL OF LADING

Shipper No. _____

Work Order 23209 ORIGINAL—NOT NEGOTIABLE

BL2787

Carrier No. _____

PACIFIC TREATMENT ENV. SERVICES (619)441-1818

Page _____ of _____ (Name of carrier) (SCAC) Date _____

TO: (800) 286-5265 CA METALS AND ELECTRONICS
Consignee

Street 297 MARSHALL AVE

City EL CAJON State CA Zip Code 92020

FROM Shipper US NAVY-NAVAL WEAPONS STATION 760 731-3863

Street 700 AMMUNITION ROAD

City FALLBROOK State CA Zip Code 92028-3187

24 hr. Emergency Contact Tel. No. (619)441-1818

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTION Proper Shipping Name, Hazard Class, Identification Number (UN or NA), Packing Group, per 172.101, 172.202, 172.203	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
2/CF/or		METALS FOR RECYCLING	1600 P			
9/CW		Metals For Recycling	3200P			
~~1 Pallet~~		~~Metal For Recycling~~	~~500P~~			

PLACARDS TENDERED: YES ☐ NO ☐

Note - (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____."
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Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

Signature of Consignor

TOTAL CHARGES: $

FREIGHT CHARGES: Prepaid unless marked otherwise. Check the applicable box to be collected.

RECEIVED, subject to classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.

Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by this shipper and accepted for himself and his assigns.

SHIPPER Tim Hearn (as agent for) US Navy Naval Weapons Sta

PER

CARRIER PTES

PER

DATE 10-2-01

1

Permanent post-office address of shipper

(AK 11/97) STYLE F160-3 LABELMASTER ® (800) 621-5808 www.labelmaster.com

APPENDIX H

CERTIFICATES OF PROCESSING FOR SCRAP METAL RECYCLING

PACIFIC STEEL, INC.
1700 CLEVELAND AVENUE
NATIONAL CITY, CA. 91950
PH(619) 474-7081 FAX(619)477-1212

October, 2001

Subject: Scrap Steel Disposal
Reference: Ticket # 212090 Date: 6/05/01 BOL #: 2730

This letter is to certify that "Pacific Steel, Inc." has received 16,020lbs of scrap steel handled by Pacific Treatment. The scrap steel was processed in our plant cut in small pieces and sent to our steel mill in Mexicali Baja California, Mexico for smelting purposes.

Our Steel Mill "Compañia Siderurgica de California S.A. de C.V." is located at:
Lotes 1 & 2 Colonia Colorado 4
Mexicali Baja California Mexico
Registro Federal de Causantes # SCA9104081Q2

Should you have any questions regarding this matter, please call us at; (619) 474-7081.

Best regards,

Fernando Pria
Safety Manager.

PACIFIC STEEL, INC.
1700 CLEVELAND AVENUE
NATIONAL CITY, CA. 91950
PH(619) 474-7081 FAX(619)477-1222

October, 2001

Subject: Scrap Steel Disposal.
Reference: Ticket # 211911 Date: 6/19/01 BOL# 2731

This letter is to certify that "Pacific Steel, Inc." has received 21,720lbs of scrap steel handled by Pacific Treatment. The scrap steel was processed in our plant cut in small pieces and sent to our steel mill in Mexicali Baja California, Mexico for smelting purposes.

Our Steel Mill "Compañia Siderurgica de California S.A. de C.V." is located at:
Lotes 1 & 2 Colonia Colorado 4
Mexicali Baja California Mexico
Registro Federal de Causantes # SCA910408IQ2

Should you have any questions regarding this matter, please call us at; (619) 474-7081.

Best regards,

Fernando Pria
Safety Manager.

PACIFIC STEEL, INC.
1700 CLEVELAND AVENUE
NATIONAL CITY, CA. 91950
PH(619) 474-7081 FAX(619)477-1222

October, 2001

Subject: Scrap Steel Disposal
Reference: Ticket # 213442 Date: 6/27/01 BOL# 2738

This letter is to certify that "Pacific Steel, Inc." has received 28,800lbs of scrap steel handled by Pacific Treatment. The scrap steel & aluminum was processed in our plant cut in small pieces and sent to our steel mill in Mexicali Baja California, Mexico for smelting purposes.

Our Steel Mill "Compañia Siderurgica de California S.A. de C.V." is located at:
Lotes 1 & 2 Colonia Colorado 4
Mexicali Baja California Mexico
Registro Federal de Causantes # SCA910408102

Should you have any questions regarding this matter, please call us at: (619) 474-7081.

Best regards,

Fernando Pria
Safety Manager.

PACIFIC STEEL, INC.
1700 CLEVELAND AVENUE
NATIONAL CITY, CA. 91950
TEL(619) 474-7081 FAX(619)477-1222

October, 2001

Subject: Scrap Steel Disposal.
Reference: Ticket # 213515 Date: 6/28/01 BOL# 2738

This letter is to certify that "Pacific Steel, Inc." has received 14,320lbs of scrap steel handled by Pacific Treatment. The scrap steel & aluminum was processed in our plant cut in small pieces and sent to our steel mill in Mexicali Baja California, Mexico for smelting purposes.

Our Steel Mill "Compañia Siderurgica de California S.A. de C.V." is located at:
Lotes 1 & 2 Colonia Colorado 4
Mexicali Baja California Mexico
Registro Federal de Causantes # SCA910403 1Q2

Should you have any questions regarding this matter, please call us at; (619) 474-7081.

Best regards,

Fernando Frin,
Safety Manager.

PACIFIC STEEL, INC.
1700 CLEVELAND AVENUE
NATIONAL CITY, CA. 91950
PH(619) 474-7081 FAX(619)477-1222

October, 2001

Subject: Scrap Steel Disposal.
Reference: Ticket # 201425 Date: 7/19/01 BOL# 2740

This letter is to certify that "Pacific Steel, Inc." has received 32,280lbs of scrap steel handled by Pacific Treatment. The scrap steel was processed in our plant cut in small pieces and sent to our steel mill in Mexicali Baja California, Mexico for smelting purposes.

Our Steel Mill "Compañia Siderurgica de California S.A. de C.V." is located at:
Lotes 1 & 2 Colonia Colorado 4
Mexicali Baja California Mexico
Registro Federal de Causantes # SCA9104081Q2

Should you have any questions regarding this matter, please call us at; (619) 474-7081.

Best regards,

Fernando Peña
Safety Manager.

PACIFIC STEEL, INC.
1700 CLEVELAND AVENUE
NATIONAL CITY, CA. 91950
PH(619) 474-7681 FAX(619)477-1222

October, 2001

Subject: Scrap Steel Disposal.
Reference: Ticket # 217100 Date: 8/30/01 BOL #: 2-RC-36

This letter is to certify that "Pacific Steel, Inc." has received 29,560lbs of scrap steel handled by Pacific Treatment. The scrap steel destroyed (processed) in our plant cut in small pieces and sent to our steel mill in Mexicali Baja California, Mexico for smelting purposes.

Our Steel Mill "Compañia Siderurgica de California S.A. de C.V." is located at:
Lotes 1 & 2 Colonia Colorado 4
Mexicali Baja California Mexico
Registro Federal de Causantes # SCA910408IQ2

Should you have any questions regarding this matter, please call us at; (619) 474-7681.

Best regards,

Fernando Puga
Safety Manager

PACIFIC STEEL, INC.
1700 CLEVELAND AVENUE
NATIONAL CITY, CA. 91950
PH(619) 474-7081 FAX(619)477-1222

October, 2001

Subject: Scrap Steel Disposal.
Reference: Ticket # 215190 Date: 9/28/01 BOL# 2786

This letter is to certify that "Pacific Steel, Inc." has received 30,300lbs of scrap steel handled by Pacific Treatment. The scrap steel was processed in our plant cut in small pieces and sent to our steel mill in Mexicali Baja California, Mexico for smelting purposes.

Our Steel Mill "Compañia Siderurgica de California S.A. de C.V." is located at:
Lotes 1 & 2 Colonia Colorado 4
Mexicali Baja California Mexico
Registro Federal de Causantes # SCA9104081Q2

Should you have any questions regarding this matter, please call us at; (619) 474-7081.

Best regards,

Fernando Pria
Safety Manager.

california metals

Dealers in Scrap Metals - All Computer Surplus
New • Surplus - Used Metals

12/19/01

To. Kathy
Pacific Treatment Enviromental

Subject: Scrap Metal Disposal
(Work order 23209)

This is to certify that 4800 lbs of scrap steel California Metals + Electronics recieved from Pacific Treatment Enviromental was transported to Pacific Steel Inc. Located at 1700 Cleveland Ave National City, CA 91950. To be disposed of at their smelters.

Thank You
Daina Myers

297-333 South Marshall Ave. / El Cajon, California 92020
(619) 444-3111 • 800-286-JUNK • FAX 444-1845 • Mexico 95-800-010-7750

Institute of Scrap Recycling Industries, Inc.
El Cajon Chamber of Commerce
Greater S.D. Chamber of Commerce

APPENDIX I

LABORATORY ANALYTICAL REPORTS FOR SOIL SAMPLING

ANALYTICAL RESULTS

WITH SAP REPORTING LIMITS (RLs)

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
Battelle - Columbus Operations
Attention: David Clexton
505 King Avenue
Columbus OH 43201
Tel: (614)424-4629 Fax: (614)424-3667

Service ID #: 801-015512
Collected by: David Clexton
Collected on: 08/22-27/01

Received: 08/27/01
Extracted: 08/28-29/01
Tested: 08/29-09/19/01
Revised: 09/20/01

Sample Description: Soil and Water from Fall Brook, CA
Project Description: DO 0056 CERCLA Completion Plan

Analysis of Water and Soil Samples

I . Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result 056-ERB1 01-05512-31	Analysis Result Trip Blank 01-05512-32
Volatile organics					
Dilution Factor				1	1
Benzene	8260B	μg/L	0.5	<0.5	<0.5
Ethylbenzene	8260B	μg/L	0.5	<0.5	<0.5
Styrene	8260B	μg/L	1	<1	<1
Toluene	8260B	μg/L	0.5	<0.5	<0.5
o-Xylene	8260B	μg/L	0.5	<0.5	<0.5
m/p-Xylene	8260B	μg/L	0.5	<0.5	<0.5

Component Analyzed	Method	Unit	PQL	Analysis Result 056-ERB1 01-05512-31
Dilution Factor				1
Pentachlorophenol (PCP)	8270C	μg/L	50	<50

II . Analysis of Soil Samples

Component Analyzed	Method	Unit	PQL	Analysis Result 056-001 01-05512-1	056-002 01-05512-2	056-003 01-05512-3	056-004 01-05512-4
Moisture, percent	ASTM-D2216	%Moisture	0.5	2.7	4.9	5.5	4.3
Volatile organics							
Dilution Factor				0.88	0.84	0.79	1.03
Benzene	8260B	μg/kg	5	<4.5	<4.4	<4.2	0.9J
Ethylbenzene	8260B	μg/kg	5	<4.5	<4.4	<4.2	<5.4
Styrene	8260B	μg/kg	5	<4.5	<4.4	<4.2	<5.4
Toluene	8260B	μg/kg	5	<4.5	<4.4	<4.2	<5.4
o-Xylene	8260B	μg/kg	5	<4.5	<4.4	<4.2	<5.4
m/p-Xylene	8260B	μg/kg	5	<4.5	<4.4	<4.2	<5.4
Dilution Factor				1	1	2	2
Pentachlorophenol (PCP)	8270C	μg/kg	1700	<1700	<1800	<3500	<3500

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result 056-005 01-05512-5	056-006 01-05512-6	056-007 01-05512-7	056-008 01-05512-8
Moisture, percent	ASTM-D2216	%Moisture	0.5	3.2	1.8	0.60	2.4
Volatile organics							
Dilution Factor				0.93	0.96	1.07	0.98
Benzene	8260B	µg/kg	5	<4.8	<4.9	2J	<5.0
Ethylbenzene	8260B	µg/kg	5	<4.8	<4.9	<5.4	<5.0
Styrene	8260B	µg/kg	5	<4.8	<4.9	<5.4	<5.0
Toluene	8260B	µg/kg	5	<4.8	<4.9	<5.4	<5.0
o-Xylene	8260B	µg/kg	5	<4.8	<4.9	<5.4	<5.0
m/p-Xylene	8260B	µg/kg	5	<4.8	<4.9	<5.4	<5.0
Dilution Factor				1	1	1	1
Pentachlorophenol (PCP)	8270C	µg/kg	1700	<1700	<1700	<1700	<1700

Component Analyzed	Method	Unit	PQL	Analysis Result 056-009 01-05512-9	056-00A 01-05512-10	056-00B 01-05512-11	056-00C 01-05512-12
Moisture, percent	ASTM-D2216	%Moisture	0.5	6.0	4.8	4.6	2.5
Volatile organics							
Dilution Factor				0.91	0.87	0.97	0.89
Benzene	8260B	µg/kg	5	<4.8	<4.6	<5.1	<4.6
Ethylbenzene	8260B	µg/kg	5	<4.8	<4.6	<5.1	<4.6
Styrene	8260B	µg/kg	5	<4.8	<4.6	<5.1	<4.6
Toluene	8260B	µg/kg	5	<4.8	<4.6	<5.1	<4.6
o-Xylene	8260B	µg/kg	5	<4.8	<4.6	<5.1	<4.6
m/p-Xylene	8260B	µg/kg	5	<4.8	<4.6	<5.1	<4.6
Dilution Factor				1	1	1	2
Pentachlorophenol (PCP)	8270C	µg/kg	1700	<1800	<1800	<1800	<3400

Component Analyzed	Method	Unit	PQL	Analysis Result 056-010 01-05512-13	056-011 01-05512-14	056-012 01-05512-15	056-013 01-05512-16
Moisture, percent	ASTM-D2216	%Moisture	0.5	2.8	8.0	5.9	7.8
Volatile organics							
Dilution Factor				1.06	0.89	0.97	0.84
Benzene	8260B	µg/kg	5	1J	<4.8	<5.2	<4.6
Ethylbenzene	8260B	µg/kg	5	<5.5	<4.8	<5.2	<4.6
Styrene	8260B	µg/kg	5	<5.5	<4.8	<5.2	<4.6
Toluene	8260B	µg/kg	5	<5.5	<4.8	<5.2	<4.6
o-Xylene	8260B	µg/kg	5	<5.5	<4.8	<5.2	<4.6
m/p-Xylene	8260B	µg/kg	5	<5.5	<4.8	<5.2	<4.6
Dilution Factor				1	1	1	1
Pentachlorophenol (PCP)	8270C	µg/kg	1700	<1700	<1800	<1800	<1800

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result 056-014 01-05512-17	056-015 01-05512-18	056-016 01-05512-19	056-017 01-05512-20
Moisture, percent	ASTM-D2216	%Moisture	0.5	6.3	3.1	4.5	3.6
Volatile organics							
Dilution Factor				0.91	1.02	0.98	0.94
Benzene	8260B	µg/kg	5	<4.9	<5.3	0.7J	0.6J
Ethylbenzene	8260B	µg/kg	5	<4.9	<5.3	<5.1	<4.9
Styrene	8260B	µg/kg	5	<4.9	<5.3	<5.1	<4.9
Toluene	8260B	µg/kg	5	<4.9	<5.3	<5.1	<4.9
o-Xylene	8260B	µg/kg	5	<4.9	<5.3	<5.1	<4.9
m/p-Xylene	8260B	µg/kg	5	<4.9	<5.3	<5.1	<4.9
Dilution Factor				4	1	1	4
Pentachlorophenol (PCP)	8270C	µg/kg	1700	<7100	<1700	<1700	<6900

Component Analyzed	Method	Unit	PQL	Analysis Result 056-018 01-05512-21	056-019 01-05512-22	056-020 01-05512-23	056-021 01-05512-24
Moisture, percent	ASTM-D2216	%Moisture	0.5	5.0	5.3	3.9	3.8
Volatile organics							
Dilution Factor				1.12	0.99	0.94	0.91
Benzene	8260B	µg/kg	5	<5.9	<5.2	<4.9	<4.7
Ethylbenzene	8260B	µg/kg	5	<5.9	<5.2	<4.9	<4.7
Styrene	8260B	µg/kg	5	<5.9	<5.2	<4.9	<4.7
Toluene	8260B	µg/kg	5	<5.9	<5.2	<4.9	<4.7
o-Xylene	8260B	µg/kg	5	<5.9	<5.2	<4.9	<4.7
m/p-Xylene	8260B	µg/kg	5	<5.9	<5.2	<4.9	<4.7
Dilution Factor				1	1	1	1
Pentachlorophenol (PCP)	8270C	µg/kg	1700	<1800	<1800	<1700	<1700

Component Analyzed	Method	Unit	PQL	Analysis Result 056-022 01-05512-25	056-023 01-05512-26	056-024 01-05512-27
Moisture, percent	ASTM-D2216	%Moisture	0.5	2.0	2.4	5.9
Volatile organics						
Dilution Factor				0.93	0.99	1.12
Benzene	8260B	µg/kg	5	<4.7	1J	1J
Ethylbenzene	8260B	µg/kg	5	<4.7	<5.1	<6.0
Styrene	8260B	µg/kg	5	<4.7	<5.1	<6.0
Toluene	8260B	µg/kg	5	<4.7	<5.1	<6.0
o-Xylene	8260B	µg/kg	5	<4.7	<5.1	<6.0
m/p-Xylene	8260B	µg/kg	5	<4.7	<5.1	<6.0
Dilution Factor				1	1	4
Pentachlorophenol (PCP)	8270C	µg/kg	1700	<1700	<1700	<7100 [a]

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result 056-025 01-05512-28	056-026 01-05512-29	056-027 01-05512-30
Moisture, percent	ASTM-D2216	%Moisture	0.5	6.7	4.7	1.6
Volatile organics						
Dilution Factor				0.86	1.07	1.15
Benzene	8260B	μg/kg	5	<4.6	<5.6	<5.8
Ethylbenzene	8260B	μg/kg	5	<4.6	<5.6	<5.8
Styrene	8260B	μg/kg	5	<4.6	<5.6	<5.8
Toluene	8260B	μg/kg	5	<4.6	0.9J	<5.8
o-Xylene	8260B	μg/kg	5	0.5J	<5.6	<5.8
m/p-Xylene	8260B	μg/kg	5	1J	<5.6	<5.8
Dilution Factor				1	4	1
Pentachlorophenol (PCP)	8270C	μg/kg	1700	<1800	<7000 [a]	<1700

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit

N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.

J: Reported between PQL and MDL.

† All results are reported on dry basis for soil samples.

Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

[a] Re-analyzed on 09/19/01.

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
Battelle - Columbus Operations
Attention: David Clexton
505 King Avenue
Columbus OH 43201
Tel: (614)424-4629 Fax: (614)424-3667

Service ID #: 801-015551
Collected by: David Clexton
Collected on: 08/22-28/01

Received: 08/28/01
Extracted: 08/30-31/01
Tested: 08/30-09/19/01
Revised: 09/20/01

Sample Description: Soil and Water from Fall Brook, CA
Project Description: DO 0056 CERCLA Completion Plan

Analysis of Water and Soil Samples

I . Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result 056-ERB2 01-05551-34	Analysis Result Trip Blank 01-05551-35
Volatile organics					
Dilution Factor				1	1
Benzene	8260B	μg/L	0.5	<0.5	<0.5
Ethylbenzene	8260B	μg/L	0.5	<0.5	<0.5
Styrene	8260B	μg/L	1	<1	<1
Toluene	8260B	μg/L	0.5	<0.5	<0.5
o-Xylene	8260B	μg/L	0.5	<0.5	<0.5
m/p-Xylene	8260B	μg/L	0.5	<0.5	<0.5

Component Analyzed	Method	Unit	PQL	Analysis Result 056-ERB2 01-05551-34
Dilution Factor				1
Pentachlorophenol (PCP)	8270C	μg/L	50	<50

II . Analysis of Soil Samples

Component Analyzed	Method	Unit	PQL	Analysis Result 056-00D 01-05551-1	056-00E 01-05551-2	056-00F 01-05551-3	056-028 01-05551-4
Moisture, percent	ASTM-D2216	%Moisture	0.5	3.1	7.3	2.0	<0.5
Volatile organics							
Dilution Factor				0.97	0.88	1.04	0.96
Benzene	8260B	μg/kg	5	<5.0	<4.7	<5.3	<4.8
Ethylbenzene	8260B	μg/kg	5	<5.0	<4.7	<5.3	<4.8
Styrene	8260B	μg/kg	5	<5.0	<4.7	<5.3	<4.8
Toluene	8260B	μg/kg	5	<5.0	<4.7	<5.3	<4.8
o-Xylene	8260B	μg/kg	5	<5.0	<4.7	<5.3	<4.8
m/p-Xylene	8260B	μg/kg	5	<5.0	<4.7	<5.3	<4.8
Dilution Factor				1	1	1	4
Pentachlorophenol (PCP)	8270C	μg/kg	1700	<1700	<1800	<1700	<6700 [a]

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result 056-029 01-05551-5	056-030 01-05551-6	056-031 01-05551-7	056-032 01-05551-8
Moisture, percent	ASTM-D2216	%Moisture	0.5	2.8	4.6	3.2	4.4
Volatile organics							
Dilution Factor				1.08	0.97	0.94	1.22
Benzene	8260B	μg/kg	5	<5.6	<5.1	<4.9	3J
Ethylbenzene	8260B	μg/kg	5	<5.6	<5.1	<4.9	<6.4
Styrene	8260B	μg/kg	5	<5.6	<5.1	<4.9	<6.4
Toluene	8260B	μg/kg	5	<5.6	<5.1	<4.9	<6.4
o-Xylene	8260B	μg/kg	5	<5.6	<5.1	<4.9	<6.4
m/p-Xylene	8260B	μg/kg	5	<5.6	<5.1	<4.9	<6.4
Dilution Factor				1	1	1	1
Pentachlorophenol (PCP)	8270C	μg/kg	1700	<1700	<1800	<1700	<1700

Component Analyzed	Method	Unit	PQL	Analysis Result 056-033 01-05551-9	056-034 01-05551-10	056-035 01-05551-11	056-036 01-05551-12
Moisture, percent	ASTM-D2216	%Moisture	0.5	4.1	6.1	3.8	2.5
Volatile organics							
Dilution Factor				0.96	0.96	1.12	1.04
Benzene	8260B	μg/kg	5	<5.0	2J	2J	0.9J
Ethylbenzene	8260B	μg/kg	5	<5.0	<5.1	<5.8	<5.3
Styrene	8260B	μg/kg	5	<5.0	<5.1	<5.8	<5.3
Toluene	8260B	μg/kg	5	0.6J	<5.1	<5.8	<5.3
o-Xylene	8260B	μg/kg	5	<5.0	<5.1	<5.8	<5.3
m/p-Xylene	8260B	μg/kg	5	<5.0	<5.1	<5.8	<5.3
Dilution Factor				1	1	1	1
Pentachlorophenol (PCP)	8270C	μg/kg	1700	<1700	<1800	<1700	<1700

Component Analyzed	Method	Unit	PQL	Analysis Result 056-037 01-05551-13	056-038 01-05551-14	056-039 01-05551-15	056-040 01-05551-16
Moisture, percent	ASTM-D2216	%Moisture	0.5	5.1	2.9	1.8	4.3
Volatile organics							
Dilution Factor				1.12	1.09	0.91	1.02
Benzene	8260B	μg/kg	5	<5.9	<5.6	<4.6	0.7J
Ethylbenzene	8260B	μg/kg	5	<5.9	<5.6	<4.6	<5.3
Styrene	8260B	μg/kg	5	<5.9	<5.6	<4.6	<5.3
Toluene	8260B	μg/kg	5	<5.9	<5.6	<4.6	<5.3
o-Xylene	8260B	μg/kg	5	<5.9	<5.6	<4.6	<5.3
m/p-Xylene	8260B	μg/kg	5	<5.9	<5.6	<4.6	<5.3
Dilution Factor				1	1	1	2
Pentachlorophenol (PCP)	8270C	μg/kg	1700	<1800	<1700	<1700	<3500

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result 056-041 01-05551-17	056-042 01-05551-18	056-043 01-05551-19	056-044 01-05551-20
Moisture, percent	ASTM-D2216	%Moisture	0.5	6.4	6.7	8.2	4.7
Volatile organics							
Dilution Factor				0.89	1.04	0.9	0.97
Benzene	8260B	µg/kg	5	<4.8	<5.6	<4.9	1J
Ethylbenzene	8260B	µg/kg	5	<4.8	<5.6	<4.9	<5.1
Styrene	8260B	µg/kg	5	<4.8	<5.6	<4.9	<5.1
Toluene	8260B	µg/kg	5	<4.8	<5.6	<4.9	<5.1
o-Xylene	8260B	µg/kg	5	<4.8	<5.6	<4.9	<5.1
m/p-Xylene	8260B	µg/kg	5	<4.8	<5.6	<4.9	<5.1
Dilution Factor				1	1	1	2
Pentachlorophenol (PCP)	8270C	µg/kg	1700	<1800	<1800	<1800	<3500

Component Analyzed	Method	Unit	PQL	Analysis Result 056-045 01-05551-21	056-046 01-05551-22	056-047 01-05551-23	056-048 01-05551-24
Moisture, percent	ASTM-D2216	%Moisture	0.5	4.6	3.2	8.2	1.5
Volatile organics							
Dilution Factor				0.9	1.32	0.99	1.2
Benzene	8260B	µg/kg	5	1J	<6.8	0.9J	3J
Ethylbenzene	8260B	µg/kg	5	<4.7	<6.8	<5.4	<6.1
Styrene	8260B	µg/kg	5	<4.7	<6.8	<5.4	<6.1
Toluene	8260B	µg/kg	5	<4.7	<6.8	<5.4	<6.1
o-Xylene	8260B	µg/kg	5	<4.7	<6.8	<5.4	<6.1
m/p-Xylene	8260B	µg/kg	5	<4.7	<6.8	<5.4	<6.1
Dilution Factor				4	4	1	1
Pentachlorophenol (PCP)	8270C	µg/kg	1700	<7000	<6900	<1800	<1700

Component Analyzed	Method	Unit	PQL	Analysis Result 056-049 01-05551-25	056-050 01-05551-26	056-051 01-05551-27
Moisture, percent	ASTM-D2216	%Moisture	0.5	7.3	1.6	4.1
Volatile organics						
Dilution Factor				0.94	0.95	0.99
Benzene	8260B	µg/kg	5	1J	<4.8	<5.2
Ethylbenzene	8260B	µg/kg	5	<5.1	<4.8	<5.2
Styrene	8260B	µg/kg	5	<5.1	<4.8	<5.2
Toluene	8260B	µg/kg	5	<5.1	<4.8	<5.2
o-Xylene	8260B	µg/kg	5	<5.1	<4.8	<5.2
m/p-Xylene	8260B	µg/kg	5	<5.1	<4.8	<5.2
Dilution Factor				1	2	1
Pentachlorophenol (PCP)	8270C	µg/kg	1700	<1800	<3400	<1700

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13760 Magnolia Ave. Chino CA 91710
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Component Analyzed	Method	Unit	PQL	Analysis Result 056-052 01-05551-28	056-053 01-05551-29	056-054 01-05551-30
Moisture, percent	ASTM-D2216	%Moisture	0.5	1.1	1.7	0.50
Volatile organics						
Dilution Factor				0.97	0.92	0.94
Benzene	8260B	μg/kg	5	3J	1J	0.7J
Ethylbenzene	8260B	μg/kg	5	<4.9	<4.7	<4.7
Styrene	8260B	μg/kg	5	<4.9	<4.7	<4.7
Toluene	8260B	μg/kg	5	0.5J	<4.7	<4.7
o-Xylene	8260B	μg/kg	5	<4.9	<4.7	<4.7
m/p-Xylene	8260B	μg/kg	5	<4.9	<4.7	<4.7
Dilution Factor				2	1	1
Pentachlorophenol (PCP)	8270C	μg/kg	1700	<3400	<1700	<1700

Component Analyzed	Method	Unit	PQL	Analysis Result 056-055 01-05551-31	056-056 01-05551-32	056-057 01-05551-33
Moisture, percent	ASTM-D2216	%Moisture	0.5	1.1	1.1	0.60
Volatile organics						
Dilution Factor				1.23	1.01	1.2
Benzene	8260B	μg/kg	5	<6.2	<5.1	<6.0
Ethylbenzene	8260B	μg/kg	5	<6.2	<5.1	<6.0
Styrene	8260B	μg/kg	5	<6.2	<5.1	<6.0
Toluene	8260B	μg/kg	5	<6.2	<5.1	<6.0
o-Xylene	8260B	μg/kg	5	<6.2	<5.1	<6.0
m/p-Xylene	8260B	μg/kg	5	<6.2	<5.1	<6.0
Dilution Factor				2	4	2
Pentachlorophenol (PCP)	8270C	μg/kg	1700	<3400	<6800	<3400

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit
N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.
J: Reported between PQL and MDL.
† All results are reported on dry basis for soil samples.
Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0
(a) Re-analyzed on 09/19/01.

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
Battelle - Columbus Operations
Attention: David Clexton
505 King Avenue
Columbus OH 43201
Tel: (614)424-4629 Fax: (614)424-3667

Service ID #: 801-016065
Collected by: David Clexton
Collected on: 09/26/01

Received: 09/26/01
Extracted: 09/30/01
Tested: 10/01/01
Reported: 10/02/01

Sample Description: Water from Fallbrook NWS
Project Description: CERCLA Completion Plan

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result DCW1 01-06065-1	TB9/26 01-06065-2
Volatile organics					
Dilution Factor				10 [a]	1
Benzene	8260B	μg/L	0.5	<5	<0.5
Ethylbenzene	8260B	μg/L	0.5	<5	<0.5
Styrene	8260B	μg/L	1	<10	<1
Toluene	8260B	μg/L	0.5	<5	<0.5
o-Xylene	8260B	μg/L	0.5	<5	<0.5
m/p-Xylene	8260B	μg/L	0.5	<5	<0.5

Component Analyzed	Method	Unit	PQL	Analysis Result DCW1 01-06065-1
Dilution Factor				1
Pentachlorophenol (PCP)	8270C	μg/L	50	<50

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit
N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.
J: Reported between PQL and MDL.
Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0
[a] Sample was diluted due to foaming.

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

ANALYTICAL REPORTS

WITH METHOD DETECTION LIMITS (MDLs)

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
Battelle - Columbus Operations
Attention: David Clexton
505 King Avenue
Columbus OH 43201
Tel: (614)424-4629 Fax: (614)424-3667

Service ID #: 801-015512
Collected by: David Clexton
Collected on: 08/22-27/01

Received: 08/27/01
Extracted: 08/28-29/01
Tested: 08/29-09/19/01
Revised: 02/05/02

Sample Description: Soil and Water from Fall Brook, CA
Project Description: DO 0056 CERCLA Completion Plan

Analysis of Water and Soil Samples

I. Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result 056-ERB1 01-05512-31	Analysis Result Trip Blank 01-05512-32
Volatile organics					
Dilution Factor				1	1
Benzene	8260B	µg/L	0.5	<0.5	<0.5
Ethylbenzene	8260B	µg/L	0.5	<0.5	<0.5
Styrene	8260B	µg/L	1	<1	<1
Toluene	8260B	µg/L	0.5	<0.5	<0.5
o-Xylene	8260B	µg/L	0.5	<0.5	<0.5
m/p-Xylene	8260B	µg/L	0.5	<0.5	<0.5

Component Analyzed	Method	Unit	PQL	Analysis Result 056-ERB1 01-05512-31
Dilution Factor				1
Pentachlorophenol (PCP)	8270C	µg/L	50	<50

II. Analysis of Soil Samples

Component Analyzed	Method	Unit	PQL	Analysis Result 056-001 01-05512-1	056-002 01-05512-2	056-003 01-05512-3	056-004 01-05512-4
Moisture, percent	ASTM-D2216	%Moisture	0.5	2.7	4.9	5.5	4.3
Volatile organics							
Dilution Factor				0.88	0.84	0.79	1.03
Benzene	8260B	µg/kg	5	<4.5	<4.4	<4.2	0.9J
Ethylbenzene	8260B	µg/kg	5	<4.5	<4.4	<4.2	<5.4
Styrene	8260B	µg/kg	5	<4.5	<4.4	<4.2	<5.4
Toluene	8260B	µg/kg	5	<4.5	<4.4	<4.2	<5.4
o-Xylene	8260B	µg/kg	5	<4.5	<4.4	<4.2	<5.4
m/p-Xylene	8260B	µg/kg	5	<4.5	<4.4	<4.2	<5.4
Dilution Factor				1	1	2	2
Pentachlorophenol (PCP)	8270C	µg/kg	170 [a]	<180	<180	<360	<360

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Component Analyzed	Method	Unit	PQL	Analysis Result 056-005 01-05512-5	056-006 01-05512-6	056-007 01-05512-7	056-008 01-05512-8
Moisture, percent	ASTM-D2216	%Moisture	0.5	3.2	1.8	0.60	2.4
Volatile organics							
Dilution Factor				0.93	0.96	1.07	0.98
Benzene	8260B	µg/kg	5	<4.8	<4.9	2J	<5.0
Ethylbenzene	8260B	µg/kg	5	<4.8	<4.9	<5.4	<5.0
Styrene	8260B	µg/kg	5	<4.8	<4.9	<5.4	<5.0
Toluene	8260B	µg/kg	5	<4.8	<4.9	<5.4	<5.0
o-Xylene	8260B	µg/kg	5	<4.8	<4.9	<5.4	<5.0
m/p-Xylene	8260B	µg/kg	5	<4.8	<4.9	<5.4	<5.0
Dilution Factor				1	1	1	1
Pentachlorophenol (PCP)	8270C	µg/kg	170 [a]	<180	<170	<170	<180

Component Analyzed	Method	Unit	PQL	Analysis Result 056-009 01-05512-9	056-00A 01-05512-10	056-00B 01-05512-11	056-00C 01-05512-12
Moisture, percent	ASTM-D2216	%Moisture	0.5	6.0	4.8	4.6	2.5
Volatile organics							
Dilution Factor				0.91	0.87	0.97	0.89
Benzene	8260B	µg/kg	5	<4.8	<4.6	<5.1	<4.6
Ethylbenzene	8260B	µg/kg	5	<4.8	<4.6	<5.1	<4.6
Styrene	8260B	µg/kg	5	<4.8	<4.6	<5.1	<4.6
Toluene	8260B	µg/kg	5	<4.8	<4.6	<5.1	<4.6
o-Xylene	8260B	µg/kg	5	<4.8	<4.6	<5.1	<4.6
m/p-Xylene	8260B	µg/kg	5	<4.8	<4.6	<5.1	<4.6
Dilution Factor				1	1	1	2
Pentachlorophenol (PCP)	8270C	µg/kg	170 [a]	<180	<180	<180	<350

Component Analyzed	Method	Unit	PQL	Analysis Result 056-010 01-05512-13	056-011 01-05512-14	056-012 01-05512-15	056-013 01-05512-16
Moisture, percent	ASTM-D2216	%Moisture	0.5	2.8	8.0	5.9	7.8
Volatile organics							
Dilution Factor				1.06	0.89	0.97	0.84
Benzene	8260B	µg/kg	5	1J	<4.8	<5.2	<4.6
Ethylbenzene	8260B	µg/kg	5	<5.5	<4.8	<5.2	<4.6
Styrene	8260B	µg/kg	5	<5.5	<4.8	<5.2	<4.6
Toluene	8260B	µg/kg	5	<5.5	<4.8	<5.2	<4.6
o-Xylene	8260B	µg/kg	5	<5.5	<4.8	<5.2	<4.6
m/p-Xylene	8260B	µg/kg	5	<5.5	<4.8	<5.2	<4.6
Dilution Factor				1	1	1	1
Pentachlorophenol (PCP)	8270C	µg/kg	170 [a]	<180	<190	<180	<190

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13700 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result 056-014 01-05512-17	056-015 01-05512-18	056-016 01-05512-19	056-017 01-05512-20
Moisture, percent	ASTM-D2216	%Moisture	0.5	6.3	3.1	4.5	3.6
Volatile organics							
Dilution Factor				0.91	1.02	0.98	0.94
Benzene	8260B	µg/kg	5	<4.9	<5.3	0.7J	0.6J
Ethylbenzene	8260B	µg/kg	5	<4.9	<5.3	<5.1	<4.9
Styrene	8260B	µg/kg	5	<4.9	<5.3	<5.1	<4.9
Toluene	8260B	µg/kg	5	<4.9	<5.3	<5.1	<4.9
o-Xylene	8260B	µg/kg	5	<4.9	<5.3	<5.1	<4.9
m/p-Xylene	8260B	µg/kg	5	<4.9	<5.3	<5.1	<4.9
Dilution Factor				4	1	1	4
Pentachlorophenol (PCP)	8270C	µg/kg	170 (a)	<730	<180	<180	<710

Component Analyzed	Method	Unit	PQL	Analysis Result 056-018 01-05512-21	056-019 01-05512-22	056-020 01-05512-23	056-021 01-05512-24
Moisture, percent	ASTM-D2216	%Moisture	0.5	5.0	5.3	3.9	3.8
Volatile organics							
Dilution Factor				1.12	0.99	0.94	0.91
Benzene	8260B	µg/kg	5	<5.9	<5.2	<4.9	<4.7
Ethylbenzene	8260B	µg/kg	5	<5.9	<5.2	<4.9	<4.7
Styrene	8260B	µg/kg	5	<5.9	<5.2	<4.9	<4.7
Toluene	8260B	µg/kg	5	<5.9	<5.2	<4.9	<4.7
o-Xylene	8260B	µg/kg	5	<5.9	<5.2	<4.9	<4.7
m/p-Xylene	8260B	µg/kg	5	<5.9	<5.2	<4.9	<4.7
Dilution Factor				1	1	1	1
Pentachlorophenol (PCP)	8270C	µg/kg	170 (a)	<180	<180	<180	<180

Component Analyzed	Method	Unit	PQL	Analysis Result 056-022 01-05512-25	056-023 01-05512-26	056-024 01-05512-27
Moisture, percent	ASTM-D2216	%Moisture	0.5	2.0	2.4	5.9
Volatile organics						
Dilution Factor				0.93	0.99	1.12
Benzene	8260B	µg/kg	5	<4.7	1J	1J
Ethylbenzene	8260B	µg/kg	5	<4.7	<5.1	<6.0
Styrene	8260B	µg/kg	5	<4.7	<5.1	<6.0
Toluene	8260B	µg/kg	5	<4.7	<5.1	<6.0
o-Xylene	8260B	µg/kg	5	<4.7	<5.1	<6.0
m/p-Xylene	8260B	µg/kg	5	<4.7	<5.1	<6.0
Dilution Factor				1	1	4
Pentachlorophenol (PCP)	8270C	µg/kg	170 (a)	<170	<180	<730 (b)

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Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result 056-025 01-05512-28	056-026 01-05512-29	056-027 01-05512-30
Moisture, percent	ASTM-D2216	%Moisture	0.5	6.7	4.7	1.6
Volatile organics						
Dilution Factor				0.86	1.07	1.15
Benzene	8260B	µg/kg	5	< 4.6	< 5.6	< 5.8
Ethylbenzene	8260B	µg/kg	5	< 4.6	< 5.6	< 5.8
Styrene	8260B	µg/kg	5	< 4.6	< 5.6	< 5.8
Toluene	8260B	µg/kg	5	< 4.6	0.9J	< 5.8
o-Xylene	8260B	µg/kg	5	0.5J	< 5.6	< 5.8
m/p-Xylene	8260B	µg/kg	5	1J	< 5.6	< 5.8
Dilution Factor				1	4	1
Pentachlorophenol (PCP)	8270C	µg/kg	170 [a]	< 180	< 720 [b]	< 170

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit

N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.

