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2012 Annual
Compliance Monitoring Report
Lawrence Livermore National Laboratory
Site 300

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2012 Annual
Compliance Monitoring Report
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Site 300

March 31, 2013

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Acknowledgements

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1. Introduction

This Compliance Monitoring Report (CMR) summarizes the Lawrence Livermore National Laboratory (LLNL) Site 300 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Remedial Action compliance monitoring activities performed during January through December 2012. The report is submitted in compliance with the Compliance Monitoring Plan (CMP)/Contingency Plan (CP) for Environmental Restoration at Lawrence Livermore National Laboratory Site 300 (Dibley et al., 2009a). The Eastern GSA post-shutdown monitoring requirements (Holtzapple, 2007) are also included in this report.

With regulatory approval, the results of the Pit 6 Detection Monitoring Program have been incorporated into Section 3 of the semi-annual CMRs, and the quarterly Post-Closure Monitoring Reports have been discontinued. In addition, the monitoring frequency of the Pit 6 detection monitor wells has been reduced from quarterly to semi-annually for volatile organic compounds (VOCs) and tritium, and annually for all other constituents of concern. An Addendum to the CMP/CP is being prepared to document these changes.

During the reporting period of January through December 2012, approximately 10 million gallons of ground water and 100 million cubic feet of soil vapor were treated at Site 300, removing approximately 20 kilograms (kg) of VOCs, 81 grams (g) of perchlorate, 1,500 kg of nitrate, 190 g of Research Department Explosive (RDX), 0.23 g of a mixture of tetrabutyl orthosilicate (TBOS) and tetrakis (2-ethylbutyl) silane (TKEBS) and 4.9 g of total uranium (Table Summ-1).

Since remediation began in 1991, approximately 406 million gallons of ground water and over 720 million cubic feet of soil vapor have been treated, removing approximately580 kg of VOCs, 1.3 kg of perchlorate, 12,000 kg of nitrate, 1.8 kg of RDX, 9.5 kg of TBOS/TKEBs, and 0.017 kg of total uranium (Table Summ-2).

2. Extraction and Treatment System Monitoring and Ground and Surface Water Monitoring Programs

Section 2 presents the monitoring results for the Site 300 remediation systems, ground water monitoring network, and surface water sampling and analyses. These results are presented and discussed by operable unit (OU) as follows:

2.1. General Services Area OU 1

2.2. Building 834 OU 2

2.3. Pit 6 Landfill OU 3

2.4. High Explosives Process Area (HEPA) OU 4

2.5. Building 850/Pit 7 Complex OU 5

2.6. Building 854 OU 6

2.7. Building 832 Canyon OU 7

2.8. Site-Wide OU 8 (Building 833, Building 801/Pit 8, Building 845/Pit 9, and Building 851)

The locations of the Site 300 OUs 1 through 8 are shown on Figure 2-1. The detection monitoring and/or inspection and maintenance programs for the Pit 2, 3, 4, 5, 6, 7, 8, and 9 Landfills (OU 8) and the Pit 7 Complex drainage diversion system and Building 850 corrective action management unit are discussed in Section 3.

Treatment facility operations and maintenance issues that occurred during the second semester 2012 and influent and effluent analytical data collected during the second semester 2012 are included in this report. Treatment facility pH data collected during the second semester 2012 are presented in Appendix A. Ground and surface water monitoring analytical data and ground water elevation measurements for the entire calendar year 2012 are presented in Appendices B and C, respectively. The Institutional Control Monitoring performed in 2012 is included in Appendix D. No soil samples were collected during 2012 drilling operations, however, surface soil samples were collected for cadmium therefore analytical data for soil samples is presented in Appendix E. New wells and boreholes installed during 2012 are presented in Table 2-1. An acronym list is located in the Table Section of this report.

In accordance with the 2009 CMP/CP requirements, post-only concentration maps and isoconcentration contour maps depicting primary and secondary contaminant of concern (COC) data will be presented in the annual CMR report along with hydraulic capture zones for all hydrostratigraphic units (HSUs).

