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MINUTES FROM 19 MAY 1999 RESTORATION ADVISORY BOARD MEETING NTC
ORLANDO FL
5/19/1999
NAVFAC SOUTHERN

**Meeting Summary
Restoration Advisory Board
Naval Training Center (NTC), Orlando
May 19, 1999**

A meeting of the NTC, Orlando Restoration Advisory Board (RAB) was held on May 19, 1999, in the City Commission Chambers, Winter Park City Hall. Attached to this meeting summary are:

- Attachment A: Meeting Agenda
- Attachment B: RAB Member Sign-in Sheet
- Attachment C: 1999 RAB Attendance Record
- Attachment D: Base Realignment and Closure (BRAC) Update
- Attachment E: Caretaker Site Office, Southern Division, Handout
(Information Repository copy only)
- Attachment F: Community Mailing List Notice
- Attachment G: Community Sign-In Sheet

RAB members present at the meeting were:

Hank Beers	Nancy Maloney
David Grabka	Nancy Rodriguez
Edwin Granberry	Lt. Gary Whipple
Wayne Hansel	Ann Williams
Robert Mackey	

Other Navy and support personnel present at the meeting included:

Rick Allen, Harding Lawson Associates
Norma Gillespie, Tetra Tech NUS
Steve McCoy, Tetra Tech NUS
Barbara Nwokike, Navy
Al Aikens, Ch2M Hill

Welcome

Lt. Gary Whipple Co-Chairman of NTC RAB opened the meeting at 7:05. He welcomed the RAB and others in attendance. Lt. Gary Whipple announced that was his last meeting and Wayne Hansel would be taking his place. Lt. Gary Whipple thanked those in attendance for their support and dedication and also expressed his appreciation for the experience and education that he has gained in serving as Co-Chairman. A quorum of community members were present. Phillip Jaffe, Tom Nelson, and Kay Yeuell were noted as excused. Lt. Gary Whipple Co-Chairman invited members of the public to sign in and join the NTC community mailing list.

RAB News

None.

RAB Administration and Comments

January RAB Meeting Summary: The January meeting summary was approved without comment.

Upcoming Meeting Schedule: The next RAB meeting is scheduled for July 21, 1999, at 7 p.m. in the Winter Park City Hall.

BRAC Update/Upcoming Activities

Wayne Hansel provided an update on ongoing and upcoming environmental activities at NTC. His full report is summarized in Attachment D with new information since the May 1999 meeting report shown in italics.

RAB Comments and Questions on the BRAC Update (paraphrased)

What is the status of Lake Susannah, has it been released? The Charleston Detachment have been digging and are almost finished.

What is the status of Lake Druid? They are still working on it; in the process of getting a variance for a pilot study.

Special Topic: Caretaker Site Operations - What's Next?

Caretaker Site Operations – What’s Next? (paraphrased)

Lt. Gary Whipple explained the purpose of Caretaker Site Office. The CSO is to efficiently and effectively manage Navy-owned property vacated due to base closure, to support the utility needs of the post-closure tenants, and to facilitate the continuing environmental restoration program. The CSO is currently staffed by military and civilian personnel transferring directly from the former Naval Training Center. As the military staff leaves the office due to transfer and retirement, Southern Division will detail staff from headquarters and the CSO Charleston office to continue the mission in Orlando. Southern Division is committed to staffing and managing the Caretaker Site Office until property disposal.

Other RAB Comments and Questions (paraphrased)

Lt. Gary Whipple concluded the business portion of the meeting and then the meeting was opened to the community.

Community Questions and Comments (paraphrased)

There were questions asked by Ms. Vicki Coleman a resident of the Village of Southport. Ms. Coleman was very concerned about the Lead Base paint levels detected in their homes that they had purchased. The lead concentrations ranged from 462 to 10,145 ppm. She described that in rooms of their homes where infant children were present that paint was detaching itself from the walls and ceilings. Ms. Coleman indicated that the sale agreement between the City of Orlando and housing developer stated that the developer will remove and properly dispose of lead from these homes. Ms. Coleman stated that she has made several attempts to inform the developer and the City of Orlando.

Lt. Gary Whipple adjourned the meeting at 8:30.

Attachment A

AGENDA

NTC, Orlando Restoration Advisory Board Meeting May 19, 1999, 7:00 p.m.

Welcome/Opening Comments

Navy Co-Chair Lt. Gary Whipple

RAB Administration
And New Business

RAB Co-Chairs

BRAC Update

Wayne Hansel,
BRAC Environmental Coordinator

Special Topic: Caretaker Site Operations – What's Next?

Feedback on March meeting:

RAB Members

- Annual Update to the Business Plan for Environmental Cleanup Soil

Close RAB Business

Community Comments and Questions

Notes:

Attachment B

NTC, ORLANDO RAB MEMBER SIGN-IN SHEET

May 19, 1999

PRINT name clearly
Wayne Honsel
Bob Mackey
Edna Gumblyd.
Ann Williams
Nancy Rodriguez
David P. Grabka
Nancy Maloney
HANK BTERS

Attachment C

Attachment D

UST UPDATE AND STATUS
May 1999

Bldg 129: Three monitoring wells (MW-1, MW-2, MW-3) were installed on 1/28/99 and sampled on 3/9/99. In addition, three soil samples were collected and submitted to a laboratory for 30 day turnaround time. The results indicate that the soils are clean, but there were exceedances of some inorganics in groundwater (chromium, lead) that were probably due to high turbidity (>200 NTUs). The SAR will be submitted in May. HLA will likely recommend resampling for inorganics.

Bldg 200: Wells MW-6 and MW-8 exceeded the GCTL for TRPH and dibenz(a,h)anthracene in the previous sampling event (see FDEP letter dated August 24, 1998). Monitoring wells MW-2, MW-3, MW-6, and MW-8 were sampled on 10/16/98. On 1/8/99 a SAR addendum was submitted to FDEP with the sampling results and recommending a MOP for the site. On 2/16/99, FDEP provided comments to the MOP request, indicating that fewer wells and a less stringent analytical method would be acceptable in the MOP. The MOP request was submitted on April 14, 1999.

Bldg 369: FDEP issued a letter on 10/20/98, requesting additional soil sampling. Soil samples were collected on 12/10/98. Laboratory analytical results for soil sample SS-1, collected at 4 to 6 feet below land surface reported Total Petroleum Recoverable Hydrocarbons (TRPH) of 660 mg/kg. This concentration is above the residential SCTL of 350 mg/kg, but is below the industrial. On 2/17/99, HLA submitted a SAR addendum to FDEP requesting NFA for the site. *FDEP responded that site would need either (1) soil removal and backfill; (2) deed restrictions to prevent exposure of residents to subsurface soil; or (3) change property use to nonresidential. OPT will discuss this issue further.*

Bldg 2036: First quarter MOP report was submitted to FDEP on 10/2/98. Sampling for the 2nd quarter MOP was conducted on 11/25/98. The second quarter MOP report was submitted to FDEP on 1/8/99 and has been approved. Sampling for the 3rd quarter was conducted on 2/19/99. During the sampling event, free-floating product was discovered in monitoring well MW-1. 3rd quarter MOP report was submitted to FDEP on March 31, 1999. HLA requested that the MOP be discontinued and that another remedial strategy be implemented (*overdevelopment, excavate impacted soils and/or free product that collects in excavation*).

Bldg 2040: Awaiting source removal (summarized in 11/5/98 letter to Navy). Two soil samples were collected on 11/5/98 from the area impacted by petroleum product, assessed during the CAR for the site. The soil samples were submitted to an off-site laboratory for analysis. On 1/8/99, HLA submitted a SAR addendum requesting an NFA from FDEP for the site. FDEP requested that temporary well TW-01 be reinstalled and sampled along with monitoring well MW-01. The temp well installation and sampling was conducted on 3/9/99. *The SAR addendum was submitted to FDEP on April 30, 1999.*

Bldg 2273: Laboratory analytical results indicate that the soil stockpile from the installation of utilities at the site will require treatment. A letter/report was submitted to the OPT with a recommendation for disposal on 12/8/98. A cost estimate was prepared and submitted to the Navy on 12/9/98 for the replacement of monitoring wells destroyed by the City of Orlando. The DET removed soil from the site during the week of 2/22/99. The site is on hold awaiting authorization to install monitoring wells destroyed by the City of Orlando's contractors.

Bldg 2426: The SAR was completed on 5/29/98. FDEP approved recommendations for the excavation of petroleum-impacted soil and free-product removal on 7/7/98. Site is on hold awaiting remediation. Awaiting source removal (summarized in 11/5/98 letter to Navy). The petroleum-impacted soil that needs

to be excavated and which was documented in a letter to Nick Ugolini on 12/9/98 was removed by the DET during the week of 2/22/99. One monitoring well and several piezometers have been abandoned at this site. A temporary well will be installed and all existing monitoring wells will be sampled to develop a SAR addendum for the site. Because of difficulties with the "Hardpan" layer found at a depth of approximately 8 feet bls, a microwell was not installed. *HLA installed a temporary well and sampled it the week of 4/19/99.* A Source Removal Report (SRR) will be submitted to FDEP in late May or early June.

Bldg 7107: One monitoring well was abandoned in preparation for soil removal. The DET removed 5 yd³ of petroleum-impacted soil on 2/20/99. A temporary well will be installed in the excavated area and all existing monitoring wells will be sampled to support a SRR. A microwell was installed in the excavated area on 4/12/99 and was sampled 4/16/99. *The results indicate the site is clean.* The SRR will be submitted to FDEP 5/99.

