



20
N00102.AR.001373
NSY PORTSMOUTH
5090.3a 03

DEPARTMENT OF THE NAVY
PORTSMOUTH NAVAL SHIPYARD
PORTSMOUTH, N. H. 03804-5000

IN REPLY REFER TO:

June 7, 2004

MEMORANDUM

**FOR THE MEMBERS OF THE RESTORATION ADVISORY BOARD (RAB) CERCLA
REMEDIAL ACTION PROGRAM, PORTSMOUTH NAVAL SHIPYARD, KITTERY, MAINE**

The next RAB meeting will be held on Tuesday, June 22, 2004 beginning at 7 p.m. at the Best Western Wynwood Suites on the Route 1 bypass in Portsmouth, NH. The presentation will be on the Draft Site 10 Additional Extent Investigation Quality Assurance Project Plan.

Your participation is greatly appreciated. If you are unable to attend the meeting, please contact me at (207) 438-3830. I look forward to seeing you at the RAB meeting.

Sincerely,

Ken Plaisted
Navy Co-Chairman
Restoration Advisory Board

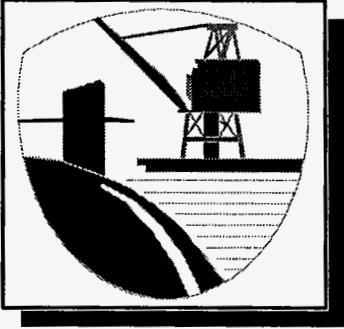
Distribution:

Doug Bogen
Michele Dionne
Alan Davis
Roger Wells

Jeff Clifford
Mary Marshall
Jack McKenna
Carolyn Lepage

Onil Roy
James Horrigan
Diana McNabb
Peter Britz

EPA Region I (M. Audet)
MEDEP (I. McLeod)
NOAA (K. Finkelstein)
MEDMR (D. Card)
NHFG (C. McBane)
USFWS (K. Munney)
EFANE (F. Evans)
COMSUBGRU TWO (A. Stackpole)
Portsmouth Naval Shipyard (Codes 106, 106.3, 106.3R, 100PAO, 105, 105.5, NRRO)



**Portsmouth Naval Shipyard
Installation Restoration
Program
Agenda**

Date – June 22, 2004

Place – Best Western, Portsmouth, NH

Time – 7 p.m.- 9 p.m.

Introductions

Status of Work

Regulator Updates

**Draft Site 10 Additional Investigation Quality
Assurance Project Plan**

Other Issues as Required

PORTSMOUTH NAVAL SHIPYARD
INSTALLATION RESTORATION PROGRAM
STATUS OF WORK
June 22, 2004

SITE STATUS

OU 1 (Sites 10, Battery Acid Tank, & 21, Acid/Alkaline Tank #28)

Additional Remedial Investigation	Dec 2004
Risk Assessment	2005
Feasibility Study	2006
Proposed Plan and Record of Decision	2007

OU 2 (Sites 6, DRMO, & 29, Incinerator Site)

Feasibility Study	2004/2005
Proposed Plan	2005
Record of Decision	2006

OU 3 (Sites 8, Jamaica Island Landfill, 9, Mercury Burial Vaults, & 11, Waste Oil Tanks)

Operations/Maintenance and Monitoring Plan	July 2004
--	-----------

OU 4 (Areas off-shore that were potentially impacted by on-shore IRP sites and Site 5)

Draft Rounds 1-7 Report	May 2004
Feasibility Study	2006/2007
Proposed Plan/Record of Decision	2007/2008

OU 6 (Site 8, Management of Migration)

TBD

OU 7 (Site 32)

Draft Remedial Investigation Phase II Recommendations	January 2004
---	--------------

OU 8 (Site 31)

Remedial Investigation Work Plan	2010/2011
----------------------------------	-----------

Site Screening Areas:

Site 30, Galvanizing Plant (Building 184)

Revised draft EE/CA Action Memorandum	April 2004 2004
--	--------------------

Site 34, Oil Gasification Plant (Building 62)

Draft Engineering Evaluation/Cost Analysis Action Memorandum	June 2004 2004/2005
---	------------------------

