RESTORATION ADVISORY BOARD MEETING AGENDA, SLIDES, AND ATTACHMENTS 7 MARCH 1996 NAS WHITING FIELD FL
3/7/1996
RESTORATION ADVISORY BOARD

00811

AGENDA
NAS WHITING FIELD RAB MEETING
BUILDING 4900, ROOM 4902
Pensacola Junior College, Milton Campus
March 7, 1996

▸ ***Welcome***	Pat Durbin Navy Co-Chair
▸ ***Presentation*** Petroleum Program Overview	Terry Hansen ABB Environmental Services
▸ ***Presentation*** Remediation of Building 2894 Site	Mark Diblin ABB Environmental Services
▸ ***Break***	
▸ ***Presentation*** Field Work Update	Gerry Walker ABB Environmental Services
▸ ***General Discussion*** • Upcoming agenda topics and speakers • Other topics	RAB Members

NAS Whiting Field
Restoration Advisory Board Meeting, 7 March 1996
MEETING SUMMARY

RAB Members Attending:

Jeff Adams
Anita Breeding
Garrett Breeding
Sam Buckman
Jim Cason
Pat Durbin, Navy Co-Chair
Logan Fink, Community Co-Chair
Robert Fowlkes
Archie Hovanesian, Jr.

Navy Representatives:

Captain Richard Dick, NAS Whiting Field
Jim Holland, NAS Whiting Field
LTJG Jeff Oettle, NAS Whiting Field

Others:

Tom Conrad, Bechtel Environmental, Inc.
Mark Diblin, ABB Environmental Services (ABB-ES)
Terry Hansen, ABB-ES
Bill Kollar, ABB-ES
Gerry Walker, ABB-ES

Pat Durbin opened the meeting at 5:32 p.m. by welcoming the RAB members and others in attendance. She then reviewed the meeting agenda and introduced the presenters. The December 14 RAB meeting minutes were then approved without comment.

Petroleum Program Overview:

The first agenda topic was the ongoing petroleum program, and Terry Hansen of ABB gave an overview of this work. He noted that petroleum site activities are separate from the Installation Restoration (IR) program which is addressing hazardous waste sites at Whiting Field. Mr. Hansen noted the major differences between the two efforts as follows:

	Regulatory Framework	**Worker Safety/ Waste Handling**	**Cleanup Standards**	**Contaminants**	**Sites at Whiting Field**
Petroleum Program	Primary agency FDEP; one set of regulations; simpler process	Procedures less stringent and less costly due to contaminants involved	Standards are set under the law	Addresses only petroleum-associated contaminants	6 sites
IR Program	Primary agency USEPA; two sets of regulations; more involved process	Procedures more complex and costly due to contaminants involved	Standards must be established for each site	Potentially involves contaminants associated with a range of operations	28 sites

Jim Holland of the NAS Whiting Field Public Works Department added that the sampling and analysis process for the petroleum program is also simpler and less expensive than that for the IR program.

Remediation of Building 2894 Site

Mark Diblin of ABB-ES followed with a presentation on the Building 2894 petroleum site cleanup. Mr. Diblin began with a brief site history, noting that contamination occurred during offloading of aviation fuel from rail tanker cars and is restricted to the soil (i.e., has not impacted groundwater). Remedial designs have been completed for each of the affected subsurface zones at the site. These are: bioventing (for the upper zone); intrinsic remediation (for the intermediate zone); and barometric pumping (for the lower zone). Diblin described each design approach, and added that each meets Navy cleanup requirements of site-specificity, easy installation, cost effectiveness, low maintenance, and minimal disturbance to onsite activities. Mr. Diblin concluded by presenting a cost comparison showing that the barometric pumping design is more cost effective than a traditional approach called soil vapor extraction. He also reviewed the upcoming schedule for the site.

Mr. Diblin fielded questions following his presentation. Capt. Dick asked about the greatest cost element of the bioventing design, and was told that it was air sampling of the vented emissions. Mr. Diblin added that soil samples will also be taken in each zone as part of an onsite monitoring program. This activity will begin in a few years. Logan Fink and Capt. Dick asked how the pressures for the barometric pumping system in the lower zone were determined. Mr. Diblin stated that a pilot-scale laboratory study was done to verify that a pressure gradient existed between the surface and the lower zone, and that contaminant transfer to the air would occur with the daily pressure changes. The study showed that these pressure gradients were feasible at the site. Robert Fowlkes asked how the operation and maintenance (O&M) costs associated with the site cleanup will decrease substantially over time. Mr Diblin replied that O&M plans include quarterly sampling for the first year of operation, and annual or semi-annual thereafter for the life of the systems. This accounts for the lower O&M costs over time. Mr. Hansen added that the remedial approach for Site 2894 is designed to prevent groundwater contamination, which is the primary concern at the site. He noted that the planned cleanup combines innovative technologies, and will become a model if successful.

