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V1

ecology and environment, inc.

101 YESLER WAY, SEATTLE, WASHINGTON, 98104, TEL. 206/624-9537

International Specialists in the Environment

February 28, 1991

Chris D. Field
Environmental Protection Agency
1200 Sixth Avenue, HW-113
Seattle, WA 98101

Ref: TDD T10-9010-028

Dear Chris:

Enclosed please find a copy of the site assessment report for Taylor Way Drums, a.k.a. Superlon Plastics, Inc., located in Tacoma, Washington. The warehouse was investigated for unknown contamination from approximately 34 deteriorated drums in the basement.

Elevated levels of lead and arsenic were found in soils and water on site. A migration pathway off site has been established for these contaminants. However, no determination has been made about whether surface water from this site flows to the Hylebos and/or Blair waterways. Similarly, there are few data available about the direction of groundwater movement under the Superlon Facility.

Base neutral acid organics (above background) and asbestos were also found in localized areas on site. There is no evidence that these materials are migrating off site at this time.

The extent of contamination throughout the site is not known. The site appears to sit on the crest between two drainage areas. The north flows into Hylebos Waterway, a priority waterway in the Commencement Bay Superfund Remedial Program. The south drainage appears to flow into Blair Waterway, not a priority waterway of the Commencement Bay Superfund site. The fact that the sump discharge flows to Blair Waterway does not rule out the possibility of metals migration from the north side of the site into Hylebos waterway.

In order to assess the need for removal, the following data gaps need to be addressed:

1. Lateral and vertical distribution of contaminants throughout the site and the surrounding area needs to be defined to determine if the site can be treated within the context of a point source.

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2. Depth to groundwater and the direction of flow thereof need to be determined.

3. Surface water runoff from other areas of the site should be determined.

The migration of contaminants into Hylebos Waterway would indicate that the site falls under the Commencement Bay Superfund site, and the determination that all contaminants of concern migrate toward Blair may warrant either a removal action or the construction of engineered controls to mitigate off-site migration. The need for removal must be determined based on the potential success of the action to eliminate the source of contamination. In the case of Superlon Plastics, which is located in the middle of a highly industrialized area atop fill material of possible industrial (i.e., Asarco) origin, the utility of any abatement action (removal or engineered control) must be judged in the context of the entire area between Hylebos and Blair Waterways.

If you have any questions, please contact Jon Bagby.

Sincerely,

William L. Carberry
TAT Leader

JJB/thl

Enclosure

Ecology and Environment, Inc. - Technical Assistance Team
Document Circulation Request

TO: William Carberry, TATL

FROM: _____, OSC

SUBJ: Taylor Way Drums Site Assessment

REF: T10-9010-028

Please mail copies of the above-noted report to the following parties:

Name	Address	Date Sent (TAT)

_____
OSC

TECHNICAL ASSISTANCE TEAM
SITE ASSESSMENT
FINAL REPORT FOR:

TAYLOR WAY DRUMS
TACOMA, WASHINGTON

TDD T10-9010-028

REPORT PREPARED BY: ECOLOGY AND ENVIRONMENT, INC.
PROJECT MANAGER: JON BAGBY
DATE: FEBRUARY 1991

SUBMITTED TO CARL G. KITZ, DEPUTY PROJECT OFFICER
SUPERFUND RESPONSE AND INVESTIGATIONS SECTION
U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION X
SEATTLE, WASHINGTON

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SITE ASSESSMENT REPORT FOR
TAYLOR WAY DRUMS
TACOMA, WASHINGTON
T10-9010-028

Site Name/Address:

Superlon Plastics, Inc.
216 Taylor Way
Tacoma, Washington 98421

Investigation Participants:

Jon Bagby, TAT-Project Manager
Noah Myers
Ken Louie
Justin Freed
Ecology and Environment, Inc., Seattle, WA (206) 624-9537

Persons Contacted:

Don Richards, Manager
Superlon Plastics, Inc.
216 Taylor Way, Tacoma, Washington 98421 (206) 383-5877

Melony Vorass, Environmental Specialist
Washington Department of Ecology, Olympia, WA (206) 586-5554

Thor Cutler, On-Scene Coordinator
Superfund Response and Investigations Section
EPA Region X, Seattle, WA (206) 442-1196

Dates of Site Assessment:

August 17, 1990

1.0 INTRODUCTION

1.1 Previous Investigations

In July 1990, Melony Vorass and Lynne Gooding of the Washington State Department of Ecology (Ecology) conducted a preliminary site investigation of Superlon Plastics, Inc. (Superlon Plastics) warehouse. During that investigation, Ecology documented approximately thirty-four 55-gallon drums in the basement. No sampling was performed during this investigation.

1.2 Current Investigations

On July 30, 1990, the Region X Superfund Response and Investigations Section of the U.S. Environmental Protection Agency (EPA) tasked

the Ecology and Environment, Inc. (E & E) Technical Assistance Team (TAT) to conduct a site assessment pursuant to Technical Direction Document T10-9007-016. The purpose of the assessment was to investigate the report of 55-gallon drums in the warehouse basement, sample as necessary to determine the need for removal action, and document for possible enforcement measures. Referenced photographs are located in Appendix A.

2.0 OWNER/OPERATOR

The Superlon Plastics facility in Tacoma, Washington (owned by Ragnar Nars) has been producing polyethylene piping since the site was purchased in 1972. Prior to 1972, Justus Cedar Homes conducted wood treatment as well as other operations on site. Justus Cedar Homes has since changed to Lyndal Cedar Homes and is no longer operating at the site. Ms. Vorass (Ecology) indicated that the site was owned by DuPont Corporation (DuPont) prior to Justus Cedar Homes. Ms. Vorass stated that DuPont used tetrahydrofuran, methylethylketone, oils, and polyethylene. A company named Lattimer-Goodwin Chemical owned the site prior to DuPont. No information is available concerning this company's operations (Vorass 1990).

3.0 LOCATION

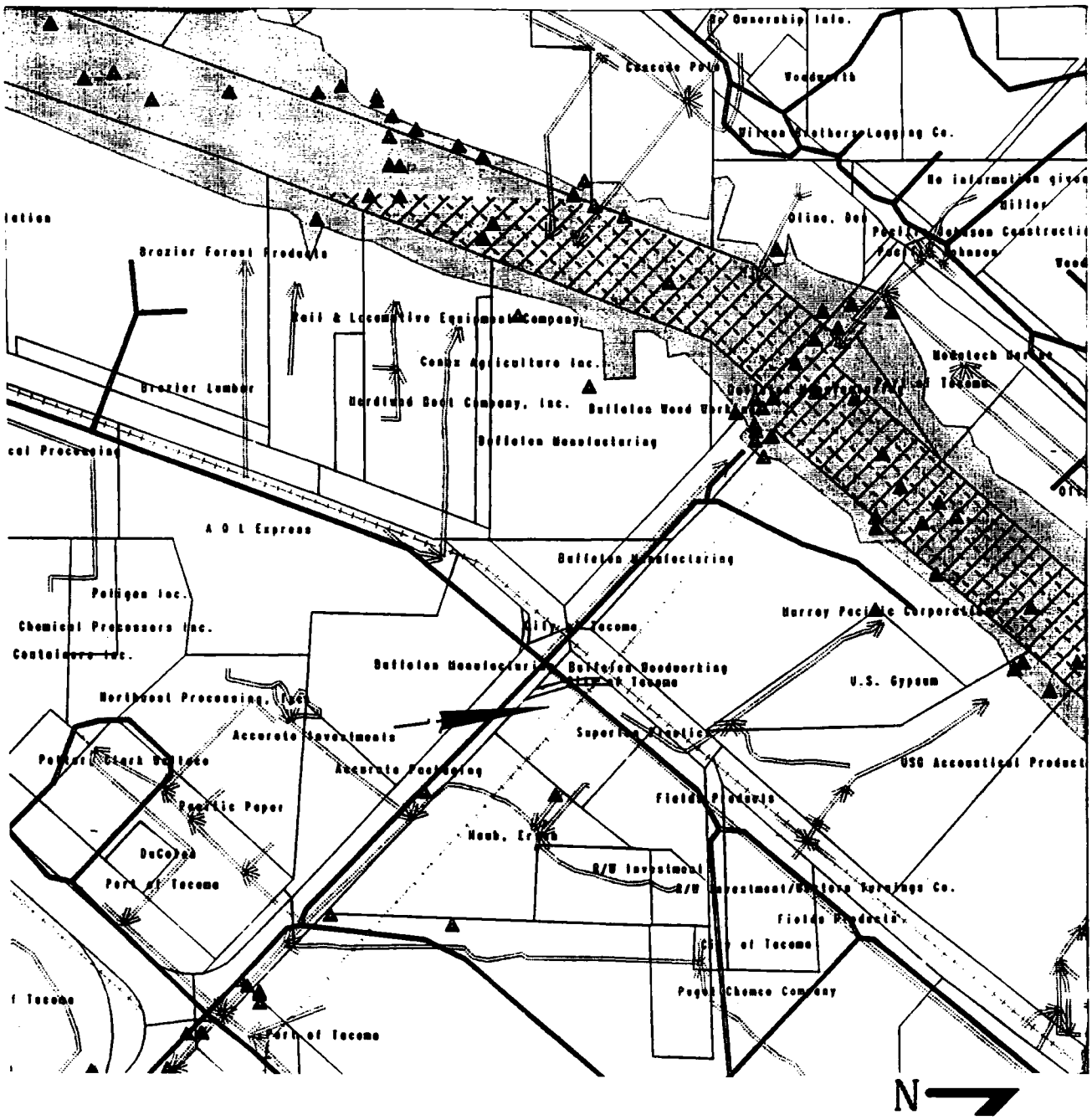
The site is located on the southeast corner of the intersection of Taylor Way and Lincoln Street, south of Hylebos Waterway in Tacoma, Washington. The street address is 216 Taylor Way (Figure 1).

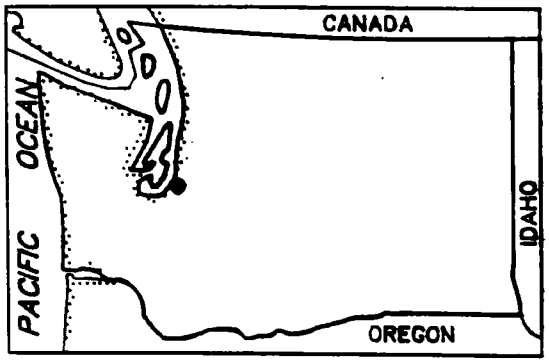
4.0 DESCRIPTION OF SITE AND SURROUNDING AREA

Superlon Plastics occupies approximately 133,000 ft^2 in the industrialized Commencement Bay estuary in Tacoma, Washington. The Hylebos Waterway is located approximately 1/4 mile north of the facility. Blair Waterway lies to the south about 3/4 of a mile. The site is bordered by Taylor Way on the north and Lincoln Avenue on the west. The site is surrounded by several businesses, including Murray Pacific Yard to the northeast, Buffelen Woodworking Co. to the north, Aol Express to the west, and Western Turning adjacent to both the south and east borders of the site. The closest residential area is approximately 1-1/2 miles to the north.

5.0 TOPOGRAPHY AND DRAINAGE

The Superlon Plastics facility sits atop fill dirt of unknown origin. The site itself is relatively flat, but borders two surface water drainage systems. The north portion of the site drains into a ditch adjacent to Taylor Way and runs west to the intersection of Lincoln Ave and Taylor Way. This drainage then turns north to a ditch which runs along Lincoln Avenue and ultimately into Hylebos Waterway (EPA 1990).





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Job: T10-9010-028	Site: NA
Drawn by: JB	Date: 11/15/90

FIGURE 1
SITE LOCATION
TAYLOR WAY DRUMS
TACOMA, WA

The area to the south of the buildings slopes toward Blair Waterway (EPA 1990). Standing water within the basement drains south or east into the adjacent ditches outside the building. In addition, a small ditch has been constructed in the basement's dirt floor to help carry water towards a sump. The sump pipe (Figure 2; Photos 2, 3, 4 and 7 in Appendix A) pumps water into a ditch that intersects Lincoln Avenue and runs south to Blair Waterway (Vorass 1990).

6.0 GEOLOGY

Several surveys defining the geology and hydrology in the vicinity of the Superlon Plastics facility have been conducted. Unfortunately, because all are in draft form, none could be quoted for this report. The composition of soils in the Superlon Plastics warehouse basement varies from medium-grain sands to course organic humus. The direction of groundwater flow under the site is not known. Depth to groundwater is believed to be 8 to 10 feet because of large areas of standing water present throughout the basement (Photos 14 and 15 in Appendix A).

7.0 WATER USE

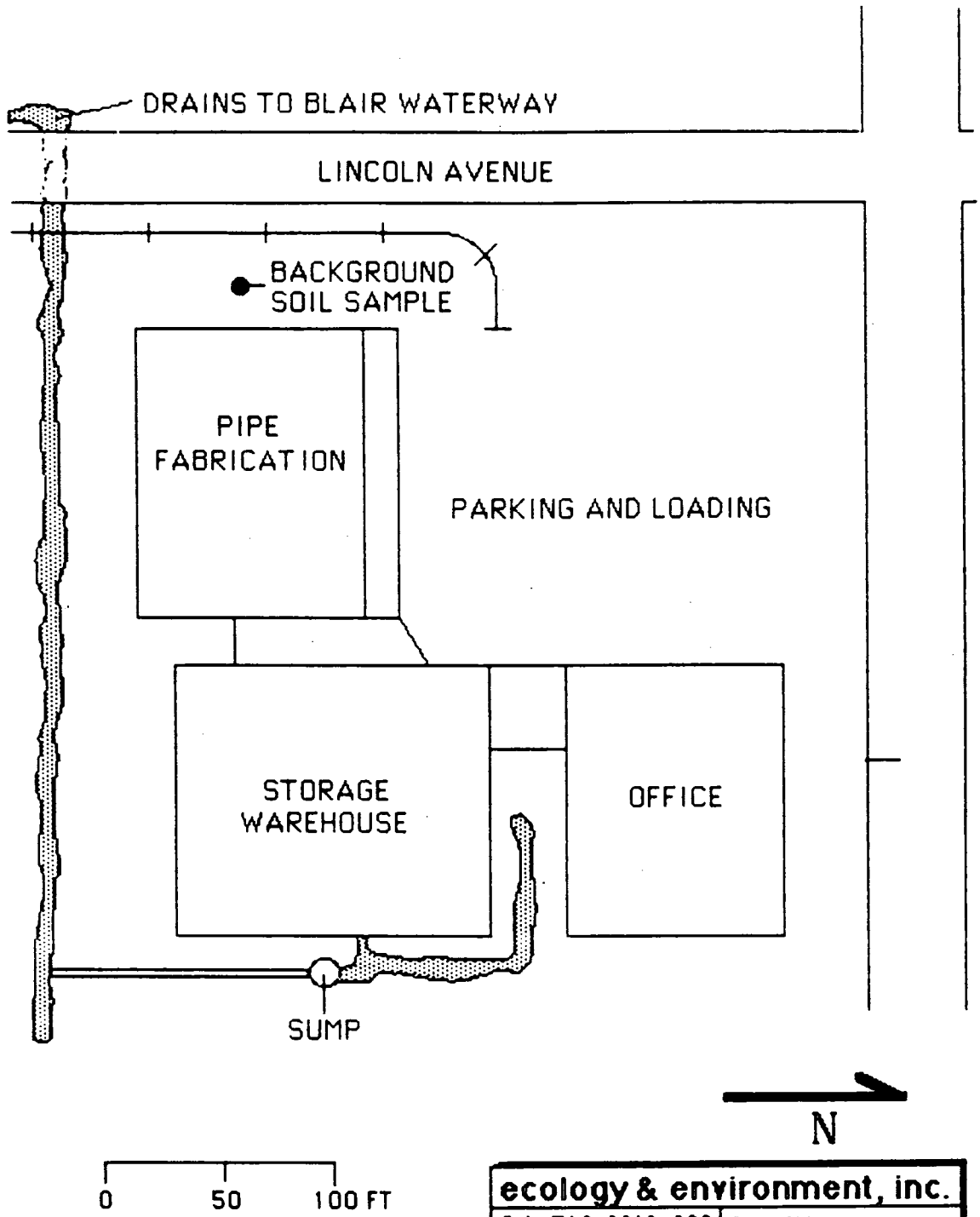
Superlon Plastics water is supplied by the City of Tacoma. No wells are located on site.

8.0 OVERVIEW OF SITE OPERATIONS

Superlon Plastics uses polyethylene pellets in the production of polyethylene piping and tubing. Prior to 1972, Justus Cedar Homes operated a wood treatment facility. DuPont sold the site to Justus Cedar Homes. However, the date of this transaction is unknown. DuPont conducted unknown activities involving the use of tetrahydrofuran, methylethylketone, polyethylene, and oil. DuPont purchased the lot from Lattimer-Goodwin Chemical, and the date of this transaction is unknown. Lattimer-Goodwin Chemical operations are also unknown (Vorass 1990).