PORTSMOUTH NAVAL SHIPYARD
INSTALLATION RESTORATION PROGRAM
STATUS OF WORK
June 22, 2004

DOCUMENT SCHEDULE

<u>Amended Site Management Plan</u>	
Submit draft FY05 SMP	June 15, 2004
Comments due on draft SMP	July 15, 2004
<u>Operable Unit 1 (Site 10, Building 238)</u>	
Submitted draft QAPP for additional investigation	April 30, 2004
Comments due on draft QAPP	June 14, 2004
<u>Operable Unit 2 (Sites 6, DRMO, and 29, Teepee Incinerator)</u>	
Submit draft Feasibility Study	November 2004
<u>Operable Unit 3 (Sites 8, 9 and 11)</u>	
Former CDC Investigation Report	
Submit No Further Action Decision Document	TBD
OU3 Monitoring and Operations and Maintenance Program DQOs	
Submitted Draft Final DQOs	May 21, 2004
Comments due on draft final DQOs	June 21, 2004
<u>Operable Unit 4 Interim Monitoring</u>	
Rounds 1-7 Report	
Submitted draft	May 5, 2004
Comments due on draft report	June 17, 2004
Memo for Additional Scrutiny at MS 5, 8, and 9	
Submitted draft memo on recommendations	June 21, 2004
Comments due on Memo for Additional Scrutiny	July 21, 2004
Technical Memorandum for Comparison of NOAA and USEPA Analytical Methods for Metals	
Submitted draft technical memorandum	June 1, 2004
Comments due on Analytical Methods for Metals	July 2, 2004
<u>Operable Unit 6 (management of migration OU for Site 8)</u>	
Data Quality Objectives	
Submitted draft DQOS	December 10, 2002
Received comments on DQOS	January 2003
Submit final DQOs	TBD

PORTSMOUTH NAVAL SHIPYARD
INSTALLATION RESTORATION PROGRAM
STATUS OF WORK
June 22, 2004

Operable Unit 7 (Site 32, Topeka Pier)

Receive follow up comments on Phase II Recommendations May 17, 2004
Submit final Phase II Recommendations June 2004

Site 30, Building 184, former Galvanizing Plant

Submitted revised draft Engineering Evaluation/Cost Analysis April 28, 2004
Receive comments on revised draft EE/CA May 28, 2004
Respond to comments on EE/CA June 28, 2004

Site 34, Building 62 former Oil Gasification Plant

Site Screening Area Report
Comments due on draft final report June 21, 2004
Submit final report July 21, 2004
Engineering Evaluation/ Cost Analysis (EE/CA)
Submit draft EE/CA June 29, 2004

