



DEPARTMENT OF THE ARMY
CAMP STANLEY STORAGE ACTIVITY, MCAAP
25800 RALPH FAIR ROAD, BOERNE, TX 78015-4800

January 7, 2010

U-026-10

Mr. Greg J. Lyssy
U.S. EPA, Region 6
1445 Ross Avenue (6SF-LT)
Dallas, TX 75202-2733

Subject: Period 35 Progress Report
Camp Stanley Storage Activity, Boerne, Texas
EPA Identification Number: TXD2210020739
US EPA Docket Number: RCRA-VI 002(h)99-H FY99

Dear Mr. Lyssy:

In accordance with the RCRA §3008(h), Administrative Order on Consent, signed 5 May 1999, Camp Stanley Storage Activity (CSSA) is submitting its 35th Progress Report, for the period from 1 July 2009 through 31 December 2009. Two hard copies of the progress report are included.

I certify that the information contained in and accompanying this submission is true, accurate, and complete to the best of my knowledge and information. As to those portions of this submission for which I cannot personally verify the truth and accuracy, I certify as the Facility Official having supervisory responsibility for the person(s) who, acting upon my direct instructions, made the verification, that this information is true, accurate, and complete.

If you have any questions or comments, please call Glare Sanchez at (210) 698-5208 or Julie Burdey, Parsons at (512) 719-6062.

Sincerely,


Jason D. Shirley
Installation Manager

Enclosure

cc: Ms. Glare Sanchez, CSSA (w/enc.)
Mr. Sonny Rayos, TCEQ (w/enc.)
Ms. Jorge Salazar, TCEQ (ltr only)
Ms. Julie Burdey, Parsons (ltr only)

PROGRESS REPORT

July 1, 2009 – December 31, 2009

(35th REPORT)



Camp Stanley Storage Activity

Boerne, Texas

USEPA ID No. TX2210020739

January 2010

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ACRONYMS AND ABBREVIATIONS

| | |
|---------------------|--|
| °C | Degrees Celsius |
| 1,1-DCE | 1,1-dichloroethene |
| AOC | area of concern |
| AL | Action level |
| APAR | affected property assessment report |
| APPL | Agriculture & Priority Pollutants Laboratories, Inc. |
| <i>cis</i> -1,2-DCE | <i>cis</i> -1,2-dichloroethene |
| CAH | Chlorinated aliphatic hydrocarbons |
| COC | Chemical of concern |
| CSSA | Camp Stanley Storage Activity |
| CY | Cubic yard |
| DQO | data quality objective |
| GAC | granular activated carbon |
| gpm | gallons per minute |
| H&A | Hankins and Anderson |
| HCSM | hydrogeologic conceptual site model |
| I/SM | interim/stabilization measures |
| LTMO | long-term monitoring optimization |
| MCL | Maximum contaminant level |
| µg/l | micrograms per liter |
| NFA | No Further Action |
| O&M | operations and maintenance |
| Order | §3008(h) Administrative Order on Consent |
| PCL | Protective Concentration Limits |
| PCE | Tetrachloroethene |
| QAPP | Quality Assurance Program Plan |
| RCRA | Resource Conservation and Recovery Act |
| RFI | RCRA facility investigation |
| RIR | Release Investigation Report |
| SCL | Secondary Contaminant Levels |
| SVE | Soil vapor extraction |
| SVOC | Semi-volatile organic compounds |
| SWMU | solid waste management unit |
| TCE | Trichloroethene |
| TCEQ | Texas Commission on Environmental Quality |
| TO | task order |
| TRRP | Texas Risk Reduction Program |
| UIC | underground injection control |
| USACE | United States Army Corps of Engineers |
| USEPA | United States Environmental Protection Agency |
| VC | Vinyl Chloride |
| VOC | volatile organic compound |
| WP | work plan |

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PROGRESS REPORT JULY 1, 2009 – DECEMBER 31, 2009 (35th PERIOD)

INTRODUCTION

This 35th Progress Report for Camp Stanley Storage Activity (CSSA), Boerne, Texas, U.S. Environmental Protection Agency (USEPA) Identification Number TX2210020739, is submitted in accordance with the Administrative Order on Consent (Order) issued to CSSA on May 5, 1999, pursuant to §3008(h) of the Safe Drinking Water Act, as amended by the Resource Conservation and Recovery Act (RCRA), and further amended by the Hazardous and Solid Waste Act of 1984, 42 United States Code §6928(h). This report addresses the project progress from July 1, 2009 through December 31, 2009. In June 2006, CSSA switched from quarterly to semi-annual progress reporting, as approved by USEPA. Subsequent progress reports will continue to be submitted on a semi-annual basis.

Summary of Activities this Period

Between July 1 and December 31, 2009, significant activities related to the Order included:

- Continuation of solid waste management unit (SWMU) B-3 bioreactor treatability studies;
- Continuation of Area of Concern (AOC)-65 Soil Vapor Extraction (SVE) operations and maintenance (O&M) of the SVE system treatability study;
- Continuation of the groundwater monitoring program under the regulator-approved data quality objectives (DQO);
- Continuation of investigations of SWMUs and AOCs including SWMU B-71 and AOC-64 (Weston) and SWMU B-2, SWMU B-8, SWMU B-20/21, SWMU B-24, and AOC-67/68 (Parsons);
- Receipt of No Further Action concurrence from the State of Texas Commission on Environmental Quality (TCEQ) for AOC-63, AOC-69, and AOC-73.
- Continued maintenance of on-post and off-post granular activated carbon (GAC) systems and on-post permitted outfalls;
- One status update meeting with USEPA and TCEQ;
- Continuation of administrative record maintenance; and
- Public meetings held in November 2009.

Details regarding these activities are summarized in this report.

Report Organization

This report details work completed on tasks associated with the four project phases outlined in the Order. Phase names and task names listed in **Table 1** are taken directly from the Order. Information for tasks active from July 1 through December 31, 2009 is provided in this report. No current information is provided for tasks that are not active; however, a summary of all tasks, subtasks, and their status has been presented in previous reports. Details of the evaluation of the percent complete by awarded projects are included in **Table 2**. An updated project team contact information chart with telephone numbers and addresses is included in **Table 3**.

Attachment 1 shows the locations of groundwater wells referenced in this report. A summary of the status of all identified SWMUs and AOCs at CSSA is provided in **Attachment 2**. **Attachment 3** is a summary of the physical percent complete of each order-related task being conducted at CSSA. **Attachment 4** is a summary of groundwater results for sampling events conducted this period.

Table 1 §3008(h) Administrative Order on Consent Project Phases

| 3008(h) Order Phase and Subtasks | Phase Purpose | Phase's % of Overall Order | Subtask's % of Phase | Physical % Complete of Subtask | Subtask portion of Phase % Complete | Physical % Complete of Phase | Active During P35 |
|---|--|----------------------------|----------------------|--------------------------------|-------------------------------------|------------------------------|-------------------|
| Interim Measures | | 30% | | | | 99% | |
| Interim Measures Work Plan | Mitigate a current or potential threat to human health and/or the environment. | | 7% | 100% | 7.0% | | No |
| Interim Measures Implementation | | | 70% | 99% | 69% | | No |
| Reports | | | 23% | 100% | 23% | | No |
| RCRA Facility Investigation | | 30% | | | | 77% | |
| Preliminary Report | Characterize the environmental setting of CSSA; define the sources of contamination; define the degree and extent of contamination; identify actual or potential receptors; and assess whether any additional interim/stabilization measures may be warranted. | | 5% | 100% | 5% | | No |
| RFI Work Plan | | | 5% | 100% | 5% | | Yes |
| Facility Investigation | | | 40% | 75% | 30% | | Yes |
| Risk Assessment | | | 10% | 89% | 9% | | No |
| Investigation Analysis | | | 10% | 84% | 8% | | No |
| Groundwater Investigation | | | 15% | 85% | 12% | | Yes |
| Treatability Studies | | | 10% | 46% | 5% | | Yes |
| Progress Reports | | 5% | 28% | 1% | | Yes | |
| Corrective Measures Study | | 10% | | | | 0% | |
| Identify and Develop Alternatives | Identification, screening, and development of alternatives for removal, containment, treatment, and/or other remediation of the contamination. | | 15% | 0% | 0% | | No |
| Evaluate Alternatives | | | 60% | 0% | 0% | | No |
| Reports | | | 25% | 0% | 0% | | No |
| Corrective Measures Implementation | | 30% | | | | 0% | |
| Implementation Program Plan | Design, construct, operate, maintain, and monitor the performance of corrective measure(s) selected to protect human health and the environment. | | 5% | 0% | 0% | | No |
| Corrective Measure Design | | | 15% | 0% | 0% | | No |
| Corrective Measure Construction | | | 70% | 0% | 0% | | No |
| Reports | | | 10% | 0% | 0% | | No |
| % of All Phases Complete | | | | | | 52% | |

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RCRA FACILITY INVESTIGATION

The RCRA Facility Investigation (RFI) is being conducted to characterize the environmental setting of CSSA, define the sources of contamination, define the degree and extent of contamination, identify actual or potential receptors, and assess whether any additional interim/stabilization measures (I/SM) may be warranted. The discussions below include only the tasks related to Facility Investigations and Treatability Studies. Discussion of other RFI subtasks will be included in future reports if changes or additions to previously reported activities occur. The majority of current ongoing environmental activities at CSSA are part of the RFI task. Work on each of these tasks is described in the following paragraphs. The main areas of work during this period included:

- Groundwater monitoring of on- and off-post wells;
- Groundwater monitoring of Westbay[®]-equipped wells;
- Verification and validation of analytical data;
- SVE system O&M at AOC-65;
- Continuation of bioreactor operation and other treatability studies at SWMU B-3; and
- Investigations of SWMU B-71 and AOC-64 (Weston) and SWMU B-2, SWMU B-8, SWMU B-20/21, SWMU B-24, and AOC-67/68.

RFI Work Plan

The Order requires the RFI WP task to include a Project Management Plan, Data Collection Quality Assurance Plan, Health and Safety Plan, and a Community Relations Plan. As previously agreed by USEPA, because the CSSA Environmental Encyclopedia includes all information required by the Order, it is used to fulfill this requirement. The RFI WP task makes up approximately 5 percent of the RFI phase. Estimation of percent complete is difficult due to the continuing need for plan addenda as new projects are identified and awarded. As of the end of Period 35, WPs currently under scope are 100 percent complete. The CSSA Environmental Encyclopedia will continue to be updated as WPs for any new projects are finalized.

Environmental Encyclopedia Updates

The CSSA website (www.stanley.army.mil) was updated with documents added to the Environmental Encyclopedia through the end of December 2009. The website includes CSSA's Administrative Record as required under the Order. The electronic encyclopedia and hard copy encyclopedia were updated with all final reports through December 2009. Updates made in Period 35 included the following:

- Period 34 USEPA Progress Report;
- Final DO11 Groundwater Work Plan Addendum;
- Final March 09 Off-Post Groundwater Report
- June 2009 Off-Post Well Owner Letters

- Final March 09 On-Post Groundwater Report
- Final Bioreactor Performance Report Qtr 9 (May - July 2009)
- Final June 2009 On-post Quarterly Groundwater Report;
- Final 2008 Annual Groundwater Report;
- Fact Sheet 29;
- Final Species and Habitat Distributions of Black-Capped Vireos and Golden-Cheeked Warblers, 2009 Breeding/Nesting Season, dated September 2009;
- Various correspondence to and from CSSA;
- Various meeting minutes; and
- Various tables of contents, site chronologies, and indices.

In an effort to improve the usability of the Environmental Encyclopedia, CSSA developed the online, interactive CSSA Environmental Summary (Site Management Plan). This summary operates along side the encyclopedia and gives a brief overview of past efforts, current status and planned actions. This summary includes active links to the encyclopedia and other appropriate web sources and will be periodically updated as work progresses. The CSSA Environmental Summary is available through password-protected access on the Environmental Encyclopedia home web page (www.stanley.army.mil). In addition, CSSA is developing a Document Management System (DMS) to archive all documents associated with its environmental program, and make them readily available in searchable electronic format.

Facility Investigations

An investigation of the facility is being conducted to:

- Characterize the environmental setting of the facility;
- Define the source(s) of contamination;
- Define the nature and extent of contamination; and
- Identify actual or potential receptors.

In some cases, multiple investigational phases may be necessary. Investigation results will be used to develop and evaluate alternatives during the Corrective Measures Study. All investigation activities are being conducted in accordance with the RFI WP discussed above.

Completion of the facility investigations for the planned RFI tasks is partially funded. **Attachment 2** indicates the sites for which investigations have been initiated with site status as well as sites that have been identified, but not yet investigated. The Facility Investigations subtask makes up approximately 40 percent of the RFI phase. As of the end of Period 35, this task is approximately 77 percent complete.

A total of 81 SWMUs, AOCs, and Range Management Units have been identified at CSSA, and investigations have been conducted at a total of 72 of those sites. A summary of the

status of each site, including whether the site is recommended for closure or if closure is approved, is provided in **Attachment 2**. To date, closure of 40 CSSA sites has been approved by Texas Commission on Environmental Quality (TCEQ), and 11 sites were either delisted or granted No Further Action status.

SWMU and AOC Investigations

The Facility Investigation subtask makes up approximately 40 percent of the RFI phase. As of the end of Period 35, this task is approximately 77 percent complete.

SWMU B-71, AOC-63, and AOC-64

Soil sampling/analyses at AOC-63 identified low levels of benzene. An Affected Property Assessment Report (APAR) for AOC-63 has been prepared and was submitted to TCEQ in October 2008. The APAR documents chemical of concern (COC) delineation activities and site-specific protective concentration level (PCL) development. Based on the assessment, no threat to human health or the environment is presented by COC concentrations at AOC-63 and no further investigation or corrective action is recommended for the site. TCEQ approved the No Further Action recommendation and the APAR in a letter dated July 31, 2009.

