Restoration Advisory Board (RAB) Meeting
Recreation Center
U.S. Army Soldier Systems Center
November 6, 2003
Meeting Minutes

I. Attendance

RAB Members Present

Robert Campbell	Massachusetts Department of Environmental Protection (MADEP)
Dr. Charles Czeisler	Community Member
James Fitzgerald	Community Member
Marco Kaltofen, Co-Chair	Community Member
Stephen Lubic	Representative Natick Board of Selectmen
John McHugh	Restoration Officer, U.S. Army Soldier Systems Center (SSC)
Elizabeth McCoy	Employee Member, Natick Soldier Center
Kelly McQueeney	Community Member
A. Richard Miller	Community Member
Leo Pessin	Community Member
Dr. Harlee Strauss	Community Member
Christine Williams	U.S. Environmental Protection Agency (EPA)

RAB Members Absent

Joel McCassie, Co-Chair	Environmental, Safety, and Health Office (ESHO), U.S. Army SSC
Lisa M. Allen	Representative of Natick Board of Selectmen
Anthony Doheny	Community Member
Sidney Gantman	Community Member
Marilyn Lourandos	Community Member
James Straub	Department of Environmental Management (DEM), Lakes & Ponds
Dr. Kannan Vembu	Representative of Natick Board of Selectmen

(Ms. Winters resigned at the May 1, 2003 meeting)

Others in Attendance

James Connolly	ESHO, SSC
Anne Marie Desmarais	Environmental Insight
Nicholas Given	Recorder, Peg Peterson & Associates
Stacy Greendlinger	U.S. EPA
Erin Healy	Environmental Consultant, ICF Consulting
Kevin Palaia	Environmental Consultant, ICF Consulting
Jeff Pickett	Environmental Consultant, Harding ESE/Mactec
Harold Prebensen	ESHO, SSC
Steve Reichenbacher	Environmental Consultant, ICF Consulting
Rod Rustad	Environmental Consultant, Harding ESE/Mactec
Kathleen Thrun	Environmental Consultant, ICF Consulting

II. Handouts

1) T-25 Area Treatment System Operations & Maintenance Update

2) New Off-Site Monitoring Wells, T-25 Area Operable Unit

3) Building 14 and Former Building 13 Site Investigation Update

4) Status Update of Current Restoration Project

5) Update of North Campus Drainage Project

III. Meeting Minutes

The meeting was called to order at 7:15 pm.

Mr. McHugh was to act as co-chair in Mr. McCassie's absence.

Mr. McHugh asked if there were any changes to the minutes from the June 19, 2003 RAB meeting.

The minutes were accepted without amendments.

General Comments
Mr. McHugh stated that he had a continued hearing with Conservation Committee at 8:20 pm tonight regarding the North Campus Drainage Project, and that any RAB members were welcome to attend. He stated that Mr. Prebensen would provide a briefing on this project at the end of the RAB meeting and added that the North Campus Drainage Project would entail the pipe-jacking scenario he presented to the RAB during the June 2003 meeting.

Mr. Pessin mentioned a story in the local newspaper that evening which discussed the $10 million grant awarded to the Natick SBCCOM for a new thermal test facility.

Mr. McHugh did not know the exact location of the proposed new facility.

Mr. McHugh introduced Erin Healy of ICF Consulting to present the status update of the T-25 Area Treatment System Operations and Maintenance.

T-25 Area Treatment System Operations & Maintenance Update.

Ms. Healy introduced Steve Reichenbacher, the System Operator.

Ms. Healy stated that system has treated over 140 million gallons of groundwater since its inception in November 1997. So far, approximately 72 pounds of PCE and TCE have been removed from the aquifer. She added that based on an assessment of the aquifer in 1998, and a groundwater model estimate of the contaminant mass at that time; they estimate that they have removed approximately 78-percent of the contaminants.

