

09.01-02/09/98-0227E



**UNITED STATES MARINE CORPS**

MARINE CORPS BASE  
PSC BOX 20004  
CAMP LEJEUNE, NORTH CAROLINA 28542-0004

IN REPLY REFER TO:

6287  
BEMD

09 FEB 1998

Mr. James B. Swartzberg  
16 East Bayshore Boulevard  
Jacksonville, N. C. 28540

Dear Mr. Swartzberg:

Enclosed are draft minutes for the December 10, 1997 Restoration Advisory Board (RAB) Meeting held at the Onslow County Public Library in Jacksonville. Also enclosed are the finalized minutes for the September 16, 1997 RAB meeting.

Please forward any comments or questions you may have regarding the draft minutes so that they may be finalized during the next scheduled RAB meeting (March-April 1998 timeframe).

Comments or questions should be addressed to Mr. Mick Senus, Installation Restoration Division, Environmental Management Department, at telephone (910) 451-5068.

Sincerely,

SCOTT A. BREWER, PE  
Deputy Assistant Chief of Staff  
Environmental Management  
By direction of  
the Commanding General

- Enclosures: 1. Draft - RAB Meeting Minutes for December 10, 1997  
2. Final - RAB Meeting Minutes for September 16, 1997

Copy to:  
COMLANTNAVFACENGCOM (K. Landman)  
NCDENR, Superfund Section (D. Lown)  
EPA, Region IV (G. Townsend)  
Baker Environmental (M. Bartman)  
OHM Remediation Services (J. Dunn)

**DRAFT**  
**Restoration Advisory Board**  
**Meeting Minutes for**  
**December 10, 1997**

The 1997 fourth quarter Restoration Advisory Board (RAB) met on Wednesday, December 10, 1997 at the Onslow County Public Library in Jacksonville, North Carolina from 7:00 to 8:45 p.m. the following individuals were in attendance:

Ray Humphries	Citizen RAB member
Mick Sensus	Camp Lejeune, EMD
Katherine Landman	LANTDIV
Eleanor Wood	Citizen RAB member
David Lown	NCDENR, Superfund
Laura Bader	Citizen RAB member
Joe Barnett	Citizen RAB member
Jim Swartzenberg	Citizen RAB member
Brian Marshburn	Camp Lejeune, EMD

Unable to attend were:

Tracy DeBow	Citizen RAB member
Horace Shepard	Citizen RAB member
Eric Caraway	Citizen RAB member
Gena Townsend	EPA, Region IV

**7:00 - 7:30 PM**

Mr. Sensus began the meeting with welcoming those who were able to attend. To reestablish roles and responsibilities of those non-community RAB members, he had those personnel re-introduce themselves. Mr. Sensus, Mr. Marshburn, Mr. Lown, and Ms. Landman all briefly explained their jobs and association with both Camp Lejeune and the RAB.

Mr. Sensus passed out *Final* meeting minutes for May 1997 and distributed the *Draft* meeting minutes for September 1997. He asked that comments to the draft be submitted no later than the end of the week. Based on those submissions, September minutes would be finalized.

It was mentioned by Mr. Sensus that although Mr. Horace Shepard could not make the meeting. Speaking with him two days earlier he expressed interest in staying involved and does want to participate.

It was proposed that the next meeting be held in March-April 1998. Following was this evening's agenda which included an Operable Unit (OU) status and a short Small Arms Range remediation project summary.

**7:30 - 8:30 PM**

The following OU update for September to December 1997 was presented using a Camp Lejeune site map:

**OU No. 1 (Sites 21, 24, and 78)**

-Semiannual monitoring report (July - December 1997) for Site 78 will be submitted in March 1998.

Enclosure (1) 1

-This report will also include treatment plant operation and maintenance analysis.

-Temporary wells installed in July '97 have provided information for the installation of three new permanent monitoring wells and two new recovery wells into areas that are most contaminated with volatile organics.

-The monitoring wells will be installed in January 1998 followed by the recovery wells during the first quarter of 1998. The recovery wells will be hooked up to the existing North and South treatment plants.