Bldg 7125: The site has petroleum-impacted soil. Additional wells will be installed to complete groundwater plume delineation. Free-floating product was discovered in one of the monitoring wells and in a piezometer. Free-product delineation will be conducted as part of this site assessment. The SAR was submitted to FDEP on 1/15/99; HLA recommended active remediation for the site. *FDEP has not yet issued review comments.*

Bldg 7171: A SAR has been started for this site. Three monitoring wells were drilled on 1/28/99. Two monitoring wells (source wells OLD-16-01 and MW-02) and a temporary well (TW-01) were abandoned on 2/11/99. The DET removed the oil water separator and petroleum-impacted soil during the week of 2/22/99. A microwell was installed in the excavated area and sampled on 4/16/99. *The microwell was clean. The SAR will be submitted to FDEP 6/99.*

Bldg 7174: The SAR was issued on 5/5/98 recommending a RAP; FDEP provided comments approving recommendation for RAP 5/26/98. RAP for Building 7174 was submitted on 9/25/98. After reviewing the site data, natural attenuation is not considered to be an effective remedial alternative for this site. Active remediation will be required in order to meet FDEP requirements. *CH2M Hill has issued a work plan to install a biosparge system.*

Bldg 7175: A soil assessment was conducted at this site and the data presented in a letter dated 4/28/97. HLA recommended the excavation of petroleum-contaminated soil prior to conducting a site assessment. Awaiting source removal (summarized in 11/5/98 letter to Navy). Two monitoring wells were abandoned 2/11/99. The DET excavated and disposed of petroleum-impacted soil during the week of February 22, 1999. Four monitoring wells were installed at the site during the week of 4/5/99. Six monitoring wells were sampled on 4/15/99. *Low levels of petroleum constituents were found and those results are being evaluated.* A SAR will be submitted to FDEP 6/99.

Bldg 7182: Three monitoring wells were installed and sampled on the week of 7/6/98. Site assessment activities initiated at Building 7182 were completed for the suspected petroleum contamination; however, chlorinated solvents were found at concentrations above the State of Florida GCTLs. A SAR was submitted under Chapter 62-770 FAC on 10/30/98 requesting an NFA for petroleum constituents and recommending additional assessment for the chlorinated solvents under the IR program. On 2/9/99, FDEP approved the SAR with the recommendation for NFA, but requested that the chlorinated solvents be investigated under the IR program. TtNUS is preparing a work plan to evaluate groundwater at this site.

Bldg 7241: The Remedial Action Plan (RAP) for Building 7241 was submitted to FDEP on 8/10/98 and was approved by FDEP on 8/22/98. The site is on hold until the Navy removes soil and free-product from the site. A SARA will be completed following Navy actions (summarized in 11/5/98 letter to Navy). Two monitoring wells and several piezometers were abandoned 2/11/99. The DET excavated petroleum-impacted soil on 2/20/99. A micro-well was installed 4/12/99 and was sampled 4/16/99. *The well was clean.* A SRR will be submitted to FDEP 5/99.

IR UPDATE AND STATUS

May 1999

OPERABLE UNITS

OU 2: Draft report issued 1/99. *Comments from FDEP (4/99) and EPA (5/99) have been received and responses are being prepared for submittal 5/99.*

OU 3: RI report response to comments were submitted 11/12/98. The final RI report is being prepared, incorporating all comments; the RI/FS report will be issued as final when all comments are resolved.

The draft FS report for OU 3 was submitted to the Navy on 11/24/98. HLA received comments from FDEP for the draft FS report (2/9/99) and EPA (2/11/99). HLA response to comments were submitted to the OPT on 3/12/99. Additional comments on the HLA response to comments were received from FDEP on April 10 (letter dated 4/2/99). HLA has prepared responses which *were distributed at the April OPT meeting and have been approved by FDEP.* The FS report is being finalized, incorporating all comments. The Proposed Plan is also being prepared and will be available for OPT review *at the May meeting in Orlando.*

A supplementary round of groundwater sampling was completed by TtNUS on 3/16/99 to provide post-soil removal ('97 IRA) data to evaluate anticipated changes in groundwater contamination; *results indicate MCPA and MCPP are no longer present at detectable concentrations. DET soil removals began in May.*

OU 4: *The last round of scheduled HLA IRA Troll downloads was completed the week of April 26 and forwarded to Bechtel. The IRA continues to operate at low recirculation flows, with periodic shutdowns apparently due to power surges or outages. HLA is currently preparing the 3rd quarterly report, addressing the period from September 1, 1998 through December 31, 1998. The 4th and final quarterly report will cover the period from January through April 1999*

The response to regulator comments to the draft OU4 RI was issued on May 8, 1999. The final RI/FS will be issued together, after the results of the KMnO4 pilot have been evaluated. The final RI/FS is currently scheduled to be issued in the Fall of 1999. HLA continues to plan for the chemical oxidation pilot study. Preparation of the KMnO4 variance was delayed last week due to new analytical data from Carus. Submittal of this document is being coordinated with FDEP (David Grabka and Bill Neimes). Preparation of the treatability study work plan is in progress. Additional treatability study funding has been approved by the Navy.

FDEP and USEPA comments to the draft OU4 FS have been received. HLA will begin preparation of a response to these comments.

GROUPS IV AND V:

SA 35: Soil removal by Environmental Detachment Charleston (DET) *is underway*; HLA site screening report will include DET report as an appendix.

SA 36: A site screening report summarizing investigation activities was issued 4/9/99 for OPT review.

SA 37: Soil removal by DET *underway*; well installation *and groundwater sampling* to follow soil removal. HLA site screening report will be issued when DET report has been completed *and groundwater analytical results are available*.

SA 42: Soil removal by DET *underway*. HLA site screening report will be issued when DET report has been completed.

OTHER STUDY AREAS:

SA 2: HLA issued the final site screening report 3/10/99 and received comments from FDEP 4/12/99 (letter dated 4/5/99). FDEP comments will be incorporated into report. *Certain aspects of the conclusions and recommendations are still in review.*

SA3: Sampling of well OLD-03-04 was discontinued 12/98 as PCE had fallen below the FL MCL for 2 consecutive months. Sampling on 2/23/99 showed that PCE in well OLD-03-01 had decreased to 2.9 µg/l. One more round below the MCL will remove the groundwater restriction from SA 3.

SA 17: The final site screening report was issued 3/4/99, *and was signed off by the BCT on 4/22/99*. HLA has marked the recommended soil excavation boundary for the DET. The DET will mobilize to *McCoy Annex* following soil removal activities at the Main Base.

SA 18: *The DET will mobilize to McCoy Annex following soil removal activities at the Main Base. A final site screening report will be issued following the IRA soil removal by the DET.* TtNUS is preparing a work plan to evaluate chlorinated solvents in groundwater.

SA 23: The DET will mobilize to *McCoy Annex* following soil removal activities at the Main Base. A final site screening report will be issued following the IRA soil removal by the DET.

SA 39: The final site screening report was issued for signature 4/15/99 *and was approved by the BCT on 4/22/99*. Recommendations in report include restriction to non-residential use, continuing groundwater evaluation. TtNUS is preparing a work plan to evaluate chlorinated solvents in groundwater.

SA 40: *Soil removal by DET underway. HLA site screening report will be issued when DET report has been completed.*

SA 52: HLA issued the final report 3/23/99 for signature, *and it was approved by the BCT on 4/22/99*.

SA 54: Draft site screening report on the two background surface soil sample locations (ORS00901 and ORS01601) was submitted to the OPT for review on 12/2/98. LT Whipple reports that he Faxed excerpts from the report to planners and environmental protection specialist at the 81st ARCOM in Birmingham. They understand issues and said they would get back to him. No word yet, although they do not seem overly concerned with possibility of land use restrictions.

STUDY AREA STATUS:

55 study areas have been screened¹

- ⇒ 37½ SAs have been submitted as final and approved for NFA: 1, 4, 5, 6, 7, 8[WWTP], 10, 11, 15, 16, 19, 20, 21, 22, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 38, 41, 43, 44, 45, 46, 47, 48, 49, 50, 51, 53, 55
- ⇒ 4½ SAs became OUs (8 [greenskeeper storage] & 9 [OU3]; and 12, 13, and 14 [OU4])
- ⇒ 4 SA reports have been approved by the BCT as final, and will require additional investigations (SAs 17 and 39) or continued groundwater monitoring (SAs 3 and 52)
- ⇒ 6 SAs require removal actions and/or additional screening (18, 23, 35, 37, 40 and 42).
- ⇒ 3 SA reports have been issued as either final (SA 2, still has remaining unresolved issues), or in final draft for review (36 and 54, both reports are being reviewed by OPT).

¹ includes SA 54 (background surface soil locations S009 and S016), and SA 55, Bldg. 1104 (alleged PCB storage)

Attachment E

(Information Repository Copy only)

SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
CARETAKER SITE OFFICE
NTC ORLANDO

I. Fourfold Mission.

To efficiently and effectively manage Navy-owned property vacated due to base closure, to cooperate with the CRA in its continuing reuse planning efforts, to support the utility needs of the post-closure tenants, and to facilitate the continuing environmental restoration program.

II. Chain of Command.

As a field element of Southern Division, the Caretaker Site Office's chain of command is as follows:

- a). Division Director, Base Closure Division
- b). Head, Land Management Department
- c). Executive Officer
- d). Commanding Officer

III. Staffing.

The CSO office is currently staffed by military and civilian personnel transferring directly from the former Naval Training Center staff. Including;

- a). CDR Robert White, JAGC, USN, formerly the Staff Judge Advocate and OSD Base Transition Coordinator
- b). LT Gary Whipple, CEC, USN, formerly the Public Works Officer
- c). AOCs Steve Kyer, USN, formerly the Chief of Police
- d). Mr. Bill Jacobs, formerly the Public Works Manager, and
- e). Mr. John Swiney, formerly the Public Works Maintenance Foreman.

As the military staff leaves the office due to transfer and retirement, Southern Division will detail staff from headquarters and the CSO Charleston office to continue the mission in Orlando.

IV. Current Projects.

The Caretaker Site Office is supporting Southern Division's mission in the following projects:

a). Interim Remedial Actions, Soil Removals, Various Areas:

Under the continuing BRAC environmental restoration program, Southern Division is removing surface soil at various areas of the main base and McCoy Annex to comply with the CRA's Reuse Plan. Approximately 7,000 tons of arsenic and PaH contaminated soil is currently being removed near the Maguire Gate, Study Area 40. Additionally, approximately 4,000 tons of arsenic contaminated soil is being removed at the former Greenskeeper Area, Main Base Golf Course, Study Area 8. The project is scheduled to be completed by the end of May.

b). Installation of Perimeter Fencing for Post-Closure Tenants.