Three new extraction wells have been added and went online in April 2003, along with a new remote access monitoring system.

Ms. Healy presented a site map, which indicated the locations of extraction wells. She noted the location of MW-90B, an existing extraction well in the middle of the T-25 Area. She explained that MW-15B was taken offline. The three new extraction wells installed were MW-94B, MW-95B, and MW-96B.

Ms. Healy provided a brief summary of the system's performance, prior to the installation of the new wells in April 2003. She presented PCE contours from data collected in March 1997, noting that the red color indicated a concentration of greater than 300 micrograms per liter. She then showed a second map from May 2000, which indicated a reduction of PCE concentration to less than 300 micrograms per liter. She stated that by June 2001, the contours showed blue, which indicated up to 25 micrograms per liter and that in June 2002, the contours were the same, but showed a decreased concentration of PCE.

Ms. Healy showed a similar display sequence for TCE. She showed a map of the area in 1997, which had over 300 micrograms per liter. In May 2000, the concentration of TCE in the same area was significantly decreased. In June 2001, the concentrations were further decreased, and in June 2002, there was no indication of any reading above 200 micrograms per liter.

Mr. Reichenbacher added the first map in the upper left-hand corner of the display was done prior to the treatment system starting up.

Ms. Healy stated that currently four extraction wells were operating with a combined rate of up to 110 gpm. She stated that the pumping rates were as expected based on previous modeling, with the exception of MW-96B, which had not been pumping at the expected rate of 20 gpm. She added that the locations of the new extraction wells were based on a groundwater model presentation given to the board during a previous meeting.

Ms. Healy presented two maps of groundwater contours: one of the A-interval, which is the water table, and one of the B-interval, which is the lower section of the aquifer. The map of the A-interval indicated that pumping by the extraction wells was not impacting groundwater flow in the upper aquifer. She added that the extraction wells drew from the lower aquifer containing the contaminants within the T-25 Area. The capture zone has increased because the new extraction wells draw from a broader area.

Dr. Strauss asked if the contour lines represented the zone of capture.

Ms. Healy stated that the capture zone extended to the north, south and west. She stated that the capture zone went as far as the curve to the west.

Dr. Strauss asked for clarification on the capture zone.

Ms. Healy stated that the capture zone extended to any water flowing towards the extraction wells, and Ms. Healy indicated the extent of the capture zone on the map.

Ms. Healy presented a series of graphics indicating PCE and TCE concentrations being extracted from the wells.

Mr. Kaltofen asked if there was a rational for TCE concentrations dropping slower than PCE.

Mr. Palaia stated that the primary reason for the difference in concentration reduction was that the

TCE plume was more extensive than the PCE plume.

Mr. Kaltofen asked if TCE was more water-soluble.

Mr. Palaia stated that TCE was more water soluble, and had a greater tendency to migrate farther.

Ms. Healy then presented graphs of PCE and TCE concentrations from the new extraction wells. She stated they had not found any concentrations of PCE and TCE that were above the detection level at MW-94B. At MW-95B, TCE was detected at or slightly above the MCL of 5 micrograms per liter, and PCE was not detected. At MW-96B, the new extraction well with a lower yield than expected, still showed good contaminant removal. PCE concentrations decreased from 120 micrograms per liter to 50 micrograms per liter since April 2003, and TCE concentrations decreased from 30 to 25 micrograms per liter in well MW-96B.

Mr. Kaltofen asked if MW-96B had been operating continuously at a low rate.

Mr. Reichenbacher stated that it was continuously running and that they were continuing work on the well, hoping to increase the yield.

Dr. Czeisler asked how this might be accomplished.

Mr. Reichenbacher stated that they would remove silt from the well screen to allow the well to draw in more water.

Mr. McHugh added that MW-96B had a greater tendency to accumulate silt.

Mr. Reichenbacher added that the aquifer materials were tight in the area.