Interim removal actions were conducted at AOC-64 and SWMU B-71. Through June 30, over 6,000 cubic yards of soil, rock, spent munitions, and miscellaneous metal debris were excavated and disposed of. Some of this material was disposed of at Covell Gardens, and some soil was taken to the East Pasture Range berm. Additional sampling was conducted to complete characterization of the sites. QA/QC issues with the characterization sampling are currently under review and will be addressed with TCEQ before APAR submittal. An approach to the ecological risk portion of the process is being developed by Weston to include an area assessment and multiple sites.

AOC-67 and AOC-68

AOC-67 and AOC-68 are small sites immediately adjacent to the Building 90 Test Fire Room. On September 2, 2009 approximately 2 CY of sand bedding material were removed and transported off-post for disposal at Waste Management's Covell Gardens landfill facility. Soil removal at AOC-67 is complete. Results of the September 2009 investigation samples collected from an area underlying the removal actions at AOC-68 indicate that an impacted sand bedding remains near the southwestern boundary of AOC-68. This impacted sand bedding is associated with a buried compressed air line from Building 90. In December 2009, another underground utility with lead impacted bedding was discovered between Buildings 89 and 90. The sand bedding material, and areas surrounding the Building 90 Test Fire Room and between Buildings 89 and 90, will be investigated at a later date. A RIR requesting no further action for AOC67/68 is expected to be completed for the next reporting period. This task is 95% complete.

AOC-69

An RIR report requesting no further action was submitted to TCEQ and USEPA on June 11, 2009. The RIR was approved by TCEQ in a letter dated October 9, 2009.

AOC-73

An RIR requesting no further action was submitted to TCEQ and USEPA in September 2008. The RIR was approved by TCEQ in letter dated January 9, 2009.

SWMU B-2, B-8, B-20/21 & B-24

Processing of geophysical survey data from SWMUs B-24 and B-20/21 and an MEC Hazard Assessment was continued.

A document describing a “roadmap” for further investigation and remediation is being prepared to guide future actions. Upon completion and approval by CSSA, it will be presented to EPA and TCEQ for comment.

Additional investigation at SWMUs B-2 and B-8 to determine the extent of lead contamination is being planned. As discussed at the last meeting with TCEQ and EPA, grid sampling and XRF analysis, in combination with laboratory analysis, is being planned. The work plan will be completed in Period 36.

SWMU B-4

Planning efforts were initiated in Period 34 to include environmental sampling, excavation and removal of material necessary to support delineation of potential contaminants of concern, anomaly investigations, waste characterization from removal actions, confirmation sampling/analysis, site restoration, and documentation of all activities in closure reports. The work plan will be completed and the project started in Period 36.

SWMU B-15/16

Planning efforts were initiated in Period 35 to include environmental sampling, excavation and removal of material necessary to support delineation of potential contaminants of concern, anomaly investigations, waste characterization from removal actions, confirmation sampling/analysis, site restoration, and documentation of all activities in closure reports. The work plan will be completed in Period 36.

Groundwater Investigation

The groundwater investigation subtask makes up approximately 15 percent of the RFI phase. As of the end of Period 35, this task is approximately 85 percent complete.

On- and off-post groundwater monitoring was conducted in accordance with the regulator-approved DQOs during Period 35. Sampling frequencies for on-post wells are determined by the long term monitoring optimization (LTMO) study completed in May 2005, as approved by TCEQ and USEPA. Based on the LTMO recommendations, on-post wells are sampled quarterly, semi-annually, or biennially (every two years). Off-post wells are not included in the LTMO recommendations and are sampled quarterly under the DQOs and the CSSA Off-Post

Monitoring and Response Plan. A map of the well locations is provided in **Attachment 1** of this report.

The analyte list for each monitoring event was in accordance with the applicable WPs and DQOs. On- and off-post monitoring wells and Westbay-equipped wells were sampled for the SW-846 Method 8260B VOCs 1,1-dichloroethene (1,1-DCE), *cis*-1,2-dichloroethene (*cis*-1,2-DCE), *trans*-1,2-dichloroethene, tetrachloroethene (PCE), trichloroethene (TCE), and vinyl chloride (VC). On-post monitoring wells were sampled for the SW-846 Method 6010/6020 metals lead, cadmium, mercury, and chromium. On-post drinking water wells are sampled for four additional metals barium, arsenic, copper, and zinc. Additional samples were collected off-post from the wells with GAC filtration systems. Samples were analyzed by APPL in Fresno, California. Parsons' chemists validated and verified the data in accordance with the CSSA Quality Assurance Program Plan (QAPP). All detected concentrations of VOCs and metals are presented in **Attachment 4**.

June 2009 Sampling

Laboratory results for the June 2009 event were not included with the Period 34 Progress Report submitted in July 2009 because they were not yet available. The results are included in **Attachment 4**. In all, 14 on-post wells were sampled during the June 2009 event. In June, the action level (AL) for lead was exceeded in on-post well CS-9, but no on-post monitoring wells exceeded the MCL for VOCs. The MCL was exceeded in off-post wells OFR-3 and RFR-10 for PCE and TCE; however, these wells have been equipped with GAC filtration systems since 2001. Off-post well I10-4 also exceeded the MCL (5.0 µg/L) for PCE (6.48 ug/L). I10-4 sits on a vacant lot, is not currently being used, and there is no pump in the well.

September 2009 Sampling

Twenty-eight on-post monitoring wells and the LGR zones of the four southern Westbay-equipped wells were sampled in September 2009. Off-post wells sampled in September 2009 included 22 private and public off-post drinking water wells with six post-GAC samples.

In September 2009 wells CS-9 and CS-MW9-BS had detections of lead at concentrations of 29.6 µg/L and 30.2 µg/L respectively, which exceeded the drinking water AL of 15 micrograms per liter (µg/L). Well CS-9 also had a detection of mercury (8.2 ug/L) above the MCL (2 ug/L).

VOC MCLs were exceeded in on-post monitoring wells CS-D, CS-MW1-LGR, CS-MW16-LGR, and CS-MW16-CC for the analytes PCE, TCE, and/or *cis*-1,2-DCE. Westbay-equipped wells CS-WB01, CS-WB02, CS-WB03, and CS-WB04 had exceedances of either PCE and/or TCE in various intervals. PCE exceeded the MCL in wells RFR-10 and I10-4 in September 2009. Well RFR-10 is equipped with GAC treatment system and I10-4 sits on a vacant lot, is not currently being used, and there is no pump in the well. In May 2009 the carbon was exchanged and other routine maintenance was performed on off-post GAC treatment systems installed at LS-6, LS-7, OFR-3, RFR-10, and RFR-11.

December 2009 Sampling

Based on the Long Term Monitoring Optimization (LTMO) Study recommendations, nine on-post wells were scheduled to be sampled in December 2009. However, to capture impacts related to recent rainfall and to see a more complete snapshot of the plume, all 46 on-post wells were sampled. Off-post wells sampled in December 2009 included 27 private and public off-post drinking water wells. Sampling was conducted between November 30 and December 18, 2009. Laboratory results will be received in January 2010 and summarized in the next progress report.

On-Post GAC Systems

CSSA operated and maintained the permitted on-post GAC unit at Outfall 002 and the permitted discharge at Outfall 004 this period. A Discharge Monitoring Report is submitted each month the system operates to comply with Texas Pollution Discharge Elimination System permit requirements. No discharge occurred at either outfall this period.

Off-Post GAC Systems

Based on sampling results received in 2001 and 2002 indicating VOC levels above or approaching the MCL, GAC filtration systems were installed at five off-post wells. In accordance with the CSSA Off-Post Monitoring Program Response Plan dated June 2002 and the Groundwater Monitoring DQOs, the off-post GAC filtration systems are maintained by CSSA and sampled every six months. Monthly O&M activities for the off-post residential GAC filtration systems were performed this period. Work included inspection and replacement, as needed, of the pre- and post-GAC filters at wells LS-6, LS-7, RFR-10, RFR-11, and OFR-3. In addition, several GAC enclosures were replaced with new, sturdier structures. Post-GAC confirmation samples from all of the off-post GAC systems were collected in March and September 2009. All VOC results for the post-GAC water samples were non-detect. Carbon canister exchange will be completed in December 2009 for the off-post GAC systems.

Data Validation and Verification

Laboratory results from sampling efforts and investigations are validated and verified by Parsons' chemists to ensure results are in compliance with CSSA QAPP requirements. Data validation and verification continued during Period 35.

Treatability Studies

The Treatability Study subtask makes up approximately 10 percent of the RFI phase. As of the end of Period 35, this task is approximately 46 percent complete.

SWMU B-3 Bioreactor Treatability Study

SWMU B-3 Bioreactor Performance Status Reports were submitted to CSSA, TCEQ and USEPA on a quarterly basis during Period 35. Approximately 17,184,004 gallons of groundwater extracted from CS-MW16-LGR and CS-MW16-CC have been injected into

bioreactor trench 1 since the start of injection. A new extraction well, B3-EXW01 (completed in the lower Glen Rose), began pumping groundwater for injection on July 17, 2009. Through July 31, B3-EXW01 has contributed 126,143 gallons to the bioreactor, bringing the total volume injected since operations began to 17,310,147 gallons. A semiannual Underground Injection Control (UIC) report for the period, in accordance with CSSA's Class V Aquifer Remediation Injection Well Permit, TCEQ Authorization No. 5X2600431; WWC12002216 was submitted to the TCEQ during Period 35 on December 10, 2009.

Groundwater samples were collected from sumps, monitoring wells, Westbay-equipped wells, and from the injection discharge. Sampling frequency was based on permit requirements and water availability. In general, injected groundwater samples are collected monthly and monitoring samples from the Westbay-equipped monitoring wells and injection trench sumps are collected quarterly. All samples were analyzed for permit parameters – VOCs, total dissolved solids, and other selected performance parameters. Analyses were performed by APPL, DHL Laboratory, and Microseeps Laboratory. Collected field data included injection volumes, injection pressures and the pH of recovered groundwater for TCEQ permit compliance. Results are reported semi-annually. Analytical data collected for performance parameters include;

- Dissolved Organic Carbon
- Methane, Ethane, Ethene
- Hydrogen
- Temperature, pH, specific conductivity
- Oxidation Reduction Potential
- Dissolved Oxygen
- Total organic carbon
- Carbon Dioxide
- Hydrogen Sulfide
- Alkalinity
- Nitrogen, Nitrate + Nitrite
- Additional ions including Sulfate, Chloride, Ferrous Iron, Manganese
- Dehalococcides populations, and
- Isotopic ratio analyses.

During Period 35 (July through December 2010), the bioreactor has remained at saturated conditions due to rainfall and due to the continued supply of supplemental water from CS-MW16-CC, CS-MW16-LGR, and the a new extraction well at SWMU B-3 (B3-EXW01) completed on July 17, 2009. A total of 4,727,693 gallons was added to the bioreactor during Period 35. This compares to 4,397,000 and 4,629,000 gallons added in Periods 33 and 34, respectively.

Additionally, during Period 35 a bioreactor “flood test” was performed in order to ascertain the potential preferential pathways underlying trench 6 at SWMU B-3. The flood test involved pumping large amounts of water from a newly installed North Pasture well (CS-12) into trench 6 and continuously monitoring wells and sumps in order to determine where the water migrates. While data generated from the flood test was usable and provided valuable insight on overall groundwater movement, it did not specifically identify preferential pathways. This was in part

due to rainfall events at the start of the flood test. Results showed that the underlying area fills regionally from the bottom up and responds to significant rainfall very rapidly.

Monitoring results continue to indicate that effective treatment of injected groundwater in the bioreactor is occurring; however, a significant amount of VOC components continues to remain in strata adjacent and beneath the trenches. Breakdown products of highly chlorinated species, PCE and TCE, and minor amounts of fuel components, like toluene, are identified in groundwater samples from locations surrounding the bioreactor. During Period 35, the degradation products vinyl chloride and ethene were identified within the bioreactor in significant amounts (vinyl chloride as high as 110 µg/L and ethene as high as 17 µg/L); and minor amounts of vinyl chloride were observed in Westbay-equipped wells CS-WB05 (6.5 µg/L) and CS-WB06 (16 µg/L). Ethene represents one of the final degradation products of attenuated chlorinated solvents. In addition, elevated levels of manganese suggest biotic anaerobic oxidation of CAHs to carbon dioxide, and elevated levels of iron and *trans*-DCE suggest abiotic reductive dechlorination may also be occurring.

In December, one shallow (Upper Glen Rose) monitoring well (MW-27) was installed approximately 240 feet east of the bioreactor. The well was installed to demonstrate the “Roto-Sonic” technology could be effective and applicable at CSSA. The well was drilled to a depth of 47 feet below ground surface (bgl), plugged back to 17 feet bgl, and completed with 2-inch PVC casing with screen from 7 to 17 feet bgl.

The following actions are scheduled at the bioreactor:

- Install an additional extraction well near SWMU O-1 to allow greater bioreactor influence.
- Install eight additional shallow monitoring wells near SWMU B-3 to monitor possible contaminants emanating from the bioreactor.
- Continue monitoring of bioreactor for another year.

AOC-65 SVE System

Monthly monitoring including semi-annual sampling of the AOC-65 SVE system has been ongoing since April 2008. Initial monitoring results indicate no exceedances of PBR limits occurred for the SVE system. Soil vapor samples were collected from the AOC-65 SVE system during Period 35 and analyzed for VOCs. Results indicated that PCE emissions were 111.27 lbs, which is well below the permitted level of 0.268 lbs/hr or 2347.68 lbs/year. Additional observations regarding the SVE sample analyses will be reported within the Annual SVE Operation and Monitoring/Maintenance Report expected in Period 36. CSSA is continuing actions in support of the AOC-65 treatability study:

- Investigate and prepare report of findings associated with potential risks to indoor air quality and breathing air.