Southern Division implemented the developer's security fencing plan for the post-closure tenants in order to maximize physical security and minimize security staffing for the closed portions of the main base. Post-closure tenants now have direct access to their facilities, and the Navy can now control movement within the secured portion of the main base.

c). Emergency Service Agreement with Orlando Utilities Commission.

Southern Division has entered into an agreement with the staff at OUC to provide emergency utility services to the post-closure tenants. The Navy will reimburse OUC for expenses incurred on a case-by-case basis, either through a credit card account or a purchase order. This agreement is advantageous to both the Navy and OUC, since the Navy can rely upon a utility provider that is familiar with the Navy-owned distribution system, and OUC can continue to indirectly provide, through the Navy, complete utility service to future prospective clients.

V. Future Outlook.

Southern Division is committed to staffing and managing the Caretaker Site Office until property disposal.

Attachment F

Environmental Meeting - Public Invited

Restoration Advisory Board Naval Training Center, Orlando

The Naval Training Center's Restoration Advisory Board (RAB) will hold its regular meeting concerning ongoing environmental studies and cleanup at NTC.

**When: 7:00 - 9:00 P.M.
Wednesday, May 19, 1999**

**Where: Winter Park City Hall
City Commission Chamber - second floor
401 Park Avenue South, Winter Park**

The current status of all NTC environmental program sites will be presented. The special topic will be "Caretaker Site Operations - What's Next?". An open floor period for community comments or questions will follow the RAB business portion of the meeting.

Documents on the environmental program at NTC, Orlando, including summaries of prior RAB meetings, are available for public review at the Orange County Library, 101 East Central Avenue, Orlando. They are located in the Information Repository in the Social Sciences Department (Aisle 27) on the second floor.

Need More Information?

Call Lt. Gary Whipple at 646-4735

or

Penny Felger at 657-8276

Attachment G

**NAVAL TRAINING CENTER, ORLANDO
RESTORATION ADVISORY BOARD MEETING
WINTER PARK CITY HALL COMMISSION CHAMBER, May 19, 1999**

COMMUNITY SIGN-IN SHEET (please PRINT clearly)

NAME	ADDRESS (please include zip code)	TELEPHONE NO. (day/evening)	AFFILIATION (if any)	Would you like to be added to our mailing list?
Dennis Lafko	3105 PROVINCETOWN PL Orlando, FL 32827	407-240-8325	Villages of Southport	Yes
Melissa Howell-Lafko	"	"	"	"
Vicki Coleman	3120 Sagaramore St. Orlando, FL 32827	407-857-0427	"	YES
Melissa Joyner	8411 Pocasset Place Orlando FL 32827	816-7074	"	yes

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AGENDA

NTC, Orlando Restoration Advisory Board Meeting May 19, 1999, 7:00 p.m.

Welcome/Opening Comments

Navy Co-Chair Lt. Gary Whipple

RAB Administration
And New Business

RAB Co-Chairs

BRAC Update

Wayne Hansel,
BRAC Environmental Coordinator

Special Topic: Caretaker Site Operations – What's Next?

Feedback on March meeting:

RAB Members

- Annual Update to the Business Plan for Environmental Cleanup Soil

Close RAB Business

Community Comments and Questions

Notes:

Installation Restoration Program Non-UST/AST Investigation Summary						
Base Realignment and Closure, Naval Training Center, Orlando						
Site Screening SAs/Operable Units for Main Base (MB), McCoy Annex (MA), Area "C" (AC), and Herndon Annex (HA)						
SA	Location	BRAC Color Code	Building Number	Name	Reason for Investigation	Current Status
1	MB	1/White	3126	Hospital Civilian BEQ	40 square-foot stain on ground outside mechanical room	No significant detections in soil or groundwater. One groundwater sample had a lead level of 17.1 µg/l Vs. a FL MCL of 15 µg/l. The monitoring well was resampled 6/7/95 and no lead was detected. There was no evidence of landfilling operations. Property was approved for no further action (NFA) by OPT 7/24/96.
		1/White	UNF-12	Alleged Hospital Landfill	Used as a landfill in the late 1970's, contents unknown	
3	MB	4/Dk Grn	73/2816 2817	RTC 1st Lt. Storage/ Office/Shops	Hazardous materials are stored on the property and are regularly transferred to and from Building 2817 Former USAF Tactical Air Command operations involving Matador missile testing and personnel training	PCE (tetrachloroethene) detections of 9 µg/l and 12 µg/l (versus FL MCL of 3 µg/l) were detected in groundwater samples. OPT approved a groundwater use restriction near wells OLD-03-01 and -04 and groundwater monitoring for one year or until MCLs were achieved. Sampling of well OLD-03-04 was discontinued 12/98 as PCE had fallen below the FL MCL for 2 consecutive months. The most recent round of sampling (2/23/99) showed that PCE in well OLD-03-01 had decreased to 2.9 µg/l. Site was approved for NFA 8/97.
4	MB	4/Dk Grn	250/8	Rusk Memorial Chapel and covered walkways	PCB spill of unknown quantity in the mid 1980's	No significant detections in soil. No groundwater samples taken. Property was approved for NFA by OPT 7/24/96. Bldg. 250/8 is 4/Dk Grn and Bldg. 251 is 1/White.
		1/White	251	Rusk Memorial Chapel Annex	PCB spill at adjoining property (Bldg. 250) of unknown quantity	
5	MB	1/White	UNF-13	Septic Tank/Leachfield	Unknown environmental impacts from a previously existing motorboat rental/maintenance facility and septic tank	No significant detections in soil or groundwater. Geophysical surveys showed some buried pipes/metal objects. Property was approved for NFA by OPT 7/24/96.
6	MB	1/White		Lake Baldwin	Likelihood of contamination from stormwater runoff from golf course, photo lab, lead from former skeet range, drainage from firefighter training facility and motorboat maintenance facility, and alleged drum disposal in lake	Surface water had no significant detections. Sediments had elevated levels of lead and 4,4'-DDE, though below the FL probable effects level (PEL). 1 sample had elevated PAHs. Divers have investigated seven magnetic anomalies and observed various ferrous debris, but no items of environmental significance. Property was approved for NFA by OPT 7/96.
7	MB	1/White		Lake Susannah	Receives stormwater runoff from other suspect areas and alleged drum disposal in lake	Surface water had no significant detections. Sediments had elevated metals and PAHs, but below FL PELs. OPT approved for NFA 7/96.
8	MB	5/Yellow	2134	Greenskeeper Storage	Likelihood of petroleum and pesticide spills	Arsenic in surface soil and groundwater at Greenskeeper Storage caused SA to be designated OU 3 (See listing for OU 3 (page 5). IRA (soil removal) completed 9/97 with 50 tons of soil excavated and backfilled with clean soil. See OU 3 for additional information.
		3/Lt Grn	UNF-15	Former WWTP - Main Base	Burial of sludges from former WWTP and hospital demolition debris in WWTP lagoons	Evidence of demolition debris buried under golf course. Gross alpha, sodium, and manganese levels exceed screening criteria in three wells. Wells OLD-08-05 and -09 were resampled 12/29/95 due to elevated Mn (69.9 µg/l Vs. FDEP groundwater guidance level of 50 µg/l) and Na (248,000 µg/l Vs. 160,000 µg/l). Mn/Na levels were measured at 97.4 and 59,800 µg/l. OLD-08-06 was resampled 6/17/96 for gross alpha resulting in a gross alpha concentration of 0.39 pCi/l Vs. 18.1 pCi/l during the initial sampling. Property was approved for NFA 6/97.
9	MB	5/Yellow	UNF-14	Former Pesticide/Herbicide Storage	Pesticide and herbicide releases may have occurred during operation of facility	Chlordane and arsenic in surface soil and pesticides in groundwater will require further study; with SA 8 (Greenskeeper Storage Area) has been designated OU 3. See OU 3 for additional information.
10 ^c	MB	1/White	IAS-4	Former Yard Waste	Contents of disposal area unknown	No significant detections in soil or groundwater. Property was approved for

*Changes for this revision are bolded and italicized
See notes, glossary, and BRAC color codes at end of table
ntcsumm.doc

Installation Restoration Program Non-UST/AST Investigation Summary
 Base Realignment and Closure, Naval Training Center, Orlando
 Site Screening SAs/Operable Units for Main Base (MB), McCoy Annex (MA), Area "C" (AC), and Herndon Annex (HA)