Total VOC isoconcentration contour maps were constructed by contouring the sum of the results of the following VOCs: trichloroethene (TCE); tetrachloroethene (PCE); cis-1,2-dichloroethene (cis-1,2-DCE); trans-1,2-dichloroethene (trans-1,2-DCE); carbon tetrachloride; chloroform; 1,1-dichlorethane (1,1-DCA); 1,2-dichlorethane (1,2-DCA); 1,1-dichloroethene (1,1-DCE); 1,1,1-trichloroethane (1,1,1-TCA); trichlorofluoromethane (Freon 11); 1,1,2-trichloro-1,2,2-trifluoroethane (Freon 113); 1,1,2-trichloroethane (1,1,2-TCA); and vinyl chloride. The individual VOCs that make up these total VOC concentrations are also posted on these maps. VOC concentrations presented in the text are total VOCs described above unless a specific VOC is indicated. Isoconcentration contour maps and post-only maps for the primary COCs were constructed using second semester 2012 data. Isoconcentration contour maps and post-only maps for the secondary COCs were constructed using first semester 2012 data. To create a snapshot in time, hydraulic capture zones and extents of saturation are based on ground water elevation data collected during the same semester as the same COC data. For collocated wells, the highest concentration was used for contouring.

As a result, in some rare instances, the maximum COC concentrations reported in the text might not agree with the value posted on the contour map. The two values would not agree if the annual maximum concentration sample was collected during a different semester. The two values would also not agree if the maximum concentration sample was collected during the same semester, but during a different quarter. All COC and ground water elevation maps were constructed using a single quarterly sampling data set selected because it contained the most complete geographic coverage for the 6-month reporting period. Specific ground water monitoring data are discussed within each OU section and all ground water analytical data are included in the data tables presented in Appendix B of this report.

Hydraulic capture and injection zones are also presented in this report. The capture zones are defined only for extraction and injection wells that were active during the time period when the ground water elevations were measured. The CMR capture zones are based primarily on the equipotentials of the ground water elevation contour maps. These equipotential-based CMR capture zones may differ from the capture zones presented in the Site-Wide Remediation Evaluation Summary Report (SWRSR) (Ferry et al., 2006), because the SWRSR capture zones were estimated using computer models such as Winflow or FEFLOW. As a general rule, the CMR capture zones were extended to two upgradient ground water elevation contours. For cases where there were few observation wells located nearby, a Thiem solution for steady-state radial flow in the vicinity of a pumping well was used to control the ground water elevation contours. Hydraulic capture and injection zones are displayed on ground water elevation contour maps and primary and secondary COC isoconcentration contour maps for all OUs where active ground water remediation is occurring (i.e., OU 1, OU 2, OU 4, OU 5, OU 6 and OU 7).

As previously mentioned, hydraulic capture zones are based on ground water elevation data collected during the same semester as the same COC data.

2.1. General Services Area (GSA) OU 1

The GSA OU consists of the Eastern and Central GSA areas.

The source of contamination in the Eastern GSA was abandoned debris burial trenches that received craft shop debris. Leaching of solvents in the debris resulted in the release of contaminants to ground water.

A ground water extraction and treatment system (GWTS) operated in the Eastern GSA from 1991 to 2007 to remove VOCs from ground water. VOC-contaminated ground water was extracted from three wells (W-26R-03, W-25N01, and W-25N-24), located downgradient from the debris burial trenches, at a combined flow rate of 45 gallons per minute (gpm). The extracted ground water was treated in three 1,000-pound (lb) granular activated carbon (GAC) units that removed VOCs through adsorption. The treated effluent water was discharged to nearby Corral Hollow Creek.

Remediation efforts in the Eastern GSA have successfully reduced concentrations of TCE and other VOCs in ground water to below their respective Maximum Contaminant Level (MCL) cleanup standards set in the GSA Record of Decision (ROD) (United States [U.S.] Department of Energy [DOE], 1997). The Eastern GSA ground water extraction and treatment system was shut off on February 15, 2007 with the U.S. Environmental Protection Agency (EPA), Regional Water Quality Control Board (RWQCB), and California Department of Toxic Substances Control (DTSC) approval. As required by the GSA ROD, ground water monitoring was conducted for five years after shutdown to determine if VOC concentrations rise or "rebound" above MCL cleanup standards. With one exception described in subsection 2.1.3.3 below, VOC concentrations remained below their MCL cleanup standards.

A map of the Eastern GSA, showing the locations of monitor and extraction wells and the treatment facility is presented on Figure 2.1-1.