- Monitoring AOC-65 SVE system for an additional six-month period following completion of annual SVE monitoring event expected in Period 36.

SUMMARY OF CONTACTS

Letters summarizing results of the June and September 2009 off-post groundwater monitoring events were mailed to owners of the off-post wells in Period 35. Additional contacts with TCEQ or USEPA regarding Order-related activities occurred this period:

Correspondence:

- January 9, 2009 Letter from TCEQ to CSSA approving the RIR for AOC-73. (This letter was not included in the Period 34 Progress Report).
- July 31, 2009 Letter from TCEQ to CSSA approving the APAR for AOC-63
- October 9, 2009 Letter from TCEQ to CSSA approving the RIR for AOC-69

Meetings:

- November 17 and 19, 2009 The first public meeting was held on November 17 at Fair Oaks Elementary School and the second on November 19 at the Leon Springs Elementary School. A total of 2,473 invitation letters were sent out to residents within a one-mile radius of the CSSA boundary, as well as local public officials and representatives. Over the two nights of meetings, a total of 8 nearby residents and 3 local officials attended.

Copies of all correspondence and meeting minutes are included in **Volume 1-7** of the **Environmental Encyclopedia**.

PROJECTED WORK FOR THE NEXT PERIOD

Groundwater Monitoring

Continued sampling of on- and off-post monitoring and water supply wells will continue in 2010. The 2009 groundwater monitoring report will be submitted next period. The Long-term Monitoring Optimization Report, initially prepared in 2005, will be updated in 2010 with 5 more years of analytical data. The O&M at the residential GAC filtration systems (LS-6, LS-7, OFR-3, RFR-10, and RFR-11) will be conducted every three weeks during Period 36.

AOC-65 SVE System Operations

AOC-65 SVE system O&M will continue in Period 36. The system includes four blowers operating continuously, and O&M of those systems will be performed in accordance with the Updated O&M Manual for SVE Systems at CSSA. Monitoring is expected to occur twice monthly, monthly, and semi-annually. Additional data are being collected regarding the potential impacts of indoor air quality and breathing zone air within the groundwater Plume 2 area.

SWMU and AOC Investigations

Investigations, interim removal actions, and/or reporting will be continued for SWMUs B-2, B-4, B-8, B-15/16, B-20/21, B-24, B-71, AOC-64, and AOC-67/68. Reports summarizing investigation results will be submitted.

SWMU B-3 Bioreactor Treatability Study Monitoring

Monitoring of the bioreactor at SWMU B-3 will be continued during Period 36. Monitoring requirements will be performed to meet TCEQ's UIC authorization requirements. Performance monitoring data will be collected in accordance with the Bioreactor O&M Manual. A report describing the findings of the tracer study will be prepared. Plans for installation of additional wells at SWMU B-3 will be prepared, and it is anticipated that installation of the wells will be initiated in Period 36.

MEETINGS

A status meeting is expected to be held with TCEQ and USEPA in early 2010. Quarterly groundwater meetings will be held prior to the quarterly events scheduled in March and June 2010.

**Table 2, Project Task Completion to Date for Open Projects Only
 (Values updated through December 31, 2009)**

| Project Number | Description of Task | Relation to Order | Percent Complete | Percent Funds Expended | Start/End Dates |
|----------------|--|-------------------|------------------|------------------------|-----------------|
| Order 37 | UST Investigations | NA | 100% | -- | 1991-1995 |
| Order 52 | Investigation of F-14 | I/SM/RFI | 100% | -- | 1992-1993 |
| Order 67 | Groundwater sampling, Water Well Inventory, Hydrogeologic Report | I/SM/RFI | 100% | -- | 1992-1996 |
| Order 71 | Environmental Assessment | I/M | 100% | -- | 1992-1993 |
| Order 126 | B-20, F-14 Investigations, Background Soils Study | RFI | 100% | -- | 1994-1996 |
| RL17 | Geophysical surveys, Well Installations Soil Sampling and Groundwater sampling | I/SM/RFI | 100% | -- | 1995-2003 |
| RL33 | Site investigations, B-20 treatability studies and unexploded ordnance investigation | RFI | 100% | -- | 1996-2002 |
| Order 23 | Groundwater Sampling | RFI | 100% | -- | 1996-1998 |
| RL53 | SWMU and AOC Investigations | RFI | 100% | -- | 1997-2003 |
| RL83 | Geophysical Surveys | RFI | 100% | -- | 1999-2003 |
| RL74 | Current Conditions Report, Community Relations, Groundwater Monitoring | RFI | 100% | -- | 1999-2001 |
| DO5068 | Soil Gas Surveys | RFI | 100% | -- | 1999-2002 |
| DO23 | Groundwater Monitoring | RFI | 100% | -- | 1998-2001 |
| DO5084 | Building 90 Investigation, Groundwater Monitoring | RFI | 100% | -- | 2000-2003 |
| TO0058 | Treatability Study for AOC-65 | RFI | 100% | -- | 2001-2005 |
| TO0042 | Well Installations and Groundwater Monitoring | I/SM/RFI | 100% | -- | 2001-2006 |
| TO0017 | East Pasture Removal Action | Other | 100% | -- | 2005-2006 |
| TO0019 | SWMU Closures | RFI | 100% | -- | 2003-2006 |
| TO0005 | Environmental Program Technical Support | I/SM/RFI | 100% | -- | 2003-2007 |
| TO0098 | Miscellaneous Studies | Other | 100% | -- | 2004-2007 |
| TO0008 | Groundwater Monitoring | I/SM/RFI | 100% | -- | 2003-2008 |
| TO0006 | SWMU B-3 and AOC-65 Remediation | I/SM/RFI | 100% | -- | 2004-2008 |
| TO0207 | Environmental Support, Groundwater Monitoring | I/SM/RFI | 100% | -- | 2006-2008 |
| DY01 (Weston) | Affected Property Assessment Investigations | RFI | 100% | -- | 2006-2007 |
| DY02 (Parsons) | Environmental Compliance, SWMU and AOC closure Investigations | I/SM/RFI | 100% | -- | 2007-2009 |

**Table 2 Continued, Project Task Completion to Date for Open Projects Only
 (Values updated through December 31, 2009)**

| Project Number | Description of Task | Relation to Order | Percent Complete | Percent Funds Expended |
|------------------------------|--|--------------------------|-------------------------|-------------------------------|
| DY01 (Parsons) | Environmental Compliance, SWMU and AOC closure Investigations | RFI | | |
| | Kickoff meeting/Data Management | RFI | 100% | 100% |
| | Work Plans | RFI | 100% | 100% |
| | Inner Cantonment Site Investigation | RFI | 90% | 90% |
| | North Pasture Site Investigations | RFI | 85% | 85% |
| | Environmental Support | RFI | 36% | 36% |
| | Recordkeeping | RFI | 54% | 54% |
| | Title 2 Services | RFI | 99% | 99% |
| | Project mgmt | RFI | 64% | 71% |
| | Bioaugmentation Injection | RFI | 100% | 100% |
| | Bird Survey | Other | 100% | 100% |
| | Hazardous Waste Management Plan | Other | 100% | 100% |
| | EMS Documentation | Other | 37% | 37% |
| | Ecological Risk Assessment | RFI | 80% | 80% |
| DY02 (Weston) | Removal Action | RFI | | |
| | Plan Preparation and Mobilization | RFI | 100% | 100% |
| | AOC-64 Interim Removal Action | RFI | 100% | 100% |
| | Interim Removal Action Reporting | RFI | 0% | |
| H&A (Parsons) | Administrative Support and Environmental Services | | | |
| | Administrative Record, LAN & GIS and USEPA Progress Reports | RFI | 100% | 100% |
| | Miscellaneous Sampling | Other/RFI | 99% | 98% |
| | Project Management | RFI | 100% | 99% |
| DO11 (Parsons) | Environmental and Groundwater Investigations | | | |
| | Groundwater Monitoring | RFI | 74% | 74% |
| | Treatability Study Systems Operation | RFI | 88% | 88% |
| | Permit Support | Other | 76% | 76% |
| | Administrative Record and Progress Reports | RFI | 43% | 43% |
| | Site Investigations/Closures | RFI | 100% | 99% |
| | Environmental Program Support | RFI | 59% | 53% |
| | Environmental Infrastructure | RFI | 99% | 99% |
| | Task Order Mgmt | RFI | 70% | 70% |
| DO50 (Parsons) | Environmental and Groundwater Investigations | | | |
| | Administrative Order Recording and Management | RFI | 2% | 2% |
| | Compliance and Sampling | RFI | 0% | 0% |
| | Environmental Studies | RFI | 11% | 11% |

| Project Number | Description of Task | Relation to Order | Percent Complete | Percent Funds Expended |
|-----------------------|--------------------------------------|--------------------------|-------------------------|-------------------------------|
| | Environmental Program Support | RFI | 1% | 1% |
| | Groundwater Monitoring | RFI | 0% | 0% |
| | Site Investigations and Closure | RFI | 0% | 0% |
| | Treatability Study Systems Operation | RFI | 4% | 4% |
| | Project Management | RFI | 24% | 24% |

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Table 3, Project Team Contact Information

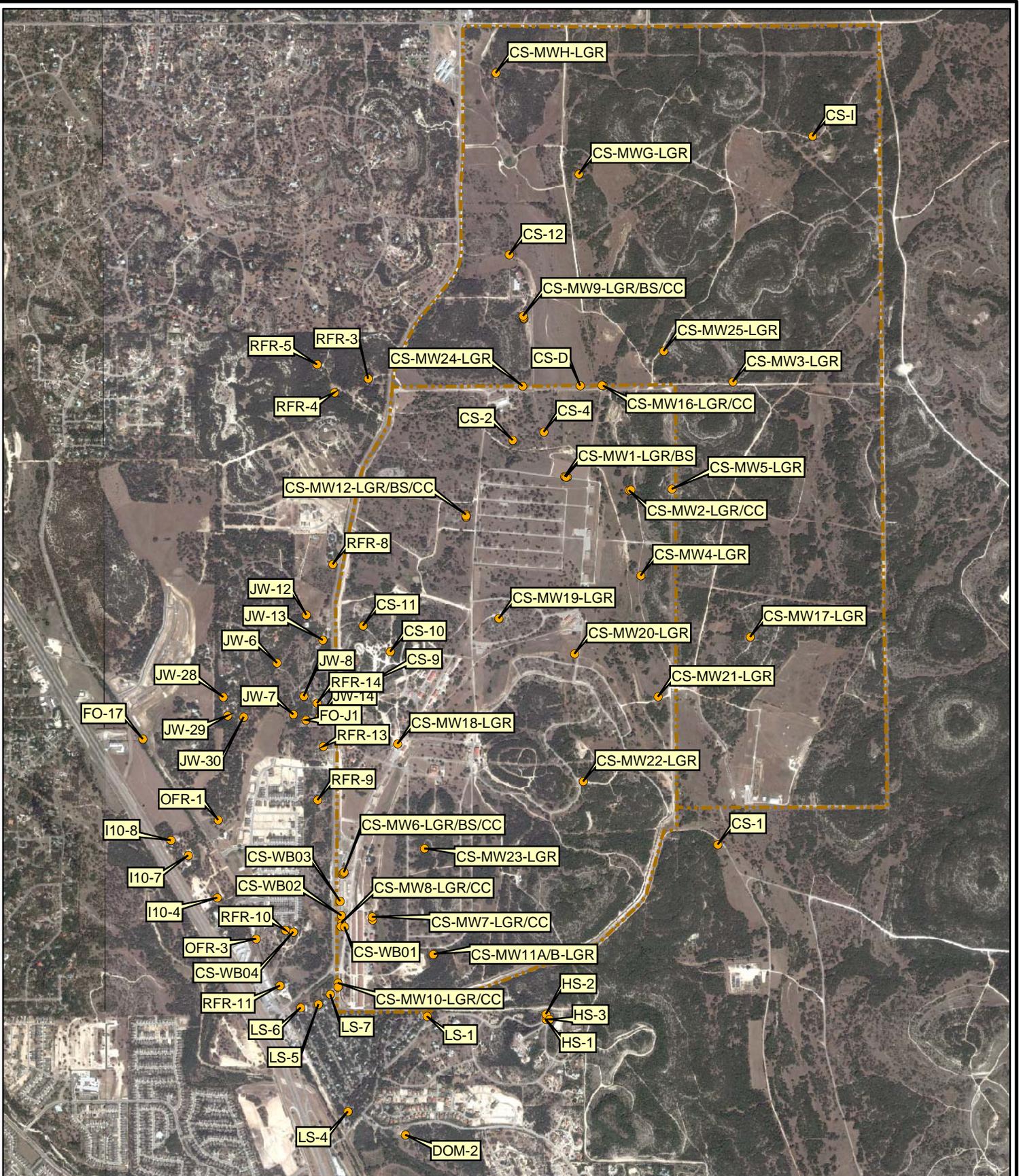
| Name | Organization/Role | Street Address | City, State, Zip | Phone No. | Fax No. | E-mail |
|-------------------------------|---|---|---------------------------|----------------|----------------|-----------------------------------|
| Beal, Christopher | CSSA/Portage Environmental, Geologist and Environmental Assistant | c/o Environmental Office, 25800 Ralph Fair Road | Boerne, TX 78015-4800 | (210) 336-1171 | (210) 295-7386 | bealc@envirodept.net |
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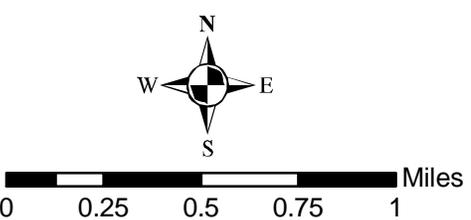
ATTACHMENT 1

