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Meeting Minutes

Meeting Subject: Former Norwalk Tank Farm Restoration Advisory Board (RAB) Semiannual Meeting	Meeting Date: <u>09 February 2012</u> Meeting Time: 5:00 p.m. Meeting Place: Norwalk Arts & Sports Complex
RAB, PROJECT TEAM, AND OTHER ATTENDEES	
<u>RAB Community Members</u> B. Hoskins M. McIntosh (Co-Chair) T. Winkler	<u>Other Members</u> P. Cho (RWQCB) S. Defibaugh (KMEP) (Co-Chair, Meeting Chair) C. Emig (City of Cerritos) A. Figueroa (City of Norwalk) E. Ferguson (WRD) Lt Col Gaffney (DLA Energy, Co-Chair)
<u>Other Attendees</u> C. Cota (Arenal) R. Hassan (Parsons) D. Jablonski (CH2M Hill) M. Lucas (Parsons) P. Ly (WRD) E. Reyes (Office of G. Napolitano) M. Young (DLA Energy) T. Whyte (URS) M. Wuttig (CH2M Hill)	<u>Acronyms:</u> CHHSLs California Human Health Screening Levels DLA Energy ... Defense Logistics Agency Energy (formerly DESC) DTSC Department of Toxic Substances Control GSA General Services Administration HHRA Human Health Risk Assessment KMEP Kinder Morgan Energy Partners LNAPL Light non-aqueous phase liquids MTBE Methyl tertiary-butyl ether NPDES National Pollutant Discharge Elimination System OCCS Offsite Chemicals Cleanup Subcommittee OEHHA Office of Environmental Health Hazard Assessment 1,2-DCA 1,2-dichloroethane RAB Restoration Advisory Board RBCA Risk-Based Corrective Action RWQCB Regional Water Quality Control Board SVE Soil Vapor Extraction TBA Tert-butyl Alcohol TPH Total petroleum hydrocarbons URS URS Corporation VOCs Volatile organic compounds WRD Water Replenishment District of Southern California
<u>Absentees</u> E. Garcia	
<u>BACKGROUND</u> DLA-AMW and KMEP are conducting environmental cleanup activities at the area in and surrounding the former Defense Fuel Support Point Norwalk, formerly known as the Tank Farm, located at 15306 Norwalk Boulevard, Norwalk, CA. The Restoration Advisory Board (RAB) is an advisory committee of local citizens and project members that reviews and comments documents relating to the environmental cleanup. All RAB meetings are open to the public and are scheduled semiannually on the second Thursday at 5:00 p.m. in the months of February and August unless otherwise voted on by the RAB community membership.	

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1. **Introduction** Steve Defibaugh, KMEP Co-Chair, Meeting Chair

Steve Defibaugh called the meeting to order at 5:09 p.m. He introduced Matt Young, the new project manager for the Defense Logistics Agency Energy (DLA Energy). He also introduced Everett Ferguson, the new RAB representative for the Water Replenishment District (WRD). Also in attendance was Phoung Ly from WRD.

Mr. Defibaugh asked for comments on the draft minutes from the August 11, 2011, RAB meeting. There were no comments and the minutes were approved as written.

Mary Jane McIntosh gave an overview of the Site Tour with the new Norwalk City Manager Mike Egan.

2. **Regulatory Agency Update** Paul Cho, Regional Water Quality Control Board

Paul Cho, the Regional Water Quality Control Board (RWQCB) Project Manager for the Norwalk site, said that the RWQCB has worked very well with DLA Energy and Kinder Morgan Energy Partners (KMEP) over the past six months. RWQCB has been working with KMEP on the southern offsite access issues. The access agreements should be completed soon. He said that RWQCB has received a remedial action plan addendum from DLA Energy with proposed soil cleanup goals. RWQCB will be reviewing the report and will respond with comments. Redwan Hassan of Parsons said that once RWQCB approves the report, DLA Energy can begin preparing a Remedial Action Plan (RAP) for soil. Mr. Cho said that there is no easy solution for LNAPL (light, non-aqueous phase liquids) cleanup. LNAPL is harder to remove, and there are no other closure cases to compare to – this will be the first site. RWQCB states that the groundwater should not be contaminated, but the cleanup goals are up to interpretation. Mr. Defibaugh said that KMEP has not submitted their proposed soil cleanup goals yet. Mr. Hassan said that their proposed cleanup goals are based on the proposed commercial and/or light industrial redevelopment of the site.