SA	Location	BRAC Color Code	Building Number	Name	Reason for Investigation	Current Status
				Disposal Area		NFA by OPT 7/24/96.
27	MB	2/Blue	2010	Security Building	Evidence of cleaning solvent and paint product disposal in the retention pond	Site screening investigation completed 6/96. Analytical results indicate that two surface soil samples had concentrations of BEHP or arsenic elevated slightly above residential screening levels but below industrial screening levels. A third sample had three PAHs with elevated concentrations. HLA completed delineation of PAHs in surface soils. Results indicate that approximately 44 yds ³ of soil did not meet FL residential SCGs. The Navy completed a soil removal in mid-April 98. Property was approved for NFA by OPT 7/1/98.
		4/Dk Grn	2073	Armory/Hurricane Storage Locker	Cleaning solution draining into retention pond	
28	MB	1/White	114	Bowling/Arts & Crafts Center	Drip drying of silk screen operation may have impacted the soil and/or GW	Field work completed 8/97 and data evaluation completed 12/97. OPT approved for NFA 1/98.
29	MB	4/Dk Grn	127	Grounds Maintenance	Stained soil and stressed vegetation near a storage locker	Field work completed 8/97 and data evaluation completed 12/97. In 1/98 OPT approved for NFA, except for small portion of property with arsenic in surface soil where a non-residential use restriction will be imposed.
30	MB	4/Dk Grn	129	Automotive Hobby Shop	Waste oil storage and antifreeze/water separator	Field work began 6/97, and included a geophysical survey (EM-61 and magnetometer) and a soil gas survey. Groundwater sampled 10/97. Resampling of two wells with chromium/nickel exceedances resulted in values well below action levels. Property was approved for NFA by OPT 7/1/98.
	MB	4/Dk Grn	131	Paint Shop Materials Storage	Diesel fuel staining and stressed vegetation under an AST	
		4/Dk Grn	2262	Custodial Contractor	Past use as a pest control facility	
31	MB	2/Blue	354	Nuclear Power Field "A" School	Impacts from UST and the oil/water separator	Field work began 6/97. 12/97 OPT approved for NFA.
32	MB	1/White	358	BEQ/Heating Plant	Alleged dumping of paints, thinners, and petroleum products when this area was a motor pool	Field work began 6/97 and included a soil gas survey. Groundwater sampled 10/97. OPT approved for NFA 3/19/98.
33	MB	4/Dk Grn	2001	Administration Building	Dry well located on property	Field work completed 8/97. Groundwater sampled 10/97. OPT will require limited soil removal due to PAHs in surface soil, then resampling to confirm PAH removal. Soil removal was completed by Navy Public Works Dept. during wk of 3/2/98. Soil sampling at base of excavation in affected areas indicates PAH concentrations well below screening criteria. OPT approved NFA on 5/21/98.
		4/Dk Grn	2002	NTC Headquarters	Same as above	
		4/Dk Grn	2003	DFAS Office	Same as above	
		4/Dk Grn	2004	Administration Building	Stains on floor and walls of boiler shed and mechanical room, and a dry well located on the property.	
34	MB	1/White	2024	NTC Supply	Unused supply well onsite	Appropriate well abandonment recommended for the former A/C supply well. St. John's River Water Management District removed the pump, logged and grouted the well. OPT approved NFA on 3/19/98.
35	MB	7/Gray	2078	Auto Maintenance Facility	Soil staining associated with drum storage area	Field work began 6/97 and included a soil gas survey. Groundwater sampled 10/97. Further delineation and groundwater screening required due to high TRPH (up to 84,000 mg/kg) in several surface soil samples including 35S01401. Arsenic in surface soil samples at 9 of 16 locations at concentrations ranging from 1.1 to 6 mg/kg Vs. background screening concentration of 1.0 mg/kg. 4 microwells were installed wk of 3/2/98. No exceedances detected in groundwater. Navy will conduct soil removal to address TRPH exceedances in soil samples. IRA workplan has been submitted and was revised to reflect FDEP concerns about arsenic in surface soil. A fact sheet has been prepared for the public. Site screening report will be finalized following soil removal.
		7/Gray	2079	Auto Maintenance Facility Storage	Unlabelled drum and unknown storage practices concerning the hazardous materials at the facility	

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Base Realignment and Closure, Naval Training Center, Orlando

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SA	Location	BRAC Color Code	Building Number	Name	Reason for Investigation	Current Status
36	MB	7/Gray	2121	PW Lumber Storage	Soil staining from an oil spill, drum storage area	Field work began 6/97 and included a soil gas survey. Groundwater sampled 10/97, resulting in TCE detection of 19 µg/l in well OLD-36-06. 5 additional wells installed and sampled in late June to characterize TCE plume. TCE detected at 250 µg/l in well OLD-36-09 (screened 35 ft bls). 3 more monitoring wells were installed, including 2 deep wells to top of Hawthorn. No chlorinated solvents were detected in samples from the deep wells. <i>A (draft) site screening report summarizing investigation activities was issued in April.</i>
		7/Gray	2122	PW Shops	Suspect past and present storage and disposal of paints and solvents, solvents, and questionable oil collection practices	
37	MB	6/Red	2414	Flammable hazardous waste storage	Possibility of thinner and solvent spills, unknown hazardous materials handling practices	Field work began 6/97. Groundwater sampled 10/97. One surface soil sample had chlordane concentration of 92 mg/kg. HLA delineated chlordane; Navy will conduct IRA soil removal, to be followed by installation of 5 microwells. Report on hold pending soil removal and microwell results.
38	MB	1/White	4001	Storage and use of pesticides and herbicides	Extensive oil and fuel staining to the floor	Field work completed in 8/97. OPT approved for NFA 12/97.
39 ^a	MB	7/Gray	4060	Loading Platform (Bldg. 137)	Potential landfilling in this area	Initial site screening studies completed 4/96, followed by supplemental soil and groundwater studies. Lab results indicate exceedances in surface soil for benzo(a)pyrene and arsenic. Groundwater had exceedances for PCE. Groundwater recommendations include a groundwater use restriction for surficial aquifer, completion of a risk assessment, and continued monitoring of selected wells. Probabilistic risk assessment results were presented to OPT 1/98 and indicated less than 10 ⁻⁶ risk. <i>The future reuse of property has recently changed to nonresidential, so soil now meets State criteria. Studies to further evaluate PCE groundwater plume are in planning stages.</i>
		7/Gray	4067	Loading Platform (Bldg. 137)	Potential landfilling in this area	
		7/Gray	15109	Irrigation Well	In close proximity to the old coal storage area, out-of-service well onsite	
		7/Gray	UNF-10	Open Area (west of Nuclear Power School)	Unknown nature of coal staging area, west side of property allegedly used as a landfill	
40 ^b	MB	7/Gray	21022	Softball Field	In close proximity to the bottle landfill (UNF-6) to the south, may be additional landfilling activities here.	Site screening studies were completed 4/96. Lab results indicate minor exceedances in surface soil from benzo(a)pyrene (200J mg/kg) and arsenic (1.1 mg/kg); groundwater had minor exceedances for gross beta (31.8 pCi/l). Additional field studies to characterize PAHs/arsenic in surface soils took place between 12/96 and 9/97. Final site screening report is in preparation. IRA workplan has been submitted to the OPT and has been revised to reflect additional surface soil samples collected 11/98 to characterize surface soil. A fact sheet was prepared for the public. <i>IRA soil removal activities are in progress.</i>
		7/Gray	21023	Softball Field	In close proximity to the bottle landfill (UNF-6) to the southwest, may be additional landfilling activities here.	
		7/Gray	UNF-6	Bottle Landfill	Landfill with unknown contents.	
41	MB	1/White	UNF-8	Open Area	Previous existence of buildings and storage tanks warrant further investigation	Former USTs/ASTs will be evaluated in the Tank Management Plan (TMP). Site screening evaluated potential PCB releases at former transformer sites. Field work completed in 8/97. OPT approved for NFA 12/97.
42 GRP V	MB	7/Gray	2055	Maintenance Shop	Storage of hazardous materials, two filled-in sumps onsite of unknown past use	Field work began 6/97. Groundwater sampled 10/97. OPT concerns regarding PAHs in surface soil; HLA took 7 surface soil samples 2/26/98 to further characterize the site. 6 of 7 additional samples were ND or below SCGs for PAHs; 1 had benzo(a)pyrene with concentration equal to SCG. Site screening report issued as final draft at June OPT meeting, recommending limited soil removal. The Navy prepared a fact sheet for

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SA	Location	BRAC Color Code	Building Number	Name	Reason for Investigation	Current Status
						the public. Report will be finalized after soil removal activities.
43 ^b	MB	1/White		North Grinder Landfill skeet range	Potential lead contamination.	6 surface soil samples (and 1 duplicate) collected and submitted for lead analysis 12/95. No exceedances were noted.
	MB	3/Lt Gm	229	Indoor rifle and pistol range	Potential lead contamination. (See also Herndon Annex, Building 601.)	18 surface soil samples (and 2 duplicates) submitted for lead analysis 12/95. One sample slightly exceeded screening criteria. TCLP analysis for lead at the location of the highest lead concentration was below the RCRA regulatory limit. This site was approved for NFA on 12/10/96.
44 ^b	MB	1/White		Former motor pool and Missile Training Range	Possible PCE plume (Missile Training Range) and BTEX contamination (former motor pool).	Site screening studies completed 11/95. Field screening indicates localized BTEX and possible PCE/TCE contamination, but neither confirmed by monitoring wells. Six piezometers installed to evaluate groundwater flow anomaly. OPT approved for NFA 7/97.
		4/Dk Grn	former 2721	Silk screening facility	Alleged disposal area for solvents and paints when silk screening operation closed.	Site screening studies completed 11/95. Geophysical anomalies were investigated with two monitoring wells. Groundwater has no exceedances, but HLA recommended a limited test pitting program to determine source of geophysical anomalies. Test pitting completed 9/96 uncovered the buried foundations of Bldgs 2721 and 2722. Site approved for NFA.
45 ^b	MB	1/White	125	Alleged disposal area near Bldg. 125	Alleged landfill with unknown contents.	Field screening completed 3/96. The analytical results indicate no environmental concerns. Site was reviewed for exceedances of Florida secondary drinking water standards (FSDWS) in groundwater and approved for NFA 6/19/97.
OU 1 ^b	MB	3/Lt Gm	21	RTC Fitness Trail	Potential impact from North Grinder Landfill (contents of landfill not well documented).	The remedial investigation report concluded: (1) PAH contamination in surface soil does not pose unacceptable risks; (2) elevated gross alpha/gross beta in several wells adjacent to landfill are due to naturally-occurring radionuclides which have been mobilized by altered groundwater chemistry near and under the landfill; (3) a landfill cap will not be required; (4) groundwater should be monitored in downgradient wells to determine if there are any changes in contaminant concentrations as a function of time.
		3/Lt Gm	4004	North Grinder (paved)		
		3/Lt Gm	4005	North Grinder (grass)		
		3/Lt Gm	4021	South Grinder (paved)		
		3/Lt Gm	4022	South Grinder (grass)		
OU 3	MB	5/Yellow	2134	Greenskeeper Storage	Confirmed arsenic in surface soils. An interim remedial action (IRA) took place in 9/97, resulting in 50 tons of soil being excavated and backfilled with clean soil.	Soil samples had elevated levels of arsenic (up to 577 mg/kg) Vs. a background screening level of 1 mg/kg. Groundwater had elevated levels of arsenic (up to 425 µg/l Vs. 50 µg/l MCL). A PRE was conducted indicating no ecological risk, but human health risk was higher than 1x10 ⁻⁶ . The Greenskeeper Storage Area, along with SA 9, has been designated OU 3. RI Fieldwork began 10/97 and was completed 3/98. The RI report was completed 7/98 and the FS report was completed 12/98. FDEP and EPA RI and FS comments have been received, HLA responses have been submitted, approved and incorporated. <i>The Final RI/FS will be submitted June 1999. A round of groundwater samples was collected 3/99 and additional soil removal actions are currently underway. The removal actions will reduce the risk posed by soil contamination, as well as reduce the source of groundwater contamination. Preliminary groundwater results suggest that contamination has been</i>