#### **OU No. 2 (Sites 6, 9, and 82)**

-Site 9: Camp Lejeune is looking into designing a burn pit that would accommodate the use of propane as a fire accelerant during training activities at the site.

-Site 6 & 82 (Lot 203): Quarterly groundwater sampling data and treatment plant operations data collected from July through September 1997 is available at this time. This is the first such report that includes both LTM and Plant O&M data.

- Data collected from October through December 1997 will be presented in a report in March 1998.

#### **OU No. 4 (Sites 41 and 74)**

-The semiannual monitoring report (July - December 1997) for OU No. 4 was available in November 1997. *This report can be submitted prior to the end of the semiannual period because there is no active remediation system monitoring.*

#### **OU No. 5 (Site 2)**

-Findings from July - December 1997 Semi-annual sampling will be presented in a report due out in March 1998.

-Depending on the most recent groundwater findings it may be recommended that sampling of some wells included in the monitoring program be discontinued due to the continued absence of contamination.

#### **OU No. 6 (Sites 36, 43, 44, 54, and 86)**

-During a recent meeting of the Lejeune members it was concluded that natural attenuation of groundwater volatile organics would be the viable option for Sites 36, 53, and 86.

-Baker is researching technologies to enhance the natural attenuation process. This enhancement is being researched to determine if it is cost effective to reduce long-term monitoring costs.

-When confirmation of Natural Attenuation is received from WiRO then Baker will finalize the FS/PRAP/ROD documents for these sites.

#### **OU No. 7 (Sites 1, 28, and 30)**

-The monitoring report for the Semi-annual sampling completed for the July - December 1997 period is out. *This report could be submitted prior to the end of the period because there is no active remediation system.*

-Contamination has not been detected in the groundwater collected during the two previous semiannual sampling events conducted at Sites 1 and 28.

-The third sampling event is scheduled to be conducted in January 1998. If the results of this sampling event are similar to previous rounds a recommendation to modify or discontinue the sampling will be made.

#### **OU No. 9 (Sites 65 and 73)**

-The final RI reports were out in November 97.

-Baker is awaiting comments on the FS for Site 73 before it can be finalized.

-Additional groundwater sampling, to support a potential remedial technology, may be conducted during the first quarter of 1998.

**OU No. 10 (Site 35)**

-Baker is awaiting comments on the Supplemental Groundwater Investigation Report, FS, PRAP, and ROD. When comments are received these documents will be finalized.

-Baker is preparing a scope of work to conduct additional groundwater sampling. This groundwater sampling is being proposed to determine if Natural Attenuation conditions exist. If so, this alternative will be considered to be used in conjunction with the groundwater remediation system pilot currently being constructed by OHM this January-February 1998. This is a pilot that will demonstrate the effectiveness of a 100' long and 40' deep Air Sparging trench.

**OU No. 12 (Site 3)**

-The selected remedial alternative, biocell with biological treatment, will be revised to off-site disposal of the contaminated soil. Recent sampling and analysis has demonstrated that this soil is contaminated but not hazardous. Consequently, it may be less expensive to dispose of the soil in a lined permitted landfill than to construct a biocell.

-OHM and the Activity are researching permitted landfills that will accept creosote wastes. There is some question of acceptance due to the unpleasant smell of the wastes.

-The initial groundwater monitoring is Long-term monitoring is scheduled to be conducted in January 1998 on a semi-annual basis.

**OU No. 14 (Site 69)**

-The final groundwater samples to monitor the UVB remediation system were taken at the first week of December. This marks the official end to the UVB/KGB Pilot Study.

-The results of the UVB/KGB in-well aeration treatability study will be provided in a report due in February 1998.

-Preliminary findings indicate that the UVB (deep groundwater) is successful and the KGB (surficial) will not be an acceptable option for this site.

**OU No. 15 (Site 88)**

-The Draft RI report was published in November 1997.

-NFESC and Baker are currently completing field work and set up for the surfactant tracer test. A pilot for free-phase DNAPL will be conducted in January 1998. While the actual free-phase DNAPL will be removed in February 1998.

