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NAS WHITING FIELD
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LETTER TRANSMITTING MONTHLY PROGRESS REPORT REMEDIAL INVESTIGATION
PHASE 2A NAS WHITING FIELD FL
12/6/1992
ABB ENVIRONMENTAL



03.04.00.0009

1D-00189

December 6, 1992

Commanding Officer
ATTN: Kim Queen, Code 1859
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 N62467-89-D-0317**

Dear Kim:

Enclosed please find the monthly progress report for the Remedial Investigation (Phase IIA) work conducted at NAS Whiting Field during November 1992. An updated project schedule and a revised Gantt chart are also enclosed.

If you have any questions, please call me at 904-656-1293 (ext. 314). We look forward to working with you on the completion of this project.

Very truly yours,

ABB ENVIRONMENTAL SERVICES INC.

Rao V.R. Angara
Rao V.R. Angara
Task Order Manager

cc: File: 7560-- (11.2.1)
Eric Blomberg, ABB-ES
Jim Holland, NASWF
Robert Pope, USEPA
John Bleiler, ABB-ES
Kathy St. Peter, ABB-ES

Progress.Rpt
CSSPC-11.92

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MONTHLY PROGRESS REPORT
Naval Air Station Whiting Field
November 1992

A. TECHNICAL DESCRIPTION OF TASKS

I. Geophysical Survey: On 28 October 1992, ABB-ES received Contract Modification #2 to prepare a technical report describing the activities conducted and results obtained during this task. Based on the contract modification, a revised project schedule (Gantt chart) is attached (Attachment A). The draft geophysical survey report will be submitted to SDIV on 11 January 1993.

Please see June 1992 monthly progress report for other details regarding this task.

II. Soil Gas Survey: On 28 October 1992, ABB-ES received Contract Modification #2 to prepare a technical report describing the activities conducted and results obtained during this task. Based on the contract modification, a revised schedule is attached. The draft soil gas survey report will be submitted to SDIV on 1 February 1993.

A copy of the Northeast Research Institute report is enclosed for your files. Please see June 1992 monthly progress report for other details regarding this task.

III. Surface Water and Sediment Sampling: Surface water and sediment sampling task has been completed on schedule. The validated data will be received from C.C. Johnson and Malhotra (validation subcontractor) during this reporting period. Due to the addition of the Soil Gas and Geophysical Survey reports, the project schedule has been revised and the Technical Memorandum #1 (Surface Water and Sediment Assessment) is now due to SDIV on 17 February 1993.

IV. Soil Sampling: Surface soil sampling has been completed. Analytical data received from the laboratory is being submitted to the validation subcontractor.

V. Test Pitting: Test pitting operations were conducted from September 30, 1992 through October 9, 1992. A total of 36 pits were excavated. Also 26 soil samples were collected for laboratory analysis. Preliminary data received from the laboratory does not indicate significant contamination.

VI. PCPT/BAT: PCPT/BAT sampling task was started on October 12, 1992. Based on approval from Mr. Bob Harvey (SDIV), Williams Earth Sciences from Clearwater, Florida was awarded the subcontract to complete this task. The PCPT/BAT task was completed on 4 November 1992.

The PCPT/BAT task involved cone soundings at seven locations and collection of 14 water samples at the shallow and production zones. The QA/QC level for PCPT/BAT sample analysis is NEESA Level E.

VII. Data Validation: Analytical data was submitted to C.C. Johnson and Malhotra for NEESA Level C and Level D validation.

VIII. Elevation and Location Survey: Northwest Florida Engineering is conducting the elevation and location survey at NAS Whiting Field. All sampling locations are being surveyed and included in the CAD file being created to accommodate the survey data. Future survey locations will be added to the CAD file as a separate layer. This will allow the production of separate drawings for each event and also provide a database for future work.

IX. Photography Support: Mr. Keith Peterson (ABB-ES) has provided photographic support in documenting the several tasks completed since the beginning of the field program. All photographs are being labeled and placed in a photo album. The video documentation will be reviewed and then a 30 minute tape will be prepared at the end of the Phase IIA program.

