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NAS WHITING FIELD
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MONTHLY PROGRESS REPORT FOR PHASE 2A REMEDIAL INVESTIGATIONS DURING
NOVEMBER 1993 WITH TRANSMITTAL NAS WHITING FIELD FL
12/10/1993
ABB ENVIRONMENTAL



03.04.00.0021
1D-00201

December 10, 1993

Commanding Officer
ATTN: Jeff Adams, Code 18510
Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
Charleston SC 29411-0068

**SUBJECT: Monthly Progress Report
 Remedial Investigation - Phase IIA
 Naval Air Station Whiting Field, Milton, Florida
 Contract Task Order 050
 Contract N62467-89-D-0317**

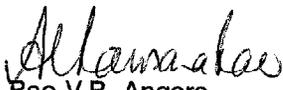
Dear Mr. Adams:

Enclosed please find the monthly progress report for the Remedial Investigation (Phase IIA) work conducted at NAS Whiting Field during November 1993.

If you have any questions, please call me at 904-656-1293 (ext. 314).

Very truly yours,

ABB ENVIRONMENTAL SERVICES INC.


Rao V.R. Angara
Task Order Manager

cc: File: 7560-- (11.2.1)
 Eric Blomberg, ABB-ES
 Jim Holland, NASWF (w/o attachments)
 John Bleiler, ABB-ES
 Field Trailer, NASWF
 Charlie Manos, ABB-ES (w/o attachments)

ABB Environmental Services Inc.

MONTHLY PROGRESS REPORT
Naval Air Station Whiting Field
November 1993

A. TECHNICAL DESCRIPTION OF TASKS CONDUCTED DURING THIS REPORTING PERIOD

I. Data Validation: The groundwater analytical data is being submitted to C.C. Johnson and Malhotra, for NEESA Level C and Level D validation per USEPA and NEESA validation guidelines. Data is being added to the NAS Whiting Field database.

II. Elevation and Location Survey: Northwest Florida Engineering has been subcontracted to conduct the elevation and location survey at NAS Whiting Field. The subcontractor has completed the survey for all monitoring wells.

III. Monitoring Well Installation: The monitoring well installation program was initiated in January/February 1993. The installation of all monitoring wells has been completed. Per USEPA request, protective curbs will be installed at all flush-mount well locations. Specifications for the installation of the protective curbs were provided by the USEPA.

IV. Project Manager Meeting: A project manager meeting, to discuss the clear creek investigation and the document review process, was held on 10 November 1993 at the USEPA offices in Atlanta. The meeting minutes are provided in Attachment A.

V. Groundwater Sampling: The groundwater sampling task was continued during this reporting period. The shift reports prepared by the Field Operations Leader are attached to the monthly progress report. The sampling task includes the collection of groundwater samples and the measurement of water depth, pH, conductivity, temperature, and turbidity.

VI. Ecological Survey: Per USEPA recommendation, a wetlands delineation map is being prepared for submission to the regulatory agencies. The survey map will include location of the white-topped pitcher plants and other flora in that area.

B. STATUS OF WORK TO DATE

- Geophysical survey field program has been completed. The final technical report was submitted to the regulatory agencies on February 17, 1993. Response to comments were prepared and presented to the TRC members on 20 May 1993.
- The soil gas survey field program has also been completed. The final technical report was submitted to the regulatory agencies on 10 March 1993.
- The surface water and sediment sampling task has been completed. The Draft Technical Memorandum No. 1 (Surface Water and Sediment Assessment) was submitted to SDIV on 18 March 1993, the Final Draft Technical Memorandum was submitted to the regulatory agencies on 14 April 1993, and the Final document was submitted to all TRC members on 30 July 1993.
- The final record search (part 1) document was submitted to SDIV in September 1992.
- The record search (part 2) was conducted in August 1993. The objective of this task was to obtain information on additional areas identified by the NAS Whiting Field personnel and obtain aerial photographs requested by the regulatory agencies. A report summarizing the findings of this effort was submitted to the Navy in

September 1993.

- Test pitting operations (field work), as proposed in RI Phase I Technical Memorandum No. 6, have been completed.
- PCPT/BAT activities were completed on November 4, 1992. Seven PCPT soundings and 14 BAT samples were collected as planned. The Level E data was presented in the January 1993 monthly progress report. A data release presenting the PCPT/BAT analytical data was submitted to the Navy on June 26, 1993.
- Data validation for surface soil, subsurface soil, surface water, and sediment sample data has been completed by C.C. Johnson and Malhotra.
- Elevation and location survey of geophysical survey, soil gas survey, soil sampling locations, test pit locations, PCPT/BAT locations, and soil boring locations has been completed.
- The soil boring program, as proposed in Technical Memorandum No. 6 (Phase I), was completed on 27 January 1993.
- The monitoring well installation program, as proposed in Technical Memorandum No. 6 (Phase I), was initiated in January/February 1993.
- The second TRC meeting was held on 20 May 1993 at NAS Whiting Field. The purpose of the meeting was to discuss the status of the field program and discuss the results and findings presented in the Technical Reports and the Technical Memorandum No. 1. The status of the Clear Creek Floodplain investigation was also discussed during this meeting.
- As requested by the USEPA and FDER, soil samples were collected from the Site 12 (Tetraethyl Lead Site) in August 1993. The samples were submitted to the laboratory (CH2MHILL) for analysis. The data obtained from this sampling episode will assist the 'No Further Action' proposed for Site 12.
- Preliminary water level measurements were recorded (September 1993) at all monitoring well locations during this reporting period. This data was collected to estimate the quantity of IDW which may be generated during the groundwater sampling event.
- Preliminary surface soil data assessments for Sites 17 and 18 have been submitted to the Navy. This information will be incorporated into the appropriate technical memorandum.

