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CONTRACT NO. <b>N62472-94-D-0398</b>	DELIVERY ORDER # <b>0038</b>	ACTIVITY LOCATION <b>Portsmouth Naval Shipyard - Jamaica Island Landfill, ME</b>
PROJECT TITLE: <b>MERCURY BURIAL VAULT II AND DRUM INVESTIGATION</b>		
FROM: <b>Foster Wheeler Environmental Corp. - Program QCM: Mark Miller</b>		DATE June 12, 2001
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10b	SD-09, Reports;Final Drum Removal (R3)	Mark Miller			



# FOSTER WHEELER ENVIRONMENTAL CORPORATION

June 12, 2001  
File #: 1284-0038-01-0208

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Maine Department of Environmental Protection  
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Subject: Final Drum Removal Report  
Drum Investigation  
Portsmouth Naval Shipyard  
Kittery, Maine

Dear Ms. Cassidy and Mr. McLeod:

On the behalf of the US Navy, Foster Wheeler Environmental Corporation is pleased to present the Final Drum Removal Report for Drum Investigation at the Portsmouth Naval Shipyard in Kittery, Maine. This Final Drum Removal Report has been revised to address comments from the USEPA and MEDEP on the December 13, 2000 Drum Investigation Final Report. The comments and responses are included herein.

Should you have any questions or request for additional information please feel free to contact Mr. Fred Evans at (610) 595-0567 Extension 159.

Very truly yours,

Carl Tippmann, PE

cc: Distribution  
File



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Portsmouth Naval Shipyard, Kittery, Maine.**

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COMSUBGRU TWO ATTN Mr. Robert Jones Building 439 PO Box 100 Groton, CT 06349	1 copy by Regular Mail



**RESPONSES TO USEPA COMMENTS DATED FEBRUARY 7, 2001  
DRUM INVESTIGATION FINAL REPORT  
PORTSMOUTH NAVAL SHIPYARD, KITTERY, MAINE  
SUBMITTED DECEMBER 13, 2000**

**Comment:** EPA has no specific technical comments on this document. EPA would like to express our disappointment in the overall quality of this document. Foster-Wheeler, the Navy's contractor that prepared this report, has repeatedly submitted reports that have been carelessly drafted. EPA questions whether there is any quality control effort required in the Navy's contract with Foster-Wheeler. In the future, EPA requests that Foster-Wheeler and the Navy ensure that reports do not have repeated problems with verb tense, do not include text taken directly from work plan with no revisions to reflect the work done, etc.

**Response:** The report will be resubmitted in a clear concise format. Please note that this report only covers the removal of drums. The TtNUS report "Test Pitting Investigation Report, Jamaica Island Landfill, February/March 2000 Activity" presents the results of the test pit investigation.



**RESPONSES TO MEDEP COMMENTS DATED FEBRUARY 6, 2001  
DRUM INVESTIGATION FINAL REPORT  
PORTSMOUTH NAVAL SHIPYARD, KITTERY, MAINE  
SUBMITTED DECEMBER 13, 2000**

1. **Comment:** This is a draft, not final, report. Therefore, the title of this document should be Draft Drum Investigation Report, not Draft Drum Investigation Final Report.

**Response:** The title of the report has been changed to Final Drum Removal Report.

2. **Comment:** There is no reference whatsoever to the corresponding October 2000 Tetra-Tech report "Test Pitting Investigation Report, Jamaica Island Landfill, February/March 2000 Activity." As the Tetra-Tech document presents the meat of the results of the investigation it is crucial that it be referenced in the Foster-Wheeler report.

**Response:** Reference to the Tetra Tech NUS report titled "Test Pitting Investigation Report, Jamaica Island Landfill, February/March 2000 Activity", has been added to various sections in the Final Drum Removal Report.

3. **Comment:** This report is, in many sections, an update of the work plan with verb tense changes. Therefore, no new information appears in these sections. Most such sections serve no purpose in a report of accomplishments/findings (i.e., all of Section 2, Section 3.3). These should be deleted.

**Response:** The report has been revised to eliminate unnecessary sections.

4. **Comment:** The Tetra-Tech portion of the Final Work Plan for Mercury Burial Vault II and Drum Investigation states, "At a minimum, the test pit log will include the following information...Photographs of test pit walls and excavated material." Photographs were not included in either the October 2000 Tetra Tech Test Pitting Investigation Report or the December 2000 Foster-Wheeler Drum Investigation Report. Please submit the required photographs. This can be separate from the Foster Wheeler Final Drum Removal Report.

**Response:** Photographs will be submitted under separate cover.

5. **Comment:** The Department still has concerns that drums could exist in a central portion of the landfill at depths greater than reached by the test pits. The depth of test pit excavations in a central N-S belt that overlies the deepest fill/overburden (as interpreted from OU3 FS cross sections) ranged from 5 to 10 feet. The water table was encountered in this depth range, and the test pit excavations were terminated just below the groundwater level. Most of this area is approximately 107 feet PNS datum, or 7 feet above mean high tide water. Therefore, the test pits bottomed at 97 to 102 feet PNS datum; again close to mean high tide. The above N-S belt can be drawn as wide as 300 feet without encountering a monitoring well. Using data from JW-12B, JW-13B and JW-17B as guides, a 10 to 15 foot depth interval below mean high tide is not documented as to the thickness of fill versus natural mudflats sediments. It appears that the bedrock surface is at least 10 feet below mean high tide (90 feet PNS datum) in the TP-4 location, where the buried drums were found at a maximum depth of approximately 6 feet. Therefore, some potential yet exists for undiscovered drums at depth, and the results of the test pitting investigation must be applied with caution.

**Response:** Comment noted.

6. **Comment:** Introduction, p. 1-1

"This report describes the site investigation activities that were conducted at the Jamaica Island Landfill at the Portsmouth Naval Shipyard (PNS)."



Change this statement to, "This report describes the site investigation activities performed by Foster-Wheeler starting on February 29, 2000 at the Jamaica Island Landfill...Foster-Wheeler's work during the investigation was limited to mobilization, site preparation, test pit excavation, site restoration, and demobilization. This report does not discuss work performed by Tetra-Tech during the same investigation. Information regarding Tetra-Tech's work can be found in the document, "Test Pitting Investigation Report, Jamaica Island Landfill, February/March 2000 Activity..."

**Response:** The following sentences have been added to Section 1 Introduction:

This report describes the site investigation activities performed by Foster Wheeler starting on February 29, 2000 at the Jamaica Island Landfill. Foster Wheeler's work during the investigation was limited to mobilization, site preparation, test pit excavation, site restoration, and demobilization. This report does not discuss work performed by Tetra Tech NUS (TtNUS) during the same investigation. Information regarding TtNUS's work can be found in the document, "Test Pitting Investigation Report, Jamaica Island Landfill, February/March 2000 Activity. The TtNUS report presents the test pit locations, a description of the subsurface materials, the sampling and analytical results, and compares the new data to existing data.

7. **Comment:** Section 1.2, Objective, p. 1-1, 2<sup>nd</sup> sentence:

"The purpose of these test pits was to provide additional information regarding the quantity of drums that were disposed of in the landfill."

The above stated purpose is one of several reasons for the investigation. Other objectives were to (1) ground-truth the interpretation of the MTADS geophysical survey so that subsurface findings might be extrapolated into other geophysically anomalous areas that were not explored by the test pit program, and (2) identify the contents of drums that were found as to chemical hazards posed.

**Response:** The following paragraphs have been added to Section 1.2 Objective:

The objectives of the project were: 1) to perform additional investigation of the Jamaica Island Landfill to aid in further characterization in support of determining a final remedy of the site under CERCLA, 2) to ground-truth the interpretation of the MTADS geophysical survey, and 3) to identify the presence and contents of any buried drums. This report documents the removal of drums encountered during the investigation. The TtNUS report titled "Test Pitting Investigation Report, Jamaica Island Landfill, February/March 2000 Activity presents the data collected and provides the interpretation of the investigation.

The additional investigation of the landfill involved two tasks. The first task consisted of exploratory excavation in the landfill in an attempt to locate Mercury Burial Vault II (MBII). Previous attempts to locate the vault have been unsuccessful. However, since the time of the previous investigation, additional information has been obtained from base personnel that were involved with the burial of MBII. This information indicates that the vault may be in a different location than originally suspected. The field work for locating the Mercury Burial Vault II was conducted in the July of 2000. The MBII results are presented in the Foster Wheeler Environmental Corporation "Draft Mercury Burial Vault Removal at Portsmouth Naval Shipyard, Kittery, Maine." September 22, 2000.

In addition, the following sentence in Section 1.2 Objective has been changed to the following:

The second task involved the excavation of twenty-five test pits throughout the landfill.

8. **Comment:** Section 1.2, Objective, p. 1-2, 2<sup>nd</sup> para, 1<sup>st</sup> sentence

Add that the selections for test pit locations was also based on "*inputs from the regulatory agencies and the Seacoast Anti-Pollution League (SAPL)*".



**Response:** The sentence in Section 1.2 Objective has been changed to the following:

A total of 25 test pits were selected based on the results of the Navy's Draft MTADS Geophysical Survey Report dated May 18, 1999 and the Navy's landfilling records, with inputs from the regulatory agencies and the Seacoast Anti-Pollution League (SAPL).

9. **Comment:** Figure 1-1, Site Location Map:

This figure is of poor quality and readability. Also, the circle showing the site location covers only a small portion of the area where test pits were excavated, and may mislead the reader. The Jamaica Landfill should be highlighted.

**Response:** A new Figure 1-1, Site Location Map has been added to the report.

10. **Comment:** Figure 1-2, Facility Layout Map:

This figure serves no real purpose that is not covered by Figures 1-1 and 1-3. Why is the location of Mercury Burial Site II featured in this figure?

**Response:** Figure 1-2 Facility Layout Map has been removed from the report.

11. Figure 1-3, Jamaica Island Landfill and Mercury Burial Site II Layout Map:

**Comment:** The results of the MTADS survey (i.e., anomalous areas) should be added to this figure. The landfill boundary is indicated in the legend as a heavy black line, whereas on the figure it appears as double thin lines. The heavy single line is most effective.