J: Reported between PQL and MDL.

† All results are reported on dry basis for soil samples.

Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

[a] MDL reported.

[b] Re-analyzed on 09/19/01.

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
Battelle - Columbus Operations
Attention: David Clexton
505 King Avenue
Columbus OH 43201
Tel: (614)424-4629 Fax: (614)424-3667

Service ID #: 801-015551
Collected by: David Clexton
Collected on: 08/22-28/01

Received: 08/28/01
Extracted: 08/30-31/01
Tested: 08/30-09/19/01
Revised: 02/05/01

Sample Description: Soil and Water from Fall Brook, CA
Project Description: DO 0056 CERCLA Completion Plan

Analysis of Water and Soil Samples

I. Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result 056-ERB2 01-05551-34	Trip Blank 01-05551-35
Volatile organics					
Dilution Factor				1	1
Benzene	8260B	µg/L	0.5	<0.5	<0.5
Ethylbenzene	8260B	µg/L	0.5	<0.5	<0.5
Styrene	8260B	µg/L	1	<1	<1
Toluene	8260B	µg/L	0.5	<0.5	<0.5
o-Xylene	8260B	µg/L	0.5	<0.5	<0.5
m/p-Xylene	8260B	µg/L	0.5	<0.5	<0.5

Component Analyzed	Method	Unit	PQL	Analysis Result 056-ERB2 01-05551-34
Dilution Factor				1
Pentachlorophenol (PCP)	8270C	µg/L	50	<50

II. Analysis of Soil Samples

Component Analyzed	Method	Unit	PQL	Analysis Result 056-00D 01-05551-1	056-00E 01-05551-2	056-00F 01-05551-3	056-028 01-05551-4
Moisture, percent	ASTM-D2216	%Moisture	0.5	3.1	7.3	2.0	<0.5
Volatile organics							
Dilution Factor				0.97	0.88	1.04	0.96
Benzene	8260B	µg/kg	5	<5.0	<4.7	<5.3	<4.8
Ethylbenzene	8260B	µg/kg	5	<5.0	<4.7	<5.3	<4.8
Styrene	8260B	µg/kg	5	<5.0	<4.7	<5.3	<4.8
Toluene	8260B	µg/kg	5	<5.0	<4.7	<5.3	<4.8
o-Xylene	8260B	µg/kg	5	<5.0	<4.7	<5.3	<4.8
m/p-Xylene	8260B	µg/kg	5	<5.0	<4.7	<5.3	<4.8
Dilution Factor				1	1	1	4
Pentachlorophenol (PCP)	8270C	µg/kg	350 (b)	<360	<380	<360	<1400 (a)

Applied P & Ch Laboratory
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Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result 056-029 01-05551-5	056-030 01-05551-6	056-031 01-05551-7	056-032 01-05551-8
Moisture, percent	ASTM-D2216	%Moisture	0.5	2.8	4.6	3.2	4.4
Volatile organics							
Dilution Factor				1.08	0.97	0.94	1.22
Benzene	8260B	µg/kg	5	< 5.6	< 5.1	< 4.9	3J
Ethylbenzene	8260B	µg/kg	5	< 5.6	< 5.1	< 4.9	< 6.4
Styrene	8260B	µg/kg	5	< 5.6	< 5.1	< 4.9	< 6.4
Toluene	8260B	µg/kg	5	< 5.6	< 5.1	< 4.9	< 6.4
o-Xylene	8260B	µg/kg	5	< 5.6	< 5.1	< 4.9	< 6.4
m/p-Xylene	8260B	µg/kg	5	< 5.6	< 5.1	< 4.9	< 6.4
Dilution Factor				1	1	1	1
Pentachlorophenol (PCP)	8270C	µg/kg	350 (b)	< 360	< 370	< 360	< 370

Component Analyzed	Method	Unit	PQL	Analysis Result 056-033 01-05551-9	056-034 01-05551-10	056-035 01-05551-11	056-036 01-05551-12
Moisture, percent	ASTM-D2216	%Moisture	0.5	4.1	6.1	3.8	2.5
Volatile organics							
Dilution Factor				0.96	0.96	1.12	1.04
Benzene	8260B	µg/kg	5	< 5.0	2J	2J	0.9J
Ethylbenzene	8260B	µg/kg	5	< 5.0	< 5.1	< 5.8	< 5.3
Styrene	8260B	µg/kg	5	< 5.0	< 5.1	< 5.8	< 5.3
Toluene	8260B	µg/kg	5	0.6J	< 5.1	< 5.8	< 5.3
o-Xylene	8260B	µg/kg	5	< 5.0	< 5.1	< 5.8	< 5.3
m/p-Xylene	8260B	µg/kg	5	< 5.0	< 5.1	< 5.8	< 5.3
Dilution Factor				1	1	1	1
Pentachlorophenol (PCP)	8270C	µg/kg	350 (b)	< 370	< 370	< 370	< 360

Component Analyzed	Method	Unit	PQL	Analysis Result 056-037 01-05551-13	056-038 01-05551-14	056-039 01-05551-15	056-040 01-05551-16
Moisture, percent	ASTM-D2216	%Moisture	0.5	5.1	2.9	1.8	4.3
Volatile organics							
Dilution Factor				1.12	1.09	0.91	1.02
Benzene	8260B	µg/kg	5	< 5.9	< 5.6	< 4.6	0.7J
Ethylbenzene	8260B	µg/kg	5	< 5.9	< 5.6	< 4.6	< 5.3
Styrene	8260B	µg/kg	5	< 5.9	< 5.6	< 4.6	< 5.3
Toluene	8260B	µg/kg	5	< 5.9	< 5.6	< 4.6	< 5.3
o-Xylene	8260B	µg/kg	5	< 5.9	< 5.6	< 4.6	< 5.3
m/p-Xylene	8260B	µg/kg	5	< 5.9	< 5.6	< 4.6	< 5.3
Dilution Factor				1	1	1	2
Pentachlorophenol (PCP)	8270C	µg/kg	350 (b)	< 370	< 360	< 360	< 740

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result 056-041 01-05551-17	056-042 01-05551-18	056-043 01-05551-19	056-044 01-05551-20
Moisture, percent	ASTM-D2216	%Moisture	0.5	6.4	6.7	8.2	4.7
Volatile organics							
Dilution Factor				0.89	1.04	0.9	0.97
Benzene	8260B	µg/kg	5	< 4.8	< 5.6	< 4.9	1J
Ethylbenzene	8260B	µg/kg	5	< 4.8	< 5.6	< 4.9	< 5.1
Styrene	8260B	µg/kg	5	< 4.8	< 5.6	< 4.9	< 5.1
Toluene	8260B	µg/kg	5	< 4.8	< 5.6	< 4.9	< 5.1
o-Xylene	8260B	µg/kg	5	< 4.8	< 5.6	< 4.9	< 5.1
m/p-Xylene	8260B	µg/kg	5	< 4.8	< 5.6	< 4.9	< 5.1
Dilution Factor				1	1	1	2
Pentachlorophenol (PCP)	8270C	µg/kg	350 (b)	< 380	< 380	< 380	< 740

Component Analyzed	Method	Unit	PQL	Analysis Result 056-045 01-05551-21	056-046 01-05551-22	056-047 01-05551-23	056-048 01-05551-24
Moisture, percent	ASTM-D2216	%Moisture	0.5	4.6	3.2	8.2	1.5
Volatile organics							
Dilution Factor				0.9	1.32	0.99	1.2
Benzene	8260B	µg/kg	5	1J	< 6.8	0.9J	3J
Ethylbenzene	8260B	µg/kg	5	< 4.7	< 6.8	< 5.4	< 6.1
Styrene	8260B	µg/kg	5	< 4.7	< 6.8	< 5.4	< 6.1
Toluene	8260B	µg/kg	5	< 4.7	< 6.8	< 5.4	< 6.1
o-Xylene	8260B	µg/kg	5	< 4.7	< 6.8	< 5.4	< 6.1
m/p-Xylene	8260B	µg/kg	5	< 4.7	< 6.8	< 5.4	< 6.1
Dilution Factor				4	4	1	1
Pentachlorophenol (PCP)	8270C	µg/kg	130 (b)	< 520	< 520	< 140	< 130

Component Analyzed	Method	Unit	PQL	Analysis Result 056-049 01-05551-25	056-050 01-05551-26	056-051 01-05551-27
Moisture, percent	ASTM-D2216	%Moisture	0.5	7.3	1.6	4.1
Volatile organics						
Dilution Factor				0.94	0.95	0.99
Benzene	8260B	µg/kg	5	1J	< 4.8	< 5.2
Ethylbenzene	8260B	µg/kg	5	< 5.1	< 4.8	< 5.2
Styrene	8260B	µg/kg	5	< 5.1	< 4.8	< 5.2
Toluene	8260B	µg/kg	5	< 5.1	< 4.8	< 5.2
o-Xylene	8260B	µg/kg	5	< 5.1	< 4.8	< 5.2
m/p-Xylene	8260B	µg/kg	5	< 5.1	< 4.8	< 5.2
Dilution Factor				1	2	1
Pentachlorophenol (PCP)	8270C	µg/kg	130 (b)	< 130	< 250	< 130

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13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result 056-052 01-05551-28	056-053 01-05551-29	056-054 01-05551-30
Moisture, percent	ASTM-D2216	%Moisture	0.5	1.1	1.7	0.50
Volatile organics						
Dilution Factor				0.97	0.92	0.94
Benzene	8260B	µg/kg	5	3J	1J	0.7J
Ethylbenzene	8260B	µg/kg	5	< 4.9	< 4.7	< 4.7
Styrene	8260B	µg/kg	5	< 4.9	< 4.7	< 4.7
Toluene	8260B	µg/kg	5	0.5J	< 4.7	< 4.7
o-Xylene	8260B	µg/kg	5	< 4.9	< 4.7	< 4.7
m/p-Xylene	8260B	µg/kg	5	< 4.9	< 4.7	< 4.7
Dilution Factor				2	1	1
Pentachlorophenol (PCP)	8270C	µg/kg	130 (b)	< 250	< 130	< 130

Component Analyzed	Method	Unit	PQL	Analysis Result 056-055 01-05551-31	056-056 01-05551-32	056-057 01-05551-33
Moisture, percent	ASTM-D2216	%Moisture	0.5	1.1	1.1	0.60
Volatile organics						
Dilution Factor				1.23	1.01	1.2
Benzene	8260B	µg/kg	5	< 6.2	< 5.1	< 6.0
Ethylbenzene	8260B	µg/kg	5	< 6.2	< 5.1	< 6.0
Styrene	8260B	µg/kg	5	< 6.2	< 5.1	< 6.0
Toluene	8260B	µg/kg	5	< 6.2	< 5.1	< 6.0
o-Xylene	8260B	µg/kg	5	< 6.2	< 5.1	< 6.0
m/p-Xylene	8260B	µg/kg	5	< 6.2	< 5.1	< 6.0
Dilution Factor				2	4	2
Pentachlorophenol (PCP)	8270C	µg/kg	130 (b)	< 250	< 510	< 250

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit
N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.
J: Reported between PQL and MDL.
† All results are reported on dry basis for soil samples.
Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0
(a) Re-analyzed on 09/19/01.
(b) MDL reported.

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

APPENDIX J

CHAIN-OF-CUSTODY FORMS

Applied P & Ch Laboratory

APCL

13760 Magnolia Ave Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Chain of Custody

Please Print in pen

Client: Battelle Contact: David Clexton Tel #: 760-476-9144 Fax #: 760-476-9148

Address: 505 King Avenue City: Columbus State: OH Zip code: 43201

Bill to: Gerald Tompkins

Project Name/Code CERCLA Completion Plan Job #6337356-B003123 P.O. # 167240

Project Address Fallbrook NWS APCL Quotation # 2001_0221

Due Date: ☒ Regular ☐ rush: ____ days ____ hours Sampled by: David Clexton

Analysis Items

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	EPA 8260B	EPA 8270C										Remarks
056-001	2-Encore Samplers/1-Brass	8/27/01	1115	Soil	4°C	3	X	X										8260B = BTEX and Styrene
056-002	2-Encore Samplers/1-Brass Sleeve	8/27/01	1133	Soil	4°C	3	X	X										8270C = PCP
056-004	2-Encore Samplers/1-Brass Sleeve	8/27/01	1133	Soil	4°C	3	X	X										
056-003	2-Encore Samplers/1-Brass Sleeve	8/27/01	1145	Soil	4°C	3	X	X										
056-004	2-Encore /1-brass sleeve	8/27/01	1201	Soil	4°C	3	X	X										
056-005	2-Encore /1-brass sleeve	8/27/01	1320	Soil	4°C	3	X	X										
056-006	2-Encore/1-brass sleeve	8/27/01	1327	Soil	4°C	3	X	X										
056-007	2-Encore/1-brass sleeve	8/27/01	1338	Soil	4°C	3	X	X										
056-008	2-Encore/1-brass sleeve	8/27/01	1349	Soil	4°C	3	X	X										
056-009	2-Encore/2-brass sleeve	8/27/01	1410	Soil	4°C	8	X	X										MS/MSD
056-010	2-Encore/1-brass sleeve	8/27/01	1430	Soil	4°C	3	X	X										
056-003	2-Encore/1-brass sleeve	8/27/01	1430	Soil	4°C	3	X	X										
056-011	2-Encore/1-brass sleeve	8/27/01	1431	Soil	4°C	3	X	X										
056-012	2-Encore/1-brass sleeve	8/27/01	1455	Soil	4°C	3	X	X										
056-013	2-Encore/1-brass sleeve	8/27/01	1446	Soil	4°C	3	X	X										

White – With report
Yellow – Lab copy
Pink – Originator

5512

QC Requirement: ☐ Regular; ☐ QA/QC Report; ☐ WIP; ☐ Raw Data; ☐ Extended Raw Data ☐ CLP; ☐ ACE ☐ AFCEE ☐ NEESA ____ (E, C or D); ☒ Other 10% Level II 10% Level III (Please specify)

Sample Disposal: ☐ Return ☒ Disposal by APCL ☐ Hold for _____ days after receiving date **If not specified, samples will be discarded 45 days after samples are received.**

Sample Conditions: ☐ Intact; ☐ Broken Cooler Seal: ☐ Intact; ☐ Broken; ☐ None Tag # _____ Temperature: ☐ Room ☐ Cold (_____ °C)

Relinquished by David Clexton / David Clexton Date/Time 27 August 01 / 1803 Received by [signature] Date/Time 8-27-01 / 1803

Relinquished by Date/Time / Received by Date/Time /

APCL USE ONLY Service # Note:

Clients understand that all terms described in the proposals, quotations for this project, and/or the general terms provided in the current APCL price schedules will be followed APCL reserves the right to terminate its service or withhold delivery of any reports, if in APCL's sole discretion the terms of the project have been broken

Applied P & Ch Laboratory

APCL

13760 Magnolia Ave Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Chain of Custody

Please Print in pen

Client: Battelle
Contact: David Clexton
Tel #: 760-476-9144 Fax #: 760-476-9148
Address: 505 King Avenue
City: Columbus
State: OH
Zip code: 43201
Bill to: Gerald Tompkins
Project Name/Code CERCLA Completion Plan
Job #6337326-8003123 P.O. #167240
Project Address Fallbrook NWS
APCL Quotation # 2001-0221
Due Date: ☒ regular ☐ rush: ___ days ___ hours
Sampled by: David Clexton

White – With report
Yellow – Lab copy
Pink – Originator

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	EPA 8260B	EPA 8270C	Remarks
056-014	2-Encore/1-brass sleeve	8/27/01	1507	SOIL	4°C	3	X	X	8260B = BTEX and Styrene
056-015	2-Encore/1-brass sleeve	8/27/01	1502	SOIL	4°C	3	X	X	8270C = PCP
056-016	2-Encore/1-brass sleeve	8/27/01	1522	SOIL	4°C	3	X	X	
056-017	2-Encore/1-brass sleeve	8/27/01	1525	SOIL	4°C	3	X	X	
056-018	6-Encore/2-brass sleeve	8/27/01	1545	SOIL	4°C	8	X	X	MS/MSD
056-019	2-Encore/1-brass sleeve	8/27/01	1555	SOIL	4°C	3	X	X	
056-020	2-Encore/1-brass sleeve	8/27/01	1600	SOIL	4°C	3	X	X	
056-00C	2-Encore/1-brass sleeve	8/27/01	1600	SOIL	4°C	3	X	X	
056-021	2-Encore/1-stainless sleeve	8/27/01	1610	SOIL	4°C	3	X	X	
056-022	2-Encore/1-stainless sleeve	8/27/01	1620	SOIL	4°C	3	X	X	
056-023	2-Encore/1-stainless sleeve	8/27/01	1630	SOIL	4°C	3	X	X	
056-024	2-Encore/1-stainless sleeve	8/27/01	1632	SOIL	4°C	3	X	X	
056-025	2-Encore/1-stainless sleeve	8/27/01	1641	SOIL	4°C	3	X	X	
056-026	2-Encore/1-stainless sleeve	8/27/01		SOIL	4°C	3	X	X	
056-027	2-Encore/1-stainless sleeve	8/27/01	1656	SOIL	4°C	3	X	X	

5512

QC Requirement: ☐ Regular; ☐ QA/QC Report; ☐ WIP; ☐ Raw Data; ☐ Extended Raw Data ☐ CLP; ☐ ACE ☐ AFCEE ☐ NEESA ___ (E, C or D); ☒ Other 10% Level III 90% Level III (Please specify)

Sample Disposal: ☐ Return ☒ Disposal by APCL ☐ Hold for _____ days after receiving date **If not specified, samples will be discarded 45 days after samples are received.**

Sample Conditions: ☐ Intact; ☐ Broken Cooler Seal: ☐ Intact; ☐ Broken; ☐ None Tag # _____ Temperature: ☐ Room ☐ Cold (_____ °C)

Relinquished by David Clexton / David Clexton Date/Time 27 August 01 / 1803 Received by [signature] Date/Time 8-27-01 / 1803

Relinquished by Date/Time / Received by Date/Time /

APCL USE ONLY Service # Note:

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Applied P & Ch Laboratory

APCL

13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Chain of Custody

Please Print in pen

Client: Battelle Contact: David Clexton Tel #: 760-476-9144 Fax #: 760-476-9148

Address: 505 King Avenue City: Columbus State: OH Zip code: 43201

Bill to: Gerald Tompkins

Project Name/Code CERCLA Completion Plan Job # 5537356-B00 3123 P.O. # 167240

Project Address Fallbrook NWS APCL Quotation # 2001_0221

Due Date: ☒ regular ☐ rush: ___ days ___ hours Sampled by: David Clexton

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Pink – Originator

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	EPA 8260B	EPA 8270C	Remarks
Trip Blank	Lab prepared trip blank 1x40ml	8/22/01		Aqueous	HCl	1	X	X	8260B = BTEX and Styrene
Temp Blank	Temperature blank 1x40ml			Aqueous	none	1			8270C = PCP
056-ERB1	Equipment Rinsate 2x Amber 1ltr/ 3x40ml VOA	8/27/01	1700	Aqueous	none/HCl	5	X	X	

5512

QC Requirement: ☐ Regular; ☐ QA/QC Report; ☐ WIP; ☐ Raw Data; ☐ Extended Raw Data ☐ CLP; ☐ ACE ☐ AFCEE ☐ NEESA ___ (E, C or D); ☒ Other 10% Level IV 90% Level III (Please specify)

Sample Disposal: ☐ Return ☒ Disposal by APCL ☐ Hold for _____ days after receiving date **If not specified, samples will be discarded 45 days after samples are received.**

Sample Conditions: ☐ Intact; ☐ Broken Cooler Seal: ☐ Intact; ☐ Broken; ☐ None Tag # _____ Temperature: ☐ Room ☐ Cold (_____ °C)

Relinquished by David Clexton / David Clexton Date/Time 27 August 01 / 1803 Received by [signature] Date/Time 8-27-01 / 1803

Relinquished by Date/Time / Received by Date/Time /

APCL USE ONLY Service # Note:

Clients understand that all terms described in the proposals, quotations for this project, and/or the general terms provided in the current APCL price schedules will be followed APCL reserves the right to terminate its service or withhold delivery of any reports, if in APCL's sole discretion the terms of the project have been broken.

Applied P & Ch Laboratory

APCL

13760 Magnolia Ave Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Chain of Custody

Please Print in pen

Client: Battelle Contact: David Clexton Tel #: 760-476-9144 Fax #: 760-476-9148

Address: 505 King Avenue City: Columbus State: OH Zip code: 43201

Bill to: Gerald Tompkins

Project Name/Code CERCLA Completion Plan Job #9337356-BCO 3123 P.O. # 167240

Project Address Fallbrook NWS APCL Quotation # 2001-0221

Due Date: ☒ regular ☐ rush: ___ days ___ hours Sampled by: David Clexton

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Pink – Originator

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	EPA 8260B	EPA 8270C	Remarks
056-028	6-Encore/2-Stainless Sleeve	8/28/01	0835	SOIL	4°C	8	X	X	MS/MSD
056-029	2-Encore/1-Stainless Sleeve	8/28/01	0850	SOIL	4°C	3	X	X	
056-030	2-Encore/1-Stainless Sleeve	8/28/01	0845	SOIL	4°C	3	X	X	8260B = BTEX/Styrene
056-031	2-Encore/1-Stainless Sleeve	8/28/01	0910	SOIL	4°C	3	X	X	8270C = PCP
056-032	2-Encore/1-stainless Sleeve	8/28/01	0900	SOIL	4°C	3	X	X	
056-00D	2-Encore/1-stainless Sleeve	8/28/01	0910	SOIL	4°C	3	X	X	
056-033	2-Encore/1-stainless Sleeve	8/28/01	0925	SOIL	4°C	3	X	X	
056-034	2-Encore/1-stainless Sleeve	8/28/01	0911	SOIL	4°C	3	X	X	
056-035	2-Encore/1-Stainless Sleeve	8/28/01	0945	SOIL	4°C	3	X	X	
056-036	2-Encore/1-Stainless Sleeve	8/28/01	1000	SOIL	4°C	3	X	X	
056-037	2-Encore/1-Stainless Sleeve	8/28/01	1020	SOIL	4°C	3	X	X	
056-038	2-Encore/1-Stainless Sleeve	8/28/01	1045	SOIL	4°C	3	X	X	
056-039	2-Encore/1-Stainless Sleeve	8/28/01	1105	SOIL	4°C	3	X	X	
056-040	2-Encore/1-stainless Sleeve	8/28/01	1110	SOIL	4°C	3	X	X	
056-041	2-Encore/1-stainless Sleeve	8/28/01	1115	SOIL	4°C	3	X	X	

5551

QC Requirement: ☐ Regular; ☐ QA/QC Report; ☐ WIP; ☐ Raw Data; ☐ Extended Raw Data ☐ CLP; ☐ ACE ☐ AFCEE ☐ NEESA ___ (E, C or D); ☒ Other 10% Level IV 90% Level III (Please specify)

Sample Disposal: ☐ Return ☒ Disposal by APCL ☐ Hold for _____ days after receiving date. If not specified, samples will be discarded 45 days after samples are received.

Sample Conditions: ☐ Intact; ☐ Broken Cooler Seal: ☐ Intact; ☐ Broken; ☐ None Tag # _____ Temperature: ☐ Room ☐ Cold (_____ °C)

Relinquished by David Clexton / David Clexton Date/Time 28 August 01 / 1600 Received by [signature] Date/Time 8-28-01 / 1600

Relinquished by Date/Time / Received by Date/Time /

APCL USE ONLY Service # Note:

Client [illegible] all t[illegible] escri[illegible] the p[illegible]ls, qu[illegible]ns fo[illegible] projec[illegible] /or th[illegible]ral te[illegible] rovid[illegible] he cu[illegible] APCL [illegible] will be followed. APCL reserves the right

Applied P & Ch Laboratory

APCL

13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Chain of Custody

Please Print in pen

Client: Battelle Contact: David Clexton Tel #: 760-476-9144 Fax #: 760-476-9148

Address: 505 King Avenue City: Columbus State: OH Zip code: 43201

Bill to: Gerald Tompkins Job # G337356 BC03123

Project Name/Code CERCLA Completion Plan Job # P.O. # 167240

Project Address Fallbrook NWS APCL Quotation # 2001-0221

Due Date: ☒ regular ☐ rush: ___ days ___ hours Sampled by: David Clexton

White - With report
Yellow - Lab copy
Pink - Originator

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	8260B EPA	EPA 8270C	Remarks
056-042	2-Encore/1-Stainless Sleeve	8/28/01	1120	SOIL	4°C	3	X	X	8260B = BTEX/Styrene
056-00E	2-Encore/1-Stainless Sleeve	8/28/01	1120	SOIL	4°C	3	X	X	8270C = PCP
056-043	2-Encore/1-Stainless sleeve	8/28/01	1135	SOIL	4°C	3	X	X	
056-044	2-Encore/1-Stainless Sleeve	8/28/01	1138	SOIL	4°C	3	X	X	
056-045	2-Encore/1-stainless sleeve	8/28/01	1300	SOIL	4°C	3	X	X	
056-046	2-Encore/1-stainless sleeve	8/28/01	1305	SOIL	4°C	3	X	X	
056-047	2-Encore/1-stainless sleeve	8/28/01	1318	SOIL	4°C	3	X	X	
056-048	2-Encore/1-Stainless sleeve	8/28/01	1320	SOIL	4°C	3	X	X	
056-049	2-Encore/1-stainless sleeve	8/28/01	1330	SOIL	4°C	3	X	X	
056-050	2-Encore/1-stainless sleeve	8/28/01	1330	SOIL	4°C	3	X	X	
056-051	2-Encore/1-stainless sleeve	8/28/01	1345	SOIL	4°C	3	X	X	
056-052	2-Encore/1-stainless sleeve	8/28/01	1345	SOIL	4°C	3	X	X	
056-053	2-Encore/1-stainless sleeve	8/28/01	1403	SOIL	4°C	3	X	X	
056-054	2-Encore/1-stainless sleeve	8/28/01	1357	SOIL	4°C	3	X	X	
056-00F	2-Encore/1-stainless sleeve	8/28/01	1403	SOIL	4°C	3	X	X	

5551

QC Requirement: ☐ Regular; ☐ QA/QC Report; ☐ WIP; ☐ Raw Data; ☐ Extended Raw Data ☐ CLP; ☐ ACE ☐ AFCEE ☐ NEESA ___ (E, C or D); ☒ Other 10% Level IV 90% Level III (Please specify)

Sample Disposal: ☐ Return ☒ Disposal by APCL ☐ Hold for _____ days after receiving date If not specified, samples will be discarded 45 days after samples are received.

Sample Conditions: ☐ Intact; ☐ Broken Cooler Seal: ☐ Intact; ☐ Broken; ☐ None Tag # _____ Temperature: ☐ Room ☐ Cold (____ °C)

Relinquished by David Clexton/David Clexton Date/Time 29 August 2001 / 1600 Received by [signature] Date/Time 8-28-01 / 1600

Relinquished by Date/Time / Received by Date/Time /

APCL USE ONLY Service # Note:

Clients understand that all terms described in the proposals, quotations for this project, and/or the general terms provided in the current APCL price schedules will be followed. APCL reserves the right

APCL

Applied P & Ch Laboratory

13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Chain of Custody

Please Print in pen

Client: Battelle Contact: David Clexton Tel #: 760-476-9144 Fax #: 760-476-9148
Address: 505 King Avenue City: Columbus State: OH Zip code: 43201
Bill to: Gerald Tompkins Job # G337356-BCO 3123
Project Name/Code CERCLA Completion Plan Job # P.O. # 167240
Project Address Fallbrook NWS APCL Quotation # 2001-0221
Due Date: ☒ Regular ☐ rush: ___ days ___ hours Sampled by: David Clexton

White – With report
Yellow – Lab copy
Pink – Originator

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	EPA 8260B	EPA 8270C	Remarks
056-055	2-Encore/1-stainless sleeve	8/28/01	1415	SOIL	4°C	3	X	X	8260B = BTEX/Styrene
056-056	2-Encore/1-stainless sleeve	8/28/01	1410	SOIL	4°C	3	X	X	8270C = PCP
056-057	2-Encore/1-stainless sleeve	8/28/01	1422	SOIL	4°C	3	X	X	
056-ERB2	2-amber liter bottles/3x40ml VOA	8/28/01	1430	Aqueous	none/HCl	5	X	X	
Trip Blank	Lab prepared trip blank 1x40ml VOA	8/22/01		Aqueous	HCl	1	X	X	
Temp. Blank	Lab prepared temp blank 1x40ml VOA			Aqueous	none	1			

5551

QC Requirement: ☐ Regular; ☐ QA/QC Report; ☐ WIP; ☐ Raw Data; ☐ Extended Raw Data ☐ CLP; ☐ ACE ☐ AFCEE ☐ NEESA ___ (E, C or D); ☒ Other 10% Level IV 90% Level III (Please specify)

Sample Disposal: ☐ Return ☒ Disposal by APCL ☐ Hold for _____ days after receiving date If not specified, samples will be discarded 45 days after samples are received.

Sample Conditions: ☐ Intact; ☐ Broken Cooler Seal: ☐ Intact; ☐ Broken; ☐ None Tag # _____ Temperature: ☐ Room ☐ Cold (____ °C)

Relinquished by David Clexton Date/Time 28 August 2001 Received by [signature] Date/Time 8-28-01 / 1600

Relinquished by Date/Time / Received by Date/Time /

APCL USE ONLY Service # Note:

Clier[illegible] [illegible]ersta[illegible] [illegible]t all [illegible] descr[illegible] the [illegible]als [illegible] [illegible]ons fr[illegible] proje[illegible] [illegible]

Applied P & Ch Laboratory

APCL

13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Chain of Custody

Please Print in pen Page 1 of 1

Client: Battelle Contact: David Clexton Tel #: 760-476-9144 Fax #: 760-476-9148

Address: 505 King Ave City: Columbus State: OH Zip code: 43201

Bill to: Gerald Tompkins Job # G337356-BC03123

Project Name/Code CERCLA Completion Plan Job # 4 P.O. # 167240

Project Address Fallbrook NWS APCL Quotation # 2001-0221

Due Date: ☒ regular ☐ rush: ___ days ___ hours Sampled by: David Clexton

White – With report
Yellow – Lab copy
Pink – Originator

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	BTEX/Styrene EPA 8260B	PCP EPA 8270C											Remarks
DCW1	Decon Water Composite	9/26/01	1235	AQ	HCl / None	2 VOA / 1 L	X	X											8260B-BTEX/Styrene
TB9/26	Trip Blank			AQ	HCl	1 VOA	X												8270C-PCP
	Temperature Blank			AQ	none	1 VOA													

6065

QC Requirement: ☐ Regular; ☐ QA/QC Report; ☐ WIP; ☐ Raw Data; ☐ Extended Raw Data ☐ CLP; ☐ ACE ☐ AFCEE ☐ NEESA ___ (E, C or D); ☒ Other Level III (Please specify)

Sample Disposal: ☐ Return ☒ Disposal by APCL ☐ Hold for _____ days after receiving date. If not specified, samples will be discarded 45 days after samples are received.