C. PROBLEMS ENCOUNTERED DURING REPORTING PERIOD

- None

D. ACTIVITIES PLANNED FOR NEXT MONTH

- TFMR and Monthly Progress Report.

- Groundwater Sampling.
- Data Management and Evaluation.
- Photography/Video Documentation.
- Elevation Location Survey.

E. SCHEDULED DELIVERABLES FOR DECEMBER 1993

- TFMR
- Monthly Progress Report.

F. CORRESPONDENCE AND DOCUMENTS RECEIVED

- None

G. COST IMPACTS

- None

H. SAMPLING AND ANALYSIS RESULTS

- Yes - Groundwater Results.

I. LABORATORY MONTHLY PROGRESS REPORTS

- Yes

J. PLANNED CHANGES IN PERSONNEL AND THEIR QUALIFICATIONS

The project team comprises of the following personnel.

Rao Angara, Task Order Manager
 Dr. Willard Murray, Technical Director
 Kathleen Hodak, Project Assistant
 John Bleiler, Senior Scientist (Ecologist)
 David Daniel, Public Health Specialist
 Felix Rizk, Geologist

Eric Blomberg, Technical Leader
 Salvatore Consalvi, Field Operations Leader
 Gopi Kanchibhatla, Associate Engineer
 Keith Peterson, Graphics and Photography
 Roger Protzman, Associate Engineer
 Dr. Marland Dulaney, Senior Toxicologist

K. PERCENT COMPLETION

Task	Title	% Complete
1	Project Management	54
2	Field Preparation	64
3	Geophysical Survey	100
4	Soil Gas Survey	100
5	Surface Water and Sediment Sampling	100
6	Test Pitting	100
7	Soil Sampling	85 (Subsurface & Surface Soil Sampling Completed, Data Assessment is ongoing)
8	PCPT/BAT	100
9	Soil Boring and Monitoring Well Installation	88
10	Groundwater Sampling	45
11	Water Level Measurement	8
12	Elevation and Location Survey	75
13	Ecological Survey	60
14	Data Validation	72
15	Photography Support	70
16	Technical Memoranda Preparation	15
17	Contamination Assessment Report	0
18	Groundwater Modeling	0

L. TARGET/ACTUAL COMPLETION DATES (by task)

Task	Title	Scheduled	Actual
1	Project Management	3-30-92 to 4-30-94	Started 3-30-92
2	Field Preparation	4-23-92 to 4-30-94	Started 4-23-92
3	Geophysical Survey	5-28-92 to 5-31-93	5-28-92 to 2-26-93
4	Soil Gas Survey	6-26-92 to 6-30-93	6-26-92 to 3-10-93
5	Surface Water and Sediment Sampling	7-6-92 to 8-1-92	7-6-92 to 8-1-92
6	Test Pitting	9-14-92 to 10-9-92	9-14-92 to 10-9-92
7	Surface Soil Sampling	8-3-92 to 11-10-92	8-3-92 to 10-31-92
8	PCPT/BAT	11-5-92 to 12-28-92	10-12-92 to 11-4-92
9	Soil Boring & Well Installation	1-4-93 to 2-4-94	Started 12-1-92 (Field program completed on 9-30-93)
10	Groundwater Sampling	2-7-94 to 6-30-94	Started 9-20-93
11	Water Level Measurement	5-2-94 to 5-13-94	Started 9-27-93
12	Locational Survey	2-7-94 to 3-30-94	Started 6-30-92
13	Ecological Survey	2-5-94 to 3-13-94	Started 12-1-92
14	Data Validation	6-15-94 to 10-16-94	Started 9-15-92
15	Photography Support	5-4-92 to 6-30-94	Started 5-4-92
16	Technical Memoranda Preparation	9-1-94 to 4-4-95	Started 12-1-92
17	CA Reports	11-16-94 to 11-29-94	Not Started
18	Groundwater Modelling	-----	-----

ATTACHMENT A
MEETING MINUTES

MEETING MINUTES
RESPONSE TO COMMENTS/DOCUMENT REVIEW MEETING
NOVEMBER 10, 1993
NAVAL AIR STATION WHITING FIELD

On November 10, 1993, representatives of the Southern Division Naval Facilities Engineering Command (SDIV), Florida Department of Environmental Protection (FDEP), Tallahassee Office, United States Environmental Protection Agency (USEPA) Region IV, and ABB Environmental Services, Inc. (ABB-ES) met at the offices of USEPA in Atlanta, Georgia, to discuss the U.S. Navy responses to regulator's comments on the following documents pertaining to Naval Air Station (NAS) Whiting Field, in Milton, Florida:

- *Remedial Investigation/Feasibility Study Phase IIA, Technical Memorandum No. 1, Surface Water and Sediment Assessment, NAS Whiting Field, Milton Florida, July, 1993*
- *Clear Creek Floodplain Investigation Report, NAS Whiting Field, Milton, Florida, July, 1993*

The following personnel were in attendance:

NAME	Phone #s	AFFILIATION
Mr. Jeff Adams, EIC	(813) 743-0341	SDIV, Charleston, S.C.
Mr. Robert H. Pope	(404) 347-3016	USEPA, Atlanta, GA
Mr. Eric S. Nuzie	(904) 488-0190	FDEP, Tallahassee, FL
Mr. David Clowes	(904) 488-0190	FDEP, Tallahassee, FL
Mr. Eric Blomberg	(904) 656-1293	ABB-ES, Tallahassee, FL
Mr. Rao Angara	(904) 656-1293	ABB-ES, Tallahassee, FL
Mr. John A. Bleiler	(617) 245-6606	ABB-ES, Wakefield, MA

The meeting commenced at 10:30 with an introduction of all participants. The meeting agenda included review and discussion of the Navy responses to regulatory (USEPA and FDEP) comments on the two above-referenced reports prepared by ABB-ES for NAS Whiting Field.

Prior to the review of the comments and responses, Mr. Angara distributed a document containing all regulatory comments and responses (including proposed responses) on the above-referenced documents. This document was comprised of nine chapters: each chapter contained a different set of regulatory comments followed by either existing or proposed Navy responses to comments.

The following meeting minutes summarize the review of comments and responses, in the chronological order in which they were discussed:

1. Response to USEPA Comments of September 23, 1993 on the RI Phase IIA Technical Memorandum No. 1, Surface Water and Sediment Assessment

Cover Letter Comments

The cover letter comment regarding the need for future Draft, Draft Final, and Final documents (rather than Draft Final and Final) was tabled until the afternoon session. USEPA raised concerns in the September 23, 1993 cover letter regarding the following phrase in Technical Memorandum No. 1: "no significant environmental contamination attributable to NAS Whiting Field appears to be present in Clear Creek surface waters and sediments". In particular, Mr. Pope found the use of the words "significant" and "attributable" to be beyond the scope of the technical memorandum (i.e., these terms represent an interpretation of data, rather than a statement of fact). The Navy agreed to strike these two words from the sentence in question and to limit future technical memoranda to statements of facts, rather than interpretations in data. In addition, the Navy agreed to better differentiate between Clear Creek and the Clear Creek Floodplain, thereby minimizing confusion regarding these two different study areas.

Mr. Pope raised concerns regarding the Contract Required Detection Limits (CRDLs) in surface water. In particular, Mr. Pope was concerned that CRDLs for several inorganic analytes exceed chronic federal Ambient Water Quality Criteria (AWQC). Rather than immediately pursuing costly Special Analytical Services (SAS) methods with lower CRDLs, the Navy proposed collecting one surface water sample from Clear Creek. This sample would be collected from approximately 1000 to 2000 feet upstream of the furthest existing upstream sample to see if contaminants (inorganic analytes) are coming from an upstream source or may be naturally occurring in surface water. The sample will be analyzed for TAL inorganics. If the sample is not contaminated, samples from the locations where ARARs were exceeded will be collected and analyzed (using special analyses) for inorganic analytes with CRDLs above the applicable ARARs. If special analyses are required, Mr. Pope will contact USEPA ESD to request low detection analytical methods that can be used to lower the CRDL below the applicable ARARs.

Specific Comments

Comment 1: Mr. Pope indicated that USEPA would prefer that all data relative to the current investigation be included in Technical Memorandum 1. The Navy agreed to include (to the responses) a table summarizing all data relative to the Clear Creek investigation. In future reports, the Navy will include small data sets (e.g., 10 samples or less) from previous investigations. Mr. Angara proposed and all parties agreed that in the future, all relevant data (including data from previous investigations) will be submitted in electronic format, as well as in hard copy.

Comment 2: Mr. Pope indicated that the Navy should provide a figure showing the specific locations of white-topped pitcher plants (*Sarracenia leucophylla*) at the Clear Creek Floodplain site. Mr. Bleiler presented a brief summary of the four-day ecological field program conducted by ABB-ES in October 1993, at the Clear Creek Floodplain site. During this ecological field program, ABB-ES collected data regarding the: (1) major ecological community types existing at the Clear Creek Floodplain in the vicinity of Site 16; and, (2) the approximate abundance and distribution of pitcher plants at the site. In addition, the wetland/upland boundary at the Clear Creek Floodplain was field-delineated with surveyor's flagging during this field program.

Mr. Bleiler indicated that a second state-listed plant, a sundew (*Drosera intermedia*), was also observed at the Clear Creek Floodplain site during the recent ecological field investigation. It was agreed that the Navy will submit a trip report summarizing the existing data regarding rare and endangered plants at the Clear Creek Floodplain site by December 31, 1993. This report will include a figure showing the approximate abundance and density of pitcher plants and sundews at the site. Pitcher plant and sundew distributional data will be superimposed on the existing 50 foot-on-center magnetometer grid map. Within each 50-by-50 foot grid square, the figure will present the approximate number of pitcher plants and sundews observed by ABB-ES during the October 1993 field program. Numbers of pitcher plants per grid square will be expressed as a range of numbers (i.e., 0-5, 5-10, 10-20, 20-50, 50-100, 200 plus), rather than as a cardinal number.

Comment 3: Mr. Pope raised concerns regarding the use of data qualifiers; particularly, Mr. Pope indicated that the "J" qualifier appears to be used too frequently in Technical Memorandum No. 1. The Navy explained that while the "J" data qualifier may appear to be over-used, validation reports in Appendix B of the Technical Memorandum explain the "J" qualification for each sample. All parties agreed that this treatment of the "J" data qualifiers was adequate but could be clarified through the use of an index or summary page in Appendix B.