3. **KMEP Update** Mark Wuttig, CH2M HILL

Remediation Operations Update

Mark Wuttig reviewed KMEP's remediation objectives of contaminant mass containment and removal. Mr. Wuttig also reviewed KMEP's cleanup areas in the South-Central and Southeast areas and the remediation systems in place. He said the West Side Barrier system was shut down in August 2008, and he does not see a need to restart it at this time. Mr. Wuttig discussed the number of wells in each remediation system and the treatment and discharge of the systems.

Next Mr. Wuttig discussed operation and maintenance activities, which include weekly inspections and data collection, monthly pump inspections, measurement of individual well vapor concentrations, collection and analysis of influent and effluent vapor and groundwater samples, and gauging of select remediation wells.

Mr. Wuttig summarized KMEP's Soil Vapor Extraction (SVE) operations. In the third quarter of 2011, 929 gallons were treated. In the fourth quarter, 119 gallons were treated. Since KMEP's Second Addendum to the Revised RAP, 5,329 gallons have been treated. Since 1995, approximately 457,100 gallons (3 million pounds) have been treated. Mr. Wuttig displayed a soil vapor extraction graph showing a steep curve at the beginning but generally asymptotic during recent years

Regarding KMEP's Total Fluids Extraction/Groundwater Extraction (TFE/GWE) system, Mr. Wuttig said that in the third quarter of 2011, almost two million gallons of groundwater were extracted from the South-Central and Southeastern areas. In the fourth quarter, about one million gallons of groundwater were extracted. Total groundwater extracted since September 1995 is 64.4 million gallons which includes 26.9 million gallons from the West Side Barrier area. Mass of total petroleum hydrocarbons (TPH) removed in the groundwater extracted included 21 gallons in the third quarter of 2011 and 7 gallons in the fourth quarter. A total 242 gallons of TPH mass has been removed since implementation of the RAP Second Addendum.

Mr. Wuttig said that free product has generally decreased since implementing the Second Addendum. Any

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free product recovered is small and emulsified. A total of 8,917 gallons has been recovered since 1995. Mr. Wuttig then showed a graph of free product recovered over time.

Mr. Wuttig said that the SVE system was in operation 76 percent of the time in the third quarter of 2011 and 20 percent in the fourth quarter. The TFE/GWE system operated 68 percent of the time in the third quarter of 2011 and 58 percent of the time in the fourth quarter, or 67 percent excluding planned shutdowns for groundwater monitoring.

Mr. Wuttig said that the SVE system was down for groundwater monitoring activities; for routine maintenance activities; for draining water condensate from the manifold; for facilitating carbon changeouts for the groundwater treatment system (GWTS); for recalibration of the flow sensor; for cleaning of the flame arrestor for the SVE catalytic oxidizer; for replacement of the ultraviolet (UV) flame sensor and the Veri-flame controller; and for tracing and repair of the underground natural gas line that feeds SVE system. The TFE/GWE system was down for groundwater monitoring activities; for carbon changeouts; for transfer tank high level alarms; for bag filter changes; for bag filter housing cleaning; for oil water separator (OWS) cleaning; for OWS media replacement; and for plugging of polishing LGAC vessels. Mr. Defibaugh said that replacing the flame arrestor was a big job that required a crane. Sometimes it takes a while to diagnose problems, which contributes to the down time. KMEP took advantage of the down time to conduct other needed activities such as replacing control panel parts and installing an independent power source. Bag filter changes are required to reduce pressure in the system, and granular-activated carbon (GAC) changeouts are required to continue effective treatment.

