Final

Meeting Minutes
Travis Air Force Base
Environmental Management
Building 246, Upstairs Conference Room
Installation Restoration Program
Remedial Program Managers Meeting

10 July 2002, 0930 Hours

Mr. Allen Brickeen, Travis Air Force Base (AFB), conducted the Remedial Program Managers (RPM) meeting held on 10 July 2002 at 0930 in Building 246, Upstairs Conference Room, Travis AFB, California. Attendees included:

• Allen Brickeen	Travis AFB
• Glenn Anderson	Travis AFB
• Dale Malsberger	Travis AFB
• Tom Sreenivasan	Travis AFB
• Roger Johnson	Air Force Center for Environmental Excellence (AFCEE)
• David Bragg	Booz-Allen & Hamilton Inc.
• John Lucey	U.S. Environment Protection Agency (U.S. EPA)
• Elizabeth Allen	TechLaw
• Jose Salcedo	Department of Toxic Substances Control (DTSC)
• Sarah Raker	Regional Water Quality Control Board (RWQCB)
• Wayne Williams	CH2M Hill
• Rebecca Maco	CH2M Hill
• Chuck Elliott	CH2M Hill
• George Joyce	URS
• Elise Willmeth	URS
• Brian Garber	Shaw Engineering and Infrastructure (SE&I)

Handouts distributed throughout the meeting included:

• Attachment 1	Meeting Agenda
• Attachment 2	Master Meeting, Teleconference, and Document Schedules
• Attachment 3	Comparison of Cleanup Level for Lead
• Attachment 4	SBBGWTP Monthly Data Sheet
• Attachment 5	CGWTP Monthly Data Sheet
• Attachment 6	NGWTP Monthly Data Sheet
• Attachment 7	Map of FT005 Spring 2002 Offbase Investigation Results and Proposed CPT Locations

- Attachment 8 CH2M Hill Field Activities, July 2002
- Attachment 9 URS Field Activities, June 2002

1. ADMINISTRATIVE

A. Previous Meeting Minutes

The 11 June 2002 meeting minutes were approved and finalized.

B. Four-Month Calendar of Upcoming Milestones and Meeting Dates

The revised Travis AFB Master Meeting, Teleconference, and Document Schedules were distributed (see Attachment 2).

Master Meeting and Document Schedule

— Page 2, North Groundwater Treatment Plant (NGWTP) Operations and Maintenance (O&M) Manual, Revision 1, response to comments and draft final due dates were changed to 12 July 2002 and the final due date was changed to NA (not applicable).

— Page 3, LF007/Corrective Action Management Unit (CAMU) draft final due date was changed to 3 July 2002 to reflect the actual submittal date. The final due date was changed to 2 August 2002.

— Page 5, SD045 and LF044 Soil Remedial Design Packages draft final due dates were changed to 12 July 2002 and the final due dates were changed to 12 August 2002.

— Page 6, LF008 Site-Specific Remedial Action (RA) Work Plan schedule was established.

— Page 6, RW013/LF044 Site-Specific RA Work Plan schedule was updated.

— Page 6, LF007 Work Plan Construction Quality Control Plan (CQCP) schedule was updated.

— Page 6, SD045 and SD042 Site-Specific RA Work Plan schedules were changed to TBD (to be determined). This work effort has slipped into 2003.

— Page 8, LF008 CQCP schedule was established.

— Page 8, LF007/CAMU CQCP final due date was changed to 3 July 2002.

— Page 10, the Central Groundwater Treatment Plant O&M Manual, Rev. 1; Basewide Soil RD/RA Plan; DP039 Reactive Wall Treatability Study; and SS016 Expansion Interim Remedial Action Report were moved to the historical section.

2. OPERABLE UNIT UPDATE

A. North/East/West/ Industrial Operable Unit

1. NEWIOU ROD Plan of Action and Milestone

ARAR Review

Mr. Malsberger stated that the Air Force is waiting for comments from DTSC. Mr. Salcedo stated that DTSC is working on their comments. The Air Force will also review U.S. EPA's comments with Ms. DeAnn Lehigh.