ON-POST AND OFF-POST SAMPLED WELLS FIGURE

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Aerial Photo Date: 2008



--- CSSA Boundary

| |
|--|
| Attachment 1 |
| Wells Sampled June, September, and December 2009 Camp Stanley Storage Activity |
| PARSONS |

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ATTACHMENT 2
SUMMARY OF STATUS OF EACH SWMU/AOC SITE

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Attachment 2
Summary of Solid Waste Management Units
and Area of Concern Status Table

| Unit No. | Description | Investigation Report(s) | Recommendations | Requested Action | | | | Closure Approved by | Closure Type |
|----------|---|---|--|------------------|-----|-----------|------|---------------------|--------------|
| | | | | RRS1 | NFA | Delisting | TRRP | | |
| B-1 | Powder and ammo burn area (1954). | RFI/Closure Report July 2002 | NA | X | | | | November-02 | RRS1 |
| B-2 | Small arms ammunition burning area (1954) - North Pasture | RFI/closure Report June 2002 Closure Report March 2005 | Currently under investigation | | | | | | |
| B-3 | Landfill area (garbage disposal and burning trash); filled in 1990-91. | RFI Report March 2005 | Continue bioreactor treatability study | | | | | | |
| B-4 | Classified burn area (documents and trash). | RFI Report June 2002 | Removal of waste in trench and confirmation sampling | | | | | | |
| B-5 | Possible fired small arms ammo brass area. Not located. | RFI/Closure Report July 2002 | NA | X | | | | October-02 | RRS1 |
| B-6 | Possible solid waste disposal area. | RFI/Closure Report July 2002 | NA | X | | | | October-02 | RRS1 |
| B-7 | Possible fired small arms ammunition brass disposal area | RFI/Closure Report July 2002 | NA | X | | | | October-02 | RRS1 |
| B-8 | Fired small arms ammo brass disposal area (piles of fire bricks, ammo shells) - North Pasture | RFI Report December 2003 | Currently under investigation | | | | | | |
| B-9 | Miscellaneous solid waste (metal and weapons) disposal area. | RFI/Closure Report September 2002 | NA | X | | | | March-03 | RRS1 |
| B-10 | Ammunition disposal area. | RFI/Closure Report May 2003 | NA | X | | | | January-04 | RRS1 |
| B-11 | Miscellaneous solid waste disposal (ammo, scrap metal, const. debris). | RFI Closure Report June 04 | NA | X | | | | September-04 | RRS1 |
| B-12 | Landfill, WPA trash when igloos were being built | RFI Report April-05 | NA | X | | | | July-05 | RRS1 |
| B-13 | Trash dump area. | RFI Report June 2002 | Excavation of waste and surface sampling. | | | | | | |
| B-14 | Possible fired brass area - not located. | Delisting Request November 2007 | NA | | | X | | February-08 | Delisting |
| B-15/16 | Landfill (target vehicles, weapons mounts) | RFI Report October 2002 | Removal of debris and sampling | | | | | | |
| B-19 | Solid waste disposal area (metals and weapons). | RFI/Closure Report June 2002 | NA | X | | | | September-02 | RRS1 |

Attachment 2
Summary of Solid Waste Management Units
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|----------|---|-----------------------------------|--|------------------|-----|-----------|------|---------------------------|--------------|
| | | | | RRS1 | NFA | Delisting | TRRP | | |
| B-20/21 | Former OB/OD area & ammunition disposal areas - North Pasture | RFI Report July 2002 | Currently under investigation | | | | | | |
| | | Combined with B-20 | | | | | | | |
| B-22 | Burn area (artillery shells). | RFI/Closure Report August 2002 | NA | X | | | | December-02 | RRS1 |
| B-23 | Disposal trenches (two green canisters) | RFI Report April 2005 | NA | X | | | | July-05 | RRS1 |
| B-23A | Disposal Trench (glass ampoules of liquid) | RFI Closure Report September 2004 | NA | X | | | | March-05 | RRS1 |
| B-24 | Spent ammo/rockets area - North Pasture | RFI Report May 2002 | Currently under investigation | | | | | | |
| B-25 | Possible disposal trench | RFI Report April 2005 | NA | X | | | | July-05 | RRS1 |
| B-26 | Possible disposal trench | Delisting Report August 2004 | NA | | | X | | November-04 | Delisting |
| B-27 | Sanitary landfill, consisting of 5-6 trenches (6 ft deep, 3 ft wide). | RFI Report July 2002 | Removal of waste and confirmation sampling | | | | | | |
| B-28 | Disposal trenches (molten metal, ammo, ammo parts) | RFI Report April 2002 | Remediation of stockpile soils | | | | | | |
| B-29 | Solid waste disposal area (in old quarry) | RFI Report April 2005 | NA | X | | | | February-08 | RRS1 |
| B-30 | Solid waste disposal area | RFI Report September 2004 | NA | X | | | | February-05 | RRS1 |
| B-31 | Lead shot/sand pipe bedding | RFI/Closure Report July 2002 | NA | X | | | | November-02 | RRS1 |
| B-32 | Lead shot/sand pipe bedding | RFI/Closure Report January 2003 | NA | X | | | | November-03 | RRS1 |
| B-33 | Lead shot/sand pipe bedding | RFI Report September 2004 | NA | X | | | | November-04 | RRS1 |
| B-34 | Maintenance pit floor drain and discharge point | RFI Report August 2002 | Delineate contamination, disposal of soil | | | | | | |
| B-71 | Livestock area. Inner cantonment, SW of Well 16. | -- | Investigated 2007 (Weston) | | | | X | | |
| Bldg 40 | less-than 90-day accumulation container storage area | RFI/Closure Report September 2003 | NA | X | | | | January-04 and January-06 | RRS1 |
| Bldg 43 | Inactive makeshift ammo demolition facility | RFI Report April 2005 | NA | X | | | | August-05 | RRS1 |

Attachment 2
Summary of Solid Waste Management Units
and Area of Concern Status Table

| Unit No. | Description | Investigation Report(s) | Recommendations | Requested Action | | | | Closure Approved by | Closure Type |
|-----------|--|--|----------------------------------|------------------|-----|-----------|------|---------------------|--------------|
| | | | | RRS1 | NFA | Delisting | TRRP | | |
| DD | Dud ammunition disposal area | RFI Report January 2005 | NA | X | | | | April-05 | RRS1 |
| F-14 | Hazardous waste storage area (<90-day) | RFI/Closure Report, 1995 | NA | X | | | | November-95 | RRS1 |
| I-1 | Inactive incinerator (built in 1943), currently used for transformer storage | RFI Report February 2003 | Investigated 2007/2008 (Parsons) | | | | X | November-08 | NFA |
| O-1 | Waste liquid/sludge oxidation pond (1975) | RFI/Closure Report October 2000 | NA | X | | | | April-02 | RRS1 |
| Coal Bins | Coal bins (no longer in use) | Delisting Requested January 2003 | NA | | | X | | February-08 | Delisting |
| AOC 35 | Area immediately around Well 16. Northeast area of inner cantonment. | RFI/Closure Report October 2002 | NA | X | | | | February-03 | RRS1 |
| AOC 36 | Area between Well 16 and B-3. Possible waste verified not present by magnetometer survey. | RFI/Closure Report April 2002 | NA | X | | | | August-02 | RRS1 |
| AOC 37 | Livestock area. NW of Well 16 and N of Well D. | RFI/Closure Report June 2004 | NA | X | | | | January-05 | NFA |
| AOC 38 | Livestock area. Inner cantonment, SW of Well 16. | RFI Report September 2004 | NA | X | | | | February-05 | RRS1 |
| AOC 39 | None. Area west of Well 16 between North Outer Rd and cantonment fence. | RFI/Closure Report April 2002 | NA | X | | | | September-02 | RRS1 |
| AOC 40 | None. Area east of Well 16 between North Outer Rd and cantonment fence. | RFI/Closure Report May 2002 | NA | X | | | | August-02 | RRS1 |
| AOC 41 | Gate area east of well 16. North Pasture, north of gate 6. | No Further Action Report April 2005 | NA | | X | | | July-05 | NFA |
| AOC 42 | None. South of SWMUs B-28 and B-19, west of B-4. | RFI Report October 2002 | Excavation and sampling. | | | | | | |
| AOC 43 | Shallow trench without mounds. Metal, UXO. Located 50 ft south of B-7. | RFI/Closure Report October 2002 | NA | X | | | | February-03 | RRS1 |
| AOC 44 | Fox holes and trenches south of B-9 along west slope of hill. UXO includes Stokes mortars and 20-lb bombs. | Delisting Report April 2005 | NA | | | X | | July-05 | Delisting |
| AOC 45 | Flat area with spent and undamaged bullets. Located east of B-31, near bend in road. | -- | -- | | | | | | |

Attachment 2
Summary of Solid Waste Management Units
and Area of Concern Status Table

| Unit No. | Description | Investigation Report(s) | Recommendations | Requested Action | | | | Closure Approved by | Closure Type |
|---------------|---|------------------------------------|---------------------|------------------|-----|-----------|------|---------------------|--------------|
| | | | | RRS1 | NFA | Delisting | TRRP | | |
| AOC 46 | Bermed area with stockpile of lead shot and sand. Located south of Engineering on east side of Thompkins Road. | RFI/Closure Report April 2005 | -- | X | | | | July-05 | RRS1 |
| AOC 47 | Area of trenches and mounds (similar to B-15/16). South of B-15/16, in SW area of East Pasture. | RFI/Closure Report June 2002 | NA | X | | | | September-02 | RRS1 |
| AOC 48 | Three N-S trending mounds and a construction debris pile. Located north of B-15/16. | Delisting Report August 2004 | NA | | | X | | November-04 | Delisting |
| AOC 49 | Trench (4 x 7 ft) without surficial debris. Located SW of deer stand 41 in central East Pasture. | Delisting Report April 2005 | NA | | | X | | July-05 | Delisting |
| AOC 50 | Area with orange discolored material (most likely nickel penetrate) at ground surface. South of B-30 along gravel road. | RFI/Closure Report January 2005 | NA | X | | | | April-05 | RRS1 |
| AOC 51 | East pasture, east of active range, approximately 25 acres, area around B-9 | -- | -- | | | | | | |
| AOC 52 | Area west of B-4 towards Salado Creek near trees, two trenches | -- | -- | | | | | | |
| AOC 53 | Building foundation near B-27 at Central Road and road to "D" Tank, batteries at rear of slab | RFI/Closure Report April 2005 | NA | X | | | | July-05 | RRS1 |
| AOC 54 | Area near gutting pit, east of Welding Shop Building, right side of road batteries were stored in the area | Closure Report July 2004 | NA | X | | | | November-04 | RRS1 |
| AOC 55 | Landfill, south of Tenberg Drive, east of Salado Creek | RFI/Closure Report Feb 04 | RRS1 Closure | X | | | | June-08 | RRS1 |
| AOC 56 | Landfill, at intersection of Bernard Road and East Outer Road, surface depression on south side of intersection | Closure Report June 04 | NA | X | | | | September-04 | RRS1 |
| AOC 57 | East of Building 98 and KOA Area, cleaning/maintenance activities performed at temporary structures | -- | -- | | | | | | |
| AOC 58 | Suspected disposal trench within Inner Cantonment | RFI Report October 2002 | Investigate anomaly | | | | | | |
| AOC 59 | Trench-type anomaly located west Test Pad in the East Pasture | -- | -- | | | | | | |
| AOC 60 | Trench located west of tunnel and entrance roadway in the East Pasture. | Delisting Report April 2005 | NA | | | X | | July-05 | Delisting |
| AOC 61 | Suspected landfill | RFI/Closure Report October 2002 | NA | X | | | | February-03 | RRS1 |

Attachment 2
Summary of Solid Waste Management Units
and Area of Concern Status Table

| Unit No. | Description | Investigation Report(s) | Recommendations | Requested Action | | | | Closure Approved by | Closure Type |
|----------|--|--|---|------------------|-----|-----------|------|---------------------|--------------|
| | | | | RRS1 | NFA | Delisting | TRRP | | |
| AOC 62 | Located west of monitoring well MW-2 and east of Salado Creek. | -- | -- | | | | | | |
| AOC 63 | Area consisting of 3 barrels containing rocks, south of deer stand 41 in the East Pasture. | APAR October 2008 | Closure | | | | X | July-09 | TRRP |
| AOC 64 | Area east of SWMU B-4; flares observed in the area | -- | Currently under investigation | | | | X | | |
| AOC 65 | A concrete pit area that housed a metal vat that contained TCE and PCE. | RFI Report August 2003 | Additional investigation, SVE remediation ongoing | | | | | | |
| AOC 66 | Area north of Well 16 in the outer cantonment. | Closure Report June 04 | NA | X | | | | | NFA |
| AOC 67 | Concrete pad near Building 90 housed a vat containing cleaning solvents. | RFI Report August 2002 | Currently under investigation | | | | | | |
| AOC 68 | Area includes metal slag/debris storage area from Wheelabrator operations next to Building 90-2. | -- | Currently under investigation | | | | | | |
| AOC 69 | Located on west side of CSSA. | Release Investigation Report June 2009 | Closure | | | | X | October-09 | TRRP |
| AOC 70 | Building used to mix pesticides. Near Building 1. | -- | -- | | | | | | |
| AOC 72 | Area containing concrete, possible asbestos. Located east of Building 94, in SW CSSA. | -- | -- | | | | | | |
| AOC 73 | Ranch landfill with overgrown trenches. Near Well I1, in northwest corner of CSSA. | Release Investigation Report September 2008 | Closure | | | | X | January-09 | TRRP |