Ms. Healy presented the total cumulative mass of PCE and TCE removed versus gallons pumped. The system currently contains contaminated ground water within the T-25 Area. She stated that the data available from the new extraction wells indicate that they are helping to contain the plume. She stated that contaminant concentrations continue to decrease, even with the lower yield of MW-96B, which still has a high degree of contaminant removal. In addition, preliminary quarterly groundwater monitoring data indicate a reduction in the concentrations of PCE and TCE in the T-25 Area since the start-up of the new extraction wells. She added that these data were still preliminary, and have not yet been validated.

Ms. Healy concluded and asked for questions.

Mr. Kaltofen asked about the low yield and high contaminant retrieval rates of the MW-96B well and asked if there was a relationship between those numbers and the unusual plume patterns they had seen earlier for that particular area.

Mr. Palaia stated that there was a lobe of the contaminant plume to the southeast, which was primarily PCE. He stated that MW-96B was placed close to the center of that lobe, because the groundwater model had indicated that this lobe was increasing the duration of the clean up process. Installing the new extraction well in this location may help to alleviate the concentrations in the area faster.

Mr. Kaltofen asked if they had considered increasing the sampling frequency for MW-96B since it was so different than the others.

Mr. Palaia stated that they had not considered increasing the sampling frequency because they were on a monthly schedule.

Mr. Reichenbacher stated that they had originally sampled the new extraction wells daily, then every other day, then weekly, but were now on a monthly schedule.

Dr. Czeisler asked if the numbers generated by the MW-96B well would change the plume model predictions.

Ms. Healy stated that it would likely affect the plume model predictions.

Dr. Czeisler asked if it would be useful to include data from the extraction wells in the model and on the maps.

Ms Healy stated that the extraction well data would be included on the maps.

Mr. McHugh stated that they periodically input new data into the model and over the next six months, this data would be incorporated.

Ms. McQueeney asked if there were any plans to conduct some in-situ polishing now that they were showing diminishing returns.

Ms Healy stated that there were no set plans as of yet, but that they would continue to monitor and evaluate the new extraction wells to check their performance, and augmenting if and when necessary.

Mr. Kaltofen asked if this was a 5-year review period.

Ms. Healy stated that it was not.

Mr. Reichenbacher stated that they evaluate new remedial technologies every year.

Mr. Kaltofen clarified that he was wondering more so about major changes.

Dr. Czeisler asked about the plume, which appeared to be off site, outside the property line.

Ms. Healy stated that the groundwater contour map did not have complete hydraulic control to the north.

Dr. Czeisler asked if any consideration had been made to piping in an extraction well from that area.

Mr. Reichenbacher stated that they were hoping that well MW-95B would begin to draw from that area. He added that they had also put in a four-inch monitoring well in that area to further characterize the plume.

Ms. Healy stated that the groundwater elevation data indicated that water may be recovered by the extraction well MW-95B.

Dr. Czeisler asked if the water was being pulled in part by the millions of gallons extracted.

Mr. McHugh stated the general groundwater gradient went towards the northwest. Mr. McHugh stated that they did not have the data for a synoptic round of level of measurements, but that they would conduct one soon.

Mr. Palaia stated that the off-site monitoring wells were just installed at the beginning of October 2003 and that they'd be sampled within the next couple of weeks.

Dr. Czeisler asked if it was possible to install a pipe connection while the plume was as close as it was, before it moves further away.

Mr. McHugh stated that it would be possible, but that the priority would be to get the data from the four new wells installed, see trends from that data, develop the model, and determine whether and where the well would go, if necessary.

Dr. Czeisler suggested that even one year of pumping would provide great help.

Mr. Kaltofen asked about extraction well MW-95B and the well located at Fisher Street. He asked if they both were both screened in the B interval of the aquifer.

Ms. Healy confirmed this.

Mr. Kaltofen asked if they were expecting rising levels of concentration being extracted from MW-95B over time. He asked if it were the case that MW-95B did not show rising concentrations, then they would rethink their strategy.