Field Work Update

Gerry Walker of ABB-ES provided an update on field activities at the Perimeter Road sites and at the South Field Industrial Area. At Perimeter Road, Phase IIB of the Remedial Investigation began about eight months ago. Mr. Walker summarized the specific field activities listed below in a handout which indicated the site location and type of activity to be conducted:

- Landfill Gas Survey
- Surface Soil Sampling
- Monitoring Well Installation
- Subsurface Soil Sampling
- Groundwater Sampling
- Aquifer Testing

Final cleanups plans for the Perimeter Road sites are expected by the end of 1996. These actions will be developed with consideration of public comment and then summarized in a document called a *Record of Decision*. Mr. Walker noted that, based on the findings of the Remedial Investigation, some Perimeter Road sites may not require cleanup actions.

An update on groundwater investigations at the South Field Industrial Area was presented next. This work will consist of soil borings in the contaminant source area, additional monitoring well installation, groundwater sampling, and aquifer testing. Sampling to determine background conditions in the area will also be performed. Terry Hansen noted that the cleanup approach developed for Building 2894 is not appropriate for Perimeter Road or the South Field Industrial Area since soil contamination is not an issue at these sites. Capt. Dick asked if computer models had been used to help determine the extent of groundwater contamination at the South Field Industrial Area. Mr. Walker stated that they had not

because their results would be unreliable without accurate information on contaminant source volume. Jim Holland asked the total number of monitoring wells to be installed. Mr. Walker replied that approximately 50 wells would be installed, at about three wells per day.

Closing Comments

Pat Durbin asked if the RAB members would be interested in observing monitoring well installation at the South Field Industrial Area. Most members were interested, and Ms. Durbin said she would get the drilling schedule and make the necessary arrangements. Pat Durbin also asked the RAB to think about presentation topics for the next meeting. She suggested a briefing on Risk Assessment as a potential topic. The next RAB meeting was scheduled for Thursday, May 9, 1996 at 5:30 p.m. at the Pensacola Junior College (**postscript:** the meeting date was subsequently shifted to May 2).

Some general questions and comments were then offered. Capt. Dick remarked that progress was being made on actual cleanup work at NAS Whiting Field. Anita Breeding asked if the results of the upcoming November elections could affect funding of the environmental program. Jim Holland replied that it was possible, but that funding reductions could also serve to accelerate cleanup decisions. Mr. Holland asked about the status of USEPA's environmental justice program, and Pat Durbin offered to contact USEPA regarding that issue. The meeting was adjourned at 7:00 p.m.

Navy League honors Sailors
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Bring health talk to your workplace
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New bowling record set
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THE WHITING TOWER
Vol. 52 No. 9 NAS Whiting Field, Milton, Fla., "The World's Most Efficient Naval Air Complex" March 7, 1996

Photo by JOC (SW) David A. Youngquist

Crash crew is right on time

In typical aviation boatswain's mate fashion, the crash and salvage crew at Outlying Barin Field responded rapidly when the Pensacola USO needed a clock for its Pensacola Airport office. Members of crash and salvage donated money for the materials so ABHCS(AW/SW) Douglas Thornton could build a clock with ABH flare. The clock was presented to the USO Friday, March 1. On hand for the presentation, from left, are Operation Crash and Salvage Division Officer CWO3 James V. Shand, USO Volunteer Doug Adie, USO Executive Director Sharon Silk, Thornton, and USO Administrative Assistant Angel Larson.

Analyzer digs into Whiting Field history

The Department of Defense developed the Installation Restoration (IR) program when federal facilities were directed to locate, identify, and eliminate environmental contamination. This contamination resulted from the disposal practices of the past that were not up to today's more stringent standards. Contamination also resulted from accidental releases of hazardous materials and petroleum products.

The IR process, which identifies sites contaminants, what risk they pose and the extent of contamination, is very time-consuming. It also requires expensive laboratory analyses. In an effort to minimize the time and expense, the Navy Public Works Center in Jacksonville, Fla., has sent a crew to Whiting Field with some innovative technology. The 20-ton Site Characterization and Analysis Penetrometer System (SCAPS) gathers 'real time' underground data. The subsurface information collected by SCAPS is available instantaneously, eliminating delays associated with conventional laboratory analyses.