**Response:** The MTADS survey information can be found in the MTADS survey report and has not been added to Figure 1-2 Jamaica Island Landfill Layout Map. In addition, the landfill boundary on Figure 1-2 Jamaica Island Landfill Layout Map has been changed to a heavy black line on the figure to match the legend.

**Comment:** The word "reported" should be removed from the label for Mercury Burial Site II.

**Response:** The Mercury Burial Site II location and text has been removed from Figure 1-2 Jamaica Island Landfill Layout Map.

12. **Comment:** Section 3.7.2, Equipment Decontamination, p. 3-2

In the first sentence, more explanation is needed to inform the reader how it was predetermined that a particular task did not involve environmental contamination, and that decontamination was not necessary. What equipment-based tasks within the landfill were considered clean?

**Response:** The sentence in Section 2.6.2 Equipment Decontamination has been changed to the following:

All contaminated equipment was decontaminated when switching from a contaminated task (excavating the test pits) to a clean one (stripping and replacing topsoil), prior to being demobilized from the site, and following excavation of each test pit.

13. **Comment:** Section 3.7.2, Equipment Decontamination, p. 3-3

"Solids and liquids that were generated during decontamination activities were..."

Suggested rewording is: "Residual solids and liquids collected from the decontamination process were..."



**Response:** The sentence in Section 2.6.2 Equipment Decontamination has been changed to the following:

The excavator bucket was washed immediately above the test pit location, and residual solids and liquids from the decontamination process were returned to the test pit prior to placing topsoil."

14. **Comment:** Section 4.2.1, Soil Stockpile Areas, p. 4-1, 2<sup>nd</sup> sentence

Please explain the rationale involved here. That is, why did scraping away the topsoil eliminate the need to use a polyethylene liner? The reason may not be obvious to some readers. As this action was potentially a significant modification to the work plan, the regulatory agencies should have been consulted.

**Response:** Section 3.2.1 has been changed to the following:

A stockpile area for excavated soils was established adjacent to each test pit location. Initially an impermeable polyethylene liner was placed over the topsoil at the base of the stockpile area to provide a barrier between the clean landfill surface and the excavated material. Foster Wheeler obtained permission from the Navy to scrape away the clean topsoil adjacent to the test pits to expose the landfill surface. By exposing the contaminated landfill surface, Foster Wheeler was able to eliminate the use of the polyethylene liner. Elimination of the liner decreased the amount of solid waste generated during the project, and increased productivity by decreasing the setup time at each location. All of the stockpiled soil was used to backfill the excavation as discussed later in Section 3.

15. **Comment:** Section 4.2.2, Site Survey, p. 4-1

"The survey coordinates for the excavation areas were provided in Appendix A of the work plan."

Include the reference for the work plan in the References section of this report.

**Response:** The following reference has been added to Section 6 References:

Foster Wheeler Environmental Corporation. Final Work Plan for Mercury Burial Vault II and Drum Investigation at Portsmouth Naval Shipyard, Kittery, Maine. February 2000.

16. **Comment:** Section 4.3, Investigation Activities, p. 4-2

"Water encountered during the excavation activities was returned to the excavation."

This statement implies that groundwater was removed from the excavation. Please explain the nature of the removal, the volumes involved, how it was stored, and how it was returned.

**Response:** The sentence in Section 3.3 Investigation Activities has been changed to the following two sentences:

Saturated soil encountered during the excavation activities was placed in stockpiles adjacent to the excavation. The saturated soil was returned to the excavation during backfill operations.

17. Figure 4-1, Test Pit Location Map:

**Comment:** All the test pits are represented by the same size rectangle, but the fact is that some pits were longer than other pits. The actual as-built size should be shown. It would be nice if the rectangle areas were given a pattern so that they stand out better.



**Response:** An as-built survey was not conducted at the conclusion of the field program. Figure 3-1 Test Pit Location Map has been provided to illustrate the general location of the test pits. For additional information on the test pits please see the October 2000 Tetra Tech NUS report titled "Test Pitting Investigation Report, Jamaica Island Landfill, February/March 2000 Activity."

**Comment:** The location of the two former mercury burial vaults should be shown.

**Response:** This report is a drum removal report for the test pit operations and Figure 3-1 Test Pit Location Map has been provided to illustrate the general location of the test pits. Information pertaining to Mercury Burial Vault Site I can be found in the Final Closeout Report for Mercury Burial Vault Site I and information pertaining to Mercury Burial Vault Site II can be found in the Final Removal Action Report for Mercury Burial Vault Site II.

**Comment:** Building 354 should be labeled as "Former Solid Waste Handling Facility".

**Response:** Building 354 is labeled as "Solid Waste Handling Facility" on Figure 3-1 Test Pit Location Map. Building 354 is an "Active Solid Waste Handling Facility".

18. **Comment:** Section 5.4, Quality Control Samples, p.5-1:

In the first sentence, the Department believes that "will be" should actually be "were".

**Response:** This section of the report has been deleted.

19. Section 6.1, The Jamaica Island Ball Field, p. 6-1:

"The varying depth that water was encountered indicates that the water is trapped in several locations."

**Comment:** This statement is unclear, and is questionable in technical soundness. In the test pits that Department personnel observed in progress, the depth where groundwater was observed entering the excavation was generally significantly below the elevation of standing water in the pit before the pit was backfilled. In fine-grained materials, this situation is common due to large differences in soil permeability due to stratification with depth. Groundwater initially entering the relatively shallow holes may appear to be "trapped" (isolated), but the entire depth penetrated by the pits comprises a single groundwater body. Within the landfill, if most pits were allowed to stand open at various depth below the water table for a sufficiently long time, a single water table elevation should result from all depths penetrated. Therefore, the word "trapped" does not seem appropriate. However, in several instances, very shallow groundwater might be perched above slightly deeper groundwater, and two water elevations could result by varying the pit depth. Please revise and elaborate using real test pit examples based on field observations. Alternatively, if this situation is explained in better detail in the Tetra-Tech Test Pitting Report, then reference that document.

**Response:** The sentence in Section 5.1 The Jamaica Island Ball Field has been changed to the following:

The varying depth to water may indicate that water is perched inside landfill debris pockets, for additional information please see the October 2000 TtNUS report "Test Pitting Investigation Report, Jamaica Island Landfill, February/March 2000 Activity."

**Comment:** A statement should be added to this paragraph that drums were not encountered in the ball field area, if that is true.

**Response:** The following sentence has been added to Section 5.1 The Jamaica Island Ball Field:

Drums were not encountered in the Jamaica Island ball field area.



20. Table 6-1, Test Pit Location Summary:

**Comment:** The heading of the far right column reads "Suspected Anomaly/material encountered". The heading should be called "Materials Encountered". There is the possibility in some instances that metal objects lying deeper than the bottoms of the test pits might have caused the bulk of the MTADS anomaly.

**Response:** In Table 5-1 Test Pit Location Summary, the heading in the far right column has been changed to Material Encountered/ Suspected Anomaly.

The table presents the total depth of the test pit and the target depth of the anomaly. There are only two instances (TP-4, TP-17) where the MTADS anomaly depth was deeper than the depth of the test pits. At TP-4 the depth difference was 0.8', while at TP-17 the depth difference was 2.2'.

**Comment:** Please indicate to which test pit(s) Note 2 applies.

**Response:** Note 2 on Table 5-1 Test Pit Location Summary has been changed to the following:

Test Pits 7 through 14 were located in areas of the uncapped landfill where the Navy believes drums may have been buried during the time period 1945 to 1965."

21. **Comment:** Section 6.2, The Parking Area, p. 6-3:

A statement is needed saying that no drums were found, as this is the central element of the investigation.

**Response:** The following sentence has been added to Section 5.2 The Parking Area.

Drums were not encountered in the parking area.

22. **Comment:** Section 6.4, Building H27 Lawn, p. 6-3 and 6-4:

According to table 6-2, most of the drums contained "oily material". Drum 24 was noted as partially full. There are no statements as to how much oily material was present in the other 39 drums. DEP assumes that the 13 drums noted as "intact" in the table were full of the oily material. Please provide more information in the text.

**Response:** The following note has been added to Table 5-2 Buried Drum/Container Removal Inventory Log:

(2) Drums labeled as intact appeared to be full. Crushed and partial drums were approximately 75% full of the tar substance.



**FINAL DRUM REMOVAL REPORT  
FOR  
MERCURY BURIAL VAULT II AND DRUM INVESTIGATION  
PORTSMOUTH NAVAL SHIPYARD  
KITTERY, MAINE**

*Issued:*

**June 12, 2001**

*Prepared for:*

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ENGINEERING FIELD ACTIVITY, NORTHEAST  
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10 Industrial Highway, Mail Stop #82  
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**Contract No. N62472-94-D-0398  
Delivery Order No. 0038**

*Prepared by:*

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1	4/9/00	Joshua B Holden	Carl Tippmann, P.E.	All
1	9/18/00	Monica Block	Carl Tippmann, P.E.	All
2	5/24/01	Thomas J. Kelly	Carl Tippmann, P.E.	All
3	6/12/01	Thomas J. Kelly	Carl Tippmann, P.E.	All

**FINAL DRUM REMOVAL REPORT  
 REMEDIAL ACTION CONTRACT N62472-94-D-0398  
 DELIVERY ORDER NO. 0038  
 MERCURY BURIAL VAULT II AND DRUM INVESTIGATION  
 PORTSMOUTH NAVAL SHIPYARD  
 KITTERY, MAINE**

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**FIGURES**

Figure 1-1	Site Location Map
Figure 1-2	Jamaica Island Landfill Layout Map
Figure 3-1	Test Pit Location Map

**TABLES**

Table 5-1	Test Pit Location Summary
Table 5-2	Buried Drum/Container Removal Inventory Log

**APPENDICES**

Appendix A	Disposal Documentation
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## ACRONYMS