Sections 1 – 4 Review of the Draft ROD

Mr. Malsberger stated that he received comments from RWQCB on Sections 1 through 4 of the draft record of decision (ROD). The Air Force received informal comments from Ms. Elizabeth Allen.

Mr. Lucey stated that Ms. de Vries is still reviewing the document and it will take a couple of weeks before he submits his comments. Mr. Salcedo stated that Mr. Mike Anderson will need to review the document and will also coordinate those comments with U.S. EPA.

After today's meeting the Air Force will meet with Ms. Raker and Ms. Allen to discuss how their comments will be incorporated.

Cleanup Table

Mr. Malsberger stated that DTSC has requested the Air Force to use the Lead Risk Assessment Spreadsheet (Leadspread) for Travis AFB. He distributed a handout that discusses the comparison of cleanup levels for lead (see Attachment 3). Mr. Malsberger asked the agencies to review this document and submit comments.

Mr. Malsberger stated that it is his understanding that for the residential cleanup level, the Air Force should use 146 milligrams per kilogram (mg/kg) for exposure to a child.

Mr. Salcedo stated that for industrial levels, typically the agencies have not approved cleanup values greater than 1,000 mg/kg, which is the hazardous waste level for disposal at a landfill. DTSC will agree to 1,000 mg/kg for the industrial cleanup level.

Mr. Lucey asked what cleanup levels the Air Force proposes. Mr. Malsberger stated that if the Air Force goes with the default input, the residential cleanup level will be 146 mg/kg and the industrial cleanup level 1,000 mg/kg (which is based on 3,500 from Leadspread, but not to exceed the 1,000 mg/kg hazardous waste disposal level). Mr. Malsberger asked if U.S. EPA concurs with these levels.

Mr. Lucey stated that he will give this information to Mr. Dan Stralka.

Set 1 and 2 Sites Decision Summary

Mr. Malsberger stated that the Air Force is waiting for comments from the agencies on the site summary sheets.

Ms. Raker stated that she has started to look at the locations of the underground storage tanks (USTs), sources, and concentrations in soil and groundwater for the Set 2 sites. Ms. Raker will attempt to develop a strategy for dealing with sites that have ongoing activities. Ms. Raker stated that a meeting might be necessary in order to pull together documents.

Mr. Lucey stated that he is still reviewing the summaries and will submit comments. Mr. Salcedo stated that he will defer to Ms. Raker.

Mr. Malsberger stated that the Set 3 sites (OT010, WP017, SS029, and SS030) will be presented at the next RPM meeting.

CAMU Design

Mr. Lucey asked about the CAMU design footprint being shifted. He asked if the trench location moved. Mr. Malsberger stated that the original footprint had a bulge on the eastern side. Once it was agreed to put in the trench to address the 5-foot separation, it was decided to make the trench straight. Total length of the trench will be 1,300 feet.

B. West/Annexes/Basewide Operable Unit

1. ROD Dispute Status

Mr. Anderson reported that it was his understanding that the Senior Executive Committee (SEC) is scheduled to meet on 24 July 2002.

Mr. Lucey stated that his Division Chief, Jane Diamond, who has been coordinating and contacting various offices, has experienced difficulty arranging the meeting due to scheduling conflicts. U.S. EPA's objective is to maintain progress and not have delays.

Mr. Salcedo stated that his agency is scheduled to meet on 12 July 2002 to discuss the subject. There are scheduling problems, so the meeting is still tentative.

3. CURRENT PROJECTS

A. South Base Boundary Groundwater Treatment Plant

Mr. Sreenivasan reported that the South Base Boundary Groundwater Treatment Plant (SBBGWTP) performed at 100% uptime with approximately 5.4 million

gallons of groundwater extracted and treated during the month of June 2002. The average flow was 125 gallons per minute (gpm). Approximately 1.0 pounds of volatile organic compounds (VOCs) were removed during this period. The total mass of VOCs removed since startup of the system is 178.9 pounds (see Attachment 4).