Ms. Healy stated that they would continue to monitor MW-95B for concentration levels.

Mr. Kaltofen asked if the Fisher Street well concentration continued to show constant levels, and that MW-95B shows no increase, whether or not that would be an indicator that they were not capturing all of the contaminated area.

Ms. Healy stated that there were a number of lines of information that they could examine, and that Mr. Palaia's presentation might shed light on the matter.

Mr. Kaltofen wanted to clarify that the wells were screened all within a few feet of each other in the B-interval. He stated that the fact that there appeared to be a separate bulb of contamination is a possibility, not merely an artifact of having the wells screened separately.

Ms. Healy confirmed this.

Mr. Kaltofen asked Mr. Palaia about the wells sampled the week before.

Mr. Palaia stated that they had finished developing the monitoring wells, but they have not been sampled yet.

Mr. McHugh stressed that it was important for the board to consider that there were three new extraction wells, and four new monitoring wells installed, and they need all that data to come in before making any conclusions. He stated that this would make a great deal of difference, even in the groundwater contours.

New Off-Site Monitoring Wells T-25 Area Operable Unit.

Mr. Palaia stated that as part of the T-25 Area Record of Decision signed in 2001, the Army committed to installing additional wells to monitor the progress of the treatment system. He stated that the new wells installed were to satisfy this requirement. The groundwater model was developed primarily to estimate the optimum location for new monitoring wells. He added that a number of plume simulations were conducted using the modeled current extraction well network to locate these new wells.

Mr. Palaia stated that the off-site monitoring wells were completed over the past couple of months, in a series of steps. They contacted Dig Safe and conducted a geological survey in order to clear each proposed drilling location of underground utilities. The next phase was groundwater field screening at each of the proposed locations in order to gather quick data on the vertical distribution of PCE and TCE to better define the locations of the well screens and the depths of the wells. This was accomplished with small-diameter wells for groundwater sampling. The third phase was to install the permanent wells.

Mr. Palaia then discussed the field screening procedures. First they installed three small-diameter wells on Arcadia Road and one on Fisher Street. At each location, they collected successive samples from the water table to depths up to 140 feet. He stated that at every 10-foot interval, they collected a sample, in order to obtain an accurate idea of the vertical distribution of PCE and TCE. Each of the samples collected were submitted to the field gas chromatograph (GC) for analysis for PCE, TCE, and their respective breakdown products. In addition, they collected data on dissolved oxygen, temperature, conductivity, turbidity, and other geochemical indicators to provide insight as to whether natural attenuation may be occurring in particular zones of the aquifer. In addition to the field GC analysis, they selected a subset of the samples to send off to an off-site laboratory for confirmatory analysis.

Mr. Palaia indicated the locations of these four small-diameter wells on map.

Dr. Czeisler asked if the blue stars represented existing wells.

Mr. Palaia confirmed that the blue stars represented existing monitoring wells.

Dr. Czeisler asked about one the new well at the end of Arcadia Road.

Mr. Palaia stated that the intent for that well was to go deeper and screen the zone below the existing well.

Mr. Palaia stated that the purpose of the field screening was to identify the highest concentrations for permanent well installation.

Mr. Palaia located EB-202C at the end of Arcadia Road. He stated that the TCE concentrations in the field-screening samples were less than 2.5 ug/L, and they did not detect any PCE in this small-diameter well. The highest concentrations of TCE were in the range of 80 to 111 feet deep, and there were non-detects below 111 feet deep.

Mr. Palaia indicated that the samples taken from the other two small-diameter wells on Arcadia Road had concentrations of TCE less than 4.5 ug/L and that no PCE was detected.

Mr. Campbell wanted to clarify that field-screening analysis was performed on site, and analyzed the same day the sample was collected.