At the Central GSA, chlorinated solvents, mainly trichloroethylene (TCE), were used as degreasing agents in craft shops, such as Building 875. Rinse water from these degreasing operations was disposed of in dry wells. Typically, dry wells were gravel-filled holes about three to four feet deep and two feet in diameter. The Central GSA dry wells were used until 1982. In 1983 and 1984, these dry wells were decommissioned and excavated.

The Central GSA GWTS has been operating since 1992 removing VOCs from ground water. Contaminated ground water is extracted from eight wells (W-7I, W-875-07, W-875-08, W-873-07, W-872-02, W-7O, W-7P, and W-7R) at an approximate combined flow rate of 2.0 to 3.0 gpm. The Central GSA GWTS began receiving partially treated water from the Building 830-Distal South (830-DISS) facility at the end of the first semester 2007, increasing the flow rate to approximately 5.0 to 6.0 gpm. The current GWTS configuration includes particulate filtration, air stripping to remove VOCs from extracted water, and GAC to treat vapor effluent from the air stripper. Treated ground water is discharged to the surrounding natural vegetation using misting towers. Treated vapors are discharged to the atmosphere under permit from the San Joaquin Valley Unified Air Pollution Control District.

The Central GSA soil vapor extraction and treatment system (SVTS) began operation in the GSA adjacent to the Building 875 dry well contaminant source area in 1994 removing VOCs from soil vapor. Soil vapor is extracted from wells W-875-07, W-875-08, W-875-09, W-875-10, W-875-11, W-875-15 and W-7I, and at a combined total flow rate of approximately 35 standard cubic feet per minute (scfm). Simultaneous ground water extraction in the vicinity lowers the elevation of the water table and maximizes the volume of unsaturated soil influenced by vapor extraction. The current SVTS configuration includes a water knockout chamber, a rotary vane blower, and four 140-lb vapor-phase GAC columns arranged in series. Treated vapors are discharged to the atmosphere under a regulatory permit from the San Joaquin Valley Unified Air Pollution Control District.

A map of the Central GSA, showing the locations of monitor and extraction wells and treatment facilities is presented on Figure 2.1-2.

2.1.1. GSA Ground Water and Soil Vapor Extraction and Treatment System Operations and Monitoring

This section is organized into five subsections: facility performance assessment; operations and maintenance issues; compliance summary; and sampling plan evaluation and modifications. As discussed above, the Eastern GSA GWTS has been shut down since February 15, 2007. Therefore, only the Central GSA treatment system operations and monitoring information and data are presented and discussed in this section.

2.1.1.1. GSA Facility Performance Assessment

The monthly ground water and soil vapor discharge volumes and rates and operational hours for the second semester of 2012 are summarized in Table 2.1-1. The total volume of ground water and vapor extracted and treated and masses removed during 2012 is presented in Table Summ-1. The cumulative volume of ground water and soil vapor treated and discharged and masses removed are summarized in Table Summ-2. Analytical results for influent and effluent samples collected during second semester of 2012 are presented in Table 2.1-2. The pH measurement results are presented in Appendix A.

2.1.1.2. GSA Operations and Maintenance Issues

The following maintenance and operational issues interrupted continuous operations of the Central GSA GWTS and SVTS during the second semester of 2012:

- A site power outage on October 22 caused the GWTS and SVTS to shut down. The systems were restarted on October 23.
- The Central GSA SVTS shut down on November 26 due to a blower failure. The blower was rebuilt and the system was restarted on December 4.
- Extraction wells W-7P and W-7R were shut down to protect against damage caused by freezing temperatures on December 13. The GWTS was shut down on December 20 to protect against freeze damage.

2.1.1.3. GSA Compliance Summary

The Central GSA GWTS operated in compliance with the RWQCB Substantive Requirements for Wastewater Discharge during the second semester 2012. The Central GSA SVTS system operated in compliance with San Joaquin Valley Air Pollution Control District permit limitations.

2.1.1.4. GSA Facility Sampling Plan Evaluation and Modifications

The Central GSA treatment facility sampling and analysis plan complies with the monitoring requirements in the CMP/CP. The treatment facility sampling and analysis plan is presented in Table 2.1-3. No modifications were made to the plan during this reporting period.