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 Site Screening SAs/Operable Units for Main Base (MB), McCoy Annex (MA), Area "C" (AC), and Herndon Annex (HA)

SA	Location	BRAC Color Code	Building Number	Name	Reason for Investigation	Current Status
						<i>significantly reduced since 1997. The Proposed Plan for OU3 will be issued in June 1999. No Further Action is anticipated with respect to soils, and long term monitoring of groundwater is recommended. Public comment on the Proposed Plan and Record of Decision will occur Summer 1999.</i>
OU 3	MB	5/Yellow	UNF-14	Former Pesticide and herbicide Storage	Pesticide and herbicide releases may have occurred during operation of facility. An interim remedial action (IRA) took place in 9/97, resulting in 3,000 tons of soil being excavated and backfilled with clean soil.	Chlordane up to 2900 mg/kg Vs. screening value of 490 mg/kg. A PRE was conducted indicating no ecological risk, but human health risk was higher than 1×10^{-6} . The site, along with the Greenskeeper Storage Area (SA 8), has been designated OU 3. See <i>preceding summary (Greenskeeper Storage)</i> .

16	MA	1/White	7168	Maintenance Yard	Potential release from an oil-water separator	Field work for Group III Sites took place from 3/13/95 to 6/5/95. The (draft) Group III report was submitted to the Navy 12/15/95. There were significant detections of PAHs in four surface soil samples which slightly exceeded SCGs for some PAH compounds. Mineral spirits were present as free product in a well adjacent to an oil-water separator in the northern corner of the site. Site transferred to NTC TMP 10/96. Surface and subsurface soil samples were collected from 19 locations, and sediment samples from 4 locations in accordance with PAH workplan.
		2/Blue	7171	Army Motor Transportation	Potential releases of petroleum releases from motor pool operations	
		1/White	7172	Army Battery Shop	Stained soil associated with used battery storage, possible release of sulfuric acid from inside	
17	MA	7/Gray	7178	Training Material Storage	Evidence of paint dumped down the drains of adjacent wash rack.	Screening studies for SA 17 indicate: Surface soils had exceedances of several PAHs in several samples. Chlorinated solvents in groundwater exceeding MCLs. Groundwater studies indicate at least two source areas for chlorinated solvents and a plume measuring 200 feet wide by 400 feet long extending to the Hawthorn Group at 60 feet bls in the source areas and approximately 30 feet bls throughout the remainder of plume. An IRA soil removal is in progress, and studies to further evaluate the chlorinated solvent plume in groundwater are in the planning stages.
		7/Gray	7191	DPDO Warehouse	Ground staining and paint dumping evident	
		7/Gray	7193	Army Maintenance Office	Hazardous waste drum storage and alleged burial	
		6/Red	7190	Army Motor pool and drum storage area adjacent to 7190	Site used as a motor pool and vehicle storage compound.	
18	MA	7/Gray	7182	Housing Office	hazardous materials including paint, solvents, compressed gases and petroleum products stored there	Analytical results for SA 18 indicate: <i>Surface soil detections of PAHs at one location exceeded Florida SCTLs. In addition, chlorinated solvents were detected in a monitoring well associated with a tank removal. A limited soil removal is planned to remediate surface soil. Groundwater studies to evaluate chlorinated solvents are in planning stage.</i>
19	MA	1/White	7184	Auto Hobby Shop	Use of site as an auto hobby shop. Soil staining from waste oil evident	Analytical results for SA 19 indicate no significant detections in any media sampled. OPT approved for NFA 7/97.
20	MA	2/Blue	7187	Storage	Probability of pesticide storage	Analytical results for SA 20 indicate no significant detections in any media sampled. The site was approved for NFA 6/97.
21	MA	3/Lt Grn	7203	Maintenance Shop	Diesel fuel spill in 1993 from a leaking AST, and former pesticide storage	Analytical results for SA 21 indicate slight exceedances of SCGs for PAHs and arsenic in surface soil. Concerns regarding arsenic have prompted FDEP to have SA 21 reviewed by their risk assessment group. Field investigation to evaluate PAHs in surface soil completed 6/97. Property approved for NFA with restriction to recreational use 8/97.
22	MA	1/White	UNF-1	Old Golf Course	Alleged disposal of engines, bomb shells, and spent	Analytical results for SA 22 indicated no significant detections in surface

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SA	Location	BRAC Color Code	Building Number	Name	Reason for Investigation	Current Status
					ordnance in Lake Stanley	water, sediment, or groundwater. Aluminum, iron and lead exceeded surface water standards. Sampling to evaluate allegations of landfilling have been completed and a limited test pitting program to evaluate geophysical anomalies was completed in 9/96 with no findings of environmental concern. A UXO survey performed by the Mayport EOD team did not reveal any items related to UXO disposal. OPT approved NFA 6/97.
23	MA	5/Yellow	UNF-2	Former officer's swimming pool and bathhouse (Bldg 7119)	Area used as a disposal pit for demolition debris, possibility of an unidentified UST	Analytical results for SA 23 indicate exceedances for PAHs in one surface soil sample at the end of the 12-inch drain to the former swimming pool. An IRA soil removal is planned, after which a final report will be issued.
24	MA	1/White 1/White	UNF-4 UNF-5	Northwest Swamp Southeast Swamp	Former disposal area for construction debris. Former domestic wastewater treatment plant (DWTP) at the southeastern area, demolition debris	Analytical results for SA 24 indicate exceedances of some metals (aluminum, iron, manganese, potassium, vanadium) in groundwater, which may have been affected by the high suspended particulate (TSS = 500 and 360 mg/l). HLA presented results of a study to determine the relationship between high TSS/turbidity and elevated concentrations of metals above secondary groundwater standards. Property approved for NFA by OPT 6/97.
25	MA	4/Dk Grn		Former DWTP - McCoy Annex	Suspect due to the nature of the facility	Analytical results for SA 25 indicate iron and manganese exceedances in groundwater and slight exceedances of PAHs and pesticides in surface and subsurface soils. Resampling of OLD-25-03 for manganese on 7/25/96 determined a concentration of 662 µg/l Vs. a FSDWS of 50 µg/l. Property approved for NFA 7/97.
26	MA	1/White 1/White 1/White 1/White	7351 7352 7357 7358	Camp Bath House Camp Laundry Family Camp Office Family Camp	Past use as an airfield strip and drum storage area Same as above In close proximity to old airstrip, drums once stored here Past use as an airstrip and drum storage area	Analytical results for SA 26 indicate no significant contamination in any media sampled, with the exception of PAH exceedances in adjacent surface soil samples reported in the Background Sampling Report. These two locations have been designated SA 54 (see SA 54 for more information). OPT approved NFA 6/97.
46 ^b	MA	1/White		Sewage disposal pit as part of DWTP	Within SA 25 (Grp III). Alleged disposal of non-domestic wastes.	SA 46 designated AEC-MC-01 in Technical Memorandum, U.S. Air Force Records Search. Screening investigation completed 6/96, and results indicated no evidence of environmental impact. Site has been approved for NFA.
47 ^b	MA	1/White		Former skeet range	Potential lead contamination. Near SAs 25 and 26.	SA 47 designated AEC-MC-06 in Technical Memorandum, U.S. Air Force Records Search. Screening investigation completed 6/96, and results indicated no evidence of environmental impact. Site has been approved for NFA.
48 ^b	MA	1/White		Former auto, boat, and carpentry hobby shop	Potential contamination from past site use.	Site screening investigations were completed 5/96. The analytical results revealed a single pesticide (DDE) slightly above the screening level in one groundwater sample, and a metal detector anomaly indicated a possible UST. Well OLD-48-03 was resampled for DDE 11/96: no pesticides were detected. GPR survey did not reveal a potential UST. Property approved for NFA 6/97.
49 ^b	MA	1/White		Former disposal area	Potential contamination due to landfill with unknown contents. Near SAs 24, 46, and 47.	SA 49 designated AEC-MC-17 in Technical Memorandum, U.S. Air Force Records Search. Screening investigation completed 6/96. Preliminary geophysical results show no evidence of disposal activities. There are FSDWS exceedances in groundwater (aluminum and iron). HLA prepared