9.0 E & E INSPECTION

On August 17, 1990, TAT conducted a site assessment of the Superlon Plastics operation. Initially, TAT investigated the area around the warehouse. Near the east wall of the warehouse, a 2-inch polyvinyl chloride pipe could be seen running from a sump located on this side of the building south. Don Richards (Superlon Plastics Sales Manager) explained that the sump collected excess water from a ditch that flows on both the east and north sides of the building (Figure 2). A silvery sheen could be seen upon closer inspection of the sump (Photo 4 in Appendix A). Mr. Richards stated the pipe running away from the sump led to a ditch (east of Lincoln Street) which ultimately flows south to Blair Waterway. A surface water drainage map of the area shows this ditch ultimately flowing into Blair Waterway (EPA 1990) (Figure 1). This same map shows surface water runoff to the north into Hylebos Waterway.



ecology & environment, inc.	
Job: T10-9010-028	Site: NA
Drawn by: JB	Date: NOV. 15, 1990

FIGURE 2
SITE MAP
TAYLOR WAY DRUMS
TACOMA, WA

TAT also observed a rust-stained area where liquid was flowing out of the basement of the building and into the southwest ditch. The pipe leading away from the sump was also in disrepair, resulting in leakage to the ground (Photo 3 in Appendix A). A brown-colored liquid leaked from the pipe.

During the initial TAT entry, a total of thirty-four 55-gallon drums were observed in the basement (Figure 3). The basement floor was composed entirely of mud and dirt except for the wooden loading dock. Grey stained soil was observed in the area of Soil Sample C. All the drums were sitting either on their sides or at an angle in mud. With the exception of one drum, all were rusted and completely empty. A Century Model OVA-128 portable organic vapor analyzer (OVA) was used during the initial site entry. Elevated OVA readings were observed in two localized areas near the ground surface in the basement (Figure 3). Standing water occupied approximately 25 percent of the surface area in the basement. It appeared that the basement flooded periodically. According to Don Richards, a 500-gallon tank in the northwest corner of the basement is used for pumping and storing cooling water at the piping fabrication facility. A set of rooms on the east side of the building was investigated and found empty. However, deteriorating fibrous pipe insulation was observed in this area.

10.0 SAMPLING PROGRAM

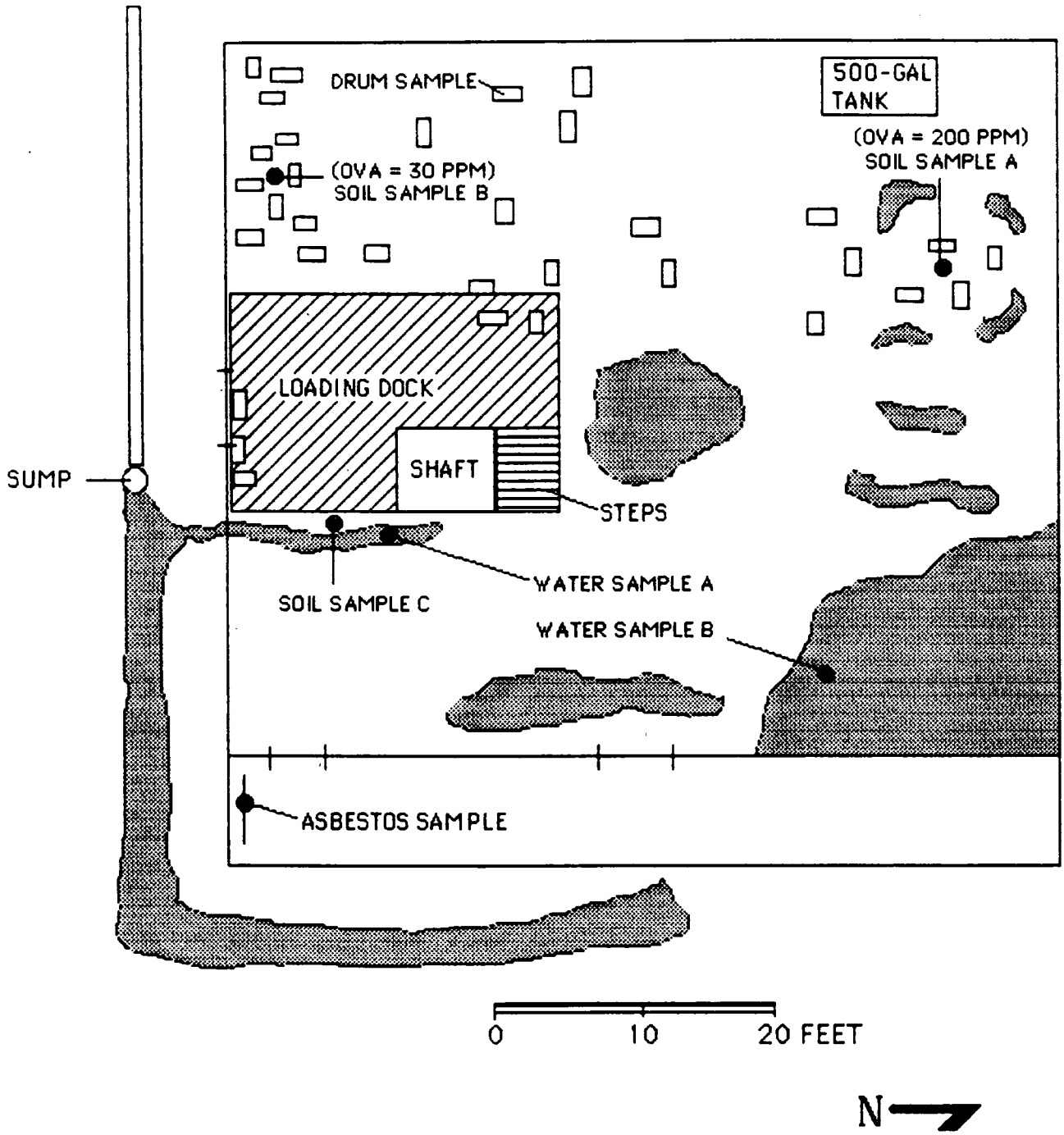
10.1 Previous Sampling

Although Ecology previously conducted an inspection of the site, no sampling is known to have occurred prior to the E & E assessment.

10.2 E & E Sampling Program

The E & E sampling objectives were as follows: 1) establish the presence of contamination in and around the drums and 2) determine routes of contaminant migration off site. Five water samples (grabs) were collected and analyzed for priority pollutant metals using SW-846 methods (EPA 1986), for base/neutral/acid (BNA) organics using EPA Method 8240 (EPA 1986), and for pH using a probe. One duplicate and one blank were among the five samples collected (Figure 3). One water sample was collected in a small ditch that drained under the building's south wall to establish a migration route off site. Duplicate samples were collected from a large pool of standing water in the northeast corner of the building. One drum lying on its side was found to contain liquid, but because of flooding evident in the basement, the liquid was suspected to be water. One grab sample was obtained from this drum.

Five soil samples (grabs) were collected and analyzed for priority pollutant metals by SW-846 methods and for BNA organics by EPA method 8240 (EPA 1986). One duplicate and one background sample were among the five samples collected (Figure 3). Duplicate soil samples were taken in the vicinity of elevated OVA readings (200 ppm) in the north portion of the basement.



LEGEND

- WATER
- 55 GALLON DRUMS
- SAMPLE LOCATION

ecology & environment, inc.	
Job: T10-9010-028	Site: NA
Drawn by: JB	Date: 11/15/90

FIGURE 3
SAMPLE LOCATIONS
TAYLOR WAY DRUMS
TACOMA, WA

One soil sample was collected adjacent to the drainage leading out of the building. One soil sample was also collected in the area of lower OVA readings (30 ppm) near the south wall. A background soil sample was collected in the parking lot north of the pipe-fabricating facility.

Collocated soil samples were collected and analyzed for volatile organic compounds using EPA Method 8270 (EPA 1986). These samples were obtained from the area of the highest OVA readings (200 ppm).

During the course of the initial site entry, TAT found piping insulated with fibrous material. A sample of this material was collected for total asbestos analysis.

11.0 RESULTS AND DISCUSSION

Samples were collected, handled, and analyzed, and results were reported in accordance with the TAT Sampling Plan/Quality Assurance Project Plan (Bagby 1990). A quality assurance review of the analytical results performed by E & E TAT chemists is presented in Appendix B. In general, the data are judged to be acceptable, except where flagged with qualifiers which modify the usefulness of individual values.

Analytical results of selected BNA organic compounds are presented in Table 1.

Elevated concentrations of acenaphthene, phenanthrene, and pyrene were found in the southwest corner of the basement (Soil Sample B) and adjacent to the ditch east of the loading dock (Soil Sample C) (Figure 4). Duplicate samples collected in the north portion of the basement (Soil Sample A) showed no organic contamination above detection limits. However, due to the high moisture content of these samples (87 percent), the detection limits were adjusted according to EPA protocols (EPA 1986) to 5.1 ppm (mg/kg). Water samples showed no elevated levels of BNA organics.

One soil sample was collected in the area of the highest OVA reading (Figure 3). This sample showed no elevated levels of any compounds quantified by EPA Method 8240 for volatile organics (EPA 1986). This method does not quantify methane, which is produced during anaerobic biodegradation. However, carbon dioxide, which is also produced during anaerobic biodegradation, was detected as a Tentatively Identified Compound.

Analytical results of lead and arsenic are shown in Table 2.

Inorganic contamination was found in all samples. Lead and arsenic were the most predominant overall (Figure 5). Soil Sample C was the most contaminated, with lead at 26 percent and arsenic at 6 percent (by dry weight). Duplicate samples of the standing water in the northeast corner of the building (Water Sample B) showed the highest aqueous arsenic and lead levels (220/250 and 23/89 ppm, respectively). The ditch sample (Water Sample A) contained 170 ppm of arsenic and 3.3 ppm of lead. Aqueous samples were filtered in the laboratory.

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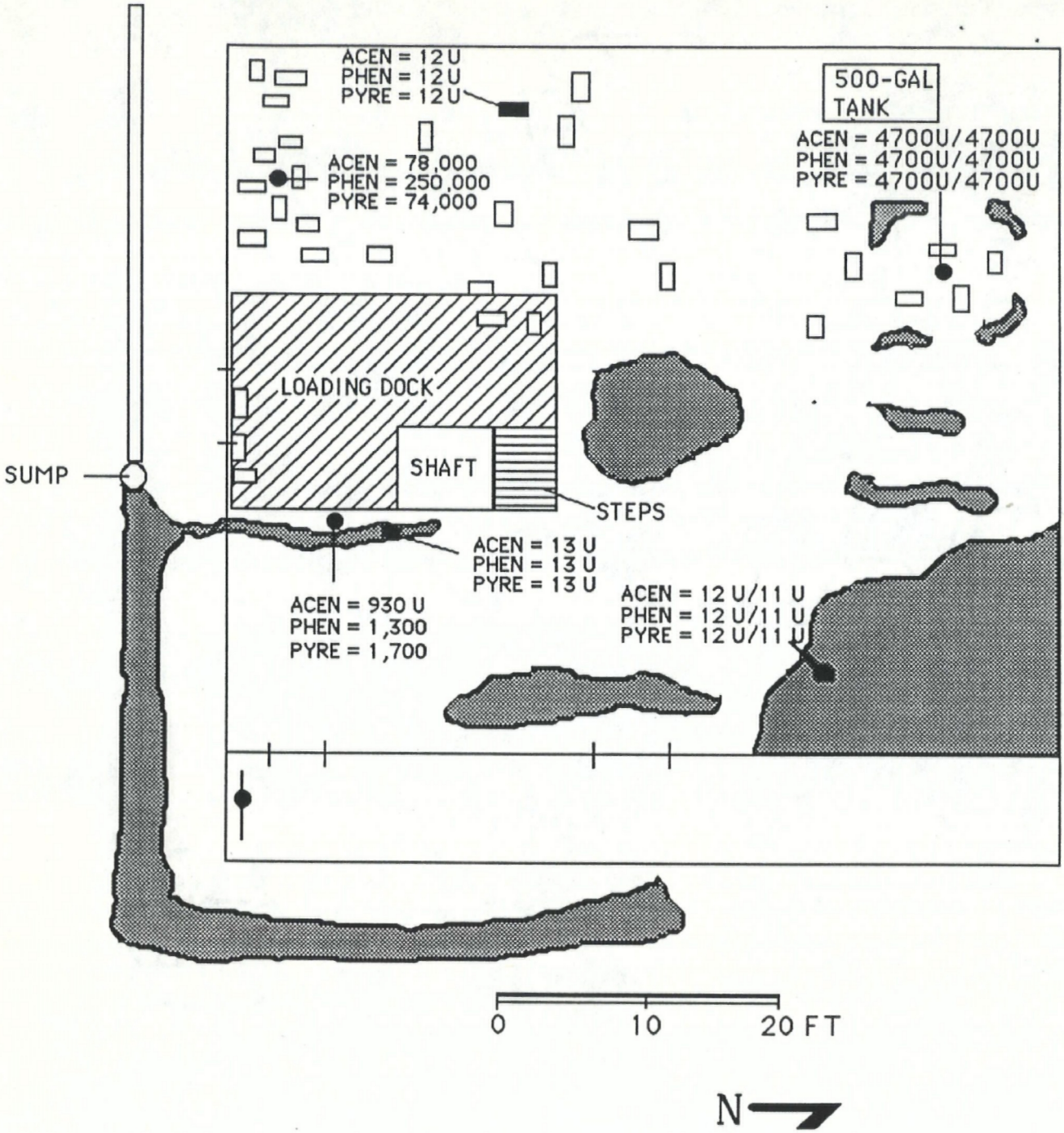
TABLE 1

SUMMARY OF SELECTED BNA ORGANICS ANALYTICAL RESULTS
TAYLOR WAY DRUMS, TACOMA, WASHINGTON
NOVEMBER 16, 1990
(ppb)

Sample Designator	TAT Sample Number	Location	Acenaph-thene Conc.	Phenan-threne Conc.	Pyrene Conc.
Soil Sample A	T0082011	Grab from NW basement corner	4700 U	4700 U	4700 U
Soil Sample A	T0082012	Dup of T0082011	5100 U	5100 U	5100 U
Soil Sample B	T0082014	Grab from SW basement corner	78,000 J	250,000 J	74,000 J
Soil Sample C	T0082013	Grab adjacent to ditch in basement	930 U	1,300 J	1,700 J
Background	T0082015	Background sample taken in parking lot	670 U	450 J	1,100 J
Water Sample A	T0082001	Grab taken in drainage ditch	13 U	13 U	13 U
Water Sample B	T0082002	Grab from standing water NE corner	11 U	11 U	11 U
Water Sample B	T0082003	Dup of T0082003	12 U	12 U	12 U
Drum Sample	T0082004	Grab of drum in W Portion of basement	12 U	12 U	12 U
Blank	T0082005	DI blank	11 U	11 U	11 U

U - Undetected at this method detection limit.
J - Concentration reported is an estimate.
DI - Deionized water.

Soil sample pH results showed basic soils throughout the basement ranging from 7.8 to 8.6. Standing water throughout the basement was sampled with pH test paper and found not to deviate significantly from 7.0.



