

Baker

October 19, 2000

Commander
Atlantic Division
Naval Facilities Engineering Command
1510 Gilbert Street (Building N-26)
Norfolk, Virginia 23511-2699

Attn: Mr. Robert Schirmer, P.E.
Code 18222

Re: Navy CLEAN II Program
Contract N62470-95-D-6007
Contract Task Order (CTO) 0104
Draft Final Field Investigation Report – Site 7 and AOC 2
Naval Weapons Station Yorktown
Yorktown, Virginia
Cheatham Annex Site

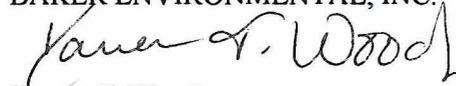
Dear Mr. Schirmer:

Baker Environmental, Inc. (Baker) is pleased to submit three copies of the Draft Final Field Investigation Report for Site 7 (Old DuPont Disposal Area) and AOC 2 (Dextrose Dump) at Naval Weapons Station Yorktown, Cheatham Annex Site (CAX). We hope that you find this document adequately summarizes the November 1999 Field Investigation conducted at Site 7 and AOC 2.

In order to stay on schedule for the Final submittal, please provide review comments no later than November 20, 2000. As always, Baker appreciates the opportunity to provide continued service to LANTDIV and looks forward to serving the Navy on future project activities at CAX. If you have any comments regarding the enclosed report, please contact me at (412) 269-4687.

Sincerely,

BAKER ENVIRONMENTAL, INC.



Karren T. Wood
Project Manager

KTW/lp

cc: Mr. Rollie Burford, Code 02112 (letter only)
Ms. Carolyn Neill, Code 09E (letter only)
Mr. Dennis Brittin, Code BX0 (letter only)
Mr. Jeffrey Harlow, Code 09217 (five copies)
Ms. Donna Caldwell, P.G., CH2M Hill (one copy)
Ms. Sharon Wilcox, CHMM, VDEQ (two copies)
Mr. Robert Stroud, USEPA (six copies)

10/19/00-01468 Admin Record

Baker Environmental, Inc.

A Unit of Michael Baker Corporation

Airport Office Park, Building 3
420 Rouser Road
Coraopolis, Pennsylvania 15108

(412) 269-6000
FAX (412) 269-6097





Baker Environmental, Inc.
 420 Rouser Road
 Airport Office Park Bldg. 3
 Coraopolis, PA 15108
 Telephone: (412) 269-6000
 Fax: (412) 269-2002

Letter of Transmittal

To: Mr. Jay N. Dewing
 Community Co-Chair
 236 Kings Grant Drive
 Yorktown, Virginia 23692

S.O. No. 26007-104-0000-SRN
 Project: Draft Final Field Investigation
 Date: October 19, 2000

We are forwarding the following: Attached Under Separate Cover

DWG. NO.	NO. COPIES	TITLE OR DESCRIPTION	COMMENTS
	1	Draft Final Field Investigation - Site 7 and AOC 2 Naval Weapons Station Yorktown Cheatham Annex Site Williamsburg, Virginia	

THESE ARE TRANSMITTED as checked below:

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GENERAL COMMENTS:

cc: Mr. Robert Schirmer, LANTDIV, (Code 18222)

BAKER ENVIRONMENTAL, INC.

By: Karren T. Wood

Title: Project Manager

Page 1 of 1

Letter of Transmittal

To: Ms. Elizabeth Rogers
 210 West Queens Drive
 Williamsburg, Virginia 23185

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BAKER ENVIRONMENTAL, INC.

By: Karren T. Wood

Title: Project Manager

Page 1 of 1



Baker Environmental, Inc.
 420 Rouser Road
 Airport Office Park Bldg. 3
 Coraopolis, PA 15108
 Telephone: (412) 269-6000
 Fax: (412) 269-2002

Letter of Transmittal

To: Mr. Dexter Haven
 Chesapeake Bay Foundation
 130 Lafayette Road
 Yorktown, Virginia 23690

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BAKER ENVIRONMENTAL, INC.

By: Karren T. Wood
 Title: Project Manager
 Page 1 of 1



Baker Environmental, Inc.
 420 Rouser Road
 Airport Office Park Bldg. 3
 Coraopolis, PA 15108
 Telephone: (412) 269-6000
 Fax: (412) 269-2002

Letter of Transmittal

To: York County Fire and Life Safety
 P.O. Box 532
 126 Ballard Street
 Yorktown, Virginia 23690

S.O. No. 26007-104-0000-SRN
 Project: Draft Final Field Investigation
 Date: October 19, 2000

Attn: Mr. Stephen P. Kopczynski, Fire Chief

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BAKER ENVIRONMENTAL, INC.

By: Karren T. Wood

Title: Project Manager

Page 1 of 1

Letter of Transmittal

To: James City County Fire Department
 5077 John Tyler Highway
 Williamsburg, Virginia 23185

S.O. No. 26007-104-0000-SRN
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Attn: Mr. Richard M. Miller, Chief

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For review and comment

Rejected - See remarks

Submit specified items

For your information

Proceed subject to corrections noted

GENERAL COMMENTS:

cc: Mr. Robert Schirmer, LANTDIV, (Code 18222)

BAKER ENVIRONMENTAL, INC.