Sample Conditions: ☐ Intact; ☐ Broken Cooler Seal: ☐ Intact; ☐ Broken; ☐ None Tag # _____ Temperature: ☐ Room ☐ Cold (_____ °C)

Relinquished by David Clexton Date/Time 9/26/01 1700 Received by [signature] Date/Time 9-26-01 1700

Relinquished by Date/Time / Received by Date/Time /

APCL USE ONLY Service # Note:

Clients understand that all terms described in the proposals, quotations for this project, and/or the general terms provided in the ...

APPENDIX K

LABORATORY DATA VALIDATION REPORT

LABORATORY DATA CONSULTANTS, INC.
7750 El Camino Real, Suite 2L Carlsbad, CA 92009 Phone: 760/634-0437 Fax: 760/634-0439

Battelle
505 King Ave
Columbus, OH 43201-2693
ATTN: Mr. David Clexton

November 5, 2001

SUBJECT: CERCLA Completion Plan, Data Validation

Dear Mr. Clexton,

Enclosed are the final validation reports for the fractions listed below. These SDGs were received on October 22, 2001. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project # 7302:

SDG #	Fraction
01-5512, 01-5551, 01-6065	Benzene, Toluene, Ethylbenzene, Xylenes, Styrene, Pentachlorophenol

The data validation was performed under EPA Level "III" and "IV" guidelines. The analyses were validated using the following documents, as applicable to each method:

- USEPA, Contract Laboratory Program National Functional Guidelines for Organic Data Review, October 1999
- USEPA, Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, February 1994
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996

Please feel free to contact us if you have any questions.

Sincerely,

Richard M. Amano
President/Principal Chemist

7302COV.BAT

Attachment 1

LDC #7302 (Battelle / CERCLA Completion Plan)

LDC	SDG#	DATE REC'D	DATE DUE	BTEX & Styrene (8260B)		PCP (8270C)																											
Matrix: Water/Soil				W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	01-5512	10-22-01	11-12-01	2	23	1	23																										
A	01-5512	10-22-01	11-12-01	0	7	0	7																										
B	01-5551	10-22-01	11-12-01	2	33	1	33																										
C	01-6065	10-22-01	11-12-01	2	0	1	0																										
Total				6	63	3	63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Shaded cells indicate Level D validation (all other cells are Level C validation)

7302ST.BAT

CERCLA Completion Plan
Data Validation Reports
LDC# 7302

Volatiles

LDC

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: CERCLA Completion Plan

Collection Date: August 27, 2001

LDC Report Date: November 1, 2001

Matrix: Soil/Water

Parameters: Volatiles

Validation Level: EPA Level III & IV

Laboratory: Applied P & Ch Laboratory

Sample Delivery Group (SDG): 01-5551

Sample Identification

056-001**	056-018
056-002**	056-019
056-003**	056-020
056-004**	056-021
056-005**	056-022
056-006**	056-023
056-007**	056-024
056-008	056-025
056-009	056-026
056-00A	056-027
056-00B	056-ERB1
056-00C	TRIP BLANK
056-010	056-009MS
056-011	056-009MSD
056-012	056-018MS
056-013	056-018MSD
056-014	
056-015	
056-016	
056-017	

**Indicates sample underwent EPA Level IV review

Introduction

This data review covers 34 soil samples and 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 15.0% for each individual compound and less than or equal to 30.0% for calibration check compounds (CCCs).

For the purposes of technical evaluation, all compounds were evaluated against the 30.0% (%RSD) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

Average relative response factors (RRF) for all volatile target compounds and system performance check compounds (SPCCs) were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs).

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

All of the continuing calibration RRF values were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XV. Overall Assessment of Data

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

Samples 056-002** and 056-00A, samples 056-00B and 056-010 and samples 056-00C and 056-020 were identified as field duplicates. No volatiles were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/Kg)		RPD
	056-00B	056-010	
Benzene	5.1U	1	200

XVII. Field Blanks

Sample 056-ERB1 was identified as an equipment rinsate. No volatile contaminants were found in this blank.

Sample "TRIP BLANK" was identified as a trip blank. No volatile contaminants were found in this blank.

CERCLA Completion Plan
Volatiles - Data Qualification Summary - SDG 01-5551

No Sample Data Qualified in this SDG

CERCLA Completion Plan
Volatiles - Laboratory Blank Data Qualification Summary - SDG 01-5551

No Sample Data Qualified in this SDG

A

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-1	Received Date:	08/27/2001
Sample ID:	056-001	Sample Matrix	Soil	Moisture %:	2.7
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/30/01	Anal. Date:	08/30/01
Batch No:	01G4173	Prep. No:	-	Anal. Time:	11:53
Data File Name:	5512-01	Sample Amount:	5.70 g	Dilution Factor:	0.88
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	4.5	<4.5	U
2	Ethylbenzene	100-41-4	µg/kg	4.5	<4.5	U
3	Styrene	100-42-5	µg/kg	4.5	<4.5	U
4	Toluene	108-88-3	µg/kg	4.5	<4.5	U
5	o-Xylene	95-47-6	µg/kg	4.5	<4.5	U
6	m/p-Xylene	133677-61-2	µg/kg	4.5	<4.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	111
2	Dibromofluoromethane	1868-53-7	70-128	120
3	1,2-Dichloroethane-d4	17060-07-0	70-129	114
4	Toluene-d8	2037-26-5	70-125	112
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	92
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	98
3	Fluorobenzene	462-06-6	50-200	84
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-2	Received Date:	08/27/2001
Sample ID:	**056-002**	Sample Matrix	Soil	Moisture %:	4.9
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/30/01	Anal. Date:	08/30/01
Batch No:	01G4173	Prep. No:	–	Anal. Time:	12:18
Data File Name:	5512-02	Sample Amount:	5.92 g	Dilution Factor:	0.84
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	4.4	< 4.4	U
2	Ethylbenzene	100-41-4	µg/kg	4.4	< 4.4	U
3	Styrene	100-42-5	µg/kg	4.4	< 4.4	U
4	Toluene	108-88-3	µg/kg	4.4	< 4.4	U
5	o-Xylene	95-47-6	µg/kg	4.4	< 4.4	U
6	m/p-Xylene	133677-61-2	µg/kg	4.4	< 4.4	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	109
2	Dibromofluoromethane	1868-53-7	70-128	121
3	1,2-Dichloroethane-d4	17060-07-0	70-129	116
4	Toluene-d8	2037-26-5	70-125	110
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	93
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	99
3	Fluorobenzene	462-06-6	50-200	84
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

9/11/01

143020

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-3	Received Date:	08/27/2001
Sample ID:	**056-003**	Sample Matrix	Soil	Moisture %:	5.5
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/30/01	Anal. Date:	08/30/01
Batch No:	01G4173	Prep. No:	–	Anal. Time:	12:44
Data File Name:	5512-03	Sample Amount:	6.34 g	Dilution Factor:	0.79
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	4.2	<4.2	U
2	Ethylbenzene	100-41-4	µg/kg	4.2	<4.2	U
3	Styrene	100-42-5	µg/kg	4.2	<4.2	U
4	Toluene	108-88-3	µg/kg	4.2	<4.2	U
5	o-Xylene	95-47-6	µg/kg	4.2	<4.2	U
6	m/p-Xylene	133677-61-2	µg/kg	4.2	<4.2	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	109
2	Dibromofluoromethane	1868-53-7	70-128	121
3	1,2-Dichloroethane-d4	17060-07-0	70-129	114
4	Toluene-d8	2037-26-5	70-125	110
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	92
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	96
3	Fluorobenzene	462-06-6	50-200	85
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

143003

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-4	Received Date:	08/27/2001
Sample ID:	**056-004**	Sample Matrix	Soil	Moisture %:	4.3
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/30/01	Anal. Date:	08/30/01
Batch No:	01G4173	Prep. No:	-	Anal. Time:	13:10
Data File Name:	5512-04	Sample Amount:	4.86 g	Dilution Factor:	1.03
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	5.4	0.9	J
2	Ethylbenzene	100-41-4	µg/kg	5.4	<5.4	U
3	Styrene	100-42-5	µg/kg	5.4	<5.4	U
4	Toluene	108-88-3	µg/kg	5.4	<5.4	U
5	o-Xylene	95-47-6	µg/kg	5.4	<5.4	U
6	m/p-Xylene	133677-61-2	µg/kg	5.4	<5.4	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	110
2	Dibromofluoromethane	1868-53-7	70-128	119
3	1,2-Dichloroethane-d4	17060-07-0	70-129	113
4	Toluene-d8	2037-26-5	70-125	112
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	90
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	95
3	Fluorobenzene	462-06-6	50-200	82
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

9/5/01

143006

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-5	Received Date:	08/27/2001
Sample ID:	056-005	Sample Matrix	Soil	Moisture %:	3.2
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/30/01	Anal. Date:	08/30/01
Batch No:	01G4173	Prep. No:	–	Anal. Time:	13:36
Data File Name:	5512-05	Sample Amount:	5.4 g	Dilution Factor:	0.93
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	4.8	<4.8	U
2	Ethylbenzene	100-41-4	µg/kg	4.8	<4.8	U
3	Styrene	100-42-5	µg/kg	4.8	<4.8	U
4	Toluene	108-88-3	µg/kg	4.8	<4.8	U
5	o-Xylene	95-47-6	µg/kg	4.8	<4.8	U
6	m/p-Xylene	133677-61-2	µg/kg	4.8	<4.8	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	110
2	Dibromofluoromethane	1868-53-7	70-128	117
3	1,2-Dichloroethane-d4	17060-07-0	70-129	114
4	Toluene-d8	2037-26-5	70-125	110
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	91
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	96
3	Fluorobenzene	462-06-6	50-200	82
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-6	Received Date:	08/27/2001
Sample ID:	056-006	Sample Matrix	Soil	Moisture %:	1.8
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/30/01	Anal. Date:	08/30/01
Batch No:	01G4173	Prep. No:	–	Anal. Time:	14:01
Data File Name:	5512-06	Sample Amount:	5.19 g	Dilution Factor:	0.96
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	4.9	<4.9	U
2	Ethylbenzene	100-41-4	µg/kg	4.9	<4.9	U
3	Styrene	100-42-5	µg/kg	4.9	<4.9	U
4	Toluene	108-88-3	µg/kg	4.9	<4.9	U
5	o-Xylene	95-47-6	µg/kg	4.9	<4.9	U
6	m/p-Xylene	133677-61-2	µg/kg	4.9	<4.9	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	110
2	Dibromofluoromethane	1868-53-7	70-128	120
3	1,2-Dichloroethane-d4	17060-07-0	70-129	116
4	Toluene-d8	2037-26-5	70-125	111
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	90
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	94
3	Fluorobenzene	462-06-6	50-200	82
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

9/11/01

148022

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-7	Received Date:	08/27/2001
Sample ID:	056-007	Sample Matrix	Soil	Moisture %:	0.6
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/30/01	Anal. Date:	08/30/01
Batch No:	01G4173	Prep. No:	-	Anal. Time:	14:27
Data File Name:	5512-07	Sample Amount:	4.66 g	Dilution Factor:	1.07
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	5.4	2	J
2	Ethylbenzene	100-41-4	µg/kg	5.4	<5.4	U
3	Styrene	100-42-5	µg/kg	5.4	<5.4	U
4	Toluene	108-88-3	µg/kg	5.4	<5.4	U
5	o-Xylene	95-47-6	µg/kg	5.4	<5.4	U
6	m/p-Xylene	133677-61-2	µg/kg	5.4	<5.4	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	109
2	Dibromofluoromethane	1868-53-7	70-128	117
3	1,2-Dichloroethane-d4	17060-07-0	70-129	116
4	Toluene-d8	2037-26-5	70-125	111
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	90
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	95
3	Fluorobenzene	462-06-6	50-200	82
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

143025

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-8	Received Date:	08/27/2001
Sample ID:	**056-008**	Sample Matrix	Soil	Moisture %:	2.4
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/30/01	Anal. Date:	08/30/01
Batch No:	01G4173	Prep. No:	-	Anal. Time:	14:53
Data File Name:	5512-08	Sample Amount:	5.09 g	Dilution Factor:	0.98
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	5.0	< 5.0	U
2	Ethylbenzene	100-41-4	µg/kg	5.0	< 5.0	U
3	Styrene	100-42-5	µg/kg	5.0	< 5.0	U
4	Toluene	108-88-3	µg/kg	5.0	< 5.0	U
5	o-Xylene	95-47-6	µg/kg	5.0	< 5.0	U
6	m/p-Xylene	133677-61-2	µg/kg	5.0	< 5.0	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	109
2	Dibromofluoromethane	1868-53-7	70-128	119
3	1,2-Dichloroethane-d4	17060-07-0	70-129	112
4	Toluene-d8	2037-26-5	70-125	109
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	93
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	97
3	Fluorobenzene	462-06-6	50-200	80
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

143028

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-9	Received Date:	08/27/2001
Sample ID:	**056-009**	Sample Matrix	Soil	Moisture %:	6.0
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/30/01	Anal. Date:	08/30/01
Batch No:	01G4173	Prep. No:	-	Anal. Time:	11:01
Data File Name:	5512-09	Sample Amount:	5.52 g	Dilution Factor:	0.91
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	4.8	<4.8	U
2	Ethylbenzene	100-41-4	µg/kg	4.8	<4.8	U
3	Styrene	100-42-5	µg/kg	4.8	<4.8	U
4	Toluene	108-88-3	µg/kg	4.8	<4.8	U
5	o-Xylene	95-47-6	µg/kg	4.8	<4.8	U
6	m/p-Xylene	133677-61-2	µg/kg	4.8	<4.8	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	112
2	Dibromofluoromethane	1868-53-7	70-128	123
3	1,2-Dichloroethane-d4	17060-07-0	70-129	119
4	Toluene-d8	2037-26-5	70-125	112
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	89
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	97
3	Fluorobenzene	462-06-6	50-200	82
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/6/01

143029

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-10	Received Date:	08/27/2001
Sample ID:	**056-00A**	Sample Matrix	Soil	Moisture %:	4.8
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/30/01	Anal. Date:	08/30/01
Batch No:	01G4173	Prep. No:	–	Anal. Time:	11:27
Data File Name:	5512-10	Sample Amount:	5.74 g	Dilution Factor:	0.87
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	4.6	<4.6	U
2	Ethylbenzene	100-41-4	µg/kg	4.6	<4.6	U
3	Styrene	100-42-5	µg/kg	4.6	<4.6	U
4	Toluene	108-88-3	µg/kg	4.6	<4.6	U
5	o-Xylene	95-47-6	µg/kg	4.6	<4.6	U
6	m/p-Xylene	133677-61-2	µg/kg	4.6	<4.6	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	111
2	Dibromofluoromethane	1868-53-7	70-128	124
3	1,2-Dichloroethane-d4	17060-07-0	70-129	114
4	Toluene-d8	2037-26-5	70-125	113
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	91
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	98
3	Fluorobenzene	462-06-6	50-200	83
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

143040

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-11	Received Date:	08/27/2001
Sample ID:	**056-00B**	Sample Matrix	Soil	Moisture %:	4.6
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/30/01	Anal. Date:	08/30/01
Batch No:	01G4173	Prep. No:	–	Anal. Time:	15:19
Data File Name:	5512-11	Sample Amount:	5.14 g	Dilution Factor:	0.97
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	5.1	<5.1	U
2	Ethylbenzene	100-41-4	µg/kg	5.1	<5.1	U
3	Styrene	100-42-5	µg/kg	5.1	<5.1	U
4	Toluene	108-88-3	µg/kg	5.1	<5.1	U
5	o-Xylene	95-47-6	µg/kg	5.1	<5.1	U
6	m/p-Xylene	133677-61-2	µg/kg	5.1	<5.1	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	108
2	Dibromofluoromethane	1868-53-7	70-128	117
3	1,2-Dichloroethane-d4	17060-07-0	70-129	113
4	Toluene-d8	2037-26-5	70-125	108
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	91
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	97
3	Fluorobenzene	462-06-6	50-200	76
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

143041

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-12	Received Date:	08/27/2001
Sample ID:	056-00C	Sample Matrix	Soil	Moisture %:	2.5
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/30/01	Anal. Date:	08/30/01
Batch No:	01G4173	Prep. No:	–	Anal. Time:	15:44
Data File Name:	5512-12	Sample Amount:	5.6 g	Dilution Factor:	0.89
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	4.6	<4.6	U
2	Ethylbenzene	100-41-4	µg/kg	4.6	<4.6	U
3	Styrene	100-42-5	µg/kg	4.6	<4.6	U
4	Toluene	108-88-3	µg/kg	4.6	<4.6	U
5	o-Xylene	95-47-6	µg/kg	4.6	<4.6	U
6	m/p-Xylene	133677-61-2	µg/kg	4.6	<4.6	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	108
2	Dibromofluoromethane	1868-53-7	70-128	116
3	1,2-Dichloroethane-d4	17060-07-0	70-129	114
4	Toluene-d8	2037-26-5	70-125	109
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	92
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	97
3	Fluorobenzene	462-06-6	50-200	79
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

143042

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-13	Received Date:	08/27/2001
Sample ID:	**056-010**	Sample Matrix	Soil	Moisture %:	2.8
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/30/01	Anal. Date:	08/30/01
Batch No:	01G4173	Prep. No:	–	Anal. Time:	16:10
Data File Name:	5512-13	Sample Amount:	4.71 g	Dilution Factor:	1.06
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	5.5	1	J
2	Ethylbenzene	100-41-4	µg/kg	5.5	< 5.5	U
3	Styrene	100-42-5	µg/kg	5.5	< 5.5	U
4	Toluene	108-88-3	µg/kg	5.5	< 5.5	U
5	o-Xylene	95-47-6	µg/kg	5.5	< 5.5	U
6	m/p-Xylene	133677-61-2	µg/kg	5.5	< 5.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	109
2	Dibromofluoromethane	1868-53-7	70-128	117
3	1,2-Dichloroethane-d4	17060-07-0	70-129	114
4	Toluene-d8	2037-26-5	70-125	110
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	92
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	99
3	Fluorobenzene	462-06-6	50-200	79
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-14	Received Date:	08/27/2001
Sample ID:	056-011	Sample Matrix	Soil	Moisture %:	8.0
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/30/01	Anal. Date:	08/30/01
Batch No:	01G4173	Prep. No:	–	Anal. Time:	16:36
Data File Name:	5512-14	Sample Amount:	5.62 g	Dilution Factor:	0.89
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	4.8	<4.8	U
2	Ethylbenzene	100-41-4	µg/kg	4.8	<4.8	U
3	Styrene	100-42-5	µg/kg	4.8	<4.8	U
4	Toluene	108-88-3	µg/kg	4.8	<4.8	U
5	o-Xylene	95-47-6	µg/kg	4.8	<4.8	U
6	m/p-Xylene	133677-61-2	µg/kg	4.8	<4.8	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	111
2	Dibromofluoromethane	1868-53-7	70-128	115
3	1,2-Dichloroethane-d4	17060-07-0	70-129	115
4	Toluene-d8	2037-26-5	70-125	110
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	91
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	94
3	Fluorobenzene	462-06-6	50-200	81
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-15	Received Date:	08/27/2001
Sample ID:	**056-012**	Sample Matrix	Soil	Moisture %:	5.9
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/30/01	Anal. Date:	08/30/01
Batch No:	01G4173	Prep. No:	–	Anal. Time:	17:01
Data File Name:	5512-15	Sample Amount:	5.16 g	Dilution Factor:	0.97
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	5.2	< 5.2	U
2	Ethylbenzene	100-41-4	µg/kg	5.2	< 5.2	U
3	Styrene	100-42-5	µg/kg	5.2	< 5.2	U
4	Toluene	108-88-3	µg/kg	5.2	< 5.2	U
5	o-Xylene	95-47-6	µg/kg	5.2	< 5.2	U
6	m/p-Xylene	133677-61-2	µg/kg	5.2	< 5.2	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	111
2	Dibromofluoromethane	1868-53-7	70-128	116
3	1,2-Dichloroethane-d4	17060-07-0	70-129	112
4	Toluene-d8	2037-26-5	70-125	111
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	91
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	92
3	Fluorobenzene	462-06-6	50-200	82
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

143045

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-16	Received Date:	08/27/2001
Sample ID:	**056-013**	Sample Matrix	Soil	Moisture %:	7.8
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/30/01	Anal. Date:	08/30/01
Batch No:	01G4173	Prep. No:	–	Anal. Time:	17:27
Data File Name:	5512-16	Sample Amount:	5.96 g	Dilution Factor:	0.84
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	4.6	<4.6	U
2	Ethylbenzene	100-41-4	µg/kg	4.6	<4.6	U
3	Styrene	100-42-5	µg/kg	4.6	<4.6	U
4	Toluene	108-88-3	µg/kg	4.6	<4.6	U
5	o-Xylene	95-47-6	µg/kg	4.6	<4.6	U
6	m/p-Xylene	133677-61-2	µg/kg	4.6	<4.6	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	108
2	Dibromofluoromethane	1868-53-7	70-128	115
3	1,2-Dichloroethane-d4	17060-07-0	70-129	108
4	Toluene-d8	2037-26-5	70-125	110
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	89
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	92
3	Fluorobenzene	462-06-6	50-200	82
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

143046

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-17	Received Date:	08/27/2001
Sample ID:	**056-014**	Sample Matrix	Soil	Moisture %:	6.3
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/30/01	Anal. Date:	08/30/01
Batch No:	01G4173	Prep. No:	–	Anal. Time:	17:53
Data File Name:	5512-17	Sample Amount:	5.48 g	Dilution Factor:	0.91
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	4.9	< 4.9	U
2	Ethylbenzene	100-41-4	µg/kg	4.9	< 4.9	U
3	Styrene	100-42-5	µg/kg	4.9	< 4.9	U
4	Toluene	108-88-3	µg/kg	4.9	< 4.9	U
5	o-Xylene	95-47-6	µg/kg	4.9	< 4.9	U
6	m/p-Xylene	133677-61-2	µg/kg	4.9	< 4.9	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	106
2	Dibromofluoromethane	1868-53-7	70-128	118
3	1,2-Dichloroethane-d4	17060-07-0	70-129	113
4	Toluene-d8	2037-26-5	70-125	112
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	92
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	96
3	Fluorobenzene	462-06-6	50-200	85
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

143017

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-18	Received Date:	08/27/2001
Sample ID:	**056-015**	Sample Matrix	Soil	Moisture %:	3.1
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/30/01	Anal. Date:	08/30/01
Batch No:	01G4173	Prep. No:	–	Anal. Time:	18:19
Data File Name:	5512-18	Sample Amount:	4.88 g	Dilution Factor:	1.02
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	5.3	<5.3	U
2	Ethylbenzene	100-41-4	µg/kg	5.3	<5.3	U
3	Styrene	100-42-5	µg/kg	5.3	<5.3	U
4	Toluene	108-88-3	µg/kg	5.3	<5.3	U
5	o-Xylene	95-47-6	µg/kg	5.3	<5.3	U
6	m/p-Xylene	133677-61-2	µg/kg	5.3	<5.3	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	107
2	Dibromofluoromethane	1868-53-7	70-128	118
3	1,2-Dichloroethane-d4	17060-07-0	70-129	115
4	Toluene-d8	2037-26-5	70-125	111
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	84
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	87
3	Fluorobenzene	462-06-6	50-200	79
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

143048

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-19	Received Date:	08/27/2001
Sample ID:	**056-016**	Sample Matrix	Soil	Moisture %:	4.4
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/30/01	Anal. Date:	08/30/01
Batch No:	01G4174	Prep. No:	–	Anal. Time:	22:36
Data File Name:	5512-19	Sample Amount:	5.09 g	Dilution Factor:	0.98
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	5.1	0.7	J
2	Ethylbenzene	100-41-4	µg/kg	5.1	<5.1	U
3	Styrene	100-42-5	µg/kg	5.1	<5.1	U
4	Toluene	108-88-3	µg/kg	5.1	<5.1	U
5	o-Xylene	95-47-6	µg/kg	5.1	<5.1	U
6	m/p-Xylene	133677-61-2	µg/kg	5.1	<5.1	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	111
2	Dibromofluoromethane	1868-53-7	70-128	119
3	1,2-Dichloroethane-d4	17060-07-0	70-129	114
4	Toluene-d8	2037-26-5	70-125	110
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	88
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	91
3	Fluorobenzene	462-06-6	50-200	77
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-20	Received Date:	08/27/2001
Sample ID:	056-017	Sample Matrix	Soil	Moisture %:	3.6
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/30/01	Anal. Date:	08/30/01
Batch No:	01G4174	Prep. No:	–	Anal. Time:	23:01
Data File Name:	5512-20	Sample Amount:	5.33 g	Dilution Factor:	0.94
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	4.9	0.6	J
2	Ethylbenzene	100-41-4	µg/kg	4.9	<4.9	U
3	Styrene	100-42-5	µg/kg	4.9	<4.9	U
4	Toluene	108-88-3	µg/kg	4.9	<4.9	U
5	o-Xylene	95-47-6	µg/kg	4.9	<4.9	U
6	m/p-Xylene	133677-61-2	µg/kg	4.9	<4.9	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	113
2	Dibromofluoromethane	1868-53-7	70-128	122
3	1,2-Dichloroethane-d4	17060-07-0	70-129	115
4	Toluene-d8	2037-26-5	70-125	112
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	90
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	92
3	Fluorobenzene	462-06-6	50-200	80
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

143050

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-21	Received Date:	08/27/2001
Sample ID:	**056-018**	Sample Matrix	Soil	Moisture %:	5.0
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/30/01	Anal. Date:	08/30/01
Batch No:	01G4174	Prep. No:	–	Anal. Time:	23:27
Data File Name:	5512-21	Sample Amount:	4.47 g	Dilution Factor:	1.12
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	5.9	<5.9	U
2	Ethylbenzene	100-41-4	µg/kg	5.9	<5.9	U
3	Styrene	100-42-5	µg/kg	5.9	<5.9	U
4	Toluene	108-88-3	µg/kg	5.9	<5.9	U
5	o-Xylene	95-47-6	µg/kg	5.9	<5.9	U
6	m/p-Xylene	133677-61-2	µg/kg	5.9	<5.9	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	111
2	Dibromofluoromethane	1868-53-7	70-128	120
3	1,2-Dichloroethane-d4	17060-07-0	70-129	116
4	Toluene-d8	2037-26-5	70-125	112
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	91
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	95
3	Fluorobenzene	462-06-6	50-200	82
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

143051

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-22	Received Date:	08/27/2001
Sample ID:	056-019	Sample Matrix	Soil	Moisture %:	5.3
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/30/01	Anal. Date:	08/30/01
Batch No:	01G4174	Prep. No:	–	Anal. Time:	23:52
Data File Name:	5512-22	Sample Amount:	5.04 g	Dilution Factor:	0.99
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	5.2	< 5.2	U
2	Ethylbenzene	100-41-4	µg/kg	5.2	< 5.2	U
3	Styrene	100-42-5	µg/kg	5.2	< 5.2	U
4	Toluene	108-88-3	µg/kg	5.2	< 5.2	U
5	o-Xylene	95-47-6	µg/kg	5.2	< 5.2	U
6	m/p-Xylene	133677-61-2	µg/kg	5.2	< 5.2	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	111
2	Dibromofluoromethane	1868-53-7	70-128	127
3	1,2-Dichloroethane-d4	17060-07-0	70-129	120
4	Toluene-d8	2037-26-5	70-125	110
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	90
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	92
3	Fluorobenzene	462-06-6	50-200	75
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

143052

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-23	Received Date:	08/27/2001
Sample ID:	**056-020**	Sample Matrix	Soil	Moisture %:	3.8
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/31/01	Anal. Date:	08/31/01
Batch No:	01G4174	Prep. No:	–	Anal. Time:	00:18
Data File Name:	5512-23	Sample Amount:	5.32 g	Dilution Factor:	0.94
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	4.9	< 4.9	U
2	Ethylbenzene	100-41-4	µg/kg	4.9	< 4.9	U
3	Styrene	100-42-5	µg/kg	4.9	< 4.9	U
4	Toluene	108-88-3	µg/kg	4.9	< 4.9	U
5	o-Xylene	95-47-6	µg/kg	4.9	< 4.9	U
6	m/p-Xylene	133677-61-2	µg/kg	4.9	< 4.9	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	110
2	Dibromofluoromethane	1868-53-7	70-128	120
3	1,2-Dichloroethane-d4	17060-07-0	70-129	116
4	Toluene-d8	2037-26-5	70-125	111
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	87
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	90
3	Fluorobenzene	462-06-6	50-200	75
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

146053

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-24	Received Date:	08/27/2001
Sample ID:	**056-021**	Sample Matrix	Soil	Moisture %:	3.8
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/31/01	Anal. Date:	08/31/01
Batch No:	01G4174	Prep. No:	–	Anal. Time:	00:44
Data File Name:	5512-24	Sample Amount:	5.50 g	Dilution Factor:	0.91
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	4.7	<4.7	U
2	Ethylbenzene	100-41-4	µg/kg	4.7	<4.7	U
3	Styrene	100-42-5	µg/kg	4.7	<4.7	U
4	Toluene	108-88-3	µg/kg	4.7	<4.7	U
5	o-Xylene	95-47-6	µg/kg	4.7	<4.7	U
6	m/p-Xylene	133677-61-2	µg/kg	4.7	<4.7	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	110
2	Dibromofluoromethane	1868-53-7	70-128	120
3	1,2-Dichloroethane-d4	17060-07-0	70-129	113
4	Toluene-d8	2037-26-5	70-125	110
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	92
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	92
3	Fluorobenzene	462-06-6	50-200	80
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-25	Received Date:	08/27/2001
Sample ID:	**056-022**	Sample Matrix	Soil	Moisture %:	2.0
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/31/01	Anal. Date:	08/31/01
Batch No:	01G4174	Prep. No:	-	Anal. Time:	01:09
Data File Name:	5512-25	Sample Amount:	5.35 g	Dilution Factor:	0.93
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	4.7	<4.7	U
2	Ethylbenzene	100-41-4	µg/kg	4.7	<4.7	U
3	Styrene	100-42-5	µg/kg	4.7	<4.7	U
4	Toluene	108-88-3	µg/kg	4.7	<4.7	U
5	o-Xylene	95-47-6	µg/kg	4.7	<4.7	U
6	m/p-Xylene	133677-61-2	µg/kg	4.7	<4.7	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	113
2	Dibromofluoromethane	1868-53-7	70-128	119
3	1,2-Dichloroethane-d4	17060-07-0	70-129	115
4	Toluene-d8	2037-26-5	70-125	111
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	88
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	88
3	Fluorobenzene	462-06-6	50-200	78
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

143055

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-26	Received Date:	08/27/2001
Sample ID:	**056-023**	Sample Matrix	Soil	Moisture %:	2.4
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/31/01	Anal. Date:	08/31/01
Batch No:	01G4174	Prep. No:	–	Anal. Time:	01:35
Data File Name:	5512-26	Sample Amount:	5.05 g	Dilution Factor:	0.99
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	5.1	1	J
2	Ethylbenzene	100-41-4	µg/kg	5.1	<5.1	U
3	Styrene	100-42-5	µg/kg	5.1	<5.1	U
4	Toluene	108-88-3	µg/kg	5.1	<5.1	U
5	o-Xylene	95-47-6	µg/kg	5.1	<5.1	U
6	m/p-Xylene	133677-61-2	µg/kg	5.1	<5.1	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	110
2	Dibromofluoromethane	1868-53-7	70-128	121
3	1,2-Dichloroethane-d4	17060-07-0	70-129	115
4	Toluene-d8	2037-26-5	70-125	109
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	92
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	92
3	Fluorobenzene	462-06-6	50-200	80
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

056

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-27	Received Date:	08/27/2001
Sample ID:	**056-024**	Sample Matrix	Soil	Moisture %:	5.9
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/31/01	Anal. Date:	08/31/01
Batch No:	01G4174	Prep. No:	–	Anal. Time:	02:00
Data File Name:	5512-27	Sample Amount:	4.48 g	Dilution Factor:	1.12
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	6.0	1	J
2	Ethylbenzene	100-41-4	µg/kg	6.0	<6.0	U
3	Styrene	100-42-5	µg/kg	6.0	<6.0	U
4	Toluene	108-88-3	µg/kg	6.0	<6.0	U
5	o-Xylene	95-47-6	µg/kg	6.0	<6.0	U
6	m/p-Xylene	133677-61-2	µg/kg	6.0	<6.0	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	114
2	Dibromofluoromethane	1868-53-7	70-128	120
3	1,2-Dichloroethane-d4	17060-07-0	70-129	114
4	Toluene-d8	2037-26-5	70-125	114
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	89
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	86
3	Fluorobenzene	462-06-6	50-200	81
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

143057

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-28	Received Date:	08/27/2001
Sample ID:	**056-025**	Sample Matrix	Soil	Moisture %:	6.7
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/31/01	Anal. Date:	08/31/01
Batch No:	01G4174	Prep. No:	–	Anal. Time:	02:26
Data File Name:	5512-28	Sample Amount:	5.74 g	Dilution Factor:	0.86
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	4.6	< 4.6	U
2	Ethylbenzene	100-41-4	µg/kg	4.6	< 4.6	U
3	Styrene	100-42-5	µg/kg	4.6	< 4.6	U
4	Toluene	108-88-3	µg/kg	4.6	< 4.6	U
5	o-Xylene	95-47-6	µg/kg	4.6	0.5	J
6	m/p-Xylene	133677-61-2	µg/kg	4.6	1	J

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	113
2	Dibromofluoromethane	1868-53-7	70-128	120
3	1,2-Dichloroethane-d4	17060-07-0	70-129	113
4	Toluene-d8	2037-26-5	70-125	112
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	94
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	89
3	Fluorobenzene	462-06-6	50-200	85
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

148058

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-29	Received Date:	08/27/2001
Sample ID:	**056-026**	Sample Matrix	Soil	Moisture %:	4.7
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/31/01	Anal. Date:	08/31/01
Batch No:	01G4174	Prep. No:	–	Anal. Time:	02:52
Data File Name:	5512-29	Sample Amount:	4.66 g	Dilution Factor:	1.07
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	5.6	<5.6	U
2	Ethylbenzene	100-41-4	µg/kg	5.6	<5.6	U
3	Styrene	100-42-5	µg/kg	5.6	<5.6	U
4	Toluene	108-88-3	µg/kg	5.6	0.9	J
5	o-Xylene	95-47-6	µg/kg	5.6	<5.6	U
6	m/p-Xylene	133677-61-2	µg/kg	5.6	<5.6	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	113
2	Dibromofluoromethane	1868-53-7	70-128	119
3	1,2-Dichloroethane-d4	17060-07-0	70-129	113
4	Toluene-d8	2037-26-5	70-125	112
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	87
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	81
3	Fluorobenzene	462-06-6	50-200	80
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

143059

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-30	Received Date:	08/27/2001
Sample ID:	**056-027**	Sample Matrix	Soil	Moisture %:	1.6
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/31/01	Anal. Date:	08/31/01
Batch No:	01G4174	Prep. No:	--	Anal. Time:	03:17
Data File Name:	5512-30	Sample Amount:	4.36 g	Dilution Factor:	1.15
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	5.8	<5.8	U
2	Ethylbenzene	100-41-4	µg/kg	5.8	<5.8	U
3	Styrene	100-42-5	µg/kg	5.8	<5.8	U
4	Toluene	108-88-3	µg/kg	5.8	<5.8	U
5	o-Xylene	95-47-6	µg/kg	5.8	<5.8	U
6	m/p-Xylene	133677-61-2	µg/kg	5.8	<5.8	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	113
2	Dibromofluoromethane	1868-53-7	70-128	122
3	1,2-Dichloroethane-d4	17060-07-0	70-129	117
4	Toluene-d8	2037-26-5	70-125	112
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	93
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	90
3	Fluorobenzene	462-06-6	50-200	84
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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143060