Mr. Wuttig discussed recent SVE System (SVES) upgrades which included the replacement and recalibration of the flow sensor; replacement of the UV flame sensor and Veri-flame controller; provision of an independent power source for the digital chart recorder; and replacement of the digital chart recorder hard drive. TFE/GWE system upgrades included installation of an autodialer to inform technicians of a system shutdown; installation of a proportional controller at the influent to keep the influent flow similar to the influent flow to the TBA (tert-butyl alcohol) treatment system; replacement of the temporary fluidized bed bioreactor (FBBR) with a new permanent FBBR (part of the TBA treatment system); replacement of the 8,000-gallon equalization tank with a 3,000-gallon equalization tank; and replacement of the lead polishing LGAC vessel. Mr. Wuttig also briefly discussed remediation system maintenance activities performed in the period and said that they were similar to those activities conducted in the previous period.

KMEP plans to continue focusing remedial efforts on South-central and Southeastern areas, to complete repairs to southeastern area onsite conveyance piping, and to initiate extraction from wells GMW-SF-9 and GMW-SF-10. Mr. Wuttig showed a map of these two wells in the Southeastern area.

TBA Treatment System Update

Mr. Wuttig said that the TBA treatment system was installed in 2011 to address the TBA limits that were added to the new National Pollutant Discharge Elimination System (NPDES) permit finalized in June 2011. It was required because carbon was not effectively treating TBA. The new system is working as planned. TBA is not above the NPDES discharge limit (12 ug/L), which is the same discharge limit in DLA Energy's NPDES permit. Mr. Wuttig displayed a flow diagram of the system.

Additional Assessment Update

Mr. Wuttig stated that the access agreements are almost complete for the South-Central Residential Area Vapor Study. Field work should be completed next quarter. A report documenting the results of the Vertical Assessment of LNAPL in Soil study was submitted to the RWQCB in February 2012. Mr. Wuttig said that RWQCB found that vertical LNAPL assessments were helpful at other locations so they recommended it for this site. The objectives of the assessment were to further evaluate the vertical distribution of LNAPL in the uppermost groundwater zone; to evaluate the lithology of the uppermost groundwater zone; to confirm the presence of the Bellflower aquitard; to obtain additional information on the chemical composition of LNAPL; and to evaluate LNAPL distribution and mobility.

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The approach was to collect LNAPL samples from two wells and then apply the samples to the LIF tool to assess responsiveness, since hydrocarbons fluoresce under UV light. LIF is laser-induced fluorescence (LIF) using the Ultraviolet Optical Screening Tool (UVOST). This is a state of the art technology. They advanced a paired cone penetrometer testing/laser-induced fluorescence (CPT/LIF) tool via direct-push at five locations into the top of the Bellflower aquitard. The CPT was used to assess lithology, and the LIF was used to assess vertical LNAPL distribution. Mr. Wuttig showed a map of the five locations. Three were onsite and one was offsite in the South-Central area, and one was located in the Southeastern area. The samples were taken and then put on dry ice to preserve the liquid in them. The laboratory took photographs of the samples under white and UV lights. The results indicated that the hydrocarbons are not very mobile in the soil.

Mr. Wuttig next showed a figure displaying the lithology and the LIF data. He said the uppermost groundwater zone is about 50 feet thick, with the upper 30 feet more interbedded fine-grained and coarse-grained materials, and the bottom 20 feet more uniformly coarse-grained. The Bellflower aquitard was encountered at all five CPT/LIF locations. The LNAPL smear zone occurs near the recent October 2011 water table and capillary fringe. Depth to groundwater was approximately 25 to 28 feet below ground surface (bgs). Maximum smear zone thickness was 6.5 feet in the South-Central area, 2 feet in the Southern offsite area, and 10 feet in the Southeastern area. The two LNAPL samples were in the gasoline and diesel ranges as expected. Mr. Wuttig then showed and described three cross-section figures. The cross sections show the estimated smear zone. Mr. Defibaugh said that the smear zone shows the range of where the product has gone up and down over the years, not the product thickness. Mr. Wuttig said based on the results, air sparging is one option they will look at for treatment. This would include pumping oxygen below the smear zone. Air would rise into the smear zone where it could stimulate naturally occurring microbes which would eat the hydrocarbons. Mr. Wuttig also discussed LNAPL chemistry and said the results were similar to what was expected. Maximum LNAPL saturation was 12.6% in the South-Central area and 11.4% in the Southeastern area. There was not a clear arithmetic correlation between LIF UV fluorescence and LNAPL saturations. Mr. Wuttig showed a scatter plot that showed that generally the higher the LIF peak, the higher the laboratory-measured saturation.