The schedule for implementation of the telemetry system replacement at SS029, as presented at the May 2002 RPM meeting, has changed due to longer than anticipated lead-times on the new control system. The new control system has been ordered and is expected to arrive by 12 July 2002. Testing of the new control system at EW07x29 will start during the week of 15 July 2002; total installation in all wells is expected to be completed by the first week of August 2002.

The replacement pump and motor for EW01x30 have been ordered and will be installed during the week of 18 July 2002. This pump had been in service for more than 3 years and outlived its performance guarantee.

B. Central Groundwater Treatment Plant

Mr. Sreenivasan reported that the Central Groundwater Treatment Plant (CGWTP) performed at 89.6% uptime with approximately 3.4 million gallons of groundwater extracted and treated. The average flow for the CGWTP was 88.0 gpm during June 2002. Approximately 24 pounds of VOCs were removed during June 2002. The total mass of VOCs removed since startup of the system is 2,136 pounds (see Attachment 5).

The power outages at Travis AFB caused downtime at both the CGWTP and the West Treatment and Transfer Plant (WTTP). On 18 June 2002, the burner at the thermal oxidation (ThOx) system failed because the knitted metal fiber burner cover corroded to the point that it could not provide the uniform flame distribution.

The unit has to be replaced; the cost is not significant and the unit is readily available. URS recommended that the ThOx unit be offline while a study is performed to determine if it is necessary and cost effective to restart the system. In addition to the recurring problems, a review of the past quarterly reports showed that the influent vapor concentrations at the ThOx have decreased two orders of magnitude since startup (400 ppm to 2 ppm) and have flat lined over the last two quarters. Travis AFB and URS agreed to let the unit continue to stay offline while a rebound study is conducted. The study will proceed through the dry summer months, when vapor concentrations are expected to increase.

If soil vapor concentrations do not rebound at the individual extraction wells, the Air Force will consider permanently shutting down the ThOx system. However, if a rebound does occur at one or more of the extraction wells, then the ThOx system will be started at those rebounded wells for targeted extraction. URS recommends using Castle AFB start/stop procedures in the shutdown evaluation. If lower vapor concentrations persist, an option would be to replace the ThOx

system with the vapor phase granular activated carbon (VGAC) units that are currently in operation at the WTTP. This action will lower long-term operation costs. A plan of action will be provided in the upcoming quarterly report.

Ms. Raker requested a copy of the Castle AFB start/stop manual. This will be provided.

C. North Groundwater Treatment Plant

Mr. Sreenivasan reported that the North Groundwater Treatment Plant (NGWTP) performed at 94.7% uptime with approximately 896,000 gallons of groundwater extracted and treated. The average flow for the NGWTP was 28.4 gpm during June 2002. Approximately 2.2 pounds of VOCs were removed during June 2002. The total mass of VOCs removed since startup of the system is 156.5 pounds (see Attachment 6).

Several maintenance activities were performed and parts replaced during this month to correct problems relating to influent transfer pump, irrigation pump, etc. The system went through a second acid wash on the air stripper in two months due to scaling. Use of a sequestering agent is being reviewed.

The soil vapor extraction (SVE) system, which was down during the winter and the spring due to high water levels in the extraction wells has been put back into operation following a series of maintenance activities. The system has been running continuously during the last couple of weeks.

A portion of the treated water from the irrigation tank is being used for dust suppression during the Phase I construction of the CAMU project. The rest of the treated water is diverted to the duck pond.

D. FT005 Interim Remedial Action

Mr. Sreenivasan stated that the third round of CPT sampling was completed last week and the analysis of the results showed some surprises and major challenges. CH2M Hill presented the CPT results and the future course of action.