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-31	Received Date:	08/27/2001
Sample ID:	**056-ERB1**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: Q
Anal. Method:	8260B	Prep. Date:	09/01/01	Anal. Date:	09/01/01
Batch No:	01G4209	Prep. No:	–	Anal. Time:	03:07
Data File Name:	5512-31	Sample Amount:	25 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	25 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/L	0.5	<0.5	U
2	Ethylbenzene	100-41-4	µg/L	0.5	<0.5	U
3	Styrene	100-42-5	µg/L	1	<1	U
4	Toluene	108-88-3	µg/L	0.5	<0.5	U
5	o-Xylene	95-47-6	µg/L	0.5	<0.5	U
6	m/p-Xylene	133677-61-2	µg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	75-124	114
2	Dibromofluoromethane	1868-53-7	77-124	104
3	1,2-Dichloroethane-d4	17060-07-0	75-125	117
4	Toluene-d8	2037-26-5	76-123	120
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	87
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	86
3	Fluorobenzene	462-06-6	50-200	89
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

143061

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/22/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-32	Received Date:	08/27/2001
Sample ID:	**TRIP BLANK**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: Q
Anal. Method:	8260B	Prep. Date:	09/01/01	Anal. Date:	09/01/01
Batch No:	01G4209	Prep. No:	–	Anal. Time:	02:39
Data File Name:	5512-32	Sample Amount:	25 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	25 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/L	0.5	<0.5	U
2	Ethylbenzene	100-41-4	µg/L	0.5	<0.5	U
3	Styrene	100-42-5	µg/L	1	<1	U
4	Toluene	108-88-3	µg/L	0.5	<0.5	U
5	o-Xylene	95-47-6	µg/L	0.5	<0.5	U
6	m/p-Xylene	133677-61-2	µg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	75-124	108
2	Dibromofluoromethane	1868-53-7	77-124	98
3	1,2-Dichloroethane-d4	17060-07-0	75-125	111
4	Toluene-d8	2037-26-5	76-123	107
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	98
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	94
3	Fluorobenzene	462-06-6	50-200	96
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

143062

LDC #: 7302A1 **VALIDATION COMPLETENESS WORKSHEET** Date: 10/29/01

SDG #: 01-5512 X EPA Level III/IV ___NFESC Level C/D Page: 1 of 1

Laboratory: Applied P & Ch Laboratory Reviewer: [illegible]

2nd Reviewer: [illegible]

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 8/27/01
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	
IV.	Continuing calibration	A	
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	LCS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	Not reviewed for Level III/C validation.
XII.	Compound quantitation/CRQLs	A	Not reviewed for Level III/C validation.
XIII.	Tentitatively identified compounds (TICs)	N	Not reviewed for Level III/C validation.
XIV.	System performance	A	Not reviewed for Level III/C validation.
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW	D = 2+10* 11+13 12+23*
XVII.	Field blanks	ND	ER = 31 TB = 32

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

*ND

Validated Samples: ** Indicates sample underwent Level IV/D validation

1	056-001**	S	11	056-00B	S	21	056-018	S	31	056-ERB1	W
2	056-002**		12	056-00C		22	056-019		32	TRIP BLANK	
3	056-003**		13	056-010		23	056-020		33	056-009MS	S
4	056-004**		14	056-011		24	056-021		34	056-009MSD	
5	056-005**		15	056-012		25	056-022		35	056-018MS	
6	056-006**		16	056-013		26	056-023		36	056-018MSD	
7	056-007**		17	056-014		27	056-024		37	01G4173MB01	S
8	056-008		18	056-015		28	056-025		38	01G4174MB01	
9	056-009		19	056-016		29	056-026		39	01G4209MB01	W
10	056-00A		20	056-017		30	056-027		40		

TARGET COMPOUND WORKSHEET

METHOD: VOA (EPA SW 846 Method 8260B)

A. Chloromethane*	Q. 1,2-Dichloropropane**	GG. Xylenes, total	WW. Bromobenzene	MMM. Naphthalene
B. Bromomethane	R. cis-1,3-Dichloropropene	HH. Vinyl acetate	XX. 1,2,3-Trichloropropane	NNN. 1,2,3-Trichlorobenzene
C. Vinyl choride**	S. Trichloroethene	II. 2-Chloroethylvinyl ether	YY. n-Propylbenzene	OOO. 1,3,5-Trichlorobenzene
D. Chloroethane	T. Dibromochloromethane	JJ. Dichlorodifluoromethane	ZZ. 2-Chlorotoluene	PPP. trans-1,2-Dichloroethene
E. Methylene chloride	U. 1,1,2-Trichloroethane	KK. Trichlorofluoromethane	AAA. 1,3,5-Trimethylbenzene	QQQ. cis-1,2-Dichloroethene
F. Acetone	V. Benzene	LL. Methyl-tert-butyl ether	BBB. 4-Chlorotoluene	RRR. m,p-Xylenes
G. Carbon disulfide	W. trans-1,3-Dichloropropene	MM. 1,2-Dibromo-3-chloropropane	CCC. tert-Butylbenzene	SSS. o-Xylene
H. 1,1-Dichloroethene**	X. Bromoform*	NN. Diethyl ether	DDD. 1,2,4-Trimethylbenzene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane
I. 1,1-Dichloroethane*	Y. 4-Methyl-2-pentanone	OO. 2,2-Dichloropropane	EEE. sec-Butylbenzene	UUU. Benzyl chloride
J. 1,2-Dichloroethene, total	Z. 2-Hexanone	PP. Bromochloromethane	FFF. 1,3-Dichlorobenzene	VVV. 4-Ethyltoluene
K. Chloroform**	AA. Tetrachloroethene	QQ. 1,1-Dichloropropene	GGG. p-Isopropyltoluene	WWW. Ethanol
L. 1,2-Dichloroethane	BB. 1,1,2,2-Tetrachloroethane*	RR. Dibromomethane	HHH. 1,4-Dichlorobenzene	XXX. Ethyl ether
M. 2-Butanone	CC. Toluene**	SS. 1,3-Dichloropropane	III. n-Butylbenzene	YYY. tert-Butanol
N. 1,1,1-Trichloroethane	DD. Chlorobenzene*	TT. 1,2-Dibromoethane	JJJ. 1,2-Dichlorobenzene	
O. Carbon tetrachloride	EE. Ethylbenzene**	UU. 1,1,1,2-Tetrachloroethane	KKK. 1,2,4-Trichlorobenzene	
P. Bromodichloromethane	FF. Styrene	VV. Isopropylbenzene	LLL. Hexachlorobutadiene	

* = System performance check compounds (SPCC) for RRF ; ** = Calibration check compounds (CCC) for %RSD.

Notes:_____

LDC #: 7302A1
SDG #: 01-5512

VALIDATION FINDINGS WORKSHEET
Technical Holding Times

Page: 1 of 1
Reviewer:
2nd Reviewer:

All circled dates have exceeded the technical holding times.
(Y) N N/A Were all cooler temperatures within validation criteria?

METHOD : GC/MS VOA (EPA SW 846 Method 8260B)

Sample ID	Matrix	Preserved	Sampling Date	Extraction date	Analysis date	Total # of Days	Qualifier
1	S	Y	8-27-01	NA	8-30-01		No Qual
2							
3							
4							
5							
6							
7							

TECHNICAL HOLDING TIME CRITERIA

Water unpreserved:	Aromatic within 7 days, non-aromatic within 14 days of sample collection.
Water preserved:	Both within 14 days of sample collection.
Soil:	Both within 14 days of sample collection.

SDG #: 01-5512

VALIDATION FINDINGS WORKSHEET
GC/MS Performance Check

Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were the BFB performance results reviewed and found to be within the EPA Functional Guideline criteria?

Y N N/A Were all samples analyzed within the 12 hour clock criteria?

#	Laboratory ID	12 Hour Clock (Time/date)	Finding	Associated Samples	Qualifications

m/z	ION ABUNDANCE CRITERIA
50	15 - 40.0% of m/z 95
75	30.0 - 60.0% of m/z 95
95	Base peak, 100% relative abundance
96	5.0 - 9.0% of m/z 95
173	Less than 2.0% of m/z 174

m/z	ION ABUNDANCE CRITERIA
174	Greater than 50.0% of m/z 95
175	5.0 - 9.0% of mass 174
176	Greater than 95.0% but <101% of m/z 174
177	5.0 - 9.0% of m/z 176

SDG #: 01-5512

VALIDATION FINDINGS WORKSHEET
Initial Calibration

Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N" Not applicable questions are identified as "N/A".

Y N N/A Did the laboratory perform a 5 point calibration prior to sample analysis?
Y N N/A Were percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCC's and SPCC's?
Y N N/A Was a curve fit used for evaluation? If yes, what was the acceptance criteria used for evaluation?_____
Y N N/A Did the initial calibration meet the acceptance criteria?
Y N N/A Were all %RSDs and RRFs within the validation criteria of ≤30 %RSD and ≥0 05 RRF ?

#	Date	Standard ID	Compound	Finding %RSD (Limit: ≤30.0%)	Finding RRF (Limit: ≥0.05)	Associated Samples	Qualifications

INICAL.1SB

LDC #: T302A1
SDG #: 01-5512

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound,
C_x = Concentration of compound,
S = Standard deviation of the RRFs
X = Mean of the RRFs

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (50 std)	Recalculated RRF (50 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	8/21/01	~~Methylene chloride~~ (1st internal standard)	0.689	0.689	0.743	0.743	7.00	7.01
			~~Trichlorethene~~ (2nd internal standard)	1.819	1.819	1.994	1.994	6.73	6.73
			~~Toluene~~ (3rd internal standard)	3.147	3.147	3.384	3.384	7.65	7.65
2			Methylene chloride (1st internal standard)						
			Trichlorethene (2nd internal standard)						
			Toluene (3rd internal standard)						
3			Methylene chloride (1st internal standard)						
			Trichlorethene (2nd internal standard)						
			Toluene (3rd internal standard)						
4			Methylene chloride (1st internal standard)						
			Trichlorethene (2nd internal standard)						
			Toluene (3rd internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

SDG #: 01-5512

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Reviewer:
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)
Please see qualifications below for all questions answered "N" Not applicable questions are identified as "N/A".

Y N N/A Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?
Y N N/A Were percent differences (%D) and relative response factors (RRF) within method criteria for all CCC's and SPCC's ?
Y N N/A Were all %D and RRFs within the validation criteria of ≤25 %D and ≥0.05 RRF ?

#	Date	Standard ID	Compound	Finding %D (Limit: ≤25.0%)	Finding RRF (Limit: ≥0.05)	Associated Samples	Qualifications

CONCAL 1SB

LDC #: T302A1
SDG #: 61-5517

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave RRF - RRF)/ave RRF
RRF = $(A_x)(C_{is})/(A_{is})(C_x)$

Where: ave RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound
C_x = Concentration of compound
A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (Initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	541T3201	8/30/01	~~Methylene chloride~~ (1st internal standard)	0.743	0.769	0.769	3.5	3.5
			~~Trichlorethene~~ (2nd internal standard)	1.994	2.120	2.120	6.3	6.3
			~~Toluene~~ (3rd internal standard)	3.384	3.536	3.536	4.5	4.5
2			Methylene chloride (1st internal standard)					
			Trichlorethene (2nd internal standard)					
			Toluene (3rd internal standard)					
3			Methylene chloride (1st internal standard)					
			Trichlorethene (2nd internal standard)					
			Toluene (3rd internal standard)					
4			Methylene chloride (1st internal standard)					
			Trichlorethene (2nd internal standard)					
			Toluene (3rd internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

SDG #: 01-5512

Blanks

Reviewer:
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)
Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a method blank associated with every sample in this SDG?
Y N N/A Was a method blank analyzed at least once every 12 hours for each matrix and concentration?
Y N N/A Was there contamination in the method blanks? If yes, please see the qualifications below

Blank analysis date:_____
Conc. units:_____ Associated Samples:_____

Compound	Blank ID	Sample Identification								
Methylene chloride										
Acetone										
CRQL										

Blank analysis date:_____
Conc. units:_____ Associated Samples:_____

Compound	Blank ID	Sample Identification								
Methylene chloride										
Acetone										
CRQL										

All results were qualified using the criteria stated below except those circled

Note: Common contaminants such as Methylene chloride Acetone 2-Butanone Carbon disulfide and TICs that were detected in samples within ten times the associated method blank concentration were qualified as not detected "U" Other contaminants within five times the method blank concentration were also qualified as not detected "U"

LDC #: [illegible]
SDG #: 01-551

VALIDATION FINDINGS WORKSHEET
Surrogate Spikes

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N" Not applicable questions are identified as "N/A".

(Y) N N/A Were all surrogate %R within QC limits?

Y N (N/A) If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R out of outside of criteria?

#	Date	Sample ID	Surrogate	%Recovery (Limits)	Qualifications
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	

	QC Limits (Soil)	QC Limits (Water)
SMC1 (TOL) = Toluene-d8	81-117	88-110
SMC2 (BFB) = Bromofluorobenzene	74-121	86-115
SMC3 (DCE) = 1,2-Dichloroethane-d4	80-120	80-120
SMC4 (DFM) = Dibromofluoromethane	80-120	86-118

LDC #: T302A1
SDG #: 01-5512

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1
Reviewer:
2nd reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: 1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8	50	55.91	112	112	0
Bromofluorobenzene	↓	55.46	111	111	↓
1,2-Dichloroethane-d4	↓	57.14	114	114	↓
Dibromofluoromethane	↓	59.77	120	120	✓

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8					
Bromofluorobenzene					
1,2-Dichloroethane-d4					
Dibromofluoromethane					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8					
Bromofluorobenzene					
1,2-Dichloroethane-d4					
Dibromofluoromethane					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8					
Bromofluorobenzene					
1,2-Dichloroethane-d4					
Dibromofluoromethane					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8					
Bromofluorobenzene					
1,2-Dichloroethane-d4					
Dibromofluoromethane					

SDG #: 01-5512

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD : GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water

Y N N/A Was a MS/MSD analyzed every 20 samples of each matrix?

Y N N/A Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	Date	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		

	Compound	QC Limits (Soil)	RPD (Soil)	QC Limits (Water)	RPD (Water)
H.	1,1-Dichloroethene	59-172%	≤ 22%	61-145%	≤ 14%
S.	Trichloroethene	62-137%	≤ 24%	71-120%	≤ 14%
V.	Benzene	66-142%	≤ 21%	76-127%	≤ 11%
CC.	Toluene	59-139%	≤ 21%	76-125%	≤ 13%
DD.	Chlorobenzene	60-133%	≤ 21%	75-130%	≤ 13%

LDC #: 7302A1
SDG #: 01-5517

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSC - SC)/SA Where: SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentration

RPD = I MSC - MSDC I * 2/(MSC + MSDC) MSC = Matrix spike percent recovery MSDC = Matrix spike duplicate percent recovery

MS/MSD sample: 33/34

Compound	Spike Added (µg/g)		Sample Concentration (µg/g)	Spiked Sample Concentration (µg/g)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	------	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
~~1,1-Dichloroethene~~ V	53.2	63.8	0	52.6	65.1	99	99	102	102	22	21
Trichloroethene CC	↓	↓	↓	54.7	68.1	103	103	107	107	22	22
Benzene											
Toluene											
~~Chlorobenzene~~											

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 13028F
SDG #: 01-5512

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A"

Y N N/A Was a LCS required?
Y N N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	Date	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		

SDG #: 01-5512

Laboratory Control Sample Results Verification

Page ___ of ___
Reviewer: ___
2nd Reviewer: ___

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratoy control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * SSC/SA Where: SSC = Spiked sample concentration
SA = Spike added

RPD = I LCS - LCSD I * 2/(LCS + LCSD) LCS = Laboraotry control sample percent recovery LCSD = Laboratory control sample duplicate percent recovery

LCS ID: G4T3C01

Compound	Spike Added (µg/L)		Spiked Sample Concentration (µg/L)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
~~1,1-Dichloroethene~~ V	50	NA	51.1	NA	102	102				
Trichloroethene CC	↓	↓	53.0	↓	106	106				
Benzene										
Toluene										
~~Chlorobenzene~~										

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 73028¹
SDG #: 01-5512

VALIDATION FINDINGS WORKSHEET
Internal Standards

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Were all internal standard area counts within -50 to +100% of the associated calibration standard?

(Y) N N/A Were the retention times of the internal standards within +/- 30 seconds of the retention times of the associated calibration standard?

#	Date	Sample ID	Internal Standard	Area (Limits)	RT (Limits)	Qualifications

(BCM) = Bromochloromethane
(DFB) = 1,4-Difluorobenzene
(CBZ) = Chlorobenzene-d5
(PFB) = Pentafluorobenzene
(4DCB) = 1 4-Dichlorobenzene-d4
(2DCB) = 1.2-Dichlorobenzene-d4
(FBZ) = Fluorobenzene

LDC #: 13049

SDG #: 01-5512

VALIDATION FINDINGS WORKSHEET
Target Compound Identification

Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N" Not applicable questions are identified as "N/A"

Y N N/A Were relative retention times (RRT's) within ± 0 06 RRT units of the standard?
Y N N/A Did compound spectra meet specified EPA "Functional Guidelines" criteria?
Y N N/A Were chromatogram peaks verified and accounted for?

#	Date	Sample ID	Finding	Associated Samples	Qualifications

Comments:

LDC # 13062D1
SDG #: 01-5512

VALIDATION FINDINGS WORKSHEET
Compound Quantitation and CRQLs

Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A"

Y N N/A Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?

Y N N/A Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?

#	Date	Sample ID	Finding	Associated Samples	Qualifications

Comments: See sample calculation verification worksheet for recalculations

COMQUA 1SB

LDC #: 73028I
SDG #: 01-5512

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
2nd reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Compound results for #1-7 reported with a positive detect were recalculated and verified using the following equation:

$$\text{Concentration} = \frac{(A_x)(I_s)(DF)}{(A_{is})(RRF)(V_o)(\%S)}$$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
RRF	=	Relative response factor of the calibration standard.
V_o	=	Volume or weight of sample pruged in milliliters (ml) or grams (g).
Df	=	Dilution factor.
%S	=	Percent solids, applicable to soils and solid matrices only.

Example:

Sample I.D. 4 ✓

Conc. = (6982)(250)(1) / (54173)(0.743)(4.86)(0.957)

= 0.93 ug/kg

#	Sample ID	Compound	Reported Concentration (ug/kg)	Calculated Concentration (ug/kg)	Acceptable (Y/N)
	4	✓	0.9	0.9	Y
	7	✓	2	2	↓

RECALC.1SB

LAB # [illegible]
SDG #: 01-5512

VALIDATION FINDINGS WORKSHEET
Tentatively Identified Compounds

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A"

Y N (N/A) Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?
Y N (N/A) Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?
Y (N) N/A Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?

#	Date	Sample ID	Finding	Associated Samples	Qualifications

Comments: _____

TIC 1SB

LDC #: 15023A1
SDG #: 01-5512

VALIDATION FINDINGS WORKSHEET
System Performance

Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N" Not applicable questions are identified as "N/A"

Y N N/A Was the system performance acceptable?

Professional judgement was applied to assess system performance as there are no specific criteria for system performance evaluation

#	Date	Lab ID/Reference	Finding	Associated Samples	Qualifications

Comments:

SDG #: 01-551

VALIDATION FINDINGS WORKSHEET
Overall Assessment of Data

Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A"

All available information pertaining to the data were reviewed using professional judgement to compliment the determination of the overall quality of the data.

Y N N/A Was the overall quality and usability of the data acceptable?

#	Date	Sample ID	Finding	Associated Samples	Qualifications

Comments:

OVR 1SB

LDC #: 73028

SDG #: 61-5512

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer:

2nd reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Y N N/A Were field duplicate pairs identified in this SDG?

Y N N/A Were target compounds detected in the field duplicate pairs?

Compound	Concentration (µg/L)		RPD
	11	13	
✓	5.1 u	1	200

Compound	Concentration ( )		RPD

Compound	Concentration ( )		RPD

Compound	Concentration ( )		RPD

LDC #: T302A1
SDG #: 01-5512

VALIDATION FINDINGS WORKSHEET
Field Blanks

Page: 1 of 1
Reviewer: [signature]
2nd reviewer: [signature]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Y N N/A Were field blanks identified in this SDG?
Y N N/A Were target compounds detected in the field blanks?

Sample: _____ Field Blank / Trip Blank / Rinsate / Other _____ (circle one)

Compound	Concentration Units ( )

Sample: _____ Field Blank / Trip Blank / Rinsate / Other _____ (circle one)

Compound	Concentration Units ( )

Sample: _____ Field Blank / Trip Blank / Rinsate / Other _____ (circle one)

Compound	Concentration Units ( )

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: CERCLA Completion Plan

Collection Date: August 28, 2001

LDC Report Date: November 1, 2001

Matrix: Soil/Water

Parameters: Volatiles

Validation Level: EPA Level III

Laboratory: Applied P & Ch Laboratory

Sample Delivery Group (SDG): 01-5551

Sample Identification

056-00D	056-045
056-00E	056-046
056-00F	056-047
056-028	056-048
056-029	056-049
056-030	056-050
056-031	056-051
056-032	056-052
056-033	056-053
056-034	056-054
056-035	056-055
056-036	056-056
056-037	056-057
056-038	056-ERB2
056-039	TRIP BLANK
056-040	056-028MS
056-041	056-028MSD
056-042	
056-043	
056-044	

Introduction

This data review covers 35 soil samples and 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 15.0% for each individual compound and less than or equal to 30.0% for calibration check compounds (CCCs) .

For the purposes of technical evaluation, all compounds were evaluated against the 30.0% (%RSD) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

Average relative response factors (RRF) for all volatile target compounds and system performance check compounds (SPCCs) were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs).

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

All of the continuing calibration RRF values were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks with the following exceptions:

Method Blank ID	Analysis Date	Compound TIC (RT in minutes)	Concentration	Associated Samples
01G4218MB01	9/1/01	m,p-Xylenes	0.9 ug/Kg	056-045 056-046 056-047 056-048 056-049 056-050 056-051 056-052 056-053 056-054 056-055 056-056

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment of Data

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

Samples 056-00D and 056-031, samples 056-00E and 056-042 and samples 056-00F and 056-053 were identified as field duplicates. No volatiles were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/Kg)		RPD
	056-00F	056-053	
Benzene	5.3U	1	200

XVII. Field Blanks

Sample 056-ERB2 was identified as an equipment rinsate. No volatile contaminants were found in this blank.

Sample "TRIP BLANK" was identified as a trip blank. No volatile contaminants were found in this blank.

CERCLA Completion Plan
Volatiles - Data Qualification Summary - SDG 01-5551

No Sample Data Qualified in this SDG

CERCLA Completion Plan
Volatiles - Laboratory Blank Data Qualification Summary - SDG 01-5551

No Sample Data Qualified in this SDG

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-1	Received Date:	08/28/2001
Sample ID:	056-00D	Sample Matrix	Soil	Moisture %:	3.1
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/31/01	Anal. Date:	08/31/01
Batch No:	01G4192	Prep. No:	-	Anal. Time:	11:39
Data File Name:	5551-01	Sample Amount:	5.19 g	Dilution Factor:	0.97
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	5.0	< 5.0	U
2	Ethylbenzene	100-41-4	µg/kg	5.0	< 5.0	U
3	Styrene	100-42-5	µg/kg	5.0	< 5.0	U
4	Toluene	108-88-3	µg/kg	5.0	< 5.0	U
5	o-Xylene	95-47-6	µg/kg	5.0	< 5.0	U
6	m/p-Xylene	133677-61-2	µg/kg	5.0	< 5.0	U

Surrogates			Control Limit. %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	111
2	Dibromofluoromethane	1868-53-7	70-128	118
3	1,2-Dichloroethane-d4	17060-07-0	70-129	113
4	Toluene-d8	2037-26-5	70-125	111
# of out-of-control				0

Internal Standard			Control Limit. %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	92
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	91
3	Fluorobenzene	462-06-6	50-200	81
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-2	Received Date:	08/28/2001
Sample ID:	056-00E	Sample Matrix	Soil	Moisture %:	7.3
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/31/01	Anal. Date:	08/31/01
Batch No:	01G4192	Prep. No:	–	Anal. Time:	12:05
Data File Name:	5551-02	Sample Amount:	5.68 g	Dilution Factor:	0.88
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	4.7	<4.7	U
2	Ethylbenzene	100-41-4	µg/kg	4.7	<4.7	U
3	Styrene	100-42-5	µg/kg	4.7	<4.7	U
4	Toluene	108-88-3	µg/kg	4.7	<4.7	U
5	o-Xylene	95-47-6	µg/kg	4.7	<4.7	U
6	m/p-Xylene	133677-61-2	µg/kg	4.7	<4.7	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	110
2	Dibromofluoromethane	1868-53-7	70-128	119
3	1,2-Dichloroethane-d4	17060-07-0	70-129	114
4	Toluene-d8	2037-26-5	70-125	110
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	97
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	97
3	Fluorobenzene	462-06-6	50-200	84
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-3	Received Date:	08/28/2001
Sample ID:	**056-00F**	Sample Matrix	Soil	Moisture %:	2.0
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/31/01	Anal. Date:	08/31/01
Batch No:	01G4192	Prep. No:	–	Anal. Time:	12:31
Data File Name:	5551-03	Sample Amount:	4.81 g	Dilution Factor:	1.04
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	5.3	<5.3	U
2	Ethylbenzene	100-41-4	µg/kg	5.3	<5.3	U
3	Styrene	100-42-5	µg/kg	5.3	<5.3	U
4	Toluene	108-88-3	µg/kg	5.3	<5.3	U
5	o-Xylene	95-47-6	µg/kg	5.3	<5.3	U
6	m/p-Xylene	133677-61-2	µg/kg	5.3	<5.3	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	111
2	Dibromofluoromethane	1868-53-7	70-128	119
3	1,2-Dichloroethane-d4	17060-07-0	70-129	110
4	Toluene-d8	2037-26-5	70-125	111
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	90
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	89
3	Fluorobenzene	462-06-6	50-200	80
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