Mr. Wuttig next discussed the evaluation of LNAPL mobility. The lack of LNAPL mobility indicates that the remaining LNAPL is primarily at residual saturation and not recoverable using the current TFE technology. This is supported by the lack of measurable LNAPL recovered since 2007. Most was recovered prior to 2000. There is some room for free product recovery in wells MW-SF-15, GMW-36, and GMW-O-15.

Five-Year Action Plan Progress Report

Mr. Wuttig said that the Second Addendum to the RAP was approved in 2007. Remediation system enhancements were completed in order to target a five year goal for closure, which originally was estimated at August 2012. The schedule was revised with a new estimated closure date of September 2013, which will likely not be met. Mr. Wuttig then provided a chart showing completed and future tasks. He said they are considering new technologies. Ms. McIntosh asked if KMEP had any budgets for this. Mr. Defibaugh said that there is budget for pilot testing this year. Mr. Cho said that we now know a feasible way of handling this problem. They are getting a lot of new information and it is matching the DLA Energy information.

3. DLA Energy AMW Update Redwan Hassan, Parsons

Remediation Operations Update

Redwan Hassan displayed a map of DLA Energy's remediation systems and described them. He then listed recently completed site activities including submittal of NPDES discharge monitoring reports (DMRs); submittal of remediation monthly status summary reports; sentry and semiannual groundwater monitoring (GWM); soil vapor monitoring; removal of one liter of free product from well GMW-62; and testing of on-site back-flow preventers.

Recent GWTS activities included GAC change-out on August 25, 2011, and January 12, 2012. From July 1, 2011, through December 31, 2011, the system was in continuous operation except for GAC change out from August 24 through August 26; for third quarter groundwater monitoring in July; for the semiannual

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monitoring in October; and for first quarter 2012 groundwater monitoring and GAC change-out from December 30, 2011, through January 16, 2012. The groundwater extraction system operated for 99.4 percent of time during the third quarter 2011 and for 98.8 percent during the fourth quarter (excluding planned downtimes). Ms. McIntosh requested the Mr. Hassan include the actual time operated in his report at the next RAB meeting.

Recent SVES activities included changing the blower oil, fiberglass repairs to suction lines, and troubleshooting and repairs on the thermocouple. The SVES operated for 82 percent of time during the third quarter 2011 and for 100 percent during the fourth quarter (excluding planned downtimes).

Mr. Hassan also said that they performed weekly inspections of the GWTS and the SVES during the previous quarter. They also conducted SVES and GWTS performance and compliance sampling during the third and fourth quarters of 2011 and during the first quarter of 2012. GAC change-outs were conducted in August and January.

Mr. Hassan said that almost two millions gallons of groundwater were extracted and treated in both the third and fourth quarters of 2011, and 58.8 million gallons have been extracted and treated since 1996. SVES fuel treated was 4.4 gallons of in the third quarter and 3.9 gallons in the fourth quarter of 2011. Some SVE areas were not active in this period due to the concrete demolition activities. Eastern area concentrations were very low. The bulk of the SVE extracted were from the horizontal wells. The SVE extraction numbers will increase after the demolition is complete. Mr. Hassan showed a graph of free product and SVE recovered. Most of the free product has been recovered, so now they are only using absorbent socks for removal.

Well GMW-62 and Golden West Well Updates

Mr. Hassan discussed gauging and recovery of well GMW-62. This well is located adjacent to the site in Holifield Park. The well contained 0.11 feet of product in July 2011, 0.94 feet of product in October 2011, and 0.03 feet of product in January 2012. One liter of free product was recovered from the well for testing in October 2011. A product recovery pump test was conducted in December 2011, and about one gallon of free product was recovered. The well will be gauged a minimum of once a week and if the measureable LNAPL reaches one foot, the product will be recovered using vacuum-truck extraction.