-The draft FS/PRAP/ROD for this site will be prepared after the completion of the surfactant flood test. We need to determine if the remedial alternative is acceptable before proposing it for selection.

**OU No. 16 (Sites 89 and 93)**

-The draft FS/PRAP documents were released in November 1997.

-The proposed alternative for Site 93 is natural attenuation of the groundwater.

-Several remedial alternatives were proposed for Site 89. These alternatives will be finalized after the state and EPA have had the opportunity to review them.

**OU No. 17 (Sites 90, 91, and 92)**

-The Draft Focused RI Report was released in early August 1997.

-Based on findings from the Phase I investigation, it is anticipated that no further action will be required at these sites.

-The draft 'No Action PRAP' and ROD will be prepared if regulators concur with findings presented in the report.

8:30 - 8:50 PM

Small Arms Range remediation project summary:

1. Range D-30 located near New River. Handout was given to show range/site layout.
2. Described range usage as small arms as .45 caliber, 5.56 mm, and shot gun.
3. Site was discovered as a result of the Remedial Investigation at Site 28 that revealed high concentration of Lead (Pb) in sediment adjacent to the site.
4. Site characterization began in November 1996, the treatability study in the following months, and in May-June 1997 the project began work on site. This work included excavation of the active berm (700 tons of soil), mining and sifting of Pb particulate (bullets/rounds), soil was treated with a phosphate compound (50 tons), the berm was reconstructed, and the entire range was landscaped. Over 19 tons of Pb particulate was shipped out of State and recycled.

Questions follow for the above presentation and relative to the topic. Responses and answers are in italics.

\* 1. Ray Humpheries wanted to know about the planned small arms Range D-29 clean-up. *Funds have been allocated and clean-up is planned ~~this coming year~~ 1998. to begin in*

2. Joe Barnett wanted to know about the Base supply water wells dropping and salt water intrusion discussed during and unrelated lecture at UNC-Wilmington some time ago. *Mr. Senus referred the topic to Camp Lejeune's EMD Planning Division as the IR program does not monitor drinking water issues related to public distribution.*

3. Joe Barnett inquired about the new Base Sanitary lined landfill and what could be admitted. There was also inquiry about recycling aboard Camp Lejeune. *For the landfill, the operator is very strict as to what can and cannot go in specifics are deferred to ~~the~~ Base Maintenance, ~~department~~. As for ~~the~~ recycling, ~~pollution prevention~~ as it is referred to at Lejeune, ~~is~~ an aggressively active program. Specifics are referred to Lejeune's ~~Pollution Prevention~~ Division.*

\* 4. Jim Swartzenberg asked about the numerous other rifle ranges at Camp Lejeune. *Both Mr. Senus and Mr. Marshburn responded that there indeed ~~were~~ <sup>are</sup> many ranges but each one needed to be approached on a site by site basis with those adjacent to waterways taking the highest priority. The program in years to come will develop and grow as funding becomes available. It will take time. We are currently working on Ranges A-1 and D-29 planned.*

8:50 PM  
Adjourn.

ATI  
Recycling is  
it's own  
function  
as a  
"subset"  
P2,

How will this referral get acted upon and info passed back to the people w/ the questions?  
Does Maintenance have action somehow, or is it up to the individual to contact them?

**Restoration Advisory Board  
Meeting Minutes for  
September 16, 1997**

A Restoration Advisory Board (RAB) Meeting was conducted on Tuesday, September 16, 1997 in Jacksonville, North Carolina from 7:00 to 8:45 p.m. The following individuals were in attendance:

Jim Swartzenberg -	Community Member, Co-Chair
Eleanor Wood -	Community Member
Tracey DeBow -	Community Member
Ray Humphries -	Community Member
Eric Caraway -	Community Member
Matt Bartman -	Baker Environmental, Incorporated
Tom Trebilcock -	Baker Environmental, Incorporated
Jim Dunn -	OHM Remediation Services Corporation
Andrea Lunsford -	Naval Environmental Health Center
Dr. Jeff Hyman -	Naval Environmental Health Center
Mick Senus -	Installation Restoration Division, MCB Camp Lejeune
Brian Marshburn -	Installation Restoration Division, MCB Camp Lejeune
Katherine Landman -	Atlantic Division, Naval Facilities Engineering Command
Bob Schirmer -	Atlantic Division, Naval Facilities Engineering Command
Gena Townsend -	U.S. Environmental Protection Agency, Region IV
David Lown -	N.C. Department of Environment and Natural Resources