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ATTACHMENT 3

OVERALL H ORDER PERCENT COMPLETE

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Attachment 3
Overall (H) Order Percent Complete

| Task Name | % of Project | % of Phase | % Complete | % of Activity Complete | % of Task Complete |
|--|---------------------|-------------------|-------------------|-------------------------------|---------------------------|
| Interim Measures | 30% | | | | 99% |
| Interim Measures Work Plan | | 7% | 100% | 7.0% | |
| Interim Measures Implementation Reports | | 70% | 99% | 69.2% | |
| | | 23% | 100% | 23.0% | |
| RCRA Facility Investigation | 30% | | | | 77% |
| Preliminary Report | | 5% | 100% | 5% | |
| RFI Workplan | | 5% | 100% | 5% | |
| Facility Investigation | | 40% | 77% | 31% | |
| Risk Assessment | | 10% | 89% | 9% | |
| Investigation Analysis | | 10% | 84% | 8% | |
| Groundwater Investigation | | 15% | 85% | 13% | |
| Treatability Studies | | 10% | 46% | 5% | |
| Progress Reports | | 5% | 28% | 1% | |
| Corrective Measures Study | 10% | | | | 0% |
| Identify and Develop Alternatives | | 15% | 0% | 0% | |
| Evaluate Alternatives | | 60% | 0% | 0% | |
| Reports | | 25% | 0% | 0% | |
| Corrective Measures Implementatio | 30% | | | | 0% |
| Implementation Program Plan | | 5% | 0% | 0% | |
| Corrective Measure Design | | 15% | 0% | 0% | |
| Corrective Measure Construction | | 70% | 0% | 0% | |
| Reports | | 10% | 0% | 0% | |
| % of Phase Complete | | | | | 52.82% |

Attachment 3
Overall (H) Order Percent Complete

| Task Name | % of Phase | % of Task | % Complete | % of Activity Complete | % of Activity Remaining | % of Task Complete | Comments/Status |
|---|------------|-----------|------------|------------------------|-------------------------|--------------------|--|
| 1 Interim Measures Work Plan | 7% | | | | | 100.0% | |
| Draft IM Workplan | | 80% | 100% | 80% | 0% | | |
| Draft Final IM Workplan | | 15% | 100% | 15% | 0% | | |
| Final IM Workplan | | 5% | 100% | 5% | 0% | | |
| 2 Interim Measures Implementation | 70% | | | | | 98.9% | |
| Sample 3 Off-Site Wells | | 1% | 100% | 1% | 0% | | |
| Sample 20 Off-Site Wells (6 events) | | 6% | 100% | 6% | 0% | | (remaining off-post sampling conducted under the RFI task) |
| 2000 Groundwater Monitoring (4 events) | | 4% | 100% | 4% | 0% | | |
| 2001 Groundwater Monitoring (4 events) | | 4% | 100% | 4% | 0% | | |
| 2002 Groundwater Monitoring (4 events) | | 4% | 100% | 4% | 0% | | |
| 2003 Groundwater Monitoring (4 events) | | 4% | 100% | 4% | 0% | | |
| 2004 Groundwater Monitoring (4 events) | | 4% | 100% | 4% | 0% | | |
| 2005 Groundwater Monitoring (4 events) | | 4% | 100% | 4% | 0% | | |
| 2006 Groundwater Monitoring | | 4% | 100% | 4% | 0% | | |
| 2007 Groundwater Monitoring | | 4% | 100% | 4% | 0% | | |
| 2008 Groundwater Monitoring | | 4% | 100% | 4% | 0% | | |
| 2009 Groundwater Monitoring | | 4% | 50% | 2% | 50% | | |
| Locate and map off-site wells | | 1% | 100% | 1% | 0% | | |
| O-1 Soil Borings | | 3% | 100% | 3% | 0% | | |
| O-1 Excavation, Stabilization, Diposal | | 12% | 100% | 12% | 0% | | |
| Establish Treatment Unit | | 1% | 0% | 0% | 100% | | may or may not be necessary. |
| Determine appropriate disposition of soil piles | | 5% | 100% | 5% | 0% | | After treatability studies. |
| Treat/dispose of soil piles | | 20% | 100% | 20% | 0% | | Unfunded CSSA future work. |
| AOC 50 Excavation and Disposal | | 3% | 100% | 3% | 0% | | Not included as IM in the Order. |
| AOC 65 Excavation and Disposal | | 8% | 100% | 8% | 0% | | |
| 3 Reports | 23% | | | | | 100.0% | |
| Quarterly Progress Report 1 (August 1999) | | 0.80% | 100% | 0.80% | 0% | | |
| Quarterly Progress Report 2 (November 1999) | | 0.80% | 100% | 0.80% | 0% | | |
| Quarterly Progress Report 3 (February 2000) | | 0.80% | 100% | 0.80% | 0% | | |
| Quarterly Progress Report 4 (May 2000) | | 0.80% | 100% | 0.80% | 0% | | |
| Quarterly Progress Report 5 (August 2000) | | 0.80% | 100% | 0.80% | 0% | | |
| Quarterly Progress Report 6 (November 2000) | | 0.80% | 100% | 0.80% | 0% | | |
| Quarterly Progress Report 7 (February 2001) | | 0.80% | 100% | 0.80% | 0% | | |
| Quarterly Progress Report 8 (May 2001) | | 0.80% | 100% | 0.80% | 0% | | |
| Quarterly Progress Report 9 (August 2001) | | 0.80% | 100% | 0.80% | 0% | | |
| Quarterly Progress Report 10 (November 2001) | | 0.80% | 100% | 0.80% | 0% | | |
| Quarterly Progress Report 11 (February 2002) | | 0.80% | 100% | 0.80% | 0% | | |
| Quarterly Progress Report 12 (May 2002) | | 0.80% | 100% | 0.80% | 0% | | |
| Quarterly Progress Report 13 (August 2002) | | 0.80% | 100% | 0.80% | 0% | | |
| Quarterly Progress Report 14 (November 2002) | | 0.80% | 100% | 0.80% | 0% | | |
| Quarterly Progress Report 15 (February 2003) | | 0.80% | 100% | 0.80% | 0% | | |
| Quarterly Progress Report 16 (May 2003) | | 0.80% | 100% | 0.80% | 0% | | |
| Quarterly Progress Report 17 (August 2003) | | 0.80% | 100% | 0.80% | 0% | | |
| Quarterly Progress Report 18 (November 2003) | | 0.80% | 100% | 0.80% | 0% | | |
| Quarterly Progress Report 19 (February 2004) | | 0.80% | 100% | 0.80% | 0% | | |
| Quarterly Progress Report 20 (May 2004) | | 0.80% | 100% | 0.80% | 0% | | |
| Quarterly Progress Report 21 (August 2004) | | 0.80% | 100% | 0.80% | 0% | | |
| Quarterly Progress Report 22 (November 2004) | | 0.80% | 100% | 0.80% | 0% | | |
| Quarterly Progress Report 23 (February 2005) | | 0.80% | 100% | 0.80% | 0% | | |
| Quarterly Progress Report 24 (May 2005) | | 0.80% | 100% | 0.80% | 0% | | |
| Quarterly Progress Report 25 (August 2005) | | 0.80% | 100% | 0.80% | 0% | | |
| Quarterly Progress Report 26 (October 2005) | | 0.80% | 100% | 0.80% | 0% | | |
| Quarterly Progress Report 27 (January 2006) | | 0.80% | 100% | 0.80% | 0% | | |
| Quarterly Progress Report 28 (April 2006) | | 0.80% | 100% | 0.80% | 0% | | |
| Semi-annual Progress Rpt 29 (Dec 2006) | | 0.80% | 100% | 0.80% | 0% | | |
| Semi-annual Progress Rpt 30 (July 2007) | | 0.80% | 100% | 0.80% | 0% | | |
| Semi-annual Progress Rpt 31 (Dec 2007) | | 0.80% | 100% | 0.80% | 0% | | |
| Semi-annual Progress Rpt 32 (July 2008) | | 0.80% | 100% | 0.80% | 0% | | Unfunded CSSA future work. |
| Semi-annual Progress Rpt 33 (Dec 2008) | | 0.80% | 100% | 0.80% | 0% | | Unfunded CSSA future work. |
| Semi-annual Progress Rpt 34 (July 2009) | | 0.80% | 100% | 0.80% | 0% | | |
| Semi-annual Progress Rpt 35 (Dec 2009) | | 0.80% | 0% | 0.00% | 100% | | |
| Draft O-1 IM Report | | 19% | 100% | 19% | 0% | | |
| Draft final O-1 IM Report | | 12% | 100% | 12% | 0% | | |
| Final O-1 IM Report | | 5% | 100% | 5% | 0% | | |
| Draft Soil Pile IM Report | | 20% | 100% | 20% | 0% | | |
| Draft Final Soil Pile IM Report | | 12% | 100% | 12% | 0% | | |
| Final Soil Pile IM Report | | 5% | 100% | 5% | 0% | | |
| % of Phase Complete | | | | | | 99.24% | |

Attachment 3
Overall (H) Order Percent Complete

| Task Name | % of Phase | % of Task | % Complete | % of Activity Complete | % of Activity Remaining | % of Task Complete | Comments/Status |
|---|------------|-----------|------------|------------------------|-------------------------|--------------------|--|
| Preliminary Report | 5% | | | | | 100.0% | |
| Draft DCC Report | | 80% | 100% | 80% | 0% | | |
| Draft Final DCC Report | | 15% | 100% | 15% | 0% | | |
| Final DCC Report | | 5% | 100% | 5% | 0% | | |
| RFI Workplan | 5% | | | | | 100.0% | |
| Draft Community Relations Plan | | 25% | 100% | 25% | 0% | | |
| Draft Final CRP | | 5% | 100% | 5% | 0% | | |
| Final CRP (2006) | | 10% | 100% | 10% | 0% | | |
| Draft RFI Workplans | | 20% | 100% | 20% | 0% | | |
| Draft Final RFI Workplan | | 5% | 100% | 5% | 0% | | |
| Final RFI Workplans | | 5% | 100% | 5% | 0% | | |
| Final Work Plans (DY01) | | 10% | 100% | 10% | 0% | | |
| Draft Work Plans (DY02) | | 10% | 100% | 10% | 0% | | |
| Final Work Plans (DY02) | | 10% | 100% | 10% | 0% | | |
| Facility Investigation¹ | 40% | | | | | 76.9% | |
| Small Areas (0-2 acres in size) | | | | | | | |
| B-3 Investigation/Report | | 1.24% | 50% | 0.620% | 50% | | Final report submitted, additional work required. |
| B-4 Investigation/Report | | 1.24% | 80% | 0.992% | 20% | | Final report submitted. Additional work required. |
| B-5 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | RRS1 closure approved Oct 02. |
| B-6 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | RRS1 closure approved Oct 02. |
| B-7 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | RRS1 closure approved Oct 02. |
| B-8 Investigation/Report | | 1.24% | 80% | 0.992% | 20% | | Add'l Investigation to be performed (DY01) |
| B-9 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | RRS1 closure approved Mar 03 |
| B-10 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | RRS1 closure approved Jan 04 |
| B-11 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | RRS1 closure approved Sept 04 |
| B-12 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | RRS1 closure approved July 05 |
| B-13 Investigation/Report | | 1.24% | 80% | 0.992% | 20% | | Final report submitted. Additional work required. |
| B-15/16 Investigation/Report | | 1.24% | 80% | 0.992% | 20% | | Final report submitted. Additional work required. |
| B-19 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | RRS1 closure approved Sept 02 |
| B-23 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | RRS1 closure approved July 05 |
| B-23A Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | RRS1 closure approved Mar 05 |
| B-25 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | RRS1 closure approved July 05 |
| B-26 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | Delisting approved November 04 |
| B-27 Investigation/Report | | 1.24% | 80% | 0.992% | 20% | | Final report submitted, additional work required |
| B-28 Investigation/Report | | 1.24% | 80% | 0.992% | 20% | | Final report submitted, additional work required |
| B-30 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | RRS1 closure approved Feb 05 |
| B-31 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | RRS1 closure approved Nov 02 |
| B-32 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | RRS1 closure approved Nov 03 |
| B-33 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | RRS1 closure approved Nov 04 |
| B-34 Investigation/Report | | 1.24% | 80% | 0.992% | 20% | | Final report and Addendum report submitted, additional work required |
| B-71 Investigation/Report | | 1.24% | 80% | 0.992% | 20% | | Not investigated |
| BLDG-43 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | RRS1 closure approved Sept 05 |
| Demo Dud Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | RRS1 closure approved Apr 05 |
| F-14 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | Closure approved Nov 95 |
| I-1 Investigation/Report | | 1.24% | 90% | 1.116% | 10% | | Add'l Investigation to be performed (DY01) |
| AOC 35 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | RRS1 closure approved Feb 03 |
| AOC 37 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | RRS1 closure approved Jan 05 |
| AOC 39 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | RRS1 closure approved Sept 02 |
| AOC 40 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | RRS1 closure approved Aug 02 |
| AOC 43 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | RRS1 closure approved Feb 03 |
| AOC 44 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | Delisting approved July 2005. |
| AOC 45 Investigation/Report | | 1.24% | 0% | 0.000% | 100% | | |
| AOC 46 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | RRS1 closure approved July 05 |
| AOC 47 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | Closure approved Sep 02 |