MRP site

Submit Preliminary Assessment TBD

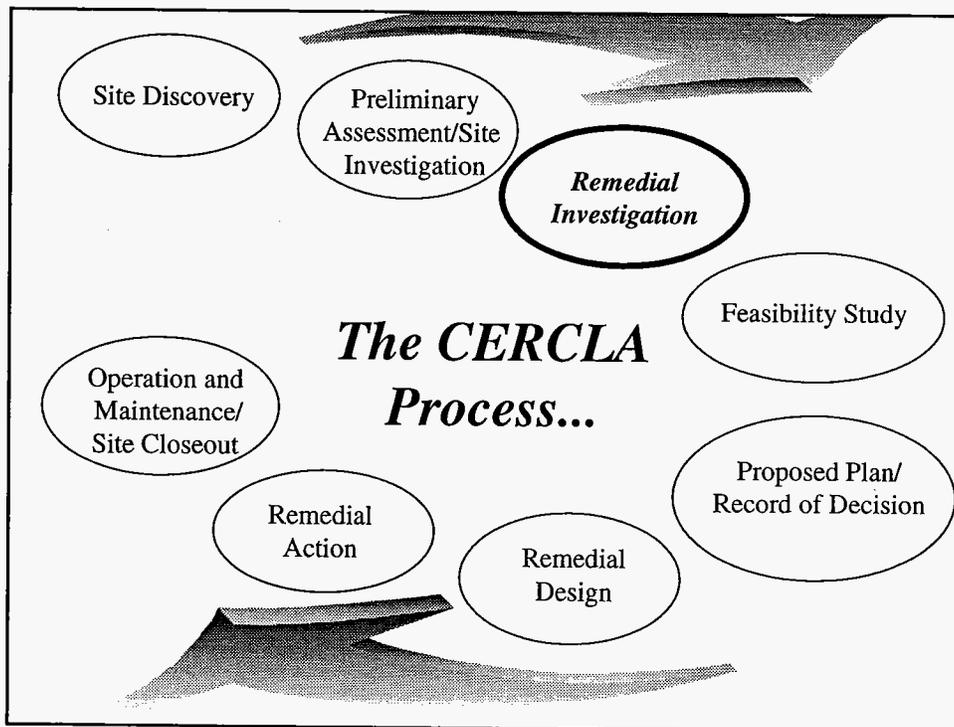
SITE 10 ADDITIONAL EXTENT INVESTIGATION

Portsmouth Naval Shipyard
Restoration Advisory Board Meeting
June 22, 2004

Presented by JP Kumar, P.E., Tetra Tech NUS, Inc.

Presentation Objectives

- ◆ Present an overview of the site description/history
- ◆ Present the results of previous investigations at Site 10
- ◆ Present the planned additional extent sampling program for Site 10



Site Description and History

- ◆ Site 10, former Battery Acid Tank site, is located in the Controlled Industrial Area.

- ◆ Physical features of the area previously investigated and surroundings are:
 - Small peninsula (approximately 1 acre)
 - Building 238 occupies 90 percent of area
 - Asphalt paved area, railroad and quay walls in the remaining area

CERCLA Releases

- ◆ Lead acid batteries were drained inside Building 238. From 1974 to 1984, the acid discharged to an underground storage tank via a pipeline running through the crawl space.
- ◆ A leak was discovered in the tank and the tank/pipeline were taken out of service in 1984. The tank and soil around it was removed in 1986.
- ◆ The pipeline is likely to have leaked.
- ◆ The former tank and pipeline are the only known sources of CERCLA releases at the site.

Previous Investigations

- ◆ RCRA Facility Investigation (RFI) (1991), Site Investigation (1998), Additional Investigation (2001)
- ◆ Media Investigated:
 - Subsurface soil around the former tank.
 - Surface soil in the crawl space adjacent to the acid-drain pipeline.
 - Surface and subsurface soils across the site.
 - Groundwater downgradient of the tank/drainline and upgradient of building from two sampling events.

Nature and Extent of Contamination

- ◆ Former tank area has clean fill.
- ◆ Of the metals detected, lead is the primary chemical related to the CERCLA releases in soil.
- ◆ Distribution of lead concentrations in soil showed:
 - Crawl space especially near drain line had higher concentrations than outside the building.
 - Outside the crawl space concentrations were generally similar except at the only location where lead was detected in groundwater.
- ◆ Lead was detected only in one downgradient well.

Risk Screening Results

- ◆ Chemicals of potential concern in soil were identified as: lead, antimony, barium, manganese, mercury, and thallium.
 - Further evaluation showed lead and antimony as the most likely risk drivers.
- ◆ Groundwater constituent levels shown not to be of concern for offshore impact.

Findings of Site 10 Additional Investigation Report

- ◆ The Navy concluded/recommended the following (TtNUS, March 2003):
 - A human health risk assessment should be conducted for soil.
 - No COPCs are present in groundwater, however the status of lead should be reevaluated in the risk assessment.
 - A potential impact of groundwater contaminants to the offshore is not expected to occur.
 - The extent of lead contamination under Building 238 (including identification of other lead acid battery sources) needs further investigation.

Site 10 Additional Extent Investigation – Primary Study Questions

- ◆ What is the extent of lead contamination in the surface soil under Building 238?
- ◆ What is the extent of lead contamination in the subsurface soil around BA-3C outside Building 238?
- ◆ Are there other locations of CERCLA releases outside Building 238 related to the former lead acid battery operations?

Site 10 Additional Extent Investigation – Soil Sampling and Analytical Rationale

- ◆ Under the building (for surface extent)
 - A grid-based sampling design around known areas of high concentrations.
 - Samples to be collected to a depth of 2 feet below crawl-space ground surface.
- ◆ Around BA-3C (for subsurface extent)
 - Locations north, west, and east of BA-3C.
 - Samples to be collected from a depth of 6 to 18 feet below ground surface.