ARARs	Applicable or Relevant and Appropriate Requirements
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CH	Fat Clay
CL	Lean Clay
DCE	Methylene Chloride
EE/CA	Engineering Evaluation Cost Analysis
EZ	Exclusion Zone
FS	Feasibility Study
FWENC	Foster Wheeler Environmental Corporation
HASP	Health and Safety Plan
HSWA	Hazardous and Solid Waste Amendments Permit
JILF	Jamaica Island Landfill
MBII	Mercury Burial Vault II
MCL	Maximum Contaminant Level
MEDEP	Maine Department of Environmental Protection
MEK	Methyl Ethyl Ketone
mg/kg	Milligrams Per Kilogram
MH	Elastic Silt
MTADS	Multi-sensor Towed Array Detection System
NA	Not Applicable
NPL	National Priority List
NTR	Navy Technical Representative
OSHA	Occupational Safety and Health Administration
PCBs	Polychlorinated Biphenyls
PNS	Portsmouth Naval Shipyard
ppb	Parts Per Billion
PPE	Personal Protection Equipment
ppm	Parts Per Million
QA/QC	Quality Assurance / Quality Control
QCM	Quality Control Manager
RAA	Regulatory Affairs Advisor
RAB	Restoration Advisory Board
RAC	Remedial Action Contract
RCRA	Resource Conservation and Recovery Act
RFA	RCRA Facility Assessment
RFI	RCRA Facilities Investigation
ROICC	Resident Officer in Charge of Construction
SHSO	Site Health and Safety Officer
SQCR	Site Quality Control Representative
SVOCs	Semi-Volatile Organic Compounds
TCE	Trichloroethene
TiNUS	Tetra Tech NUS
USEPA	United States Environmental Protection Agency
VOCs	Volatile Organic Compounds

## **1 INTRODUCTION**

Foster Wheeler Environmental Corporation (Foster Wheeler) is pleased to submit this Final Drum Removal Report to the Department of the Navy (Navy) in response to Delivery Order 0038. This report describes the site investigation activities performed by Foster Wheeler starting on February 29, 2000 at the Jamaica Island Landfill. Foster Wheeler's work during the investigation was limited to mobilization, site preparation, test pit excavation, site restoration, and demobilization. This report does not discuss work performed by Tetra Tech NUS (TtNUS) during the same investigation. Information regarding TtNUS's work can be found in the document, "Test Pitting Investigation Report, Jamaica Island Landfill, February/March 2000 Activity. The TtNUS report presents the test pit locations, a description of the subsurface materials, the sampling and analytical results, and compares the new data to existing data.

### **1.1 PROJECT BACKGROUND**

Portsmouth Naval Shipyard (PNS) is located on the northern side of the Piscataqua River in the Town of Kittery, Maine as shown in Figure 1-1. The shipyard, established in 1800, was primarily used to design, construct, repair, and overhaul submarines during the 1900s. Currently, the shipyard is involved in the conversion, repair and overhaul of submarines. The entire facility consists of approximately 278 acres, 90 of which are filled in tidal flats. The remainder of the facility contains over 350 buildings that are densely clustered.

The Jamaica Island Landfill (JILF) is located on the eastern shoreline of PNS between Jamaica Island and Seavey Island as shown in Figure 1-2. The JILF consists of approximately 25 acres of filled in tidal flats used by the Navy as a solid waste disposal area from 1945 until 1978. The landfill was filled with a mixture of residential and industrial wastes that included general refuse, construction debris, incinerator ash, plating sludges containing chromium, lead, and cadmium, asbestos insulation, volatile organic compounds (VOCs) including, trichloroethene (TCE), methylene chloride, toluene, and methyl ethyl ketone (MEK), acetylene and chlorine gas cylinders, contaminated dredge spoils containing lead, chromium, polychlorinated biphenyl (PCB) oils, mercury, and possibly phenols, waste paints and solvents, and spent sandblasting grit. Other items that were disposed of in the landfill include steel reinforcing bars, chain link fencing, and reportedly a small two-man submarine. The landfill was covered with a soil cap upon closure and is currently being used for equipment storage, parking, and a running track (the only recreational use).

### **1.2 OBJECTIVE**

The objectives of the project were: 1) to perform additional investigation of the Jamaica Island Landfill to aid in further characterization in support of determining a final remedy of the site under CERCLA, 2) to ground-truth the interpretation of the MTADS geophysical survey, and 3) to identify the presence and contents of any buried drums. This report documents the removal of drums encountered during the investigation. The TtNUS report titled "Test Pitting Investigation Report, Jamaica Island Landfill, February/March 2000 Activity presents the data collected and provides the interpretation of the investigation.

The additional investigation of the landfill involved two tasks. The first task consisted of exploratory excavation in the landfill in an attempt to locate Mercury Burial Vault II (MBII). Previous attempts to locate the vault have been unsuccessful. However, since the time of the previous investigation, additional information has been obtained from base personnel that were involved with the burial of MBII. This information indicates that the vault may be in a different location than originally suspected. The field work for locating the Mercury Burial Vault II was conducted in July of 2000. The MBII results are presented in the Foster Wheeler Environmental Corporation "Final Removal Action Report for Mercury Burial Vault Site II at Portsmouth Naval Shipyard, Kittery, Maine." May 10, 2001

The second task involved the excavation of twenty-five test pits throughout the landfill. The purpose of these test pits was to provide additional information regarding the quantity of drums that were disposed of in the landfill. The reported quantity of drums that were disposed of in the landfill between 1945 and 1965 has been estimated to be as great as 9,000. However, few drums have been encountered during previous

site investigations and those encountered have not contained material. In order to determine the locations where test pits should be excavated, a multi-sensor towed array detection system (MTADS) survey was performed in October 1998. The MTADS survey detects areas of apparent high metal content and isolated metallic anomalies below the surface of the landfill. It was assumed that test pit excavations in these anomalies would yield the greatest probability of encountering drums. Information collected during this site investigation will provide a more accurate determination regarding the quantity of drums present in the landfill, and will assist the Navy in making its CERCLA decision for Operable Unit 3.

A total of 25 test pits were selected based on the results of the Navy's Draft MTADS Geophysical Survey Report dated May 18, 1999 and the Navy's landfilling records, with inputs from the regulatory agencies and the Seacoast Anti-Pollution League (SAPL). Seventeen of the 25 test pits were based on magnetic anomalies the size of one or more drums that occur at or above the groundwater table. The remaining 8 test pit locations were located in parking and equipment storage areas, where magnetic survey was not attempted due to the presence of above-ground metal objects, such as wire, metal plates, and other metallic structures. These 8 test pit locations provided a wide aerial coverage north of the capped portion the landfill where Navy records show landfilling during the period of 1945 to 1965. The Navy believes that during this period drums may have been buried at the landfill.

## **2 DESCRIPTION OF ACTIVITIES**

### **2.1 SCOPE OF WORK**

The scope of work for this project included excavating 25 test pits throughout the landfill to provide additional information regarding the quantity of drums containing material that were reportedly disposed of in the landfill. Upon completion of the investigation activities, Foster Wheeler restored the site to its pre-construction condition. TtNUS was scoped to provide interpretation of data collected, while Foster Wheeler was scoped to provide this drum removal report.

### **2.2 TASKS COMPLETED**

The following major activities were performed during the project:

- Pre-construction survey to locate test pits (based on MTADS study).
- Excavated test pits.
- Backfilled the test pits.
- Re-established the test pit areas to their pre-construction condition.
- Performed site cleanup.
- Demobilized resources.

### **2.3 EQUIPMENT REQUIREMENTS**

Major construction equipment used on this project included the following: Kobelco SK300LC excavator, Case 580L backhoe, Case 821B loader, pressure washer with 200 gallon water tank, and a storage container.

### **2.4 CONSTRUCTION QUALITY CONTROL**

Construction Quality Control (CQC) activities for the project were performed by the Site QC Representative. The Site QC Representative was responsible for ensuring that construction activities conform to the requirements of the work plan, the health and safety plan, and all applicable federal, state, and local regulations. CQC activities were conducted as outlined in Section 5 of the work plan.

### **2.5 HEALTH AND SAFETY REQUIREMENTS**

The site-specific Health and Safety Plan (HASP) provided requirements and guidelines that were utilized in the field to protect the health and safety of workers. The Site Safety and Health Officer (SHSO) provided oversight of activities to ensure conformance with the HASP. The SHSO supervised operations and was responsible for conducting site health and safety training/briefings, air monitoring during site operations, personnel monitoring, enforcing/modifying levels of Personal Protective Equipment (PPE), ensuring compliance with decontamination procedures, maintaining monitoring equipment, and documenting and reporting all health and safety related accidents or injuries. The SHSO conducted regular site safety inspections.

### **2.6 PROCEDURES FOR DECONTAMINATION**

This section describes the procedures used to ensure that both personnel and equipment were free from contamination when leaving the work site, at the end of each day, during scheduled breaks, and upon completion of the project. Decontamination procedures were included in the HASP.

#### **2.6.1 Personnel Decontamination**

Foster Wheeler applied engineering and/or work practice controls as a means of protecting personnel in performance of site-specific tasks. Engineering controls were implemented to reduce and maintain

employee exposure at safe levels for those tasks that included possible exposure to contaminants. When engineering controls were impractical or insufficient to protect employees during site operations, Foster Wheeler used PPE to perform certain tasks.

### **2.6.2 Equipment Decontamination**

All contaminated equipment was decontaminated when switching from a contaminated task (excavating the test pits) to a clean one (stripping and replacing topsoil), prior to being demobilized from the site, and following excavation of each test pit. Since the equipment was situated on clean material while conducting the excavation activities, the bucket of the excavator was the primary part of the equipment that required decontamination. A high-pressure washer was used to decontaminate the excavator bucket. The excavator bucket was washed immediately above the test pit location, and residual solids and liquids from the decontamination process were returned to the test pit prior to placing topsoil.

### **3 SITE ACTIVITIES**

#### **3.1 MOBILIZATION**

Temporary construction offices and facilities, lay down, staging and material storage areas were established as part of the mobilization task. Temporary facilities included a site office at Building 298, one storage container located near the test pit area and portable toilets. Arrangements were made at the site for mail delivery and sewage disposal services.

#### **3.2 SITE PREPARATION**

Safety fencing and flagging were mobilized to each test pit area to establish an exclusion zone. Orange traffic cones were utilized to further delineate these areas.