LEGEND

- ▩ - WATER
- ▭ - 55 GALLON DRUMS
- ● - SAMPLE LOCATION

ACEN - ACENAPTHENE
PHEN - PHENANTHRENE
PYRE - PYRENE

ecology & environment, inc.	
Job: T10-9010-028	Site: NA
Drawn by: JB	Date: 11/15/90

FIGURE 4
SELECTED BNA ORGANIC RESULTS (IN PPB)
TAYLOR WAY DRUMS
TACOMA, WA

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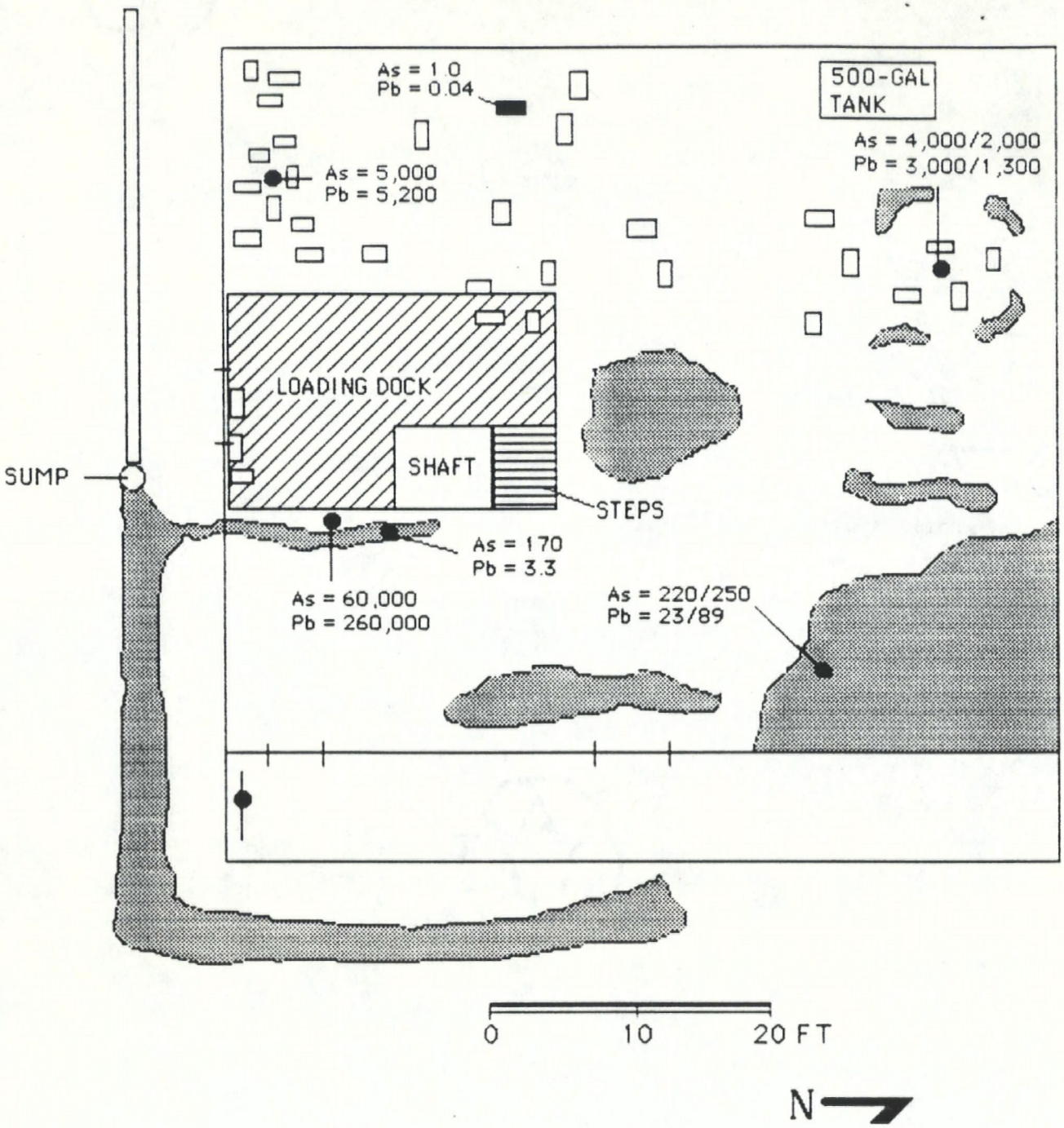
TABLE 2

SUMMARY OF LEAD AND ARSENIC ANALYTICAL RESULTS
TAYLOR WAY DRUMS, TACOMA, WASHINGTON
NOVEMBER 16, 1990
(ppm)

Sample Designator	TAT Sample Number	Location	Lead Conc.	Arsenic Conc.
Soil Sample A	T0082016	Grab from NW Corner of Bldg.	1,300	2,000
Soil Sample A	T0082017	Dup of T0082016	3,000	4,000
Soil Sample B	T0082019	Grab from SW Corner of Bldg.	5,200	5,000
Soil Sample C	T0082018	Grab adjacent to drainage ditch inside Bldg.	260,000	60,000
Blank	T0082010	DI Water Blank	0.003 U	0.005
Background	T0082020	Background grab taken in parking lot N of Bldg.	370	98
Water Sample A	T0082006	Grab from drainage ditch inside Bldg.	3.3	170
Water Sample B	T0082007	Grab from standing water NE corner of Bldg.	23	220
Water Sample B	T0082008	Dup of T0082007	89	250
Drum Water Sample	T0082009	Drum in W portion of basement	0.044	1.0

U - Undetected at this method detection limit.
DI - deionized water.

During the course the initial site entry, fibrous insulation was found in a room east of the main basement area (Figure 6 and Photo 19 in Appendix A). This sample was found to contain 80 percent chrysolite and 20 percent nonfibrous material. The insulation appeared to be friable and degenerating.



LEGEND

- WATER
- 55 GALLON DRUMS
- SAMPLE LOCATION
- As - ARSENIC
- Pb - LEAD

ecology & environment, inc.	
Job: T10-9010-028	Site: NA
Drawn by: JB	Date: 11/15/90

FIGURE 5
ARSENIC AND LEAD RESULTS (IN PPM)
TAYLOR WAY DRUMS
TACOMA, WA

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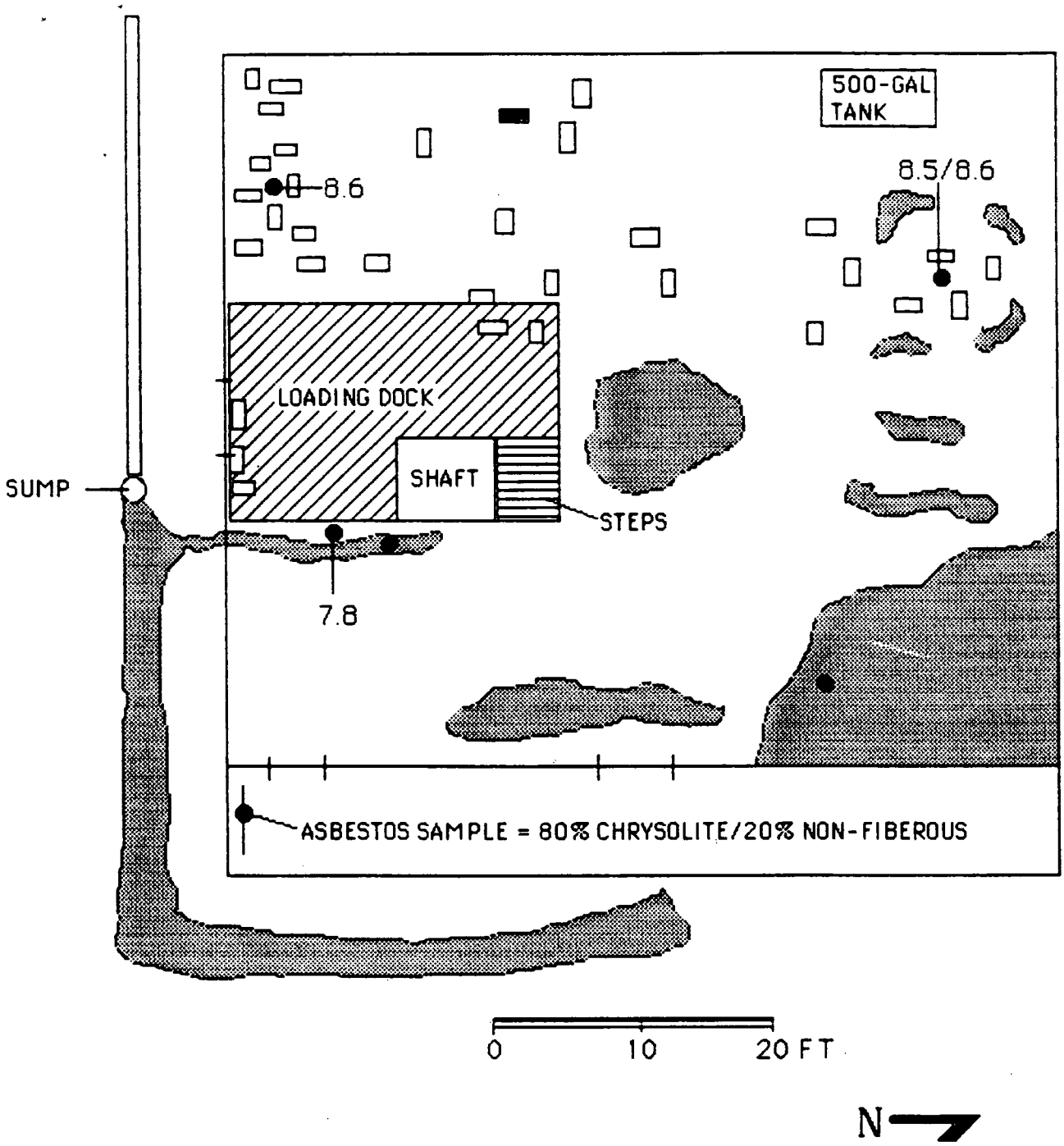

LEGEND

- WATER
- 55 GALLON DRUMS
- SAMPLE LOCATION

ecology & environment, inc.	
Job: T10-9010-028	Site: NA
Drawn by: JB	Date: 11/15/90

FIGURE 6
PH AND ASBESTOS RESULTS
TAYLOR WAY DRUMS
TACOMA, WA

Although the basement contains a wide array of contaminants, arsenic and lead exhibit the greatest potential for mobility off site. Although sampling was not conducted at the sump pipe discharge, waters feeding into the sump were shown to contain lead and arsenic in the parts per million range.

12.0 SUMMARY

Superlon Plastics, located in Tacoma, Washington, manufactures polyethylene piping. Prior to its purchase by Superlon Plastics in 1972, the site was owned by Justus Cedar Homes, DuPont, and Lattimer-Goodwin Chemical. At some point, approximately thirty-four 55-gallon drums of unknown materials were stored in the basement of one of the warehouses on site. Since the time of storage, the basement has experienced flooding, resulting in the release of all the drum contents.

In August 1990, based on the recommendations of Ecology, the EPA requested that TAT perform a site assessment of the Superlon Plastics facility to obtain background information related to this site, to sample for possible remedial action, and to document for possible enforcement activities.

On August 17, 1990, TAT performed a site assessment of the facility and collected 12 samples. Five surface soil grabs were collected throughout the basement, and one background sample was collected from the parking lot. Five water sample grabs were also collected throughout the basement, including a blank. One fibrous material sample was also collected from a pipe on the east side of the building.

Arsenic and lead were detected at concentrations in the part per millions above background in both water and soil samples collected on site. Two soil samples contained significantly elevated concentrations of BNA organics (low ppm) including acenapthene, phenanthrene, and pyrene.

13.0 BIBLIOGRAPHY

Bagby, Jon, August 17, 1990, Technical Assistance Team Sampling Plan/Quality Assurance Project Plan: Taylor Way Drums, Tacoma, Washington, TDD T10-9007-016, Ecology and Environment, Inc., Seattle, Washington.

U.S. Environmental Protection Agency (EPA), April 5, 1990, Commencement Bay GIS Database Land Parcel Operators Map, U.S. Environmental Protection Agency, Region X, Seattle, Geographic Information Section, Seattle, Washington.

____, November 1986, Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response, Washington D.C.

Richards, Brian, November 16, 1990, Assistant Manager Superlon Plastics, Inc., personal conversation with Jon Bagby, Ecology and Environment, Inc., Seattle, Washington.

Vorass, Melony, November 19, 1990, Environmental Scientist, Washington State Department of Ecology (Ecology), personal conversation with Jon Bagby, Ecology and Environment, Inc., Seattle, Washington.

APPENDIX A

Photographic Documentation

PHOTOGRAPH IDENTIFICATION SHEET

Lense Type: 50 mm

TDD No: T10-9007-016
Site Name: Taylor Way Drums

Photo No.	Date	Time	Taken By	Description
1	8/17/90	0925	N.M.	Louie (TAT) measuring OVA levels along S wall of building.
2	8/17/90	--	N.M.	Bagby (TAT) inspecting sump.
3	8/17/90	0920	N.M.	Leaking joint in pipe leading away from sump.
4	8/17/90	0927	N.M.	Looking into sump (sheen).
5	8/17/90	0930	N.M.	Looking W along S wall.
6	8/17/90	0935	N.M.	Looking N along E wall.
7	8/17/90	0931	N.M.	Looking S at ditch and sump with pipe leading towards Lincoln Ave.
8	8/17/90	--	N.M.	Looking W along N wall.
9	8/17/90	--	N.M.	Looking S at loading dock from second floor.
10	8/17/90	--	N.M.	Looking SW at loading dock from second floor.
11	8/17/90	--	N.M.	Looking W from top of stairs.
12	8/17/90	1305	N.M.	Looking SW at samplers Bagby, Freed, and Louie from second floor.
13	8/17/90	--	J.B.	Looking W from loading dock.
14	8/17/90	--	J.B.	Looking SE from loading dock.
15	8/17/90	1037	J.B.	Looking NW from loading dock.
16	8/17/90	--	J.B.	Looking SW from loading dock.
17	8/17/90	1320	J.B.	Freed (TAT) collecting soil sample at Soil Sample A location.
18	8/17/90	1321	J.B.	Freed (TAT) homogenizing soil sample at Soil Sample A location.
19	8/17/90	--	J.B.	Fibrous material sample.
20	8/17/90	1040	J.B.	Looking S along drainage ditch.

Corona
1

2

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APPENDIX B

Quality Assurance Review

ecology and environment, inc.
101 YESLER WAY, SEATTLE, WASHINGTON, 98104, TEL. 206/624-9537
International Specialists in the Environment

MEMORANDUM

DATE: January 24, 1991

TO: Jon Bagby, Project Manager, E & E, Seattle, WA

FROM: Michael Anderson, TAT-Chemist, E & E, Seattle, WA

THRU: David Byers, TAT-Chemist, E & E, Seattle, WA DRB

SUBJ: **Organic Data Quality Assurance Review, Taylor Way Drums**

REF: Analytical TDD: T10-9008-003 Project TDD: T10-9010-028
Analytical PAN: EWA-0645-AAA Project PAN: EWA-0645-SAA

The data quality assurance review of 17 soil and water samples collected from the Taylor Way Drum site in Tacoma, Washington has been completed. Analysis for volatile and semi-volatile organics (methods 8240 and 8270) was performed by Pacific Northwest Environmental Laboratories, Redmond, Washington.

The water samples were numbered: T0082001 through T0082010.

The soil samples were numbered: T0082011 through T0082015 and T0082021.

Data Qualifications:

I Holding Time: Acceptable

Sample extraction and analyses for both matrices met the required holding times for volatile and semi-volatile analyses.

II GC/MS Tuning: Acceptable

GC/MS tuning ion abundance for decafluorotriphenylphosphine and bromofluorobenzene was check against the required ion abundance criteria. Tuning was performed on the day of analysis for each sample set and all ion abundance criteria for both tuning compounds were met.

III Calibration

A. Initial Calibration: Acceptable

A five-point initial calibration was performed prior to volatile and semi-volatile analyses. All average relative response factors were

greater than 0.05 and all calibration check compound percent difference results were below 25%.

B. Continuing Calibration: Acceptable

With the exception of 2,4-dinitrophenol on 9-5-90, all continuing calibration criteria were met. No action is required since, this compound was not detected in sample analyses.

IV Method Blank: Acceptable

The volatile and semi-volatile method blank results were below the contract required detection limit.

V Surrogate Recovery:

All surrogate recoveries were acceptable with the exception of sample T0082015, which had a terphenyl recovery of 149% (18-137% control limit). All positive results for this sample are flagged (J) as estimates.

VI Matrix Spike/Matrix Spike Duplicates: Acceptable

All matrix spike and matrix spike duplicate recoveries, and the relative percent difference between the recoveries were within the control limits.

VII Field Duplicates: Acceptable

All positive results for blind duplicate sample analyses were within the ± 35% control limits for soil samples and ± 20% control limits for water samples.

VIII Overall Assessment of Data for Use

The overall usefulness of the data is based on the criteria outlined in "Laboratory Data Validation Functional Guidelines for Evaluating Organic Analyses" (February, 1988).

Based upon the information provided, the data are acceptable for use with the above stated data qualifications.

Data Qualifiers and Definitions

J - The associated numerical value is an estimated quantity because the reported concentrations were less than the contract required detection limits or quality control criteria were not met.

U - The material was analyzed for but was not detected. The associated numerical value is the sample quantitation limit.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T0082001

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) WATER_ Lab Sample ID: 2592-13_____

Sample wt/vol: 790__ (g/mL) ML__ Lab File ID: C0008_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. ____ dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 08/27/90

GPC Cleanup: (Y/N) N__ pH: _____ Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
108-95-2	Phenol	13	U
111-44-4	bis(2-Chloroethyl)ether	13	U
95-57-8	2-Chlorophenol	13	U
541-73-1	1,3-Dichlorobenzene	13	U
106-46-7	1,4-Dichlorobenzene	13	U
100-51-6	Benzyl alcohol	13	U
95-50-1	1,2-Dichlorobenzene	13	U
95-48-7	2-Methylphenol	13	U
108-60-1	bis(2-Chloroisopropyl)ether	13	U
106-44-5	4-Methylphenol	13	U
621-64-7	N-Nitroso-di-n-propylamine	13	U
67-72-1	Hexachloroethane	13	U
98-95-3	Nitrobenzene	13	U
78-59-1	Isophorone	13	U
88-75-5	2-Nitrophenol	13	U
105-67-9	2,4-Dimethylphenol	13	U
65-85-0	Benzoic Acid	64	U
111-91-1	bis(2-Chloroethoxy)methane	13	U
120-83-2	2,4-Dichlorophenol	13	U
120-82-1	1,2,4-Trichlorobenzene	13	U
91-20-3	Naphthalene	13	U
106-47-8	4-Chloroaniline	13	U
87-68-3	Hexachlorobutadiene	13	U
59-50-7	4-Chloro-3-methylphenol	13	U
91-57-6	2-Methylnaphthalene	13	U
77-47-4	Hexachlorocyclopentadiene	13	U
88-06-2	2,4,6-Trichlorophenol	13	U
95-95-4	2,4,5-Trichlorophenol	64	U
91-58-7	2-Chloronaphthalene	13	U
88-74-4	2-Nitroaniline	64	U
131-11-3	Dimethylphthalate	13	U
208-96-8	Acenaphthylene	13	U
606-20-2	2,6-Dinitrotoluene	13	U

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EPA SAMPLE NO.