Comment 4: Mr. Pope and Mr. Clowes indicated that some confusion exists in the Technical Memorandum regarding the distinctions between contaminants in Clear Creek and the Clear Creek Floodplain. In addition, Mr. Pope and Mr. Clowes stated that more explanation and detail was required regarding environmental and QC samples. The Navy agreed to more clearly distinguish, both in text and in tables, between Clear Creek and the Clear Creek Floodplain.

Comments on the Technical Memorandum One of Phase IIA

Comment 1: Mr. Pope indicated that several ARARs for surface water have been updated since Technical Memorandum No. 1 was completed. These include Safe Drinking Water Act (SDWA) and AWQC values for lindane, fluoride, aluminum, lead, and manganese. The Navy agreed that any future deliverables would include the updated values for these analytes, and that the values used in any future risk assessments would be the most current values.

Specific Comment on the Clear Creek Floodplain Investigation Report

Comment 1: Mr. Pope inquired about the statement regarding the determination that contaminants in the Clear Creek Floodplain may be laboratory contaminants. In particular, he expressed concerns that acetone and methyl ethyl ketone (both common laboratory contaminants) may also have been disposed of at the site. Mr. Bleiler and Mr. Blomberg stated that the ecological and public health risk assessments, through the use of RAGs guidance, would include a separate evaluation of site versus laboratory contamination. All parties agreed that this evaluation would address any relevant concerns.

Mr. Pope proposed that the meeting adjourn for lunch at approximately 11:45. The meeting continued after lunch with discussion of FDEP comments on the NAS Whiting Field documents.

2. Response to FDEP Comments of September 1, 1993 on the RI Phase IIA Technical Memorandum No. 1, Surface Water and Sediment Assessment

Mr. Clowes stated that many of the FDEP comments were adequately addressed through the morning discussion of the USEPA comments and the Navy's responses. Mr. Clowes only addressed those responses that remained unclear or were found to be unacceptable to FDEP. All other responses were agreed to by FDEP.

Comment 4: Mr. Clowes indicated that Figure 2-1 in the Technical Memorandum had some discrepancies regarding sample station locations. The Navy agreed to revise and include this figure in the responses, with both sample identification numbers and station identification numbers.

3. Response to FDEP Comments of August 24, 1993 on the Clear Creek Floodplain Investigation Report, NAS Whiting Field, Milton, Florida

Prior to initiating discussions on specific FDEP comments, Mr. Pope opened a discussion regarding the status of the Clear Creek Investigation relative to the identification of the source(s). Mr. Blomberg stated that the source of contamination in the Clear Creek Floodplain is currently unknown. However, he indicated that three possible sources exist: (1) the concrete-lined drainage ditch leading from the NAS Whiting Field southern airfield to the Clear Creek Floodplain; (2) contaminated groundwater discharging to the surface in the Clear Creek Floodplain; and, (3) a buried source (i.e. drums with leaking contamination). The Navy stated that only deep groundwater contamination is currently known to exist at Site 16, the RI site closest to the Clear Creek Floodplain, and that it is unlikely that this groundwater discharges to the surface at the Clear Creek Floodplain. Mr. Adams stated that additional groundwater monitoring is currently underway at Site 16 and that the results of this monitoring program may provide additional information on the source of contamination at the Clear Creek Floodplain.

Mr. Clowes inquired that FDEP wanted clarification whether any private drinking water wells currently exist in the vicinity of the Clear Creek Floodplain site. Mr. Blomberg responded that to the best of his knowledge all residents within one mile of the Clear Creek Floodplain site are on the Point Baker municipal water system.

Mr. Nuzie and Mr. Clowes stated that many of the FDEP comments were adequately addressed through the day's discussion of the USEPA comments and the Navy's responses. Mr. Nuzie and Mr. Clowes only addressed those responses that remained unclear or were found to be unacceptable to FDEP. All other responses were agreed to by FDEP.

Comment 1: FDEP indicated that geophysical sampling of the area to the northwest of the southern beaver pond should occur. Mr. Blomberg stated that this region is covered with 4 to 6 feet of standing water throughout the year, a condition that prohibits magnetometer and other geophysical investigations. FDEP indicated that this is an acceptable rationale for not conducting further geophysical investigations in this region; however, he stated and the Navy agreed that a better explanation regarding the lack of geophysical data in this region should be included in all future reports.

Mr. Bleiler indicated that it is incorrect to continue to refer to this area as a beaver pond. No signs of any recent beaver activity have been observed at the Clear Creek Floodplain site. All parties agreed that future maps will contain better habitat classification nomenclature.

Comment 2: Mr. Clowes indicated that additional sampling should occur in the area to the northwest of the southern beaver pond. The Navy agreed that future investigations in this area will include sediment sampling and screening for Total Petroleum Hydrocarbons (TPH), as well as confirmatory TPH laboratory analysis.