##### **3.2.1 Soil Stockpile Areas**

A stockpile area for excavated soils was established adjacent to each test pit location. Initially an impermeable polyethylene liner was placed over the topsoil at the base of the stockpile area to provide a barrier between the clean landfill surface and the excavated material. Foster Wheeler obtained permission from the Navy to scrape away the clean topsoil adjacent to the test pits to expose the landfill surface. By exposing the contaminated landfill surface, Foster Wheeler was able to eliminate the use of the polyethylene liner. Elimination of the liner decreased the amount of solid waste generated during the project, and increased productivity by decreasing the setup time at each location. All of the stockpiled soil was used to backfill the excavation as discussed later in Section 3.

##### **3.2.2 Site Survey**

Prior to commencing with the excavation activities, an initial survey was performed by OEST associates (a Maine licensed surveying company) to stake out the locations of the test pit excavations. The survey coordinates for the excavation areas were provided in Appendix A of the work plan. Each location was assigned a unique number that was written on the survey stakes for easy identification of the location. A post construction survey was not conducted. See Figure 3-1 for Test Pit Location Map.

### **3.3 INVESTIGATION ACTIVITIES**

Prior to commencing with the investigation activities, the Navy ROICC office and Public Works Office were contacted to locate or provide documents identifying underground utilities that were located within any of the excavation areas. These utilities were clearly marked prior to beginning any intrusive activities. Underground utilities were located along the driveway to Building H27, away from the excavation areas.

All of the excavation activities associated with the test pit excavation were conducted in accordance with Navy specification section NFGS-02300 (Appendix 2 of the work plan) and applicable OSHA regulations. Each excavation varied in depth according to information provided by the MTADS survey. The actual depth of the excavation was determined based on visual observations in the field and at the direction of the Navy Representative. Stockpiles of the excavated soil were located a minimum of two feet from the edge of each excavation to prevent materials from falling back into the excavation. Saturated soil encountered during the excavation activities was placed in stockpiles adjacent to the excavation. The saturated soil was returned to the excavation during backfill operations.

The exploratory excavation activities at the test pit locations continued until groundwater was encountered. The TtNUS site geologist logged the physical characteristics of the excavated material, noted any unusual conditions, and collected soil samples for chemical analysis. The TtNUS results are presented in "Test Pitting Investigation Report, Jamaica Island Landfill, February/March 2000 Activity", October 2000.

All of the excavations were screened using a photoionization detector (PID) to monitor the ambient air for volatile organic compounds, a multi-gas meter (MSA Passport), and a dust meter as a health and safety measure. Spill kits and overpacks were available during the investigation.

Excavation activities started on February 29<sup>th</sup>, 2000. Test pits were excavated on the Jamaica Island Landfill Ball Field. The JILF ball field was selected as a starting location because the ball field was out of the way, and Foster Wheeler was planning on getting a routine established for the test pit operations.

### **3.4 BACKFILL**

Upon completion of the investigation activities at the test pit locations, each of the excavations were backfilled with the material that was excavated from the location. Compaction of the backfill material was achieved using the bucket and tracks of the excavator. Miscellaneous debris that was encountered during any given excavation was re-deposited into the excavation as backfill material. Soil was carefully compacted around any such debris to minimize the potential for future settlement.

### **3.5 SITE RESTORATION**

Site restoration involved returning the impacted areas of the site to their pre-construction condition. Impacted areas included the excavation areas, stockpile areas, and site haul roads. Vegetation in all of these areas was re-established by hydro-seeding the areas to match the existing vegetation. Asphalt was repaired.

### **3.6 DEMOBILIZATION**

All excavation equipment, office trailers, storage containers, and construction supplies were demobilized upon completion of the investigation activities.

## **4 TEST PIT SAMPLING**

### **4.1 TEST PIT SAMPLING**

The TtNUS geologist performed field sampling at each test pit. For information on sample collection and analytical results please see the October 2000 TtNUS report "Test Pitting Investigation Report, Jamaica Island Landfill, February/March 2000 Activity.

## **5 FINDINGS OF THE DRUM INVESTIGATION**

Twenty-five test pits were excavated between February 29, 2000 and March 9, 2000. Eight of these test pits were excavated in areas where the MTADS survey was not conducted. For discussion purposes the landfill was separated into the following 4 sections:

- 1) The Jamaica Island Ball field
- 2) The Parking Area (north of the ball field)
- 3) The Storage Area (east of the ball field)
- 4) Building H27 lawn

For correlation of the MTADS survey, test pit logs, and discussion of soil sampling results, please see the October 2000 TtNUS report "Test Pitting Investigation Report, Jamaica Island Landfill, February/March 2000 Activity."

### **5.1 THE JAMAICA ISLAND BALL FIELD**

Test pits numbered 15 through 25 were excavated in the Jamaica Island Ball Field. Test pits located in the ball field were placed in areas that had a high probability of drums being present based on the MTADS survey. Table 5-1 lists the date, total depth, depth to groundwater, and suspected anomaly for each test pit.

The maximum excavation depth was 19 feet below ground surface (ft bgs) with a minimum of 8 ft bgs. Water was encountered from 4 ft bgs to 19 ft bgs. The varying depth to water may indicate that water is perched inside landfill debris pockets, for additional information please see the October 2000 TtNUS report "Test Pitting Investigation Report, Jamaica Island Landfill, February/March 2000 Activity." The majority of the test pits encountered reinforced concrete with rebar and miscellaneous metal debris including wire cable, I beams, chain link fence, and metal cans. Drums were not encountered in the Jamaica Island ball field area.

### **5.2 THE PARKING AREA**

The parking area north of the ball field is used for a crane test pad and parking for buildings 315 and H5. Three test pits were excavated in the parking area – Test pits 7, 8, and 9. The MTADS survey was not conducted in this area due to the presence of metal debris including storage boxes, trailers, trash containers, and miscellaneous pieces of equipment. Table 5-1 lists the date, total depth, depth to groundwater, and suspected anomaly for each test pit.

The three test pits were advanced through asphalt and had a total depth of 7 feet. Water was encountered at 6 to 6.5 ft bgs. Test pits 7 and 8 encountered miscellaneous metal debris including wire cable, I beams, chain link fence, and metal cans. Test pit 9 encountered reinforced concrete in addition to the miscellaneous metal debris. Drums were not encountered in the parking area.

### **5.3 THE STORAGE AREA**

The storage area east of the ball field is used for storage of miscellaneous metal structures including spools of wire, ramps for boats, buildings, and scaffolding. Five test pits were excavated in the storage area – Test pits 10 through 14. The MTADS survey was not conducted in this area due to the presence of metal structures. Table 5-1 lists the date, total depth, depth to groundwater and material encountered for each test pit.

The five test pits were advanced through dirt and had a maximum depth 9 ft bgs with a minimum of 5 ft bgs. Water was encountered between 3 to 7 ft bgs. Test pits 10 and 12 encountered ledge at approximately 5 ft bgs. The ledge was extremely hard and could not be broken with the excavator. A small quantity of metal debris was encountered in most of these test pits except Test pit 11. A small (35 gallon) crushed

drum containing a limited quantity of sand was encountered in test pit 11 and was placed back into the excavation, and no other metal material was present.

#### **5.4 BUILDING H27 LAWN**

Test pits numbered 1 through 6 were excavated in the lawn of Building H27. Test pits 2 and 3 were located at a very large MTADS anomaly. Table 5-1 lists the date, total depth, depth to groundwater, and suspected anomaly for each test pit. The maximum excavation depth was 13 ft bgs with a minimum of 8 ft bgs. Water was encountered from 8 ft bgs to 10 ft bgs.

Test pit 1 encountered general construction debris with reinforced concrete. Test pits 2 and 3 encountered large quantities of metal debris with slag. This is suspected of being furnace waste. Test pit 5 encountered a 4" diameter steel pipe that was approximately 5 feet long. Test pit six encountered a piece of sheet piling on the north end and a metal sheet on the south end.

Test pit 4 encountered a steel manhole near the surface, and drums. Forty drums in varying conditions were removed from the test pit. The drums were approximately 2 to 6 ft bgs. Most of the drums contained a thick tar or #6 oil type material. One drum was labeled as kerosene, and contained some liquid. The drum had holes, and the liquid may have been groundwater that entered the drum once it was buried. Drums that were intact were placed in poly overpack drums and transported to building 357. Partial drums were placed in a poly lined roll-off container provided by the shipyard. Table 5-2 is the drum log generated during the removal. Oily material that was encountered on the outside of the drums or in the test pit was containerized in a new steel drum and delivered to Building 357.

The Shipyard's Environmental Division took custody of all the overpacks, the roll-off container, and the drum of loose material. The Shipyard's Environmental Division collected waste characterization samples of the material and coordinated the proper disposal. Disposal Documentation is included as Appendix A. Waste characterization samples indicated that the material was coal tar. The TtNUS report "Test Pitting Investigation Report, Jamaica Island Landfill, February/March 2000 Activity" discusses the analytical results.

## 6 REFERENCES

Foster Wheeler Environmental Corporation. Final Removal Action Report for Mercury Burial Vault Site II at Portsmouth Naval Shipyard, Kittery, Maine. May 10, 2001

Foster Wheeler Environmental Corporation. Final Work Plan for Mercury Burial Vault II and Drum Investigation at Portsmouth Naval Shipyard, Kittery, Maine. February 2000.

Foster Wheeler Environmental Corporation. Final Site Health & Safety Plan for the Investigation and Characterization of Mercury Burial Vault II and Buried Drum Locating. July 19, 1999.

Foster Wheeler Environmental Corporation. Final Engineering Evaluation Cost Analysis (EE/CA) for Mercury Burial Site I at Portsmouth Naval Shipyard. June 21, 1997.

Halliburton NUS Corporation. On-Shore Feasibility Study (FS) Report for Portsmouth Naval Shipyard. March 1995.

Halliburton NUS Corporation. RCRA Facilities Investigation Report (RFI) Data Gap Report for Portsmouth Naval Shipyard. November 1995.

McLaren/Hart, Inc. RCRA Facilities Investigation Report (RFI) for Portsmouth Naval Shipyard. July 1992.

Naval Facilities Engineering Service Center. Navy Installation Restoration Laboratory Quality Assurance Guide, Interim Guidance Document. February 1996.