T0082001

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) WATER_ Lab Sample ID: 2592-13_____

Sample wt/vol: 790__ (g/mL) ML__ Lab File ID: C0008_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. ____ dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 08/27/90

GPC Cleanup: (Y/N) N__ pH: _____ Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
99-09-2	3-Nitroaniline	64	U
83-32-9	Acenaphthene	13	U
51-28-5	2,4-Dinitrophenol	64	U
100-02-7	4-Nitrophenol	64	U
132-64-9	Dibenzofuran	13	U
121-14-2	2,4-Dinitrotoluene	13	U
84-66-2	Diethylphthalate	13	U
7005-72-3	4-Chlorophenyl-phenylether	13	U
86-73-7	Fluorene	13	U
100-01-6	4-Nitroaniline	64	U
534-52-1	4,6-Dinitro-2-methylphenol	64	U
86-30-6	N-Nitrosodiphenylamine (1)	13	U
101-55-3	4-Bromophenyl-phenylether	13	U
118-74-1	Hexachlorobenzene	13	U
87-86-5	Pentachlorophenol	64	U
85-01-8	Phenanthrene	13	U
120-12-7	Anthracene	13	U
84-74-2	Di-n-butylphthalate	3	BJ
206-44-0	Fluoranthene	13	U
129-00-0	Pyrene	13	U
85-68-7	Butylbenzylphthalate	13	U
91-94-1	3,3'-Dichlorobenzidine	25	U
56-55-3	Benzo(a)anthracene	13	U
117-81-7	bis(2-Ethylhexyl)phthalate	3	J
218-01-9	Chrysene	13	U
117-84-0	Di-n-octylphthalate	13	U
205-99-2	Benzo(b)fluoranthene	13	U
207-08-9	Benzo(k)fluoranthene	13	U
50-32-8	Benzo(a)pyrene	13	U
193-39-5	Indeno(1,2,3-cd)pyrene	13	U
53-70-3	Dibenz(a,h)anthracene	13	U
191-24-2	Benzo(g,h,i)perylene	13	U

(1) - Cannot be separated from Diphenylamine

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

T0082001

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) WATER_ Lab Sample ID: 2592-13_____

Sample wt/vol: 790__ (g/mL) ML__ Lab File ID: C0008_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. ____ dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 08/27/90

GPC Cleanup: (Y/N) N__ pH: _____ Dilution Factor: 1.0_____

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L_

Number TICs found: __7

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ALKANE	15.17	15	BJ
2.	UNK HYDROXY METHOXY BENZALDE	15.22	15	J
3.	UNKNOWN ALKANE	23.14	13	J
4.	UNKNOWN HYDROCARBON	24.94	240	BJ
5.	UNKNOWN	25.22	15	BJ
6.	UNKNOWN HYDROCARBON	25.94	13	BJ
7.	UNKNOWN HYDROCARBON	28.36	30	BJ

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T0082002

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) WATER_ Lab Sample ID: 2592-14_____

Sample wt/vol: 880__ (g/mL) ML__ Lab File ID: C0009_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. ____ dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 08/27/90

GPC Cleanup: (Y/N) N__ pH: _____ Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
108-95-2	Phenol	11	U
111-44-4	bis(2-Chloroethyl)ether	11	U
95-57-8	2-Chlorophenol	11	U
541-73-1	1,3-Dichlorobenzene	11	U
106-46-7	1,4-Dichlorobenzene	11	U
100-51-6	Benzyl alcohol	11	U
95-50-1	1,2-Dichlorobenzene	11	U
95-48-7	2-Methylphenol	11	U
108-60-1	bis(2-Chloroisopropyl)ether	11	U
106-44-5	4-Methylphenol	11	U
621-64-7	N-Nitroso-di-n-propylamine	11	U
67-72-1	Hexachloroethane	11	U
98-95-3	Nitrobenzene	11	U
78-59-1	Isophorone	11	U
88-75-5	2-Nitrophenol	11	U
105-67-9	2,4-Dimethylphenol	11	U
65-85-0	Benzoic Acid	57	U
111-91-1	bis(2-Chloroethoxy)methane	11	U
120-83-2	2,4-Dichlorophenol	11	U
120-82-1	1,2,4-Trichlorobenzene	11	U
91-20-3	Naphthalene	11	U
106-47-8	4-Chloroaniline	11	U
87-68-3	Hexachlorobutadiene	11	U
59-50-7	4-Chloro-3-methylphenol	11	U
91-57-6	2-Methylnaphthalene	11	U
77-47-4	Hexachlorocyclopentadiene	11	U
88-06-2	2,4,6-Trichlorophenol	11	U
95-95-4	2,4,5-Trichlorophenol	57	U
91-58-7	2-Chloronaphthalene	11	U
88-74-4	2-Nitroaniline	57	U
131-11-3	Dimethylphthalate	11	U
208-96-8	Acenaphthylene	11	U
606-20-2	2,6-Dinitrotoluene	11	U

FORM I SV-1 1/87 Rev.

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T0082002

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) WATER_ Lab Sample ID: 2592-14_____

Sample wt/vol: 880__ (g/mL) ML__ Lab File ID: C0009_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. ____ dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 08/27/90

GPC Cleanup: (Y/N) N__ pH: _____ Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
99-09-2	3-Nitroaniline	57	U
83-32-9	Acenaphthene	11	U
51-28-5	2,4-Dinitrophenol	57	U
100-02-7	4-Nitrophenol	57	U
132-64-9	Dibenzofuran	11	U
121-14-2	2,4-Dinitrotoluene	11	U
84-66-2	Diethylphthalate	11	U
7005-72-3	4-Chlorophenyl-phenylether	11	U
86-73-7	Fluorene	11	U
100-01-6	4-Nitroaniline	57	U
534-52-1	4,6-Dinitro-2-methylphenol	57	U
86-30-6	N-Nitrosodiphenylamine (1)	11	U
101-55-3	4-Bromophenyl-phenylether	11	U
118-74-1	Hexachlorobenzene	11	U
87-86-5	Pentachlorophenol	57	U
85-01-8	Phenanthrene	11	U
120-12-7	Anthracene	11	U
84-74-2	Di-n-butylphthalate	2	BJ
206-44-0	Fluoranthene	11	U
129-00-0	Pyrene	11	U
85-68-7	Butylbenzylphthalate	11	U
91-94-1	3,3'-Dichlorobenzidine	23	U
56-55-3	Benzo(a)anthracene	11	U
117-81-7	bis(2-Ethylhexyl)phthalate	3	J
218-01-9	Chrysene	11	U
117-84-0	Di-n-octylphthalate	11	U
205-99-2	Benzo(b)fluoranthene	11	U
207-08-9	Benzo(k)fluoranthene	11	U
50-32-8	Benzo(a)pyrene	11	U
193-39-5	Indeno(1,2,3-cd)pyrene	11	U
53-70-3	Dibenz(a,h)anthracene	11	U
191-24-2	Benzo(g,h,i)perylene	11	U

(1) - Cannot be separated from Diphenylamine

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EPA SAMPLE NO.

T0082002

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) WATER_ Lab Sample ID: 2592-14_____

Sample wt/vol: 880__ (g/mL) ML__ Lab File ID: C0009_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. ____ dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 08/27/90

GPC Cleanup: (Y/N) N__ pH: _____ Dilution Factor: 1.0_____

Number TICs found: _15

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L_

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	21.62	11	J
2. 10544500	Sulfur, mol. (S8) (8CI9CI)	22.82	9.1	J
3.	UNKNOWN HYDROCARBON	23.14	18	BJ
4.	UNKNOWN HYDROCARBON	24.92	130	BJ
5.	UNKNOWN	25.22	14	BJ
6.	UNKNOWN ALKANE	25.86	14	BJ
7.	UNKNOWN HYDROCARBON	25.94	9.1	BJ
8.	UNKNOWN ALKANE	27.49	32	BJ
9.	UNKNOWN ALKANE	28.24	27	J
10.	UNKNOWN HYDROCARBON	28.37	23	BJ
11.	UNKNOWN ALKANE	28.99	25	J
12.	UNKNOWN ALKANE	29.72	23	J
13.	UNKNOWN ALKANE	30.42	16	J
14.	UNKNOWN ALKANE	31.19	11	J
15.	UNKNOWN ALKANE	32.06	9.1	J

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T0082003

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) WATER_ Lab Sample ID: 2592-15_____

Sample wt/vol: 860__ (g/mL) ML__ Lab File ID: C0010_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. ____ dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 08/27/90

GPC Cleanup: (Y/N) N__ pH: _____ Dilution Factor: 1.00____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
108-95-2	Phenol	12	U
111-44-4	bis(2-Chloroethyl)ether	12	U
95-57-8	2-Chlorophenol	12	U
541-73-1	1,3-Dichlorobenzene	12	U
106-46-7	1,4-Dichlorobenzene	12	U
100-51-6	Benzyl alcohol	12	U
95-50-1	1,2-Dichlorobenzene	12	U
95-48-7	2-Methylphenol	12	U
108-60-1	bis(2-Chloroisopropyl)ether	12	U
106-44-5	4-Methylphenol	12	U
621-64-7	N-Nitroso-di-n-propylamine	12	U
67-72-1	Hexachloroethane	12	U
98-95-3	Nitrobenzene	12	U
78-59-1	Isophorone	12	U
88-75-5	2-Nitrophenol	12	U
105-67-9	2,4-Dimethylphenol	12	U
65-85-0	Benzoic Acid	2	J
111-91-1	bis(2-Chloroethoxy)methane	12	U
120-83-2	2,4-Dichlorophenol	12	U
120-82-1	1,2,4-Trichlorobenzene	12	U
91-20-3	Naphthalene	12	U
106-47-8	4-Chloroaniline	12	U
87-68-3	Hexachlorobutadiene	12	U
59-50-7	4-Chloro-3-methylphenol	12	U
91-57-6	2-Methylnaphthalene	12	U
77-47-4	Hexachlorocyclopentadiene	12	U
88-06-2	2,4,6-Trichlorophenol	12	U
95-95-4	2,4,5-Trichlorophenol	58	U
91-58-7	2-Chloronaphthalene	12	U
88-74-4	2-Nitroaniline	58	U
131-11-3	Dimethylphthalate	12	U
208-96-8	Acenaphthylene	12	U
606-20-2	2,6-Dinitrotoluene	12	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T0082003

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) WATER_ Lab Sample ID: 2592-15_____

Sample wt/vol: 860__ (g/mL) ML__ Lab File ID: C0010_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. ____ dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 08/27/90

GPC Cleanup: (Y/N) N__ pH: _____ Dilution Factor: 1.00____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
99-09-2	3-Nitroaniline	58	U
83-32-9	Acenaphthene	12	U
51-28-5	2,4-Dinitrophenol	58	U
100-02-7	4-Nitrophenol	58	U
132-64-9	Dibenzofuran	12	U
121-14-2	2,4-Dinitrotoluene	12	U
84-66-2	Diethylphthalate	12	U
7005-72-3	4-Chlorophenyl-phenylether	12	U
86-73-7	Fluorene	12	U
100-01-6	4-Nitroaniline	58	U
534-52-1	4,6-Dinitro-2-methylphenol	58	U
86-30-6	N-Nitrosodiphenylamine (1)	12	U
101-55-3	4-Bromophenyl-phenylether	12	U
118-74-1	Hexachlorobenzene	12	U
87-86-5	Pentachlorophenol	58	U
85-01-8	Phenanthrene	12	U
120-12-7	Anthracene	12	U
84-74-2	Di-n-butylphthalate	12	U
206-44-0	Fluoranthene	12	U
129-00-0	Pyrene	12	U
85-68-7	Butylbenzylphthalate	12	U
91-94-1	3,3'-Dichlorobenzidine	23	U
56-55-3	Benzo(a)anthracene	12	U
117-81-7	bis(2-Ethylhexyl)phthalate	3	J
218-01-9	Chrysene	12	U
117-84-0	Di-n-octylphthalate	12	U
205-99-2	Benzo(b)fluoranthene	12	U
207-08-9	Benzo(k)fluoranthene	12	U
50-32-8	Benzo(a)pyrene	12	U
193-39-5	Indeno(1,2,3-cd)pyrene	12	U
53-70-3	Dibenz(a,h)anthracene	12	U
191-24-2	Benzo(g,h,i)perylene	12	U

(1) - Cannot be separated from Diphenylamine

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

T0082003

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) WATER_ Lab Sample ID: 2592-15_____

Sample wt/vol: 860__ (g/mL) ML__ Lab File ID: C0010_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. ____ dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 08/27/90

GPC Cleanup: (Y/N) N__ pH: _____ Dilution Factor: 1.00____

Number TICs found: __9

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L_

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNK HYDROXY METHOXY BENZALDE	15.22	21	J
2.	UNKNOWN FATTY ACID	21.62	23	J
3.	UNKNOWN FATTY ACID	21.84	30	J
4. 10544500	MOLECULAR SULFUR (S8)	22.85	30	J
5.	UNKNOWN HYDROCARBON	23.14	14	BJ
6.	UNKNOWN HYDROCARBON	24.92	170	BJ
7.	UNKNOWN HYDROCARBON	25.22	12	BJ
8.	UNKNOWN HYDROCARBON	25.94	9.3	BJ
9.	UNKNOWN HYDROCARBON	28.36	19	BJ

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T0082004

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) WATER_ Lab Sample ID: 2592-16_____

Sample wt/vol: 840__ (g/mL) ML__ Lab File ID: C0011_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. ____ dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 08/27/90

GPC Cleanup: (Y/N) N__ pH: _____ Dilution Factor: 1.00____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
108-95-2	Phenol	12	U
111-44-4	bis(2-Chloroethyl)ether	12	U
95-57-8	2-Chlorophenol	12	U
541-73-1	1,3-Dichlorobenzene	12	U
106-46-7	1,4-Dichlorobenzene	12	U
100-51-6	Benzyl alcohol	12	U
95-50-1	1,2-Dichlorobenzene	12	U
95-48-7	2-Methylphenol	12	U
108-60-1	bis(2-Chloroisopropyl)ether	12	U
106-44-5	4-Methylphenol	12	U
621-64-7	N-Nitroso-di-n-propylamine	12	U
67-72-1	Hexachloroethane	12	U
98-95-3	Nitrobenzene	12	U
78-59-1	Isophorone	12	U
88-75-5	2-Nitrophenol	12	U
105-67-9	2,4-Dimethylphenol	12	U
65-85-0	Benzoic Acid	60	U
111-91-1	bis(2-Chloroethoxy)methane	12	U
120-83-2	2,4-Dichlorophenol	12	U
120-82-1	1,2,4-Trichlorobenzene	12	U
91-20-3	Naphthalene	12	U
106-47-8	4-Chloroaniline	12	U
87-68-3	Hexachlorobutadiene	12	U
59-50-7	4-Chloro-3-methylphenol	12	U
91-57-6	2-Methylnaphthalene	12	U
77-47-4	Hexachlorocyclopentadiene	12	U
88-06-2	2,4,6-Trichlorophenol	12	U
95-95-4	2,4,5-Trichlorophenol	60	U
91-58-7	2-Chloronaphthalene	12	U
88-74-4	2-Nitroaniline	60	U
131-11-3	Dimethylphthalate	12	U
208-96-8	Acenaphthylene	12	U
606-20-2	2,6-Dinitrotoluene	12	U

001380

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T0082004

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) WATER_ Lab Sample ID: 2592-16_____

Sample wt/vol: 840__ (g/mL) ML__ Lab File ID: C0011_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. ____ dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 08/27/90

GPC Cleanup: (Y/N) N__ pH: _____ Dilution Factor: 1.00____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
99-09-2	3-Nitroaniline	60	U
83-32-9	Acenaphthene	12	U
51-28-5	2,4-Dinitrophenol	60	U
100-02-7	4-Nitrophenol	60	U
132-64-9	Dibenzofuran	12	U
121-14-2	2,4-Dinitrotoluene	12	U
84-66-2	Diethylphthalate	12	U
7005-72-3	4-Chlorophenyl-phenylether	12	U
86-73-7	Fluorene	12	U
100-01-6	4-Nitroaniline	60	U
534-52-1	4,6-Dinitro-2-methylphenol	60	U
86-30-6	N-Nitrosodiphenylamine (1)	12	U
101-55-3	4-Bromophenyl-phenylether	12	U
118-74-1	Hexachlorobenzene	12	U
87-86-5	Pentachlorophenol	60	U
85-01-8	Phenanthrene	12	U
120-12-7	Anthracene	12	U
84-74-2	Di-n-butylphthalate	12	U
206-44-0	Fluoranthene	12	U
129-00-0	Pyrene	12	U
85-68-7	Butylbenzylphthalate	12	U
91-94-1	3,3'-Dichlorobenzidine	24	U
56-55-3	Benzo(a)anthracene	12	U
117-81-7	bis(2-Ethylhexyl)phthalate	3	J
218-01-9	Chrysene	12	U
117-84-0	Di-n-octylphthalate	12	U
205-99-2	Benzo(b)fluoranthene	12	U
207-08-9	Benzo(k)fluoranthene	12	U
50-32-8	Benzo(a)pyrene	12	U
193-39-5	Indeno(1,2,3-cd)pyrene	12	U
53-70-3	Dibenz(a,h)anthracene	12	U
191-24-2	Benzo(g,h,i)perylene	12	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

001381

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1F

EPA SAMPLE NO.