Comment 3: Mr. Clowes stated that the FDEP believes that surface water and sediment samples should be taken from the area immediately downgradient of the concrete drainage ditch discharge. Mr. Blomberg and Mr. Bleiler stated that, based on their familiarity with the Clear Creek Floodplain site, contaminants are unlikely to adsorb to the coarse sandy soils and sediments in this region. The presence of contamination in the floodplain appears to be well correlated with the presence of silty organic floodplain sediments, which generally do not occur at the drainage ditch outfall. However, in response to FDEP and USEPA concerns regarding the region directly downgradient of the concrete drainage ditch, the Navy agreed to collect two sediment samples (one from the drainage ditch outfall sediments and one from the bank of the unnamed tributary near the outfall) from this area and screen them for TPHs. In addition, the Navy agreed to collect one surface water sample from further downstream (above the sediments with the highest TPH contamination) for full scan Contract Laboratory Procedure (CLP) analysis.

Comment 4: Mr. Clowes expressed concerns regarding the presence of contaminants in the Clear Creek Floodplain which may be laboratory contaminants. In particular, he said that acetone and methyl ethyl ketone (both common laboratory contaminants) may actually be present in the site's sediments. The Navy agreed to re-sample locations that had high concentrations of acetone and methyl ethyl ketone, as well as any location that had detected concentrations of dichloroethylene.

Comment 5: Mr. Clowes indicated that a figure is required illustrating the relationship of the Clear Creek Floodplain site to previous surface water and sediment stations with the highest levels of contamination detected in the RI studies. The Navy agreed to include the sampling locations on a figure.

Mr. Pope concluded this section of the meeting with a brief summary of the status of NAS Whiting Field as a future National Priorities List (NPL) site. Mr. Pope indicated that the next opportunity for NPL listing would occur in the spring of 1994, and that the USEPA would like to commence work on the Federal Facilities Agreement (FFA) for NAS Whiting Field prior to NPL listing. Mr. Pope also requested a project managers meeting to take place in February 1994 to discuss the status of the Whiting Field RI/FS. All parties agreed a meeting should take place.

4. Response to FDEP Comments of September 16, 1993 on the Clear Creek Floodplain Investigation Report, NAS Whiting Field, Milton, Florida

Mr. Clowes stated that many of the FDEP comments were adequately addressed through the earlier discussion of the USEPA comments and the Navy's responses. Mr. Clowes only addressed those responses that remained unclear or were found to be unacceptable to FDEP. All other responses were agreed to by FDEP.

Comment 2: Mr. Clowes indicated that a larger map of the Clear Creek Floodplain site would be useful. This map should show groundwater flow direction in the vicinity of the site. The Navy said this map will include the jurisdictional wetlands boundary, as determined in an October, 1993 field investigation.

Comment 2 (cont): Because the levels of contamination in the Clear Creek Floodplain may be harmful to aquatic life and may accumulate in food chains, the FDEP indicated that a biological evaluation is needed at the site. Mr. Bleiler recommended that a tiered approach be used to evaluate risks and impacts to biota from the site. It was agreed that a future ecological risk assessment Work Plan would detail the tiered approach, and that a tiered approach would likely involve comparison of analytical chemical data to existing sediment quality standards, floral and faunal community diversity studies, *in situ* or laboratory bioassays, or bioaccumulation studies. The Navy suggested that it would be more economical to conduct certain studies (e.g., bioassay studies) in conjunction with gathering additional analytical chemistry data on the floodplain sediments.

5. Response to USEPA Comments of September 30, 1993 on the Clear Creek Floodplain Investigation Report, NAS Whiting Field, Milton, Florida

Mr. Pope stated that many of the USEPA comments on the Clear Creek Floodplain site were adequately addressed through the earlier discussion of the USEPA and FDEP comments and the Navy's responses. Mr. Pope only addressed those responses that remained unclear or were found to be unacceptable to USEPA. All other responses were agreed to by USEPA.

General Comments

Comment 1: Mr. Pope indicated that he felt the goals of the Clear Creek Floodplain Investigation were not achieved. As stated in the report, the project goals were "to identify and characterize the nature and extent of contamination in the Clear Creek floodplain sediments in the vicinity of Site 16 and also attempt to determine the source of the contamination". Mr. Pope indicated that he believed that the Navy should refrain from making broad statements in future reports. Mr. Adams stated that the goals, as stated, were accurate and that the Navy is attempting to meet these goals. He indicated that even if the Navy is unable to achieve these objectives, the goals are valid. All parties agreed that future documents should contain a statement indicating the status of the on-going investigation relative to the stated goals and objectives.

Specific Comments

Comment 2: Mr. Pope indicated that the ecological characterization is inadequate for assessment of environmental impacts at the site. The Navy agreed and stated that the ecological characterization will be further detailed in the ecological risk assessment for this site. All parties agreed that a comprehensive ecological characterization is beyond the existing scope of the floodplain investigation report, which is intended to be a data summary report, not an ecological risk assessment.

Comment 3: Mr. Pope recommended and all parties agreed that the scale on Figure 2-2 needed to be changed to reflect the easting and northing scale. A revised figure will be included in the responses.

Comment 6: Mr. Pope objected to the use of the term "estimated background concentrations" in the report. He recommended that the Navy should use site-specific background data only. Mr. Blomberg stated that regional background concentrations are no longer used as a standard of comparison.

Comment 13: Mr. Pope requested and the Navy agreed to submit EM-31 profile data in electronic format with the responses.

Comment 16:

Mr. Pope requested and the Navy agreed to add the background sediment sample data to Table 4-2 of the report. A revised Table 4-2 will be included in the responses.