Site 10 Additional Extent Investigation – Soil Sampling and Analytical Rationale (contd.)

- ◆ Remainder of site (for surface and subsurface releases)
 - Locations along the eastern and western sides of Building 238 approximately 20 feet apart.
 - Samples will be collected from 0 to 10 feet below ground surface.

- ◆ Analysis of lead for all soil samples will be conducted.

Site 10 Additional Extent Investigation – Project Decisions

1. Determine whether the extent of relatively highly contaminated areas under the building is bounded.
 - If bounded, then mark potential remediation zone(s).

 - If not bounded, then consider the entire area under the building as a single potential remediation zone.

Site 10 Additional Extent Investigation –
Project Decisions (Continued)

2. Determine whether the extent of relatively highly contaminated area around BA-3C is bounded.
 - If bounded, then mark the potential remediation zone.

 - If not bounded, then assume the area up to site boundary or the nearest area of site fill concentration is a potential remediation zone.

Site 10 Additional Extent Investigation –
Project Decisions (Continued)

3. Determine whether subsurface soil locations at other locations around the building have been impacted by lead acid battery operations.
 - If the data show a release has occurred, determine the extent using the available data.

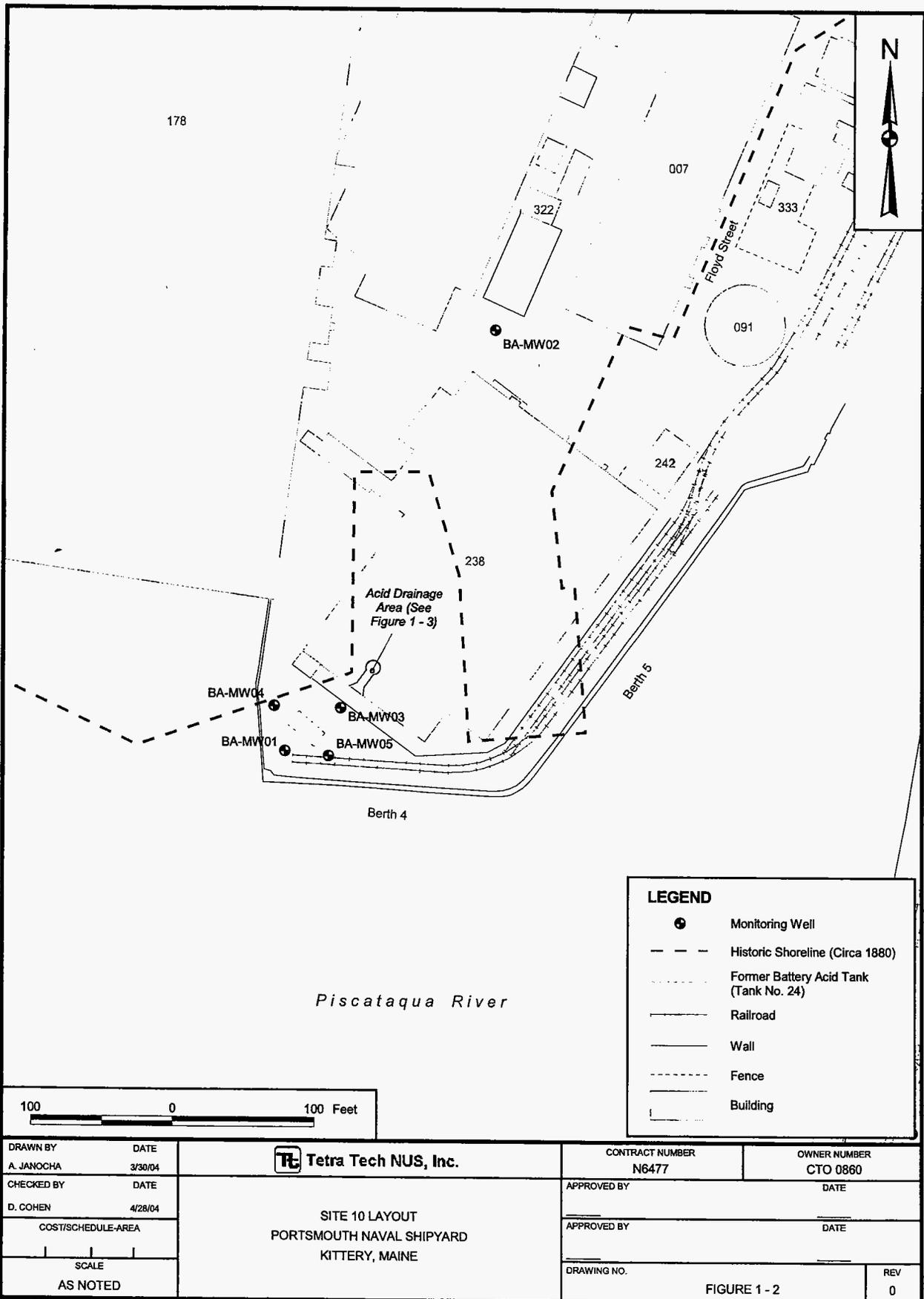
 - If data show a release has not occurred, then limit the site boundaries to the building footprint.