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Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-4	Received Date:	08/28/2001
Sample ID:	056-028	Sample Matrix	Soil	Moisture %:	
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/31/01	Anal. Date:	08/31/01
Batch No:	01G4192	Prep. No:	-	Anal. Time:	11:14
Data File Name:	5551-04	Sample Amount:	5.19 g	Dilution Factor:	0.96
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	4.8	<4.8	U
2	Ethylbenzene	100-41-4	µg/kg	4.8	<4.8	U
3	Styrene	100-42-5	µg/kg	4.8	<4.8	U
4	Toluene	108-88-3	µg/kg	4.8	<4.8	U
5	o-Xylene	95-47-6	µg/kg	4.8	<4.8	U
6	m/p-Xylene	133677-61-2	µg/kg	4.8	<4.8	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	114
2	Dibromofluoromethane	1868-53-7	70-128	118
3	1,2-Dichloroethane-d4	17060-07-0	70-129	110
4	Toluene-d8	2037-26-5	70-125	110
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	92
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	88
3	Fluorobenzene	462-06-6	50-200	79
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-5	Received Date:	08/28/2001
Sample ID:	056-029	Sample Matrix	Soil	Moisture %:	2.8
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/31/01	Anal. Date:	08/31/01
Batch No:	01G4192	Prep. No:	-	Anal. Time:	12:56
Data File Name:	5551-05	Sample Amount:	4.62 g	Dilution Factor:	1.08
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	5.6	<5.6	U
2	Ethylbenzene	100-41-4	µg/kg	5.6	<5.6	U
3	Styrene	100-42-5	µg/kg	5.6	<5.6	U
4	Toluene	108-88-3	µg/kg	5.6	<5.6	U
5	o-Xylene	95-47-6	µg/kg	5.6	<5.6	U
6	m/p-Xylene	133677-61-2	µg/kg	5.6	<5.6	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	111
2	Dibromofluoromethane	1868-53-7	70-128	117
3	1,2-Dichloroethane-d4	17060-07-0	70-129	113
4	Toluene-d8	2037-26-5	70-125	110
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	89
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	89
3	Fluorobenzene	462-06-6	50-200	76
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-6	Received Date:	08/28/2001
Sample ID:	**056-030**	Sample Matrix	Soil	Moisture %:	4.6
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	S260B	Prep. Date:	08/31/01	Anal. Date:	08/31/01
Batch No:	01G4192	Prep. No:	–	Anal. Time:	13:22
Data File Name:	5551-06	Sample Amount:	5.16 g	Dilution Factor:	0.97
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	5.1	<5.1	U
2	Ethylbenzene	100-41-4	µg/kg	5.1	<5.1	U
3	Styrene	100-42-5	µg/kg	5.1	<5.1	U
4	Toluene	108-88-3	µg/kg	5.1	<5.1	U
5	o-Xylene	95-47-6	µg/kg	5.1	<5.1	U
6	m/p-Xylene	133677-61-2	µg/kg	5.1	<5.1	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	110
2	Dibromofluoromethane	1868-53-7	70-128	118
3	1,2-Dichloroethane-d4	17060-07-0	70-129	113
4	Toluene-d8	2037-26-5	70-125	110
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	88
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	88
3	Fluorobenzene	462-06-6	50-200	77
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-7	Received Date:	08/28/2001
Sample ID:	**056-031**	Sample Matrix	Soil	Moisture %:	3.2
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/31/01	Anal. Date:	08/31/01
Batch No:	01G4192	Prep. No:	-	Anal. Time:	13:48
Data File Name:	5551-07	Sample Amount:	5.32 g	Dilution Factor:	0.94
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	4.9	<4.9	U
2	Ethylbenzene	100-41-4	µg/kg	4.9	<4.9	U
3	Styrene	100-42-5	µg/kg	4.9	<4.9	U
4	Toluene	108-88-3	µg/kg	4.9	<4.9	U
5	o-Xylene	95-47-6	µg/kg	4.9	<4.9	U
6	m/p-Xylene	133677-61-2	µg/kg	4.9	<4.9	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	110
2	Dibromofluoromethane	1868-53-7	70-128	118
3	1,2-Dichloroethane-d4	17060-07-0	70-129	114
4	Toluene-d8	2037-26-5	70-125	110
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	94
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	93
3	Fluorobenzene	462-06-6	50-200	80
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-8	Received Date:	08/28/2001
Sample ID:	056-032	Sample Matrix	Soil	Moisture %:	4.4
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/31/01	Anal. Date:	08/31/01
Batch No:	01G4192	Prep. No:	-	Anal. Time:	14:13
Data File Name:	5551-08	Sample Amount:	4.09 g	Dilution Factor:	1.22
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	6.4	3	J
2	Ethylbenzene	100-41-4	µg/kg	6.4	<6.4	U
3	Styrene	100-42-5	µg/kg	6.4	<6.4	U
4	Toluene	108-88-3	µg/kg	6.4	<6.4	U
5	o-Xylene	95-47-6	µg/kg	6.4	<6.4	U
6	m/p-Xylene	133677-61-2	µg/kg	6.4	<6.4	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	111
2	Dibromofluoromethane	1868-53-7	70-128	116
3	1,2-Dichloroethane-d4	17060-07-0	70-129	110
4	Toluene-d8	2037-26-5	70-125	108
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	90
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	92
3	Fluorobenzene	462-06-6	50-200	76
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-9	Received Date:	08/28/2001
Sample ID:	056-033	Sample Matrix	Soil	Moisture %:	4.1
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/31/01	Anal. Date:	08/31/01
Batch No:	01G4192	Prep. No:	-	Anal. Time:	14:39
Data File Name:	5551-09	Sample Amount:	5.23 g	Dilution Factor:	0.96
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	5.0	<5.0	U
2	Ethylbenzene	100-41-4	µg/kg	5.0	<5.0	U
3	Styrene	100-42-5	µg/kg	5.0	<5.0	U
4	Toluene	108-88-3	µg/kg	5.0	0.6	J
5	o-Xylene	95-47-6	µg/kg	5.0	<5.0	U
6	m/p-Xylene	133677-61-2	µg/kg	5.0	<5.0	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	109
2	Dibromofluoromethane	1868-53-7	70-128	119
3	1,2-Dichloroethane-d4	17060-07-0	70-129	114
4	Toluene-d8	2037-26-5	70-125	109
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	90
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	92
3	Fluorobenzene	462-06-6	50-200	77
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-10	Received Date:	08/28/2001
Sample ID:	**056-034**	Sample Matrix	Soil	Moisture %:	6.1
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/31/01	Anal. Date:	08/31/01
Batch No:	01G4192	Prep. No:	-	Anal. Time:	15:05
Data File Name:	5551-10	Sample Amount:	5.23 g	Dilution Factor:	0.96
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	5.1	2	J
2	Ethylbenzene	100-41-4	µg/kg	5.1	<5.1	U
3	Styrene	100-42-5	µg/kg	5.1	<5.1	U
4	Toluene	108-88-3	µg/kg	5.1	<5.1	U
5	o-Xylene	95-47-6	µg/kg	5.1	<5.1	U
6	m/p-Xylene	133677-61-2	µg/kg	5.1	<5.1	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	111
2	Dibromofluoromethane	1868-53-7	70-128	118
3	1,2-Dichloroethane-d4	17060-07-0	70-129	112
4	Toluene-d8	2037-26-5	70-125	109
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	89
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	89
3	Fluorobenzene	462-06-6	50-200	77
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-11	Received Date:	08/28/2001
Sample ID:	056-035	Sample Matrix	Soil	Moisture %:	3.8
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/31/01	Anal. Date:	08/31/01
Batch No:	01G4192	Prep. No:	-	Anal. Time:	15:30
Data File Name:	5551-11	Sample Amount:	4.48 g	Dilution Factor:	1.12
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	5.8	2	J
2	Ethylbenzene	100-41-4	µg/kg	5.8	<5.8	U
3	Styrene	100-42-5	µg/kg	5.8	<5.8	U
4	Toluene	108-88-3	µg/kg	5.8	<5.8	U
5	o-Xylene	95-47-6	µg/kg	5.8	<5.8	U
6	m/p-Xylene	133677-61-2	µg/kg	5.8	<5.8	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	110
2	Dibromofluoromethane	1868-53-7	70-128	120
3	1,2-Dichloroethane-d4	17060-07-0	70-129	118
4	Toluene-d8	2037-26-5	70-125	109
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	88
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	87
3	Fluorobenzene	462-06-6	50-200	78
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-12	Received Date:	08/28/2001
Sample ID:	**056-036**	Sample Matrix	Soil	Moisture %:	2.5
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/31/01	Anal. Date:	08/31/01
Batch No:	01G4192	Prep. No:	–	Anal. Time:	15:56
Data File Name:	5551-12	Sample Amount:	4.83 g	Dilution Factor:	1.04
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	μg/kg	5.3	0.9	J
2	Ethylbenzene	100-41-4	μg/kg	5.3	< 5.3	U
3	Styrene	100-42-5	μg/kg	5.3	< 5.3	U
4	Toluene	108-88-3	μg/kg	5.3	< 5.3	U
5	o-Xylene	95-47-6	μg/kg	5.3	< 5.3	U
6	m/p-Xylene	133677-61-2	μg/kg	5.3	< 5.3	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	110
2	Dibromofluoromethane	1868-53-7	70-128	120
3	1,2-Dichloroethane-d4	17060-07-0	70-129	115
4	Toluene-d8	2037-26-5	70-125	110
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	89
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	88
3	Fluorobenzene	462-06-6	50-200	81
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-13	Received Date:	08/28/2001
Sample ID:	**056-037**	Sample Matrix	Soil	Moisture %:	5.1
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/31/01	Anal. Date:	08/31/01
Batch No:	01G4192	Prep. No:	–	Anal. Time:	16:22
Data File Name:	5551-13	Sample Amount:	4.48 g	Dilution Factor:	1.12
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	5.9	< 5.9	U
2	Ethylbenzene	100-41-4	µg/kg	5.9	< 5.9	U
3	Styrene	100-42-5	µg/kg	5.9	< 5.9	U
4	Toluene	108-88-3	µg/kg	5.9	< 5.9	U
5	o-Xylene	95-47-6	µg/kg	5.9	< 5.9	U
6	m/p-Xylene	133677-61-2	µg/kg	5.9	< 5.9	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	108
2	Dibromofluoromethane	1868-53-7	70-128	119
3	1,2-Dichloroethane-d4	17060-07-0	70-129	119
4	Toluene-d8	2037-26-5	70-125	110
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	87
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	88
3	Fluorobenzene	462-06-6	50-200	77
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-14	Received Date:	08/28/2001
Sample ID:	056-038	Sample Matrix	Soil	Moisture %:	2.9
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/31/01	Anal. Date:	08/31/01
Batch No:	01G4192	Prep. No:	–	Anal. Time:	16:47
Data File Name:	5551-14	Sample Amount:	4.58 g	Dilution Factor:	1.09
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	5.6	< 5.6	U
2	Ethylbenzene	100-41-4	µg/kg	5.6	< 5.6	U
3	Styrene	100-42-5	µg/kg	5.6	< 5.6	U
4	Toluene	108-88-3	µg/kg	5.6	< 5.6	U
5	o-Xylene	95-47-6	µg/kg	5.6	< 5.6	U
6	m/p-Xylene	133677-61-2	µg/kg	5.6	< 5.6	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	109
2	Dibromofluoromethane	1868-53-7	70-128	119
3	1,2-Dichloroethane-d4	17060-07-0	70-129	119
4	Toluene-d8	2037-26-5	70-125	109
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	84
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	83
3	Fluorobenzene	462-06-6	50-200	76
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-15	Received Date:	08/28/2001
Sample ID:	**056-039**	Sample Matrix	Soil	Moisture %:	1.8
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/31/01	Anal. Date:	08/31/01
Batch No:	01G4192	Prep. No:	–	Anal. Time:	17:13
Data File Name:	5551-15	Sample Amount:	5.51 g	Dilution Factor:	0.91
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	4.6	<4.6	U
2	Ethylbenzene	100-41-4	µg/kg	4.6	<4.6	U
3	Styrene	100-42-5	µg/kg	4.6	<4.6	U
4	Toluene	108-88-3	µg/kg	4.6	<4.6	U
5	o-Xylene	95-47-6	µg/kg	4.6	<4.6	U
6	m/p-Xylene	133677-61-2	µg/kg	4.6	<4.6	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	110
2	Dibromofluoromethane	1868-53-7	70-128	120
3	1,2-Dichloroethane-d4	17060-07-0	70-129	116
4	Toluene-d8	2037-26-5	70-125	109
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	89
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	88
3	Fluorobenzene	462-06-6	50-200	79
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-16	Received Date:	08/28/2001
Sample ID:	056-040	Sample Matrix	Soil	Moisture %:	4.3
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/31/01	Anal. Date:	08/31/01
Batch No:	01G4192	Prep. No:	–	Anal. Time:	17:39
Data File Name:	5551-16	Sample Amount:	4.92 g	Dilution Factor:	1.02
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	5.3	0.7	J
2	Ethylbenzene	100-41-4	µg/kg	5.3	<5.3	U
3	Styrene	100-42-5	µg/kg	5.3	<5.3	U
4	Toluene	108-88-3	µg/kg	5.3	<5.3	U
5	o-Xylene	95-47-6	µg/kg	5.3	<5.3	U
6	m/p-Xylene	133677-61-2	µg/kg	5.3	<5.3	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	108
2	Dibromofluoromethane	1868-53-7	70-128	121
3	1,2-Dichloroethane-d4	17060-07-0	70-129	121
4	Toluene-d8	2037-26-5	70-125	107
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	90
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	89
3	Fluorobenzene	462-06-6	50-200	78
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-17	Received Date:	08/28/2001
Sample ID:	**056-041**	Sample Matrix	Soil	Moisture %:	6.4
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/31/01	Anal. Date:	08/31/01
Batch No:	01G4192	Prep. No:	-	Anal. Time:	18:04
Data File Name:	5551-17	Sample Amount:	5.59 g	Dilution Factor:	0.89
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	4.8	<4.8	U
2	Ethylbenzene	100-41-4	µg/kg	4.8	<4.8	U
3	Styrene	100-42-5	µg/kg	4.8	<4.8	U
4	Toluene	108-88-3	µg/kg	4.8	<4.8	U
5	o-Xylene	95-47-6	µg/kg	4.8	<4.8	U
6	m/p-Xylene	133677-61-2	µg/kg	4.8	<4.8	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	109
2	Dibromofluoromethane	1868-53-7	70-128	118
3	1,2-Dichloroethane-d4	17060-07-0	70-129	115
4	Toluene-d8	2037-26-5	70-125	110
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	89
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	88
3	Fluorobenzene	462-06-6	50-200	78
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-18	Received Date:	08/28/2001
Sample ID:	**056-042**	Sample Matrix	Soil	Moisture %:	6.7
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/31/01	Anal. Date:	08/31/01
Batch No:	01G4192	Prep. No:	-	Anal. Time:	18:30
Data File Name:	5551-18	Sample Amount:	4.81 g	Dilution Factor:	1.04
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	5.6	<5.6	U
2	Ethylbenzene	100-41-4	µg/kg	5.6	<5.6	U
3	Styrene	100-42-5	µg/kg	5.6	<5.6	U
4	Toluene	108-88-3	µg/kg	5.6	<5.6	U
5	o-Xylene	95-47-6	µg/kg	5.6	<5.6	U
6	m/p-Xylene	133677-61-2	µg/kg	5.6	<5.6	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	111
2	Dibromofluoromethane	1868-53-7	70-128	121
3	1,2-Dichloroethane-d4	17060-07-0	70-129	118
4	Toluene-d8	2037-26-5	70-125	110
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	95
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	92
3	Fluorobenzene	462-06-6	50-200	85
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-19	Received Date:	08/28/2001
Sample ID:	056-043	Sample Matrix	Soil	Moisture %:	8.2
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/31/01	Anal. Date:	08/31/01
Batch No:	01G4192	Prep. No:	-	Anal. Time:	18:56
Data File Name:	5551-19	Sample Amount:	5.54 g	Dilution Factor:	0.9
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	4.9	<4.9	U
2	Ethylbenzene	100-41-4	µg/kg	4.9	<4.9	U
3	Styrene	100-42-5	µg/kg	4.9	<4.9	U
4	Toluene	108-88-3	µg/kg	4.9	<4.9	U
5	o-Xylene	95-47-6	µg/kg	4.9	<4.9	U
6	m/p-Xylene	133677-61-2	µg/kg	4.9	<4.9	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	109
2	Dibromofluoromethane	1868-53-7	70-128	119
3	1,2-Dichloroethane-d4	17060-07-0	70-129	114
4	Toluene-d8	2037-26-5	70-125	111
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	85
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	84
3	Fluorobenzene	462-06-6	50-200	78
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-20	Received Date:	08/28/2001
Sample ID:	056-044	Sample Matrix	Soil	Moisture %:	4.7
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	08/31/01	Anal. Date:	08/31/01
Batch No:	01G4192	Prep. No:	–	Anal. Time:	19:21
Data File Name:	5551-20	Sample Amount:	5.15 g	Dilution Factor:	0.97
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	5.1	1	J
2	Ethylbenzene	100-41-4	µg/kg	5.1	<5.1	U
3	Styrene	100-42-5	µg/kg	5.1	<5.1	U
4	Toluene	108-88-3	µg/kg	5.1	<5.1	U
5	o-Xylene	95-47-6	µg/kg	5.1	<5.1	U
6	m/p-Xylene	133677-61-2	µg/kg	5.1	<5.1	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	110
2	Dibromofluoromethane	1868-53-7	70-128	120
3	1,2-Dichloroethane-d4	17060-07-0	70-129	116
4	Toluene-d8	2037-26-5	70-125	110
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	88
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	86
3	Fluorobenzene	462-06-6	50-200	78
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-21	Received Date:	08/28/2001
Sample ID:	056-045	Sample Matrix	Soil	Moisture %:	4.6
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	09/01/01	Anal. Date:	09/01/01
Batch No:	01G4218	Prep. No:	–	Anal. Time:	15:07
Data File Name:	5551-21	Sample Amount:	5.53 g	Dilution Factor:	0.9
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	μg/kg	4.7	1	J
2	Ethylbenzene	100-41-4	μg/kg	4.7	< 4.7	U
3	Styrene	100-42-5	μg/kg	4.7	< 4.7	U
4	Toluene	108-88-3	μg/kg	4.7	< 4.7	U
5	o-Xylene	95-47-6	μg/kg	4.7	< 4.7	U
6	m/p-Xylene	133677-61-2	μg/kg	4.7	< 4.7	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	110
2	Dibromofluoromethane	1868-53-7	70-128	127
3	1,2-Dichloroethane-d4	17060-07-0	70-129	120
4	Toluene-d8	2037-26-5	70-125	109
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	94
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	99
3	Fluorobenzene	462-06-6	50-200	81
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-22	Received Date:	08/28/2001
Sample ID:	056-046	Sample Matrix	Soil	Moisture %:	3.2
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	09/01/01	Anal. Date:	09/01/01
Batch No:	01G4218	Prep. No:	–	Anal. Time:	15:33
Data File Name:	5551-22	Sample Amount:	3.78 g	Dilution Factor:	1.32
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	6.8	<6.8	U
2	Ethylbenzene	100-41-4	µg/kg	6.8	<6.8	U
3	Styrene	100-42-5	µg/kg	6.8	<6.8	U
4	Toluene	108-88-3	µg/kg	6.8	<6.8	U
5	o-Xylene	95-47-6	µg/kg	6.8	<6.8	U
6	m/p-Xylene	133677-61-2	µg/kg	6.8	<6.8	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	111
2	Dibromofluoromethane	1868-53-7	70-128	120
3	1,2-Dichloroethane-d4	17060-07-0	70-129	115
4	Toluene-d8	2037-26-5	70-125	109
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	87
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	92
3	Fluorobenzene	462-06-6	50-200	74
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/07

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-23	Received Date:	08/28/2001
Sample ID:	056-047	Sample Matrix	Soil	Moisture %:	8.2
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	09/01/01	Anal. Date:	09/01/01
Batch No:	01G4218	Prep. No:	–	Anal. Time:	15:58
Data File Name:	5551-23	Sample Amount:	5.03 g	Dilution Factor:	0.99
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	5.4	0.9	J
2	Ethylbenzene	100-41-4	µg/kg	5.4	< 5.4	U
3	Styrene	100-42-5	µg/kg	5.4	< 5.4	U
4	Toluene	108-88-3	µg/kg	5.4	< 5.4	U
5	o-Xylene	95-47-6	µg/kg	5.4	< 5.4	U
6	m/p-Xylene	133677-61-2	µg/kg	5.4	< 5.4	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	113
2	Dibromofluoromethane	1868-53-7	70-128	126
3	1,2-Dichloroethane-d4	17060-07-0	70-129	121
4	Toluene-d8	2037-26-5	70-125	112
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	83
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	87
3	Fluorobenzene	462-06-6	50-200	74
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-24	Received Date:	08/28/2001
Sample ID:	056-048	Sample Matrix	Soil	Moisture %:	1.5
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	09/01/01	Anal. Date:	09/01/01
Batch No:	01G4218	Prep. No:	–	Anal. Time:	16:24
Data File Name:	5551-24	Sample Amount:	4.15 g	Dilution Factor:	1.2
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	6.1	3	J
2	Ethylbenzene	100-41-4	µg/kg	6.1	<6.1	U
3	Styrene	100-42-5	µg/kg	6.1	<6.1	U
4	Toluene	108-88-3	µg/kg	6.1	<6.1	U
5	o-Xylene	95-47-6	µg/kg	6.1	<6.1	U
6	m/p-Xylene	133677-61-2	µg/kg	6.1	<6.1	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	113
2	Dibromofluoromethane	1868-53-7	70-128	122
3	1,2-Dichloroethane-d4	17060-07-0	70-129	120
4	Toluene-d8	2037-26-5	70-125	110
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	84
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	91
3	Fluorobenzene	462-06-6	50-200	71
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-25	Received Date:	08/28/2001
Sample ID:	056-049	Sample Matrix	Soil	Moisture %:	7.3
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	09/01/01	Anal. Date:	09/01/01
Batch No:	01G4218	Prep. No:	-	Anal. Time:	16:50
Data File Name:	5551-25	Sample Amount:	5.34 g	Dilution Factor:	0.94
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	5.1	1	J
2	Ethylbenzene	100-41-4	µg/kg	5.1	<5.1	U
3	Styrene	100-42-5	µg/kg	5.1	<5.1	U
4	Toluene	108-88-3	µg/kg	5.1	<5.1	U
5	o-Xylene	95-47-6	µg/kg	5.1	<5.1	U
6	m/p-Xylene	133677-61-2	µg/kg	5.1	<5.1	U

Surrogates			Control Limit. %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	113
2	Dibromofluoromethane	1868-53-7	70-128	125
3	1,2-Dichloroethane-d4	17060-07-0	70-129	122
4	Toluene-d8	2037-26-5	70-125	109
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	88
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	94
3	Fluorobenzene	462-06-6	50-200	75
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

9/11/5/01

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-26	Received Date:	08/28/2001
Sample ID:	**056-050**	Sample Matrix	Soil	Moisture %:	1.6
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	09/01/01	Anal. Date:	09/01/01
Batch No:	01G4218	Prep. No:	–	Anal. Time:	17:15
Data File Name:	5551-26	Sample Amount:	5.26 g	Dilution Factor:	0.95
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge:	(Y/N) Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	4.8	<4.8	U
2	Ethylbenzene	100-41-4	µg/kg	4.8	<4.8	U
3	Styrene	100-42-5	µg/kg	4.8	<4.8	U
4	Toluene	108-88-3	µg/kg	4.8	<4.8	U
5	o-Xylene	95-47-6	µg/kg	4.8	<4.8	U
6	m/p-Xylene	133677-61-2	µg/kg	4.8	<4.8	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	111
2	Dibromofluoromethane	1868-53-7	70-128	124
3	1,2-Dichloroethane-d4	17060-07-0	70-129	119
4	Toluene-d8	2037-26-5	70-125	110
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	84
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	90
3	Fluorobenzene	462-06-6	50-200	72
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-27	Received Date:	08/28/2001
Sample ID:	**056-051**	Sample Matrix	Soil	Moisture %:	4.1
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	09/01/01	Anal. Date:	09/01/01
Batch No:	01G4218	Prep. No:	–	Anal. Time:	17:41
Data File Name:	5551-27	Sample Amount:	5.05 g	Dilution Factor:	0.99
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	5.2	<5.2	U
2	Ethylbenzene	100-41-4	µg/kg	5.2	<5.2	U
3	Styrene	100-42-5	µg/kg	5.2	<5.2	U
4	Toluene	108-88-3	µg/kg	5.2	<5.2	U
5	o-Xylene	95-47-6	µg/kg	5.2	<5.2	U
6	m/p-Xylene	133677-61-2	µg/kg	5.2	<5.2	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	113
2	Dibromofluoromethane	1868-53-7	70-128	125
3	1,2-Dichloroethane-d4	17060-07-0	70-129	121
4	Toluene-d8	2037-26-5	70-125	111
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	90
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	96
3	Fluorobenzene	462-06-6	50-200	79
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-28	Received Date:	08/28/2001
Sample ID:	056-052	Sample Matrix	Soil	Moisture %:	1.1
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	09/01/01	Anal. Date:	09/01/01
Batch No:	01G4218	Prep. No:	–	Anal. Time:	18:06
Data File Name:	5551-28	Sample Amount:	5.15 g	Dilution Factor:	0.97
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	4.9	3	J
2	Ethylbenzene	100-41-4	µg/kg	4.9	<4.9	U
3	Styrene	100-42-5	µg/kg	4.9	<4.9	U
4	Toluene	108-88-3	µg/kg	4.9	0.5	J
5	o-Xylene	95-47-6	µg/kg	4.9	<4.9	U
6	m/p-Xylene	133677-61-2	µg/kg	4.9	<4.9	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	112
2	Dibromofluoromethane	1868-53-7	70-128	123
3	1,2-Dichloroethane-d4	17060-07-0	70-129	119
4	Toluene-d8	2037-26-5	70-125	110
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	90
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	96
3	Fluorobenzene	462-06-6	50-200	77
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

147334

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-29	Received Date:	08/28/2001
Sample ID:	**056-053**	Sample Matrix	Soil	Moisture %:	1.7
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	09/01/01	Anal. Date:	09/01/01
Batch No:	01G4218	Prep. No:	–	Anal. Time:	18:32
Data File Name:	5551-29	Sample Amount:	5.45 g	Dilution Factor:	0.92
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	4.7	1	J
2	Ethylbenzene	100-41-4	µg/kg	4.7	<4.7	U
3	Styrene	100-42-5	µg/kg	4.7	<4.7	U
4	Toluene	108-88-3	µg/kg	4.7	<4.7	U
5	o-Xylene	95-47-6	µg/kg	4.7	<4.7	U
6	m/p-Xylene	133677-61-2	µg/kg	4.7	<4.7	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	111
2	Dibromofluoromethane	1868-53-7	70-128	124
3	1,2-Dichloroethane-d4	17060-07-0	70-129	117
4	Toluene-d8	2037-26-5	70-125	110
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	92
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	98
3	Fluorobenzene	462-06-6	50-200	79
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-30	Received Date:	08/28/2001
Sample ID:	**056-054**	Sample Matrix	Soil	Moisture %:	0.5
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	09/01/01	Anal. Date:	09/01/01
Batch No:	01G4218	Prep. No:	–	Anal. Time:	18:57
Data File Name:	5551-30	Sample Amount:	5.33 g	Dilution Factor:	0.94
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	4.7	0.7	J
2	Ethylbenzene	100-41-4	µg/kg	4.7	< 4.7	U
3	Styrene	100-42-5	µg/kg	4.7	< 4.7	U
4	Toluene	108-88-3	µg/kg	4.7	< 4.7	U
5	o-Xylene	95-47-6	µg/kg	4.7	< 4.7	U
6	m/p-Xylene	133677-61-2	µg/kg	4.7	< 4.7	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	112
2	Dibromofluoromethane	1868-53-7	70-128	122
3	1,2-Dichloroethane-d4	17060-07-0	70-129	119
4	Toluene-d8	2037-26-5	70-125	111
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	87
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	93
3	Fluorobenzene	462-06-6	50-200	76
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-31	Received Date:	08/28/2001
Sample ID:	056-055	Sample Matrix	Soil	Moisture %:	1.1
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	09/01/01	Anal. Date:	09/01/01
Batch No:	01G4218	Prep. No:	-	Anal. Time:	19:23
Data File Name:	5551-31	Sample Amount:	4.05 g	Dilution Factor:	1.23
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	6.2	<6.2	U
2	Ethylbenzene	100-41-4	µg/kg	6.2	<6.2	U
3	Styrene	100-42-5	µg/kg	6.2	<6.2	U
4	Toluene	108-88-3	µg/kg	6.2	<6.2	U
5	o-Xylene	95-47-6	µg/kg	6.2	<6.2	U
6	m/p-Xylene	133677-61-2	µg/kg	6.2	<6.2	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	113
2	Dibromofluoromethane	1868-53-7	70-128	122
3	1,2-Dichloroethane-d4	17060-07-0	70-129	120
4	Toluene-d8	2037-26-5	70-125	111
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	86
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	91
3	Fluorobenzene	462-06-6	50-200	75
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-32	Received Date:	08/28/2001
Sample ID:	056-056	Sample Matrix	Soil	Moisture %:	1.0
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	09/01/01	Anal. Date:	09/01/01
Batch No:	01G4218	Prep. No:	–	Anal. Time:	19:48
Data File Name:	5551-32	Sample Amount:	4.96 g	Dilution Factor:	1.01
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	5.1	<5.1	U
2	Ethylbenzene	100-41-4	µg/kg	5.1	<5.1	U
3	Styrene	100-42-5	µg/kg	5.1	<5.1	U
4	Toluene	108-88-3	µg/kg	5.1	<5.1	U
5	o-Xylene	95-47-6	µg/kg	5.1	<5.1	U
6	m/p-Xylene	133677-61-2	µg/kg	5.1	<5.1	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	114
2	Dibromofluoromethane	1868-53-7	70-128	125
3	1,2-Dichloroethane-d4	17060-07-0	70-129	121
4	Toluene-d8	2037-26-5	70-125	110
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	89
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	92
3	Fluorobenzene	462-06-6	50-200	77
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g: for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-33	Received Date:	08/28/2001
Sample ID:	056-057	Sample Matrix	Soil	Moisture %:	0.6
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	09/07/01	Anal. Date:	09/07/01
Batch No:	01G4262	Prep. No:	–	Anal. Time:	00:45
Data File Name:	5551-33	Sample Amount:	4.16 g	Dilution Factor:	1.2
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/kg	6.0	<6.0	U
2	Ethylbenzene	100-41-4	µg/kg	6.0	<6.0	U
3	Styrene	100-42-5	µg/kg	6.0	<6.0	U
4	Toluene	108-88-3	µg/kg	6.0	<6.0	U
5	o-Xylene	95-47-6	µg/kg	6.0	<6.0	U
6	m/p-Xylene	133677-61-2	µg/kg	6.0	<6.0	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	72-123	106
2	Dibromofluoromethane	1868-53-7	70-128	115
3	1,2-Dichloroethane-d4	17060-07-0	70-129	117
4	Toluene-d8	2037-26-5	70-125	103
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	106
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	122
3	Fluorobenzene	462-06-6	50-200	86
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-34	Received Date:	08/28/2001
Sample ID:	**056-ERB2**	Sample Matrix	Water	Moisture %:	-
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: A
Anal. Method:	8260B	Prep. Date:	08/30/01	Anal. Date:	08/30/01
Batch No:	01G4172	Prep. No:	-	Anal. Time:	01:42
Data File Name:	5551-34	Sample Amount:	25 mL	Dilution Factor:	1
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	25 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/L	0.5	<0.5	U
2	Ethylbenzene	100-41-4	µg/L	0.5	<0.5	U
3	Styrene	100-42-5	µg/L	1	<1	U
4	Toluene	108-88-3	µg/L	0.5	<0.5	U
5	o-Xylene	95-47-6	µg/L	0.5	<0.5	U
6	m/p-Xylene	133677-61-2	µg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	75-124	116
2	Dibromofluoromethane	1868-53-7	77-124	105
3	1,2-Dichloroethane-d4	17060-07-0	75-125	92
4	Toluene-d8	2037-26-5	76-123	108
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	118
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	94
3	Fluorobenzene	462-06-6	50-200	100
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

M 11/5/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/22/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-35	Received Date:	08/28/2001
Sample ID:	**TRIP BLANK**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: A
Anal. Method:	8260B	Prep. Date:	08/30/01	Anal. Date:	08/30/01
Batch No:	01G4172	Prep. No:	–	Anal. Time:	02:14
Data File Name:	5551-35	Sample Amount:	25 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	25 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/L	0.5	<0.5	U
2	Ethylbenzene	100-41-4	µg/L	0.5	<0.5	U
3	Styrene	100-42-5	µg/L	1	<1	U
4	Toluene	108-88-3	µg/L	0.5	<0.5	U
5	o-Xylene	95-47-6	µg/L	0.5	<0.5	U
6	m/p-Xylene	133677-61-2	µg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	75-124	115
2	Dibromofluoromethane	1868-53-7	77-124	106
3	1,2-Dichloroethane-d4	17060-07-0	75-125	92
4	Toluene-d8	2037-26-5	76-123	107
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	119
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	94
3	Fluorobenzene	462-06-6	50-200	98
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

147341

LDC #: 7302B1 **VALIDATION COMPLETENESS WORKSHEET** Date: 10/29/01

SDG #: 01-5551 X EPA Level III ___NFESC Level C Page: 1 of 1

Laboratory: Applied P & Ch Laboratory Reviewer: [illegible]

2nd Reviewer: [illegible]

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 8/7-8/01
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	
IV.	Continuing calibration	A	
V.	Blanks	SW	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	LCS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	N	
XII.	Compound quantitation/CRQLs	N	
XIII.	Tentitatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW	D=1+7* 2+18* 3+29
XVII.	Field blanks	ND	ER=34. TB=35

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

* ND

Validated Samples:

W soils · except #34-35

1	056-00D	11	056-035	21 1	056-045	31 1	056-055	
2	056-00E	12	056-036	22 1	056-046	32 1	056-056	
3	056-00F	13	056-037	23 1	056-047	33 2	056-057	
4	056-028	14	056-038	24 1	056-048	34	056-ERB2	W
5	056-029	15	056-039	25 1	056-049	35	TRIP BLANK	V
6	056-030	16	056-040	26 1	056-050	36	056-028MS	
7	056-031	17	056-041	27 1	056-051	37	056-028MSD	
8	056-032	18	056-042	28 1	056-052	38	01G4192MB01	S
9	056-033	19	056-043	29 1	056-053	39 1	01G4218MB01	S
10	056-034	20	056-044	30 1	056-054	40 2	01G4262MB01	S

01G4172MB01 W

7302B1W.BC3

TARGET COMPOUND WORKSHEET

METHOD: VOA (EPA SW 846 Method 8260B)

A. Chloromethane*	Q. 1,2-Dichloropropane**	GG. Xylenes, total	WW. Bromobenzene	MMM. Naphthalene
B. Bromomethane	R. cis-1,3-Dichloropropene	HH. Vinyl acetate	XX. 1,2,3-Trichloropropane	NNN. 1,2,3-Trichlorobenzene
C. Vinyl choride**	S. Trichloroethene	II. 2-Chloroethylvinyl ether	YY. n-Propylbenzene	OOO. 1,3,5-Trichlorobenzene
D. Chloroethane	T. Dibromochloromethane	JJ. Dichlorodifluoromethane	ZZ. 2-Chlorotoluene	PPP. trans-1,2-Dichloroethene
E. Methylene chloride	U. 1,1,2-Trichloroethane	KK. Trichlorofluoromethane	AAA. 1,3,5-Trimethylbenzene	QQQ. cis-1,2-Dichloroethene
F. Acetone	V. Benzene	LL. Methyl-tert-butyl ether	BBB. 4-Chlorotoluene	RRR. m,p-Xylenes
G. Carbon disulfide	W. trans-1,3-Dichloropropene	MM. 1,2-Dibromo-3-chloropropane	CCC. tert-Butylbenzene	SSS. o-Xylene
H. 1,1-Dichloroethene**	X. Bromoform*	NN. Diethyl ether	DDD. 1,2,4-Trimethylbenzene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane
I. 1,1-Dichloroethane*	Y. 4-Methyl-2-pentanone	OO. 2,2-Dichloropropane	EEE. sec-Butylbenzene	UUU. Benzyl chloride
J. 1,2-Dichloroethene, total	Z. 2-Hexanone	PP. Bromochloromethane	FFF. 1,3-Dichlorobenzene	VVV. 4-Ethyltoluene
K. Chloroform**	AA. Tetrachloroethene	QQ. 1,1-Dichloropropene	GGG. p-Isopropyltoluene	WWW. Ethanol
L. 1,2-Dichloroethane	BB. 1,1,2,2-Tetrachloroethane*	RR. Dibromomethane	HHH. 1,4-Dichlorobenzene	XXX. Ethyl ether
M. 2-Butanone	CC. Toluene**	SS. 1,3-Dichloropropane	III. n-Butylbenzene	YYY. tert-Butanol
N. 1,1,1-Trichloroethane	DD. Chlorobenzene*	TT. 1,2-Dibromoethane	JJJ. 1,2-Dichlorobenzene	
O. Carbon tetrachloride	EE. Ethylbenzene**	UU. 1,1,1,2-Tetrachloroethane	KKK. 1,2,4-Trichlorobenzene	
P. Bromodichloromethane	FF. Styrene	VV. Isopropylbenzene	LLL. Hexachlorobutadiene	

* = System performance check compounds (SPCC) for RRF ; ** = Calibration check compounds (CCC) for %RSD

Notes:

COMPNDL.1SB

SDG #: 01-7551

Blanks

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)
Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a method blank associated with every sample in this SDG?
Y N N/A Was a method blank analyzed at least once every 12 hours for each matrix and concentration?
Y N N/A Was there contamination in the method blanks? If yes, please see the qualifications below.

Blank analysis date: 9/1/01
Conc. units: µg/kg
Associated Samples: 21 - 32

Compound	Blank ID	Sample Identification								
	01G4218HB01									
Methylene chloride										
Acetone										
RRR	0.9									
CRQL										

Blank analysis date:
Conc. units:
Associated Samples:

Compound	Blank ID	Sample Identification								
Methylene chloride										
Acetone										
CRQL										

All results were qualified using the criteria stated below except those circled

Note: Common contaminants such as Methylene chloride Acetone, 2-Butanone, Carbon disulfide and TICs that were detected in samples within ten times the associated method blank concentration were qualified as not detected, "U". Other contaminants within five times the method blank concentration were also qualified as not detected, "U".

DC #: 130-P1
DG #: 01-5551

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Page: 1 of 1
Reviewer:
2nd reviewer:

ETHOD: GC/MS VOA (EPA SW 846 Method 8260B)

N N/A Were field duplicate pairs identified in this SDG?
N N/A Were target compounds detected in the field duplicate pairs?

Compound	Concentration (µg/L)		RPD
	3	29	
V	5.3 u	1	200

Compound	Concentration ( )		RPD

Compound	Concentration ( )		RPD

Compound	Concentration ( )		RPD

CERCLA Completion Plan
Data Validation Reports
LDC# 7302

Pentachlorophenol

LDC

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: CERCLA Completion Plan

Collection Date: August 27, 2001

LDC Report Date: November 5, 2001

Matrix: Soil/Water

Parameters: Pentachlorophenol

Validation Level: EPA Level III & IV

Laboratory: Applied P & Ch Laboratory

Sample Delivery Group (SDG): 01-5512

Sample Identification

056-001**	056-018
056-002**	056-019
056-003**	056-020
056-004**	056-021
056-005**	056-022
056-006**	056-023
056-007**	056-024
056-008	056-025
056-009	056-026
056-00A	056-027
056-00B	056-ERB1
056-00C	056-009MS
056-010	056-009MSD
056-011	056-018MS
056-012	056-018MSD
056-013	
056-014	
056-015	
056-016	
056-017	

**Indicates sample underwent EPA Level IV review

Introduction

This data review covers 34 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C for Pentachlorophenol.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 15.0% for each individual compound and less than or equal to 30.0% for calibration check compounds (CCCs) .

For the purposes of technical evaluation, all compounds were evaluated against the 30.0% (%RSD) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

Average relative response factors (RRF) for pentachlorophenol were greater than or equal to 0.05 as required.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs).

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

All of the continuing calibration RRF values were greater than or equal to 0.05 .

V. Blanks

Method blanks were reviewed for each matrix as applicable. No pentachlorophenol contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits with the following exceptions:

Sample	Surrogate	%R (Limits)	Compound	Flag	A or P
056-ERB1	2,4,6-Tribromophenol	4 (20-129)	Pentachlorophenol	J (all detects) R (all non-detects)	P

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XV. Overall Assessment

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

Samples 056-002** and 056-00A, samples 056-00B and 056-010 and samples 056-00C and 056-020 were identified as field duplicates. No pentachlorophenol was detected in any of the samples.

XVII. Field Blanks

Sample 056-ERB1 was identified as an equipment rinsate. No pentachlorophenol contaminants were found in this blank.