Following the review of the USEPA comments on the Clear Creek Floodplain Investigation, discussion was initiated regarding the USEPA's perceived need for future Draft, Draft Final, and Final documents (rather than the existing two-stage system, which employs Draft Final and Final). Mr. Adams stated that the Navy would prefer to continue with the two-stage approach (Draft Final and Final) and that the three-stage approach is both costly and time-consuming. All parties agreed that the two stage approach would be continued on a trial basis, with the following modifications: (1) the Navy will provide the regulators with a Draft document for conceptual review at the time the draft document is submitted to the Navy; (2) the Navy would respond to any regulatory concerns (including concerns voiced informally through telephone consultation) regarding the Draft document and would incorporate these responses into the Final Draft; (3) the Navy would submit the Final Draft to the regulators for review and comment; (4) the Navy addresses the comments and incorporates the responses into the actual pages of the document and submits the changed pages along with the responses to the regulators; (5) the regulators agree to the changes or a discussion between the Navy and the regulators takes place to come to an agreement for each response in question; and, (6) once all comments have been addressed to the satisfaction of the regulators, the document will go Final. Mr. Adams agreed to prepare a letter from SDIV to the USEPA and FDEP summarizing the proposed approach. In order to finalize Technical Memorandum No. 1, it was agreed that the Navy will submit a comment response package summarizing the regulatory comments and Navy responses.

Prior to adjourning the NAS Whiting Field regulatory meeting several concerns raised by USEPA during a May 20-21 site inspection were addressed. Mr. Blomberg indicated that concrete curbs are currently being scheduled to be installed around those monitoring wells that were installed without bumper posts at the corners of the concrete pad. All curbing is expected to be installed by the end of 1993. In addition, Mr. Blomberg indicated that weep holes have been placed in the surface casings of all monitoring wells at NAS Whiting Field. Mr. Angara stated that two barrels removed from the Clear Creek Floodplain have been disposed of by the installation; according to Mr. Angara, ABB-ES was not involved in the disposal action. Mr. Angara also stated that NAS Whiting Field, and not ABB-ES, was involved in an underground storage tank removal in the vicinity of Site 7. Mr. Adams stated that he would forward any relevant data collected during tank removal to USEPA and FDEP.

The NAS Whiting Field portion of the meeting was adjourned at 15:00 hours. Mr. Clowes and Mr. Nuzie excused themselves and the remaining personnel discussed the Outlying Field (OLF) Barin remedial investigation, in Foley, Alabama.

Mr. Angara inquired about the status of the regulatory review of the OLF Barin Technical Memoranda. Mr. Pope stated that USEPA superiors have instructed him not to review the OLF Barin document, as they are considered a low priority relative to the NAS Whiting Field RI/FS. Since the Navy is the lead agency, Mr. Pope suggested that the Navy and ABB-ES complete the Draft Final RI/FS for OLF Barin and submit it on schedule. Since USEPA will be unable to review this Draft Final document, no Final version will be prepared by the Navy.

The meeting was adjourned at 15:35 hours.

ATTACHMENT B

SHIFT REPORTS



Inter-Office Correspondence

TO: Rao Angara
cc. Eric Blomberg

FROM: Salvatore Consalvi (FOL)

DATE: 11/05/93

SUBJECT: Groundwater Sampling, Shift IV

DURATION: 11/01/93 - 11/05/93

WEATHER: Cool and overcast, 60-70 degrees.

ABB-ES Personnel:

Salvatore Consalvi (FOL): 11/01/93 - 11/04/93
Gopi Kanchibhatla (Team Member): 11/01/93 - 11/04/93
Felix Rizk (Team Member): 11/01/93 - 11/04/93
Roger Protzman (Team Member): 11/01/93 - 11/04/93

PURPOSE: To conduct Phase II-A RI groundwater sampling.

1.0 Executive Summary

During Shift IV, ABB-ES continued the groundwater sampling event for the Phase II-A RI. The crew sampled a total of 10 monitoring wells from Sites 12, 13, 14, and 15.

2.0 Health and Safety

Health and safety meetings were conducted each morning prior to sampling. No significant oversights or incidents were reported.

3.0 Surveying

Mr. Rubin (survey crew leader) contacted ABB-ES before the end of the Shift III and received enough information about WHF-8-1 to complete the survey on the weekend. The FOL contacted Mr. Rubin during Shift IV and learned that the work had not been completed. Mr. Rubin again promised to attempt completion during the weekend.

3.0 Groundwater Sampling

During Shift IV, ABB-ES continued the groundwater sampling event for the Phase II-A RI. The crew sampled a total of 10 monitoring wells from Sites 12, 13, 14, and 15. The wells were sampled per the USEPA Standard Operating Procedures. Table 1 lists the data collected during the sampling event.

4.0 Field Analysis

All monitoring wells were screened with an OVA. The purge team tested purge water for Ph, conductivity and temperature after each well volume. Turbidity samples were collected prior to the collection of the metals sample.

5.0 Procedural Difficulties

5.1 Mechanical Delays

The S-C-T meter became increasingly less accurate in the higher range.

5.3 NASWF/Base Issues

ABB-ES learned during Shift III that a traditional flush mount will be required at WHF-17-3 and one was requested at WHF-BKG-1. Several potential sub-contractors were contacted to begin the bid process that will be added to the contract for installation of curbs around the existing flush mounts. The FOL has three potential bidders and the technical leader is drafting specifications for the work.

Mr Jim Holland was informed of the progress of the contract at the end of the shift and was asked to include any desired well alterations at this time.