By: Karren T. Wood

Title: Project Manager

Page 1 of 1

Letter of Transmittal

To: Department of Environmental Services
 County of York, Virginia
 201 Goodwin Neck Road
 Yorktown, Virginia 23692

S.O. No. 26007-104-0000-SRN
 Project: Draft Final Field Investigation
 Date: October 19, 2000

Attn: Mr. John T. Dunn, P.E., Director

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 420 Rouser Road
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 Coraopolis, PA 15108
 Telephone: (412) 269-6000
 Fax: (412) 269-2002

Letter of Transmittal

To: Department of Environmental Sciences
 Virginia Institute of Marine Science
 P.O. Box 1346 - Great Road
 Gloucester Point, Virginia 23602-1346

S.O. No. 26007-104-0000-SRN
 Project: Draft Final Field Investigation
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Attn: Mr. Morris H. Roberts, Jr.

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 420 Rouser Road
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 Telephone: (412) 269-6000
 Fax: (412) 269-2002

Letter of Transmittal

To: U.S. National Park Service - Ranger Station
 Colonial National Historic Park
 P.O. Box 210 - 209 Read Street
 Yorktown, Virginia 23690

S.O. No. 26007-104-0000-SRN
 Project: Draft Final Field Investigation
 Date: October 19, 2000

Attn: Mr. Chuck Rafkind

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Page 1 of 1

EXECUTIVE SUMMARY

The following paragraphs summarize significant information regarding Site 7, AOC 2 and the findings of the November 1999 Field Investigation.

Site 7 – Old DuPont Disposal Area

Three possible locations have been reported for Site 7 including: adjacent to Queen Creek; behind two recreational cabins adjacent to the York River; and northeast of the intersection of Chase and Lynch Roads, near the York River. No signs of disposal or significant surface disturbance are present in either of the first two locations. Based on anecdotal accounts, the third location was previously used as a borrow area. This third location is currently designated as Site 7.

The 1999 Field Investigation included excavation of ten test pits to determine if debris is buried at the site, and collection of one sediment sample from an area that receives surface water runoff from the site.

The test pit investigation revealed that debris is buried in the northern portion of the site. The soils present in the remaining portion of the site have been re-worked as indicated by the lithology and the presence of very occasional debris such as rock fragments, candy wrappers, minor charred materials, etc. It was determined that the investigated area is not the location of the former DuPont disposal site.

The polychlorinated biphenyl (PCB) congener Aroclor-1260 was detected in the sediment sample. A follow-up investigation is recommended to characterize and define the lateral extent of the debris, determine the source of the PCB detection, and assess the impact (if any) to soil, groundwater, and sediment. Based on the findings of the investigation it is recommended that a Site Investigation be completed to determine the appropriate management strategy for the site.

During a site visit by representatives from the Navy and United States Environmental Protection Agency (USEPA) in late August 2000, a fourth location for the disposal area was discovered. At this time, concrete and metal surface debris was found in the wooded area between the recreational cabins and the York River. Debris was also found along a portion of the shoreline of the York River. Based on the location and type of debris found in this area (e.g., pieces of charred, melted glass and engine parts from the World War I era), it is believed that this fourth location is in fact the site that received wastes from the City of Penniman and the DuPont Facility. This area has been designated AOC 6 (Penniman Disposal Area) and will be addressed under a separate investigation.

AOC 2 – Dextrose Dump

Area of Concern (AOC) 2 is located in the southern portion of Naval Weapons Station (WPNSTA) Yorktown, Cheatham Annex Site (CAX), just north of Garrison Road. The area was discovered in late 1997 when several glass dextrose bottles and empty drums were spotted on the ground surface. Some of the drums and bottles were partially buried. In May 1998 Reactives Management, Inc. removed 470 bottles located above ground surface from the site.

In October 1998 Baker performed a Field Investigation that included a geophysical survey, direct push and hand auger soil sampling, and installation and sampling of shallow temporary monitoring wells. The geophysical survey revealed areas of high metallic response (anomalies).

The purpose of the November 1999 Field Investigation was to determine the source of the geophysical anomalies and characterize the soils in these areas.

Originally, the Field Investigation was to be limited to excavation of six test pits and collection of one sample from each test pit. The original six test pits exposed buried dextrose bottles, empty drums, and unopened chemical warfare respirator cartridge canisters. Because of the nature and extent of the debris that was encountered, the Field Investigation was expanded to include the following:

- Collection of one additional sample from each of the six test pits so that one sample of soil from within the fill zone, and one sample of native soil underlying the fill would be collected from each test pit.
- Advancement of additional test pits and test holes to better define the extent of the buried debris.
- Excavation to define the lateral and vertical extent of buried respirator canisters.
- Collection of four additional confirmation samples including one sample of soil excavated as a result of the canister exploration, two samples of native soils from the excavation bottom in the area of canister exploration, and one sample of stained soil that was encountered in one of the exploratory test pits.
- Characterization of a respirator cartridge canister for disposal parameters.
- Characterization of tar from tar-coated drums for chemical warfare materials and degradation products.

The supplemental exploratory test pits/holes revealed additional buried dextrose bottles, empty drums, respirator cartridge canisters, and apparently unused military uniforms. The lateral extent of the buried canisters has not been fully defined and the eastern limit of the overall disposal site has not been located.

Additional geophysical surveying with confirmatory test pitting is recommended to further delineate the extent of buried debris, with emphasis placed on locating areas of buried respirator cartridge canisters. Although it appears that soil and groundwater have not been impacted significantly, it will be necessary to accurately map the extent of buried canisters and estimate the volume thereof. Based on the findings of the investigation it is recommended that an EE/CA be completed to determine the appropriate management strategy for the site.