According to George Steffen, environmental engineer and program manager for East Coast SCAPS program, "Our mission here is to offer a more cost-effective, 'real-time' method of site-screening to determine whether this station has a site-contamination problem or not."

Photo by JO3(AW) Russell C. Tafuri

Jose Diliz, a chemical engineer with Public Works Center Jacksonville, explains the data-collection process.

South Field Industrial Area

Groundwater Investigation

- Source Area Soil Borings
- Additional Monitoring Wells

Groundwater Sampling
and Aquifer Testing

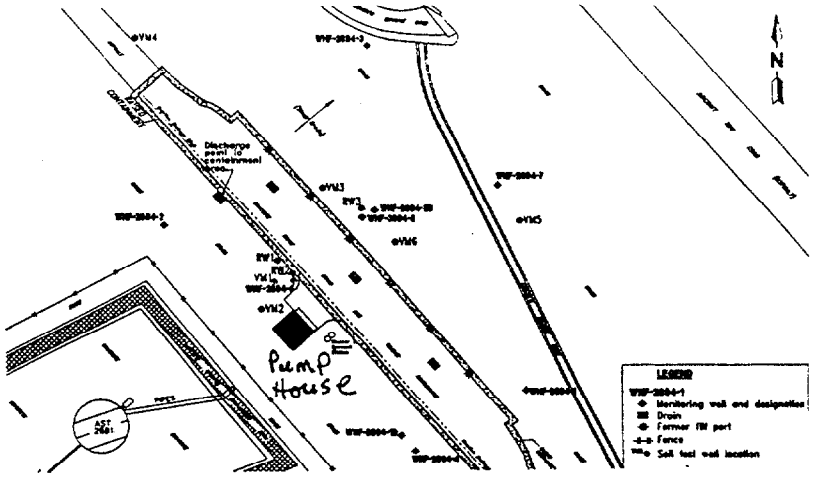
Site 2894 Remedial Design

ABB Environmental Services, Inc.

Objectives

- Provide Overview of the Site Characteristics
  - Three soil types at different depths
- Separate Cleanup Approach (based on depth and soil characteristics)
  - Upper soil zone (bioventing)
  - Intermediate soil zone (intrinsic remediation)
  - Deep soil zone (barometric pumping)

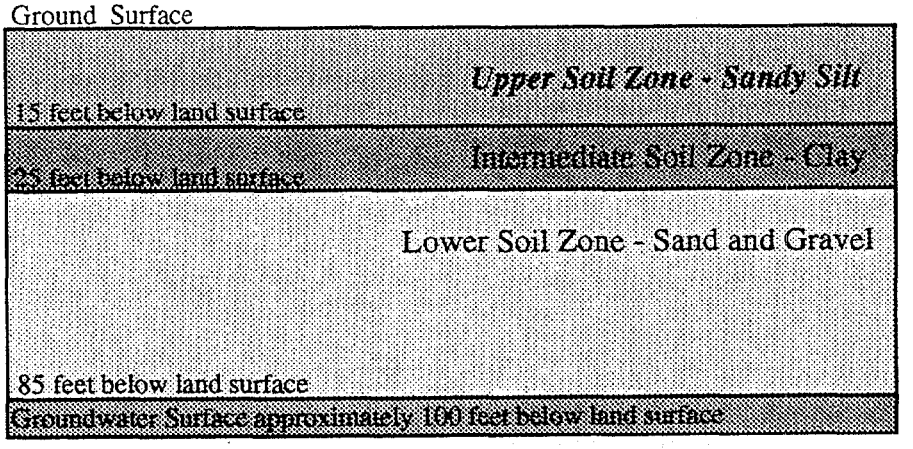
Site Map



Customer Requirements

- Easy to Install
- Cost Effective (i.e. Low Capital Cost)
- Low Maintenance
- Effective Site-Specific Treatment
- Minimal Disturbance to Onsite Activities