National Research Laboratory. MTADS Geophysical Survey of the Jamaica Island and Topeka Pier Landfills at the Portsmouth Naval Shipyard, Kittery, Maine, 5-10 October 1998. May 18, 1999.

TetraTech NUS. Test Pitting Investigation Report, Jamaica Island Landfill, February/March 2000 Activity. October 2000

United States Environmental Protection Agency (USEPA). Guidance on Conducting Non-Time-Critical Removal Actions Under CERCLA. EPA 540/R-93/1057. August 1993.

## **FIGURES**

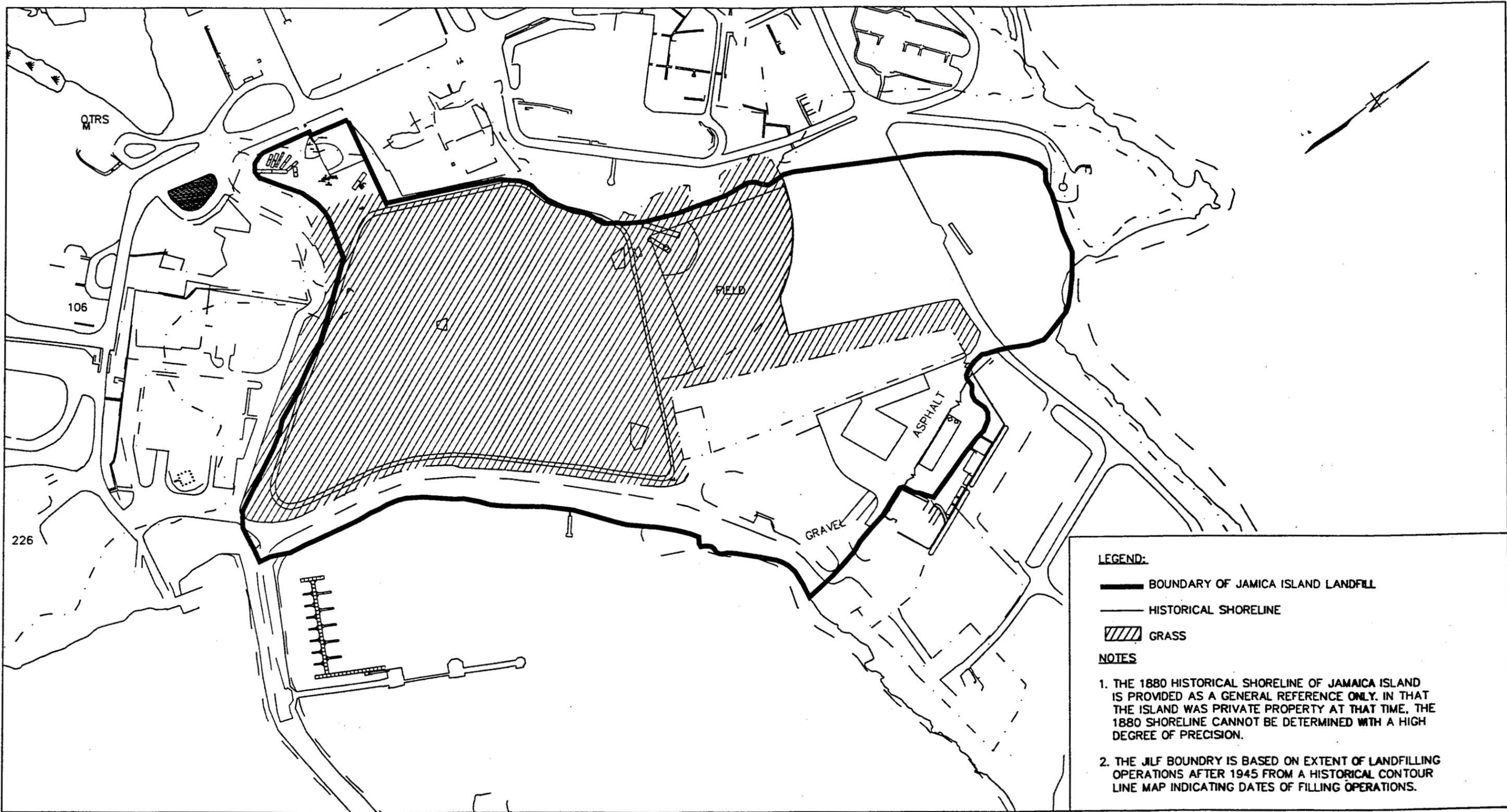


0 2000 4000 FEET

Source: U.S.G.S. Topographic Maps (7.5 Minute)  
 Portsmouth, NH-ME Quadrangle, 1956, Photorevised 1993.

U.S. Navy RAC  
 Portsmouth Naval Shipyard  
 Kittery, Maine

Figure 1-1  
 Site Location Map



**LEGEND:**

- BOUNDARY OF JAMAICA ISLAND LANDFILL
- HISTORICAL SHORELINE
- GRASS

**NOTES**

1. THE 1880 HISTORICAL SHORELINE OF JAMAICA ISLAND IS PROVIDED AS A GENERAL REFERENCE ONLY. IN THAT THE ISLAND WAS PRIVATE PROPERTY AT THAT TIME, THE 1880 SHORELINE CANNOT BE DETERMINED WITH A HIGH DEGREE OF PRECISION.
2. THE JILF BOUNDARY IS BASED ON EXTENT OF LANDFILLING OPERATIONS AFTER 1945 FROM A HISTORICAL CONTOUR LINE MAP INDICATING DATES OF FILLING OPERATIONS.



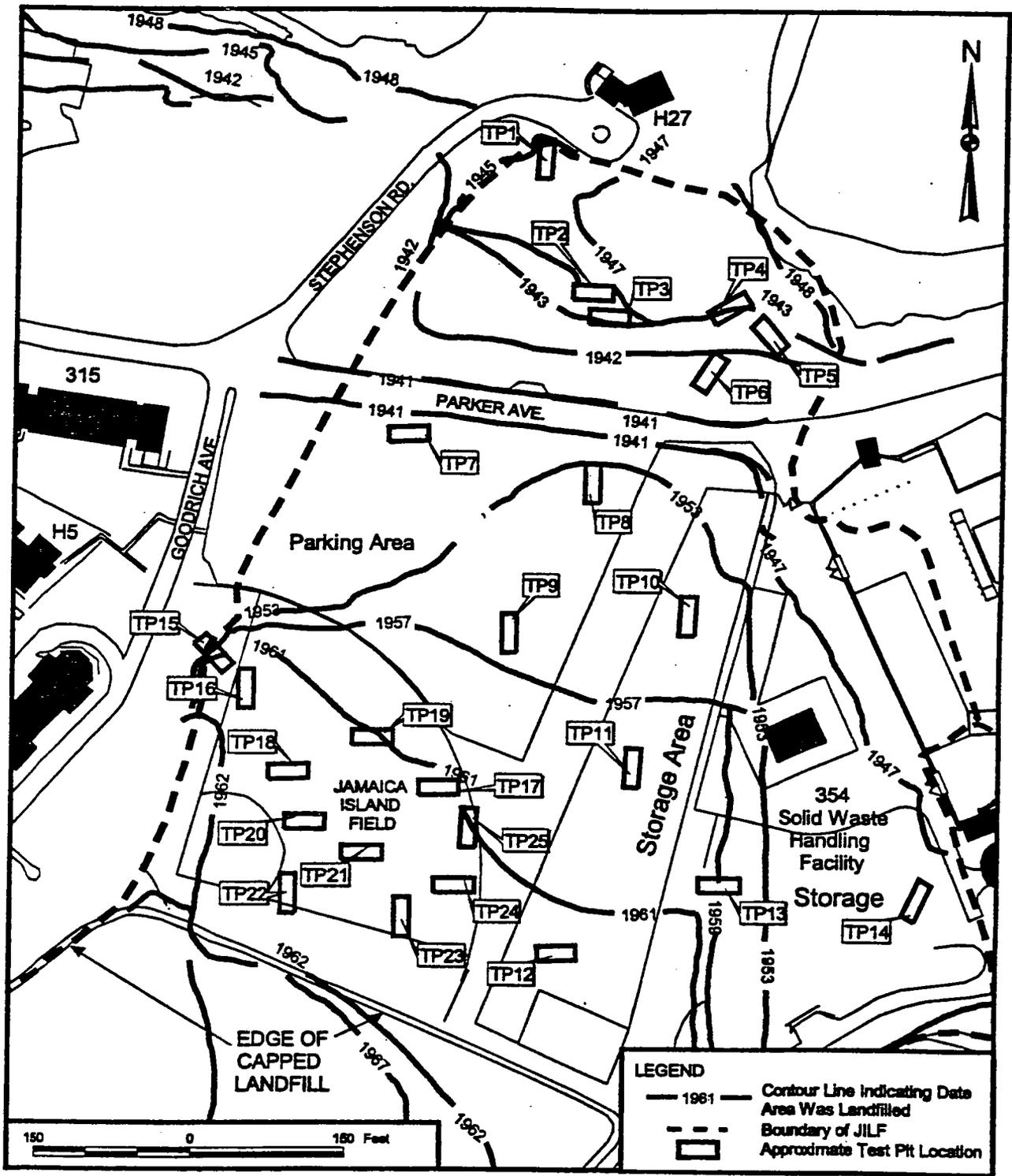
**U.S. Navy RAC  
Portsmouth Naval Shipyard  
Kittery, Maine**

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**Figure 1-2  
Jamaica Island Landfill Layout Map**

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**FOSTER WHEELER ENVIRONMENTAL CORPORATION**



**U.S. Navy RAC  
Portsmouth Naval Shipyard  
Kittery, Maine**

**Figure 3-1  
Test Pit Location Map**

## TABLES

**TABLE 5-1**  
**TEST PIT LOCATION SUMMARY**  
**OU3 - JAMAICA ISLAND LANDFILL**  
**PORTSMOUTH NAVAL SHIPYARD, KITTERY, MAINE**