B. STATUS OF WORK TO DATE

- Geophysical survey field program has been completed. A final report was submitted by BGI on 31 August 1992. Based on Contract Modification #2, a technical report will be prepared to present the result and findings of this survey.
- The field program for soil gas survey has also been completed. NERI submitted the final report to ABB-ES in September 1992. Based on the Contract Modification, a technical report will be prepared to present the result and findings of this survey.
- The surface water and sediment sampling task has been completed. A technical memorandum will be prepared as soon as data validation is completed.
- The final record search document was submitted to SDIV in September 1992.
- ABB-ES and SDIV met with the U.S. Environmental Protection Agency

(USEPA), National Oceanic and Atmospheric Administration (NOAA), and Florida Department of Environmental Regulation (FDER) on 13 November 1993 to discuss Navy response to agency comments for the Phase I Final Technical Memoranda. The meeting minutes are attached to this progress report (Attachment B). Several items involving project scope change were recommended by the agencies. These will be presented in a scope change memoranda and submitted to SDIV.

- Test pitting operations, as proposed in RI Phase I Technical Memorandum 6, have been completed.
- PCPT/BAT activities were started on October 12, 1992 and completed on November 4, 1992. Seven PCPT soundings and 14 BAT samples were collected as planned.
- Data packages (soil, surface water, and sediment sampling) were submitted to C.C. Johnson and Malhotra for validation.
- Elevation and location survey of geophysical survey, soil gas survey, soil sampling locations has been completed. A draft report was received from the subcontractor.
- Initial preparations for the soil boring program were completed during this reporting period. The field program will begin on 12/1/92.

C. PROBLEMS ENCOUNTERED DURING REPORTING PERIOD

- ABB-ES was informed by the data validation subcontractor that some data packages submitted by the laboratory have missing data. This issue is being discussed with the laboratory manager and the missing data are being added to the data packages. An example deficiency memorandum is attached to this monthly progress report (Attachment C).

There is a discrepancy between the NEESA Level C deliverable list and the NEESA Level C data validation guidelines. ABB-ES is discussing the impact of this discrepancy with the analytical laboratory and the data validators.

D. ACTIVITIES PLANNED FOR NEXT MONTH

- Continue soil boring program.
- TFMR and Monthly Progress Report.
- Preparation of Technical Memorandum #1 and Soil Gas and Geophysical Technical Reports.
- Conduct ecological and public health survey.

E. SCHEDULED DELIVERABLES FOR DECEMBER

- TFMR
- Monthly Progress Report

F. CORRESPONDENCE AND DOCUMENTS RECEIVED

- Acknowledgement of receipt of soil samples from CH2MHILL.
- Data packages for soil, surface water, and sediment events.
- Data validation package for sampling event 1 of the surface water and sediment sampling was received during this reporting period.
- Monthly progress report from the analytical laboratory.

G. COST IMPACTS

- As discussed in the previous reports, the change in the test pitting subcontractors has resulted in an increase in the subcontractor costs. Also the field work was conducted in Level B and Level C protection at several of the test pitting locations.

H. SAMPLING AND ANALYSIS RESULTS

- Analytical data for test pitting and PCPT/BAT programs were received during this reporting period.

I. LABORATORY MONTHLY PROGRESS REPORTS

- A laboratory monthly progress report submitted to NEESA was received by ABB-ES during this reporting period. Copies of the earlier reports have been submitted to the EIC.

J. PLANNED CHANGES IN PERSONNEL AND THEIR QUALIFICATIONS

- The project team comprises of the following personnel.

Rao Angara, Task Order Manager
Eric Blomberg, Technical Leader
Salvatore Consalvi, Field Operations Leader
Kathy Hodak, Project Assistant
Gerald Walker, Senior Scientist
Gopi Kanchibhatla, Associate Engineer
Patrick Craine, Senior Technician
John Bleiler, Senior Scientist (Ecologist)
Keith Peterson, Graphics and Photography
David Daniel, Public Health Specialist
Norman Richardson, Senior Ecologist

K. PERCENT COMPLETION

Task	Title	% Complete
1	Project Management	23
2	Field Preparation	26
3	Geophysical Survey	80 (Field Program Completed)
4	Soil Gas Survey	80 (Field Program Completed)
5	Surface water and Sediment Sampling	90 (Sampling Completed)
6	Test Pitting	95
7	Soil Sampling	65 (Surface Soil Sampling Completed)
8	PCPT/BAT	95
9	Soil Boring and Monitoring Well Installation	0
10	Groundwater Sampling	0
11	Water Level Measurement	0
12	Elevation and Location Survey	29
13	Ecological Survey	5
14	Data Validation	8
15	Photography Support	28
16	Technical Memoranda Preparation	3
17	Contamination Assessment Report	0
18	Groundwater Modelling	0

Note: Photography support effort includes videotaping and photographing geophysical survey, soil gas survey, and surface water and sediment sampling events.