Mr. Palaia confirmed this and added that samples were generally analyzed within hours after they were collected. He added that those field-screening samples that had the highest concentrations were also submitted to an off site laboratory for 24-hour turnaround time.

Mr. Kaltofen stated that the data was hard to visualize because of the elevations.

Mr. Palaia stated that they would be generating a report describing the results of the field screening, including tables on the depth and elevations. He added that they would include some graphics with cross-sections to help make this data more clear.

Mr. Palaia stated that they had detected PCE and TCE at the Fisher Street small-diameter well, EB-211B. He added that they only detected PCE and TCE at depths between 60 and 70 feet, and not above 60 feet or below 70 feet. The TCE concentration found at the 60 to 70 foot interval was 13 ug/L and the PCE concentration at this interval was 14 ug/L.

Dr. Strauss asked about the geology of the area.

Mr. Palaia stated that the upper layers were coarser to medium sands. He stated that the 60 to 70 feet zone, it changed to finer sand and silts. He stated that there was not a well-defined contact, but there was a gradual change in geology.

Mr. Kaltofen referenced the PCE plume maps from 1997 to 2002 from Ms. Healy's presentation. He asked about the 2002 map. He stated that the 14 ug/L was higher than any number on the graphic. He asked about the re-draw based on this data.

Mr. Palaia stated that they would re-draw the maps based on the results from the new permanent well, when those new data are available.

Mr. Kaltofen stated that he was concerned that they were not catching all the data vertically because TCE concentrations were found in a thin isolated area.

Mr. Palaia stated that in the Phase 1 and 2 remedial investigations, they had conducted vertical profiling at most of the installed wells. He stated that the wells were screened in the most contaminated zones, based on this profiling.

Mr. Kaltofen stated that the percentage of the total plume mass was a number he felt had a high margin of error.

Mr. Palaia stated that when the model is updated, they would go back and re-estimate the plume mass based on the newly available data.

Mr. Kaltofen clarified that the use of this statistic had a large margin of error. He expressed concern that these numbers may misrepresent progress to someone unfamiliar with the clean up effort.

Mr. Palaia stated that the cleanup was based on the contaminant concentrations at the monitoring wells and not an estimate of the contaminant mass.

Mr. Kaltofen stated that he did not believe such a number should be included in the presentation. He then asked if the board would accept being above the MCLs outside the range of MW-95B.

Ms. Williams stated that they did not have all the information to answer those questions, at this point.

Mr. Kaltofen stated that his question had to do with policy - whether or not it was acceptable to leave an area above the MCLs.

Mr. Campbell stated that in some instances, the answer would be yes.

Dr. Strauss clarified that this would be unacceptable for a drinking water zone. She asked Mr. Campbell if he was suggesting that it would be acceptable to have drinking water zones above the MCL.

Mr. Campbell stated that he was not suggesting this, and that he was only trying to clarify clean-up goals. He asked that if only one out of 100 data points read above the MCL, if that indicated the clean-up effort was completed.

Mr. Kaltofen stated that it would depend on the location of the one well that was above the MCL.

Mr. Campbell noted that this was a point worthy of discussion.

Mr. Palaia stated that based on the field-screening results, the Army installed four new monitoring wells. One A-interval well was installed on Fisher Street, which was another specification from the ROD that required a shallow water table well downgradient of the site to confirm that the shallow water table aquifer was generally not contaminated and to conduct an indoor vapor intrusion analysis. He stated that they had screened this well from 33 to 43 feet below ground surface, and that the new B-interval well on Fisher Street (MW-211B) was screened at 60 to 72 feet. He stated that they had installed two C-interval wells on Arcadia Road. The first, MW-202C was a couplet with the existing well MW-202B, which was screened from 86 to 106 feet below ground surface. The existing MW-202B is screened from 60 to 80 feet bgs. The second well on Arcadia Road (MW-212C) was screened at a similar zone.