CERCLA Completion Plan
Pentachlorophenol - Data Qualification Summary - SDG 01-5512

SDG	Sample	Compound	Flag	A or P	Reason
01-5512	056-ERB1	Pentachlorophenol	J (all detects) R (all non-detects)	P	Surrogate recovery (%R)

CERCLA Completion Plan
Pentachlorophenol - Laboratory Blank Data Qualification Summary - SDG 01-5512

No Sample Data Qualified in this SDG

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-1	Received Date:	08/27/2001
Sample ID:	**056-001**	Sample Matrix	Soil	Moisture %:	2.7
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Y
Anal. Method:	8270C	Prep. Date:	08/29/01	Anal. Date:	09/11/01
Batch No:	01G4159	Prep. No:	1 of 1	Anal. Time:	13:26
Data File Name:	5512-01	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1700	< 1700	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		41-133	50	
2	2-Fluorophenol	367-12-4		10-129	40	
3	Nitrobenzene-d5	4165-60-0		41-133	38	
4	Phenol-d5	4165-62-2		20-134	55	
5	Terphenyl-d14	1718-51-0		45-134	52	
6	2,4,6-Tribromophenol	118-79-6		20-128	49	
# of out-of-control					1	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	107	
2	Chrysene-d12	1719-03-5		50-200	146	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	102	
4	Naphthalene-d8	1146-65-2		50-200	109	
5	Perylene-d12	1520-96-3		50-200	58	
6	Phenanthrene-d10	1517-22-2		50-200	113	
# of out-of-control					0	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/2/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-2	Received Date:	08/27/2001
Sample ID:	**056-002**	Sample Matrix	Soil	Moisture %:	4.9
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Y
Anal. Method:	8270C	Prep. Date:	08/29/01	Anal. Date:	09/11/01
Batch No:	01G4159	Prep. No:	1 of 1	Anal. Time:	14:08
Data File Name:	5512-02	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1800	<1800	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	56
2	2-Fluorophenol	367-12-4	10-129	47
3	Nitrobenzene-d5	4165-60-0	41-133	44
4	Phenol-d5	4165-62-2	20-134	50
5	Terphenyl-d14	1718-51-0	45-134	61
6	2,4,6-Tribromophenol	118-79-6	20-128	56
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	112
2	Chrysene-d12	1719-03-5	50-200	142
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	107
4	Naphthalene-d8	1146-65-2	50-200	116
5	Perylene-d12	1520-96-3	50-200	46
6	Phenanthrene-d10	1517-22-2	50-200	119
# of out-of-control				1

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/20/01

143195

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-3	Received Date:	08/27/2001
Sample ID:	**056-003**	Sample Matrix	Soil	Moisture %:	5.5
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Y
Anal. Method:	8270C	Prep. Date:	08/29/01	Anal. Date:	09/11/01
Batch No:	01G4159	Prep. No:	1 of 1	Anal. Time:	14:50
Data File Name:	5512-03	Sample Amount:	30.0 g	Dilution Factor:	2
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	3500	<3500	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	66
2	2-Fluorophenol	367-12-4	10-129	64
3	Nitrobenzene-d5	4165-60-0	41-133	59
4	Phenol-d5	4165-62-2	20-134	68
5	Terphenyl-d14	1718-51-0	45-134	62
6	2,4,6-Tribromophenol	118-79-6	20-128	50
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	103
2	Chrysene-d12	1719-03-5	50-200	128
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	95
4	Naphthalene-d8	1146-65-2	50-200	100
5	Perylene-d12	1520-96-3	50-200	37
6	Phenanthrene-d10	1517-22-2	50-200	112
# of out-of-control				1

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/8/01

148198

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-4	Received Date:	08/27/2001
Sample ID:	**056-004**	Sample Matrix	Soil	Moisture %:	4.3
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Y
Anal. Method:	8270C	Prep. Date:	08/29/01	Anal. Date:	09/11/01
Batch No:	01G4159	Prep. No:	1 of 1	Anal. Time:	19:03
Data File Name:	5512-04	Sample Amount:	30.0 g	Dilution Factor:	2
Extract Vol.	2.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	3500	<3500	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		41-133	68	
2	2-Fluorophenol	367-12-4		10-129	74	
3	Nitrobenzene-d5	4165-60-0		41-133	65	
4	Phenol-d5	4165-62-2		20-134	72	
5	Terphenyl-d14	1718-51-0		45-134	69	
6	2,4,6-Tribromophenol	118-79-6		20-128	62	
# of out-of-control					0	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	84	
2	Chrysene-d12	1719-03-5		50-200	106	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	88	
4	Naphthalene-d8	1146-65-2		50-200	88	
5	Perylene-d12	1520-96-3		50-200	32	
6	Phenanthrene-d10	1517-22-2		50-200	92	
# of out-of-control					1	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

143191

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-5	Received Date:	08/27/2001
Sample ID:	056-005	Sample Matrix	Soil	Moisture %:	3.2
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Y
Anal. Method:	8270C	Prep. Date:	08/29/01	Anal. Date:	09/11/01
Batch No:	01G4159	Prep. No:	1 of 1	Anal. Time:	00:50
Data File Name:	5512-05	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1700	<1700	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	55
2	2-Fluorophenol	367-12-4	10-129	46
3	Nitrobenzene-d5	4165-60-0	41-133	43
4	Phenol-d5	4165-62-2	20-134	26
5	Terphenyl-d14	1718-51-0	45-134	62
6	2,4,6-Tribromophenol	118-79-6	20-128	52
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	94
2	Chrysene-d12	1719-03-5	50-200	106
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	106
4	Naphthalene-d8	1146-65-2	50-200	106
5	Perylene-d12	1520-96-3	50-200	36
6	Phenanthrene-d10	1517-22-2	50-200	96
# of out-of-control				1

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

10/8/01

143194

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-6	Received Date:	08/27/2001
Sample ID:	056-006	Sample Matrix	Soil	Moisture %:	1.8
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Y
Anal. Method:	8270C	Prep. Date:	08/29/01	Anal. Date:	09/11/01
Batch No:	01G4159	Prep. No:	1 of 1	Anal. Time:	00:10
Data File Name:	5512-06	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1700	<1700	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	41
2	2-Fluorophenol	367-12-4	10-129	32
3	Nitrobenzene-d5	4165-60-0	41-133	47
4	Phenol-d5	4165-62-2	20-134	53
5	Terphenyl-d14	1718-51-0	45-134	48
6	2,4,6-Tribromophenol	118-79-6	20-128	39
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	95
2	Chrysene-d12	1719-03-5	50-200	111
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	99
4	Naphthalene-d8	1146-65-2	50-200	100
5	Perylene-d12	1520-96-3	50-200	46
6	Phenanthrene-d10	1517-22-2	50-200	98
# of out-of-control				1

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/8/01

148197

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-7	Received Date:	08/27/2001
Sample ID:	**056-007**	Sample Matrix	Soil	Moisture %:	0.6
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Y
Anal. Method:	8270C	Prep. Date:	08/29/01	Anal. Date:	09/10/01
Batch No:	01G4159	Prep. No:	1 of 1	Anal. Time:	23:30
Data File Name:	5512-07	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1700	<1700	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		41-133	52	
2	2-Fluorophenol	367-12-4		10-129	43	
3	Nitrobenzene-d5	4165-60-0		41-133	59	
4	Phenol-d5	4165-62-2		20-134	22	
5	Terphenyl-d14	1718-51-0		45-134	59	
6	2,4,6-Tribromophenol	118-79-6		20-128	52	
# of out-of-control					0	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	96	
2	Chrysene-d12	1719-03-5		50-200	110	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	112	
4	Naphthalene-d8	1146-65-2		50-200	106	
5	Perylene-d12	1520-96-3		50-200	46	
6	Phenanthrene-d10	1517-22-2		50-200	100	
# of out-of-control					1	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/8/01

143200

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-8	Received Date:	08/27/2001
Sample ID:	**056-008**	Sample Matrix	Soil	Moisture %:	2.4
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Y
Anal. Method:	8270C	Prep. Date:	08/29/01	Anal. Date:	09/11/01
Batch No:	01G4159	Prep. No:	1 of 1	Anal. Time:	15:30
Data File Name:	5512-08	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1700	< 1700	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	48
2	2-Fluorophenol	367-12-4	10-129	48
3	Nitrobenzene-d5	4165-60-0	41-133	33
4	Phenol-d5	4165-62-2	20-134	58
5	Terphenyl-d14	1718-51-0	45-134	74
6	2,4,6-Tribromophenol	118-79-6	20-128	64
# of out-of-control				1

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	94
2	Chrysene-d12	1719-03-5	50-200	117
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	84
4	Naphthalene-d8	1146-65-2	50-200	89
5	Perylene-d12	1520-96-3	50-200	30
6	Phenanthrene-d10	1517-22-2	50-200	103
# of out-of-control				1

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

143203

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-9	Received Date:	08/27/2001
Sample ID:	**056-009**	Sample Matrix	Soil	Moisture %:	6.0
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Y
Anal. Method:	8270C	Prep. Date:	08/29/01	Anal. Date:	09/10/01
Batch No:	01G4159	Prep. No:	1 of 1	Anal. Time:	22:50
Data File Name:	5512-09	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1800	< 1800	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		41-133	54	
2	2-Fluorophenol	367-12-4		10-129	46	
3	Nitrobenzene-d5	4165-60-0		41-133	43	
4	Phenol-d5	4165-62-2		20-134	27	
5	Terphenyl-d14	1718-51-0		45-134	57	
6	2,4,6-Tribromophenol	118-79-6		20-128	50	
# of out-of-control					0	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	102	
2	Chrysene-d12	1719-03-5		50-200	124	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	106	
4	Naphthalene-d8	1146-65-2		50-200	109	
5	Perylene-d12	1520-96-3		50-200	50	
6	Phenanthrene-d10	1517-22-2		50-200	103	
# of out-of-control					0	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

143204

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-10	Received Date:	08/27/2001
Sample ID:	**056-00A**	Sample Matrix	Soil	Moisture %:	4.8
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Y
Anal. Method:	8270C	Prep. Date:	08/29/01	Anal. Date:	09/10/01
Batch No:	01G4159	Prep. No:	1 of 1	Anal. Time:	22:11
Data File Name:	5512-10	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1800	< 1800	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	59
2	2-Fluorophenol	367-12-4	10-129	50
3	Nitrobenzene-d5	4165-60-0	41-133	47
4	Phenol-d5	4165-62-2	20-134	29
5	Terphenyl-d14	1718-51-0	45-134	61
6	2,4,6-Tribromophenol	118-79-6	20-128	55
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	97
2	Chrysene-d12	1719-03-5	50-200	119
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	105
4	Naphthalene-d8	1146-65-2	50-200	105
5	Perylene-d12	1520-96-3	50-200	51
6	Phenanthrene-d10	1517-22-2	50-200	100
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

143205

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-11	Received Date:	08/27/2001
Sample ID:	056-00B	Sample Matrix	Soil	Moisture %:	4.6
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Y
Anal. Method:	8270C	Prep. Date:	08/29/01	Anal. Date:	09/10/01
Batch No:	01G4159	Prep. No:	1 of 1	Anal. Time:	20:11
Data File Name:	5512-11	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	μg/kg	1800	< 1800	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	46
2	2-Fluorophenol	367-12-4	10-129	38
3	Nitrobenzene-d5	4165-60-0	41-133	51
4	Phenol-d5	4165-62-2	20-134	20
5	Terphenyl-d14	1718-51-0	45-134	51
6	2,4,6-Tribromophenol	118-79-6	20-128	37
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	105
2	Chrysene-d12	1719-03-5	50-200	135
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	101
4	Naphthalene-d8	1146-65-2	50-200	105
5	Perylene-d12	1520-96-3	50-200	64
6	Phenanthrene-d10	1517-22-2	50-200	109
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

9/11/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-12	Received Date:	08/27/2001
Sample ID:	**056-00C**	Sample Matrix	Soil	Moisture %:	2.5
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Y
Anal. Method:	8270C	Prep. Date:	08/29/01	Anal. Date:	09/11/01
Batch No:	01G4159	Prep. No:	1 of 1	Anal. Time:	16:11
Data File Name:	5512-12	Sample Amount:	30.0 g	Dilution Factor:	2
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	3400	< 3400	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	58
2	2-Fluorophenol	367-12-4	10-129	62
3	Nitrobenzene-d5	4165-60-0	41-133	65
4	Phenol-d5	4165-62-2	20-134	76
5	Terphenyl-d14	1718-51-0	45-134	82
6	2,4,6-Tribromophenol	118-79-6	20-128	64
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	106
2	Chrysene-d12	1719-03-5	50-200	114
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	97
4	Naphthalene-d8	1146-65-2	50-200	104
5	Perylene-d12	1520-96-3	50-200	28
6	Phenanthrene-d10	1517-22-2	50-200	115
# of out-of-control				1

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

143207

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-13	Received Date:	08/27/2001
Sample ID:	056-010	Sample Matrix	Soil	Moisture %:	2.8
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Y
Anal. Method:	8270C	Prep. Date:	08/29/01	Anal. Date:	09/10/01
Batch No:	01G4159	Prep. No:	1 of 1	Anal. Time:	19:31
Data File Name:	5512-13	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1700	<1700	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	57
2	2-Fluorophenol	367-12-4	10-129	46
3	Nitrobenzene-d5	4165-60-0	41-133	47
4	Phenol-d5	4165-62-2	20-134	70
5	Terphenyl-d14	1718-51-0	45-134	60
6	2,4,6-Tribromophenol	118-79-6	20-128	52
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	116
2	Chrysene-d12	1719-03-5	50-200	145
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	110
4	Naphthalene-d8	1146-65-2	50-200	115
5	Perylene-d12	1520-96-3	50-200	68
6	Phenanthrene-d10	1517-22-2	50-200	121
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

143208

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-14	Received Date:	08/27/2001
Sample ID:	**056-011**	Sample Matrix	Soil	Moisture %:	8.0
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Y
Anal. Method:	8270C	Prep. Date:	08/29/01	Anal. Date:	09/10/01
Batch No:	01G4159	Prep. No:	1 of 1	Anal. Time:	20:51
Data File Name:	5512-14	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1800	<1800	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	54
2	2-Fluorophenol	367-12-4	10-129	47
3	Nitrobenzene-d5	4165-60-0	41-133	44
4	Phenol-d5	4165-62-2	20-134	30
5	Terphenyl-d14	1718-51-0	45-134	54
6	2,4,6-Tribromophenol	118-79-6	20-128	38
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	109
2	Chrysene-d12	1719-03-5	50-200	133
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	111
4	Naphthalene-d8	1146-65-2	50-200	115
5	Perylene-d12	1520-96-3	50-200	64
6	Phenanthrene-d10	1517-22-2	50-200	111
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

143209

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-15	Received Date:	08/27/2001
Sample ID:	**056-012**	Sample Matrix	Soil	Moisture %:	5.9
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Y
Anal. Method:	8270C	Prep. Date:	08/29/01	Anal. Date:	09/11/01
Batch No:	01G4159	Prep. No:	1 of 1	Anal. Time:	16:51
Data File Name:	5512-15	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1800	<1800	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		41-133	53	
2	2-Fluorophenol	367-12-4		10-129	43	
3	Nitrobenzene-d5	4165-60-0		41-133	50	
4	Phenol-d5	4165-62-2		20-134	57	
5	Terphenyl-d14	1718-51-0		45-134	66	
6	2,4,6-Tribromophenol	118-79-6		20-128	53	
# of out-of-control					0	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	97	
2	Chrysene-d12	1719-03-5		50-200	103	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	94	
4	Naphthalene-d8	1146-65-2		50-200	100	
5	Perylene-d12	1520-96-3		50-200	25	
6	Phenanthrene-d10	1517-22-2		50-200	106	
# of out-of-control					1	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/8/01

143210

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-16	Received Date:	08/27/2001
Sample ID:	**056-013**	Sample Matrix	Soil	Moisture %:	7.8
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Y
Anal. Method:	8270C	Prep. Date:	08/29/01	Anal. Date:	09/10/01
Batch No:	01G4159	Prep. No:	1 of 1	Anal. Time:	21:31
Data File Name:	5512-16	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1800	<1800	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	61
2	2-Fluorophenol	367-12-4	10-129	53
3	Nitrobenzene-d5	4165-60-0	41-133	50
4	Phenol-d5	4165-62-2	20-134	36
5	Terphenyl-d14	1718-51-0	45-134	61
6	2,4,6-Tribromophenol	118-79-6	20-128	48
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	110
2	Chrysene-d12	1719-03-5	50-200	139
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	107
4	Naphthalene-d8	1146-65-2	50-200	111
5	Perylene-d12	1520-96-3	50-200	65
6	Phenanthrene-d10	1517-22-2	50-200	116
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

9/11/01

143911

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-17	Received Date:	08/27/2001
Sample ID:	**056-014**	Sample Matrix	Soil	Moisture %:	6.3
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Y
Anal. Method:	8270C	Prep. Date:	08/29/01	Anal. Date:	09/11/01
Batch No:	01G4159	Prep. No:	1 of 1	Anal. Time:	19:42
Data File Name:	5512-17	Sample Amount:	30.0 g	Dilution Factor:	4
Extract Vol.	2.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	7100	<7100	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	54
2	2-Fluorophenol	367-12-4	10-129	57
3	Nitrobenzene-d5	4165-60-0	41-133	50
4	Phenol-d5	4165-62-2	20-134	59
5	Terphenyl-d14	1718-51-0	45-134	63
6	2,4,6-Tribromophenol	118-79-6	20-128	21
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	77
2	Chrysene-d12	1719-03-5	50-200	95
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	77
4	Naphthalene-d8	1146-65-2	50-200	70
5	Perylene-d12	1520-96-3	50-200	27
6	Phenanthrene-d10	1517-22-2	50-200	83
# of out-of-control				1

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

9/15/01

143212

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-18	Received Date:	08/27/2001
Sample ID:	**056-015**	Sample Matrix	Soil	Moisture %:	3.1
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Y
Anal. Method:	8270C	Prep. Date:	08/29/01	Anal. Date:	09/11/01
Batch No:	01G4159	Prep. No:	1 of 1	Anal. Time:	17:45
Data File Name:	5512-18	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	μg/kg	1700	< 1700	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	59
2	2-Fluorophenol	367-12-4	10-129	48
3	Nitrobenzene-d5	4165-60-0	41-133	49
4	Phenol-d5	4165-62-2	20-134	27
5	Terphenyl-d14	1718-51-0	45-134	64
6	2,4,6-Tribromophenol	118-79-6	20-128	62
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	95
2	Chrysene-d12	1719-03-5	50-200	123
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	96
4	Naphthalene-d8	1146-65-2	50-200	100
5	Perylene-d12	1520-96-3	50-200	42
6	Phenanthrene-d10	1517-22-2	50-200	105
# of out-of-control				1

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/8/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-19	Received Date:	08/27/2001
Sample ID:	**056-016**	Sample Matrix	Soil	Moisture %:	4.4
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Y
Anal. Method:	8270C	Prep. Date:	08/29/01	Anal. Date:	09/11/01
Batch No:	01G4159	Prep. No:	1 of 1	Anal. Time:	18:24
Data File Name:	5512-19	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	2.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1700	<1700	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	44
2	2-Fluorophenol	367-12-4	10-129	52
3	Nitrobenzene-d5	4165-60-0	41-133	33
4	Phenol-d5	4165-62-2	20-134	61
5	Terphenyl-d14	1718-51-0	45-134	51
6	2,4,6-Tribromophenol	118-79-6	20-128	40
# of out-of-control				1

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	97
2	Chrysene-d12	1719-03-5	50-200	128
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	95
4	Naphthalene-d8	1146-65-2	50-200	102
5	Perylene-d12	1520-96-3	50-200	44
6	Phenanthrene-d10	1517-22-2	50-200	105
# of out-of-control				1

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

143014

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-20	Received Date:	08/27/2001
Sample ID:	**056-017**	Sample Matrix	Soil	Moisture %:	3.6
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Y
Anal. Method:	8270C	Prep. Date:	08/29/01	Anal. Date:	09/11/01
Batch No:	01G4159	Prep. No:	1 of 1	Anal. Time:	20:22
Data File Name:	5512-20	Sample Amount:	30.0 g	Dilution Factor:	4
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	6900	<6900	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		41-133	71	
2	2-Fluorophenol	367-12-4		10-129	60	
3	Nitrobenzene-d5	4165-60-0		41-133	67	
4	Phenol-d5	4165-62-2		20-134	68	
5	Terphenyl-d14	1718-51-0		45-134	83	
6	2,4,6-Tribromophenol	118-79-6		20-128	49	
# of out-of-control					0	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	67	
2	Chrysene-d12	1719-03-5		50-200	75	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	74	
4	Naphthalene-d8	1146-65-2		50-200	58	
5	Perylene-d12	1520-96-3		50-200	18	
6	Phenanthrene-d10	1517-22-2		50-200	72	
# of out-of-control					1	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/8/01

143215

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-21	Received Date:	08/27/2001
Sample ID:	**056-018**	Sample Matrix	Soil	Moisture %:	5.0
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Y
Anal. Method:	8270C	Prep. Date:	08/28/01	Anal. Date:	09/07/01
Batch No:	01G4144	Prep. No:	1 of 1	Anal. Time:	21:57
Data File Name:	5512-21	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1800	<1800	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	64
2	2-Fluorophenol	367-12-4	10-129	55
3	Nitrobenzene-d5	4165-60-0	41-133	56
4	Phenol-d5	4165-62-2	20-134	31
5	Terphenyl-d14	1718-51-0	45-134	64
6	2,4,6-Tribromophenol	118-79-6	20-128	49
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	87
2	Chrysene-d12	1719-03-5	50-200	122
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	93
4	Naphthalene-d8	1146-65-2	50-200	98
5	Perylene-d12	1520-96-3	50-200	70
6	Phenanthrene-d10	1517-22-2	50-200	93
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

143216

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-22	Received Date:	08/27/2001
Sample ID:	**056-019**	Sample Matrix	Soil	Moisture %:	5.3
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Y
Anal. Method:	8270C	Prep. Date:	08/28/01	Anal. Date:	09/07/01
Batch No:	01G4144	Prep. No:	1 of 1	Anal. Time:	17:39
Data File Name:	5512-22	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1800	<1800	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		41-133	63	
2	2-Fluorophenol	367-12-4		10-129	58	
3	Nitrobenzene-d5	4165-60-0		41-133	54	
4	Phenol-d5	4165-62-2		20-134	45	
5	Terphenyl-d14	1718-51-0		45-134	70	
6	2,4,6-Tribromophenol	118-79-6		20-128	52	
# of out-of-control					0	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	113	
2	Chrysene-d12	1719-03-5		50-200	136	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	104	
4	Naphthalene-d8	1146-65-2		50-200	126	
5	Perylene-d12	1520-96-3		50-200	56	
6	Phenanthrene-d10	1517-22-2		50-200	118	
# of out-of-control					0	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

143217

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-23	Received Date:	08/27/2001
Sample ID:	056-020	Sample Matrix	Soil	Moisture %:	3.8
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Y
Anal. Method:	8270C	Prep. Date:	08/28/01	Anal. Date:	09/07/01
Batch No:	01G4144	Prep. No:	1 of 1	Anal. Time:	18:18
Data File Name:	5512-23	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1700	<1700	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	64
2	2-Fluorophenol	367-12-4	10-129	60
3	Nitrobenzene-d5	4165-60-0	41-133	55
4	Phenol-d5	4165-62-2	20-134	46
5	Terphenyl-d14	1718-51-0	45-134	68
6	2,4,6-Tribromophenol	118-79-6	20-128	46
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	106
2	Chrysene-d12	1719-03-5	50-200	129
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	98
4	Naphthalene-d8	1146-65-2	50-200	118
5	Perylene-d12	1520-96-3	50-200	54
6	Phenanthrene-d10	1517-22-2	50-200	110
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/8/01

143218

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-24	Received Date:	08/27/2001
Sample ID:	**056-021**	Sample Matrix	Soil	Moisture %:	3.8
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Y
Anal. Method:	8270C	Prep. Date:	08/28/01	Anal. Date:	09/07/01
Batch No:	01G4144	Prep. No:	1 of 1	Anal. Time:	18:58
Data File Name:	5512-24	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1700	<1700	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	67
2	2-Fluorophenol	367-12-4	10-129	63
3	Nitrobenzene-d5	4165-60-0	41-133	57
4	Phenol-d5	4165-62-2	20-134	52
5	Terphenyl-d14	1718-51-0	45-134	74
6	2,4,6-Tribromophenol	118-79-6	20-128	52
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	115
2	Chrysene-d12	1719-03-5	50-200	137
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	101
4	Naphthalene-d8	1146-65-2	50-200	122
5	Perylene-d12	1520-96-3	50-200	55
6	Phenanthrene-d10	1517-22-2	50-200	117
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

145219

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-25	Received Date:	08/27/2001
Sample ID:	056-022	Sample Matrix	Soil	Moisture %:	2.0
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Y
Anal. Method:	8270C	Prep. Date:	08/28/01	Anal. Date:	09/07/01
Batch No:	01G4144	Prep. No:	1 of 1	Anal. Time:	19:37
Data File Name:	5512-25	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1700	<1700	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	65
2	2-Fluorophenol	367-12-4	10-129	60
3	Nitrobenzene-d5	4165-60-0	41-133	56
4	Phenol-d5	4165-62-2	20-134	45
5	Terphenyl-d14	1718-51-0	45-134	73
6	2,4,6-Tribromophenol	118-79-6	20-128	55
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	101
2	Chrysene-d12	1719-03-5	50-200	123
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	99
4	Naphthalene-d8	1146-65-2	50-200	120
5	Perylene-d12	1520-96-3	50-200	54
6	Phenanthrene-d10	1517-22-2	50-200	105
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

P 11/5/01

148220

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-26	Received Date:	08/27/2001
Sample ID:	**056-023**	Sample Matrix	Soil	Moisture %:	2.4
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Y
Anal. Method:	8270C	Prep. Date:	08/28/01	Anal. Date:	09/07/01
Batch No:	01G4144	Prep. No:	1 of 1	Anal. Time:	22:36
Data File Name:	5512-26	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1700	<1700	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	50
2	2-Fluorophenol	367-12-4	10-129	44
3	Nitrobenzene-d5	4165-60-0	41-133	43
4	Phenol-d5	4165-62-2	20-134	54
5	Terphenyl-d14	1718-51-0	45-134	55
6	2,4,6-Tribromophenol	118-79-6	20-128	39
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	90
2	Chrysene-d12	1719-03-5	50-200	128
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	94
4	Naphthalene-d8	1146-65-2	50-200	104
5	Perylene-d12	1520-96-3	50-200	67
6	Phenanthrene-d10	1517-22-2	50-200	96
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

P 11/5/01

143221

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-27	Received Date:	08/27/2001
Sample ID:	**056-024**	Sample Matrix	Soil	Moisture %:	5.9
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Y
Anal. Method:	8270C	Prep. Date:	08/28/01	Anal. Date:	09/19/01
Batch No:	01G4144	Prep. No:	1 of 1	Anal. Time:	13:16
Data File Name:	5512-27B	Sample Amount:	30.0 g	Dilution Factor:	4
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	7100	< 7100 [a]	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	63
2	2-Fluorophenol	367-12-4	10-129	57
3	Nitrobenzene-d5	4165-60-0	41-133	63
4	Phenol-d5	4165-62-2	20-134	63
5	Terphenyl-d14	1718-51-0	45-134	80
6	2,4,6-Tribromophenol	118-79-6	20-128	48
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	119
2	Chrysene-d12	1719-03-5	50-200	90
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	110
4	Naphthalene-d8	1146-65-2	50-200	121
5	Perylene-d12	1520-96-3	50-200	47
6	Phenanthrene-d10	1517-22-2	50-200	114
# of out-of-control				1

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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146222

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-28	Received Date:	08/27/2001
Sample ID:	**056-025**	Sample Matrix	Soil	Moisture %:	6.7
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Y
Anal. Method:	8270C	Prep. Date:	08/28/01	Anal. Date:	09/07/01
Batch No:	01G4144	Prep. No:	1 of 1	Anal. Time:	20:39
Data File Name:	5512-28	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1800	<1800	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	49
2	2-Fluorophenol	367-12-4	10-129	41
3	Nitrobenzene-d5	4165-60-0	41-133	39
4	Phenol-d5	4165-62-2	20-134	24
5	Terphenyl-d14	1718-51-0	45-134	48
6	2,4,6-Tribromophenol	118-79-6	20-128	25
# of out-of-control				1

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	102
2	Chrysene-d12	1719-03-5	50-200	148
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	97
4	Naphthalene-d8	1146-65-2	50-200	113
5	Perylene-d12	1520-96-3	50-200	113
6	Phenanthrene-d10	1517-22-2	50-200	109
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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148223

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-29	Received Date:	08/27/2001
Sample ID:	**056-026**	Sample Matrix	Soil	Moisture %:	4.7
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Y
Anal. Method:	8270C	Prep. Date:	08/28/01	Anal. Date:	09/19/01
Batch No:	01G4144	Prep. No:	1 of 1	Anal. Time:	13:56
Data File Name:	5512-29B	Sample Amount:	30.0 g	Dilution Factor:	4
Extract Vol.	1 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	7000	< 7000 [a]	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		41-133	57	
2	2-Fluorophenol	367-12-4		10-129	53	
3	Nitrobenzene-d5	4165-60-0		41-133	60	
4	Phenol-d5	4165-62-2		20-134	57	
5	Terphenyl-d14	1718-51-0		45-134	78	
6	2,4,6-Tribromophenol	118-79-6		20-128	42	
# of out-of-control					0	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	112	
2	Chrysene-d12	1719-03-5		50-200	76	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	102	
4	Naphthalene-d8	1146-65-2		50-200	112	
5	Perylene-d12	1520-96-3		50-200	33	
6	Phenanthrene-d10	1517-22-2		50-200	110	
# of out-of-control					1	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-30	Received Date:	08/27/2001
Sample ID:	**056-027**	Sample Matrix	Soil	Moisture %:	1.6
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Y
Anal. Method:	8270C	Prep. Date:	08/28/01	Anal. Date:	09/07/01
Batch No:	01G4144	Prep. No:	1 of 1	Anal. Time:	21:18
Data File Name:	5512-30	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1700	<1700	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		41-133	55	
2	2-Fluorophenol	367-12-4		10-129	47	
3	Nitrobenzene-d5	4165-60-0		41-133	46	
4	Phenol-d5	4165-62-2		20-134	30	
5	Terphenyl-d14	1718-51-0		45-134	55	
6	2,4,6-Tribromophenol	118-79-6		20-128	42	
# of out-of-control					0	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	96	
2	Chrysene-d12	1719-03-5		50-200	141	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	93	
4	Naphthalene-d8	1146-65-2		50-200	109	
5	Perylene-d12	1520-96-3		50-200	102	
6	Phenanthrene-d10	1517-22-2		50-200	103	
# of out-of-control					0	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

143225

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/27/2001
Project ID:	CERCLA Completion Plan	Service ID:	015512	Collected by:	
		Lab Sample ID:	01-5512-31	Received Date:	08/27/2001
Sample ID:	**056-ERB1**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC/MS: Y
Anal. Method:	8270C	Prep. Date:	08/29/01	Anal. Date:	09/08/01
Batch No:	01G4160	Prep. No:	1 of 1	Anal. Time:	16:48
Data File Name:	5512-31	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	$\mu g/L$	50	< 50	U R

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	36-129	40
2	2-Fluorophenol	367-12-4	27-106	32
3	Nitrobenzene-d5	4165-60-0	41-133	49
4	Phenol-d5	4165-62-2	10-119	29
5	Terphenyl-d14	1718-51-0	45-134	45
6	2,4,6-Tribromophenol	118-79-6	20-129	4
# of out-of-control				1

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	94
2	Chrysene-d12	1719-03-5	50-200	141
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	85
4	Naphthalene-d8	1146-65-2	50-200	93
5	Perylene-d12	1520-96-3	50-200	91
6	Phenanthrene-d10	1517-22-2	50-200	100
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

143226

LDC #: 7302A2 **VALIDATION COMPLETENESS WORKSHEET** Date: 10/29/01

SDG #: 01-5512 X EPA Level III/IV ___NFESC Level C/D Page: 1 of 1

Laboratory: Applied P & Ch Laboratory Reviewer: [illegible]

2nd Reviewer: [illegible]

METHOD: GC/MS Pentachlorophenol (EPA SW 846 Method 8270C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 8/27/01
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	$\bar{x}$ r^2
IV.	Continuing calibration	A	
V.	Blanks	A	
VI.	Surrogate spikes	SW	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	Not reviewed for Level III/C validation.
XII.	Compound quantitation/CRQLs	A	Not reviewed for Level III/C validation.
XIII.	Tentitatively identified compounds (TICs)	N	Not reviewed for Level III/C validation. Not reported.
XIV.	System performance	A	Not reviewed for Level III/C validation.
XV.	Overall assessment of data	A	
XVI.	Field duplicates	ND	D = 2 + 10, 11 + 13, 12 + 33
XVII.	Field blanks	ND	ER = 31

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: ** Indicates sample underwent Level IV/D validation

14 soils except #31

1	056-001**	11	056-00B	21	056-018	31	056-ERB1
2	056-002**	12	056-00C	22	056-019	32	056-009MS
3	056-003**	13	056-010	23	056-020	33	056-009MSD
4	056-004**	14	056-011	24	056-021	34	056-018MS
5	056-005**	15	056-012	25	056-022	35	056-018MSD
6	056-006**	16	056-013	26	056-023	36	01G4159MB01 S
7	056-007**	17	056-014	27	056-024	37	01G4144MB01
8	056-008	18	056-015	28	056-025	38	01G4160MB01
9	056-009	19	056-016	29	056-026	39	
10	056-00A	20	056-017	30	056-027	40	

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

A. Phenol**	P. Bis(2-chloroethoxy)methane	EE. 2,6-Dinitrotoluene	TT. Pentachlorophenol**	III. Benzo(a)pyrene**
B. Bis (2-chloroethyl) ether	Q. 2,4-Dichlorophenol**	FF. 3-Nitroaniline	UU. Phenanthrene	JJJ. Indeno(1,2,3-cd)pyrene
C. 2-Chlorophenol	R. 1,2,4-Trichlorobenzene	GG. Acenaphthene**	VV. Anthracene	KKK. Dibenz(a,h)anthracene
D. 1,3-Dichlorobenzene	S. Naphthalene	HH. 2,4-Dinitrophenol*	WW. Carbazole	LLL. Benzo(g,h,i)perylene
E. 1,4-Dichlorobenzene**	T. 4-Chloroaniline	II. 4-Nitrophenol*	XX Di-n-butylphthalate	MMM. Bis(2-Chloroisopropyl)ether
F. 1,2-Dichlorobenzene	U. Hexachlorobutadiene**	JJ. Dibenzofuran	YY. Fluoranthene**	NNN. Aniline
G. 2-Methylphenol	V. 4-Chloro-3-methylphenol**	KK. 2,4-Dinitrotoluene	ZZ. Pyrene	OOO N-Nitrosodimethylamine
H. 2,2'-Oxybis(1-chloropropane)	W. 2-Methylnaphthalene	LL. Diethylphthalate	AAA Butylbenzylphthalate	PPP. Benzoic Acid
I. 4-Methylphenol	X. Hexachlorocyclopentadiene*	MM. 4-Chlorophenyl-phenyl ether	BBB. 3,3'-Dichlorobenzidine	QQQ. Benzyl alcohol
J. N-Nitroso-di-n-propylamine*	Y. 2,4,6-Trichlorophenol**	NN. Fluorene	CCC. Benzo(a)anthracene	RRR. Pyridine
K. Hexachloroethane	Z. 2,4,5-Trichlorophenol	OO. 4-Nitroaniline	DDD. Chrysene	SSS. Benzidine
L. Nitrobenzene	AA 2-Chloronaphthalene	PP. 4,6-Dinitro-2-methylphenol	EEE. Bis(2-ethylhexyl)phthalate	TTT
M. Isophorone	BB. 2-Nitroaniline	QQ N-Nitrosodiphenylamine (1)**	FFF. Di-n-octylphthalate**	UUU.
N. 2-Nitrophenol**	CC. Dimethylphthalate	RR. 4-Bromophenyl-phenylether	GGG. Benzo(b)fluoranthene	VVV.
O. 2,4-Dimethylphenol	DD. Acenaphthylene	SS. Hexachlorobenzene	HHH. Benzo(k)fluoranthene	WWW.

SDG #: 01-5512

VALIDATION FINDINGS WORKSHEET
Technical Holding Times

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

All circled dates have exceeded the technical holding times.
Y N N/A Were all cooler temperatures within validation criteria?

METHOD : GC/MS BNA (EPA SW 846 Method 8270)

Sample ID	Matrix	Preserved	Sampling Date	Extraction date	Analysis date	Total # of Days	Qualifier
1	S	N	8-27-01	8-29-01	9-11-01		No Qual
2	↓	↓	↓	↓	↓		↓
3	↓	↓	↓	↓	↓		↓
4	↓	↓	↓	↓	↓		↓
5	↓	↓	↓	↓	↓		↓
6	↓	↓	↓	↓	↓		↓
7	↓	↓	↓	↓	9-10-01		↓

CHNICAL HOLDING TIME CRITERIA

er: Extracted within 7 days, analyzed within 40 days.
l: Extracted within 14 days, analyzed within 40 days.

SDG # 01-551E

GC/MS Performance Check

Reviewer:
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A"

Y N N/A Were the DFTPP performance results reviewed and found to be within the EPA Functional Guideline criteria?

Y N N/A Were all samples analyzed within the 12 hour clock criteria?

#	Laboratory ID	12 Hour Clock (Time/date)	Finding	Associated Samples Client ID	Qualifications

m/z	ION ABUNDANCE CRITERIA	m/z	ION ABUNDANCE CRITERIA
51	30.0 - 60.0% of m/z 198	199	5.0 - 9.0% of m/z 198
68	Less than 2.0% of m/z 69	275	10.0 - 30.0% of m/z 198
69	Present	365	Greater than 1.0% of m/z 198
70	Less than 2.0% of 69	441	Present but less than m/z 443
127	40.0 - 60.0% of m/z 198	442	Greater than 40.0% of m/z 198
197	Less than 1.0% of m/z 198	443	17.0 - 23.0% of m/z 442
198	Base peak, 100% relative abundance		

SDG #: 01-5512

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Initial Calibration

Reviewer: ___
2nd Reviewer: ___

Please see qualifications below for all questions answered "N" Not applicable questions are identified as 'N/A"

- (Y) N N/A Did the laboratory conduct an acceptable 5 point calibration prior to sample analysis?
- Y (N) N/A Were percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCC's and SPCC s?
- (Y) N N/A Was a curve fit used for evaluation? If yes, what was the acceptance criteria used for evaluation? $r^2 \geq 0.990$
- (Y) N N/A Did the initial calibration meet the acceptance criteria?
- (Y) N N/A Were all %RSDs and RRFs within the validation criteria of ≤30 %RSD and ≥0.05 RRF ?