A product baildown test was conducted on December 14, 2011. A pneumatic skimming pump was used to remove the product to a sheen. Minimal recovery and minimal recharge was observed. The combination of water level changes, minimal recovery, and data variability make calculation of LNAPL transmissivity dubious, but it is assumed to be very low. Mr. Hassan also showed a hydrograph and concentration trends of this well.

Regarding the Golden West Well, Mr. Hassan said that based on information from Thrifty Oil provided by Paul Cho, Well P0-7 was gauged in the past and no impacts were found to have migrated from the Golden West Refinery (located approximately 1.5 miles away).

Concrete Demolition Update

Mr. Hassan said that the concrete demolition project is 95 percent complete. Concrete has been removed from all former tank areas and portions of the truck fill station and pump house areas. Approximately 7,900 tons of concrete have been shipped for recycling. The steel tank pads have been shipped for recycling. Approximately 2,600 feet of transfer fuel lines have been removed and shipped for recycling. Approximately 2,400 feet of steel storm drain piping have been removed and shipped for recycling. Approximately 6,600 feet of fire water/fuel lines have been removed and shipped for recycling. Approximately 85 tons of contaminated soil have been disposed to a certified treatment facility. Approximately 1,000 feet of miscellaneous piping from the former truck fueling area have been removed and shipped for recycling. October 7, 2011, was the last day of concrete demolition due to the discovery of asbestos containing material (ACM).

Soil confirmation sampling was conducted in the areas of the former tank bottoms from October 31 through November 16, 2011. There were 102 sampling locations. Sampling will resume after all ACM and concrete

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have been removed. Mr. Hassan said they are still reviewing the data from the laboratory results. They sampled every two feet down to 25 feet bgs. There were four locations per tank area. The water tank and the slop tank areas appear to be the most impacted. They will review the new and historical data and then prepare a report with a plan to address these areas. Mr. Hassan then showed three updated site photos.

Sampling was conducted on pipes with possible ACM in July and December 2011. An Air Quality Management District (AQMD) Procedure 5 notification was submitted on January 31, 2012. ACM abatement is scheduled to begin on February 13, 2012, and will include the following materials and quantities:

- 12-inch fuel transfer pipes - approximately 1,025 linear feet (LF)
- 10-inch fuel transfer pipes - approximately 650 LF
- 8-inch fuel transfer pipes - approximately 200 LF
- 2-inch miscellaneous pipes - unidentified length, near surface (where encountered)
- 16-inch storm drain transite pipes - approximately 825 LF
- 12-inch storm drain transite pipes - approximately 1,020 LF
- 10-inch water main transite pipes - approximately 1760 LF
- 6-inch fire water suppression system pipe - approximately 8,000 LF
- 6-inch fire water suppression system transite pipes - approximately 900 LF

Additional Assessment Update

Mr. Hassan said that a second free product investigation report was submitted on January 12, 2012. Investigation activities included drilling and deep soil sampling at two locations, analytical and forensic analysis of hydrocarbons, and a product baildown and recovery test at GMW-62. Hydrocarbons were not present in the deeper soil. Hydrocarbon impacts are in the shallow, not deeper, zones. The horizontal extent is limited to one area in the central portion, two areas in the southern portion, and one area on the eastern edge of the site. Hydrocarbons are less than residual saturation and are therefore no longer mobile. Mr. Hassan also displayed a figure showing the distribution of LNAPL hydrocarbons near the water table.

Mr. Hassan next discussed the Vapor Monitoring Program. The first semiannual summary report for the fourth quarter 2010, first quarter 2011, and second quarter 2011 was submitted on August 9, 2011. The third quarter 2011 soil gas sampling was conducted in September. The fourth quarter 2011 soil gas sampling was conducted in December. Parsons is currently preparing the second semiannual 2011 vapor monitoring report which is due February 15, 2012. Soil gas screening levels are being calculated and proposed cleanup goals will be presented in the semiannual report. There have been low detections of volatile organic compounds (VOCs) but all are well below the proposed commercial cleanup goals. The proposed future monitoring schedule will be included in the report.