Attachment 3
Overall (H) Order Percent Complete

| Task Name | % of Phase | % of Task | % Complete | % of Activity Complete | % of Activity Remaining | % of Task Complete | Comments/Status |
|---|-------------------|------------------|-------------------|-------------------------------|--------------------------------|---------------------------|------------------------------------|
| AOC 49 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | Delisting approved July 2005 |
| AOC 50 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | Closure approved Apr 05 |
| AOC 52 Investigation/Report | | 1.24% | 0% | 0.000% | 100% | | |
| AOC 53 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | closure approved July 2005. |
| AOC 54 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | Closure approved Nov 04 |
| AOC 55 Investigation/Report | | 1.24% | 99% | 1.228% | 1% | | closure report submitted |
| AOC 56 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | Closure approved Sept 04 |
| | | | | | | | Final RFI report submitted, |
| AOC 58 Investigation/Report | | 1.24% | 80% | 0.992% | 20% | | additional work recommended. |
| AOC 59 Investigation/Report | | 1.24% | 0% | 0.000% | 100% | | |
| AOC 60 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | Delisting approved July 2005. |
| AOC 61 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | Closure approved Feb 03 |
| AOC 62 Investigation/Report | | 1.24% | 0% | 0.000% | 100% | | |
| AOC 63 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | Closure approved Aug 2009. |
| AOC 64 Investigation/Report | | 1.24% | 80% | 0.992% | 20% | | |
| | | | | | | | Add'l investigation to be |
| AOC 67 Investigation/Report | | 1.24% | 95% | 1.178% | 5% | | performed (DY01) |
| | | | | | | | Add'l investigation to be |
| AOC 68 Investigation/Report | | 1.24% | 95% | 1.178% | 5% | | performed (DY01) |
| AOC 69 Investigation/Report | | 1.24% | 0% | 0.000% | 100% | | |
| AOC 70 Investigation/Report | | 1.24% | 0% | 0.000% | 100% | | |
| AOC 72 Investigation/Report | | 1.24% | 0% | 0.000% | 100% | | |
| AOC 73 Investigation/Report | | 1.24% | 100% | 1.240% | 0% | | Closure approved July 2009 |
| Medium Areas (2-10 acres in size) | | | | | | | |
| B-1 Investigation/Report | | 1.2% | 100% | 1.220% | 0% | | Closure approved Nov 02 |
| | | | | | | | Add'l Investigation to be |
| B-2 Investigation/Report | | 1.2% | 80% | 0.976% | 20% | | performed (DY01) |
| B-22 Investigation/Report | | 1.2% | 100% | 1.220% | 0% | | Closure approved Dec 02 |
| | | | | | | | Final report submitted, additional |
| B-24 Investigation/Report | | 1.2% | 80% | 0.976% | 20% | | work recommended |
| | | | | | | | Final RRS1 closure report |
| B-29 Investigation/Report | | 1.2% | 99% | 1.207% | 1% | | submitted |
| AOC 36 Investigation/Report | | 1.2% | 100% | 1.220% | 0% | | Closure approved Aug 02 |
| AOC 41 Investigation/Report | | 1.2% | 100% | 1.220% | 0% | | Closure approved July 2005. |
| | | | | | | | Final report submitted, additional |
| AOC 42 Investigation/Report | | 1.2% | 80% | 0.976% | 20% | | work recommended |
| AOC 48 Investigation/Report | | 1.2% | 100% | 1.220% | 0% | | Delisting approved Nov 04 |
| AOC 57 Investigation/Report | | 1.2% | 0% | 0.000% | 100% | | |
| Large Areas (>10 acres in size) | | | | | | | |
| | | | | | | | Add'l investigation to be |
| B-20/21 Investigation/Report | | 1.2% | 80% | 0.976% | 20% | | performed (DY01) |
| AOC 38 Investigation/Report | | 1.2% | 100% | 1.220% | 0% | | Closure approved February 05 |
| AOC 51 Investigation/Report | | 1.2% | 0% | 0.000% | 100% | | |
| AOC 66 Investigation/Report | | 1.2% | 100% | 1.220% | 0% | | NFA Closure approved Feb 05 |
| RMU-1 Investigation/Report | | 1.2% | 0% | 0.000% | 100% | | |
| RMU-5 Investigation/Report | | 1.2% | 0% | 0.000% | 100% | | |
| | | | | | | | Final report submitted, additional |
| AOC 65 Investigation/Report | | 1.2% | 80% | 0.976% | 20% | | work recommended |
| AOC 69 Investigation/Report | | 1.2% | 100% | 1.220% | 0% | | Closure approved Oct 2009 |
| AOC 70 Investigation/Report | | 1.2% | 0% | 0.000% | 100% | | |
| Coal Bins Investigation/Report | | 1.2% | 100% | 1.220% | 0% | | Site being de-listed as a SWMU |
| RMU-2 Investigation/Report | | 1.2% | 0% | 0.000% | 100% | | |
| RMU-3 Investigation/Report | | 1.2% | 0% | 0.000% | 100% | | |
| RMU-4 Investigation/Report | | 1.2% | 0% | 0.000% | 100% | | |
| Groundwater Investigation | | | | | | | |
| | | 15% | | | | 85% | |
| Well Installation | | 10% | 80% | 8% | 20% | | Well installations pending under |
| Groundwater Monitoring 1999 | | 4.2% | 100% | 4% | 0% | | TO 08 |
| Groundwater Monitoring 2000 | | 4.2% | 100% | 4% | 0% | | |
| Groundwater Monitoring 2001 | | 4.2% | 100% | 4% | 0% | | |
| Groundwater Monitoring 2002 | | 4.2% | 100% | 4% | 0% | | |
| Groundwater Monitoring 2003 | | 4.2% | 100% | 4% | 0% | | |
| Groundwater Monitoring 2004 | | 4.2% | 100% | 4% | 0% | | |

Attachment 3
Overall (H) Order Percent Complete

| Task Name | % of Phase | % of Task | % Complete | % of Activity Complete | % of Activity Remaining | % of Task Complete | Comments/Status |
|--|-------------------|------------------|-------------------|-------------------------------|--------------------------------|---------------------------|---|
| Groundwater Monitoring 2005 | | 4.2% | 100% | 4% | 0% | | |
| Groundwater Monitoring 2006 | | 4.2% | 100% | 4% | 0% | | |
| Groundwater Monitoring 2007 | | 4.2% | 100% | 4% | 0% | | |
| Groundwater Monitoring 2008 | | 4.2% | 100% | 4% | 0% | | |
| Groundwater Monitoring 2009 | | 4.2% | 50% | 2% | 50% | | Incomplete |
| Conceptual Site Model (CSM) | | 20.0% | 100% | 20% | 0% | | |
| CSM Update | | 4.0% | 80% | 3% | 20% | | |
| LTMO 2005 (optimization study) | | 10% | 100% | 10% | 0% | | Complete |
| LTMO 2010 (review of optimization) | | 10% | 0% | 0% | 100% | | Incomplete |
| Risk Assessment | 10% | | | | | 89% | |
| Draft TAD | | 10% | 100% | 10% | 0% | | |
| Draft Final TAD | | 4% | 100% | 4% | 0% | | |
| Final TAD | | 1% | 0% | 0% | 100% | | Complete when analytical data are available for full evaluation. |
| Draft CSM | | 70% | 100% | 70% | 0% | | |
| Update to CSM | | 10% | 50% | 5% | 50% | | |
| Final CSM | | 5% | 0% | 0% | 100% | | |
| Investigation Analysis | 10% | | | | | 84% | |
| Collect Background Data | | 10% | 100% | 10% | 0% | | Information included in facility investigation reports; percent complete based on overall percent complete of facility investigation tasks. |
| Draft Investigation Analysis | | 85% | 82% | 70% | 18% | | |
| Final Investigation Analysis | | 5% | 82% | 4% | 18% | | Information included in facility investigation reports; percent complete based on overall percent complete of facility investigation tasks. |
| Treatability Studies | 10% | | | | | 46% | |
| Draft Treatability Study Report B-20 | | 15% | 100% | 15% | 0% | | |
| Final Treatability Study Report B-20 | | 5% | 100% | 5% | 0% | | |
| Continued O&M for B-3 | | 10% | 100% | 10% | 0% | | |
| AOC-65 Treatability Studies | | 10% | 90% | 9% | 10% | | |
| Draft Treatability Study & Technology Evaluation Reports | | 10% | 70% | 7% | 30% | | |
| Final Treatability Study | | 25% | 0% | 0% | 100% | | |
| Recharge Study | | 25% | 100% | 25% | 0% | | |
| Progress Reports | 5% | | | | | 28.0% | |
| Quarter 1 (August 1999) | | 0.85% | 100% | 0.85% | 0% | | |
| Quarter 2 (November 1999) | | 0.85% | 100% | 0.85% | 0% | | |
| Quarter 3 (February 2000) | | 0.85% | 100% | 0.85% | 0% | | |
| Quarter 4 (May 2000) | | 0.85% | 100% | 0.85% | 0% | | |
| Quarter 5 (August 2000) | | 0.85% | 100% | 0.85% | 0% | | |
| Quarter 6 (November 2000) | | 0.85% | 100% | 0.85% | 0% | | |
| Quarter 7 (February 2001) | | 0.85% | 100% | 0.85% | 0% | | |
| Quarter 8 (May 2001) | | 0.85% | 100% | 0.85% | 0% | | |
| Quarter 9 (August 2001) | | 0.85% | 100% | 0.85% | 0% | | |
| Quarter 10 (November 2001) | | 0.85% | 100% | 0.85% | 0% | | |
| Quarter 11 (February 2002) | | 0.85% | 100% | 0.85% | 0% | | |
| Quarter 12 (May 2002) | | 0.85% | 100% | 0.85% | 0% | | |
| Quarter 13 (August 2002) | | 0.85% | 100% | 0.85% | 0% | | |
| Quarter 14 (November 2002) | | 0.85% | 100% | 0.85% | 0% | | |
| Quarter 15 (February 2003) | | 0.85% | 100% | 0.85% | 0% | | |
| Quarter 16 (May 2003) | | 0.85% | 100% | 0.85% | 0% | | |
| Quarter 17 (August 2003) | | 0.85% | 100% | 0.85% | 0% | | |
| Quarter 18 (November 2003) | | 0.85% | 100% | 0.85% | 0% | | |
| Quarter 19 (February 2004) | | 0.85% | 100% | 0.85% | 0% | | |
| Quarter 20 (May 2004) | | 0.85% | 100% | 0.85% | 0% | | |
| Quarter 21 (August 2004) | | 0.85% | 100% | 0.85% | 0% | | |
| Quarter 22 (November 2004) | | 0.85% | 100% | 0.85% | 0% | | |
| Quarter 23 (February 2005) | | 0.85% | 100% | 0.85% | 0% | | |
| Quarter 24 (May 2005) | | 0.85% | 100% | 0.85% | 0% | | |

Attachment 3
Overall (H) Order Percent Complete

| Task Name | % of Phase | % of Task | % Complete | % of Activity Complete | % of Activity Remaining | % of Task Complete | Comments/Status |
|---|-------------------|------------------|-------------------|-------------------------------|--------------------------------|---------------------------|------------------------|
| Quarter 25 (August 2005) | | 0.85% | 100% | 0.85% | 0% | | |
| Quarter 26 (November 2005) | | 0.85% | 100% | 0.85% | 0% | | |
| Quarter 27 (February 2006) | | 0.85% | 100% | 0.85% | 0% | | |
| Quarter 28 (May 2006) | | 0.85% | 100% | 0.85% | 0% | | |
| Semi-Annual 29 (December 2006) | | 0.85% | 100% | 0.85% | 0% | | |
| Semi-Annual 30 (July 2007) | | 0.85% | 100% | 0.85% | 0% | | |
| Semi-Annual 31 (December 2007) | | 0.85% | 100% | 0.85% | 0% | | |
| Semi-Annual 32 (July 2008) | | 0.85% | 100% | 0.85% | 0% | | |
| Semi-Annual 33 (December 2008) | | 0.85% | 100% | 0.85% | 0% | | |
| Semi-Annual 34 (July 2009) | | 0.85% | 0% | 0.00% | 100% | | |
| Semi-Annual 35 (December 2009) | | 0.85% | 0% | 0.00% | 100% | | |
| Semi-Annual 36 (July 2010) | | 0.85% | 0% | 0.00% | 100% | | |
| Semi-Annual 37 (December 2010) | | 0.85% | 0% | 0.00% | 100% | | |
| (Add'l Quarters - rows hidden) | | | | | | | |
| % of Phase Complete | | | | | | 76.83% | |
| ¹ Breakdown of percent complete for RFI facility investigations: Field work complete (25%), data validation (20%), boring logs (if applicable)(10%), analytical data tables (10%), figures (10%), draft report (20%), final report (5%). Note: if additional investigations are needed, then the percent complete will need to be adjusted on a site by site basis. | | | | | | | |

Attachment 3
Overall (H) Order Percent Complete

| Task Name | % of Phase | % of Task | % Complete | % of Activity Complete | % of Task Complete |
|--|-------------------|------------------|-------------------|-------------------------------|---------------------------|
| Identify and Develop Alternatives | 15% | | | | 0.0% |
| Update DCC Report | | 35% | 0% | 0% | |
| Establish Corrective Action Objectives | | 30% | 0% | 0% | |
| ID, Screen, Develop CM Alternatives | | 35% | 0% | 0% | |
| Evaluate Alternatives | 60% | | | | 0.0% |
| Draft Description of CM Alternative | | 90% | 0% | 0% | |
| Final Description of CM Alternative | | 10% | 0% | 0% | |
| ??? | | | | 0% | |
| Reports | 25% | | | | 0.0% |
| Draft CMS Report | | 75% | 0% | 0% | |
| Final CMS Report | | 5% | 0% | 0% | |
| Quarter 1 Progress Report | | 5% | 0% | 0% | |
| Quarter 2 Progress Report | | 5% | 0% | 0% | |
| Quarter 3 Progress Report | | 5% | 0% | 0% | |
| Quarter 4 Progress Report | | 5% | 0% | 0% | |
| ??? | | | 0% | 0% | |
| % of Phase Complete | | | | | 0.0% |