Presentation Summary

- ◆ Lead acid battery operations were conducted in Building 238 until 1984; and metal contamination occurs in soil in the vicinity of the drainage pipeline and former underground storage tank.
- ◆ Extent of lead contamination in the crawl space of Building 238 and subsurface outside the building is required to support the FS.
- ◆ CERCLA releases from lead acid battery operations other than the known releases need to be identified to determine the site boundary.
- ◆ Data to support the above project goals will be generated during the Site 10 Additional Extent Investigation currently scheduled for December 2004.

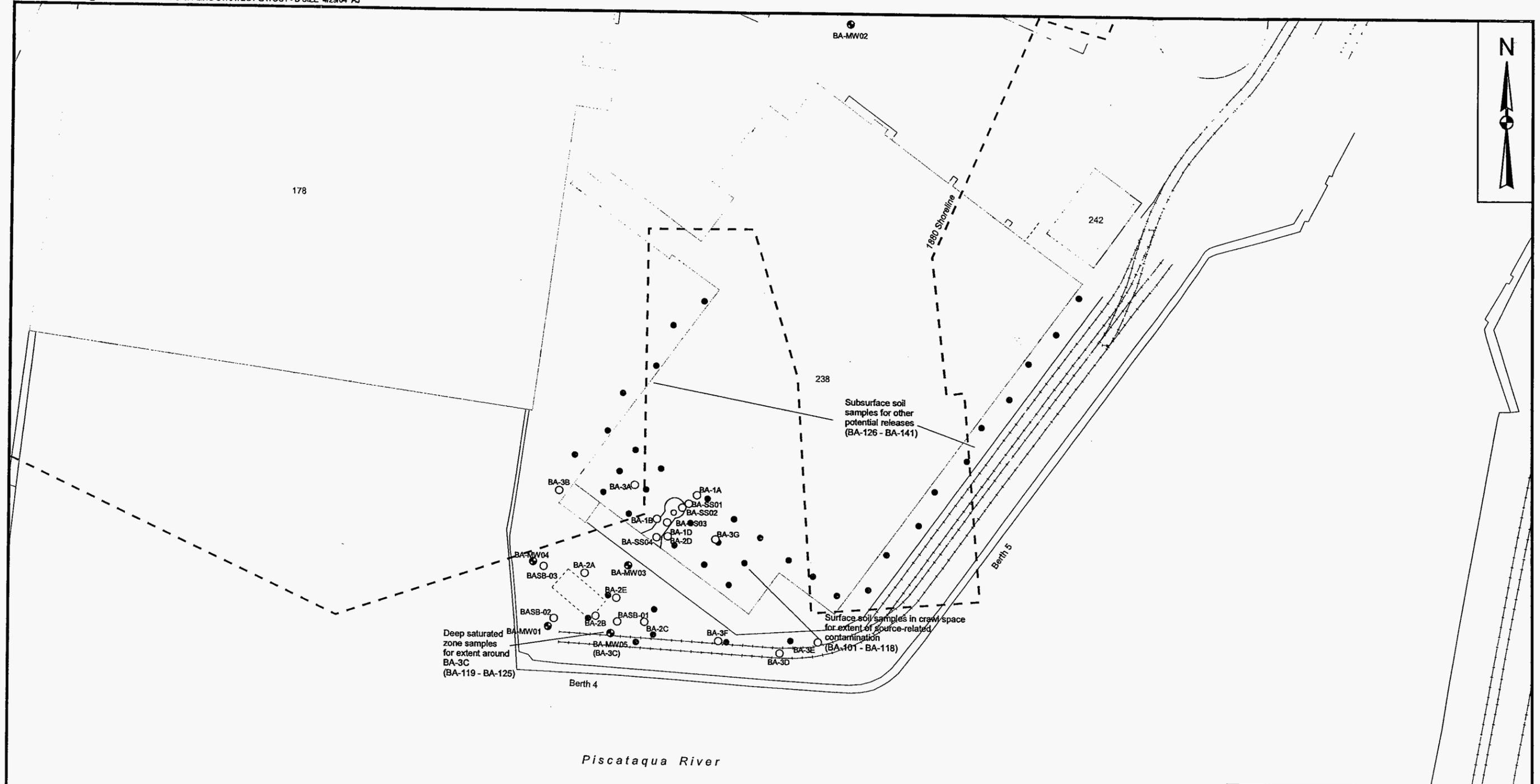
What is Next?