Five-Year Action Plan Progress Report

Mr. Hassan discussed DLA's revised RAP and said that fuel thickness and extent of free product in wells throughout the northern tank farm area have decreased. In October 2011, free product was only detected in five wells from four areas of concern: in the north-east, north-central, former truck fueling area, and in the south-eastern areas. They began vacuum-truck LNAPL recovery from well GMW-62.

The soil venting network was expanded in various areas. SVES began continuous operation in the north and north-eastern areas in January 2011. In 2011, approximately 146.3 pounds (22 gallons) of hydrocarbons have been destroyed from the SVES.

Groundwater extraction has effectively decreased the free product plumes. Extraction from the north-west corner and the north-eastern area for containment has been effective. Offsite wells continue to show non-detect or decreasing trends in TPH and BTEX (benzene, toluene, ethylbenzene, and total xylenes) concentrations. Although TPH concentrations in most wells are lower and/or are declining, groundwater extraction is still used for plume containment.

Mr. Hassan said that a RAP addendum proposing soil cleanup goals was submitted to the RWQCB on January 11, 2012. The soil remediation schedule is as follows: SVE and/or bioventing operation is scheduled

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to continue through May 2014. They plan to conduct additional soil investigation under the former concrete foundations from January 2012 through August 2012. Respiration testing and soil confirmation sampling are planned for May 2014 to December 2014. A potential new remedial solution is still to be determined.

Mr. Hassan said that groundwater is trickier and may take longer. We need to determine what the level of cleanup will be and what can remain for natural attenuation. Groundwater extraction for containment will continue; remediation technologies will be evaluated; and remedial action will be proposed and implemented; this is projected for the second half of 2012 through the end of 2014.

Planned Activities

Mr. Hassan said that activities planned for the next semiannual period include:

- Operation, weekly system inspections, sampling, evaluation, and optimization of the GWTS and SVES
- Site-wide weed abatement
- First quarter 2012 GWM sentry event; first semiannual 2012 event; and third quarter 2012 GWM sentry event
- Preparation and submittal of NPDES discharge monitoring reports.

Concrete demolition and ACM abatement tasks planned include:

- Mobilize and begin ACM abatement
- Finalize removal of all non-ACM pipelines throughout the site
- Finalize all concrete demolition at pump house and truck fueling areas
- Continue with soil confirmation sampling at the former truck fueling area and pump houses
- Green waste removal from all steel tank and concrete demolition activities.

5. Second Semiannual 2011 Groundwater Monitoring Event Redwan Hassan, Parsons

Mr. Hassan said that for the Second Semiannual 2011 Groundwater Monitoring Report, Parsons pulled in data from the July 2011 sentry event, the October 2011 semiannual monitoring event, and KMEP's monthly monitoring reports for the southeastern area wells. A total of 195 wells were gauged and 113 wells were sampled for the semiannual event. The SVE/TFE/GWE systems were turned off prior to gauging and sampling.

Groundwater levels in October 2011 were generally similar to those encountered during previous events. In the uppermost aquifer, groundwater elevations were approximately 0.1 to 0.8 foot lower than in April 2011. The gradient was towards the north-northwest. In the Exposition Aquifer, groundwater elevations decreased in three wells and increased in two wells. The gradient was towards the east-southeast. Free product was measured in only five wells. Thicknesses ranged from 0.02 feet to 0.94 feet. Free product was not observed in any South-central area wells. Mr. Hassan displayed groundwater elevation maps and said that flow direction in the uppermost aquifer used to be more towards the northwest, and now it is more towards the north.

In the Exposition Aquifer, four wells were sampled. All analytical results were non-detect, except for low detections of TPH and TBA in well EXP-3. The detections were near the laboratory reporting limits, but not significant enough to indicate an increasing trend.