#	Date	Standard ID	Compound	Finding %RSD (Limit: ≤30.0%)	Finding RRF (Limit: ≥0.05)	Associated Samples	Qualifications

Initial Calibration Calculation Verification

Reviewer:
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound
C_x = Concentration of compound,
S = Standard deviation of the RRFs,

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard
X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (40 std)	Recalculated RRF (40 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ECAC	9/3/01	~~Phenol (1st internal standard)~~						
			Naphthalene (2nd internal standard)						
			~~Fluorene (3rd internal standard)~~						
			Pentachlorophenol (4th internal standard)	0.073	0.073	0.065	0.065	27.21	27.31
			~~Bis(2-ethylhexyl)phthalate (5th internal standard)~~						
			~~Benzo(a)pyrene (6th internal standard)~~						
2			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						
3			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

SDG #: 01-5512

Continuing Calibration

Reviewer: [signature]
2nd Reviewer: [signature]

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N" Not applicable questions are identified as "N/A"

(Y) N N/A Was a continuing calibration standard analyzed at least once every 12 hours of sample analysis for each instrument?

(Y) N N/A Were percent differences (%D) and relative response factors (RRF) within method criteria for all CCC's and SPCC's ?

(Y) N N/A Were all %D and RRFs within the validation criteria of ≤25 %D and ≥0.05 RRF ?

#	Date	Standard ID	Compound	Finding %D (Limit: ≤25.0%)	Finding RRF (Limit: ≥0.05)	Associated Samples	Qualifications

LDC # 150282
SDG #: 01-5512

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave RRF - RRF)/ave RRF
RRF = $(A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (Initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	CF4160Q01	9/10/01	~~Phenol (1st internal standard)~~					
			Naphthalene (2nd internal standard)					
			~~Fluorene (3rd internal standard)~~					
			Pentachlorophenol (4th internal standard)	0.065	0.073	0.073	12.3	12.7
			~~Bis(2-ethylhexyl)phthalate (5th internal standard)~~					
			~~Benzo(a)pyrene (6th internal standard)~~					
2	CF4160Q02	9/11/01	~~Phenol (1st internal standard)~~					
			Naphthalene (2nd internal standard)					
			~~Fluorene (3rd internal standard)~~					
			Pentachlorophenol (4th internal standard)	0.065	0.077	0.077	18.5	18.2
			~~Bis(2-ethylhexyl)phthalate (5th internal standard)~~					
			~~Benzo(a)pyrene (6th internal standard)~~					
3			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

CONCLC 2S

LDC #: T302A2
SDG #: 01-5512

VALIDATION FINDINGS WORKSHEET
Blanks

Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)
Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a method blank analyzed for each matrix?
Y N N/A Was a method blank analyzed for each concentration preparation level?
Y N N/A Was a method blank associated with every sample?
Y N N/A Was the blank contaminated? If yes, please see qualification below.

Blank extraction date:_____ **Blank analysis date:**_____
Conc. units:_____ Associated Samples:_____

Compound	Blank ID	Sample Identification								
Di-n-butylphthalate										
Butylbenzylphthalate										
Bis(2-ethylhexyl)phthalate										
Di-n-octylphthalate										
CRQL										
TICs:										
4-Hydroxy-4-methyl-2-pentanone										

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Common contaminants such as the phthalates and TICs noted above that were detected in samples within ten times the associated method blank concentration were qualified as not detected "U". Other contaminants within five times the method blank concentration were also qualified as not detected "U".

Surrogate Recovery

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Reviewer: [signature]
2nd Reviewer: [signature]

Please see qualification below for all questions answered "N" Not applicable questions are identified as "N/A"

Y (N) N/A	Were percent recoveries (%R) for surrogates within QC limits?
Y (N) N/A	If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?
Y (N) N/A	If any %R was less than 10 percent, was a reanalysis performed to confirm %R?

#	Date	Sample ID	Surrogate	%R (Limits)	Qualifications
		31	TBP	4 (20-129)	J/R/P (PCP)
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	

* QC limits are advisory	QC Limits (Soil)	QC Limits (Water)
S1 (NBZ) = Nitrobenzene-d5	23-120	35-114
S2 (FBP) = 2-Fluorobiphenyl	30-115	43-116
S3 (TPH) = Terphenyl-d14	18-137	33-141
S4 (PHL) = Phenol-d5	24-113	10-94

	QC Limits (Soil)	QC Limits (Water)
S5 (2FP) = 2-Fluorophenol	25-121	21-100
S6 (TBP) = 2,4,6-Tribromophenol	19-122	10-123
S7 (2CP) = 2-Chlorophenol-d4	20-130*	33-110*
S8 (DCB) = 1 2-Dichlorobenzene-d4	20-130*	16-110*

LDC #: T302A2
SDG #: 01-55R

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1
Reviewer: [illegible]
2nd reviewer: [illegible]

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: 1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
~~Nitrobenzene-d5~~					
2-Fluorobiphenyl					
~~Terphenyl-d14~~					
Phenol-d5	75	41.18	55	55	0
2-Fluorophenol	↓	29.69	40	40	↓
2,4,6-Tribromophenol		36.60	49	49	
~~2-Chlorophenol-d4~~					
~~1,2-Dichlorobenzene-d4~~					

Sample ID: _____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID: _____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

SDG #: 01-5512

Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)
Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.

Y N N/A Was a MS/MSD analyzed every 20 samples of each matrix?

Y N N/A Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	Date	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		

	Compound	QC Limits (Soil)	RPD (Soil)	QC Limits (Water)	RPD (Water)		Compound	QC Limits (Soil)	RPD (Soil)	QC Limits (Water)	RPD (Water)
A.	Phenol	26-90%	≤ 35%	12-110%	≤ 42%	GG.	Acenaphthene	31-137%	≤ 19%	46-118%	≤ 31%
C.	2-Chlorophenol	25-102%	≤ 50%	27-123%	≤ 40%	II.	4-Nitrophenol	11-114%	≤ 50%	10-80%	≤ 50%
E.	1,4-Dichlorobenzene	28-104%	≤ 27%	36-97%	≤ 28%	KK.	2,4-Dinitrotoluene	28-89%	≤ 47%	24-96%	≤ 38%
J.	N-Nitroso-di-n-propylamine	41-126%	≤ 38%	41-116%	≤ 38%	TT.	Pentachlorophenol	17-109%	≤ 47%	9-103%	≤ 50%
R.	1,2,4-Trichlorobenzene	38-107%	≤ 23%	39-98%	≤ 28%	ZZ.	Pyrene	35-142%	≤ 36%	26-127%	≤ 31%
V.	4-Chloro-3-methylphenol	26-103%	≤ 33%	23-97%	≤ 42%						

SDG # 01-5512

Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: 4
2nd Reviewer: [illegible]

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSC - SC)/SA Where: SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentation

RPD = I MS - MSD I * 2/(MS + MSD) MS = Matrix spike percent recovery MSD = Matrix spike duplicate percent recovery

MS/MSD samples: 32/33

Compound	Spike Added (ug/kg)		Sample Concentration (ug/kg)	Spiked Sample Concentration (ug/kg)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	-----	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
Phenol TT	17800	17800	0	12600	12100	71	71	68	68	4	4
2-Chlorophenol											
1,4-Dichlorobenzene											
N-Nitroso-di-n-propylamine											
1,2,4-Trichlorobenzene											
4-Chloro-3-methylphenol											
Acenaphthene											
4-Nitrophenol											
2,4-Dinitrotoluene											
Pentachlorophenol											
Pyrene											

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

SDG #: 01-5512

Laboratory Control Samples (LCS)

Reviewer:
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a LCS required?

Y N N/A Were the LCS/LCSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	Date	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA

Where: SSC = Spike concentration
SA = Spike added

RPD = I LCS - LCSD I * 2/(LCS + LCSD)

LCS = Laboratory control sample percent recovery

LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: G4159L01/501

Compound	Spike Added (µg/g)		Spike Concentration (µg/g)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
~~Phenol~~ TT	16700	16700	17800	18200	107	107	109	109	2	2
2-Chlorophenol										
1,4-Dichlorobenzene										
N-Nitroso-di-n-propylamine										
1,2,4-Trichlorobenzene										
4-Chloro-3-methylphenol										
Acenaphthene										
4-Nitrophenol										
2,4-Dinitrotoluene										
Pentachlorophenol										
Pyrene										

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

SDG #: 01-5512

Internal Standards

Page: ____
Reviewer: ____
2nd Reviewer: ____

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A"

(Y) N N/A Were all internal standard area counts within -50 to +100 of the associated calibration standard?

(Y) N N/A Were the retention times of the internal standards within +/- 30 seconds of the retention times of the associated calibration standard?

#	Date	Sample ID	Internal Standard	Area (Limits)	RT (Limits)	Qualifications

* QC limits are advisory

IS1 (DCB) = 1 4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10
IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

LDC #: 12402
SDG #: 01-5512

VALIDATION FINDINGS WORKSHEET
Target Compound Identification

Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Relative retention times (RRT's) were within ± 0.06 RRT units of the standard?
Y N N/A Compound spectra meets EPA "Functional Guidelines" criteria?
Y N N/A Chromatogram peaks were verified and accounted for?

#	Date	Sample ID	Finding	Associated Samples	Qualifications

Comments:

SDG # 01-5514

Compound Quantitation and Reported CRQLs

Reviewer:
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?

Y N N/A Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?

#	Date	Sample ID	Finding	Associated Samples	Qualifications

Comments: See sample calculation verification worksheet for recalculations

COMQUA 2S

)C #: T302A2
SDG #: 01-5512

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
2nd reviewer: [illegible]

ETHOD: GC/MS BNA (EPA SW 846 Method 8270)

Compound results for #1-7 (ND) reported with a positive detect were calculated and verified using the following equation:

$$\text{Concentration} = \frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
V_o	=	Volume or weight of sample extract in milliliters (ml) or grams (g).
V_i	=	Volume of extract injected in microliters (ul)
V_t	=	Volume of the concentrated extract in microliters (ul)
DF	=	Dilution Factor.
%S	=	Percent solids, applicable to soil and solid matrices only.
2.0	=	Factor of 2 to account for GPC cleanup

Example:

Sample I.D. _____ : _____

Conc. = (_____)(_____)(_____)(_____)(_____)(_____)
(_____)(_____)(_____)(_____)(_____)(_____)

=

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Acceptable (Y/N)

RECALC.2S

LDC # 12045
SDG #: 01-5512

VALIDATION FINDINGS WORKSHEET
Tentatively Identified Compounds

Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?
Y N N/A Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?
Y N N/A Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?

#	Date	Sample ID	Finding	Associated Samples	Qualifications

Comments:

SDG #: 01-5512

System Performance

Reviewer:
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was the system performance acceptable?

Professional judgement was applied to assess system performance as there are no specific criteria for system performance evaluation.

#	Date	Sample ID	Finding	Associated Samples	Qualifications

Comments: _____

SDG #: 01-5512

Overall Assessment of Data

Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

All available information pertaining to the data were reviewed using professional judgement to compliment the determination of the overall quality of the data.

Y N N/A Was the overall quality and usability of the data acceptable?

#	Date	Sample ID	Finding	Associated Samples	Qualifications

Comments:

OVR 2S

DC #: 13024-
IG #: 01-5512

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Page: 1 of 1
Reviewer:
2nd reviewer:

ETHOD: GC/MS BNA (EPA SW 846 Method 8270)

Y N N/A Were field duplicate pairs identified in this SDG?
Y N N/A Were target compounds identified in the field duplicate pairs?

Compound	Concentration ( )		RPD

Compound	Concentration ( )		RPD

Compound	Concentration ( )		RPD

Compound	Concentration ( )		RPD

SDG #: 01-5512

VALIDATION FINDINGS WORKSHEET
Field Blanks

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS BNA (EPA SW 846 Method 8270)
Y N N/A Were field blanks identified in this SDG?
Y N N/A Were target compounds detected in the field blanks?
Blank units:_____ **Associated sample units:**_____
Sampling date:_____
Field blank type: (circle one) Field Blank / Rinsate / Other:_____ Associated Samples:_____

Compound	Blank ID	Sample Identification								
Diethylphthalate										
Di-n-butylphthalate										
Bis(2-ethylhexyl)phthalate										
CRQL										

Blank units:_____ **Associated sample units:**_____
Sampling date:_____
Field blank type: (circle one) Field Blank / Rinsate / Other:_____ Associated Samples:_____

Compound	Blank ID	Sample Identification								
Diethylphthalate										
Di-n-butylphthalate										
Bis(2-ethylhexyl)phthalate										
CRQL										

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Common contaminants such as the phthalates and TICs noted above that were detected in samples within ten times the associated field blank concentration were qualified as not detected, "U" Other contaminants within five times the field blank concentration were also qualified as not detected, "U".

FBLKASC2 2S

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: CERCLA Completion Plan

Collection Date: August 28, 2001

LDC Report Date: November 5, 2001

Matrix: Soil/Water

Parameters: Pentachlorophenol

Validation Level: EPA Level III

Laboratory: Applied P & Ch Laboratory

Sample Delivery Group (SDG): 01-5551

Sample Identification

056-00D	056-045
056-00E	056-046
056-00F	056-047
056-028	056-048
056-029	056-049
056-030	056-050
056-031	056-051
056-032	056-052
056-033	056-053
056-034	056-054
056-035	056-055
056-036	056-056
056-037	056-057
056-038	056-ERB2
056-039	056-028MS
056-040	056-028MSD
056-041	056-054MS
056-042	056-054MSD
056-043	
056-044	

Introduction

This data review covers 37 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C for Pentachlorophenol.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 15.0% for each individual compound and less than or equal to 30.0% for calibration check compounds (CCCs) .

For the purposes of technical evaluation, all compounds were evaluated against the 30.0% (%RSD) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

Average relative response factors (RRF) for pentachlorophenol were greater than or equal to 0.05 as required.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs).

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

All of the continuing calibration RRF values were greater than or equal to 0.05 .

V. Blanks

Method blanks were reviewed for each matrix as applicable. No pentachlorophenol contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

Samples 056-00D and 056-031, samples 056-00E and 056-042 and samples 056-00F and 056-053 were identified as field duplicates. No pentachlorophenol was detected in any of the samples.

XVII. Field Blanks

Sample 056-ERB2 was identified as an equipment rinsate. No pentachlorophenol contaminants were found in this blank.

CERCLA Completion Plan
Pentachlorophenol - Data Qualification Summary - SDG 01-5551

No Sample Data Qualified in this SDG

CERCLA Completion Plan
Pentachlorophenol - Laboratory Blank Data Qualification Summary - SDG 01-5551

No Sample Data Qualified in this SDG

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-1	Received Date:	08/28/2001
Sample ID:	056-00D	Sample Matrix	Soil	Moisture %:	3.1
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: M
Anal. Method:	8270C	Prep. Date:	08/30/01	Anal. Date:	09/11/01
Batch No:	01G4183	Prep. No:	1 of 1	Anal. Time:	04:19
Data File Name:	5551-01	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1700	<1700	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	76
2	2-Fluorophenol	367-12-4	10-129	77
3	Nitrobenzene-d5	4165-60-0	41-133	73
4	Phenol-d5	4165-62-2	20-134	79
5	Terphenyl-d14	1718-51-0	45-134	63
6	2,4,6-Tribromophenol	118-79-6	20-128	70
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	140
2	Chrysene-d12	1719-03-5	50-200	194
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	116
4	Naphthalene-d8	1146-65-2	50-200	135
5	Perylene-d12	1520-96-3	50-200	130
6	Phenanthrene-d10	1517-22-2	50-200	147
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-2	Received Date:	08/28/2001
Sample ID:	**056-00E**	Sample Matrix	Soil	Moisture %:	7.3
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: M
Anal. Method:	8270C	Prep. Date:	08/30/01	Anal. Date:	09/11/01
Batch No:	01G4183	Prep. No:	1 of 1	Anal. Time:	04:59
Data File Name:	5551-02	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1800	< 1800	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	72
2	2-Fluorophenol	367-12-4	10-129	71
3	Nitrobenzene-d5	4165-60-0	41-133	67
4	Phenol-d5	4165-62-2	20-134	69
5	Terphenyl-d14	1718-51-0	45-134	56
6	2,4,6-Tribromophenol	118-79-6	20-128	60
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	110
2	Chrysene-d12	1719-03-5	50-200	155
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	96
4	Naphthalene-d8	1146-65-2	50-200	113
5	Perylene-d12	1520-96-3	50-200	93
6	Phenanthrene-d10	1517-22-2	50-200	109
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-3	Received Date:	08/28/2001
Sample ID:	**056-00F**	Sample Matrix	Soil	Moisture %:	2.0
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: M
Anal. Method:	8270C	Prep. Date:	08/30/01	Anal. Date:	09/11/01
Batch No:	01G4183	Prep. No:	1 of 1	Anal. Time:	16:38
Data File Name:	5551-03	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1700	<1700	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	81
2	2-Fluorophenol	367-12-4	10-129	76
3	Nitrobenzene-d5	4165-60-0	41-133	74
4	Phenol-d5	4165-62-2	20-134	76
5	Terphenyl-d14	1718-51-0	45-134	65
6	2,4,6-Tribromophenol	118-79-6	20-128	82
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	126
2	Chrysene-d12	1719-03-5	50-200	182
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	111
4	Naphthalene-d8	1146-65-2	50-200	128
5	Perylene-d12	1520-96-3	50-200	93
6	Phenanthrene-d10	1517-22-2	50-200	130
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

9/11/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-4	Received Date:	08/28/2001
Sample ID:	056-028	Sample Matrix	Soil	Moisture %:	
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: M
Anal. Method:	8270C	Prep. Date:	08/30/01	Anal. Date:	09/19/01
Batch No:	01G4183	Prep. No:	1 of 1	Anal. Time:	11:34
Data File Name:	5551-04B	Sample Amount:	30.0 g	Dilution Factor:	4
Extract Vol.	2.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	6700	<6700 [a]	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	60
2	2-Fluorophenol	367-12-4	10-129	38
3	Nitrobenzene-d5	4165-60-0	41-133	38
4	Phenol-d5	4165-62-2	20-134	47
5	Terphenyl-d14	1718-51-0	45-134	61
6	2,4,6-Tribromophenol	118-79-6	20-128	48
# of out-of-control				1

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	128
2	Chrysene-d12	1719-03-5	50-200	145
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	115
4	Naphthalene-d8	1146-65-2	50-200	128
5	Perylene-d12	1520-96-3	50-200	38
6	Phenanthrene-d10	1517-22-2	50-200	131
# of out-of-control				1

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[a] Re-analyzed on 09/19/01.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-5	Received Date:	08/28/2001
Sample ID:	056-029	Sample Matrix	Soil	Moisture %:	2.8
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: M
Anal. Method:	8270C	Prep. Date:	08/30/01	Anal. Date:	09/11/01
Batch No:	01G4183	Prep. No:	1 of 1	Anal. Time:	05:38
Data File Name:	5551-05	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1700	<1700	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	75
2	2-Fluorophenol	367-12-4	10-129	77
3	Nitrobenzene-d5	4165-60-0	41-133	70
4	Phenol-d5	4165-62-2	20-134	74
5	Terphenyl-d14	1718-51-0	45-134	60
6	2,4,6-Tribromophenol	118-79-6	20-128	63
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	115
2	Chrysene-d12	1719-03-5	50-200	178
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	101
4	Naphthalene-d8	1146-65-2	50-200	118
5	Perylene-d12	1520-96-3	50-200	99
6	Phenanthrene-d10	1517-22-2	50-200	123
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-6	Received Date:	08/28/2001
Sample ID:	056-030	Sample Matrix	Soil	Moisture %:	4.6
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: M
Anal. Method:	8270C	Prep. Date:	08/30/01	Anal. Date:	09/11/01
Batch No:	01G4183	Prep. No:	1 of 1	Anal. Time:	15:57
Data File Name:	5551-06	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1800	< 1800	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		41-133	78	
2	2-Fluorophenol	367-12-4		10-129	72	
3	Nitrobenzene-d5	4165-60-0		41-133	69	
4	Phenol-d5	4165-62-2		20-134	74	
5	Terphenyl-d14	1718-51-0		45-134	64	
6	2,4,6-Tribromophenol	118-79-6		20-128	79	
# of out-of-control					0	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	121	
2	Chrysene-d12	1719-03-5		50-200	181	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	107	
4	Naphthalene-d8	1146-65-2		50-200	123	
5	Perylene-d12	1520-96-3		50-200	98	
6	Phenanthrene-d10	1517-22-2		50-200	126	
# of out-of-control					0	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-7	Received Date:	08/28/2001
Sample ID:	**056-031**	Sample Matrix	Soil	Moisture %:	3.2
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: M
Anal. Method:	8270C	Prep. Date:	08/30/01	Anal. Date:	09/11/01
Batch No:	01G4183	Prep. No:	1 of 1	Anal. Time:	06:17
Data File Name:	5551-07	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	μg/kg	1700	< 1700	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		41-133	73	
2	2-Fluorophenol	367-12-4		10-129	75	
3	Nitrobenzene-d5	4165-60-0		41-133	68	
4	Phenol-d5	4165-62-2		20-134	74	
5	Terphenyl-d14	1718-51-0		45-134	63	
6	2,4,6-Tribromophenol	118-79-6		20-128	63	
# of out-of-control					0	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	129	
2	Chrysene-d12	1719-03-5		50-200	183	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	103	
4	Naphthalene-d8	1146-65-2		50-200	124	
5	Perylene-d12	1520-96-3		50-200	119	
6	Phenanthrene-d10	1517-22-2		50-200	137	
# of out-of-control					0	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

9/11/5/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-8	Received Date:	08/28/2001
Sample ID:	056-032	Sample Matrix	Soil	Moisture %:	4.4
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: M
Anal. Method:	8270C	Prep. Date:	08/30/01	Anal. Date:	09/11/01
Batch No:	01G4183	Prep. No:	1 of 1	Anal. Time:	13:57
Data File Name:	5551-08	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1700	<1700	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	87
2	2-Fluorophenol	367-12-4	10-129	89
3	Nitrobenzene-d5	4165-60-0	41-133	83
4	Phenol-d5	4165-62-2	20-134	97
5	Terphenyl-d14	1718-51-0	45-134	73
6	2,4,6-Tribromophenol	118-79-6	20-128	89
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	140
2	Chrysene-d12	1719-03-5	50-200	183
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	123
4	Naphthalene-d8	1146-65-2	50-200	146
5	Perylene-d12	1520-96-3	50-200	124
6	Phenanthrene-d10	1517-22-2	50-200	144
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/8/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-9	Received Date:	08/28/2001
Sample ID:	056-033	Sample Matrix	Soil	Moisture %:	4.1
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: M
Anal. Method:	8270C	Prep. Date:	08/30/01	Anal. Date:	09/11/01
Batch No:	01G4183	Prep. No:	1 of 1	Anal. Time:	12:13
Data File Name:	5551-09A	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1700	< 1700	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	70
2	2-Fluorophenol	367-12-4	10-129	62
3	Nitrobenzene-d5	4165-60-0	41-133	59
4	Phenol-d5	4165-62-2	20-134	58
5	Terphenyl-d14	1718-51-0	45-134	65
6	2,4,6-Tribromophenol	118-79-6	20-128	56
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	109
2	Chrysene-d12	1719-03-5	50-200	161
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	95
4	Naphthalene-d8	1146-65-2	50-200	111
5	Perylene-d12	1520-96-3	50-200	86
6	Phenanthrene-d10	1517-22-2	50-200	112
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-10	Received Date:	08/28/2001
Sample ID:	056-034	Sample Matrix	Soil	Moisture %:	6.1
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: M
Anal. Method:	8270C	Prep. Date:	08/30/01	Anal. Date:	09/11/01
Batch No:	01G4183	Prep. No:	1 of 1	Anal. Time:	10:14
Data File Name:	5551-10	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1800	< 1800	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	85
2	2-Fluorophenol	367-12-4	10-129	81
3	Nitrobenzene-d5	4165-60-0	41-133	77
4	Phenol-d5	4165-62-2	20-134	83
5	Terphenyl-d14	1718-51-0	45-134	67
6	2,4,6-Tribromophenol	118-79-6	20-128	71
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	120
2	Chrysene-d12	1719-03-5	50-200	180
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	109
4	Naphthalene-d8	1146-65-2	50-200	127
5	Perylene-d12	1520-96-3	50-200	104
6	Phenanthrene-d10	1517-22-2	50-200	125
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

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Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-11	Received Date:	08/28/2001
Sample ID:	**056-035**	Sample Matrix	Soil	Moisture %:	3.8
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: M
Anal. Method:	8270C	Prep. Date:	08/30/01	Anal. Date:	09/11/01
Batch No:	01G4183	Prep. No:	1 of 1	Anal. Time:	10:54
Data File Name:	5551-11	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1700	<1700	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		41-133	86	
2	2-Fluorophenol	367-12-4		10-129	84	
3	Nitrobenzene-d5	4165-60-0		41-133	78	
4	Phenol-d5	4165-62-2		20-134	86	
5	Terphenyl-d14	1718-51-0		45-134	68	
6	2,4,6-Tribromophenol	118-79-6		20-128	74	
# of out-of-control					0	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	122	
2	Chrysene-d12	1719-03-5		50-200	174	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	111	
4	Naphthalene-d8	1146-65-2		50-200	130	
5	Perylene-d12	1520-96-3		50-200	103	
6	Phenanthrene-d10	1517-22-2		50-200	123	
# of out-of-control					0	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

9/15/01

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Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-12	Received Date:	08/28/2001
Sample ID:	056-036	Sample Matrix	Soil	Moisture %:	2.5
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: M
Anal. Method:	8270C	Prep. Date:	08/30/01	Anal. Date:	09/11/01
Batch No:	01G4183	Prep. No:	1 of 1	Anal. Time:	14:37
Data File Name:	5551-12	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1700	<1700	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	73
2	2-Fluorophenol	367-12-4	10-129	65
3	Nitrobenzene-d5	4165-60-0	41-133	62
4	Phenol-d5	4165-62-2	20-134	67
5	Terphenyl-d14	1718-51-0	45-134	63
6	2,4,6-Tribromophenol	118-79-6	20-128	79
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	128
2	Chrysene-d12	1719-03-5	50-200	188
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	108
4	Naphthalene-d8	1146-65-2	50-200	126
5	Perylene-d12	1520-96-3	50-200	113
6	Phenanthrene-d10	1517-22-2	50-200	133
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

9/11/01

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Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-13	Received Date:	08/28/2001
Sample ID:	056-037	Sample Matrix	Soil	Moisture %:	5.1
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: M
Anal. Method:	8270C	Prep. Date:	08/30/01	Anal. Date:	09/11/01
Batch No:	01G4183	Prep. No:	1 of 1	Anal. Time:	07:35
Data File Name:	5551-13	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1800	<1800	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	67
2	2-Fluorophenol	367-12-4	10-129	67
3	Nitrobenzene-d5	4165-60-0	41-133	61
4	Phenol-d5	4165-62-2	20-134	67
5	Terphenyl-d14	1718-51-0	45-134	54
6	2,4,6-Tribromophenol	118-79-6	20-128	50
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	124
2	Chrysene-d12	1719-03-5	50-200	179
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	103
4	Naphthalene-d8	1146-65-2	50-200	124
5	Perylene-d12	1520-96-3	50-200	102
6	Phenanthrene-d10	1517-22-2	50-200	127
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/8/01

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Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-14	Received Date:	08/28/2001
Sample ID:	**056-038**	Sample Matrix	Soil	Moisture %:	2.9
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: M
Anal. Method:	8270C	Prep. Date:	08/30/01	Anal. Date:	09/11/01
Batch No:	01G4183	Prep. No:	1 of 1	Anal. Time:	15:17
Data File Name:	5551-14	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1700	< 1700	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	83
2	2-Fluorophenol	367-12-4	10-129	80
3	Nitrobenzene-d5	4165-60-0	41-133	77
4	Phenol-d5	4165-62-2	20-134	83
5	Terphenyl-d14	1718-51-0	45-134	65
6	2,4,6-Tribromophenol	118-79-6	20-128	85
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	130
2	Chrysene-d12	1719-03-5	50-200	188
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	109
4	Naphthalene-d8	1146-65-2	50-200	128
5	Perylene-d12	1520-96-3	50-200	110
6	Phenanthrene-d10	1517-22-2	50-200	130
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/15/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-15	Received Date:	08/28/2001
Sample ID:	056-039	Sample Matrix	Soil	Moisture %:	1.8
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: M
Anal. Method:	8270C	Prep. Date:	08/30/01	Anal. Date:	09/11/01
Batch No:	01G4183	Prep. No:	1 of 1	Anal. Time:	08:15
Data File Name:	5551-15	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1700	<1700	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		41-133	78	
2	2-Fluorophenol	367-12-4		10-129	81	
3	Nitrobenzene-d5	4165-60-0		41-133	74	
4	Phenol-d5	4165-62-2		20-134	82	
5	Terphenyl-d14	1718-51-0		45-134	61	
6	2,4,6-Tribromophenol	118-79-6		20-128	68	
# of out-of-control					0	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	129	
2	Chrysene-d12	1719-03-5		50-200	195	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	103	
4	Naphthalene-d8	1146-65-2		50-200	125	
5	Perylene-d12	1520-96-3		50-200	116	
6	Phenanthrene-d10	1517-22-2		50-200	138	
# of out-of-control					0	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-16	Received Date:	08/28/2001
Sample ID:	**056-040**	Sample Matrix	Soil	Moisture %:	4.3
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: M
Anal. Method:	8270C	Prep. Date:	08/30/01	Anal. Date:	09/11/01
Batch No:	01G4183	Prep. No:	1 of 1	Anal. Time:	17:17
Data File Name:	5551-16	Sample Amount:	30.0 g	Dilution Factor:	2
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	3500	< 3500	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	78
2	2-Fluorophenol	367-12-4	10-129	56
3	Nitrobenzene-d5	4165-60-0	41-133	49
4	Phenol-d5	4165-62-2	20-134	54
5	Terphenyl-d14	1718-51-0	45-134	79
6	2,4,6-Tribromophenol	118-79-6	20-128	80
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	129
2	Chrysene-d12	1719-03-5	50-200	187
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	112
4	Naphthalene-d8	1146-65-2	50-200	128
5	Perylene-d12	1520-96-3	50-200	89
6	Phenanthrene-d10	1517-22-2	50-200	135
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/15/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-17	Received Date:	08/28/2001
Sample ID:	**056-041**	Sample Matrix	Soil	Moisture %:	6.4
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: M
Anal. Method:	8270C	Prep. Date:	08/30/01	Anal. Date:	09/11/01
Batch No:	01G4183	Prep. No:	1 of 1	Anal. Time:	08:54
Data File Name:	5551-17	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1800	<1800	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	70
2	2-Fluorophenol	367-12-4	10-129	71
3	Nitrobenzene-d5	4165-60-0	41-133	66
4	Phenol-d5	4165-62-2	20-134	69
5	Terphenyl-d14	1718-51-0	45-134	62
6	2,4,6-Tribromophenol	118-79-6	20-128	57
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	134
2	Chrysene-d12	1719-03-5	50-200	192
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	124
4	Naphthalene-d8	1146-65-2	50-200	146
5	Perylene-d12	1520-96-3	50-200	123
6	Phenanthrene-d10	1517-22-2	50-200	142
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/6/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-18	Received Date:	08/28/2001
Sample ID:	**056-042**	Sample Matrix	Soil	Moisture %:	6.7
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: M
Anal. Method:	8270C	Prep. Date:	08/30/01	Anal. Date:	09/11/01
Batch No:	01G4183	Prep. No:	1 of 1	Anal. Time:	11:34
Data File Name:	5551-18	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	μg/kg	1800	< 1800	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		41-133	84	
2	2-Fluorophenol	367-12-4		10-129	76	
3	Nitrobenzene-d5	4165-60-0		41-133	74	
4	Phenol-d5	4165-62-2		20-134	82	
5	Terphenyl-d14	1718-51-0		45-134	68	
6	2,4,6-Tribromophenol	118-79-6		20-128	71	
# of out-of-control					0	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	132	
2	Chrysene-d12	1719-03-5		50-200	183	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	118	
4	Naphthalene-d8	1146-65-2		50-200	137	
5	Perylene-d12	1520-96-3		50-200	106	
6	Phenanthrene-d10	1517-22-2		50-200	135	
# of out-of-control					0	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-19	Received Date:	08/28/2001
Sample ID:	**056-043**	Sample Matrix	Soil	Moisture %:	8.2
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: M
Anal. Method:	8270C	Prep. Date:	08/30/01	Anal. Date:	09/11/01
Batch No:	01G4183	Prep. No:	1 of 1	Anal. Time:	09:34
Data File Name:	5551-19	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1800	< 1800	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	68
2	2-Fluorophenol	367-12-4	10-129	72
3	Nitrobenzene-d5	4165-60-0	41-133	66
4	Phenol-d5	4165-62-2	20-134	71
5	Terphenyl-d14	1718-51-0	45-134	61
6	2,4,6-Tribromophenol	118-79-6	20-128	51
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	127
2	Chrysene-d12	1719-03-5	50-200	185
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	102
4	Naphthalene-d8	1146-65-2	50-200	125
5	Perylene-d12	1520-96-3	50-200	114
6	Phenanthrene-d10	1517-22-2	50-200	137
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/15/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-20	Received Date:	08/28/2001
Sample ID:	056-044	Sample Matrix	Soil	Moisture %:	4.7
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: M
Anal. Method:	8270C	Prep. Date:	08/30/01	Anal. Date:	09/11/01
Batch No:	01G4183	Prep. No:	1 of 1	Anal. Time:	17:57
Data File Name:	5551-20	Sample Amount:	30.0 g	Dilution Factor:	2
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	3500	<3500	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	89
2	2-Fluorophenol	367-12-4	10-129	73
3	Nitrobenzene-d5	4165-60-0	41-133	71
4	Phenol-d5	4165-62-2	20-134	68
5	Terphenyl-d14	1718-51-0	45-134	83
6	2,4,6-Tribromophenol	118-79-6	20-128	80
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	130
2	Chrysene-d12	1719-03-5	50-200	182
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	111
4	Naphthalene-d8	1146-65-2	50-200	129
5	Perylene-d12	1520-96-3	50-200	76
6	Phenanthrene-d10	1517-22-2	50-200	135
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

9/15/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-21	Received Date:	08/28/2001
Sample ID:	**056-045**	Sample Matrix	Soil	Moisture %:	4.6
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	08/31/01	Anal. Date:	09/09/01
Batch No:	01G4202	Prep. No:	1 of 1	Anal. Time:	07:40
Data File Name:	5551-21	Sample Amount:	30.0 g	Dilution Factor:	4
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	7000	< 7000	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	63
2	2-Fluorophenol	367-12-4	10-129	55
3	Nitrobenzene-d5	4165-60-0	41-133	70
4	Phenol-d5	4165-62-2	20-134	50
5	Terphenyl-d14	1718-51-0	45-134	57
6	2,4,6-Tribromophenol	118-79-6	20-128	28
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	51
2	Chrysene-d12	1719-03-5	50-200	55
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	96
4	Naphthalene-d8	1146-65-2	50-200	65
5	Perylene-d12	1520-96-3	50-200	52
6	Phenanthrene-d10	1517-22-2	50-200	53
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