Mr. Chuck Elliott gave a presentation of the FT005 Spring 2002 off-base investigation results and proposed CPT locations (see Attachment 7). The Air Force finally succeeded in gaining off base access to the Peterson property; however, since so much time has past since the last characterization of the plume, it was decided that additional investigation was necessary to determine what changes may have occurred.

CH2M Hill collected CPT samples and found the results for 1,2-DCA had concentrations higher than expected. The remediation goal for 1,2-DCA is 0.5 micrograms per liter (µg/L), which has been exceeded south of the plume. (CPT-127 had a 1,2-DCA hit of 3.86 µg/L.)

The Air Force has access to the property for construction for one year. Characterization, revision of the design, and construction must be completed by October 2002.

CH2M Hill and the Air Force have proposed to:

- Collect additional samples to further characterize and determine if 1,2-DCA has migrated past Creed Road, which is on the property boundary.

- Collect samples on 11 July 2002 from wells that were installed in the early 1990s.

1,2-DCA has been detected along the southwest edge of the plume. The plume is drawn to the 0.5 µg/L contour. Detections above 0.5 µg/L have a southeasterly distribution. The off-base geology is unknown because it has not been investigated.

Ms. Raker asked if the targeted depths are based on sand layers in the CPT. Mr. Elliott stated that the procedure was to attempt to identify at least two permeable layers, looking for two sampleable depths that are at least 10 to 20 feet apart. After identifying the zones, hydropunch samples were collected.

Ms. Raker asked if these are recoverable hydropunch samples. Mr. Elliott answered yes.

Mr. Elliott stated that bedrock was encountered at CPT-119 on the west side. Ms. Raker asked if CPT sample points can be placed outside of the property. Mr. Elliott stated no, because there is no easement in that zone.

Mr. Joyce asked where the agricultural wells are located. Mr. Elliott stated that the locations are unknown. Mr. Joyce asked if the Air Force is trying to protect private wells. Mr. Elliott stated that the objective for off-base wells, as described in the NEWIOU Groundwater IROD, is remediation.

Mr. Joyce asked what pathway the Air Force is attempting to protect. Mr. Elliott stated that the Air Force is attempting to accomplish the remediation as described in the IROD.

Ms. Raker asked if the original CPTs are available in the RD/RA work plan. Ms. Rebecca Maco stated that the original CPTs are in the design report.

Ms. Raker asked if the Air Force has an idea of what the extraction system will look like. Mr. Elliott stated that it will probably run from northwest to southeast (along the west edge of plume). These wells will address the downgradient edge of the plume.

Ms. Raker asked the following questions:

- Where will the extraction wells be located?

- At what depth will the extractions wells be installed?
- What will the screen interval be?
- Is the Air Force attempting to focus on the sand layer or just screen over 20 feet?
- What type of influent concentration will be obtained (will it be detectable)?
- How will the Air Force optimize the extraction system if targeting 2-inch lenses?

Mr. Elliott stated that answers to the above questions will be based on modeling.

Mr. Roger Johnson asked if the Air Force conducted any three-dimensional modeling. Mr. Elliott stated yes and the modeling was recently updated.

Mr. Elliott commented that the area is extremely heterogeneous and difficult to characterize. He also stated that concentrations are so low that contaminants may become diluted and be difficult to detect.

Ms. Raker asked when the monitoring wells would be installed. Mr. Elliott stated before the end of the construction season.

Ms. Raker asked Mr. Lucey: if monitoring wells are installed and there are no exceedances, is extraction required? If detections at 3-inch intervals that cannot be reproduced in a monitoring well, does that necessitate groundwater extraction? Mr. Lucey stated that he is not sure.

Mr. Malsberger stated that the Air Force is attempting to protect future domestic wells that might be installed.

Ms. Raker stated that she would be interested in the Air Force showing the sampling results in the entire plume, including samples taken a few years ago, in order to observe the plume migration.