L. TARGET/ACTUAL COMPLETION DATES (by task)

Task	Title	Scheduled	Actual
1	Project Management	3-30-92 to 4-30-94	3-30-92 to 6-26-95
2	Field Preparation	4-23-92 to 4-30-94	4-23-92 to 4-30-94
3	Geophysical Survey	5-28-92 to 8-14-92	5-28-92 to 8-14-92
4	Soil Gas Survey	6-26-92 to 8-31-92	6-26-92 to 8-31-92
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	Soil Sampling	8-3-92 to 11-10-92	8-3-92 to 11-10-92
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	12-1-92 to 2-4-94
10	Groundwater Sampling	2-7-94 to 6-30-94	2-7-94 to 6-30-94
11	Water Level Measurement	5-2-94 to 5-13-94	5-2-94 to 5-13-94
12	Locational Survey	2-7-94 to 3-30-94	2-7-94 to 3-30-94
13	Ecological Survey	2-5-94 to 3-13-94	2-5-94 to 3-13-94
14	Data Validation	6-15-94 to 10-16-94	6-15-94 to 10-16-94
15	Photography Support	5-4-92 to 6-30-94	5-4-92 to 6-30-94
16	Technical Memoranda Preparation	9-1-94 to 4-4-95	12-1-92 to 4-4-95
17	CA Reports	11-16-94 to 11-29-94	11-16-94 to 11-29-94
18	Groundwater Modelling	-----	-----

- Notes:
1. Task 1 includes project management tasks. Therefore it is for the duration of the project.
 2. Task 2 includes the FOL effort for the complete project.
 3. Shaded area indicates modifications to schedule.
 4. The soil boring program was initiated ahead of schedule because the PCPT/BAT operations were completed ahead of schedule.
 5. The PCPT/BAT operations were completed ahead of schedule because the cone soundings could not be conducted to the proposed depths. Also the drill rig and the cone truck were operated simultaneously.
 6. Based on the revised schedule, the Technical Memorandum #1 preparation was started during this reporting period.

ATTACHMENT A

ATTACHMENT B

**MEETING MINUTES
PROJECT MANAGERS MEETING
NOVEMBER 13, 1992
NAVAL AIR STATION WHITING FIELD**

On November 13, 1992, representatives of Southern Division Naval Facilities Engineering Command (SDIV), U.S. Environmental Protection Agency (USEPA), Florida Department of Environmental Regulation (FDER), National Oceanic and Atmospheric Administration (NOAA) and ABB Environmental Services (ABB-ES) met at USEPA in Atlanta, Georgia to discuss the Navy responses to the Naval Air Station (NAS) Whiting Field Phase I Remedial Investigation (RI) Technical Memoranda comments. The following were in attendance.

Kim Queen	SDIV
Rob Pope	USEPA
Jim Barksdale	USEPA
Caron Falconer	USEPA
Jorge Caspary	FDER
Jim Crane	FDER
Eric Nuzie	FDER
Waynon Johnson	NOAA
Rao Angara	ABB-ES
Eric Blomberg	ABB-ES

The meeting began at 0950 with an introduction of all participants. The meeting agenda included review and discussion of the Navy responses to regulatory (USEPA and FDER) and Natural Resource Trustee comments on the six Technical Memoranda prepared at the completion of the Phase I RI at NAS Whiting Field.

Prior to review of the comments and responses, Mr. Angara handed out a draft schedule of the Phase II RI program at NAS Whiting Field and provided a brief update of the field activities completed since the beginning of the Phase II field program in May 1992.

Mr. Pope announced that NAS Whiting Field will be proposed for placement on the National Priority List (NPL) in the spring of 1993.

During general discussions, Mr. Barksdale asked why the NAS Whiting Field personnel were not present at this meeting. He indicated that it is important to have the base personnel involved in the RI/FS process. Ms. Queen stated that due to lack of travel funds, the NAS Whiting Field personnel were unable to attend this meeting. She informed Mr. Barksdale that the base personnel are being kept informed of all the RI/FS activities being conducted at NAS Whiting Field on a regular basis.