6.0 Deviation from Shift Plan

None.

Table 1
Groundwater Sampling Summary

Well Number	Sample Number	Sample Date	Associated QC Samples	Water Level (TOC)	pH	Conductivity	Temperature	Turbidity
WHF-12-1	WHF12-1	11-1-93	RB7, TB12	80.2	4.88	14	19.6	14.61
WHF-15-4	WHF15-4	11-3-93	RB8, TB14	98.4	6.07	36.5	22.7	534
WHF-13-1	WHF13-1	11-2-93	RB7, TB13	50.6	5.61	135	21.2	6.57
WHF-13-1S	WHF13-1B	11-2-93	RB7, TB13	55.3	6	185	19.5	864
WHF-13-2	WHF13-2	11-2-93	RB7, TB13	51.6	5.9	40	33.9	19.3
WHF-14-1	WHF14-1	11-3-93	RB8, TB14	88.5	4.9	20	21.6	2.59
WHF-14-2	WHF14-2	11-2-93	RB7, TB13	95.2	4.91	20	21.3	103.4
WHF-15-3D	WHF15-3D	11-3-93	RB8, TB14	25.9	6.15	81	22.9	1.79
WHF-15-3I	WHF15-3C	11-3-93	RB8, TB14	26.6	4.8	20	23.4	10.64
WHF-15-3S	WHF15-3B	11-4-93	RB8, TB15	25.9	5.15	27	22.4	1025
QC SAMPLES								
RB7	WHFRB-7	11-1-93	--	--	--	--	--	--
RB8	WHFRB-8	11-3-93	--	--	--	--	--	--
TB12	WHFTB-12	11-1-93	--	--	--	--	--	--
TB13	WHFTB-13	11-2-93	--	--	--	--	--	--
TB14	WHFTB-14	11-3-93	--	--	--	--	--	--
TB15	WHFTB-15	11-4-93	--	--	--	--	--	--



Inter-Office Correspondence

TO: Rao Angara
cc. Eric Blomberg

FROM: Gopi Kanchibhatla (FOL)
DATE: 11/12/93
SUBJECT: Groundwater Sampling, Shift V
DURATION: 11/08/93 - 11/12/93

WEATHER: Cool and overcast, 60-70 degrees.

ABB Personnel:

Gopi Kanchibhatla (FOL): 11/08/93 - 11/12/93
Felix Rizk (Team Member): 11/08/93 - 11/12/93
Roger Protzman (Team Member): 11/08/93 - 11/12/93

PURPOSE: Conduct Remedial Investigation Phase II-A groundwater sampling.

1.0 Health and Safety

Health and safety meetings were conducted each morning prior to sampling. No significant oversights or incidents were reported.

2.0 Audits

Mr. Gerry Walker conducted a comprehensive internal field audit of groundwater sampling procedures during Shift III. The crew continued to implement changes discussed during the audit.

3.0 Groundwater Sampling

During Shift V, ABB-ES continued the groundwater sampling event for the Phase II-A RI. The crew sampled a total of 13 monitoring wells from Sites 15 and 16. Pertinent sampling data is presented in Table 1 attached to this report.

4.0 Field Analysis

All monitoring wells were screened with an OVA. The purge team tested purge water for Ph, conductivity and temperature after each well volume. Turbidity samples were collected prior to the collection of the metals sample.

5.0 Procedural Difficulties

5.1 Mechanical Delays

The following mechanical failures were experienced during the groundwater sampling of Shift V:

1. The Grundfos Pump (4-inch diameter) had problems with the controller.

2. The Truck had battery failure in the field.
3. The S-C-T meter did not calibrate well on the higher ranges (100-1000 micromhos) of conductivity. However, most of the conductivity readings for the groundwater were within the lower ranges (10-100 micromhos).

5.3 Weather Delays

None.

5.4 NASWF/Base Issues

ABB-ES learned during Shift III that a traditional flush mount will be required at WHF-17-3 and one was requested at WHF-BKG-1. Several potential sub-contractors were contacted to begin the bid process that will be added to the contract for installation of curbs around the existing flush mounts. Three potential bidders have been identified. Specifications for this work are attached.

6.0 Deviation from Shift Plan

None.

**TABLE 1.
MONITORING WELLS SAMPLED**

Well Number	Sample Number	Sample Date	Associated QC Samples	Water Level (TOC)	pH	Conductivity	Temperature	Turbidity
WHF-15-1	WHF15-1	11-8-93	RB9, TB16	26.64	4.71	32	25.1	15.9
WHF-15-5	WHF15-5	11-8-93	RB9, TB16	64.63	4.71	30	19.0	66.8
WHF-15-2I	WHF15-2C	11-9-93	RB9, TB17	20.70	4.92	22	21.1	6.5
WHF-15-2S (+Dup)	WHF15-2B WHF15-2BA	11-9-93	RB9, TB17	19.34	5.39	40	21.5	1348
WHF-15-2D	WHF15-2D	11-9-93	RB9, TB17	19.33	5.67	34	22.1	17.0
WHF-15-6D	WHF15-6D	11-10-93	RB10, TB18	35.53	5.04	24	22.1	NA
WHF-15-6S	WHF16-6B	11-10-93	RB10, TB18	34.32	6.06	270	22.2	NA
WHF-16-2	WHF16-2	11-10-93	RB10, TB18	37.90	5.25	44	22.7	5.3
WHF-16-2I	WHF16-2C	11-11-93	RB10, TB19	36.52	5.46	35	22	5.2
WHF-16-2S	WHF16-2B	11-11-93	RB10, TB19	39.41	4.86	29	23	1494
WHF-16-3D (+Dup+ MS+ MSD)	WHF16-3D WHF16-3DA WHF16-3DMS WHF16-3DMSD	11-11-93	RB10, TB20	10.32	6.66	112	22	114.0
WHF-16-3I	WHF16-3C	11-12-93	RB11, TB21	13.04	4.93	44	21.2	42.3
WHF-16-3II	WHF16-3CD	11-12-93	RB11, TB21	13.38	5.42	41	21.1	2528