T0082004

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) WATER_ Lab Sample ID: 2592-16_____

Sample wt/vol: 840__ (g/mL) ML__ Lab File ID: C0011_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. ____ dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 08/27/90

GPC Cleanup: (Y/N) N__ pH: _____ Dilution Factor: 1.00____

Number TICs found: _16

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L_

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	8.22	26	J
2.	UNKNOWN ALKANE	15.17	9.5	BJ
3.	UNKNOWN FATTY ACID	21.79	12	J
4.	UNKNOWN HYDROCARBON	23.14	14	BJ
5.	UNKNOWN HYDROCARBON	24.92	150	BJ
6.	UNKNOWN	25.21	9.5	BJ
7.	UNKNOWN ALKANE	25.84	200	BJ
8.	UNKNOWN ALKANE	27.47	52	BJ
9.	UNKNOWN ALKANE	28.24	50	J
10.	UNKNOWN HYDROCARBON	28.37	17	BJ
11.	UNKNOWN ALKANE	28.99	45	J
12.	UNKNOWN ALKANE	29.71	38	J
13.	UNKNOWN ALKANE	30.42	31	J
14.	UNKNOWN ALKANE	31.19	24	J
15.	UNKNOWN ALKANE	32.06	17	J
16.	UNKNOWN ALKANE	33.07	12	J

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1b

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T0082005

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) WATER_ Lab Sample ID: 2592-17_____

Sample wt/vol: 930__ (g/mL) ML__ Lab File ID: C0012_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. ____ dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 08/27/90

GPC Cleanup: (Y/N) N__ pH: _____ Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
108-95-2	Phenol	3	J
111-44-4	bis(2-Chloroethyl)ether	11	U
95-57-8	2-Chlorophenol	11	U
541-73-1	1,3-Dichlorobenzene	11	U
106-46-7	1,4-Dichlorobenzene	11	U
100-51-6	Benzyl alcohol	11	U
95-50-1	1,2-Dichlorobenzene	11	U
95-48-7	2-Methylphenol	11	U
108-60-1	bis(2-Chloroisopropyl)ether	11	U
106-44-5	4-Methylphenol	11	U
621-64-7	N-Nitroso-di-n-propylamine	11	U
67-72-1	Hexachloroethane	11	U
98-95-3	Nitrobenzene	11	U
78-59-1	Isophorone	11	U
88-75-5	2-Nitrophenol	11	U
105-67-9	2,4-Dimethylphenol	11	U
65-85-0	Benzoic Acid	54	U
111-91-1	bis(2-Chloroethoxy)methane	11	U
120-83-2	2,4-Dichlorophenol	11	U
120-82-1	1,2,4-Trichlorobenzene	11	U
91-20-3	Naphthalene	11	U
106-47-8	4-Chloroaniline	11	U
87-68-3	Hexachlorobutadiene	11	U
59-50-7	4-Chloro-3-methylphenol	11	U
91-57-6	2-Methylnaphthalene	11	U
77-47-4	Hexachlorocyclopentadiene	11	U
88-06-2	2,4,6-Trichlorophenol	11	U
95-95-4	2,4,5-Trichlorophenol	54	U
91-58-7	2-Chloronaphthalene	11	U
88-74-4	2-Nitroaniline	54	U
131-11-3	Dimethylphthalate	11	U
208-96-8	Acenaphthylene	11	U
606-20-2	2,6-Dinitrotoluene	11	U

001405

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Sample No.: T0082005

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) WATER_ Lab Sample ID: 2592-17_____

Sample wt/vol: 930__ (g/mL) ML__ Lab File ID: C0012_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. ____ dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 08/27/90

GPC Cleanup: (Y/N) N__ pH: _____ Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
99-09-2	3-Nitroaniline	54	U
83-32-9	Acenaphthene	11	U
51-28-5	2,4-Dinitrophenol	54	U
100-02-7	4-Nitrophenol	54	U
132-64-9	Dibenzofuran	11	U
121-14-2	2,4-Dinitrotoluene	11	U
84-66-2	Diethylphthalate	11	U
7005-72-3	4-Chlorophenyl-phenylether	11	U
86-73-7	Fluorene	11	U
100-01-6	4-Nitroaniline	54	U
534-52-1	4,6-Dinitro-2-methylphenol	54	U
86-30-6	N-Nitrosodiphenylamine (1)	11	U
101-55-3	4-Bromophenyl-phenylether	11	U
118-74-1	Hexachlorobenzene	11	U
87-86-5	Pentachlorophenol	54	U
85-01-8	Phenanthrene	11	U
120-12-7	Anthracene	11	U
84-74-2	Di-n-butylphthalate	11	U
206-44-0	Fluoranthene	11	U
129-00-0	Pyrene	11	U
85-68-7	Butylbenzylphthalate	11	U
91-94-1	3,3'-Dichlorobenzidine	22	U
56-55-3	Benzo(a)anthracene	11	U
117-81-7	bis(2-Ethylhexyl)phthalate	13	
218-01-9	Chrysene	11	U
117-84-0	Di-n-octylphthalate	11	U
205-99-2	Benzo(b)fluoranthene	11	U
207-08-9	Benzo(k)fluoranthene	11	U
50-32-8	Benzo(a)pyrene	11	U
193-39-5	Indeno(1,2,3-cd)pyrene	11	U
53-70-3	Dibenz(a,h)anthracene	11	U
191-24-2	Benzo(g,h,i)perylene	11	U

(1) - Cannot be separated from Diphenylamine

001406

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EPA SAMPLE NO.

T0082005

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) WATER_ Lab Sample ID: 2592-17_____

Sample wt/vol: 930__ (g/mL) ML__ Lab File ID: C0012_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. ____ dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 08/27/90

GPC Cleanup: (Y/N) N__ pH: _____ Dilution Factor: 1.0_____

Number TICs found: __9

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	8.17	11	J
2.	UNKNOWN FATTY ACID	21.79	8.6	J
3.	UNKNOWN HYDROCARBON	23.14	17	BJ
4.	UNKNOWN HYDROCARBON	24.92	130	BJ
5.	UNKNOWN	25.22	11	BJ
6.	UNKNOWN ALKANE	25.84	19	BJ
7.	UNKNOWN ALKANE	27.47	17	BJ
8.	UNKNOWN ALKANE	28.24	8.6	J
9.	UNKNOWN HYDROCARBON	28.36	22	BJ

001407

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

T0082011

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) SOIL__ Lab Sample ID: 2592-01_____

Sample wt/vol: _30.0 (g/mL) G___ Lab File ID: C0022_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. __86 dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/28/90

GPC Cleanup: (Y/N) Y__ pH: __8.6 Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	4700	U
111-44-4	bis(2-Chloroethyl)ether	4700	U
95-57-8	2-Chlorophenol	4700	U
541-73-1	1,3-Dichlorobenzene	4700	U
106-46-7	1,4-Dichlorobenzene	4700	U
100-51-6	Benzyl alcohol	4700	U
95-50-1	1,2-Dichlorobenzene	4700	U
95-48-7	2-Methylphenol	4700	U
108-60-1	bis(2-Chloroisopropyl)ether	4700	U
106-44-5	4-Methylphenol	4700	U
621-64-7	N-Nitroso-di-n-propylamine	4700	U
67-72-1	Hexachloroethane	4700	U
98-95-3	Nitrobenzene	4700	U
78-59-1	Isophorone	4700	U
88-75-5	2-Nitrophenol	4700	U
105-67-9	2,4-Dimethylphenol	4700	U
65-85-0	Benzoic Acid	900	J
111-91-1	bis(2-Chloroethoxy)methane	4700	U
120-83-2	2,4-Dichlorophenol	4700	U
120-82-1	1,2,4-Trichlorobenzene	4700	U
91-20-3	Naphthalene	4700	U
106-47-8	4-Chloroaniline	4700	U
87-68-3	Hexachlorobutadiene	4700	U
59-50-7	4-Chloro-3-methylphenol	4700	U
91-57-6	2-Methylnaphthalene	4700	U
77-47-4	Hexachlorocyclopentadiene	4700	U
88-06-2	2,4,6-Trichlorophenol	4700	U
95-95-4	2,4,5-Trichlorophenol	23000	U
91-58-7	2-Chloronaphthalene	4700	U
88-74-4	2-Nitroaniline	23000	U
131-11-3	Dimethylphthalate	4700	U
208-96-8	Acenaphthylene	4700	U
606-20-2	2,6-Dinitrotoluene	4700	U

001017

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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T0082011

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) SOIL__ Lab Sample ID: 2592-01_____

Sample wt/vol: _30.0 (g/mL) G___ Lab File ID: C0022_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. __86 dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/28/90

GPC Cleanup: (Y/N) Y__ pH: __8.6 Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	23000	U
83-32-9	Acenaphthene	4700	U
51-28-5	2,4-Dinitrophenol	23000	U
100-02-7	4-Nitrophenol	23000	U
132-64-9	Dibenzofuran	4700	U
121-14-2	2,4-Dinitrotoluene	4700	U
84-66-2	Diethylphthalate	4700	U
7005-72-3	4-Chlorophenyl-phenylether	4700	U
86-73-7	Fluorene	4700	U
100-01-6	4-Nitroaniline	23000	U
534-52-1	4,6-Dinitro-2-methylphenol	23000	U
86-30-6	N-Nitrosodiphenylamine (1)	4700	U
101-55-3	4-Bromophenyl-phenylether	4700	U
118-74-1	Hexachlorobenzene	4700	U
87-86-5	Pentachlorophenol	23000	U
85-01-8	Phenanthrene	4700	U
120-12-7	Anthracene	4700	U
84-74-2	Di-n-butylphthalate	4700	U
206-44-0	Fluoranthene	4700	U
129-00-0	Pyrene	4700	U
85-68-7	Butylbenzylphthalate	4700	U
91-94-1	3,3'-Dichlorobenzidine	9400	U
56-55-3	Benzo(a)anthracene	4700	U
117-81-7	bis(2-Ethylhexyl)phthalate	4700	U
218-01-9	Chrysene	4700	U
117-84-0	Di-n-octylphthalate	4700	U
205-99-2	Benzo(b)fluoranthene	4700	U
207-08-9	Benzo(k)fluoranthene	4700	U
50-32-8	Benzo(a)pyrene	4700	U
193-39-5	Indeno(1,2,3-cd)pyrene	4700	U
53-70-3	Dibenz(a,h)anthracene	4700	U
191-24-2	Benzo(g,h,i)perylene	4700	U

(1) - Cannot be separated from Diphenylamine

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1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

LAB SAMPLE NO.: T0082011

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) SOIL__ Lab Sample ID: 2592-01_____

Sample wt/vol: _30.0 (g/mL) G___ Lab File ID: C0022_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. __86 dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/28/90

GPC Cleanup: (Y/N) Y__ pH: __8.6 Dilution Factor: 1.0_____

Number TICs found: _11

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 108883	TOLUENE	3.18	2900	J
2.	UNKNOWN	4.80	45000	BJ
3. 123422	DIACETONE ALCOHOL	5.53	620000	ABJ
4.	UNKNOWN KETONE	5.58	12000	BJ
5.	UNKNOWN	6.90	8100	BJ
6.	UNKNOWN	7.23	4800	J
7.	UNKNOWN	7.68	14000	BJ
8.	UNKNOWN	9.02	3800	J
9.	UNKNOWN ALKANE	15.20	2400	BJ
10.	UNKNOWN	29.29	1900	BJ
11.	UNKNOWN	32.39	1900	J

001019

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T0082012

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) SOIL__ Lab Sample ID: 2592-02_____

Sample wt/vol: _30.0 (g/mL) G___ Lab File ID: C0023_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. __87 dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/28/90

GPC Cleanup: (Y/N) Y__ pH: __8.6 Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	5100	U
111-44-4	bis(2-Chloroethyl)ether	5100	U
95-57-8	2-Chlorophenol	5100	U
541-73-1	1,3-Dichlorobenzene	5100	U
106-46-7	1,4-Dichlorobenzene	5100	U
100-51-6	Benzyl alcohol	5100	U
95-50-1	1,2-Dichlorobenzene	5100	U
95-48-7	2-Methylphenol	5100	U
108-60-1	bis(2-Chloroisopropyl)ether	5100	U
106-44-5	4-Methylphenol	5100	U
621-64-7	N-Nitroso-di-n-propylamine	5100	U
67-72-1	Hexachloroethane	5100	U
98-95-3	Nitrobenzene	5100	U
78-59-1	Isophorone	5100	U
88-75-5	2-Nitrophenol	5100	U
105-67-9	2,4-Dimethylphenol	5100	U
65-85-0	Benzoic Acid	840	J
111-91-1	bis(2-Chloroethoxy)methane	5100	U
120-83-2	2,4-Dichlorophenol	5100	U
120-82-1	1,2,4-Trichlorobenzene	5100	U
91-20-3	Naphthalene	5100	U
106-47-8	4-Chloroaniline	5100	U
87-68-3	Hexachlorobutadiene	5100	U
59-50-7	4-Chloro-3-methylphenol	5100	U
91-57-6	2-Methylnaphthalene	5100	U
77-47-4	Hexachlorocyclopentadiene	5100	U
88-06-2	2,4,6-Trichlorophenol	5100	U
95-95-4	2,4,5-Trichlorophenol	25000	U
91-58-7	2-Chloronaphthalene	5100	U
88-74-4	2-Nitroaniline	25000	U
131-11-3	Dimethylphthalate	5100	U
208-96-8	Acenaphthylene	5100	U
606-20-2	2,6-Dinitrotoluene	5100	U

0001037

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T0082012

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) SOIL__ Lab Sample ID: 2592-02_____

Sample wt/vol: _30.0 (g/mL) G___ Lab File ID: C0023_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. __87 dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/28/90

GPC Cleanup: (Y/N) Y__ pH: __8.6 Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	25000	U
83-32-9	Acenaphthene	5100	U
51-28-5	2,4-Dinitrophenol	25000	U
100-02-7	4-Nitrophenol	25000	U
132-64-9	Dibenzofuran	5100	U
121-14-2	2,4-Dinitrotoluene	5100	U
84-66-2	Diethylphthalate	5100	U
7005-72-3	4-Chlorophenyl-phenylether	5100	U
86-73-7	Fluorene	5100	U
100-01-6	4-Nitroaniline	25000	U
534-52-1	4,6-Dinitro-2-methylphenol	25000	U
86-30-6	N-Nitrosodiphenylamine (1)	5100	U
101-55-3	4-Bromophenyl-phenylether	5100	U
118-74-1	Hexachlorobenzene	5100	U
87-86-5	Pentachlorophenol	25000	U
85-01-8	Phenanthrene	5100	U
120-12-7	Anthracene	5100	U
84-74-2	Di-n-butylphthalate	5100	U
206-44-0	Fluoranthene	5100	U
129-00-0	Pyrene	5100	U
85-68-7	Butylbenzylphthalate	5100	U
91-94-1	3,3'-Dichlorobenzidine	10000	U
56-55-3	Benzo(a)anthracene	5100	U
117-81-7	bis(2-Ethylhexyl)phthalate	5100	U
218-01-9	Chrysene	5100	U
117-84-0	Di-n-octylphthalate	5100	U
205-99-2	Benzo(b)fluoranthene	5100	U
207-08-9	Benzo(k)fluoranthene	5100	U
50-32-8	Benzo(a)pyrene	5100	U
193-39-5	Indeno(1,2,3-cd)pyrene	5100	U
53-70-3	Dibenz(a,h)anthracene	5100	U
191-24-2	Benzo(g,h,i)perylene	5100	U

(1) - Cannot be separated from Diphenylamine

001038

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EPA SAMPLE NO.