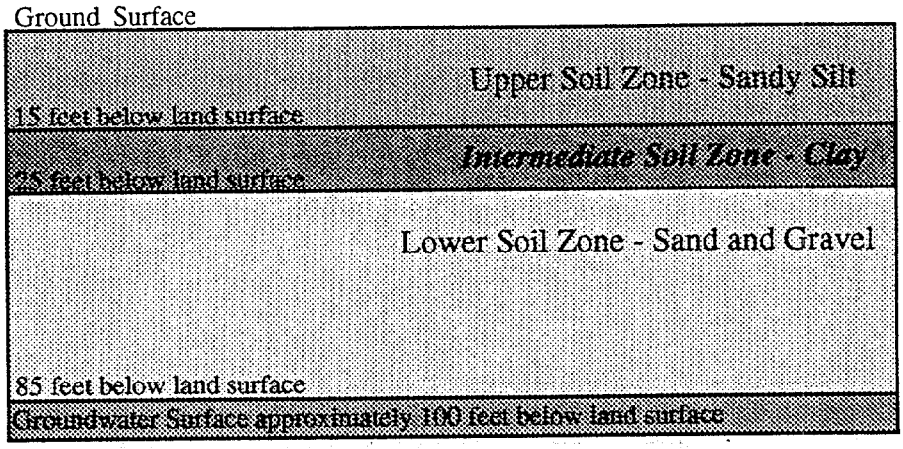
Soil Zone,Type, and Depth



Remedial Approach

- Upper Soil Zone (Bioventing)
  - Adds oxygen to the soil to help naturally occurring bacteria treat soil contamination
  - Requirements
    - » blower to inject air into ground
    - » trenching and associated piping
    - » small fenced area for blower
  - System monitoring needs
    - » Oxygen percent in the soil
    - » Carbon dioxide percent in the soil
  - Estimated time to cleanup: 7 years

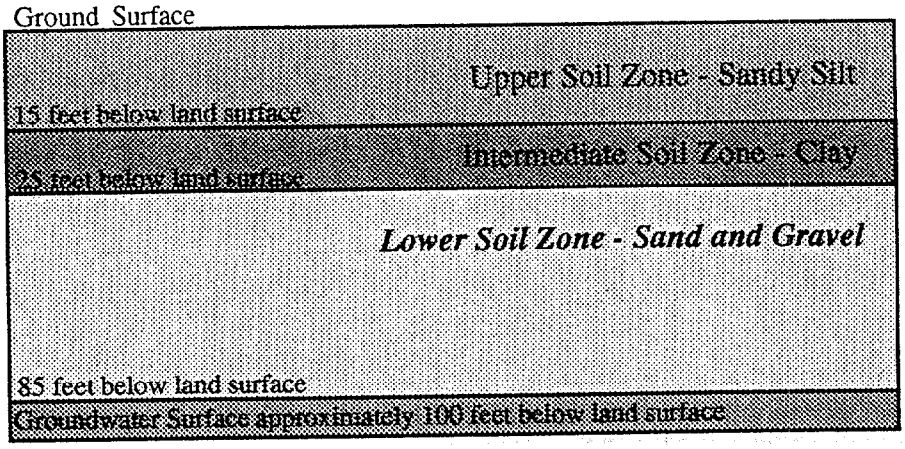
Soil Zone,Type, and Depth



Remedial Approach

- Intermediate Soil Zone (Intrinsic Remediation)
  - Common sense approach because the contamination present has expanded to its greatest extent based on soil, contaminant, and biological conditions
  - Requires in-depth study and common sense evaluation of economy and effort
  - Monitoring is not required
  - Estimated time to clean up: not applicable