Attachment 3
Overall (H) Order Percent Complete

| Task Name | % of Phase | % of Task | % Complete | % of Activity Complete | % of Task Complete |
|--|-------------------|------------------|-------------------|-------------------------------|---------------------------|
| Implementation Program Plan | 5% | | | | 0.0% |
| Draft Program Management Plan | | 40% | 0% | 0% | |
| Final Program Management Plan | | 10% | 0% | 0% | |
| Draft Update to CRP | | 40% | 0% | 0% | |
| Final Update to CRP | | 10% | 0% | 0% | |
| Corrective Measure Design | 15% | | | | 0.0% |
| Draft CMD Report | | 90% | 0% | 0% | |
| Final CMD Report | | 10% | 0% | 0% | |
| Corrective Measure Construction | 70% | | | | 0% |
| Draft Construction QAPP | | 35% | 0% | 0% | |
| Final Construction QAPP | | 5% | 0% | 0% | |
| Implementation of Construction QAPP | | 60% | 0% | 0% | |
| Reports | 10% | | | | 0% |
| Progress Report 1 | | 25% | 0% | 0% | |
| Progress Report 2 | | 25% | 0% | 0% | |
| Progress Report 3 | | 25% | 0% | 0% | |
| Progress Report 4 | | 25% | 0% | 0% | |
| ???? | | | | | |
| % of Phase Complete | | | | | 0.00% |

ATTACHMENT 4

GROUNDWATER RESULTS SUMMARY

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Attachment 4
June 2009 Quarterly On-Post Groundwater Monitoring Analytical Results

| Well ID | Sample Date | Arsenic | Barium | Cadmium | Chromium | Copper | Lead | Zinc | Mercury |
|---------------------------------|-------------|---------|---------------|---------|---------------|--------------|----------------|--------------|----------------|
| CS-MW8-LGR | 6/11/2009 | NA | NA | 0.0005U | 0.001U | NA | 0.0023F | NA | 0.0001U |
| CS-MW12-LGR | 6/11/2009 | NA | NA | 0.0005U | 0.002F | NA | 0.0019U | NA | 0.0001U |
| CS-MW12-LGR FD | 6/11/2009 | NA | NA | 0.0005U | 0.002F | NA | 0.0019U | NA | 0.0001U |
| CS-MW20-LGR | 6/10/2009 | NA | NA | 0.0005U | 0.001U | NA | 0.0021F | NA | 0.0001U |
| CS-MW21-LGR | 6/10/2009 | NA | NA | 0.0005U | 0.001U | NA | 0.0019U | NA | 0.0001U |
| CS-MW22-LGR | 6/10/2009 | NA | NA | 0.0005U | 0.005F | NA | 0.0088F | NA | 0.0002F |
| CS-MW23-LGR | 6/10/2009 | NA | NA | 0.0005U | 0.002F | NA | 0.0023F | NA | 0.0002F |
| CS-MW24-LGR | 6/9/2009 | NA | NA | 0.0005U | 0.001U | NA | 0.0019U | NA | 0.0001U |
| CS-MW24-LGR FD | 6/9/2009 | NA | NA | 0.0005U | 0.001U | NA | 0.0019U | NA | 0.0001U |
| CS-MW25-LGR | 6/9/2009 | NA | NA | 0.0005U | 0.004F | NA | 0.0023F | NA | 0.0001U |
| CS-MWG-LGR | 6/9/2009 | NA | NA | 0.0005U | 0.001U | NA | 0.0025F | NA | 0.0001U |
| CS-2 | 6/9/2009 | NA | NA | 0.0005U | 0.015 | NA | 0.0027F | NA | 0.0001U |
| CS-11 | 6/9/2009 | NA | NA | 0.0005U | 0.001U | NA | 0.0019U | NA | 0.0002F |
| CSSA Drinking Water Well System | | | | | | | | | |
| CS-1 | 6/11/2009 | 0.0002U | 0.0356 | 0.0005U | 0.001U | 0.003U | 0.0143F | 0.423 | 0.0002F |
| CS-9 | 6/11/2009 | 0.0002U | 0.0455 | 0.0005U | 0.002F | 0.012 | 0.0215F | 2.54 | 0.0105* |
| CS-10 | 6/11/2009 | 0.0002U | 0.0452 | 0.0005U | 0.001U | 0.003U | 0.0032F | 0.288 | 0.0002F |

| Well ID | Sample Date | 1,1-DCE | cis-1,2-DCE | trans-1,2-DCE | PCE | TCE | Vinyl Chloride |
|---------------------------------|-------------|---------|-------------|---------------|--------------|--------------|----------------|
| CS-MW8-LGR | 6/11/2009 | 0.12U | 0.07U | 0.08U | 1.26F | 0.05U | 0.08U |
| CS-MW12-LGR | 6/11/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| CS-MW12-LGR FD | 6/11/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| CS-MW20-LGR | 6/10/2009 | 0.12U | 0.07U | 0.08U | 2.09 | 0.05U | 0.08U |
| CS-MW21-LGR | 6/10/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| CS-MW22-LGR | 6/10/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| CS-MW23-LGR | 6/10/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| CS-MW24-LGR | 6/9/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| CS-MW24-LGR FD | 6/9/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| CS-MW25-LGR | 6/9/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| CS-MWG-LGR | 6/9/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| CS-2 | 6/9/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| CS-11 | 6/9/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| CSSA Drinking Water Well System | | | | | | | |
| CS-1 | 6/11/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.47F | 0.08U |
| CS-9 | 6/11/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| CS-10 | 6/11/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |

| | |
|-------------|-----------------|
| BOLD | = Above the MDL |
| BOLD | = Above the RL |
| BOLD | = Above the MCL |

All samples were analyzed by APPL, Inc.
VOC data reported in ug/L & metals data reported in mg/L.
Abbreviations/Notes:
FD Field Duplicate
TCE Trichloroethene
PCE Tetrachloroethene
DCE Dichloroethene
AL Action Level
SS Secondary Standard
NA Not Analyzed for this parameter

Data Qualifiers
U - The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.
F - The analyte was positively identified but the associated numerical value is below the RL.
* - The analyte was run at a dilution of 5.

Attachment 4
June 2009 Quarterly Off-Post Groundwater Analytical Results

| Well ID | Sample Date | 1,1-DCE | cis-1,2-DCE | trans-1,2-DCE | PCE | TCE | Vinyl Chloride |
|----------|-------------|---------|-------------|---------------|--------------|--------------|----------------|
| FO-17 | 6/2/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| FO-J1 | 6/3/2009 | 0.12U | 0.07U | 0.08U | 0.57F | 0.05U | 0.08U |
| HS-1 | 6/3/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| HS-2 | 6/3/2009 | 0.12U | 0.07U | 0.08U | 0.23F | 0.05U | 0.08U |
| HS-3 | 6/3/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| I10-4 | 6/1/2009 | 0.12U | 0.07U | 0.08U | 6.48 | 2.7 | 0.08U |
| I10-7 | 6/2/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| I10-7 FD | 6/2/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| JW-6 | 6/2/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| JW-7 | 6/2/2009 | 0.12U | 0.07U | 0.08U | 0.48F | 0.05U | 0.08U |
| JW-8 | 6/3/2009 | 0.12U | 0.07U | 0.08U | 0.37F | 0.05U | 0.08U |
| JW-12 | 6/5/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| JW-13 | 6/5/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| JW-14 | 6/3/2009 | 0.12U | 0.07U | 0.08U | 0.19F | 0.05U | 0.08U |
| JW-28 | 6/2/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| JW-29 | 6/10/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| JW-29 FD | 6/10/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| JW-30 | 6/2/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| LS-1 | 6/4/2009 | 0.12U | 0.07U | 0.08U | 0.85F | 0.05U | 0.08U |
| LS-1 FD | 6/4/2009 | 0.12U | 0.07U | 0.08U | 0.76F | 0.20F | 0.08U |
| LS-4 | 6/4/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| LS-5 | 6/1/2009 | 0.12U | 0.07U | 0.08U | 0.80F | 2.64 | 0.08U |
| LS-6 | 6/1/2009 | 0.12U | 0.07U | 0.08U | 0.93F | 1.33 | 0.08U |
| LS-7 | 6/1/2009 | 0.12U | 0.07U | 0.08U | 1.87 | 0.72F | 0.08U |
| OFR-1 | 6/3/2009 | 0.12U | 0.07U | 0.08U | 0.33F | 0.05U | 0.08U |
| OFR-3 | 6/1/2009 | 0.12U | 0.07U | 0.08U | 5.98 | 3.21 | 0.08U |
| RFR-8 | 6/3/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| RFR-10 | 6/1/2009 | 0.12U | 0.07U | 0.08U | 8.78 | 2.65 | 0.08U |
| RFR-11 | 6/1/2009 | 0.12U | 0.07U | 0.08U | 0.49F | 1.45 | 0.08U |
| RFR-13 | 6/3/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| RFR-14 | 6/3/2009 | 0.12U | 0.07U | 0.08U | 0.24F | 0.05U | 0.08U |

| | |
|-------------|-----------------|
| BOLD | = Above the MDL |
| BOLD | = Above the RL |
| BOLD | = Above the MCL |

| | |
|--|-------------------|
| All samples were analyzed by APPL, Inc. | |
| VOC data reported in ug/L. | |
| Abbreviations/Notes: | |
| FD | Field Duplicate |
| TCE | Trichloroethene |
| PCE | Tetrachloroethene |
| DCE | Dichloroethene |
| Data Qualifiers | |
| U-The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL. | |
| F-The analyte was positively identified but the associated numerical value is below the RL. | |

Attachment 4
September 2009 On-Post Quarterly Groundwater Sampling

| Well ID | Sample Date | Arsenic | Barium | Cadmium | Chromium | Copper | Lead | Zinc | Mercury |
|---------------------------------|-------------|---------|---------------|---------|---------------|---------------|----------------|--------------|---------------|
| CS-MW1-LGR | 9/9/2009 | NA | NA | 0.0005U | 0.003F | NA | 0.0019U | NA | 0.0001U |
| CS-MW1-CC | 9/9/2009 | NA | NA | 0.0005U | 0.001U | NA | 0.0019U | NA | 0.0001U |
| CS-MW1-BS | 9/9/2009 | NA | NA | 0.0005U | 0.001U | NA | 0.0019U | NA | 0.0001U |
| CS-MW2-LGR | 9/10/2009 | NA | NA | 0.0005U | 0.001U | NA | 0.0019U | NA | 0.0001U |
| CS-MW3-LGR | 9/14/2009 | NA | NA | 0.0005U | 0.002F | NA | 0.0019U | NA | 0.0001U |
| CS-MW5-LGR | 9/10/2009 | NA | NA | 0.0005U | 0.001U | NA | 0.0019U | NA | 0.0001U |
| CS-MW6-LGR | 9/10/2009 | NA | NA | 0.0005U | 0.004F | NA | 0.0019U | NA | 0.0001U |
| CS-MW6-BS | 9/10/2009 | NA | NA | 0.0005U | 0.003F | NA | 0.0019U | NA | 0.0001U |
| CS-MW7-LGR | 9/11/2009 | NA | NA | 0.0005U | 0.002F | NA | 0.0019U | NA | 0.0001U |
| CS-MW7-LGR FD | 9/11/2009 | NA | NA | 0.0005U | 0.002F | NA | 0.0019U | NA | 0.0001U |
| CS-MW9-LGR | 9/14/2009 | NA | NA | 0.0005U | 0.001U | NA | 0.0019U | NA | 0.0001U |
| CS-MW9-BS | 9/14/2009 | NA | NA | 0.0005U | 0.003F | NA | 0.0302 | NA | 0.0001U |
| CS-MW11A-LGR | 9/15/2009 | NA | NA | 0.0005U | 0.001U | NA | 0.0019U | NA | 0.0001U |
| CS-MW12-BS | 9/16/2009 | NA | NA | 0.0005U | 0.001U | NA | 0.0019U | NA | 0.0001U |
| CS-MW16-LGR | 9/9/2009 | NA | NA | 0.0005U | 0.001U | NA | 0.0019U | NA | 0.0001U |
| CS-MW16-CC | 9/9/2009 | NA | NA | 0.0005U | 0.001U | NA | 0.0019U | NA | 0.0001U |
| CS-MW19-LGR | 9/11/2009 | NA | NA | 0.0005U | 0.001U | NA | 0.0019U | NA | 0.0001U |
| CS-MW20-LGR | 9/16/2009 | NA | NA | 0.0005U | 0.001U | NA | 0.0019U | NA | 0.0001U |
| CS-MW20-LGR FD | 9/16/2009 | NA | NA | 0.0005U | 0.001U | NA | 0.0019U | NA | 0.0001U |
| CS-MW21-LGR | 9/15/2009 | NA | NA | 0.0005U | 0.001U | NA | 0.0019U | NA | 0.0001U |
| CS-MW22-LGR | 9/15/2009 | NA | NA | 0.0005U | 0.001U | NA | 0.0030F | NA | 0.0001U |
| CS-MW23-LGR | 9/15/2009 | NA | NA | 0.0005U | 0.001U | NA | 0.0019U | NA | 0.0001U |
| CS-MW24-LGR | 9/10/2009 | NA | NA | 0.0005U | 0.001U | NA | 0.0019U | NA | 0.0001U |
| CS-MW25-LGR | 9/14/2009 | NA | NA | 0.0005U | 0.001U | NA | 0.0019U | NA | 0.0001U |
| CS-MWH-LGR | 9/14/2009 | NA | NA | 0.0005U | 0.001U | NA | 0.0038F | NA | 0.0001U |
| CS-D | 9/15/2009 | NA | NA | 0.0005U | 0.001U | NA | 0.0056F | NA | 0.0001U |
| CS-12 | 9/14/2009 | 0.0002U | 0.029 | 0.0005U | 0.001U | 0.012 | 0.0045F | 0.266 | 0.0001U |
| CSSA Drinking Water Well System | | | | | | | | | |
| CS-1 | 9/16/2009 | 0.0002U | 0.0297 | 0.0005U | 0.001U | 0.009F | 0.0028F | 0.274 | 0.0001U |
| CS-9 | 9/16/2009 | 0.0002U | 0.0391 | 0.0005U | 0.001U | 0.013 | 0.0296 | 2.718 | 0.0082 |
| CS-10 | 9/14/2009 | 0.0002U | 0.037 | 0.0005U | 0.001U | 0.004F | 0.0019U | 0.169 | 0.0001U |
| CS-10 FD | 9/14/2009 | 0.0002U | 0.039 | 0.0005U | 0.001U | 0.003U | 0.0019U | 0.167 | 0.0001U |