T0082012

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) SOIL__ Lab Sample ID: 2592-02_____

Sample wt/vol: _30.0 (g/mL) G___ Lab File ID: C0023_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. __87 dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/28/90

GPC Cleanup: (Y/N) Y__ pH: __8.6 Dilution Factor: 1.0_____

Number TICs found: _10

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.73	43000	BJ
2.	UNKNOWN ALKANE	4.83	2600	J
3. 123422	DIACETONE ALCOHOL	5.40	620000	ABJ
4.	UNKNOWN KETONE	5.57	16000	BJ
5.	UNKNOWN	6.88	7700	BJ
6.	UNKNOWN	7.23	6700	J
7.	UNKNOWN	7.67	17000	BJ
8.	UNKNOWN	9.02	4100	J
9.	UNKNOWN ALKANE	15.20	3100	BJ
10.	UNKNOWN	29.29	2100	BJ

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T0082013

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) SOIL__ Lab Sample ID: 2592-03_____

Sample wt/vol: _30.0 (g/mL) G___ Lab File ID: C0024_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. __29 dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/28/90

GPC Cleanup: (Y/N) Y__ pH: __8.4 Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	930	U
111-44-4	bis(2-Chloroethyl)ether	930	U
95-57-8	2-Chlorophenol	930	U
541-73-1	1,3-Dichlorobenzene	930	U
106-46-7	1,4-Dichlorobenzene	930	U
100-51-6	Benzyl alcohol	930	U
95-50-1	1,2-Dichlorobenzene	930	U
95-48-7	2-Methylphenol	930	U
108-60-1	bis(2-Chloroisopropyl)ether	930	U
106-44-5	4-Methylphenol	930	U
621-64-7	N-Nitroso-di-n-propylamine	930	U
67-72-1	Hexachloroethane	930	U
98-95-3	Nitrobenzene	930	U
78-59-1	Isophorone	930	U
88-75-5	2-Nitrophenol	930	U
105-67-9	2,4-Dimethylphenol	930	U
65-85-0	Benzoic Acid	110	J
111-91-1	bis(2-Chloroethoxy)methane	930	U
120-83-2	2,4-Dichlorophenol	930	U
120-82-1	1,2,4-Trichlorobenzene	930	U
91-20-3	Naphthalene	930	U
106-47-8	4-Chloroaniline	930	U
87-68-3	Hexachlorobutadiene	930	U
59-50-7	4-Chloro-3-methylphenol	930	U
91-57-6	2-Methylnaphthalene	930	U
77-47-4	Hexachlorocyclopentadiene	930	U
88-06-2	2,4,6-Trichlorophenol	930	U
95-95-4	2,4,5-Trichlorophenol	4500	U
91-58-7	2-Chloronaphthalene	930	U
88-74-4	2-Nitroaniline	4500	U
131-11-3	Dimethylphthalate	930	U
208-96-8	Acenaphthylene	930	U
606-20-2	2,6-Dinitrotoluene	930	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T0082013

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) SOIL__ Lab Sample ID: 2592-03_____

Sample wt/vol: _30.0 (g/mL) G___ Lab File ID: C0024_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. __29 dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/28/90

GPC Cleanup: (Y/N) Y__ pH: __8.4 Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	4500	U
83-32-9	Acenaphthene	930	U
51-28-5	2,4-Dinitrophenol	4500	U
100-02-7	4-Nitrophenol	4500	U
132-64-9	Dibenzofuran	930	U
121-14-2	2,4-Dinitrotoluene	930	U
84-66-2	Diethylphthalate	930	U
7005-72-3	4-Chlorophenyl-phenylether	930	U
86-73-7	Fluorene	100	J
100-01-6	4-Nitroaniline	4500	U
534-52-1	4,6-Dinitro-2-methylphenol	4500	U
86-30-6	N-Nitrosodiphenylamine (1)	930	U
101-55-3	4-Bromophenyl-phenylether	930	U
118-74-1	Hexachlorobenzene	930	U
87-86-5	Pentachlorophenol	4500	U
85-01-8	Phenanthrene	1300	
120-12-7	Anthracene	170	J
84-74-2	Di-n-butylphthalate	930	U
206-44-0	Fluoranthene	1100	
129-00-0	Pyrene	1700	
85-68-7	Butylbenzylphthalate	930	U
91-94-1	3,3'-Dichlorobenzidine	1900	U
56-55-3	Benzo(a)anthracene	630	J
117-81-7	bis(2-Ethylhexyl)phthalate	930	U
218-01-9	Chrysene	800	J
117-84-0	Di-n-octylphthalate	930	U
205-99-2	Benzo(b)fluoranthene	480	J
207-08-9	Benzo(k)fluoranthene	710	J
50-32-8	Benzo(a)pyrene	560	J
193-39-5	Indeno(1,2,3-cd)pyrene	190	J
53-70-3	Dibenz(a,h)anthracene	930	U
191-24-2	Benzo(g,h,i)perylene	170	J

(1) - Cannot be separated from Diphenylamine

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

T0082013

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) SOIL__ Lab Sample ID: 2592-03_____

Sample wt/vol: _30.0 (g/mL) G___ Lab File ID: C0024_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. __29 dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/28/90

GPC Cleanup: (Y/N) Y__ pH: __8.4 Dilution Factor: 1.0_____

Number TICs found: _21

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.47	2800	BJ
2. 123422	DIACETONE ALCOHOL	5.27	49000	ABJ
3.	UNKNOWN	7.65	1900	BJ
4.	UNKNOWN ALKANE	23.22	1000	J
5.	UNKNOWN	24.59	1200	J
6. 72548	p,p'-DDD	25.02	1100	J
7.	UNKNOWN HYDROCARBON	25.24	1000	J
8.	UNKNOWN	25.61	1000	J
9.	UNKNOWN ALKANE	27.61	940	J
10.	UNKNOWN	28.24	1000	J
11.	UNKNOWN ALKANE	28.39	940	J
12.	UNKNOWN	29.22	1300	J
13.	UNKNOWN	29.52	1900	J
14.	UNKNOWN	29.62	2100	J
15.	UNKNOWN	29.84	4100	J
16.	UNKNOWN	30.79	1300	J
17.	UNKNOWN	30.94	2300	J
18.	UNKNOWN	31.19	1400	J
19.	UNKNOWN	31.32	2400	J
20.	UNKNOWN	32.22	3400	J
21.	UNKNOWN	33.22	1500	J

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T0082013-RE

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) SOIL__ Lab Sample ID: 2592-03RE____

Sample wt/vol: _30.0 (g/mL) G___ Lab File ID: C0066_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. __29 dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/05/90

GPC Cleanup: (Y/N) Y__ pH: __8.4 Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	930	U
111-44-4	bis(2-Chloroethyl)ether	930	U
95-57-8	2-Chlorophenol	930	U
541-73-1	1,3-Dichlorobenzene	930	U
106-46-7	1,4-Dichlorobenzene	930	U
100-51-6	Benzyl alcohol	930	U
95-50-1	1,2-Dichlorobenzene	930	U
95-48-7	2-Methylphenol	930	U
108-60-1	bis(2-Chloroisopropyl)ether	930	U
106-44-5	4-Methylphenol	930	U
621-64-7	N-Nitroso-di-n-propylamine	930	U
67-72-1	Hexachloroethane	930	U
98-95-3	Nitrobenzene	930	U
78-59-1	Isophorone	930	U
88-75-5	2-Nitrophenol	930	U
105-67-9	2,4-Dimethylphenol	930	U
65-85-0	Benzoic Acid	330	J
111-91-1	bis(2-Chloroethoxy)methane	930	U
120-83-2	2,4-Dichlorophenol	930	U
120-82-1	1,2,4-Trichlorobenzene	930	U
91-20-3	Naphthalene	930	U
106-47-8	4-Chloroaniline	930	U
87-68-3	Hexachlorobutadiene	930	U
59-50-7	4-Chloro-3-methylphenol	930	U
91-57-6	2-Methylnaphthalene	930	U
77-47-4	Hexachlorocyclopentadiene	930	U
88-06-2	2,4,6-Trichlorophenol	930	U
95-95-4	2,4,5-Trichlorophenol	4500	U
91-58-7	2-Chloronaphthalene	930	U
88-74-4	2-Nitroaniline	4500	U
131-11-3	Dimethylphthalate	310	J
208-96-8	Acenaphthylene	930	U
606-20-2	2,6-Dinitrotoluene	930	U

FORM I SV-1 1/87 Rev.

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T0082013-RE

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) SOIL__ Lab Sample ID: 2592-03RE____

Sample wt/vol: _30.0 (g/mL) G___ Lab File ID: C0066_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. __29 dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/05/90

GPC Cleanup: (Y/N) Y__ pH: __8.4 Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	4500	U
83-32-9	Acenaphthene	930	U
51-28-5	2,4-Dinitrophenol	4500	U
100-02-7	4-Nitrophenol	4500	U
132-64-9	Dibenzofuran	930	U
121-14-2	2,4-Dinitrotoluene	930	U
84-66-2	Diethylphthalate	930	U
7005-72-3	4-Chlorophenyl-phenylether	930	U
86-73-7	Fluorene	930	U
100-01-6	4-Nitroaniline	4500	U
534-52-1	4,6-Dinitro-2-methylphenol	4500	U
86-30-6	N-Nitrosodiphenylamine (1)	930	U
101-55-3	4-Bromophenyl-phenylether	930	U
118-74-1	Hexachlorobenzene	930	U
87-86-5	Pentachlorophenol	320	J
85-01-8	Phenanthrene	640	J
120-12-7	Anthracene	930	U
84-74-2	Di-n-butylphthalate	930	U
206-44-0	Fluoranthene	1000	
129-00-0	Pyrene	1100	
85-68-7	Butylbenzylphthalate	250	J
91-94-1	3,3'-Dichlorobenzidine	1900	U
56-55-3	Benzo(a)anthracene	530	J
117-81-7	bis(2-Ethylhexyl)phthalate	1700	B
218-01-9	Chrysene	3000	
117-84-0	Di-n-octylphthalate	930	U
205-99-2	Benzo(b)fluoranthene	3000	
207-08-9	Benzo(k)fluoranthene	2300	
50-32-8	Benzo(a)pyrene	450	J
193-39-5	Indeno(1,2,3-cd)pyrene	310	J
53-70-3	Dibenz(a,h)anthracene	930	U
191-24-2	Benzo(g,h,i)perylene	210	J

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Re

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1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

T0082013-RE

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) SOIL__ Lab Sample ID: 2592-03RE____

Sample wt/vol: _30.0 (g/mL) G___ Lab File ID: C0066_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. __29 dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/05/90

GPC Cleanup: (Y/N) Y__ pH: __8.4 Dilution Factor: 1.0_____

Number TICs found: _21

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.07	2600	BJ
2. 123422	DIACETONE ALCOHOL	4.92	45000	ABJ
3.	UNKNOWN	7.35	1600	BJ
4.	UNKNOWN ALKANE	14.94	1100	BJ
5.	UNKNOWN FATTY ACID	21.64	2300	J
6.	UNKNOWN FATTY ACID	23.62	1500	J
7.	UNKNOWN	24.22	2600	J
8.	UNKNOWN ALKANE	27.32	1400	BJ
9.	UNKNOWN	27.92	1700	J
10.	UNKNOWN	29.26	3000	J
11.	UNKNOWN	29.54	3500	J
12.	UNKNOWN ALKANE	29.62	3200	J
13.	UNKNOWN	30.32	2900	J
14.	UNKNOWN	30.84	2900	J
15.	UNKNOWN	30.91	1800	J
16.	UNKNOWN HYDROCARBON	31.07	3500	J
17.	UNKNOWN	31.19	2500	J
18.	UNKNOWN	31.92	10000	J
19.	UNKNOWN	32.87	5700	J
20.	UNKNOWN	33.74	3600	J
21.	UNKNOWN	33.94	2000	J

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T0082014

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) SOIL__ Lab Sample ID: 2592-04_____

Sample wt/vol: _30.0 (g/mL) G___ Lab File ID: C0025_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. __81 dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/28/90

GPC Cleanup: (Y/N) Y__ pH: __8.3 Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	3500	U
111-44-4	bis(2-Chloroethyl)ether	3500	U
95-57-8	2-Chlorophenol	3500	U
541-73-1	1,3-Dichlorobenzene	3500	U
106-46-7	1,4-Dichlorobenzene	3500	U
100-51-6	Benzyl alcohol	3500	U
95-50-1	1,2-Dichlorobenzene	3500	U
95-48-7	2-Methylphenol	3500	U
108-60-1	bis(2-Chloroisopropyl)ether	3500	U
106-44-5	4-Methylphenol	3500	U
621-64-7	N-Nitroso-di-n-propylamine	3500	U
67-72-1	Hexachloroethane	3500	U
98-95-3	Nitrobenzene	3500	U
78-59-1	Isophorone	3500	U
88-75-5	2-Nitrophenol	3500	U
105-67-9	2,4-Dimethylphenol	3500	U
65-85-0	Benzoic Acid	17000	U
111-91-1	bis(2-Chloroethoxy)methane	3500	U
120-83-2	2,4-Dichlorophenol	3500	U
120-82-1	1,2,4-Trichlorobenzene	3500	U
91-20-3	Naphthalene	3500	U
106-47-8	4-Chloroaniline	3500	U
87-68-3	Hexachlorobutadiene	3500	U
59-50-7	4-Chloro-3-methylphenol	3500	U
91-57-6	2-Methylnaphthalene	21000	
77-47-4	Hexachlorocyclopentadiene	3500	U
88-06-2	2,4,6-Trichlorophenol	3500	U
95-95-4	2,4,5-Trichlorophenol	17000	U
91-58-7	2-Chloronaphthalene	3500	U
88-74-4	2-Nitroaniline	17000	U
131-11-3	Dimethylphthalate	3500	U
208-96-8	Acenaphthylene	3500	U
606-20-2	2,6-Dinitrotoluene	3500	U

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EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T0082014

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) SOIL__ Lab Sample ID: 2592-04_____

Sample wt/vol: _30.0 (g/mL) G___ Lab File ID: C0025_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. __81 dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/28/90

GPC Cleanup: (Y/N) Y__ pH: __8.3 Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	17000	U
83-32-9	Acenaphthene	68000	E
51-28-5	2,4-Dinitrophenol	17000	U
100-02-7	4-Nitrophenol	17000	U
132-64-9	Dibenzofuran	21000	
121-14-2	2,4-Dinitrotoluene	3500	U
84-66-2	Diethylphthalate	3500	U
7005-72-3	4-Chlorophenyl-phenylether	3500	U
86-73-7	Fluorene	68000	E
100-01-6	4-Nitroaniline	17000	U
534-52-1	4,6-Dinitro-2-methylphenol	17000	U
86-30-6	N-Nitrosodiphenylamine (1)	3500	U
101-55-3	4-Bromophenyl-phenylether	3500	U
118-74-1	Hexachlorobenzene	3500	U
87-86-5	Pentachlorophenol	5100	J
85-01-8	Phenanthrene	230000	E
120-12-7	Anthracene	47000	
84-74-2	Di-n-butylphthalate	3500	U
206-44-0	Fluoranthene	64000	E
129-00-0	Pyrene	100000	E
85-68-7	Butylbenzylphthalate	3800	
91-94-1	3,3'-Dichlorobenzidine	6900	U
56-55-3	Benzo(a)anthracene	10000	
117-81-7	bis(2-Ethylhexyl)phthalate	98000	BE
218-01-9	Chrysene	4400	
117-84-0	Di-n-octylphthalate	3500	U
205-99-2	Benzo(b)fluoranthene	1700	J
207-08-9	Benzo(k)fluoranthene	1900	J
50-32-8	Benzo(a)pyrene	1300	J
193-39-5	Indeno(1,2,3-cd)pyrene	3500	U
53-70-3	Dibenz(a,h)anthracene	3500	U
191-24-2	Benzo(g,h,i)perylene	3500	U

(1) - Cannot be separated from Diphenylamine

001144

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EPA SAMPLE
T0082014

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) SOIL__ Lab Sample ID: 2592-04_____

Sample wt/vol: _30.0 (g/mL) G___ Lab File ID: C0025_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. __81 dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/28/90

GPC Cleanup: (Y/N) Y__ pH: __8.3 Dilution Factor: 1.0_____

Number TICs found: _21

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 123422	DIACETONE ALCOHOL	5.32	160000	ABJ
2.	UNKNOWN ALKANE	9.34	110000	J
3.	UNKNOWN ALKANE	15.35	88000	J
4.	UNK DIMETHYL NAPHTHALENE ISO	15.49	56000	J
5.	UNK DIMETHYL NAPHTHALENE ISO	15.75	91000	J
6.	UNK DIMETHYL NAPHTHALENE ISO	15.99	56000	J
7.	UNKNOWN HYDROCARBON	16.15	49000	J
8.	UNK TRIMETHYL NAPHTHALENE IS	17.44	74000	J
9.	UNK TRIMETHYL NAPHTHALENE IS	17.62	63000	J
10. 132650	Dibenzothiophene (8CI9CI)	19.92	56000	J
11.	UNKNOWN AROMATIC HYDROCARBON	21.47	54000	J
12.	UNKNOWN AROMATIC HYDROCARBON	21.80	74000	J
13.	UNKNOWN ALKANE	22.27	62000	J
14.	UNKNOWN ALKANE	25.14	270000	J
15.	UNKNOWN ALKANE	26.04	290000	J
16.	UNKNOWN HYDROCARBON	27.02	62000	J
17.	UNKNOWN ALKANE	27.67	200000	J
18.	UNKNOWN ALKANE	28.44	170000	J
19.	UNKNOWN ALKANE	29.17	120000	J
20.	UNKNOWN ALKANE	29.84	81000	J
21.	UNKNOWN ALKANE	30.52	53000	J

001145

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T0082014-RE

Lab Name: PNELI Contract: TAYLOR_WAY

Lab Code: PNELI Case No.: 2592 SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) SOIL Lab Sample ID: 2592-04RE

Sample wt/vol: 30.0 (g/mL) G Lab File ID: C0067

Level: (low/med) LOW Date Received: 08/17/90

% Moisture: not dec. 81 dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/05/90

GPC Cleanup: (Y/N) Y pH: 8.3 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	3500	U
111-44-4	bis(2-Chloroethyl)ether	3500	U
95-57-8	2-Chlorophenol	3500	U
541-73-1	1,3-Dichlorobenzene	3500	U
106-46-7	1,4-Dichlorobenzene	3500	U
100-51-6	Benzyl alcohol	3500	U
95-50-1	1,2-Dichlorobenzene	3500	U
95-48-7	2-Methylphenol	3500	U
108-60-1	bis(2-Chloroisopropyl)ether	3500	U
106-44-5	4-Methylphenol	3500	U
621-64-7	N-Nitroso-di-n-propylamine	3500	U
67-72-1	Hexachloroethane	3500	U
98-95-3	Nitrobenzene	3500	U
78-59-1	Isophorone	3500	U
88-75-5	2-Nitrophenol	3500	U
105-67-9	2,4-Dimethylphenol	3500	U
65-85-0	Benzoic Acid	17000	U
111-91-1	bis(2-Chloroethoxy)methane	3500	U
120-83-2	2,4-Dichlorophenol	3500	U
120-82-1	1,2,4-Trichlorobenzene	3500	U
91-20-3	Naphthalene	3500	U
106-47-8	4-Chloroaniline	3500	U
87-68-3	Hexachlorobutadiene	3500	U
59-50-7	4-Chloro-3-methylphenol	3500	U
91-57-6	2-Methylnaphthalene	16000	
77-47-4	Hexachlorocyclopentadiene	3500	U
88-06-2	2,4,6-Trichlorophenol	3500	U
95-95-4	2,4,5-Trichlorophenol	17000	U
91-58-7	2-Chloronaphthalene	3500	U
88-74-4	2-Nitroaniline	17000	U
131-11-3	Dimethylphthalate	3500	U
208-96-8	Acenaphthylene	3500	U
606-20-2	2,6-Dinitrotoluene	3500	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T0082014-RE