REVIEW OF RESPONSES TO USEPA COMMENTS

At 1015 Mr. Pope began the review of the Navy responses to USEPA comments. Mr. Pope only addressed the responses that remained unclear or the ones USEPA did not agree with. All other responses were found acceptable by USEPA. These minutes will be attached to the Response to Comments and the complete package will be resubmitted to the agencies.

GENERAL COMMENTS

Comment 4: Mr. Pope indicated that a ecological risk assessment workplan should be developed for regulatory review prior to conducting the ecological risk assessment. Mr. Johnson agreed with Mr. Pope and provided an overview of the Natural Resources Trustees role in the RI/FS process. Mr. Johnson also recommended that that the activity appoint an individual on-site as the facility's NRT representative. Ms. Queen indicated that NAS Whiting Field has appointed an individual to that role. The activity will contact Mr. Johnson regarding this issue in the near future.

Comment 6: Mr. Pope stated that USEPA would like a copy of the raw data of all future reports. Mr. Angara indicated that Form I laboratory data sheets (unvalidated data) will be included as an Attachment to all future reports. Mr. Pope also requested that all the data qualifiers be defined.

Mr. Pope and Mr. Barksdale indicated that the USEPA recommends that stainless steel monitoring wells be installed at hazardous waste sites. They also indicated that data from PVC monitoring wells may not be acceptable. Mr. Barksdale further stated that the burden of potentially having to replace the PVC wells with stainless steel wells is on the facility and the Navy.

He indicated that the PVC well may deteriorate and contaminants from the PVC well may be detected in the groundwater samples. Therefore, if a monitoring well is initially free of contamination and a few years later degradation compounds from the PVC are detected, then one can no longer say that the groundwater is free of contamination and the monitoring well will have to be replaced with a stainless steel well. Mr. Angara stated that these wells are being used for the characterization of the nature and extent of groundwater contamination and, therefore, are not projected for long-term monitoring purposes. Mr. Angara referenced the US Army Corps of Engineers' paper covering this issue that was attached to the response to comment handout. Dr. Crane stated that PVC monitoring wells is acceptable by the FDER.

SPECIFIC COMMENTS

Technical Memorandum No. 3: Soils Assessment

Comment 5: Mr. Pope indicated that it is difficult to determine the extent and size of the waste piles at Site 12 (Tetraethyl Lead Disposal Area). Mr. Blomberg provided a brief history of Site 12 and described the dimensions of the waste piles.

Comment 11: Mr. Pope stated that the subsurface soil and groundwater samples collected at Site 12 did not adequately characterize the contamination at this site and that a "No Further Action" document can not be prepared without additional soil and groundwater data. He stated that USEPA recommends collection of samples from the waste pile/ground surface interface which is approximately 3 to 4 feet below the waste pile surface. He said these samples coupled with the data from Phase I RI (samples collected at the 1 to 2 foot interval) would provide adequate characterization of the waste piles. He suggested that one sample be collected from each waste pile for Target Analyte List (TAL) metals analysis. In addition,

Mr. Pope also requested that a water table monitoring well be installed directly downgradient (south) of Site 12 and a groundwater sample be collected and analyzed for Target Compound List (TCL)/TAL full scan. Mr. Blomberg recommended that soil samples be collected from the monitoring well boring at depths of 0, 5, 10, 15, and 20 feet below land surface (bls) for TAL metals and TCL Volatile Organic Compounds (VOC) analysis. All parties agreed that if these explorations were conducted and no contamination was detected, a "No Further Action" decision document could be prepared.

Technical Memorandum No. 5: Groundwater Assessment

Comment 1: Mr. Pope recommended that the drilling mud used during the Phase II monitoring well drilling program be sampled and analyzed for TAL metals to see if the mud is contributing to the contamination of the wells. All parties agreed that one sample of the drilling mud should be collected during the Phase II investigation for TAL metals analysis.

Comment 4: Mr. Pope reiterated that USEPA would like to see all the buildings on the figures identified. Mr. Blomberg indicated that the Navy has NAS Whiting Field as a CAD file; therefore, all future figures will be generated from the CAD files with all the buildings identified by numbers. Mr. Pope also requested that copies of NAS Whiting Field maps showing the industrial area (with building numbers) and the whole installation be sent to USEPA for reference purposes. Dr. Crane requested that a set of figures be submitted to FDER also.