- ◆ Comments on the draft Site 10 Additional Extent Investigation Quality Assurance Project Plan (QAPP) were due June 14, 2004.
- ◆ The final QAPP is due November 26, 2004.
- ◆ Fieldwork is currently scheduled for December 2004.



P:\GIS\PORTSMOUTH_NS\Y\APR\SITE10.APR SITE LAYOUT 4/27/04 AJ

P:\GIS\PORTSMOUTH_NSYAPRISITE10.APR SAMPLING STRATEGY LAYOUT - B SIZE 4/29/04 AJ



<ul style="list-style-type: none"> ● Proposed Sample ⊕ Monitoring Well ○ Soil Sample 	<ul style="list-style-type: none"> — Road —+— Railroad — Wall — Building 	<ul style="list-style-type: none"> — Trough - - - Historic Shoreline (Circa 1880) - - - Former Battery Acid Tank (Tank No. 24) 	<table border="1"> <tr> <td>DRAWN BY A. JANOCHA</td> <td>DATE 3/26/04</td> </tr> <tr> <td>CHECKED BY D. COHEN</td> <td>DATE 4/29/04</td> </tr> <tr> <td colspan="2">COST/SCHEDULE-AREA</td> </tr> <tr> <td colspan="2">SCALE AS NOTED</td> </tr> </table>	DRAWN BY A. JANOCHA	DATE 3/26/04	CHECKED BY D. COHEN	DATE 4/29/04	COST/SCHEDULE-AREA		SCALE AS NOTED		<p>Tetra Tech NUS, Inc.</p> <p>CONCEPTUAL SAMPLING STRATEGY SITE 10 PORTSMOUTH NAVAL SHIPYARD KITTERY, MAINE</p>	<table border="1"> <tr> <td>CONTRACT NUMBER N6477</td> <td>OWNER NUMBER CTO 0860</td> </tr> <tr> <td>APPROVED BY</td> <td>DATE</td> </tr> <tr> <td>APPROVED BY</td> <td>DATE</td> </tr> <tr> <td>DRAWING NO. FIGURE 2 - 1</td> <td>REV 0</td> </tr> </table>	CONTRACT NUMBER N6477	OWNER NUMBER CTO 0860	APPROVED BY	DATE	APPROVED BY	DATE	DRAWING NO. FIGURE 2 - 1	REV 0
DRAWN BY A. JANOCHA	DATE 3/26/04																				
CHECKED BY D. COHEN	DATE 4/29/04																				
COST/SCHEDULE-AREA																					
SCALE AS NOTED																					
CONTRACT NUMBER N6477	OWNER NUMBER CTO 0860																				
APPROVED BY	DATE																				
APPROVED BY	DATE																				
DRAWING NO. FIGURE 2 - 1	REV 0																				