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) SOIL__ Lab Sample ID: 2592-04RE____

Sample wt/vol: _30.0 (g/mL) G___ Lab File ID: C0067_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. __81 dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/05/90

GPC Cleanup: (Y/N) Y__ pH: __8.3 Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	17000	U
83-32-9	Acenaphthene	78000	E
51-28-5	2,4-Dinitrophenol	17000	U
100-02-7	4-Nitrophenol	17000	U
132-64-9	Dibenzofuran	19000	
121-14-2	2,4-Dinitrotoluene	3500	U
84-66-2	Diethylphthalate	3500	U
7005-72-3	4-Chlorophenyl-phenylether	3500	U
86-73-7	Fluorene	78000	E
100-01-6	4-Nitroaniline	17000	U
534-52-1	4,6-Dinitro-2-methylphenol	17000	U
86-30-6	N-Nitrosodiphenylamine (1)	3500	U
101-55-3	4-Bromophenyl-phenylether	3500	U
118-74-1	Hexachlorobenzene	3500	U
87-86-5	Pentachlorophenol	5900	J
85-01-8	Phenanthrene	250000	E
120-12-7	Anthracene	41000	
84-74-2	Di-n-butylphthalate	3500	U
206-44-0	Fluoranthene	68000	E
129-00-0	Pyrene	74000	E
85-68-7	Butylbenzylphthalate	2600	J
91-94-1	3,3'-Dichlorobenzidine	6900	U
56-55-3	Benzo(a)anthracene	8700	
117-81-7	bis(2-Ethylhexyl)phthalate	75000	BE
218-01-9	Chrysene	5600	
117-84-0	Di-n-octylphthalate	3500	U
205-99-2	Benzo(b)fluoranthene	2100	J
207-08-9	Benzo(k)fluoranthene	1500	J
50-32-8	Benzo(a)pyrene	1400	J
193-39-5	Indeno(1,2,3-cd)pyrene	370	J
53-70-3	Dibenz(a,h)anthracene	410	J
191-24-2	Benzo(g,h,i)perylene	3500	U

(1) - Cannot be separated from Diphenylamine

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1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

T0082014-RE

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) SOIL__ Lab Sample ID: 2592-04RE____

Sample wt/vol: _30.0 (g/mL) G___ Lab File ID: C0067_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. __81 dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/05/90

GPC Cleanup: (Y/N) Y__ pH: __8.3 Dilution Factor: 1.0_____

Number TICs found: _21

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 123422	DIACETONE ALCOHOL	4.97	170000	ABJ
2.	UNKNOWN ALKANE	9.09	130000	J
3.	UNKNOWN ALKANE	9.37	85000	J
4.	UNKNOWN HYDROCARBON	9.59	55000	J
5.	UNKNOWN ALKANE	15.10	95000	J
6.	UNK DIMETHYL NAPHTHALENE ISO	15.24	70000	J
7.	UNK DIMETHYL NAPHTHALENE ISO	15.45	81000	J
8.	UNK DIMETHYL NAPHTHALENE ISO	15.72	67000	J
9.	UNK TRIMETHYL NAPHTHALENE IS	17.34	53000	J
10.	UNKNOWN ALKANE	18.84	58000	J
11. 132650	Dibenzothiophene (8CI9CI)	19.64	55000	J
12.	UNK AROMATIC HYDROCARBON mw	21.19	67000	J
13.	UNKNOWN ALKANE	23.05	68000	J
14.	UNKNOWN ALKANE	24.90	260000	J
15.	UNKNOWN ALKANE	25.82	190000	J
16.	UNKNOWN	26.76	45000	J
17.	UNKNOWN ALKANE	27.42	200000	J
18.	UNKNOWN ALKANE	28.17	150000	J
19.	UNKNOWN ALKANE	28.92	110000	J
20.	UNKNOWN ALKANE	29.59	68000	J
21.	UNKNOWN ALKANE	30.24	46000	J

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T0082015

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) SOIL__ Lab Sample ID: 2592-05_____

Sample wt/vol: _30.0 (g/mL) G___ Lab File ID: C0026_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. ___1 dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/28/90

GPC Cleanup: (Y/N) Y__ pH: __6.3 Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	670	U
111-44-4	bis(2-Chloroethyl)ether	670	U
95-57-8	2-Chlorophenol	670	U
541-73-1	1,3-Dichlorobenzene	670	U
106-46-7	1,4-Dichlorobenzene	670	U
100-51-6	Benzyl alcohol	670	U
95-50-1	1,2-Dichlorobenzene	670	U
95-48-7	2-Methylphenol	670	U
108-60-1	bis(2-Chloroisopropyl)ether	670	U
106-44-5	4-Methylphenol	670	U
621-64-7	N-Nitroso-di-n-propylamine	670	U
67-72-1	Hexachloroethane	670	U
98-95-3	Nitrobenzene	670	U
78-59-1	Isophorone	670	U
88-75-5	2-Nitrophenol	670	U
105-67-9	2,4-Dimethylphenol	670	U
65-85-0	Benzoic Acid	160	J
111-91-1	bis(2-Chloroethoxy)methane	670	U
120-83-2	2,4-Dichlorophenol	670	U
120-82-1	1,2,4-Trichlorobenzene	670	U
91-20-3	Naphthalene	670	U
106-47-8	4-Chloroaniline	670	U
87-68-3	Hexachlorobutadiene	670	U
59-50-7	4-Chloro-3-methylphenol	670	U
91-57-6	2-Methylnaphthalene	670	U
77-47-4	Hexachlorocyclopentadiene	670	U
88-06-2	2,4,6-Trichlorophenol	670	U
95-95-4	2,4,5-Trichlorophenol	3200	U
91-58-7	2-Chloronaphthalene	670	U
88-74-4	2-Nitroaniline	3200	U
131-11-3	Dimethylphthalate	240	J
208-96-8	Acenaphthylene	670	U
606-20-2	2,6-Dinitrotoluene	670	U

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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T0082015

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) SOIL__ Lab Sample ID: 2592-05_____

Sample wt/vol: _30.0 (g/mL) G___ Lab File ID: C0026_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. ___1 dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/28/90

GPC Cleanup: (Y/N) Y__ pH: __6.3 Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3200	U
83-32-9	Acenaphthene	670	U
51-28-5	2,4-Dinitrophenol	3200	U
100-02-7	4-Nitrophenol	3200	U
132-64-9	Dibenzofuran	670	U
121-14-2	2,4-Dinitrotoluene	670	U
84-66-2	Diethylphthalate	670	U
7005-72-3	4-Chlorophenyl-phenylether	670	U
86-73-7	Fluorene	670	U
100-01-6	4-Nitroaniline	3200	U
534-52-1	4,6-Dinitro-2-methylphenol	3200	U
86-30-6	N-Nitrosodiphenylamine (1)	670	U
101-55-3	4-Bromophenyl-phenylether	670	U
118-74-1	Hexachlorobenzene	670	U
87-86-5	Pentachlorophenol	210	J
85-01-8	Phenanthrene	450	J
120-12-7	Anthracene	670	U
84-74-2	Di-n-butylphthalate	670	U
206-44-0	Fluoranthene	730	J
129-00-0	Pyrene	1100	J
85-68-7	Butylbenzylphthalate	320	J
91-94-1	3,3'-Dichlorobenzidine	1300	U
56-55-3	Benzo(a)anthracene	350	J
117-81-7	bis(2-Ethylhexyl)phthalate	1600	B
218-01-9	Chrysene	2200	J
117-84-0	Di-n-octylphthalate	670	U
205-99-2	Benzo(b)fluoranthene	2500	J
207-08-9	Benzo(k)fluoranthene	1000	J
50-32-8	Benzo(a)pyrene	1200	J
193-39-5	Indeno(1,2,3-cd)pyrene	200	J
53-70-3	Dibenz(a,h)anthracene	670	U
191-24-2	Benzo(g,h,i)perylene	180	J

(1) - Cannot be separated from Diphenylamine

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1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

T0082015

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: T00820

Matrix: (soil/water) SOIL__ Lab Sample ID: 2592-05_____

Sample wt/vol: _30.0 (g/mL) G___ Lab File ID: C0026_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. ___1 dec. ____ Date Extracted: 08/21/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/28/90

GPC Cleanup: (Y/N) Y__ pH: __6.3 Dilution Factor: 1.0_____

Number TICs found: _21

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.52	2200	BJ
2. 123422	DIACETONE ALCOHOL	5.28	37000	ABJ
3.	UNKNOWN KETONE	5.50	740	BJ
4.	UNKNOWN	7.63	1100	BJ
5.	UNKNOWN ALKANE	15.22	540	BJ
6.	UNKNOWN	15.29	470	J
7.	UNKNOWN FATTY ACID	21.90	1500	J
8.	UNKNOWN FATTY ACID	23.87	670	J
9.	UNKNOWN HYDROCARBON	25.14	610	J
10.	UNKNOWN	25.77	880	J
11.	UNKNOWN	27.59	1200	J
12.	UNKNOWN	28.22	740	J
13.	UNKNOWN ALKANE	28.37	1000	J
14.	UNKNOWN	29.52	2200	J
15.	UNKNOWN	30.77	1800	J
16.	UNKNOWN	30.94	2200	J
17.	UNKNOWN	31.09	2200	J
18.	UNKNOWN	31.31	3100	J
19.	UNKNOWN	31.47	5800	J
20.	UNKNOWN	32.22	4600	J
21.	UNKNOWN	33.21	2300	J

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MEMORANDUM

DATE: October 9, 1990

TO: Jon Bagby, Chemist, E & E, Seattle, WA

FROM: Robert Stone, Environmental Scientist, E & E, Seattle, WA RS

THRU: David Byers, Chemist, E & E, Seattle, WA DRB

SUBJ: **Inorganic Data Quality Assurance Review, Taylor Way Drums, Tacoma, Washington**

REF: TDD: T10-9008-003
PAN: TWA-0645-AAA

The data quality assurance review of 5 soil samples and 5 water samples collected from the Taylor Way Drum site in Tacoma, Washington has been completed. Priority Pollutant Metals analyses were performed by Pacific Northwest Environmental Laboratory Inc., Redmond, Washington.

The soil samples were numbered: T0082016 through T0082020

The water samples were numbered: T0082006 through T0082010

Data Qualifications:

I Sample Holding Time: Acceptable.

The samples were analyzed within 28 days from date of collection for mercury, and 6 months for all other elements.

II Calibration

A. Initial Calibration and Calibration Verification: Acceptable.

All initial calibration verification results were within the control limits of 80-120% for mercury and 90-110% for all other analytes. All initial calibration blank analyses were below the contract required detection limit (CRDL).

B. Continuing Calibration: Acceptable.

All continuing calibration verification results were within the control limits of 80-120% for mercury and 90-110% for all other analytes.

III Blanks: Acceptable.

There were no contaminants found in the preparation blank above the CRDL.

IV Interference Check Sample Analysis: Acceptable.

The lab analyzed an ICS obtained from an independent EPA approved laboratory. All percent recoveries were within the accepted range (80-120%).

V Laboratory Control Sample Analysis: Acceptable.

The laboratory control sample results were within the acceptable limits.

VI Specific Sample Results

A. Duplicate Sample Analysis: Acceptable.

The lab analyzed soil sample T0082020 for mercury, and water samples T0082006 and T0082007 for mercury in duplicate. The relative percent difference (RPD) results for all analytes were within the control limit of ±20% for water and ±35% for soil samples. The duplicate soil analysis for lead and silver had calculation and transcription errors. The lab flagged sample results which should not have been flagged. Mercury in water had the same calculation and transcription error.

B. Spike Sample Analysis:

The lab spiked soil sample numbered T0082020 for mercury, and water samples T0082006 and T0082007 for mercury. The percent recoveries were all within the control limits of 75-125%, with the following exceptions summarized below in Table 1.

Table 1
Matrix Spike Recovery

Analyte	Percent Recovery
Soil	
Antimony	45.9%
Cadmium	47.8%
Chromium	59.5%
Selenium	0.0%
Water	
Selenium	0.0%
Thallium	59.8%

All analytes in all associated samples of the same matrix are flagged (J) as estimated.

VII Furnace AA QA/QC:

A. Duplicate injection:

Duplicate injections were performed on all determinations for GFAA. The relative standard deviation (RSD) for all duplicate injections were under ± 20% for values greater than the CRDL.

B. Analytical spike:

Analytical spikes were performed on all samples including the preparation blank and LCS. All spike concentrations were at least 2 times the CRDL and spike recoveries were all within the control limits of 85-115%, with the following exceptions summarized below in Table 2.

Table 2
Analytical Spike Recovery

Analyte	Sample number	Recovery
Soil		
Thallium	T0082016	127%
	T0082017	122%
	T0082020	133%
Selenium	T0082017	69.5%
	T0082018	15.2%
	T0082019	43.9%
	T0082020	43.9%

Table 2 (cont.)

Water			
	Thallium	T0082006	55.1%
		T0082007	47.4%
		T0082008	57.3%
		T0082009	65.8%
	Selenium	T0082007	60.7%
		T0082009	55.3%

Samples with spike recovery that are not within the 85-115% control limits are flagged (J) estimated.

VII ICP Serial Dilution:

The lab diluted soil sample numbered T0082020 and water sample T0082006. The percent difference (%D) for all analytes were within the criteria of less than 10%, with the exception of zinc for the soil analysis. All associated data of the same matrix are flagged (J) estimated.

VIII Field and other QC: Acceptable.

A field blank sample numbered T0082010 for waters was submitted to the lab and all results were below the CRDL.

VII Overall Assessment of Data for Use

The overall usefulness of the data is based on the criteria outlined in "Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses".

Based upon the information provided, the data are acceptable for use with the above stated data qualifications.

Data Qualifiers and Definitions

J - The associated numerical value is an estimated quantity because the reported concentrations were less than the contract required detection limits or quality control criteria were not met.

U - The material was analyzed for but was not detected. The associated numerical value is the estimated sample quantitation limit.

UJ - The material was analyzed for, but was not detected. The associated quantitation limit is an estimate.

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Z59206

Lab Name: PACIFIC NW ENV LABORATORY Contract:

Lab Code: PNEL Case No.: SAS No.: SDG No.: PN2592

Matrix (soil/water): SOIL Lab Sample ID: 2592-06

Level (low/med): MED Date Received: 08/17/90

% Solids: 15.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum				NR	
7440-36-0	Antimony	178		N	P	J RS
7440-38-2	Arsenic	1920			F	
7440-39-3	Barium				NR	
7440-41-7	Beryllium	1.2	U		P	
7440-43-9	Cadmium	16.0		N	P	J RS
7440-70-2	Calcium				NR	
7440-47-3	Chromium	11.7	U	N	P	J RS
7440-48-4	Cobalt				NR	
7440-50-8	Copper	23.4	B		P	
7439-89-6	Iron				NR	
7439-92-1	Lead	1290		*	P	
7439-95-4	Magnesium				NR	
7439-96-5	Manganese				NR	
7439-97-6	Mercury	2.8			CV	
7440-02-0	Nickel	23.4	U		P	
7440-09-7	Potassium				NR	
7782-49-2	Selenium	2.5	U	N	F	J RS
7440-22-4	Silver	11.7	U	*	P	
7440-23-5	Sodium				NR	
7440-28-0	Thallium	1.7	U	W	F	J RS
7440-62-2	Vanadium				NR	
7440-66-6	Zinc	196		E	P	J RS
	Cyanide				NR	

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: Artifacts: YES

Comments:

BECAUSE OF SOFTWARE LIMITATIONS,THE CLIENT'S SAMPLE ID COULD NOT BE ENTERED AT THE TOP OF THIS FORM. THE CORRESPONDING CLIENT'S SAMPLE ID IS T0082016

005002

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Z59207

Lab Name: PACIFIC NW ENV LABORATORY Contract:

Lab Code: PNEL Case No.: SAS No.: SDG No.: PN2592

Matrix (soil/water): SOIL Lab Sample ID: 2592-07

Level (low/med): MED Date Received: 08/17/90

% Solids: 14.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum				NR	
7440-36-0	Antimony	156		N	P	J RS
7440-38-2	Arsenic	3980			F	
7440-39-3	Barium				NR	
7440-41-7	Beryllium	1.5	U		P	
7440-43-9	Cadmium	14.2		N	P	J RS
7440-70-2	Calcium				NR	
7440-47-3	Chromium	14.7	U	N	P	J RS
7440-48-4	Cobalt				NR	
7440-50-8	Copper	36.5	B		P	
7439-89-6	Iron				NR	
7439-92-1	Lead	2970		*	P	
7439-95-4	Magnesium				NR	
7439-96-5	Manganese				NR	
7439-97-6	Mercury	4.4			CV	
7440-02-0	Nickel	29.3	U		P	
7440-09-7	Potassium				NR	
7782-49-2	Selenium	3.6	U	NW	F	J RS
7440-22-4	Silver	14.7	U	*	P	
7440-23-5	Sodium				NR	
7440-28-0	Thallium	2.4	U	W	F	J RS
7440-62-2	Vanadium				NR	
7440-66-6	Zinc	748		E	P	J RS.
	Cyanide				NR	

lor Before: BROWN Clarity Before: Texture: COARSE

lor After: YELLOW Clarity After: Artifacts: YES

mments:

BECAUSE OF SOFTWARE LIMITATIONS,THE CLIENT'S SAMPLE ID COULD NOT BE ENTERED AT THE TOP OF THIS FORM. THE CORRESPONDING CLIENT'S SAMPLE ID IS T0082017

005003

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Z59208

Lab Name: PACIFIC NW ENV LABORATORY Contract:

Lab Code: PNEL Case No.: SAS No.: SDG No.: PN2592

Matrix (soil/water): SOIL Lab Sample ID: 2592-08

Level (low/med): MED Date Received: 08/17/90

% Solids: 67.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum				NR	
7440-36-0	Antimony	838		N	P	J RS.
7440-38-2	Arsenic	59900			F	
7440-39-3	Barium				NR	
7440-41-7	Beryllium	0.26	U		P	
7440-43-9	Cadmium	647		N	P	J RS.
7440-70-2	Calcium				NR	
7440-47-3	Chromium	5.0		N	P	J RS
7440-48-4	Cobalt				NR	
7440-50-8	Copper	1640			P	
7439-89-6	Iron				NR	
7439-92-1	Lead	257000		*	P	
7439-95-4	Magnesium				NR	
7439-96-5	Manganese				NR	
7439-97-6	Mercury	39.0			CV	
7440-02-0	Nickel	14.0			P	
7440-09-7	Potassium				NR	
7782-49-2	Selenium	2.9	B	EN	F	J RS
7440-22-4	Silver	109		*	P	
7440-23-5	Sodium				NR	
7440-28-0	Thallium	14.3			F	
7440-62-2	Vanadium				NR	
7440-66-6	Zinc	640		E	P	J RS
	Cyanide				NR	

Color Before: WHITE Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts: YES

Comments:

BECAUSE OF SOFTWARE LIMITATIONS,THE CLIENT'S SAMPLE ID COULD NOT BE ENTERED AT THE TOP OF THIS FORM. THE CORRESPONDING CLIENT'S SAMPLE ID IS T0082018

005004

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

259209

Lab Name: PACIFIC NW ENV LABORATORY Contract:

Lab Code: PNEL Case No.: SAS No.: SDG No.: PN2592

Matrix (soil/water): SOIL Lab Sample ID: 2592-09

Level (low/med): MED Date Received: 08/17/90

% Solids: 19.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum				NR	
7440-36-0	Antimony	42.3	U	N	P	J RS
7440-38-2	Arsenic	4940	B		F	
7440-39-3	Barium				NR	
7440-41-7	Beryllium	1.5	B		P	
7440-43-9	Cadmium	41.0		N	P	J RS
7440-70-2	Calcium				NR	
7440-47-3	Chromium	18.5		N	P	J RS.
7440-48-4	Cobalt				NR	
7440-50-8	Copper	97.0			P	
7439-89-6	Iron				NR	
7439-92-1	Lead	5200		*	P	
7439-95-4	Magnesium				NR	
7439-96-5	Manganese				NR	
7439-97-6	Mercury	10.4			CV	
7440-02-0	Nickel	45.7			P	
7440-09-7	Potassium				NR	
7782-49-2	Selenium	3.2	U	NW	F	J RS.
7440-22-4	Silver	10.6	U	*	P	
7440-23-5	Sodium				NR	
7440-28-0	Thallium	2.1	U		F	
7440-62-2	Vanadium				NR	
7440-66-6	Zinc	826		E	P	J R.S
	Cyanide				NR	

lor Before: BROWN Clarity Before: Texture: MEDIUM

lor After: YELLOW Clarity After: Artifacts: YES

nments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Z59210

Lab Name: PACIFIC NW ENV LABORATORY Contract:

Lab Code: PNEL Case No.: SAS No.: SDG No.: PN2592

Matrix (soil/water): SOIL Lab Sample ID: 2592-10

Level (low/med): MED Date Received: 08/17/90

% Solids: 98.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum					
7440-36-0	Antimony				NR	
7440-38-2	Arsenic	44.3		N	P	J R.S.
7440-39-3	Barium	97.7			F	
7440-41-7	Beryllium				NR	
7440-43-9	Cadmium	0.83	B		P	
7440-70-2	Calcium	0.98	U	N	P	J R.S
7440-47-3	Chromium				NR	
7440-48-4	Cobalt	57.7		N	P	J R.S
7440-50-8	Copper				NR	
7439-89-6	Iron	130			P	
7439-92-1	Lead				NR	
7439-95-4	Magnesium	370		*	P	
7439-96-5	Manganese				NR	
7439-97-6	Mercury				NR	
7440-02-0	Nickel	0.10	U		CV	
7440-09-7	Potassium	43.6			P	
7782-49-2	Selenium				NR	
7440-22-4	Silver	0.57	U	NW	F	J R.S
7440-23-5	Sodium	2.0	U	*	P	
7440-28-0	Thallium				NR	
7440-62-2	Vanadium	0.33	U	W	F	J R.S.
7440-66-6	Zinc				NR	
	Cyanide	634		E	P	J R.S.
					NR	

lor Before: BROWN Clarity Before: Texture: FINE

lor After: YELLOW Clarity After: Artifacts: YES

mments:

BECAUSE OF SOFTWARE LIMITATIONS,THE CLIENT'S SAMPLE ID COULD NOT BE ENTERED AT THE TOP OF THIS FORM. THE CORRESPONDING CLIENT'S SAMPLE ID IS T0082020

005006

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Z59218

Lab Name: PACIFIC NW ENV LABORATORY Contract:

Lab Code: PNEL Case No.: SAS No.: SDG No.: PN2592

Matrix (soil/water): WATER Lab Sample ID: 2592-18

Level (low/med): MED Date Received: 08/17/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				NR
7440-38-2	Arsenic	527			P
7440-39-3	Barium	171000			F
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	809			P
7440-47-3	Chromium				NR
7440-48-4	Cobalt	10.0	U		P
7440-50-8	Copper				NR
7439-89-6	Iron	362			P
7439-92-1	Lead				NR
7439-95-4	Magnesium	3250			P
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel	29.5		*	CV
7440-09-7	Potassium	20.0	U		P
7782-49-2	Selenium				NR
7440-22-4	Silver	15.0	U	N	F
7440-23-5	Sodium	10.0	U		P
7440-28-0	Thallium				NR
7440-62-2	Vanadium	2.0	U	NW	F
7440-66-6	Zinc				NR
	Cyanide	92.2			P
					NR

J R.S.

J R.S

lor Before: BROWN Clarity Before: CLOUDY Texture:

lor After: YELLOW Clarity After: CLEAR Artifacts:

mments:

BECAUSE OF SOFTWARE LIMITATIONS,THE CLIENT'S SAMPLE ID COULD NOT BE ENTERED AT THE TOP OF THIS FORM. THE CORRESPONDING CLIENT'S SAMPLE ID IS T0082006

005007

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

259219

Lab Name: PACIFIC NW ENV LABORATORY Contract:

Lab Code: PNEL Case No.: SAS No.: SDG No.: PN2592

Matrix (soil/water): WATER Lab Sample ID: 2592-19

Level (low/med): MED Date Received: 08/17/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony	1290			NR
7440-38-2	Arsenic	22000Q			P
7440-39-3	Barium				F
7440-41-7	Beryllium	1.0	U		NR
7440-43-9	Cadmium	1010			P
7440-70-2	Calcium				P
7440-47-3	Chromium	10.0	U		NR
7440-48-4	Cobalt				P
7440-50-8	Copper	137			NR
7439-89-6	Iron				P
7439-92-1	Lead	23100			NR
7439-95-4	Magnesium				P
7439-96-5	Manganese				NR
7439-97-6	Mercury	70.4		*	NR
7440-02-0	Nickel	25.3	B		P
7440-09-7	Potassium				NR
7782-49-2	Selenium	15.0	U	NW	F
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium	2.0	U	NW	F
7440-62-2	Vanadium				NR
7440-66-6	Zinc	314			P
	Cyanide				NR

J R.S.

J R.S.

lor Before: BROWN Clarity Before: CLOUDY Texture:

lor After: YELLOW Clarity After: CLEAR Artifacts:

nments:

BECAUSE OF SOFTWARE LIMITATIONS,THE CLIENT'S SAMPLE ID COULD NOT BE ENTERED AT THE TOP OF THIS FORM. THE CORRESPONDING CLIENT'S SAMPLE ID IS T0082007

005008

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Z59220

Lab Name: PACIFIC NW ENV LABORATORY Contract:

Lab Code: PNEL Case No.: SAS No.: SDG No.: PN2592

Matrix (soil/water): WATER Lab Sample ID: 2592-20

Level (low/med): MED Date Received: 08/17/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	2240			P
7440-38-2	Arsenic	248000			F
7440-39-3	Barium				NR
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	1120			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	15.8			P
7440-48-4	Cobalt				NR
7440-50-8	Copper	374			P
7439-89-6	Iron				NR
7439-92-1	Lead	88500			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	153		*	CV
7440-02-0	Nickel	41.2			P
7440-09-7	Potassium				NR
7782-49-2	Selenium	15.0	U	N	F J R.S.
7440-22-4	Silver	13.4			P
7440-23-5	Sodium				NR
7440-28-0	Thallium	2.0	U	NW	F J R.S.
7440-62-2	Vanadium				NR
7440-66-6	Zinc	1310			P
	Cyanide				NR

olor Before: BROWN Clarity Before: CLOUDY Texture:

olor After: YELLOW Clarity After: CLEAR Artifacts:

omments:

BECAUSE OF SOFTWARE LIMITATIONS,THE CLIENT'S SAMPLE ID COULD NOT BE ENTERED AT THE TOP OF THIS FORM. THE CORRESPONDING CLIENT'S SAMPLE ID IS-T0082008

005009

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Z59221

Lab Name: PACIFIC NW ENV LABORATORY Contract:

Lab Code: PNEL Case No.: SAS No.: SDG No.: PN2592

Matrix (soil/water): WATER Lab Sample ID: 2592-21

Level (low/med): MED Date Received: 08/17/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony	40.0	U		NR
7440-38-2	Arsenic	972			P
7440-39-3	Barium				F
7440-41-7	Beryllium	1.0	U		NR
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium				P
7440-47-3	Chromium	10.0	U		NR
7440-48-4	Cobalt				P
7440-50-8	Copper	5.0	U		NR
7439-89-6	Iron				P
7439-92-1	Lead	44.2			NR
7439-95-4	Magnesium				F
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.20	U	*	NR
7440-02-0	Nickel	20.0	U		CV
7440-09-7	Potassium				P
7782-49-2	Selenium	3.0	U	NW	NR
7440-22-4	Silver	10.0	U		F J 12.5.
7440-23-5	Sodium				P
7440-28-0	Thallium	2.0	U	NW	NR
7440-62-2	Vanadium				F J 12.5.
7440-66-6	Zinc	21.7			NR
	Cyanide				P
					NR

lor Before: COLORLESS Clarity Before: CLEAR Texture:

lor After: COLORLESS Clarity After: CLEAR Artifacts:

mments:

BECAUSE OF SOFTWARE LIMITATIONS,THE CLIENT'S SAMPLE ID COULD NOT BE ENTERED AT THE TOP OF THIS FORM. THE CORRESPONDING CLIENT'S SAMPLE ID IS T0082009

005010

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Z59222

Lab Name: PACIFIC NW ENV LABORATORY Contract:

Lab Code: PNEL Case No.: SAS No.: SDG No.: PN2592

Matrix (soil/water): WATER Lab Sample ID: 2592-22

Level (low/med): LOW Date Received: 08/17/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	4.7	B		F
7440-39-3	Barium				NR
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper	5.0	U		P
7439-89-6	Iron				NR
7439-92-1	Lead	3.0	U		F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.20	U	*	CV
7440-02-0	Nickel	20.0	U		P
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.0	U	N	F J R.S.
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium	2.0	U	N	F J R.S.
7440-62-2	Vanadium				NR
7440-66-6	Zinc	15.7	B		P
	Cyanide				NR

lor Before: COLORLESS Clarity Before: CLEAR Texture:

lor After: COLORLESS Clarity After: CLEAR Artifacts:

nments:

BECAUSE OF SOFTWARE LIMITATIONS,THE CLIENT'S SAMPLE ID COULD NOT BE ENTERED AT THE TOP OF THIS FORM. THE CORRESPONDING CLIENT'S SAMPLE ID IS T0082010

005011

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T0082021

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: 2592__

Matrix: (soil/water) SOIL__ Lab Sample ID: 2592-11_____

Sample wt/vol: __5.0 (g/mL) G___ Lab File ID: B4794_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. __86 Date Analyzed: 08/23/90

Column: (pack/cap) CAP___ Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	71	U
74-83-9	Bromomethane	71	U
75-01-4	Vinyl Chloride	71	U
75-00-3	Chloroethane	71	U
75-09-2	Methylene Chloride	36	U
67-64-1	Acetone	71	U
75-15-0	Carbon Disulfide	36	U
75-35-4	1,1-Dichloroethene	36	U
75-34-3	1,1-Dichloroethane	36	U
540-59-0	1,2-Dichloroethene (total)	36	U
67-66-3	Chloroform	36	U
107-06-2	1,2-Dichloroethane	36	U
78-93-3	2-Butanone	71	U
71-55-6	1,1,1-Trichloroethane	36	U
56-23-5	Carbon Tetrachloride	36	U
108-05-4	Vinyl Acetate	71	U
75-27-4	Bromodichloromethane	36	U
78-87-5	1,2-Dichloropropane	36	U
10061-01-5	cis-1,3-Dichloropropene	36	U
79-01-6	Trichloroethene	36	U
124-48-1	Dibromochloromethane	36	U
79-00-5	1,1,2-Trichloroethane	36	U
71-43-2	Benzene	36	U
10061-02-6	Trans-1,3-Dichloropropene	36	U
75-25-2	Bromoform	36	U
108-10-1	4-Methyl-2-Pentanone	71	U
591-78-6	2-Hexanone	71	U
127-18-4	Tetrachloroethene	36	U
79-34-5	1,1,2,2-Tetrachloroethane	36	U
108-88-3	Toluene	36	U
108-90-7	Chlorobenzene	36	U
100-41-4	Ethylbenzene	36	U
100-42-5	Styrene	36	U
1330-20-7	Xylene (total)	36	U

002006

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

T0082021

Lab Name: PNELI_____ Contract: TAYLOR_WAY_

Lab Code: PNELI__ Case No.: 2592__ SAS No.: _____ SDG No.: 2592__

Matrix: (soil/water) SOIL__ Lab Sample ID: 2592-11_____

Sample wt/vol: __5.0 (g/mL) G___ Lab File ID: B4794_____

Level: (low/med) LOW___ Date Received: 08/17/90

% Moisture: not dec. __86 Date Analyzed: 08/23/90

Column (pack/cap) CAP___ Dilution Factor: 1.0_____

Number TICs found: __1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Carbon Dioxide	1.47	1900	BJ

020027

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PACIFIC NORTHWEST
ENVIRONMENTAL
LABORATORY

Client No: 60-900208

INORGANIC ANALYSIS REPORT

Client Sample ID.	T0082016	T0082017	T0082018	T0082019
PNEL Sample ID.	2592-06	2592-07	2592-08	2592-09
Matrix	Soil	Soil	Soil	Soil
Date Received	08-17-90	08-17-90	08-17-90	08-17-90
Date Analyzed	08-21-90	08-21-90	08-21-90	08-21-90

Parameters

Soil pH measured in H_2O	8.53	8.62	---	---
Soil pH measured in 0.01M $CaCl_2$	---	---	7.81	8.66

\IAR-0208.592

PACIFIC NORTHWEST
ENVIRONMENTAL
LABORATORY

Client No: 60-900208

INORGANIC ANALYSIS REPORT

Client Sample ID.	T0082020
PNEL Sample ID.	2592-10
Matrix	Soil
Date Received	08-17-90
Date Analyzed	08-21-90

Parameters

Soil pH measured in H_2O	6.07
Soil pH measured in 0.01M $CaCl_2$	---

\IAR-0208.592

Table I

Results of Polarized Light Analysis

For Project AOH008597

PNEL

		Asbestos						Nonasbestos						
Sample #	Client #	Chrysotile	Amosite	Crocidolite	Anthophyllite	Tremolite	Actinolite	Cellulose	Mineral Wool	Fibrous Glass	Synthetic Fibers	Other Fibers	Nonfibrous Material	
65139B1IPL White	2592-12	80 %	-	-	-	-	-	-	-	-	-	-	20%	WP 9/5/90

Authorized Signature W. Pomes

Date Wednesday, September 5, 1990

003001

RJ Lee Group, Inc.
Headquarters

350 Hochberg Road
Monroeville, PA 15146

(412) 325 1776
FAX (412) 733 1799