2.1.1.5. GSA Treatment Facility and Extraction Wellfield Modifications

No modifications were made to the CGSA GWTS, SVTS, or the extraction wellfield during this reporting period.

2.1.2. GSA Surface Water and Ground Water Monitoring

The sampling and analysis plans for ground water monitoring at the Central and Eastern GSA are presented in Tables 2.1-4 and 2.1-5, respectively. These tables also delineate and explain deviations from the sampling plan and indicate any additions made to the CMP.

During the reporting period, ground water monitoring was conducted in accordance with the Eastern GSA post-shutdown monitoring requirements with the following exceptions: one required analysis was not performed due to an inoperable pump and one required analysis was not performed because personnel could not sample the wells due to access restrictions. Eastern GSA post-shut down monitoring was discontinued after the first quarter of 2012.

During the reporting period, ground water monitoring was conducted in accordance with the Central GSA CMP monitoring requirements with the following exceptions; six required analyses were not performed due to inoperable pumps and twenty-one required analyses were not performed because there was insufficient water in the wells to collect the samples.

Analytical results and ground water elevation measurements obtained during 2012 are presented in Appendices B and C, respectively.

For the Eastern GSA, ground water elevations and the potentiometric surface contour map for the Qal-Tnbs$_1$ HSU are presented on Figure 2.1-3. For the Central GSA, ground water elevations and the potentiometric surface contour map for the Qt-Tnsc$_1$ and Qal-Tnbs$_1$ HSUs are presented on Figure 2.1-4.

2.1.3. GSA Remediation Progress Analysis

This section is organized into four subsections: mass removal; analysis of contaminant distribution and concentration trends; remediation optimization evaluation; and performance issues.

2.1.3.1. GSA Mass Removal

The monthly ground water and soil vapor mass removal estimates for the second semester of 2012 are summarized in Table 2.1-6. The total mass removed during the reporting period and cumulative mass estimates are summarized in Table Summ-1 and Table Summ-2, respectively.

2.1.3.2. GSA Contaminant Concentrations and Distribution

In the GSA, VOCs are the primary COCs detected in ground water; there are no secondary COCs. The detected VOCs include: TCE, PCE, 1,1-DCA, 1,2-DCA, 1,1-DCE, 1,2-DCE, 1,1,1-TCA, bromodichloromethane, chloroform, and Freon 11. TCE is the most prevalent VOC in GSA ground water, comprising 85-95% of the total VOCs detected.

In the Eastern GSA, VOCs are present at very low concentrations in ground water within Quaternary alluvial deposits (Qal) that directly overlie the Tnbs$_1$ bedrock. A total VOC isoconcentration contour map for this shallow Qal-Tnbs$_1$ hydrogeologic unit (HSU) with posted individual VOC concentrations is presented on Figure 2.1.5. Since extraction and treatment began at the Eastern GSA in 1991, TCE concentrations in ground water have decreased from a historic maximum of 74 micrograms per liter (µg/L) (monitor well W-26R-03, 1992) to below its reporting limit (0.5 µg/L) in the majority of wells and to below the 5 µg/L MCL cleanup standard for TCE in all wells. Except for TCE and the detection of chloroform at a concentration of 1.9 µg/L (W-26R-05, January), no other VOCs were detected in Eastern GSA ground water above the 0.5 µg/L reporting limit during 2012. The chloroform detected in well W-26R-05 is likely due to the chlorination of this well prior to sampling as part of the GSA sewage treatment pond monitoring procedures.

Within the Qal-$Tnbs_1$ hydrostratigraphic unit (HSU), TCE concentrations detected in ground water samples collected from Eastern GSA wells during 2012 ranged from 3.2 µg/L (monitor well W-26R-04, January) to <0.5 µg/L. These 2012 data indicate that TCE and other VOCs have remained below their ground water MCL cleanup standards in all Eastern GSA wells since the Eastern GSA GWTS was shut down in February 2007, with one exception described in subsection 2.1.3.3 below.

DOE presented information to support the completion of remediation at the Eastern GSA and to initiate the closeout process at the February 24, 2012 Remedial Project Managers (RPM) Meeting. Decisions resulting from this meeting are summarized in subsection 2.1.3.3 below.