Mr. Johnson suggested that the Air Force install wells across the bottom and then install a monitoring well below CPT-127

Ms. Raker asked if the Air Force could do the proposed CPTs and look at the data to determine if an extraction system is appropriate. Mr. Brickeen stated that the Air Force plans to construct an extraction system; it is just a question of how far south.

Mr. Joyce stated that he is concerned that the concentrations are so low that once pumping begins, the system will reach cleanup goals within a very short time and the system will be shut down.

Mr. Johnson stated that because of the construction schedule and where funds are, the Air Force should just go ahead as planned and let contractors determine the best place to install wells. The performance-based contracts can be modified in the future if there is a problem.

Ms. Raker stated that since the Air Force is concerned about funding, the Air Force should try optimizing the design, knowing that there are very minor concentrations, instead of the original conceptual model; the Air Force should take a frugal approach in order to obtain approval.

Mr. Lucey stated that he is not sure what the best approach is. He stated that he does concur with Mr. Joyce in that he is concerned about receptors.

Mr. Lucey asked what would be the Air Force's action if a CPT gets a detection. Mr. Brickeen stated that the groundwater flow is southwest and that installing a three-well curtain at Creed Road may not solve the problem. Mr. Brickeen stated that Travis AFB currently has funds available to do remedial action work this year. There are no funds or access available to do an action across Creed Road, which could take up to 3 years to even be able to obtain samples.

Mr. Brickeen also stated that the Air Force should do what can be done this year and look at potential outyear adjustments.

Mr. Malsberger noted that the IROD states that the Air Force will remediate off-base plumes to maximum contaminant levels (MCLs), because the contamination encumbers the property owner's unrestricted use of his land.

Ms. Raker stated that the concern is about cleaning up something that is not there. Mr. Malsberger stated that if you can show that the aquifer is above MCLs, something must be done; therefore the plume must be delineated.

Ms. Raker requested that the handout (map) be modified to show the results of the off-base data and the resulting map converted into a PDF file (see Attachment 7).

Mr. Lucey requested that this information be presented to the RAB during the July 2002 RAB meeting.

E. LF007 Mitigation and CAMU Phase I Remedial Action

Mr. Malsberger stated that the last vernal pool is completed. The seeding will be delayed until the rainy season in order to avoid seeds being blown away by the wind or eaten by birds.

The draft final remedial design, the draft LF007 Work Plan and the final LF007 CQCP were submitted to the agencies

The LF007 remedial design and appendix is a change out package.
Mr. Malsberger stated that the remedial design is schedule to go final on 2 August 2002.

A tour of LF007 Phase 1 construction is scheduled after today's meeting

Mr. Brian Garber gave the following update on the CAMU Phase I remedial action:

- By area, the CAMU construction is approximately 50% complete (sub-base of the CAMU);
- The volume is approximately 70% complete as of 9 July 2002;
- Approximately 68,000 cubic yards of soil were hauled;
- Construction of the interceptor trench is approximately 40% complete;
- Area 3A South is 90% complete with about 5,000 cubic yards from a local source;
- Approximately 6,000 cubic yards of concrete and debris have been collected from around the edges of Zone 1;
- Approximately 4,000 cubic yards of material that are unacceptable to be used in the landfill cap were identified and isolated.

Mr. Malsberger stated that he sent pictures of the progress via email.

Mr. Malsberger asked the agencies if concrete encountered in the vernal pools should be removed because it is debris or left because it is habitat. Mr. Garber commented that some concrete is buried and is providing habitat. Mr. Malsberger requested feedback from agencies by 18 July 2002.

Mr. Johnson asked if the fall weather will impact construction. Mr. Garber stated that the subgrade of the CAMU should be completed by 2 August 2002, so that the fall weather will have no impact.

The Air Force will keep the agencies updated on the trench construction schedule.

F. LF007C USFWS Formal Consultation

Mr. Malsberger stated that Travis AFB sent a request for a formal consultation on 1 July 2002. U.S. Fish and Wildlife Service (USFWS) now has 120 days to respond. Once this is completed, Travis AFB will finalize the design.