Mr. Palaia noted that they had just finished developing these wells over the past few weeks and that sampling would begin in early December. The contaminant concentration data from these new permanent wells would help with monitoring the system over time, and aid in the clean-up process.

Dr. Strauss asked if they had done field screening for the A-interval well.

Mr. Palaia stated that they had not field screened the A-interval well because it is a water table well, and that there was no question of where to place the screen.

Dr. Strauss asked if they had done screening for soils.

Mr. Palaia noted that they had done headspace screening for soils using a handheld photo-ionization detector.

Dr. Strauss asked if there was any indication of VOC.

Mr. Palaia stated that there was no indication of VOCs in the soil from the interval of the wells screens.

Mr. Kaltofen asked if they would have the new monitoring well data for the proposed February meeting.

Mr. Palaia stated that this was the intention, but data from the quarterly groundwater samples from other wells may not be available. He added that they should be able to expedite the data from the new monitoring wells by February.

Building 14 and Former Building 13 Site Investigation Update.

Mr. Palaia then provided a brief update on Building 14 and former Building 13 Site Investigation. He stated that Building 13 and 14 were located in the southwest corner of the T-25 Area. Building 14 was built in 1954 and was used as a vehicle maintenance garage, and included metal parts washing, vehicle refueling, and other activities. Its current use is similar. He stated that Building 13 was a former classified paper incinerator, which was closed in 1985, and that the incinerator was removed in the 1990's.

Mr. Kaltofen asked about the Building 14 rodent control.

Mr. Palaia stated that the rodent control was similar to the other buildings on campus.

Mr. Palaia noted that there was quite a bit of work done on this area from previous investigations. In the late 1980's and early 90's, an extensive soil/gas survey was conducted. These results indicated that there were elevated BTEX levels in the soil gas. Mr. Palaia indicated that there was an underground storage tank, a vehicle fueling station, and an oil/water separator in this area.

Mr. Pessin asked if this was recent.

Mr. Palaia stated that he believed that the vehicle fueling station was removed in the late 80's or early 90's.

Mr. Palaia stated that in the early 90's, a utility excavation was performed at the southeast corner of Building 14. He stated that there were elevated petroleum hydrocarbons in the area, which were related to the oil/water separator. As part of a 1998/99 facility-wide oil/water separator installation program, a new oil/water separator was installed to the north of Building 14. He stated that during the excavation for that area they noticed elevated PAH's and BTEX.

Mr. Palaia stated that they have been performing quarterly groundwater monitoring at this site since 1990, and there are four permanent monitoring wells in the Building 13 and 14 area (MW-3, MW-3B, MW-12A, and MW-51B) that have been sampled for over 10 years. He stated that there was some MTBE found in the shallow water table wells, and the B-interval data indicated elevated PCE and TCE concentrations. The focus of the Building 13 and 14 SI is the water table aquifer because the aquifer in the B-interval is contained by the existing treatment system for the T-25 Area.

Mr. Palaia stated that the field investigation for the SI was performed in the spring of 2003. They conducted a geophysical survey using ground-penetrating radar to clear proposed drill locations and identify underground utilities and structures. During the field investigation they advanced 18 soil borings in the area using a direct push or geo-probe technique. As a result, 35 subsurface

soils samples were collected, as well as 16 groundwater-screening samples. Eighteen surface soil samples were also collected within six inches of the surface to support potential human and ecological risk assessments. He stated that they had conducted a location and elevation survey of all locations.

Mr. Kaltofen asked about the depth of the surface soil samples.

Mr. Palaia stated that they ranged from 0 to 6 inches deep. He stated that some subsurface samples were collected at 3 to 3.5 foot depths also.

Mr. Palaia noted that all soils and groundwater samples were analyzed for VOCs, SVOCs, pesticides, PCBs, metals, VPH, EPH.