At the Central GSA, VOCs are the only COCs in ground water and soil vapor (Figure 2.1-6). There are three primary HSUs in the Central GSA:

- Qt-$Tnsc_1$ HSU, a shallow water bearing zone in the western portion of the Central GSA. This HSU includes saturated Qt deposits, and the $Tnbs_2$ sandstone and $Tnsc_1$ siltstone/claystone bedrock units that subcrop beneath the Qt.
- $Tnbs_1$ HSU, a deeper regional aquifer within the western portion of the Central GSA which consists of $Tnbs_1$ sandstone bedrock.
- Qal-$Tnbs_1$ HSU, a shallow water bearing zone within the eastern portion of the Central GSA. In the eastern portion of the Central GSA (near the sewage treatment pond), Qt deposits and the $Tnbs_2$ and $Tnsc_1$ bedrock units are not present. Qal deposits directly overlie the shallow $Tnbs_1$ bedrock that comprises the Qal-$Tnbs_1$ HSU in this area.

A VOC plume is present in Qt-$Tnsc_1$ and Qal-$Tnbs_1$ HSU ground water in the Central GSA. Prior to remediation, the maximum total VOC concentration detected in Central GSA ground water was 272,000 µg/L (Building 875 dry well pad area extraction well W-875-07, 1992). The maximum total VOC concentration detected during 2012 was 520 µg/L (Building 875 dry well pad area extraction well W-875-08, April). Wells W-875-07 and W-875-08 are located approximately 20 feet apart. While the majority of VOCs detected in the sample from this and other Building 875 dry well pad area wells consist of TCE, other VOCs detected in these wells in 2012 include PCE, cis-1,2-DCE, 1,1-DCE and trans-1,2-DCE. These additional VOCs were limited to extraction wells W-7I, W-875-07 and W-875-08. Of the VOCs detected in Central GSA ground water in 2012, TCE, PCE, cis-1,2-DCE and 1,1-DCE were detected at concentrations above their MCL cleanup standards.

TCE soil vapor concentrations in the Central GSA Building 875 dry well pad area ranged from <0.005 to 0.57 parts per million on a volume per volume basis ($ppm_{v/v}$) during 2012. These TCE vapor concentrations have decreased significantly from the historic maximum of 600 $ppm_{v/v}$ at SVTS startup in 1994.

Outside the dry well pad area, the majority of VOCs consist of TCE, with minor concentrations of PCE, cis-1,2-DCE, trans-1,2-DCE, 1,1-DCE and Freon 11 detected during 2012. VOC concentrations (primarily TCE with minor PCE) in downgradient monitor well W-CGSA-1736 at the leading edge of the VOC plume to the east continue to decrease from a historic maximum of 14 µg/L in 2002 to 5.2 µg/L in 2012. During 2012, VOCs were detected in two offsite monitor wells, W-35A-01 and W-35A-10. VOCs were detected at a 2012 maximum concentration in W-35A-01 of 81 µg/L (September 5) consisting of TCE (74 µg/L), PCE (4.8 µg/L), cis-1,2-DCE (0.69 µg/L), and 1,1-DCE (1.4 µg/L). It should be noted that this was a discretionary (non-routine) sampling event that was conducted to compare the impact of purging techniques on VOC concentrations in this well. The September 5 sample was collected after purging three casing volumes. A comparison sample collected the previous day (September 4) using low volume purging (purging one discharge line volume only) did not yield detectable VOC concentrations. The following routine sample (December 18) from W-35A-01 yielded a VOC concentration of 20 µg/L consisting of TCE (19 µg/L) and PCE (1.1 µg/L) and was collected using the routine purging method of drying out the well and then collecting a sample. The dry out method will be discontinued for future sampling of this well (W-35A-01) and be replaced by either low volume of grab sampling methods. The historic maximum VOC concentration in well W-35A-01 is 545 µg/L in 1991. VOCs were detected at a 2012 maximum concentration in W-35A-10 of 19 µg/L (December) consisting of TCE (11 µg/L) and Freon 11 (7.5 µg/L).

Chloroform was detected in one ground water sample from a single well in the deeper $Tnbs_1$ HSU (well W-7E at a concentration of 1 µg/L), significantly below the MCL cleanup standard.