G. Draft Final SD045 Remedial Design Package

Mr. Anderson submitted the changeout pages to convert the draft to the draft final SD045 Soil Remedial Design Package.

Mr. Anderson requested that the agencies review and submit comments by 30 July 2002 in order for the Air Force to meet its internal metric goal of completing this document in this quarter.

H. Draft LF008 Remedial Design Package

Mr. Anderson stated that he received a "no comments" letter from Mr. Salcedo and Ms. Raker on the draft LF008 Soil Remedial Design Package. Mr. Lucey stated that he will determine if he has any comments.

I. Draft Final LF044 Remedial Design Package

Mr. Anderson stated that the draft LF044 Remedial Design Package was submitted on 29 April 2002. Mr. Anderson stated that the area will be contained and the site is not expected to be disturbed. An industrial hygienist will supervise the construction of the fence in case of problems.

Mr. Anderson stated this caveat will be added to the work plan.

The Air Force will issue a change out package to change this document from draft to draft final. Mr. Anderson requested that the agencies review the change out package and submit comments by 30 July 2002 in order for the Air Force to meet its metrics.

J. RW013 Remedial Action Preparation

Mr. Anderson stated that the Travis AFB and Air Force Safety Center had a few coordination issues that are now resolved.

K. LF008 O&M Manual

Mr. Anderson stated that the Air Force will develop the LF008 O&M manual similar to the NGWTP and CGWTP O&M manuals.

L. DP039 Dual-Phase Treatability Study Report

Mr. Anderson stated that the Air Force proposed removing the discussion concerning the rebound study in order to close out the document. This proposal was emailed to the U. S. EPA and is pending a response from Mr. Lucey. Mr. Lucey stated that his technical person has requested more information and he will get back with Mr. Anderson shortly.

M. Reactive Wall Report

Mr. Anderson stated that DTSC provided comments on the Reactive Wall Survey. The Air Force responded to all comments, except for one comment that resulted in no changes to the document. This comment was concerned with the California Business and Professions Code which requires that a document that has a technical nature (geological conclusions) be signed by a California registered geologist or has the seal of a California professional engineer.

Mr. Anderson stated that the reactive wall project was done by a firm in Colorado. No one is available to meet that requirement. It is not a substantive requirement, it is procedural, and does not affect the report. Mr. Brickeen stated he will sign the cover letter.

N. RAB Guardian Newsletter Update

Mr. Sreenivasan stated that the July 2002 Guardian Newsletter is being published. The July 2002 RAB meeting will be Colonel Swickard's last RAB meeting. Colonel Severe will be his replacement.

4. PROGRAM ISSUES UPDATE

A. Field Activity Reports

Mr. Brickeen distributed the field activity reports from CH2M Hill and URS (see Attachments 8 and 9).

ACTION ITEM LIST

(Action Items Closed)

AGENDA	RESPONSIBLE	ACTION ITEM	DUE DATE	STATUS
1.	RWQCB	Follow up on the letter from the Air Force in response to the notice of violation for the NGWTP.	Open	Completed. The O&M Manual draft final will be submitted on 12 July 2002. All comments were incorporated. This document was modeled after the CGWTP O&M Manual. Ms. Raker will submit an email stating the O&M Manual very appropriate in order to remove the NOV. Mr. Brickeen stated that there will be one more update to do, when the LF007 C work is performed. Once LF007 C is completed, this document will go final. **Item Closed.**

ACTION ITEM LIST

(Action Items Open)

as of 10 July2002

AGENDA	RESPONSIBLE	ACTION ITEM	DUE DATE	STATUS
1.	CH2M Hill	To provide the FT005 Spring 2002 Offbase Investigation Results and Proposed CPT Locations with additional off-base data, monitoring well, and extraction samples in PDF format.	7/15/02	**New Item.**