Comment 7: Mr. Pope indicated that there are no upgradient monitoring wells at Site 12 and that upgradient groundwater quality data is necessary for comparison to downgradient groundwater data. Mr. Blomberg said that monitoring well WHF-9-2 which is upgradient of Sites 9, 10, 11, 12, 13, and 14 can be used for upgradient groundwater quality data. Mr. Blomberg also indicated that this well will be sampled during the Phase II program for TCL/TAL full scan. All parties agreed to use this well as an upgradient well.

Technical Memorandum No. 6: Phase I Summary and Phase II-A Workplan

Comment 7: Mr. Pope stated that the limited sampling at Site 2 does not support a "No Further Action" document since there is no guarantee that only construction debris and wood were dumped into the former borrow pit. Mr. Pope recommended that one downgradient monitoring well be installed and a groundwater sample be collected for TCL/TAL full scan analysis. In addition, he recommended that a soil boring be drilled to the water table in the center of Site 2 and subsurface soil samples be collected for analysis. Mr. Blomberg suggested that subsurface soil samples be collected from 0, 5, 10, 15, 20, and 50 feet below land surface and at the water table for TCL/TAL full scan analysis. All parties agreed that if these explorations were conducted and no contamination was detected, a "No Further Action" decision document could be prepared.

This concluded Mr. Pope's discussion of the Navy responses to the USEPA comments. The meeting adjourned for lunch at 1135.

The project managers meeting continued after lunch with discussion of the FDER comments.

REVIEW OF RESPONSES TO FDER COMMENTS

Mr. Caspary began the review of the responses to FDER comments. The responses that Mr. Caspary did

not address were acceptable by the FDER or were previously covered and agreed to in the discussion of the Navy response to USEPA comments.

Technical Memorandum No.6: Phase I Summary and Phase II Workplan

Comment 10: Mr. Caspary stated that FDER recommends that all data gaps be filled during the Phase II-A field program. Mr. Angara indicated that the Phase II-A explorations were proposed to identify data gaps existing from Phase I. Ms. Queen added that because no investigations were conducted previously at the newly added IR sites (sites 29 through 33), an additional round of explorations may be needed after Phase II-A to fill data gaps.

Comment 11: Mr. Caspary and Dr. Crane indicated that they had reservations about the placement of the proposed downgradient Phase II-A monitoring well at Site 1. Dr. Crane suggested installing piezometers at Site 1 or install the wells at Sites 2, 17, and 18 to get a better handle on the groundwater flow direction prior to the placement of the well at Site 1. Mr. Blomberg agreed with the suggestion of installing the monitoring wells at Sites 2, 17, and 18 prior to the Site 1 well installation. If the Site 1 groundwater samples and soil samples were free of contamination, then a "No Further Action" would be proposed for Site 1. Dr. Crane indicated that he is uncomfortable with the "one shot" RI approach at landfills such as Site 1. With potential releases in the future, he would like to see at least three monitoring wells installed and sampled and if no contaminants are present, then propose a "No Further Action" with long-term monitoring. All parties agreed that based on the Phase II-A results, long-term monitoring needs to be considered at this site when "No Further Action" is proposed.

Comment 17: Mr. Caspary stated that FDER recommends that the proposed Phase II-A monitoring well (WHF-11-3) be placed halfway between WHF-11-1 and WHF-13-1 due to the lack of groundwater investigations in that area. All parties agreed to move well WHF-11-3 to this location.

Comment 18: Mr. Caspary indicated that the deep groundwater sample collected from WHF-16-CPT-1 (100 feet below land surface) showed Benzene at 400 ug/l and thus wells downgradient to this well should be installed. Mr. Blomberg said that an existing well WHF-16-1 located downgradient of WHF-16-CPT-1 showed no presence of contamination at 42 feet bls. He also said that a monitoring well will be installed at location WHF-16-CPT-1 to first confirm the 400 ug/l of Benzene contamination, and, if it is present, downgradient wells will be installed deeper into the aquifer.

Upon completion of the response review, Mr. Blomberg suggested that the status of Site 5 be addressed. Site 5 was previously investigated under a FDER consent order and the contamination detected at this site was not related to contaminants associated with the Battery Acid Shop waste disposal activities. No work has been conducted since 1985 when Geraghty & Miller investigated Site 5. Dr. Crane felt that groundwater data from 1985 might not be acceptable to propose "No Further Action" for Site 5 and recommended resampling the Site 5 monitoring wells. Mr. Pope said he wasn't sure if data from 1985 would be acceptable but said he would check with some of his associates. All parties agreed to put Site 5 on hold until it can be determined if the 1985 data can be used.