QC SAMPLES	Sample Number	Sample Date	Associated QC Samples	Water Level (TOC)	pH	Conductivity	Temperature	Turbidity
RB9	WHF-RB-9	11-8-93	--	--	--	--	--	--
TB16	WHFTB-16	11-8-93	--	--	--	--	--	--
TB17	WHFTB-17	11-9-93	--	--	--	--	--	--
RB10	WHFRB-10	11-9-93	--	--	--	--	--	--
TB18	WHFTB-18	11-10-93	--	--	--	--	--	--
TB19	WHFTB-19	11-11-93	--	--	--	--	--	--
TB20	WHFTB-20	11-11-93	--	--	--	--	--	--
RB11	WHFRB-11	11-12-93	--	--	--	--	--	--
TB21	WHFTB-21	11-12-93	--	--	--	--	--	--



Inter-Office Correspondence

TO: Rao Angara
cc. Eric Blomberg

FROM: Gopi Kanchibhatla (FOL)

DATE: 11/19/93

SUBJECT: Groundwater Sampling, Shift VI

DURATION: 11/15/93 - 11/19/93

WEATHER: Cool and overcast, 60-70 degrees.

ABB-ES Personnel:

Gopi Kanchibhatla (FOL): 11/15/93 - 11/19/93
Felix Rizk (Team Member): 11/15/93 - 11/19/93
Roger Protzman (Team Member): 11/15/93 - 11/19/93
Eric Blomberg (Technical Leader): 11/18/93
Rao Angara (Task Order Manager): 11/18/93

SOUTHDIV Personnel:

Jeff Adams (EIC): 11/18/93

PURPOSE: Conduct Remedial Investigation Phase II-A groundwater sampling.

1.0 Health and Safety

Health and safety meetings were conducted each morning prior to sampling. No significant oversights or incidents were reported.

2.0 Groundwater Sampling

During Shift VI, ABB-ES continued the groundwater sampling event for the Phase II-A RI. The crew sampled a total of 11 monitoring wells from Sites 16, 6, and 5. Pertinent sampling data is presented in Table 1.

3.0 Surveying

The surveying subcontractor, Mr. Bill Stiffy, was contacted by the FOL at the beginning of the Shift VI regarding the completion of the survey for the last well at Site 8. Mr. Stiffy informed that he will be making arrangements to have his crew at NAS Whiting Field during this Shift. However he failed to execute this part of the surveying task during this shift.

The monitoring well WHF-17-3 may require vertical elevation be resurveyed once the height of the protective casing is altered.

4.0 Field Analysis

All monitoring wells were screened with an OVA. The purge team tested purge water for Ph, conductivity and temperature after each well volume. Turbidity samples were collected prior to the collection of the

metals sample.

5.0 Procedural Difficulties

5.1 Mechanical Delays

The following mechanical failures were experienced during the Shift VI of groundwater sampling:

1. The drums being used to hold the IDW do not provide a good seal against spill, because the lids were worn down. Although the drums are strapped to the vehicle, this could potentially spill the purge water during transportation on uneven surfaces (midfield hangar area).
2. The hydraulic system on the hose reel (the reel is used to lower and raise the Grundfos pump) do not provide enough lift while retrieving the hose from monitoring wells that are greater than 100 feet in depth. This problem results in manual retrieval and potential delay in the operation of the pump. A teflon guide placed at the mouth of the stainless steel protective casing may improve the operation of the hydraulic system and protect the hose from getting exposed to the edges of the casing.
3. A complete inspection of the condition of the monitoring wells located in the Industrial Area was performed by the FOL at the end of the shift VI. Following findings were reported at the end of the inspection.
 - a) WHF-32-3 located in the North Field Maintenance Hangar Area has its concrete pad removed (because of the construction activity) resulting in the exposure of the PVC. However the well was secured with a pad lock and is covered by a red traffic cone.
 - b) WHF-6-1S located at the Midfield Maintenance Hangar Area has its cement grout caved in on the inner portion of the flush mount sleeve.
 - c) The drainage provision for several flush mount monitoring wells located in the Industrial Area do not function properly, resulting in the annular portion between the PVC riser and the flush mount sleeve being filled with rain water. The following monitoring wells were identified during this inspection:

WHF-30-3

WHF-30-4

WHF-30-5

WHF-33-1

WHF-33-5

5.3 Weather Delays

A 2-hour rain delay was recorded on 11/17/93.

5.4 NASWF/Base Issues

Mr. Jim Holland was informed of the status of IDW at the beginning of the Shift VI. Mr. Jim Holland had indicated that he will be making arrangements to dispose of the IDW generated by the development of the monitoring wells, once he receives the results of analysis of the samples collected from the tank holding the monitoring well development water.

6.0 Deviation from Shift Plan

None.