Test Pit Identification	MTADS Magnetic Anomaly Identification (1)	Test Pit Long Axis Direction	Date Excavated	Total Depth (feet)	Depth to groundwater (feet)	Anomaly Target Depth (feet) (1)	Material Encountered/Suspected Anomaly
TP-1	T1	N-S	09-Mar-00	8.0	8.0	4.3	Large piece of concrete w/rebar/metal pail/construction debris
TP-2	T60	E-W	09-Mar-00	9.0	8.0	2.2	Lots of metal/slag
TP-3	T56	E-W	08-Mar-00	9.0	8.0	5.3	lots of metal debris/slag
TP-4	T2	NE-SW	07-Mar-00	9.0	8.0	9.8	Manhole cover on surface and 40 drums starting at 1'
	T3		08-Mar-00			9.0	
TP-5	T22	NW-SE	07-Mar-00	12.0	10.0	2.6	5' long 4" diameter steel pipe at 1'
TP-6	T23	NNE-SSW	07-Mar-00	13.0	10.0	4.0	Piece of sheet pile on North end
	T47					3.1	Piece of metal (sheet) at 5' on south end
TP-7 (2)	NS (3)	E-W	09-Mar-00	7	6.5	NS (3)	Misc Metal, drum lid
TP-8 (2)	NS (3)	E-W	07-Mar-00	7	6	NS (3)	Metal, bricks, rebar, steel plate
TP-9 (2)(4)	NS (3)	E-W	07-Mar-00	7	6	NS (3)	Concrete w/rebar, Metal (starter motor?)
TP-10 (2)(5)	NS (3)	N-S	06-Mar-00	5	2	NS (3)	Ledge - very hard bottom (concrete ?)
TP-11 (2)	NS (3)	N-S	06-Mar-00	9	7	NS (3)	crushed 35 gal drum
TP-12 (2)	NS (3)	E-W	06-Mar-00	6	5	NS (3)	Ledge - very hard, railroad rail in pit
TP-13 (2)	NS (3)	E-W	07-Mar-00	8	5	NS (3)	pipe on south side
TP-14 (2)	NS (3)	E-W	07-Mar-00	5	3	NS (3)	Metal rods and concrete w/ rebar
TP-15	T221	NW-SE	06-Mar-00	8.0	4.6	6.0	Metal pipe
	T223					4.8	Metal fence
TP-16	T224	N-S	06-Mar-00	17.5	12.0	6.5	Steel cable
	T225					6.3	
TP-17	T168	E-W	03-Mar-00	8.0	5.0	10.2	Misc metal debris, 2 large pieces at 4'
TP-18	T127	E-W	03-Mar-00	17.0	15.0	5.3	8' x 3' x 2' piece of concrete w/rebar
TP-19	T218	E-W	03-Mar-00	8.0	5.0	5.2	Misc metal debris
TP-20	T217	E-W	01-Mar-00	12.0	12.0	5.5	rebar
TP-21	T122	E-W	01-Mar-00	10.0	5 to 6	4.1	Large piece of concrete w/rebar
TP-22	T121	N-S	01-Mar-00	12.5	10.0	5.9	2 pieces of I-beam
TP-23	T120	N-S	02-Mar-00	19.0	19.0	5.8	Concrete w/rebar, herculite
TP-24	T167	E-W	02-Mar-00	12.5	6 to 7	4.9	Concrete w/rebar, herculite
TP-25	T169	N-S	02-Mar-00	8.0	5.0	4.0	Misc metal debris

Notes: (1) Data from report entitled: "MTADS Geophysical Survey of the Jamaica Island and Topeka Pier Landfills at the Portsmouth Naval Shipyard, Kittery, ME", Draft dated May 18, 1999, prepared by Naval Research Laboratory, Washington, DC.

(2) Test Pits 7 through 14 were located in areas of the uncapped landfill where the Navy believes drums may have been buried during the time period 1945 to 1965.

(3) NS means not surveyed due to storage of metal objects above ground.

(4) TP-9 was approximately 35' long

(5) TP-10 was approximately 40' long

**TABLE 5-2**

**BURIED DRUM/CONTAINER REMOVAL INVENTORY LOG**



**FOSTER WHEELER ENVIRONMENTAL CORPORATION**

Project Name/Location: Jamaica Island Landfill Drum Investigation  
 Project Manager: Carl Tippmann Phone No.: 215-702-4000

Project No. 1284 0038 1001  
 Log completed by: Joshua Holden

Drum No.	Drum Type	Location of Drum When Found	Drum Condition	Drum Size	Labels & Markings	Contents	Disposition of Drum (overpack, crushed, staged)
1	Steel - green	Upright	Sheared at top	55 gal	NAV_ SYM_ 52_	Oily material/tar	Overpack
2	Steel - green	Sideways	Broken/ crushed on one end	55 gal	NAV_ SYM_ 52_	Oily material 1/2 to 1/3 of tar with dirt	Overpack
3	Steel - green	Sideways	Intact	55 gal	NAV_ SYM_ 52_	Oily material	Overpack
4	Steel - green	Sideways	slightly crushed	55 gal	NAV_ SYM_ 52_	Oily material	Overpack
5	Steel - green	Sideways	1/2 drum	55 gal	NAV_  9250	Oily material	Overpack
6	Steel - green	Sideways	slightly crushed	55 gal	No Label	Oily material	Overpack
7	Steel - green	Sideways	Intact	55 gal	No Label	Oily material	Overpack
8	Steel - green	Sideways	slightly crushed	55 gal	No Label	Oily material	Overpack
9	Steel - green	Sideways	Intact	55 gal	No Label	Oily material	Overpack
10	Steel - green	Sideways	Punctured	55 gal	No Label	Oily material	Overpack
11	Steel - green	Sideways	Partially crushed	55 gal	No Label	Oily material	Overpack
12	Steel -	Sideways	Partially	55 gal	No Label	Oily material	Overpack

**TABLE 5-2  
BURIED DRUM/CONTAINER REMOVAL INVENTORY LOG**

Drum No.	Drum Type	Location of Drum When Found	Drum Condition	Drum Size	Labels & Markings	Contents	Disposition of Drum (overpack, crushed, staged)
	green		crushed/ punctured				
13	Steel - green	Sideways	Intact	55 gal	No Label	Oily material	Overpack
14	Steel - green	Sideways	Partially crushed/ punctured	55 gal	No Label	Oily material	Overpack
15	Steel - green	Sideways	Partially crushed/ punctured	55 gal	Navy Symbol	Oily material	Overpack
16	Steel - green	Sideways	Partially crushed	55 gal	Navy Symbol 0378	Oily material	Overpack
17	Steel - green	Sideways	Partially crushed	55 gal	No Label	Oily material	Overpack
18	Steel - green	Sideways	Partially crushed	55 gal	Kerosene	Water and oily material (not viscous)	Overpack
19	Steel - green	Sideways	Intact	55 gal	No Label	Oily material	Overpack
20	Steel - green	Sideways	Partially crushed/ punctured	55 gal	No Label	Oily material	Overpack
21	Steel - green	Sideways	Intact	55 gal	No Label	Oily material	Overpack
22	Steel - green	Sideways	Partially crushed	55 gal	No Label	Mostly empty, oily material	Overpack
23	Steel - green	Sideways	crushed	55 gal	No Label	oily material	Roll Off
24	Steel - green	Sideways	Partially full	55 gal	No Label	oily material	Overpack
25	Steel - green	Sideways	Intact	55 gal	No Label	oily material	Overpack
26	Steel - green	Sideways	Intact	55 gal	No Label	oily material	Overpack
27	Steel - green	Sideways	crushed	55 gal	No Label	oily material	Roll Off

**TABLE 5-2  
BURIED DRUM/CONTAINER REMOVAL INVENTORY LOG**

Drum No.	Drum Type	Location of Drum When Found	Drum Condition	Drum Size	Labels & Markings	Contents	Disposition of Drum (overpack, crushed, staged)
28	Steel - green	Sideways	crushed	55 gal	No Label	oily material	Roll Off
29	Steel - green	Sideways	Intact	55 gal	No Label	oily material	Overpack
30	Steel - green	Sideways	Intact	55 gal	No Label	oily material	Overpack
31	Steel - green	Sideways	crushed	55 gal	No Label	oily material	Roll Off
32	Steel - green	Sideways	crushed	55 gal	No Label	oily material	Roll Off
33	Steel - green	Sideways	crushed	55 gal	No Label	oily material	Roll Off
34	Steel - green	Sideways	crushed	55 gal	No Label	oily material	Roll Off
35	Steel - green	Sideways	Intact	55 gal	No Label	oily material	Overpack
36	Steel - green	Sideways	Intact	55 gal	No Label	oily material	Overpack
37	Steel - green	Sideways	crushed	55 gal	No Label	oily material	Roll Off
38	Steel - green	Sideways	crushed	55 gal	No Label	oily material	Roll Off
39	Steel - green	Sideways	Intact	55 gal	No Label	oily material	Overpack
40	Steel - green	Sideways	crushed	55 gal	No Label	oily material	Roll Off

- Notes: (1) Oily material was thick (viscous), did not flow readily, and appeared to be #6 oil.  
(2) Drums labeled as intact appeared to be full. Crushed and partial drums were approximately 75% full of the tar substance.  
(3) Drums were damaged during landfilling activities.  
(4) Drums number 1 through 21 were overpacked on 3/8/00, others were overpacked on 3/9/00.  
(5) Overpack # 34 contains drum # 24  
(6) Overpack #42 contains drum #29  
(7) Overpack #41 contains drum #30  
(8) Overpack #26 contains drum #23  
(9) One new drum was used to containerize miscellaneous material collected from the test pit.

**TABLE 5-2**

**BURIED DRUM/CONTAINER REMOVAL INVENTORY LOG**

(10) Roll-off container was moved to Building 357 storage area.

(11) PNSY personnel took custody of overpacks, new drum, and roll-off container.

**APPENDIX A**

**DISPOSAL DOCUMENTATION**



DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 DIVISION OF HAZARDOUS MATERIALS  
 One Winter Street Boston, Massachusetts 02108

Please print or type. (Form designed for use on 8 1/2" x 11" and 10 1/2" x 17" drawings)

In case of emergency or spill, immediately call the National Response Center (800) 424-8802.