REVIEW OF RESPONSES TO NOAA COMMENTS

At 1412 Mr. Johnson started the review of the responses to NOAA comments. Mr. Johnson did not cover

the responses to comments that he found acceptable.

Comment 2: Mr. Johnson stated that the detection limits for the inorganic analytical methods used for surface water analysis often exceeded the regulatory (i.e. AWQC) standards. He indicated that it is imperative that detection limits are below the regulatory standards for appropriate evaluation of risk to the resources and receptors. Mr. Johnson also indicated that these regulatory standards need to be followed when conducting an ecological risk assessment. Mr. Angara asked Mr. Johnson if he knew of analytical methods available whose detection limits would be below the AWQC and FSWQ standards. Mr. Johnson said there were methods available but wasn't sure of them and suggested we contact Dr. Forrester at the state lab.

He identified the NOAA requirements and stated that data providing information about receptors and effect of contamination on the receptors should be provided in all future reports. He also recommended that a basewide approach to ecological assessment should be taken rather than evaluating individual sites at the facility.

The meeting was adjourned at 1530 hours.

ATTACHMENT C

CCJM

ENVIRONMENTAL ENGINEERS & SCIENTISTS

 SILVER SPRING
 GRAND RAPIDS
 DETROIT
 DENVER
MEMORANDUM

TO: Kathy Hodak, ABB/Tallahassee

FROM: Roger ~~Simon~~, Jeralyn Guthrie, Richard Cheatham,
CCJM/Denver

DATE: October 29, 1992, revised: 12/1/92

DOCUMENT NO: WFSOR028.MM3

SUBJECT: Whiting Field Resubmission Memo Status Summary

Per your request, please find enclosed a list detailing resubmission request memoranda generated by CCJM/Denver to date and laboratory response activities based on such. This memorandum will be updated periodically.

<u>Memorandum Document #:</u>	<u>Date of Memo</u>	<u>Receipt Date of Laboratory Response</u>
WFRAI001.MEM	10/7/92	not sent to laboratory
WFRAI010.MEM	10/26/92	11/13/92, 11/19/92
WFRAI017.MEM	10/26/92	11/12/92, 11/19/92
WFRAI024.MEM	10/28/92	11/12/92, 11/19/92
WFRAI027.MEM	10/29/92	11/19/92, _____
WFRAI029.MEM	11/4/92	11/17/92
WFRAI033.MEM	11/4/92	NYR
WFRAI051.MEM	11/12/92	11/18/92

NYR = not yet received

* we are currently awaiting resolution from Rao and Eric for the issue in this memorandum

Also, please find enclosed the current list of all data packages received at CCJM/Denver to date. Included is a breakdown of the numbers of samples and samples by fraction in each data package. The following list defines the letter codes used on the data package list:

V = CLP Volatiles	B = CLP Semivolatiles
P = CLP Pesticide/PCB	T = CLP Total Metals
C = CLP Cyanide	#S = number of soil samples
#W = number of water samples	TCLP-V = TCLP Volatiles
TCLP-M = TCLP Metals	PNA = Polynuclear aromatics
TPH = total petroleum hydrocarbons	

C.C. JOHNSON & MALHOTRA, P.C.

12567 WEST CEDAR DRIVE, SUITE 220 • LAKEWOOD, CO 80228
 Telephone (303) 987-2928 • Fax (303) 987-3516

Two issues remain concerning the TCLP holding time evaluation; it is recognized that extraction logs for the TCLP analyses will not be provided by the laboratory, per ABB and laboratory agreement.

- a. The laboratory has stated that TCLP preparation logs were not a required Level D deliverable. The validators do not concur completely with this. The USEPA CLP SOW OLM02.1 for inorganics, states that "For each reported value, the Contractor shall include in the data package all raw data used to obtain that value." Additionally, "Raw data must be labeled with EPA sample number and appropriate codes... to unequivocally identify:...

"4. Diluted and undiluted samples... and all weights, dilutions and volumes used to obtain the reported values. (Exhibit B, Section II.C.2.d).

The organics data package does not have a specific reference to weights, dilutions and volumes in the manner of the inorganics SOW, but does indicate that "all original laboratory records, not already submitted in the Sample Data Package, of sample transfer, preparation and analysis, including, but not limited to ..." are ultimately required deliverables as part of the Complete SDG File (USEPA CLP SOW OLM01.0, through revision OLM01.8, Exhibit B, Section II.E.5).