| Well ID | Sample Date | 1,1-DCE | cis-1,2-DCE | trans-1,2-DCE | PCE | TCE | Vinyl Chloride |
|----------------|-------------|--------------|----------------|---------------|---------------|----------------|----------------|
| CS-MW1-LGR | 9/9/2009 | 0.12U | 18.37 | 0.37F | 13.71 | 34.44 | 0.08U |
| CS-MW1-CC | 9/9/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| CS-MW1-BS | 9/9/2009 | 0.12U | 0.45F | 0.08U | 0.06U | 0.05U | 0.08U |
| CS-MW2-LGR | 9/10/2009 | 0.12U | 1.18F | 0.08U | 0.06U | 0.05U | 0.08U |
| CS-MW3-LGR | 9/14/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| CS-MW5-LGR | 9/10/2009 | 0.12U | 1.73 | 0.08U | 0.99F | 1.25 | 0.08U |
| CS-MW6-LGR | 9/10/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| CS-MW6-BS | 9/10/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| CS-MW7-LGR | 9/11/2009 | 0.12U | 0.07U | 0.08U | 0.49F | 0.05U | 0.08U |
| CS-MW7-LGR FD | 9/11/2009 | 0.12U | 0.07U | 0.08U | 0.46F | 0.05U | 0.08U |
| CS-MW9-LGR | 9/14/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| CS-MW9-BS | 9/14/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| CS-MW11A-LGR | 9/15/2009 | 0.12U | 0.07U | 0.08U | 1.61 | 0.05U | 0.08U |
| CS-MW12-BS | 9/16/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| CS-MW16-LGR | 9/9/2009 | 0.12U | 152.57* | 0.48F | 176.82 | 177.44* | 0.08U |
| CS-MW16-CC | 9/9/2009 | 0.63F | 43.17 | 5.33 | 7.17 | 51.93 | 0.08U |
| CS-MW19-LGR | 9/11/2009 | 0.12U | 0.07U | 0.08U | 0.69F | 0.05U | 0.08U |
| CS-MW20-LGR | 9/16/2009 | 0.12U | 0.07U | 0.08U | 1.63 | 0.05U | 0.08U |
| CS-MW20-LGR FD | 9/16/2009 | 0.12U | 0.07U | 0.08U | 1.30F | 0.05U | 0.08U |
| CS-MW21-LGR | 9/15/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| CS-MW22-LGR | 9/15/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| CS-MW23-LGR | 9/15/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| CS-MW24-LGR | 9/10/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |

**Attachment 4
September 2009 On-Post Quarterly Groundwater Sampling**

| Well ID | Sample Date | 1,1-DCE | cis-1,2-DCE | trans-1,2-DCE | PCE | TCE | Vinyl Chloride |
|--|-------------|---------|--------------|---------------|--------------|--------------|----------------|
| CS-MW25-LGR | 9/14/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| CS-MWH-LGR | 9/14/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| CS-D | 9/15/2009 | 0.12U | 65.81 | 1.37 | 68.94 | 87.11 | 0.08U |
| CS-12 | 9/14/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| CSSA Drinking Water Well System | | | | | | | |
| CS-1 | 9/16/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.37F | 0.08U |
| CS-9 | 9/16/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| CS-10 | 9/14/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| CS-10 FD | 9/14/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |

| | |
|-------------|-----------------|
| BOLD | = Above the MDL |
| BOLD | = Above the RL |
| BOLD | = Above the MCL |

All samples were analyzed by APPL, Inc.
VOC data reported in ug/L & metals data reported in mg/L.

Abbreviations/Notes:

FD Field Duplicate
TCE Trichloroethene
PCE Tetrachloroethene
DCE Dichloroethene
AL Action Level
SS Secondary Standard
NA Not Analyzed for this parameter

Data Qualifiers

U-The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.

F-The analyte was positively identified but the associated numerical value is below the RL.

* The analyte was run at a dilution of 5.

Attachment 4
September 2009 Quarterly Off-post Groundwater Analytical Results

| Well ID | Sample Date | 1,1-DCE | cis-1,2-DCE | trans-1,2-DCE | PCE | TCE | Vinyl Chloride |
|-----------|-------------|---------|-------------|---------------|--------------|--------------|----------------|
| FO-J1 | 9/1/2009 | 0.12U | 0.07U | 0.08U | 0.43F | 0.05U | 0.08U |
| HS-1 | 9/2/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| HS-2 | 9/2/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| I10-4 | 9/1/2009 | 0.12U | 0.07U | 0.08U | 6.9 | 2.47 | 0.08U |
| I10-7 | 9/1/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| I10-7 FD | 9/1/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| JW-7 | 9/15/2009 | 0.12U | 0.07U | 0.08U | 0.66F | 0.05U | 0.08U |
| JW-8 | 9/4/2009 | 0.12U | 0.07U | 0.08U | 0.48F | 0.05U | 0.08U |
| JW-14 | 9/1/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| JW-28 | 9/2/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| JW-29 | 9/2/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| JW-29 FD | 9/2/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| JW-30 | 9/1/2009 | 0.12U | 0.07U | 0.08U | 0.21F | 0.05U | 0.08U |
| LS-1 | 9/1/2009 | 0.12U | 0.07U | 0.08U | 0.64F | 0.18F | 0.08U |
| LS-4 | 9/1/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| LS-5 | 8/31/2009 | 0.12U | 0.07U | 0.08U | 0.96F | 2.72 | 0.08U |
| LS-6 | 8/31/2009 | 0.12U | 0.07U | 0.08U | 0.99F | 1.46 | 0.08U |
| LS-6-A2 | 8/31/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| LS-7 | 8/31/2009 | 0.12U | 0.07U | 0.08U | 2.31 | 0.87F | 0.08U |
| LS-7-A2 | 8/31/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| OFR-1 | 9/1/2009 | 0.12U | 0.07U | 0.08U | 0.25F | 0.05U | 0.08U |
| OFR-3 | 8/31/2009 | 0.12U | 0.07U | 0.08U | 0.84F | 0.91F | 0.08U |
| OFR-3-A2 | 8/31/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| RFR-9 | 9/4/2009 | 0.12U | 0.07U | 0.08U | 0.20F | 0.05U | 0.08U |
| RFR-9 FD | 9/4/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| RFR-10 | 8/31/2009 | 0.12U | 0.07U | 0.08U | 5.24 | 1.21 | 0.08U |
| RFR-10-A2 | 8/31/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| RFR-10-B2 | 8/31/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| RFR-11 | 8/31/2009 | 0.12U | 0.07U | 0.08U | 0.39F | 1.97 | 0.08U |
| RFR-11-A2 | 8/31/2009 | 0.12U | 0.07U | 0.08U | 0.06U | 0.05U | 0.08U |
| RFR-14 | 9/2/2009 | 0.12U | 0.07U | 0.08U | 0.28F | 0.05U | 0.08U |

| | |
|-------------|-----------------|
| BOLD | = Above the MDL |
| BOLD | = Above the RL |
| BOLD | = Above the MCL |

All samples were analyzed by APPL, Inc.
VOC data reported in ug/L.

Abbreviations/Notes:

FD Field Duplicate
TCE Trichloroethene
PCE Tetrachloroethene
DCE Dichloroethene

Data Qualifiers

U-The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.
F-The analyte was positively identified but the associated numerical value is below the RL.

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Attachment 4
September 2009 Westbay Analytical Results

| Well ID | Date Sampled | 1,1-DCE (1,1-dichloroethene) | cis-1,2-DCE (cis-1,2-dichloroethene) | TCE (trichloroethene) | PCE (tetrachloroethene) | trans-1,2-DCE (trans-1,2-dichloroethene) | Vinyl Chloride |
|----------------|--------------|---------------------------------|---|--------------------------|----------------------------|---|----------------|
| CS-WB01-LGR-01 | 9/2/2009 | <0.30 | <0.16 | 0.26J | 5.1 | <0.19 | <0.23 |
| CS-WB01-LGR-02 | 9/2/2009 | <0.30 | <0.16 | 3.7 | 11 | <0.19 | <0.23 |
| CS-WB01-LGR-03 | 9/2/2009 | <0.30 | <0.16 | 8.2 | 3.1 | <0.19 | <0.23 |
| CS-WB01-LGR-04 | 9/2/2009 | <0.30 | <0.16 | 0.26J | 0.53J | <0.19 | <0.23 |
| CS-WB01-LGR-05 | 9/2/2009 | <0.30 | <0.16 | <0.16 | 0.31J | <0.19 | <0.23 |
| CS-WB01-LGR-06 | 9/2/2009 | <0.30 | <0.16 | 0.33J | 0.36J | <0.19 | <0.23 |
| CS-WB01-LGR-07 | 9/2/2009 | <0.30 | <0.16 | 17 | 22 | <0.19 | <0.23 |
| CS-WB01-LGR-08 | 9/2/2009 | <0.30 | <0.16 | 3.5 | 1.4 | <0.19 | <0.23 |
| CS-WB01-LGR-09 | 9/2/2009 | <0.30 | 0.44J | 25 | 19 | <0.19 | <0.23 |
| CS-WB02-LGR-03 | 9/3/2009 | <0.30 | <0.16 | 5.7 | 10 | <0.19 | <0.23 |
| CS-WB02-LGR-04 | 9/3/2009 | <0.30 | <0.16 | 17 | 4.7 | <0.19 | <0.23 |
| CS-WB02-LGR-05 | 9/3/2009 | <0.30 | <0.16 | 5 | 1.6 | <0.19 | <0.23 |
| CS-WB02-LGR-06 | 9/3/2009 | <0.30 | <0.16 | 4.5 | 1.2J | <0.19 | <0.23 |
| CS-WB02-LGR-07 | 9/3/2009 | <0.30 | <0.16 | 0.85J | 0.89J | <0.19 | <0.23 |
| CS-WB02-LGR-08 | 9/3/2009 | <0.30 | <0.16 | 2 | 2.5 | <0.19 | <0.23 |
| CS-WB03-LGR-03 | 9/4/2009 | <0.30 | 0.34J | 12 | 29 | <0.19 | <0.23 |
| CS-WB03-LGR-04 | 9/4/2009 | <0.30 | <0.16 | 10 | 25 | <0.19 | <0.23 |
| CS-WB03-LGR-05 | 9/4/2009 | <0.30 | <0.16 | 9.4 | 30 | <0.19 | <0.23 |
| CS-WB03-LGR-06 | 9/4/2009 | <0.30 | <0.16 | 1.1 | 8.4 | <0.19 | <0.23 |
| CS-WB03-LGR-07 | 9/4/2009 | <0.30 | <0.16 | 2.1 | 9.3 | <0.19 | <0.23 |
| CS-WB03-LGR-08 | 9/4/2009 | <0.30 | <0.16 | 1.3 | 10 | <0.19 | <0.23 |
| CS-WB03-LGR-09 | 9/4/2009 | <0.30 | <0.16 | 4 | 19 | <0.19 | <0.23 |
| CS-WB04-LGR-01 | 9/3/2009 | <0.30 | <0.16 | 0.20J | 0.86J | <0.19 | <0.23 |
| CS-WB04-LGR-03 | 9/3/2009 | <0.30 | <0.16 | <0.16 | 0.27J | <0.19 | <0.23 |
| CS-WB04-LGR-04 | 9/3/2009 | <0.30 | <0.16 | <0.16 | <0.15 | <0.19 | <0.23 |
| CS-WB04-LGR-06 | 9/3/2009 | <0.30 | 4 | 20 | 33 | 0.65 | <0.23 |
| CS-WB04-LGR-07 | 9/3/2009 | <0.30 | 3.6 | 14 | 19 | <0.19 | <0.23 |
| CS-WB04-LGR-08 | 9/3/2009 | <0.30 | <0.16 | 1.1 | 0.62J | <0.19 | <0.23 |
| CS-WB04-LGR-09 | 9/3/2009 | <0.30 | <0.16 | 9.1 | 9.9 | <0.19 | <0.23 |
| CS-WB04-LGR-10 | 9/3/2009 | <0.30 | <0.16 | 0.93J | 1.2J | <0.19 | <0.23 |
| CS-WB04-LGR-11 | 9/3/2009 | <0.30 | <0.16 | <0.16 | 0.33J | <0.19 | <0.23 |

Data Qualifiers

J-The analyte was positively identified; the quantitation is an estimation.
 All values are reported in µg/L.

BOLD = Above the MDL.
BOLD = Above the RL.
BOLD = Above the MCL.

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