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No. <b>ME7170022019</b>	Manifest Document No. <b>00116</b>		2. Page <b>1 of 1</b>	Information that is used areas shown on this Form.	
		3. Generator's Name and Mailing Address <b>PORTSMOUTH NAVAL SHIPYARD CODE 106.32 BEAVY ISLAND KITTEK</b>			A. State Manifest Document Number <b>MAJ 650402</b>		
4. Generator's Phone <b>ME 039045000</b>			6. US EPA ID Number <b>SCR000074591</b>		B. State Gen ID <b>SALAT</b>		
5. Transporter 1 Company Name <b>SAFETY-KLEIN (FC), INC.</b>		7. Transporter 2 Company Name		8. US EPA ID Number		C. State Trans. ID <b>MA25819</b>	
9. Designated Facility Name and Site Address <b>SAFETY-KLEIN (NE), INC. 300 CANAL STREET LAWRENCE MA 01840</b>		10. US EPA ID Number <b>MAD000604447</b>		D. Transporter's Phone <b>9786831002</b>		E. State Trans. ID	
				F. Transporter's Phone		G. State Facility's ID <b>NOT REQUIRED</b>	
				H. Facility's Phone <b>978 683-1002</b>			
11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number) <b>STATE REGULATED WASTE 009000 MA01</b>		12. Containers NO.	13. Total Quantity	14. UN Waste No.	15. Waste No.		
		<b>12</b>	<b>DM</b>	<b>4454</b>	<b>P</b>	<b>MA01</b>	
16. Additional Descriptions for Materials Listed Above (include physical state and hazard code) <b>11A (8016) NONE</b>				K. Handling Codes for Wastes Listed Above			
a.				a.			
b.				b.			
17. Special Handling Instructions and Additional Information <b>9ED6508 DC-0101 EMERGENCY PHONE 1-603-661-3952</b>							
<p>18. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway, according to applicable international and national government regulations.</p> <p>I am a large quantity generator of a facility that have a program in place to reduce the volume and toxicity of waste generated to the degree that is determined to be a practical and achievable. I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment. Or, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that is allowed.</p>							
Printed Type Name <b>Denis GAGNON</b>		Signature <i>Denis Gagnon</i>		Date <b>05/1/00</b>		Month Day Year	
19. Transporter 1 Acknowledgement of Receipt of Materials Printed Type Name <b>CHRIS CLARKE</b>		Signature <i>Chris Clarke</i>		Date <b>05/1/00</b>		Month Day Year	
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 18		Printed Type Name		Signature		Date Month Day Year	

Form Approved OMB No. 2060-1003 Expires 9-30-95  
 EPA Form 3520-102 (Rev. 4-95) Previous editions are obsolete.

COPY>1: FACILITY MAILS TO DESTINATION STATE

05/10/00

Page:

MANIFEST INFORMATION  
(Entered by Container ID)

Manifest#	Descrip#	Wste Stream/ Profile ID	ID Type	Num of Cntrs	Total Qty	Type of Cntr	Un Wt Vo
00116	1	8016	Profile	12	4454	DM	

Container ID

JIL433800  
JIL443800  
JIL453800  
JIL463800  
JIL473800  
JIL483800  
JIL493800  
JIL503800  
JIL513800  
JIL523800  
JIL533800  
JIL543800

**HAZ TRAC (TM)**

Complete tracking of each container of hazardous waste from the point of generation to the final disposal site.

<u>Generator's Name</u>	<u>Bar Code #</u>	<u>P/U Date</u>	<u>Manifest Number</u>	<u># of Pages</u>
PS004 PORTSMOUTH NAVAL SHIPYARD CODE 106.32 SEAVEY ISLAND ATTN: DENIS L. GAGNON KITTELY, ME 03904	116541	05/11/2000	MAJ650402	1

<u>Drum #</u>	<u>Laboratory Description</u>	<u>Waste Class/ Bill Back #</u>	<u>Profile/ EPA #'s</u>	<u>Ship Date Treatment Method</u>
001	TAR (PITCH)	24000 JIL433800	PS004-8016 MA01	05/15/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

Manifest# SC38013

<u>Drum #</u>	<u>Laboratory Description</u>	<u>Waste Class/ Bill Back #</u>	<u>Profile/ EPA #'s</u>	<u>Ship Date Treatment Method</u>
002	TAR (PITCH)	24000 JIL533800	PS004-8016 MA01	05/15/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

Manifest# SC38013

<u>Drum #</u>	<u>Laboratory Description</u>	<u>Waste Class/ Bill Back #</u>	<u>Profile/ EPA #'s</u>	<u>Ship Date Treatment Method</u>
003	TAR (PITCH)	24000 JIL523800	PS004-8016 MA01	05/15/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

Manifest# SC38013

*Cathy Olsen*  
Compliance Assistant  
Printed Name/Title

*Cathy Olsen*  
Signature

*06/15/00*  
Date

## HAZ TRAC (TM)

Complete tracking of each container of hazardous waste from the point of generation to the final disposal site.

Generator's Name	Bar Code #	P/U Date	Manifest Number	# of Pages
PS004 PORTSMOUTH NAVAL SHIPYARD CODE 106.32 SEAVEY ISLAND ATTN: DENIS L. GAGNON KITERY, ME 03904	116541	05/11/2000	MAJ650402	1

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
004	TAR (PITCH)	24000 JIL493800	PS004-8016 MA01	05/15/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

Manifest# SC38013

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
005	TAR (PITCH)	24000 JIL483800	PS004-8016 MA01	05/15/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

Manifest# SC38013

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
006	TAR (PITCH)	24000 JIL473800	PS004-8016 MA01	05/15/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

Manifest# SC38013

## HAZ TRAC (TM)

Complete tracking of each container of hazardous waste from the point of generation to the final disposal site.

Generator's Name	Bar Code #	P/U Date	Manifest Number	# of Pages
PS004 PORTSMOUTH NAVAL SHIPYARD CODE 106.32 SEAVEY ISLAND ATTN: DENIS L. GAGNON KITTERY, ME 03904	116541	05/11/2000	MAJ650402	1

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
007	TAR (PITCH)	24000 JIL443800	PS004-8016 MA01	05/15/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

Manifest# SC38013

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
008	TAR (PITCH)	24000 JIL543800	PS004-8016 MA01	05/15/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

Manifest# SC38013

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
009	TAR (PITCH)	24000 JIL463800	PS004-8016 MA01	05/15/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

Manifest# SC38013

## HAZ TRAC (TM)

Complete tracking of each container of hazardous waste from the point of generation to the final disposal site.

Generator's Name	Bar Code #	P/U Date	Manifest Number	# of Pages
PS004 PORTSMOUTH NAVAL SHIPYARD CODE 106.32 SEAVEY ISLAND ATTN: DENIS L. GAGNON KITTEERY, ME 03904	116541	05/11/2000	MAJ650402	1

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
010	TAR(PITCH)	24000 JIL513800	PS004-8016 MA01	05/15/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

Manifest# SC38013

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
011	TAR(PITCH)	24000 JIL456800	PS004-8016 MA01	05/15/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

Manifest# SC38013

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
012	TAR(PITCH)	24000 JIL503800	PS004-8016 MA01	05/15/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

Manifest# SC38013



COMMONWEALTH OF MASSACHUSETTS  
 DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 DIVISION OF HAZARDOUS MATERIALS  
 One Winter Street, Boston, Massachusetts 02108

Please print or type (Form designed for use on 8 1/2" x 11" paper)

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No. <b>ME7170022019</b>	Master Document No. <b>00096</b>	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address <b>PORTSMOUTH NAVAL SHIPYARD CODE 106.32 SEAVEY ISLAND KITTERY ME 039045000</b>				A. State Manifest Document No. <b>MA J 650375</b>		
4. Generator's Phone <b>603-74385153</b>				B. State Gen ID <b>SAME</b>		
5. Transporter 1 Company Name <b>SAFETY-KLEEN (TC), INC.</b>		6. US EPA ID Number <b>SCR000074591</b>		C. State Trans ID <b>383-14 MS</b>		
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone <b>9786831002</b>		
9. Designated Facility Name and Site Address <b>SAFETY-KLEEN (ME), INC. 300 CANAL STREET LAWRENCE MA 01840</b>		10. US EPA ID Number <b>MAD000604447</b>		E. State Trans ID		
				F. Transporter's Phone ( )		
				G. State Facility's ID <b>NOT REQUIRED</b>		
				H. Facility's Phone ( )		
11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)		12. Containers	13. Total	14. Unit	15. Waste No.	
a. <b>RQ WASTE CARBON, ACTIVATED 4.2 UN1362 PGIII D001</b>		<b>1</b>	<b>DM</b>	<b>194</b>	<b>P</b>	<b>DC01</b>
b. <b>RQ, WASTE SOLIDS CONTAINING FLAMMABLE LIQUIDS, N.O.S. (N-BUTYL ALCOHOL, XYLENE) 4.1 UN3175 PGII D001 D006</b>		<b>17</b>	<b>DM</b>	<b>2594</b>	<b>P</b>	<b>D001</b>
c. <b>STATE REGULATED WASTE 009000 MA01</b>		<b>25</b>	<b>DF</b>	<b>10696</b>	<b>P</b>	<b>MA01</b>
d. <b>STATE REGULATED WASTE 009000 MA01</b>		<b>5</b>	<b>DM</b>	<b>1940</b>	<b>P</b>	<b>MA01</b>
16. Additional Descriptions for Materials Listed Above (include physical state and hazard code.)				K. Handling Codes for Wastes Listed Above		
a. <b>11A (2002) ERG 133</b>		c. <b>11C (8016) NONE</b>		a.	b.	c.
b. <b>11B (2020) ERG 133</b>		d. <b>11D (8016) NONE</b>		b.	c.	d.
18. Special Handling Instructions and Additional Information <b>98D6508 DC-097 EMERGENCY PHONE 1-603-661-3952</b>						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be both economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment. If I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name <b>Denis L. Gagnon</b>		Signature <i>Denis L. Gagnon</i>		Date <b>04/24/00</b>		
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name <b>CLAYDE</b>		Signature <i>Clayde</i>		Date <b>04/24/00</b>		
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name		Signature		Date		
19. Discrepancy Indication Space						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.						
Printed/Typed Name		Signature		Date		

In case of emergency of spill, immediately call the Pollution Response Center (800) 424-9293.