Unable to attend the meeting were:

Laura Bader -	Community Member
Commander Joseph Barnett -	Community Member
Horace Shepard -	Community Member
Neal Paul -	Installation Restoration Division, MCB Camp Lejeune

The meeting was held in the Jacksonville library and commenced at 1900 hours. Mr. Senus acted as the chair person for the meeting in Mr. Paul's absence.

Mr. Senus began the meeting with welcoming all who were able to attend. Mr. Senus mentioned that meeting minutes from the May meeting had been distributed to all members. Mr. Senus requested comments to the minutes be made at this time, otherwise the minutes would be considered final.

Mr. Humphries asked why the Bostic and Reinhold properties in the Greater Sandy Run Area (GSRA) was not on a figure of Operable Units that was provided to the community members.

Enclosure (2)

Mr. Senus said these areas were not IR Sites and did not fall under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) program at Marine Corps Base (MCB), Camp Lejeune. Ms. Landman explained the land acquisition history of GSRA and that these properties were not purchased by the Department of the Navy (DoN). Instead, MCB Camp Lejeune has pursued Restrictive Easements for these parcels, but does not own the land.

Mr. Caraway asked if the investigation in this area was performed as a Phase I and Phase II assessment. Ms. Landman explained that the investigation was conducted as an Environmental Baseline Study which is similar to a Phase I and Phase II assessment. Initial research was done on the property to determine if the potential for environmental concerns existed. Based on the findings of this research, environmental sampling was conducted. The findings of this investigation provided information to the DoN not to purchase this land.

Mr. Humphries wanted to know if a land use study is done or required by the Base. Ms. Landman and Mr. Senus stated that the Base Master Plan details the land usage and documents what land can and cannot be used for.

Mr. Senus requested that Mr. Bartman provide the members with an update on Baker's activities at each of the Operable Units. The enclosed attachment provides the summary of activities that have been conducted since May 1997 or are planned for the upcoming months. Mr. Bartman requested that Mr. Trebilcock inform the Community Members about the monitoring process and why it was so important to the remediation alternative selection.

Mr. Dunn provided an update of OHM's activities. Mr. Dunn provided information on the treatment plant operations at Lot 203 and the Hadnot Point Industrial Area. Mr. Dunn also discussed the lead soil removal being conducted at Montford Point. A small discussion on the treatment and disposal of the lead contaminated followed.

Mr. Senus discussed the setting for the next meeting agenda and asked the community members if there were any items that they would like to discuss. It is the intention to allow the community members to determine the topics that they would like to talk about. Mr. Caraway stated that he would like to participate in another Base tour. Now that we have discussed a lot of information it would be beneficial to revisit some of these areas. Mr. Humphries would like to have place cards with individuals names and representation on them for future meetings. Mr. Swartzenberg would like community members to be contacted the day prior to the meeting as a reminder. Ms. DeBow wanted to research the possibility of publishing a community relations paper that would discuss what is being done for the environment. Mr. Swartzenberg mentioned that this information could be placed in the *Jacksonville Tribune* as a program update. These items and any additional items will be placed onto the agenda for next meeting. Mr. Senus requested that community members contact him or Mr. Swartzenberg with additional items.

Mr. Swartzenberg asked whether we were going to continue to recruit minority participation. He mentioned that he contacted Mr. Horrace Sheppard and he was supposed to attend this meeting. Mr. Swartzenberg stated that he will contact Mr. Sheppard for the next meeting.

The next meeting is scheduled for December 9, 1997 at 1900 hours. Mr. Senus will reserve the library for this time and date.