147447

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-22	Received Date:	08/28/2001
Sample ID:	056-046	Sample Matrix	Soil	Moisture %:	3.2
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	08/31/01	Anal. Date:	09/10/01
Batch No:	01G4202	Prep. No:	1 of 1	Anal. Time:	19:14
Data File Name:	5551-22A	Sample Amount:	30.0 g	Dilution Factor:	4
Extract Vol.	2.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	6900	<6900	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	50
2	2-Fluorophenol	367-12-4	10-129	53
3	Nitrobenzene-d5	4165-60-0	41-133	54
4	Phenol-d5	4165-62-2	20-134	52
5	Terphenyl-d14	1718-51-0	45-134	67
6	2,4,6-Tribromophenol	118-79-6	20-128	43
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	49
2	Chrysene-d12	1719-03-5	50-200	60
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	73
4	Naphthalene-d8	1146-65-2	50-200	49
5	Perylene-d12	1520-96-3	50-200	49
6	Phenanthrene-d10	1517-22-2	50-200	50
# of out-of-control				3

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/07

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-23	Received Date:	08/28/2001
Sample ID:	**056-047**	Sample Matrix	Soil	Moisture %:	8.2
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	08/31/01	Anal. Date:	09/10/01
Batch No:	01G4202	Prep. No:	1 of 1	Anal. Time:	14:37
Data File Name:	5551-23A	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1800	<1800	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	59
2	2-Fluorophenol	367-12-4	10-129	57
3	Nitrobenzene-d5	4165-60-0	41-133	55
4	Phenol-d5	4165-62-2	20-134	45
5	Terphenyl-d14	1718-51-0	45-134	61
6	2,4,6-Tribromophenol	118-79-6	20-128	44
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	75
2	Chrysene-d12	1719-03-5	50-200	78
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	86
4	Naphthalene-d8	1146-65-2	50-200	80
5	Perylene-d12	1520-96-3	50-200	73
6	Phenanthrene-d10	1517-22-2	50-200	73
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

9/11/5/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-24	Received Date:	08/28/2001
Sample ID:	**056-048**	Sample Matrix	Soil	Moisture %:	1.5
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	08/31/01	Anal. Date:	09/09/01
Batch No:	01G4202	Prep. No:	1 of 1	Anal. Time:	05:41
Data File Name:	5551-24	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	μg/kg	1700	< 1700	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		41-133	73	
2	2-Fluorophenol	367-12-4		10-129	52	
3	Nitrobenzene-d5	4165-60-0		41-133	69	
4	Phenol-d5	4165-62-2		20-134	44	
5	Terphenyl-d14	1718-51-0		45-134	61	
6	2,4,6-Tribromophenol	118-79-6		20-128	51	
# of out-of-control					0	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	52	
2	Chrysene-d12	1719-03-5		50-200	54	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	105	
4	Naphthalene-d8	1146-65-2		50-200	90	
5	Perylene-d12	1520-96-3		50-200	52	
6	Phenanthrene-d10	1517-22-2		50-200	54	
# of out-of-control					0	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

147450

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-25	Received Date:	08/28/2001
Sample ID:	056-049	Sample Matrix	Soil	Moisture %:	7.3
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	08/31/01	Anal. Date:	09/10/01
Batch No:	01G4202	Prep. No:	1 of 1	Anal. Time:	17:16
Data File Name:	5551-25A	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	μg/kg	1800	< 1800	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		41-133	51	
2	2-Fluorophenol	367-12-4		10-129	51	
3	Nitrobenzene-d5	4165-60-0		41-133	36	
4	Phenol-d5	4165-62-2		20-134	52	
5	Terphenyl-d14	1718-51-0		45-134	57	
6	2,4,6-Tribromophenol	118-79-6		20-128	39	
# of out-of-control					1	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	61	
2	Chrysene-d12	1719-03-5		50-200	70	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	73	
4	Naphthalene-d8	1146-65-2		50-200	61	
5	Perylene-d12	1520-96-3		50-200	67	
6	Phenanthrene-d10	1517-22-2		50-200	62	
# of out-of-control					0	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

9/11/01

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Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-26	Received Date:	08/28/2001
Sample ID:	**056-050**	Sample Matrix	Soil	Moisture %:	1.6
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	08/31/01	Anal. Date:	09/10/01
Batch No:	01G4202	Prep. No:	1 of 1	Anal. Time:	17:55
Data File Name:	5551-26A	Sample Amount:	30.0 g	Dilution Factor:	2
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	3400	<3400	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		41-133	62	
2	2-Fluorophenol	367-12-4		10-129	66	
3	Nitrobenzene-d5	4165-60-0		41-133	38	
4	Phenol-d5	4165-62-2		20-134	66	
5	Terphenyl-d14	1718-51-0		45-134	68	
6	2,4,6-Tribromophenol	118-79-6		20-128	50	
# of out-of-control					1	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	63	
2	Chrysene-d12	1719-03-5		50-200	75	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	78	
4	Naphthalene-d8	1146-65-2		50-200	67	
5	Perylene-d12	1520-96-3		50-200	73	
6	Phenanthrene-d10	1517-22-2		50-200	64	
# of out-of-control					0	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

9/15/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-27	Received Date:	08/28/2001
Sample ID:	**056-051**	Sample Matrix	Soil	Moisture %:	4.1
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	08/31/01	Anal. Date:	09/10/01
Batch No:	01G4202	Prep. No:	1 of 1	Anal. Time:	15:56
Data File Name:	5551-27A	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1700	< 1700	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	59
2	2-Fluorophenol	367-12-4	10-129	47
3	Nitrobenzene-d5	4165-60-0	41-133	52
4	Phenol-d5	4165-62-2	20-134	37
5	Terphenyl-d14	1718-51-0	45-134	63
6	2,4,6-Tribromophenol	118-79-6	20-128	39
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	66
2	Chrysene-d12	1719-03-5	50-200	75
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	81
4	Naphthalene-d8	1146-65-2	50-200	72
5	Perylene-d12	1520-96-3	50-200	70
6	Phenanthrene-d10	1517-22-2	50-200	66
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

9/15/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-28	Received Date:	08/28/2001
Sample ID:	056-052	Sample Matrix	Soil	Moisture %:	1.1
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	08/31/01	Anal. Date:	09/10/01
Batch No:	01G4202	Prep. No:	1 of 1	Anal. Time:	18:34
Data File Name:	5551-28A	Sample Amount:	30.0 g	Dilution Factor:	2
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	3400	<3400	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	31
2	2-Fluorophenol	367-12-4	10-129	27
3	Nitrobenzene-d5	4165-60-0	41-133	23
4	Phenol-d5	4165-62-2	20-134	29
5	Terphenyl-d14	1718-51-0	45-134	61
6	2,4,6-Tribromophenol	118-79-6	20-128	37
# of out-of-control				2

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	70
2	Chrysene-d12	1719-03-5	50-200	84
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	78
4	Naphthalene-d8	1146-65-2	50-200	69
5	Perylene-d12	1520-96-3	50-200	73
6	Phenanthrene-d10	1517-22-2	50-200	70
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/8/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-29	Received Date:	08/28/2001
Sample ID:	056-053	Sample Matrix	Soil	Moisture %:	1.7
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	08/31/01	Anal. Date:	09/09/01
Batch No:	01G4202	Prep. No:	1 of 1	Anal. Time:	03:42
Data File Name:	5551-29	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1700	< 1700	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	60
2	2-Fluorophenol	367-12-4	10-129	59
3	Nitrobenzene-d5	4165-60-0	41-133	71
4	Phenol-d5	4165-62-2	20-134	46
5	Terphenyl-d14	1718-51-0	45-134	61
6	2,4,6-Tribromophenol	118-79-6	20-128	37
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	89
2	Chrysene-d12	1719-03-5	50-200	73
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	101
4	Naphthalene-d8	1146-65-2	50-200	99
5	Perylene-d12	1520-96-3	50-200	62
6	Phenanthrene-d10	1517-22-2	50-200	73
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

147455

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Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-30	Received Date:	08/28/2001
Sample ID:	056-054	Sample Matrix	Soil	Moisture %:	0.5
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	08/31/01	Anal. Date:	09/10/01
Batch No:	01G4202	Prep. No:	1 of 1	Anal. Time:	16:36
Data File Name:	5551-30A	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	1700	< 1700	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	60
2	2-Fluorophenol	367-12-4	10-129	51
3	Nitrobenzene-d5	4165-60-0	41-133	64
4	Phenol-d5	4165-62-2	20-134	43
5	Terphenyl-d14	1718-51-0	45-134	56
6	2,4,6-Tribromophenol	118-79-6	20-128	40
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	66
2	Chrysene-d12	1719-03-5	50-200	76
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	82
4	Naphthalene-d8	1146-65-2	50-200	72
5	Perylene-d12	1520-96-3	50-200	74
6	Phenanthrene-d10	1517-22-2	50-200	67
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

9/18/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-31	Received Date:	08/28/2001
Sample ID:	056-055	Sample Matrix	Soil	Moisture %:	1.1
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	08/31/01	Anal. Date:	09/10/01
Batch No:	01G4202	Prep. No:	1 of 1	Anal. Time:	11:37
Data File Name:	5551-31	Sample Amount:	30.0 g	Dilution Factor:	2
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	3400	< 3400	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	52
2	2-Fluorophenol	367-12-4	10-129	45
3	Nitrobenzene-d5	4165-60-0	41-133	51
4	Phenol-d5	4165-62-2	20-134	43
5	Terphenyl-d14	1718-51-0	45-134	47
6	2,4,6-Tribromophenol	118-79-6	20-128	43
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	75
2	Chrysene-d12	1719-03-5	50-200	87
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	87
4	Naphthalene-d8	1146-65-2	50-200	78
5	Perylene-d12	1520-96-3	50-200	67
6	Phenanthrene-d10	1517-22-2	50-200	78
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

9/11/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-32	Received Date:	08/28/2001
Sample ID:	056-056	Sample Matrix	Soil	Moisture %:	1.0
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	08/31/01	Anal. Date:	09/10/01
Batch No:	01G4202	Prep. No:	1 of 1	Anal. Time:	12:16
Data File Name:	5551-32	Sample Amount:	30.0 g	Dilution Factor:	4
Extract Vol.	4.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	6800	< 6800	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		41-133	71	
2	2-Fluorophenol	367-12-4		10-129	55	
3	Nitrobenzene-d5	4165-60-0		41-133	51	
4	Phenol-d5	4165-62-2		20-134	45	
5	Terphenyl-d14	1718-51-0		45-134	75	
6	2,4,6-Tribromophenol	118-79-6		20-128	61	
# of out-of-control					0	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	95	
2	Chrysene-d12	1719-03-5		50-200	96	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	107	
4	Naphthalene-d8	1146-65-2		50-200	99	
5	Perylene-d12	1520-96-3		50-200	55	
6	Phenanthrene-d10	1517-22-2		50-200	94	
# of out-of-control					0	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

9/11/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-33	Received Date:	08/28/2001
Sample ID:	056-057	Sample Matrix	Soil	Moisture %:	0.6
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	08/31/01	Anal. Date:	09/10/01
Batch No:	01G4202	Prep. No:	1 of 1	Anal. Time:	12:55
Data File Name:	5551-33	Sample Amount:	30.0 g	Dilution Factor:	2
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/kg	3400	< 3400	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-Fluorobiphenyl	321-60-8	41-133	69
2	2-Fluorophenol	367-12-4	10-129	48
3	Nitrobenzene-d5	4165-60-0	41-133	43
4	Phenol-d5	4165-62-2	20-134	50
5	Terphenyl-d14	1718-51-0	45-134	80
6	2,4,6-Tribromophenol	118-79-6	20-128	52
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Acenaphthene-d10	15067-26-2	50-200	78
2	Chrysene-d12	1719-03-5	50-200	76
3	1,4-Dichlorobenzene-d4	3855-82-1	50-200	132
4	Naphthalene-d8	1146-65-2	50-200	84
5	Perylene-d12	1520-96-3	50-200	41
6	Phenanthrene-d10	1517-22-2	50-200	80
# of out-of-control				1

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:	DO 0056	Collection Date:	08/28/2001
Project ID:	CERCLA Completion Plan	Service ID:	015551	Collected by:	
		Lab Sample ID:	01-5551-34	Received Date:	08/28/2001
Sample ID:	**056-ERB2**	Sample Matrix	Water	Moisture %:	-
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	08/31/01	Anal. Date:	09/12/01
Batch No:	01G4206	Prep. No:	1 of 1	Anal. Time:	04:41
Data File Name:	5551-34	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	µg/L	50	<50	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		36-129	66	
2	2-Fluorophenol	367-12-4		27-106	44	
3	Nitrobenzene-d5	4165-60-0		41-133	86	
4	Phenol-d5	4165-62-2		10-119	37	
5	Terphenyl-d14	1718-51-0		45-134	70	
6	2,4,6-Tribromophenol	118-79-6		20-129	22	
# of out-of-control					0	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	81	
2	Chrysene-d12	1719-03-5		50-200	77	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	100	
4	Naphthalene-d8	1146-65-2		50-200	91	
5	Perylene-d12	1520-96-3		50-200	69	
6	Phenanthrene-d10	1517-22-2		50-200	81	
# of out-of-control					0	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

9/15/01

LDC #: 7302B2 **VALIDATION COMPLETENESS WORKSHEET** Date: 10/29/01

SDG #: 01-5551 X EPA Level III ___NFESC Level C Page: 1 of 1

Laboratory: Applied P & Ch Laboratory Reviewer: [illegible]

2nd Reviewer: [illegible]

METHOD: GC/MS Pentachlorophenol (EPA SW 846 Method 8270C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 8/28/01
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	
IV.	Continuing calibration	A	
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	N	
XII.	Compound quantitation/CRQLs	N	
XIII.	Tentitatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	ND	D=1+7. 2+18. 3+29
XVII.	Field blanks	ND	ER=34

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

All Soils except #34

1	056-00D	11	056-035	21	056-045	31	056-055	
2	056-00E	12	056-036	22	056-046	32	056-056	
3	056-00F	13	056-037	23	056-047	33	056-057	
4	056-028	14	056-038	24	056-048	34	056-ERB2	W
5	056-029	15	056-039	25	056-049	35	056-028MS	
6	056-030	16	056-040	26	056-050	36	056-028MSD	
7	056-031	17	056-041	27	056-051	37	056-054MS	
8	056-032	18	056-042	28	056-052	38	056-054MSD	
9	056-033	19	056-043	29	056-053	39	014206MB01	W
10	056-034	20	056-044	30	056-054	40	014202MB01	S

014183MB01 S

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: CERCLA Completion Plan

Collection Date: September 26, 2001

LDC Report Date: November 1, 2001

Matrix: Water

Parameters: Volatiles

Validation Level: EPA Level III

Laboratory: Applied P & Ch Laboratory

Sample Delivery Group (SDG): 01-6065

Sample Identification

DCW1
TB9/26

Introduction

This data review covers 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 15.0% for each individual compound and less than or equal to 30.0% for calibration check compounds (CCCs).

For the purposes of technical evaluation, all compounds were evaluated against the 30.0% (%RSD) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

Average relative response factors (RRF) for all volatile target compounds and system performance check compounds (SPCCs) were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs).

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

All of the continuing calibration RRF values were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment of Data

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

XVII. Field Blanks

Sample TB9/26 was identified as a trip blank. No volatile contaminants were found in this blank.

CERCLA Completion Plan
Volatiles - Data Qualification Summary - SDG 01-6065

No Sample Data Qualified in this SDG

CERCLA Completion Plan
Volatiles - Laboratory Blank Data Qualification Summary - SDG 01-6065

No Sample Data Qualified in this SDG

750 d

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:		Collection Date:	09/26/2001
Project ID:	CERCLA Completion Plan	Service ID:	016065	Collected by:	David Clexton
		Lab Sample ID:	01-6065-1	Received Date:	09/26/2001
Sample ID:	DCW1	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: Q
Anal. Method:	8260B	Prep. Date:	10/01/01	Anal. Date:	10/01/01
Batch No:	01G4525	Prep. No:	–	Anal. Time:	16:16
Data File Name:	6065-01A	Sample Amount:	2.5 mL	Dilution Factor:	10
Methanol Vol.	–				
		Sparge Size:	25 mL	Heated Purge:	(Y/N) N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/L	5	<5	U
2	Ethylbenzene	100-41-4	µg/L	5	<5	U
3	Styrene	100-42-5	µg/L	10	<10	U
4	Toluene	108-88-3	µg/L	5	<5	U
5	o-Xylene	95-47-6	µg/L	5	<5	U
6	m/p-Xylene	133677-61-2	µg/L	5	<5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	75-124	99
2	Dibromofluoromethane	1868-53-7	77-124	98
3	1,2-Dichloroethane-d4	17060-07-0	75-125	92
4	Toluene-d8	2037-26-5	76-123	109
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	108
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	121
3	Fluorobenzene	462-06-6	50-200	101
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

147206

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Battelle - Columbus Operations	Project No:		Collection Date:	09/26/2001
Project ID:	CERCLA Completion Plan	Service ID:	016065	Collected by:	David Clexton
		Lab Sample ID:	01-6065-2	Received Date:	09/26/2001
Sample ID:	**TB9/26**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: Q
Anal. Method:	8260B	Prep. Date:	10/01/01	Anal. Date:	10/01/01
Batch No:	01G4525	Prep. No:	–	Anal. Time:	15:44
Data File Name:	6065-02	Sample Amount:	25 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	25 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Benzene	71-43-2	µg/L	0.5	<0.5	U
2	Ethylbenzene	100-41-4	µg/L	0.5	<0.5	U
3	Styrene	100-42-5	µg/L	1	<1	U
4	Toluene	108-88-3	µg/L	0.5	<0.5	U
5	o-Xylene	95-47-6	µg/L	0.5	<0.5	U
6	m/p-Xylene	133677-61-2	µg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-Bromo-fluorobenzene (BFB)	460-00-4	75-124	109
2	Dibromofluoromethane	1868-53-7	77-124	102
3	1,2-Dichloroethane-d4	17060-07-0	75-125	97
4	Toluene-d8	2037-26-5	76-123	110
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	Chlorobenzene-d5	3114-55-4	50-200	82
2	1,4-Dichlorobenzene-d4	3855-82-1	50-200	80
3	Fluorobenzene	462-06-6	50-200	81
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

LDC #: 7302C1 **VALIDATION COMPLETENESS WORKSHEET** Date: 10/29/01

SDG #: 01-6065 X EPA Level III ___NFESC Level C Page: 1 of 1

Laboratory: Applied P & Ch Laboratory Reviewer: [illegible]

2nd Reviewer: [illegible]

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 9/26/01
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	
IV.	Continuing calibration	A	
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	A	LCS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	N	
XII.	Compound quantitation/CRQLs	N	
XIII.	Tentitatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	ND	FB = 2

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

1	DCW1 W	11		21		31	
2	TB9/26	12		22		32	
3	01G4525MB01	13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: CERCLA Completion Plan

Collection Date: September 26, 2001

LDC Report Date: November 5, 2001

Matrix: Water

Parameters: Pentachlorophenol

Validation Level: EPA Level III

Laboratory: Applied P & Ch Laboratory

Sample Delivery Group (SDG): 01-6065

Sample Identification

DCW1

Introduction

This data review covers one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C for Pentachlorophenol.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 15.0% for each individual compound and less than or equal to 30.0% for calibration check compounds (CCCs).

In the case where %RSD was greater than 15.0%, the laboratory used a calibration curve to evaluate the compound. All coefficients of determination (r^2) were greater than or equal to 0.990.

For the purposes of technical evaluation, all compounds were evaluated against the 30.0% (%RSD) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

Average relative response factors (RRF) for pentachlorophenol were greater than or equal to 0.05 as required.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs).

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

All of the continuing calibration RRF values were greater than or equal to 0.05.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No pentachlorophenol contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

XVII. Field Blanks

No field blanks were identified in this SDG.

CERCLA Completion Plan
Pentachlorophenol - Data Qualification Summary - SDG 01-6065

No Sample Data Qualified in this SDG

CERCLA Completion Plan
Pentachlorophenol - Laboratory Blank Data Qualification Summary - SDG 01-6065

No Sample Data Qualified in this SDG

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Battelle - Columbus Operations	Project No:		Collection Date:	09/26/2001
Project ID:	CERCLA Completion Plan	Service ID:	016065	Collected by:	David Clexton
		Lab Sample ID:	01-6065-1	Received Date:	09/26/2001
Sample ID:	**DCW1**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	09/30/01	Anal. Date:	10/01/01
Batch No:	01G4514	Prep. No:	1 of 1	Anal. Time:	23:00
Data File Name:	6065-01	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	Pentachlorophenol (PCP)	87-86-5	$\mu g/L$	50	< 50	U
Surrogates				Control Limit, %	Surro. Rec.%	
1	2-Fluorobiphenyl	321-60-8		36-129	57	
2	2-Fluorophenol	367-12-4		27-106	37	
3	Nitrobenzene-d5	4165-60-0		41-133	66	
4	Phenol-d5	4165-62-2		10-119	25	
5	Terphenyl-d14	1718-51-0		45-134	73	
6	2,4,6-Tribromophenol	118-79-6		20-129	26	
# of out-of-control					0	
Internal Standard				Control Limit, %	IS Rec.%	
1	Acenaphthene-d10	15067-26-2		50-200	120	
2	Chrysene-d12	1719-03-5		50-200	126	
3	1,4-Dichlorobenzene-d4	3855-82-1		50-200	111	
4	Naphthalene-d8	1146-65-2		50-200	103	
5	Perylene-d12	1520-96-3		50-200	140	
6	Phenanthrene-d10	1517-22-2		50-200	132	
# of out-of-control					0	

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

11/5/01

147235

LDC #: 7302C2 **VALIDATION COMPLETENESS WORKSHEET** Date: 10/29/01

SDG #: 01-6065 X EPA Level III ___NFESC Level C Page: 1 of 1

Laboratory: Applied P & Ch Laboratory Reviewer: [illegible]

2nd Reviewer: [illegible]

METHOD: GC/MS Pentachlorophenol (EPA SW 846 Method 8270C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 9/26/01
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	r²
IV.	Continuing calibration	A	
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	A	LCS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	N	
XII.	Compound quantitation/CRQLs	N	
XIII.	Tentitatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

1	DCW1 W	11		21		31	
2	016454MB01	12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

APPENDIX L

LABORATORY ANALYTICAL REPORTS FOR CONCRETE SAMPLING

EnviroMatrix Analytical, Inc.

November 30, 2001

Pacific Treatment Environmental Services, Inc.
Attn: Kim Shannon/ Anthony Rivera
1452 N. Johnson Ave
El Cajon, California 92020

Project Name/No.: RC 38
Laboratory Log No.: 1710-01 (Addition #2)
Date Received: 07/09/01
Sample Matrix: Four solid samples
PO No.: 16486

Please find the following enclosures for the referenced project identified:

1) Analytical Report
2) QA/QC Report
3) Chain of Custody

.....***Certified Analysis***.....

Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. Date of extraction, date of analysis, detection limits and dilution factor are reported for each compound analyzed. All samples were analyzed within the method required holding time for sample collection.

Data for each analytical method was evaluated by assessing the following QA/QC functions, as applicable to the methodology:

- Quality Control Standard
- Surrogate Percent Recovery
- Laboratory Control Sample (LCS) percent recoveries for all analyses
- Matrix Spike Recovery/Matrix Spike Duplicate Recovery (MSR & MSDR) and/or
- Relative Percent Difference (RPD from MSR & MSDR)

I certify that this data report is in compliance both technically and for completeness. Release of the data contained in this hard copy data report has been authorized by the following signature.

Janis Columbo
Vice President/Laboratory Director

4340 Viewridge Avenue, Suite A • San Diego, California 92123 • (858) 560-7717 • Fax (858) 560-7763
Analytical Chemistry Laboratory

ANALYSIS RESULTS - EPA 8021 B
BTEX & STYRENE COMPOUNDS ONLY

CLIENT: PACIFIC TREATMENT ENVIRONMENTAL SERVICES, INC.

PROJECT NAME/No.: RC 38
EMA LOG #: METHOD BLANK
SAMPLE ID: N/A
DILUTION FACTOR: 1

DATE SAMPLED: N/A
DATE RECEIVED: N/A
DATE ANALYZED: 07/16/01
MATRIX: SOLID
SAMPLE VOL./WT.: 5 G

ANALYTE	REPORTING LIMITS PPB (UG/KG)	RESULTS PPB (UG/KG)
BENZENE	1.0	ND
TOLUENE	1.0	ND
ETHYLBENZENE	2.0	ND
XYLENES(TOTAL)	2.0	ND
XYLENES(TOTAL)	2.0	ND
STYRENE	2.0	ND

MASS SPECTROMETRY CONFIRMATION OR SECOND COLUMN CONFIRMATION PERFORMED ON ALL DETECTED ANALYTES.
ND = ANALYTE NOT DETECTED AT OR ABOVE THE INDICATED REPORTING LIMIT
REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE SPIKE DATA	ACCEPTANCE CRITERIA	% RECOVERY
FLUOROBENZENE	60-128	93
4-BROMOFLUOROBENZENE	60-128	91

ANALYSIS RESULTS - EPA 8021 B
BTEX & STYRENE COMPOUNDS ONLY

CLIENT: PACIFIC TREATMENT ENVIRONMENTAL SERVICES, INC.

PROJECT NAME/No.: RC 38
EMA LOG #: 1710-01-1
SAMPLE ID: 056-CCS-1
DILUTION FACTOR: 1

DATE SAMPLED: 07/09/01
DATE RECEIVED: 07/09/01
DATE ANALYZED: 07/16/01
MATRIX: SOLID
SAMPLE VOL./WT.: 5 G

ANALYTE	REPORTING LIMITS PPB (UG/KG)	RESULTS PPB (UG/KG)
BENZENE	1.0	ND
TOLUENE	1.0	ND
ETHYLBENZENE	2.0	ND
XYLENES(TOTAL)	2.0	ND
STYRENE	2.0	ND

MASS SPECTROMETRY CONFIRMATION OR SECOND COLUMN CONFIRMATION PERFORMED ON ALL DETECTED ANALYTES.
ND = ANALYTE NOT DETECTED AT OR ABOVE THE INDICATED REPORTING LIMIT
REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE SPIKE DATA	ACCEPTANCE CRITERIA	% RECOVERY
FLUOROBENZENE	60-128	76
4-BROMOFLUOROBENZENE	60-128	57 *

* NOTE: POOR SURROGATE RECOVERY ATTRIBUTABLE TO SAMPLE MATRIX EFFECTS.

ANALYSIS RESULTS - EPA 8021 B
BTEX & STYRENE COMPOUNDS ONLY

CLIENT: PACIFIC TREATMENT ENVIRONMENTAL SERVICES, INC.

PROJECT NAME/No.: RC 38
EMA LOG #: 1710-01-2
SAMPLE ID: 056-CCS-2
DILUTION FACTOR: 1

DATE SAMPLED: 07/09/01
DATE RECEIVED: 07/09/01
DATE ANALYZED: 07/16/01
MATRIX: SOLID
SAMPLE VOL./WT.: 5 G

ANALYTE	REPORTING LIMITS PPB (UG/KG)	RESULTS PPB (UG/KG)
BENZENE	1.0	ND
TOLUENE	1.0	ND
ETHYLBENZENE	2.0	ND
XYLENES(TOTAL)	2.0	ND
STYRENE	2.0	3.8

MASS SPECTROMETRY CONFIRMATION OR SECOND COLUMN CONFIRMATION PERFORMED ON ALL DETECTED ANALYTES.
ND = ANALYTE NOT DETECTED AT OR ABOVE THE INDICATED REPORTING LIMIT
REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE SPIKE DATA	ACCEPTANCE CRITERIA	% RECOVERY
FLUOROBENZENE	60-128	63
4-BROMOFLUOROBENZENE	60-128	45 *

* NOTE: POOR SURROGATE RECOVERY ATTRIBUTABLE TO SAMPLE MATRIX EFFECTS

ANALYSIS RESULTS - EPA 8021 B
BTEX & STYRENE COMPOUNDS ONLY

CLIENT: PACIFIC TREATMENT ENVIRONMENTAL SERVICES, INC.

PROJECT NAME/No.: RC 38
EMA LOG #: 1710-01-3
SAMPLE ID: 056-CCS-3
DILUTION FACTOR: 1

DATE SAMPLED: 07/09/01
DATE RECEIVED: 07/09/01
DATE ANALYZED: 07/16/01
MATRIX: SOLID
SAMPLE VOL./WT.: 5 G

ANALYTE	REPORTING LIMITS PPB (UG/KG)	RESULTS PPB (UG/KG)
BENZENE	1.0	ND
TOLUENE	1.0	ND
ETHYLBENZENE	2.0	ND
XYLENES(TOTAL)	2.0	ND
STYRENE	2.0	ND

MASS SPECTROMETRY CONFIRMATION OR SECOND COLUMN CONFIRMATION PERFORMED ON ALL DETECTED ANALYTES.
ND = ANALYTE NOT DETECTED AT OR ABOVE THE INDICATED REPORTING LIMIT
REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE SPIKE DATA	ACCEPTANCE CRITERIA	% RECOVERY
FLUOROBENZENE	60-128	75
4-BROMOFLUOROBENZENE	60-128	70

ANALYSIS RESULTS - EPA 8021 B
BTEX & STYRENE COMPOUNDS ONLY

CLIENT: PACIFIC TREATMENT ENVIRONMENTAL SERVICES, INC.

PROJECT NAME/No.: RC 38
EMA LOG #: 1710-01-4
SAMPLE ID: 056-CCS-4
DILUTION FACTOR: 1

DATE SAMPLED: 07/09/01
DATE RECEIVED: 07/09/01
DATE ANALYZED: 07/16/01
MATRIX: SOLID
SAMPLE VOL./WT.: 5 G

ANALYTE	REPORTING LIMITS PPB (UG/KG)	RESULTS PPB (UG/KG)
BENZENE	1.0	ND
TOLUENE	1.0	ND
ETHYLBENZENE	2.0	ND
XYLENES(TOTAL)	2.0	ND
STYRENE	2.0	2.1

MASS SPECTROMETRY CONFIRMATION OR SECOND COLUMN CONFIRMATION PERFORMED ON ALL DETECTED ANALYTES.
ND = ANALYTE NOT DETECTED AT OR ABOVE THE INDICATED REPORTING LIMIT
REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE SPIKE DATA	ACCEPTANCE CRITERIA	% RECOVERY
FLUOROBENZENE	60-128	64
4-BROMOFLUOROBENZENE	60-128	55 *

* NOTE: POOR SURROGATE RECOVERY ATTRIBUTABLE TO SAMPLE MATRIX EFFECTS.

QA/QC REPORT							
METHOD:	EPA 8021 B-SOLID				ACCEPTABLE LCS/LCSD CRITERIA	ACCEPTABLE MS/MSD CRITERIA	ACCEPTABLE RPD CRITERIA
DATE ANALYZED:	07/16/01						
QA/QC SAMPLE:	EMA 1710-01-3						
SPIKED ANALYTE	LCS % R	MS % R	MSD % R	RPD	%	%	%
BENZENE	91	93	90	3	70-122	39-150	<30
CHLOROBENZENE	93	91	90	1	51-132	53-137	<30
CHLOROFORM	108	103	89	15	65-135	60-152	<30
ETHYLBENZENE	94	92	91	1	69-122	32-160	<30
1,1-DICHLOROETHENE	99	93	92	1	53-138	52-154	<30
TOLUENE	91	99	92	7	68-121	46-148	<30
1,1,1-TRICHLOROETHANE	109	106	91	15	71-131	61-151	<30
TRICHLOROETHENE	121	184 *	163 *	12	65-133	61-148	<30
XYLENES	89	93	91	2	69-122	58-124	<30

LCS % R = LABORATORY CONTROL SAMPLE PERCENT RECOVERY

MS % R = MATRIX SPIKE PERCENT RECOVERY

MSD % R = MATRIX SPIKE DUPLICATE PERCENT RECOVERY

RPD = RELATIVE PERCENT DIFFERENCE

* NOTE: POOR MATRIX SPIKE RECOVERY ATTRIBUTABLE TO SAMPLE MATRIX EFFECTS. ALL OTHER QC DATA INDICATES METHOD IS IN CONTROL.

Pacific Treatment Analytical Services, Inc.

CHAIN OF CUSTODY RECORD

5 DAY

JUL 9'01 12.86

4340 Viewridge Avenue, Suite A San Diego, CA 92123 Phone (858) 560-7717 Fax (858) 560-7763

PTAS DATE/TIME STAMP

REQUESTED ANALYSIS

[illegible] 1710-01
[illegible] TREATMENT ENVIRO SERVICES
[illegible] N. JOHNSON AVE
GAJON, CA 92020
[illegible] SHANNON Phone: 619-441-1818 X313
ANTHONY A. RIVERA 619-441-2535
SAME

RC 38 PO #: 16486

Client Sample ID	Sample Date	Sample Time	Sample Matrix	Container(s) #	Container(s) Type*	418.1 (TRPH)	Oil & Grease 413.1 ___ 413.2 ___	TPH (8015B) Gas X Diesel ___	TPH-Extended 8015B ___ ASTM D2887 ___	602 / 8020 BTXE X MTBE ___	601 / 8010 (Purgeable Halocarbons)	608 / 8081 (Pesticides)	608 / 8082 (PCB's)	624 / 8260 (Volatile Organics)	625 / 8270 (Semi Volatile Organics)	TTLC Metals (CAC Title 22)	STLC Metals (CAC Title 22)	TCLP (RCRA) Metals ___ Organics ___	Cd Cr Cu Pb Ni Ag Zn	pH EC TSS
056-CCS-1	7-9-01	0955	solid	1	G			X		X										
056-CCS-2	7-9-01	1025	solid	1	G			X		X										
056-CCS-3	7-9-01	1047	solid	1	G			X		X										
056-CCS-4	7-9-01	1104	solid	1	G			X		X										

Container Types: B=Brass Tube; V=VOA; G=Glass; P=Plastic; O=Other (list)
Tamper-Proof Seals Intact: Yes No N/A
Correct Containers: Yes No
Cooler(s): Cold Ambient Warm
VOAs w/ZHS: Yes No N/A
Samples Properly Preserved: Yes No N/A
Disposal: N/C (aqueous) *PTAS (@$5.00/sample) Return Hold
Turnaround Time: 24 hr 48 hr 3 day 4 day 5 day Normal
Comments: TEMP. = 5.6
Cooler was Sealed upon Receipt

RELINQUISHED BY	DATE/TIME	RECEIVED BY
Signature: [signature]	7/9/01 1255	Signature: [signature]
Print: ANTHONY A. RIVERA		Print: DARIO S. REGUERA
Company: PTEC		Company: EMA
Signature:		Signature:
Print:		Print:
Company:		Company:
Signature:		Signature:
Print:		Print:
Company:		Company:

[illegible] the field to return samples that do not match our waste profile. White - PTAS Canary - Accounting Pink - Client (w/Report) Goldenrod - Client (Relinquish Samples)