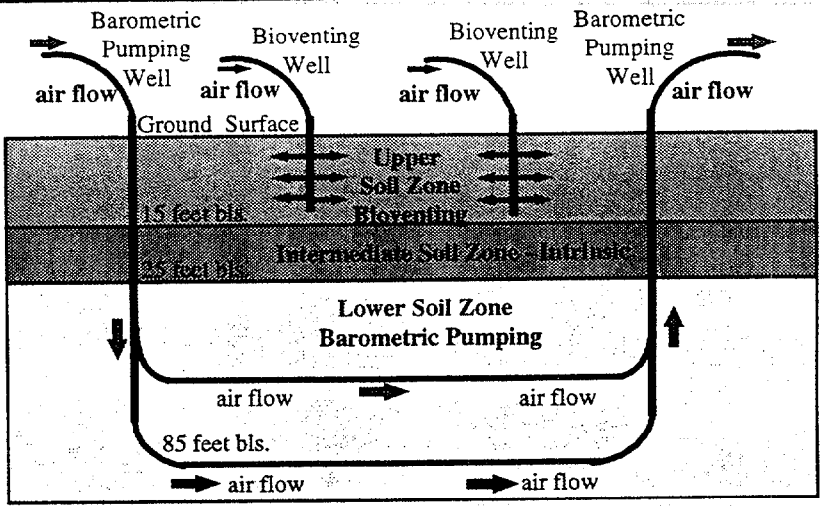
Soil Zone,Type, and Depth



Remedial Approach

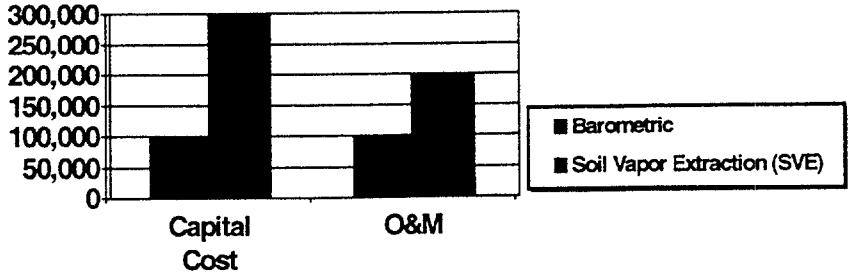
- Lower Soil Zone (Barometric Pumping)
  - Circulation of air through porous soil to passively remove contamination to the surface using daily barometric pressure changes as an air circulation engine
  - Requires pressure-sensitive air valves to direct the movement of air through the porous soil
  - Barometric pumping monitoring requires soil gas emission sampling
  - Estimated time to cleanup: 26 years

Bioventing - Upper Zone
Barometric Pumping - Lower Zone



Cost Analysis

- Lower Capital Costs and Lower Operation and Maintenance (O&M)



Remedial Summary

- Ease of Installation
- Minimal Site Disturbance
- Appropriate Remedial Approach :
  - Upper zone - bioventing
  - Intermediate zone - intrinsic remediation
  - Lower zone - barometric pumping
- Low Capital and Maintenance Costs
- Economically Efficient

Next Steps

- Begin Construction
  - Bechtel Environmental, Inc.
- Start Up and Operate System
- Carryout Performance Sampling
- Provide Performance Reporting

NAS Whiting Field

Remedial Investigation Field Program Update

- Remedial Investigation, Phase IIB, Perimeter Road Sites
- South Field Industrial Area, Groundwater Investigation

Remedial Investigation

Phase IIB, Perimeter Road Sites

- Landfill Gas Survey
- Surface Soil Sampling
- Subsurface Soil Sampling
- *In Situ* Groundwater Samples
- Monitoring Well Installation
- Groundwater Sampling
- Aquifer Testing

TABLE 1
Summary of Proposed Field Activities

Field Program Update - RAB Presentation
NAS Whiting Field, Milton, Florida

Site Number	Site Name	Landfill Gas Survey	Surface Soil Samples	Soil Borings	Subsurface Soil Samples	In Situ GW Samples Locations/ Samples	Proposed Monitoring Wells	Proposed Monitoring Well Samples	Aquifer (Slug) Test
NORTHWEST AREA									
1	Northwest Disposal Area	X	5				1	5	
2	Northwest Open Disposal Area		5				2	3	1
17	Crash Crew Training Area							4	1
18	Crash Crew Training Area							3	1
SOUTHWEST AREA									
15	Southwest Disposal Area	X	25			4/16	2	13	2
16	Open Disposal and Burning Area	X	17			4/16	5	17	3
SOUTHEAST AREA									
9	Waste Fuel Disposal Pit	X	9					3	
10	Southeast Open Disposal Area	X	5					2	
11	Southeast Open Disposal Area	X	15				3	7	2
12	Tetraethyl Lead Disposal Area		6	1	2		1	2	1
13	Sanitary Landfill	X	5				1	4	2
14	Short-Term Sanitary Landfill	X	3				1	2	1
SLUDGE BED AREA									
31A	Sludge Drying Beds		5						
31B	Sludge Drying Beds Disposal		3						
31C	Sludge Drying Beds Disposal		10	3	15		4	4	2
31D	Sludge Drying Beds Disposal		1						
31E	Sludge Drying Beds Disposal		2						
31F	Sludge Drying Beds Disposal		3						
TOTAL SAMPLES		**8 sites**	**119**	**4**	**17**	**8/32**	**20**	**69**	**16**

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Summary of Proposed Field Activities

Field Program Update - RAB Presentation
NAS Whiting Field, Milton, Florida

Site Number	Site Name	Landfill Gas Survey	Surface Soil Samples	Soil Borings	Subsurface Soil Samples	In Situ GW Samples Locations/ Samples	Proposed Monitoring Wells	Proposed Monitoring Well Samples	Aquifer (Slug) Test
INDUSTRIAL AREA									
3	South Field Maintenance Hangar			6	30		[1]23	51	18
BACKGROUND									
NA	Facility-wide						[2]4	7	
TOTAL SAMPLES		**0**	**0**	**6**	**30**	**0**	**30**	**58**	**18**

Notes: [1] Includes 4 shallow wells, 8 intermediate wells, 8 deep wells, and 3 deep/deep wells.
[2] Includes 2 intermediate and 2 deep wells.