MA 009000 MA01 FACILITY MAILLS TO DESTINATION STATE

Form Approved OMB No. 2050-1035 Expires 9-30-99  
 EPA Form 354 (12/99) Rev. 9/99 Previous editions are obsolete.

COPY>1: FACILITY MAILLS TO DESTINATION STATE

## HAZ TRAC (TM)

Complete tracking of each container of hazardous waste from the point of generation to the final disposal site.

Generator's Name	Bar Code #	P/U Date	Manifest Number	# of Pages
PS004 PORTSMOUTH NAVAL SHIPYARD CODE 106.32 SEAVEY ISLAND ATTN: DENIS L. GAGNON KITTEERY, ME 03904	115781	04/24/2000	MAJ650375	1

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
019	TAR(PITCH)	23000 JIL-233800-8016	PS004-8016 MA01	04/26/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
020	TAR(PITCH)	24000 JIL-173800-8016	PS004-8016 MA01	04/26/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
021	TAR(PITCH)	24000 JIL-193800-8016	PS004-8016 MA01	04/26/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

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Complete tracking of each container of hazardous waste from the point of generation to the final disposal site.

Generator's Name	Bar Code #	P/U Date	Manifest Number	# of Pages
PS004 PORTSMOUTH NAVAL SHIPYARD CODE 106.32 SEAVEY ISLAND ATTN: DENIS L. GAGNON KITTEERY, ME 03904	115781	04/24/2000	MAJ650375	1

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
022	TAR (PITCH)	24000 JIL-213800-8016	PS004-8016 MA01	04/26/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
023	TAR (PITCH)	24000 JIL-163800-8016	PS004-8016 MA01	04/26/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
024	TAR (PITCH)	24000 JIL-153800-8016	PS004-8016 MA01	04/26/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

## HAZ TRAC (TM)

Complete tracking of each container of hazardous waste from the point of generation to the final disposal site.

Generator's Name	Bar Code #	P/U Date	Manifest Number	# of Pages
PS004 PORTSMOUTH NAVAL SHIPYARD CODE 106.32 SEAVEY ISLAND ATTN: DENIS L. GAGNON KITTEERY, ME 03904	115781	04/24/2000	MAJ650375	1

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
025	TAR(PITCH)	24000 JIL-073800-8016	PS004-8016 MA01	04/26/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
026	TAR(PITCH)	24000 JIL-013800-8016	PS004-8016 MA01	04/26/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
027	TAR(PITCH)	24000 JIL-023800-8016	PS004-8016 MA01	04/26/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

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<u>Generator's Name</u>	<u>Bar Code #</u>	<u>P/U Date</u>	<u>Manifest Number</u>	<u># of Pages</u>
PS004 PORTSMOUTH NAVAL SHIPYARD CODE 106.32 SEAVEY ISLAND ATTN: DENIS L. GAGNON KITTEERY, ME 03904	115781	04/24/2000	MAJ650375	1

<u>Drum #</u>	<u>Laboratory Description</u>	<u>Waste Class/ Bill Back #</u>	<u>Profile/ EPA #'s</u>	<u>Ship Date Treatment Method</u>
028	TAR (PITCH)	24000 JIL-033800-8016	PS004-8016 MA01	04/26/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

<u>Drum #</u>	<u>Laboratory Description</u>	<u>Waste Class/ Bill Back #</u>	<u>Profile/ EPA #'s</u>	<u>Ship Date Treatment Method</u>
029	TAR (PITCH)	24000 JIL-063800-8016	PS004-8016 MA01	04/26/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

<u>Drum #</u>	<u>Laboratory Description</u>	<u>Waste Class/ Bill Back #</u>	<u>Profile/ EPA #'s</u>	<u>Ship Date Treatment Method</u>
030	TAR (PITCH)	24000 JIL-123800-8016	PS004-8016 MA01	04/26/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

**HAZ TRAC (TM)**

Complete tracking of each container of hazardous waste from the point of generation to the final disposal site.

<b>Generator's Name</b>	<b>Bar Code #</b>	<b>P/U Date</b>	<b>Manifest Number</b>	<b># of Pages</b>
PS004	115781	04/24/2000	MAJ650375	1
PORTSMOUTH NAVAL SHIPYARD CODE 106.32 SEAVEY ISLAND ATTN: DENIS L. GAGNON KITTEERY, ME 03904				

<b>Drum #</b>	<b>Laboratory Description</b>	<b>Waste Class/ Bill Back #</b>	<b>Profile/ EPA #'s</b>	<b>Ship Date Treatment Method</b>
031	TAR (PITCH)	24000 JIL-113800-8016	PS004-8016 MA01	04/26/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

<b>Drum #</b>	<b>Laboratory Description</b>	<b>Waste Class/ Bill Back #</b>	<b>Profile/ EPA #'s</b>	<b>Ship Date Treatment Method</b>
032	TAR (PITCH)	24000 JIL-143800-8016	PS004-8016 MA01	04/26/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

<b>Drum #</b>	<b>Laboratory Description</b>	<b>Waste Class/ Bill Back #</b>	<b>Profile/ EPA #'s</b>	<b>Ship Date Treatment Method</b>
033	TAR (PITCH)	24000 JIL-093800-8016	PS004-8016 MA01	04/26/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

## HAZ TRAC (TM)

Complete tracking of each container of hazardous waste from the point of generation to the final disposal site.

Generator's Name	Bar Code #	P/U Date	Manifest Number	# of Pages
PS004 PORTSMOUTH NAVAL SHIPYARD CODE 106.32 SEAVEY ISLAND ATTN: DENIS L. GAGNON KITTERY, ME 03904	115781	04/24/2000	MAJ650375	1

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
034	TAR(PITCH)	24000 JIL-203800-8016	PS004-8016 MA01	04/26/2000 SECURE LANDFILL ML32

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
035	TAR(PITCH)	24000 JIL-183800-8016	PS004-8016 MA01	04/26/2000 SECURE LANDFILL ML32

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
036	TAR(PITCH)	24000 JIL-393800-8016	PS004-8016 MA01	04/26/2000 SECURE LANDFILL ML32

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

## HAZ TRAC (TM)

Complete tracking of each container of hazardous waste from the point of generation to the final disposal site.

Generator's Name	Bar Code #	P/U Date	Manifest Number	# of Pages
PS004 PORTSMOUTH NAVAL SHIPYARD CODE 106.32 SEAVEY ISLAND ATTN: DENIS L. GAGNON KITTEERY, ME 03904	115781	04/24/2000	MAJ650375	1

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
037	TAR (PITCH)	23000 JIL-133800-8016	PS004-8016 MA01	04/26/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
038	TAR (PITCH)	23000 JIL-103800-8016	PS004-8016 MA01	04/26/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
039	TAR (PITCH)	23000 JIL-053800-8016	PS004-8016 MA01	04/26/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

## HAZ TRAC (TM)

Complete tracking of each container of hazardous waste from the point of generation to the final disposal site.

Generator's Name	Bar Code #	P/U Date	Manifest Number	# of Pages
PS004 PORTSMOUTH NAVAL SHIPYARD CODE 106.32 SEAVEY ISLAND ATTN: DENIS L. GAGNON KITTELY, ME 03904	115781	04/24/2000	MAJ650375	1

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
040	TAR (PITCH)	23000 JIL-043800-8016	PS004-8016 MA01	04/26/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
041	TAR (PITCH)	23000 JIL-08380-8016	PS004-8016 MA01	04/26/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
042	TAR (PITCH)	24000 JIL-423800-8016	PS004-8016 MA01	04/26/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

## HAZ TRAC (TM)

Complete tracking of each container of hazardous waste from the point of generation to the final disposal site.

Generator's Name	Bar Code #	P/U Date	Manifest Number	# of Pages
PS004 PORTSMOUTH NAVAL SHIPYARD CODE 106.32 SEAVEY ISLAND ATTN: DENIS L. GAGNON KITTEERY, ME 03904	115781	04/24/2000	MAJ650375	1

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
043	TAR (PITCH)	23000 JIL-353800-8016	PS004-8016 MA01	04/26/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
044	TAR (PITCH)	23000 JIL-363800-8016	PS004-8016 MA01	04/26/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
045	TAR (PITCH)	23000 JIL-253800-8016	PS004-8016 MA01	04/26/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

## HAZ TRAC (TM)

Complete tracking of each container of hazardous waste from the point of generation to the final disposal site.

Generator's Name	Bar Code #	P/U Date	Manifest Number	# of Pages
PS004 PORTSMOUTH NAVAL SHIPYARD CODE 106.32 SEAVEY ISLAND ATTN: DENIS L. GAGNON KITTERY, ME 03904	115781	04/24/2000	MAJ650375	1

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
046	TAR(PITCH)	24000 JIL-343800-8016	PS004-8016 MA01	04/26/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
047	TAR(PITCH)	24000 JIL-223800-8016	PS004-8016 MA01	04/26/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
048	TAR(PITCH)	24000 JIL-413800-8016	PS004-8016 MA01	04/26/2000 SECURE LANDFILL M132

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
ROUTE 1 BOX 255  
PINWOOD SC 29125  
EPA ID: SCD070375985

## HAZ TRAC (TM)

Complete tracking of each container of hazardous waste from the point of generation to the final disposal site.

Generator's Name	Bar Code #	P/U Date	Manifest Number	# of Pages
PS004 PORTSMOUTH NAVAL SHIPYARD CODE 106.32 SEAVEY ISLAND ATTN: DENIS L. GAGNON KITTEERY, ME 03904	115781	04/24/2000	MAJ650375	1

Drum #	Laboratory Description	Waste Class/ Bill Back #	Profile/ EPA #'s	Ship Date Treatment Method
049	TAR (PITCH)	24000 JIL-003800-8016	PS004-8016 MA01	04/26/2000 SECURE LANDFILL ML32

DISPOSAL SITE: SAFETY-KLEEN (PINWOOD), INC.  
 ROUTE 1 BOX 255  
 PINWOOD SC 29125  
 EPA ID: SCD070375985