*Operable Unit Update*  
*May to September 1997*

OU No. 1 (Sites 21, 24, and 78)

- Conducted third quarterly monitoring event at Sites 24 and 78 in July 1997.
- Installed series of temporary shallow wells at Site 78 to assist in plume delineation.
- Data evaluation now being completed along with report.
- Report submittal date has been modified to be two months after the end of quarter.
- New submittal date allows for the incorporation of treatment system data.
- Recommendation the monitoring at Site 24 be discontinued due to absence of contamination in three consecutive quarters of sampling.

OU No. 2 (Sites 6, 9, and 82)

- Conducted initial quarterly monitoring at Sites 6 and 82 in July.
- All wells were redeveloped prior to sampling.
- Data evaluation now being completed along with report.
- Report will be submitted two months after end of quarter to allow for treatment plant data to be incorporated.
- Recommendations will probably not be presented in this report

OU No. 4 (Sites 41 and 74)

- Semiannual monitoring at both sites was completed in July-August time frame.
- Camp Lejeune received a letter from the NCDEHNR Regional office in Wilmington stating that based on additional data the surface water variance and groundwater reclassification requests were no longer required for Site 41.

OU No. 5 (Site 2)

- Semiannual monitoring report submitted on June 20, 1997.
- Next semiannual sampling period will begin in October 1997.

OU No. 6 (Sites 36, 43, 44, 54, and 86)

- At the request of NC DEHNR additional monitoring wells were installed at Sites 36, 54 and 86. This activity took place in July 1997.
- Groundwater results for the new wells at Site 86 indicate the highest levels of volatile contamination to date.
- An additional well was installed at Site 86 the week of 9/15 to assist in defining the plume limits.

OU No. 7 (Sites 1, 28, and 30)

- Semiannual groundwater monitoring was completed at Sites 1 and 28 in July 1997.
- The semiannual monitoring report will be submitted in November.

OU No. 9 (Sites 65 and 73)

- Response to comments for Site 73 RI will be submitted this week.
- Final RI will be submitted at the end of October 1997.
- Draft FS submitted early November if all comments received



OU No. 10 (Site 35)

- Final Interim Air Sparging Design submitted in August 1997
- Baker preparing Work Plans for Groundwater Monitoring Program
- Final Supplemental Groundwater Investigation Report submittal in early November 1997 provided all regulatory comments are received

OU No. 11 (Sites 7 and 80)

- A Final "No Action" ROD was signed by MCB Camp Lejeune on August 21, 1997.

OU No. 12 (Site 3)

- The draft 60% Design for the Creosote Biocell construction was submitted in August 1997 and is under review.
- The second of two baseline monitorings in support of the long-term monitoring was completed in July 1997.
- A report of the findings will be submitted on September 30, 1997.
- A draft work plan for the long-term monitoring will be developed, RI and baseline results will be used to determine wells to be sampled and parameters to be analyzed.
- Long-term monitoring is scheduled to be conducted in January 1998 on a semiannual basis.

OU No. 14 (Site 69)

- The inwell UVB system (deeper aquifer) was relocated and upgraded in July 1997
- The treatability study will be concluded by mid-October 1997
- Findings to date indicate that the KGB (shallow aquifer) system is unsuccessful; however, relocation of the UVB system has indicated improved efficiency

OU No. 15 (Site 88)

- Working with Naval Facilities Engineering Service Center to conduct test on new remediation technology.
- Initial tests were conducted in August 1997 to determine if this site was a good candidate to use for technology.
- Initial tests have indicated positive findings. The next step in this evaluation will take place in November 1997 and will consist of a groundwater dye tracer study.
- This technology is being tested to remove the Dense Non Aqueous Phase Liquid (DNAPL).

OU No. 16 (Sites 89 and 93)

- The Draft RI documenting findings from the Phase I and Phase II investigation is being prepared. Report is due on October 6, 1997.
- First report using ArcView software for the figure presentation.

OU No. 17 (Sites 90, 91, and 92)

- The Draft Focused RI Report was submitted in early August 1997.
- Based on findings from the Phase I investigation it is anticipated that 'no further action' will be required at these sites.
- The draft 'No Action' PRAP and ROD will be prepared if regulators concur with findings presented in the report.