Mr. Palaia added that all soil and groundwater samples have gone through EPA Region 1 Tier 2 and 3 validations. He stated that the Tier 3 was performed on a subset of 10% of the samples and all the data was entered into a database. The next step was the preparation of the SI report, which would discuss the methods and conclusions of the SI with recommendations for the next steps. The SI was expected to be completed in early 2004. He added that the draft was currently in progress.

Mr. Pessin asked that when copies of these documents are submitted to the library that they have all acronyms spelled out for the public. He also requested that illustrations, which were included in the presentations, be submitted in color for the public.

Status Update of the Current Restoration Project

Mr. Pickett stated that he would be going through each of the sites that they are currently working on.

Mr. Pickett stated that the RAB had previously seen a presentation last spring with regards to the results of the RI for Buildings 22 and 36. There was a plume that extended down to the Boiler Cove area. He added that Building 22 was a cinder block garage and that Building 36 was a food science lab composed of two separate structures. He stated that the draft and draft final RI, with the response to comment letter had been submitted to the EPA. He stated that the EPA had responded with additional comments and that they were in the process of updating and revising the document. He stated that later this month, they would resubmit the document.

Mr. Pickett stated that they were in progress with the feasibility study and they were hoping that this document would generate some alternatives for cleaning up the plume at Buildings 22 and 36.

Ms. Greendlinger asked about the acronym RCL.

Mr. Pickett stated that this was a Response to Comment Letter.

Mr. Kaltofen asked which future RAB meeting they would have the document ready.

Mr. Pickett predicted June 2004.

Mr. Pickett then presented on the Buildings 2 and 45 site. He located Building 2, a climatic chamber on the display, and located Building 45 to the west of Building 2. He stated that they

were planning on conducting a site investigation for these buildings. He stated that there were changes made to the work plan based on EPA recommendations. These recommendations included installing additional monitoring wells. He stated that the EPA also requested a lower level VOC analysis to address the preliminary remediation goals. The EPA asked for additional surface and subsurface soil samples, and a full suite of analyses.

Dr. Strauss asked if lower VOC levels meant lower detection levels.

Mr. Pickett confirmed that this was the case.

Mr. Rustad added that there were copies available of the Buildings 2 and 45 Work Plan.

Mr. Pickett presented on Study Area 2. He stated that this was near the tennis court in the T-25 Area. He stated that the SA2 site was formerly a waste oil tank site.

Mr. Kaltofen asked where the chlordane removal was.

Mr. Rustad located the area on the map and indicated that the SA2 site was adjacent to the removal area.

Mr. Pickett stated that SA2 was a 1000-gallon oil tank that was removed sometime around 1991. He stated that they are currently working on the draft work plan. He added that they were in contact with the Army Corps of Engineers, they have contacted the contractor from that removal action, and they are also looking through SSC files to see if there is any information there.

Mr. Kaltofen suggested that the Board of Health might be in possession of some of those records.

Dr. Strauss stated that the fire department might have records as well.

Mr. Pessin stated that the government should have copies of those records.

Mr. Pickett stated that the Army Corps of Engineers was responsible for those records. He added that he would take into consideration the suggestions from the RAB members on obtaining records.

Mr. Kaltofen asked if the sidewalls from the chlordane removal would be included in the study area as well.

Mr. Pickett stated that they did not do the chlordane removal. He added that Weston had done the work and that the Army Corps of Engineers had done the contracting.

Mr. Pickett presented on Buildings 62 and 68. He added that they were in possession of the draft work plan for these buildings and that they were available to RAB members. He stated that these two buildings were 20-foot by 20-foot, with corrugated metals sides and concrete floors. He added that both these structures used to house hazardous materials and possibly oils.

Mr. Pickett noted that part of the draft work plan included surface soil sampling for the SI, and sampling of the concrete floors within the building. The work would not be done until they received approval from the EPA.