Acceptance of a laboratory's statement that holding times were met for sample analyses in lieu of actually reviewing the laboratory/field analysis records is not the typical level of assurance that would be expected through the data validation procedure.

It is recognized that TCLP preparation logs are not identified as deliverable requirements for the Level C data.

- b. The case narratives and the laboratory resubmission response indicate that the laboratory has verified that holding times were met based on sampling date, but do not indicate what criteria those holding times have been evaluated against. It could not be determined whether the laboratory used the TCLP holding time criteria as detailed in the Federal Register, June 29, 1990 or whether the criteria from some other source (i.e. SOW, laboratory SOP's, etc.) were used.

If you have any questions, please call us at (303) 987-2928.

cc: PF - Whiting Field

Project Whiting Field

Page 1

Package ID	receipt date	notes	#C	#W	V	B	P	T	D	C	YC LP V	YC LP M	Y P H	P N A
22212	10/1/92	Level D	1	2	3	2	2	2		2	-	-	-	-
22212	10/1/92	Level C	2	3	6	4	4	4	-	4	-	-	-	-
22226	10/2/92	Level C	3	6	9	6	6	6	-	6	-	-	-	-
22243	10/2/92	Level C	3	6	9	6	6	6	-	6	-	-	-	-
22261	10/2/92	Level C	-	1	1	-	-	-	-	-	-	-	-	-
22454	10/21	Level C	13	2	16	14	14	14	-	14	-	-	-	-
22457	10/21	Level D	2	-	2	2	2	2	-	2	-	-	-	-
22462	10/21	Level C	8	4	12	11	8	11	-	11	-	-	11	-
22461	10/21	Level D	2	3	2	2	2	2	-	2	2	1	2	-
22489	10/21	Level D	4	2	4	4	4	-	-	2	-	NA	-	-
22486	10/21	Level C	10	4	11	10	3	10	-	10	3	3	10	-
22495	10/21	Level C	12	2	13	13	2	13	-	13	-	1	13	-
33701	10/21	Level C	-	12	12	-	-	-	-	-	-	-	NA	-
33710	10/21	Level D	2	2	2	-	-	-	-	-	-	-	NA	-
33711	10/21	Level C	3	6	6	-	-	-	-	-	-	-	NA	-
22563	10/21	Level D	2	2	-	4	4	4	-	4	-	-	-	-
22562	10/21	Level C; with 33711	3	6	-	6	6	6	-	6	-	-	-	-
22489	10/22	Level D	4	2	-	-	-	4	-	4	-	2	4	NA
22505	10/22	Level C	10	4	11	10	3	10	-	10	3	3	1	-
22606	10/22	Level D	10	5	11	10	5	10	-	10	4	4	10	-
22607	10/22	Level C	11	2	12	12	4	12	-	12	1	1	12	-
22514	10/22	Level C	13	5	16	15	5	15	-	15	2	2	15	-
22515	10/22	Level C	14	1	15	14	14	14	-	14	-	-	-	-
22516	10/22	Level D	6	3	9	4	4	4	-	4	2	2	4	-
22520	10/22	Level C	10	1	10	10	10	10	-	10	1	1	10	-
22525	10/22	Level C	12	-	-	12	12	12	-	12	-	-	-	-
22527	10/22	Level C	11	1	12	11	11	11	-	11	-	-	-	1
22528	10/22	Level D	2	-	2	2	2	2	-	2	-	-	-	-
22440	11/2/92	Level C	11	-	-	-	11	11	-	-	-	-	-	11
22926	11/19/92	Level D	2	-	2	2	2	2	-	2	-	-	-	-
22927	11/19/92	Level C	6	4	10	6	6	6	-	6	-	-	-	-
22935	11/19/92	Level C	6	3	9	7	7	7	-	7	-	-	-	-
22949	11/19/92	Level D	2	-	2	2	2	2	-	2	-	-	-	-
22997	11/19/92	Level C	1	-	1	1	1	1	-	1	-	-	-	-

group 1 = 10/1/92, 10/2/92
 group 2 = 10/21/92, 10/22
 group 3 = 11/19/92

totals (group 1):	9	18	27	22	22	22	0	22	0	0	0	0	0	0
totals (group 2):	173	66	176	166	128	179	0	168	20	20	92	12		
totals (group 3):	17	7	24	20	20	20	0	20	0	0	0	0		
totals	139	85	227	210	176	221	0	210	20	20	92	12		