Mr. Hassan said that there were no big changes in the uppermost aquifer wells. In most areas, the lateral extents of TPH, benzene, 1,2-DCA (1,2-dichloroethane), and MTBE (methyl tertiary-butyl ether) remain similar to those interpreted during recent previous events. The lateral extent of benzene in the northern tank farm plume has reduced in size and eliminated the plume in the vicinity of former Tank 80007; however, the benzene plume in the southeast 24-Inch Block Valve area has increased since previous monitoring events. The lateral extent of TBA in this area appears to have expanded further onsite to the northwest. The north-central tank farm TBA plume is similar to one year ago, but larger than the previous April semiannual event. Concentrations are influenced by water level fluctuations.

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Mr. Hassan displayed groundwater concentration contours for each plume from 2006 through 2011. The 2011 TPH plume map appears similar to the 2010 map. The 2011 benzene plume map appears to have decreased since 2010. The 2011 MTBE plume map appears smaller than the 2010 map. The 2011 1,2-DCA plume map appears to be similar to the 2010 map. TBA plume maps, which were first drawn in 2009, were also shown.

Mr. Hassan next discussed groundwater elevation and concentration time series charts that were graphed for 18 wells. They are plotted on a logarithmic concentration scale which flattens out the trend. The water table has gone through some cycles. Beginning in May 2005, the water level was slowly lowering about four feet until March 2010, when it stabilized and began slowly rising. Fluctuations in contaminant concentrations may be due to groundwater level fluctuations and pumping at nearby extraction wells. Mr. Hassan displayed time series charts for wells GMW-61, GMW-1, and GMW-O-14.

Ms. McIntosh asked a few questions about the report. She asked for clarification on the increase in benzene northwest of the 24-Inch Block Valve, as discussed on Page 4-4. Mr. Defibaugh said that KMEP would review it and respond via email. In section 4.3.2, a 10 percent increase in benzene was noted as insignificant. Mr. Hassan agreed that it probably should not have said insignificant. Ms. McIntosh also asked about DIPE and TAME as discussed in Section 4.3.6. Mr. Defibaugh said these were fuel oxygenates used in gasoline, so with MTBE sampling it is not surprising to find these also.

Ms. McIntosh said that she has concerns about the cleanup progress of the 24-inch Block Valve area. Mr. Defibaugh said they conducted an assessment of the area last year, and they plan to bring two new wells online, so he expects to see more improvement in the next semiannual report.

Ms. McIntosh said she is not sure if we have a handle on the Park area. Mr. Hassan that they conducted an extensive assessment of this area in the past. The soil results were non-detect. There were some elevated concentrations in groundwater. Sampling along the school boundary was non-detect. Wells GMW-63, 64, and 65 were put in for down-gradient monitoring and they have all been non-detect. He does not believe there is a source in the Park but groundwater has been impacted from migrating off-site. Previously, the amount of on-site pumping's effect on wells in the Park was modeled. Parsons will look at the model and update it based on actual pumping rates.

For future semiannual reports, Mr. Hassan suggested that the RAB members be provided with hard copies of the text, tables, and maps, and then the appendices will be provided on CD. Ms. McIntosh agreed.

Mr. Cho asked KMEP about the cleanup progress in the 24-Inch Block Valve area. Mr. Defibaugh said they are looking at different types of pumping wells. Currently they are seeing diminishing returns. If they finalize the access agreements this week, then they can get the soil vapor assessment report completed and submitted within the next couple of months.

6. Set Date and Agenda for Next Meeting

The next semiannual RAB meeting will be held on Thursday, August 9, 2012, at 5:00 p.m. in the Norwalk Arts & Sports Complex. The agenda is to include remediation system updates, semiannual monitoring report, five-year plan updates, and demolition update.

7. Public Comment Period

Mr. Hoskins made a motion to adjourn the meeting. Mr. Defibaugh adjourned the meeting at 8:22 p.m.

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ACTION ITEMS		
Item	Responsible Party	Due Date
Clarification on benzene statement from page 4-4	KMEP via email	08/09/12
Review of estimated effect of pumping and update groundwater model in the northeast/Holifield Park area	DLA Energy	08/09/12
Mail Semiannual Groundwater Monitoring Report to RAB members	CH2M HILL	08/01/12
Next RAB meeting	All	08/09/12