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SA	Location	BRAC Color Code	Building Number	Name	Reason for Investigation	Current Status
						a letter with recommendations for language to discuss FSDWS exceedances in groundwater. Property approved for NFA 7/97.
50 ^b	MA	1/White 1/White 2/Blue 2/Blue 7/Gray 1/White 7/Gray	7189 7178 7253 7174 7179 RV Storage 7182	Former civil engineering yards (Bldgs. 7179 and 7182 investigated as SA18; Bldg. 7178 investigated as SA17).	Potential contamination due to past site use activities.	Site screening activities began 4/96, completed 5/96. Analytical results indicate two surface soil samples with benzo(a)pyrene concentrations exceeding residential soil screening levels, but below industrial screening levels. Bldg. 7174 requires remediation of petroleum groundwater plume. OPT approved for NFA with restriction for Building 7189 to future industrial reuse 8/97.
51 ^b	MA	1/White	7159	Former electrical substation	Potential PCB contamination due to spills and other incidents.	Site screening activities were completed 8/96. No PCBs were detected during field screening (immunoassay test kits) or in confirmatory samples submitted to laboratory. Site has been approved for NFA.
52	MA	5/Yellow	Former Building 7261	Former Entomology Lab	Potential pesticide contamination due to past use of building.	Site screening investigations were completed 5/96, confirming soil and groundwater samples with pesticides above screening levels. IRA (soil removal) completed 9/97 with 1,300 tons of soil excavated and backfilled with clean soil. Three monitoring wells were installed after the IRA. The well at the location of the most contaminated soil has dieldrin above the MCL. OPT recommended groundwater restriction and quarterly groundwater monitoring. The most recent sampling indicated groundwater was still well above the Florida GTCL (0.08 µg/l. Vs. GCTL of 0.005 µg/l. Final report was submitted 3/99 recommending continuing groundwater monitoring and institutional controls.
53	MA	3/Lt Grn	Building 7262	Kwik Shoppe	Potential contamination due to past use as a coin operated dry cleaning facility.	Work plan submitted to Navy 4/3/96. Site screening began 4/96. Screening investigation completed 6/96. Field screening results indicated minimal impact to surface/subsurface soil from PCE/TCE. Analytical results below screening criteria. Site has been approved for NFA.
54	MA	5/Yellow		Background surface soil sample locations	PAHs in surface soil above the Florida SCGs were detected in surface soil during the background sampling investigation	Additional sampling and analysis with immunoassay (IA) following the background investigation confirmed the widespread presence of PAHs at sample locations ORS009 and ORS016. HLA submitted the SA 54 report recommending NFA, explaining the likelihood that the PAHs are a result of past forest fires. The report is in review.
OU 2	MA	6/Red 6/Red 6/Red 6/Red	7355 7354 7353 7356	McCoy Annex Golf Course Greenskeepers Storage Golf Course Club House Lawn Equipment Storage	OU 2 is a 99-acre landfill operated by the Air Force from 1960 until 1972 when the Navy took over the property. The Navy closed the landfill in 1978. A 9-hole golf course was constructed over the site, which is drained by a series of canals and retention ponds that discharge to Boggy Creek and Boggy Creek Swamp to the south. It is estimated that over 1,000,000 cubic yards of waste were disposed in the landfill, and that the waste included paints and other solvents, asbestos, transformers, hospital wastes, low-level radiological waste, scrap metal, demolition debris, and yard waste.	Tetra Tech NUS performed the first phase of RI fieldwork 5/97 to 11/97. This work consisted of geophysical surveys; a soil gas survey; sampling of surface soil, surface water, and sediment; groundwater screening with DPT; and cone penetrometer testing to evaluate aquifer stratigraphy. Additional fieldwork began 2/98 with additional geophysics to define the western landfill boundary. Piezometers and stream gauges were installed 3/98 to 4/98 to determine flow directions of groundwater and the connection with ponds, canals, and ditches. A DPT program was performed to delineate groundwater contamination, and subsequently monitoring wells were installed and groundwater sampled and analyzed. Groundwater was found at four locations around the landfill boundary to be contaminated with chlorinated solvents and fuel components. Soil over the landfill had exceedances of benzo(a)pyrene and arsenic. All of the media (surface soil, sediments, surface water, and groundwater) had

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						radiological exceedances (gross alpha/gross beta) but the rad sources may be naturally-occurring. <i>The Draft RI report was issued for review 1/99 and comments from FDEP (4/99) and EPA (5/99) have been received; comments responses will be issued 5/99.</i>

2	HA	1/White 7/Gray	6001	Septic Tank/Leachfield. Herndon landfill(s)	Exact contents of septic tank and drain field unknown (see "Other Areas" notes below for Herndon Annex Landfill). Potential contamination from unknown landfilled materials.	Field screening of the deep wells installed east of Building 606 and south of Building 610 indicate benzene concentrations of 21 and 32 µg/l, possibly related to former landfills at Herndon Annex. Additional field investigations indicate a probable off site benzene source. A US Army Corps of Engineers survey conducted for GOAA along the southern boundary of Herndon Annex was inconclusive in determining the benzene source. This land parcel was leased to the City of Orlando 12/96. Sampling of surface water in Lake Barton indicate PCE at concentrations below surface water standards. Offsite screening east of the parcel to determine the extent of benzene plume was completed 12/97. Two confirmation monitoring well clusters were installed 12/97. One deep well at intersection of Nancy Lee Ave. and Bobby St. detected benzene at 53 µg/l. Other confirmation wells in the two clusters did not have contaminants at concentrations of concern. HLA report (4/98) recommends groundwater use advisory to residents in affected area, an evaluation of remedial options, quarterly monitoring of selected wells, and transfer of parcel to Tank Management Program. HLA installed two additional wells to further evaluate the benzene plume. All wells were sampled, and evaluation of analytical data has been completed and the final report was submitted 3/99. <i>Report is being reviewed by FDEP and USEPA.</i>
43 ^b	HA	3/Lt Grn	601	Indoor rifle and pistol range	Herndon Annex, potential lead contamination. See the remainder of SA 43 at Main Base (North Grinder Landfill skeet range, Building 229).	18 surface soil samples (and 2 duplicates) collected and submitted for lead analysis 12/95. One sample exceeded regulatory screening level. TCLP analysis for lead at the location of the highest lead concentration was below the RCRA regulatory limit, and lead is therefore not of environmental concern. Site has been approved for NFA.

11	AC	1/White	148	Cold Storage Warehouse (Area C)	Abandoned half buried drum - Soil staining around generator pad transferred to UST Program	The field investigation for Group II sites was completed 4/6/95. Analytical results for SA 11 indicate no contaminants exceed guidance levels. Property has been approved for NFA.
12	AC	5/Yellow	1061, 1063	DRMO warehouses and salvage yard.		Transferred to OU 4, below.
13	AC	5/Yellow	1100, 1101	NTC laundry and old heating plant		Transferred to OU 4, below.
14	AC	5/Yellow	1102	Disposal, salvage and scrap building		Transferred to OU 4, below.
15	AC	1/White	1053	CBU-419 Maintenance Shop	Diesel fuel spill reported	Transferred to UST Program.
55	AC	7/Gray	1104	PCB storage building	PCBs and hazardous materials were allegedly stored in Bldg 1104	HLA proposed site screening activities at the June OPT meeting, resulting in OPT discussion and minor revisions. The final letter workplan was submitted to the OPT on June 22, 1998. Field activities were completed in

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SA	Location	BRAC Color Code	Building Number	Name	Reason for Investigation	Current Status
						July 98. OPT approved NFA in January 1999 with restriction to nonresidential use.
OU 4 (SA 12)	AC	5/Yellow	1063 and 1061	DRMO Warehouses and salvage yard	Former hazardous waste handling and storage area, spills are suspected and a former production well is on-site.	<p>Analytical results from initial screening investigation at SA 12 indicate no significant detections for soil, but that groundwater has PCE at 8 µg/l Vs. A FL MCL of 3 µg/l. Results from supplemental screening activities indicated that shallow groundwater between Building 1100 (SA 13) and Lake Druid, as well as the surface water and sediment along the eastern edge of the lake, was contaminated with PCE and its daughter products (TCE, cis-DCE, and vinyl chloride).</p> <p>SA 12 has been grouped with SAs 13 and 14 and designated as OU 4. A focused investigation was conducted along the lakeshore to determine the source of VOC contamination in the lake. Another investigation was conducted beneath the laundry building to identify potential contamination source areas. Construction of two recirculating wells to mitigate the lake contamination began 11/10/97. These wells are part of an interim remedial action (IRA) while the RI and FS are completed. The IRA is an in-well stripping system that will intercept the contaminated groundwater before it reaches the lake and strip out the VOCs. The two recirculating wells are operational and a monitoring plan is in place.</p> <p>The RI fieldwork began late 10/97, and was completed in 4/98. RI data will be used to characterize the nature and extent of contamination throughout the entire site. In areas identified during the initial screening. These results are being evaluated and will be used to select the best remedial technology. The RI report was issued in September 1998.</p>
OU 4 (cont.) (SA 13)	AC	5/Yellow	1100 (1101)	Laundry Drycleaners (Area C)	Several PCE spills documented, history of poor handling practices.	Passive soil gas and laboratory results from the initial screening investigation at SA 13 confirmed PCE and TCE contamination. Soil and groundwater have elevated levels of PCE, TCE, and cis-DCE. The highest contaminant concentration in soil was PCE at 430 µg/kg Vs. an SCG of 30 µg/kg. The highest concentrations in groundwater were PCE at 28,000 µg/l and TCE at 15,000 µg/l Vs. MCLs for both compounds of 3 µg/l. Most of the highest VOC concentrations were found beneath the laundry building. The extent of groundwater contamination detected during the initial screening investigation was established during the OU 4 remedial investigation (see above).
OU 4 (cont.) (SA 14)	AC	5/Yellow	1102	Disposal Salvage Scrap Building	3 gallon spill of PCE.	Analytical results from site screening indicate no significant detections for soil, but that groundwater has PCE and TCE concentrations of 46 and 20 µg/l Vs MCLs for both compounds of 3 µg/l. Antimony was also detected in several wells at concentrations up to 16 µg/l Vs. a Florida MCL of 6 µg/l. The extent of groundwater contamination detected at SA14 was established during the OU 4 remedial investigation (see above).

*Changes for this revision are bolded and italicized
 See notes, glossary, and BRAC color codes at end of table
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Installation Restoration Program Non-UST/AST Investigation Summary

Base Realignment and Closure, Naval Training Center, Orlando

Site Screening SAs/Operable Units for Main Base (MB), McCoy Annex (MA), Area "C" (AC), and Herndon Annex (HA)

SA	Location	BRAC Color Code	Building Number	Name	Reason for Investigation	Current Status
Other Areas						
ACM		7/Gray	2713	Administration Building		
ACM		7/Gray	2651	Recycling Center		
ACM		7/Gray	2450	Demolished		
ACM/LBP		1/White		Capehart Housing	Currently designated as 1/White.	ACM and LBP surveys completed in 9/95.