Mr. Pickett provided the board with a brief update on the quarterly monitoring program. He stated that Events 31 and 32 were submitted to the agencies and they have received comments; Event 33 was in a draft report for the Army's review; Event 34 was in draft report to be sent to SSC for Army review in December; and Event 35 data needed to be validated.

Mr. Pickett stated that Event 36 was going to begin early in December, and that they still needed to put dedicated pumps into the four new monitoring wells, which would be completed in the next few weeks.

Mr. Pickett noted that the facility had done a fairly substantial soil removal action at the gym site. He showed pictures of the removal to the RAB, including photos of the sheet piling. He explained that since the removal action, the EPA has requested that the facility install an additional well downgradient of the excavation and collect eight quarters of data from the new well. The data currently shows a reduction in BTEX. This new well would be installed late November or early December.

Update of North Campus Drainage Project

Mr. Prebensen then discussed the North Campus drainage project. He explained that they wanted to replace an existing storm water line that leads to the lake, expand the system to the north, and put additional catch basins in to help control run-off. He explained that they wanted to install an additional oil-water separator as well. He stated that at the time of the first presentation on the drainage project last June, they had not yet been awarded the grant to do so. He reviewed the number of methods presented by Mr. McHugh in June. He explained that the contract was awarded in September, and that the pipe-jacking method was selected for the proposed area up to Building 14.

Mr. Prebensen explained that they would be installing sheet metal pilings, and the intention was to drive the new storm water drain pipe in this direction into a receiving pit.

Mr. Prebensen stated that the Notice of Intent was filed in July, and that an environmental assessment was opened to a 30-day public comment period. No comments were received from the public, and a final finding of no significant impact was about to be published within the coming months, prior to construction. The meeting with the Conservation Commission had been extended and that Mr. McHugh was there this evening to present the erosion control plan from the contractor.

Mr. Prebensen stated that the current plans were to begin the construction of the pipe-jacking operation in December.

Public Comment Period

Mr. Miller stated that there had been a major change to the personnel at the Department of Conservation and Recreation. He noted that the Lake Cochituate State Park supervisor had retired, and he wanted the RAB members to be aware of the new faces at the Department of Conservation and Recreation because they receive invitations to these RAB meetings.

Mr. Kaltofen stated that the next proposed meeting dates were February, April, and June 2004 and that they were still scheduled for the first Thursday of these months.

Mr. Kaltofen also wanted to express his concern regarding the Treatment System Update presentation. He stated he was disappointed that the plume graphics presented were inconsistent with some of the data presented in the same section, particularly with the extraction wells. He stated that the plume graphics had a tendency to underestimate the size of the plume compared to the data presented as part of this update.

Mr. Palaia stated that the plume maps presented were from quarterly sampling events prior to the installation of the extraction wells. The extraction well graphs are the data of the extraction wells. He stated that the plume graphics were accurate as presented.

Mr. Kaltofen stated that they would be accurate as presented had the presenter identified that inconsistency.

Mr. Palaia stated that the presenter had pointed out that the extraction wells had been installed in April 2003, and that the plume maps were clearly labeled by their respective dates. Mr. Palaia stated that the graphics were accurate as presented.

Mr. Miller stated that he believed that both statements were correct. He noted that his concern was that the public might not be able to differentiate this information without clarification. He stated that this information should be clarified prior to going to public record.

Mr. Kaltofen noted that the presentation had the effect of minimizing the area of contamination. He stated that this was not what he expected from presenters.

The meeting was adjourned at 8:45 pm.

Action Items

1) Mr. Kaltofen referenced the PCE plume maps from 1997 to 2002 from Ms. Healy's presentation. He asked about the 2002 map. He stated that the 14 ug/L was higher than any number on the graphic. He asked about the re-draw based on this data.

Mr. Palaia stated that they would re-draw the maps based on the results from the new permanent well, when those new data are available.

2) Mr. Pessin stated that as documents go to public record, that they contain colored graphics for clarity, and that all acronyms are spelled out.