*Changes for this revision are bolded and italicized
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NOTES

- ¹ Subject to change based on evolving evidence or knowledge.
- ² This area is in the southern portion of the Main Base golf course, near the small arms ammunition bunkers.
- ³ This area also includes Building 208, the USS Bluejacket. The primary responsibility for this facility, however, lies within the UST program.
- ⁴ Upon installation of additional monitoring wells and analysis of groundwater, a decision will be made regarding additional investigator requirements at this landfill.
- ⁵ Sites discovered and/or reported in "Technical Memorandum, U.S. Air Force Records Search, September 1995" (HLA), and which will be investigated in accordance with work plan entitled "Site Screening Plan, Air Force Sites, Addendum 2," November 1995.
- ⁶ Sites previously considered, but which will be investigated in accordance with work plan entitled "Site Screening Plan, Groups I through V SAs and Miscellaneous Additional Sites," Addendum 1, October 1995.

Regulatory Limits and Guidelines for Analytical Parameters:

Groundwater - Maximum Contamination Limits (MCL), Federal and State promulgated

Surface Water - FDEP Surface Water Quality Criteria (SWQC) Classes I through IV

Soils - Risk Based Concentrations (RBC) from EPA Region III, Target Action Levels from FDEP (Screening guidelines only)

Sediments - FDEP Sediment Quality Guidelines (SQG)

No Observable Effects Level (NOEL)

Probable Effects Level (PEL)

(Screening Guidelines Only)

GLOSSARY

AST = aboveground storage tank

BEHP = bis(2-ethylhexyl)phthalate

BTEX = benzene, toluene, ethylbenzene, and xylenes

DCE = dichloroethene

DDE = dichlorodiphenyldichloroethene

DPT = direct-push technology

EOD = explosive ordnance disposal

FS = feasibility study

FSDWS = Florida secondary drinking water standard

GCTL = (Florida) groundwater cleanup target level

GOAA = Greater Orlando Aviation Authority

HLA = Harding Lawson Associates, Inc. (Formerly ABB

Environmental Services, Inc.)

IRA = interim remedial action

J = estimated

MCL = maximum contaminant level

mg/kg = milligrams per kilogram (parts per million)

Mn = manganese

Na = sodium

ND = not detected

NFA = no further action

OPT = Orlando Partnering Team

OU = operable unit

PAH = polynuclear aromatic hydrocarbon

PCE = perchloroethylene, or tetrachloroethene

pCi/l = picocuries per liter

PEL = probable effects level

PRE = preliminary risk evaluation

RAD = radiological parameter

RCRA = Resource Conservation and Recovery Act

RI = remedial investigation

SCTL = (Florida) soil cleanup target level

TCE = trichloroethene

TCLP = toxicity characteristic leachate procedure

TMP = tank management plan

TRPH = total recoverable petroleum hydrocarbons

TSS = total suspended solids

µg/kg = micrograms per kilogram (parts per billion)

µg/l = micrograms per liter (parts per billion)

UST = underground storage tank

UXO = unexploded ordnance

BRAC COLOR CODES

1/White. Areas where no release or disposal of hazardous substances or petroleum products has occurred (including no migration of these substances from adjacent areas)

2/Blue. Areas where only release or disposal of petroleum products has occurred (but no release, disposal or migration from adjacent areas has occurred)

3/Lt Grn. Areas where release and/or migration of hazardous substances has occurred, but at concentrations that do not require a removal or remedial action

4/Dk Grn. Areas where release and/or migration of hazardous substances has occurred, and all remedial actions necessary to protect human health and the environment have been taken

5/Yellow. Areas where release and/or migration of hazardous substances has occurred, removal and/or remedial actions are under way, but all required response actions have not yet been taken

6/Red. Areas where release, disposal and/or migration of hazardous substances has occurred, but required response actions have not yet been implemented

7/Gray. Areas that have not been evaluated or require additional evaluation

*Changes for this revision are bolded and italicized

See notes, glossary, and BRAC color codes at end of table

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SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
CARETAKER SITE OFFICE
NTC ORLANDO

I. Fourfold Mission.

To efficiently and effectively manage Navy-owned property vacated due to base closure, to cooperate with the CRA in its continuing reuse planning efforts, to support the utility needs of the post-closure tenants, and to facilitate the continuing environmental restoration program.

II. Chain of Command.

As a field element of Southern Division, the Caretaker Site Office's chain of command is as follows:

- a). Division Director, Base Closure Division
- b). Head, Land Management Department
- c). Executive Officer
- d). Commanding Officer

III. Staffing.

The CSO office is currently staffed by military and civilian personnel transferring directly from the former Naval Training Center staff. Including;

- a). CDR Robert White, JAGC, USN, formerly the Staff Judge Advocate and OSD Base Transition Coordinator
- b). LT Gary Whipple, CEC, USN, formerly the Public Works Officer
- c). AOCS Steve Kyer, USN, formerly the Chief of Police
- d). Mr. Bill Jacobs, formerly the Public Works Manager, and
- e). Mr. John Swiney, formerly the Public Works Maintenance Foreman.

As the military staff leaves the office due to transfer and retirement, Southern Division will detail staff from headquarters and the CSO Charleston office to continue the mission in Orlando.

IV. Current Projects.

The Caretaker Site Office is supporting Southern Division's mission in the following projects:

a). Interim Remedial Actions, Soil Removals, Various Areas:

Under the continuing BRAC environmental restoration program, Southern Division is removing surface soil at various areas of the main base and McCoy Annex to comply with the CRA's Reuse Plan. Approximately 7,000 tons of arsenic and PaH contaminated soil is currently being removed near the Maguire Gate, Study Area 40. Additionally, approximately 4,000 tons of arsenic contaminated soil is being removed at the former Greenskeeper Area, Main Base Golf Course, Study Area 8. The project is scheduled to be completed by the end of May.

b). Installation of Perimeter Fencing for Post-Closure Tenants.

Southern Division implemented the developer's security fencing plan for the post-closure tenants in order to maximize physical security and minimize security staffing for the closed portions of the main base. Post-closure tenants now have direct access to their facilities, and the Navy can now control movement within the secured portion of the main base.

c). Emergency Service Agreement with Orlando Utilities Commission.

Southern Division has entered into an agreement with the staff at OUC to provide emergency utility services to the post-closure tenants. The Navy will reimburse OUC for expenses incurred on a case-by-case basis, either through a credit card account or a purchase order. This agreement is advantageous to both the Navy and OUC, since the Navy can rely upon a utility provider that is familiar with the Navy-owned distribution system, and OUC can continue to indirectly provide, through the Navy, complete utility service to future prospective clients.

V. Future Outlook.

Southern Division is committed to staffing and managing the Caretaker Site Office until property disposal.

UST UPDATE AND STATUS

May 1999

Bldg 129: Three monitoring wells (MW-1, MW-2, MW-3) were installed on 1/28/99 and sampled on 3/9/99. In addition, three soil samples were collected and submitted to a laboratory for 30 day turnaround time. The results indicate that the soils are clean, but there were exceedances of some inorganics in groundwater (chromium, lead) that were probably due to high turbidity (>200 NTUs). The SAR will be submitted in May. HLA will likely recommend resampling for inorganics.

Bldg 200: Wells MW-6 and MW-8 exceeded the GCTL for TRPH and dibenz(a,h)anthracene in the previous sampling event (see FDEP letter dated August 24, 1998). Monitoring wells MW-2, MW-3, MW-6, and MW-8 were sampled on 10/16/98. On 1/8/99 a SAR addendum was submitted to FDEP with the sampling results and recommending a MOP for the site. On 2/16/99, FDEP provided comments to the MOP request, indicating that fewer wells and a less stringent analytical method would be acceptable in the MOP. The MOP request was submitted on April 14, 1999.

Bldg 369: FDEP issued a letter on 10/20/98, requesting additional soil sampling. Soil samples were collected on 12/10/98. Laboratory analytical results for soil sample SS-1, collected at 4 to 6 feet below land surface reported Total Petroleum Recoverable Hydrocarbons (TRPH) of 660 mg/kg. This concentration is above the residential SCTL of 350 mg/kg, but is below the industrial. On 2/17/99, HLA submitted a SAR addendum to FDEP requesting NFA for the site. *FDEP responded that site would need either (1) soil removal and backfill; (2) deed restrictions to prevent exposure of residents to subsurface soil; or (3) change property use to nonresidential. OPT will discuss this issue further.*

Bldg 2036: First quarter MOP report was submitted to FDEP on 10/2/98. Sampling for the 2nd quarter MOP was conducted on 11/25/98. The second quarter MOP report was submitted to FDEP on 1/8/99 and has been approved. Sampling for the 3rd quarter was conducted on 2/19/99. During the sampling event, free-floating product was discovered in monitoring well MW-1. 3rd quarter MOP report was submitted to FDEP on March 31, 1999. HLA requested that the MOP be discontinued and that another remedial strategy be implemented (*overdevelopment, excavate impacted soils and/or free product that collects in excavation*).

Bldg 2040: Awaiting source removal (summarized in 11/5/98 letter to Navy). Two soil samples were collected on 11/5/98 from the area impacted by petroleum product, assessed during the CAR for the site. The soil samples were submitted to an off-site laboratory for analysis. On 1/8/99, HLA submitted a SAR addendum requesting an NFA from FDEP for the site. FDEP requested that temporary well TW-01 be reinstalled and sampled along with monitoring well MW-01. The temp well installation and sampling was conducted on 3/9/99. *The SAR addendum was submitted to FDEP on April 30, 1999.*

Bldg 2273: Laboratory analytical results indicate that the soil stockpile from the installation of utilities at the site will require treatment. A letter/report was submitted to the OPT with a recommendation for disposal on 12/8/98. A cost estimate was prepared and submitted to the Navy on 12/9/98 for the replacement of monitoring wells destroyed by the City of Orlando. The DET removed soil from the site during the week of 2/22/99. The site is on hold awaiting authorization to install monitoring wells destroyed by the City of Orlando's contractors.

Bldg 2426: The SAR was completed on 5/29/98. FDEP approved recommendations for the excavation of petroleum-impacted soil and free-product removal on 7/7/98. Site is on hold awaiting remediation. Awaiting source removal (summarized in 11/5/98 letter to Navy). The petroleum-impacted soil that needs

to be excavated and which was documented in a letter to Nick Ugolini on 12/9/98 was removed by the DET during the week of 2/22/99. One monitoring well and several piezometers have been abandoned at this site. A temporary well will be installed and all existing monitoring wells will be sampled to develop a SAR addendum for the site. Because of difficulties with the "Hardpan" layer found at a depth of approximately 8 feet bls, a microwell was not installed. *HLA installed a temporary well and sampled it the week of 4/19/99.* A Source Removal Report (SRR) will be submitted to FDEP in late May or early June.

Bldg 7107: One monitoring well was abandoned in preparation for soil removal. The DET removed 5 yd³ of petroleum-impacted soil on 2/20/99. A temporary well will be installed in the excavated area and all existing monitoring wells will be sampled to support a SRR. A microwell was installed in the excavated area on 4/12/99 and was sampled 4/16/99. *The results indicate the site is clean.* The SRR will be submitted to FDEP 5/99.

Bldg 7125: The site has petroleum-impacted soil. Additional wells will be installed to complete groundwater plume delineation. Free-floating product was discovered in one of the monitoring wells and in a piezometer. Free-product delineation will be conducted as part of this site assessment. The SAR was submitted to FDEP on 1/15/99; HLA recommended active remediation for the site. *FDEP has not yet issued review comments.*

Bldg 7171: A SAR has been started for this site. Three monitoring wells were drilled on 1/28/99. Two monitoring wells (source wells OLD-16-01 and MW-02) and a temporary well (TW-01) were abandoned on 2/11/99. The DET removed the oil water separator and petroleum-impacted soil during the week of 2/22/99. A microwell was installed in the excavated area and sampled on 4/16/99. *The microwell was clean. The SAR will be submitted to FDEP 6/99.*

Bldg 7174: The SAR was issued on 5/5/98 recommending a RAP; FDEP provided comments approving recommendation for RAP 5/26/98. RAP for Building 7174 was submitted on 9/25/98. After reviewing the site data, natural attenuation is not considered to be an effective remedial alternative for this site. Active remediation will be required in order to meet FDEP requirements. *CH2M Hill has issued a work plan to install a biosparge system.*

Bldg 7175: A soil assessment was conducted at this site and the data presented in a letter dated 4/28/97. HLA recommended the excavation of petroleum-contaminated soil prior to conducting a site assessment. Awaiting source removal (summarized in 11/5/98 letter to Navy). Two monitoring wells were abandoned 2/11/99. The DET excavated and disposed of petroleum-impacted soil during the week of February 22, 1999. Four monitoring wells were installed at the site during the week of 4/5/99. Six monitoring wells were sampled on 4/15/99. *Low levels of petroleum constituents were found and those results are being evaluated.* A SAR will be submitted to FDEP 6/99.

Bldg 7182: Three monitoring wells were installed and sampled on the week of 7/6/98. Site assessment activities initiated at Building 7182 were completed for the suspected petroleum contamination; however, chlorinated solvents were found at concentrations above the State of Florida GCTLs. A SAR was submitted under Chapter 62-770 FAC on 10/30/98 requesting an NFA for petroleum constituents and recommending additional assessment for the chlorinated solvents under the IR program. On 2/9/99, FDEP approved the SAR with the recommendation for NFA, but requested that the chlorinated solvents be investigated under the IR program. TtNUS is preparing a work plan to evaluate groundwater at this site.

Bldg 7241: The Remedial Action Plan (RAP) for Building 7241 was submitted to FDEP on 8/10/98 and was approved by FDEP on 8/22/98. The site is on hold until the Navy removes soil and free-product from the site. A SARA will be completed following Navy actions (summarized in 11/5/98 letter to Navy). Two monitoring wells and several piezometers were abandoned 2/11/99. The DET excavated petroleum-impacted soil on 2/20/99. A micro-well was installed 4/12/99 and was sampled 4/16/99. *The well was clean.* A SRR will be submitted to FDEP 5/99.

IR UPDATE AND STATUS May 1999

OPERABLE UNITS

OU 2: Draft report issued 1/99. *Comments from FDEP (4/99) and EPA (5/99) have been received and responses are being prepared for submittal 5/99.*

OU 3: RI report response to comments were submitted 11/12/98. The final RI report is being prepared, incorporating all comments; the RI/FS report will be issued as final when all comments are resolved.

The draft FS report for OU 3 was submitted to the Navy on 11/24/98. HLA received comments from FDEP for the draft FS report (2/9/99) and EPA (2/11/99). HLA response to comments were submitted to the OPT on 3/12/99. Additional comments on the HLA response to comments were received from FDEP on April 10 (letter dated 4/2/99). HLA has prepared responses which *were distributed at the April OPT meeting and have been approved by FDEP.* The FS report is being finalized, incorporating all comments. The Proposed Plan is also being prepared and will be available for OPT review *at the May meeting in Orlando.*

A supplementary round of groundwater sampling was completed by TtNUS on 3/16/99 to provide post-soil removal ('97 IRA) data to evaluate anticipated changes in groundwater contamination; *results indicate MCPA and MCPP are no longer present at detectable concentrations. DET soil removals began in May.*

OU 4: *The last round of scheduled HLA IRA Troll downloads was completed the week of April 26 and forwarded to Bechtel. The IRA continues to operate at low recirculation flows, with periodic shutdowns apparently due to power surges or outages. HLA is currently preparing the 3rd quarterly report, addressing the period from September 1, 1998 through December 31, 1998. The 4th and final quarterly report will cover the period from January through April 1999*

The response to regulator comments to the draft OU4 RI was issued on May 8, 1999. The final RI/FS will be issued together, after the results of the KMnO4 pilot have been evaluated. The final RI/FS is currently scheduled to be issued in the Fall of 1999. HLA continues to plan for the chemical oxidation pilot study. Preparation of the KMnO4 variance was delayed last week due to new analytical data from Carus. Submittal of this document is being coordinated with FDEP (David Grabka and Bill Neimes). Preparation of the treatability study work plan is in progress. Additional treatability study funding has been approved by the Navy.

FDEP and USEPA comments to the draft OU4 FS have been received. HLA will begin preparation of a response to these comments.

GROUPS IV AND V:

SA 35: Soil removal by Environmental Detachment Charleston (DET) *is underway*; HLA site screening report will include DET report as an appendix.

SA 36: A site screening report summarizing investigation activities was issued 4/9/99 for OPT review.

SA 37: Soil removal by DET *underway*; well installation *and groundwater sampling* to follow soil removal. HLA site screening report will be issued when DET report has been completed *and groundwater analytical results are available*.

SA 42: Soil removal by DET *underway*. HLA site screening report will be issued when DET report has been completed.

OTHER STUDY AREAS:

SA 2: HLA issued the final site screening report 3/10/99 and received comments from FDEP 4/12/99 (letter dated 4/5/99). FDEP comments will be incorporated into report. *Certain aspects of the conclusions and recommendations are still in review.*

SA3: Sampling of well OLD-03-04 was discontinued 12/98 as PCE had fallen below the FL MCL for 2 consecutive months. Sampling on 2/23/99 showed that PCE in well OLD-03-01 had decreased to 2.9 µg/l. One more round below the MCL will remove the groundwater restriction from SA 3.

SA 17: The final site screening report was issued 3/4/99, *and was signed off by the BCT on 4/22/99*. HLA has marked the recommended soil excavation boundary for the DET. The DET will mobilize to *McCoy Annex* following soil removal activities at the Main Base.

SA 18: *The DET will mobilize to McCoy Annex following soil removal activities at the Main Base. A final site screening report will be issued following the IRA soil removal by the DET.* TtNUS is preparing a work plan to evaluate chlorinated solvents in groundwater.

SA 23: The DET will mobilize to *McCoy Annex* following soil removal activities at the Main Base. A final site screening report will be issued following the IRA soil removal by the DET.

SA 39: The final site screening report was issued for signature 4/15/99 *and was approved by the BCT on 4/22/99*. Recommendations in report include restriction to non-residential use, continuing groundwater evaluation. TtNUS is preparing a work plan to evaluate chlorinated solvents in groundwater.

SA 40: *Soil removal by DET underway. HLA site screening report will be issued when DET report has been completed.*

SA 52: HLA issued the final report 3/23/99 for signature, *and it was approved by the BCT on 4/22/99*.

SA 54: Draft site screening report on the two background surface soil sample locations (ORS00901 and ORS01601) was submitted to the OPT for review on 12/2/98. LT Whipple reports that he Faxed excerpts from the report to planners and environmental protection specialist at the 81st ARCOM in Birmingham. They understand issues and said they would get back to him. No word yet, although they do not seem overly concerned with possibility of land use restrictions.

STUDY AREA STATUS:

55 study areas have been screened¹

- ⇒ 37½ SAs have been submitted as final and approved for NFA: 1, 4, 5, 6, 7, 8[WWTP], 10, 11, 15, 16, 19, 20, 21, 22, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 38, 41, 43, 44, 45, 46, 47, 48, 49, 50, 51, 53, 55
- ⇒ 4½ SAs became OUs (8 [greenskeeper storage] & 9 [OU3]; and 12, 13, and 14 [OU4])
- ⇒ 4 SA reports have been approved by the BCT as final, and will require additional investigations (SAs 17 and 39) or continued groundwater monitoring (SAs 3 and 52)
- ⇒ 6 SAs require removal actions and/or additional screening (18, 23, 35, 37, 40 and 42).
- ⇒ 3 SA reports have been issued as either final (SA 2, still has remaining unresolved issues), or in final draft for review (36 and 54, both reports are being reviewed by OPT).

¹ includes SA 54 (background surface soil locations S009 and S016), and SA 55, Bldg. 1104 (alleged PCB storage)