2.1.3.3. GSA Remediation Optimization Evaluation

By 2007, ground water extraction and treatment had reduced: (1) VOC concentrations in all Eastern GSA wells to below ground water MCL cleanup standards, (2) TCE concentrations to below the reporting limit (0.5 µg/L) in the majority of wells, and (3) concentrations of other VOCs to below the reporting limits in all Eastern GSA wells. In January 2007, DOE/LLNL proposed to initiate the "Requirements for Closeout" described in the Remedial Design document for the GSA OU (Rueth et al., 1998). These requirements specify: *when VOC concentrations in ground water have been reduced to cleanup standards, the ground water extraction and treatment system will be shut off and placed on standby*. The U.S. EPA, RWQCB and DTSC approved this proposal and the Eastern GSA ground water extraction and treatment system was turned off and effluent discharge to Corral Hollow Creek was discontinued on February 15, 2007, thereby meeting the Substantive Requirements. As required by the GSA ROD, ground water monitoring was conducted to determine if VOC concentrations rebound above MCL cleanup standards. By the end of the first semester 2012, TCE had been detected only once above the MCL cleanup standard (7 µg/L in monitor well W-26R-01, in May 2009). Well W-26R-01 and nearby monitor well W-26R-04 were re-sampled in June 2009 with no TCE detections above the MCL cleanup standard (Dibley et al., 2009b). These results were discussed with the U.S. EPA, DTSC and RWQCB at the July 8, 2009 Remedial Project Managers (RPM) Meeting. The regulatory agencies concurred with continued monitoring and evaluation of TCE concentrations in Eastern GSA wells to verify that TCE concentrations are not rebounding. As mentioned in the previous subsection, TCE concentrations were below the 5 µg/L MCL cleanup standard for all Eastern GSA ground water samples collected during 2012. Concentrations of other VOCs remained below ground water MCL cleanup standards in all Eastern GSA wells.

On February 15, 2012, five years elapsed since post shutdown monitoring began. As mentioned in the GSA requirements for closeout, cleanup is considered complete when contaminant concentrations remain below the MCL cleanup standards for five years. Therefore, DOE/NNSA presented information to support the completion of remediation at the Eastern GSA and to initiate the closeout process at the February 24, 2012 RPM Meeting. At the meeting, the regulatory agencies agreed to the following:

- Cleanup standards have been achieved and no rebound has occurred.
- The site is protective of human health and the environment.
- DOE/NNSA can initiate the process for closeout of the Eastern GSA portion of the GSA OU.
- Remediation completion will be documented in Memorandum to File.
- DOE/NNSA will immediately cease monitoring and maintenance of Eastern GSA wells with the exception of a few wells that will be used to monitor for other purposes.

- Upon regulatory concurrence and the completion of necessary cleanup documentation, DOE/NNSA will discontinue reporting for the Eastern GSA in the Compliance Monitoring Reports.

Additionally, the regulators accepted the schedule presented for decommissioning and demolition of the Eastern GSA treatment facility (fiscal year [FY] 2014) and extraction wellfield (FY2015-2016). These decisions were also documented in the recently submitted Draft Eastern GSA Final Close-out Report (Dibley et al., 2012a).

At the Central GSA, ground water extraction continues to adequately capture the highest concentrations in ground water. Remediation efforts have reduced VOC concentrations in Central GSA ground water from a historic maximum of 272,000 µg/L in 1992 (W-875-07) to a maximum total VOC concentration of 520 µg/L in 2012 (W-875-08). The leading edge of the VOC plume to the east continues to exhibit generally decreasing VOC trends as evaluated by concentration trends in monitor well W-CGSA-1736. Nearby well W-CGSA-1735 was not sampled during 2012 due to insufficient water to collect a sample. Well W-CGSA-2708, a planned extraction well for the northern plume area, yielded a VOC concentration of 9.9 µg/L during 2012, an increase from an initial result of 2 µg/L in 2011.

VOCs are currently detected in only two offsite wells, W-35A-01 and W-35A-10, located within 50 and 100 feet of the site boundary, respectively. VOC concentrations in well W-35A-01 have decreased from a historic maximum of 545 µg/L (1991) to 2012 maximum of 81 µg/L. As described in Section 2.1.3.2, VOC concentrations in this well vary depending on sampling/purging method used. VOC concentrations in well W-35A-10 have decreased from a historic maximum of 86 µg/L (1994) to a 2012 maximum of 19 µg/L.

During 2012, extraction well W-7O removed most of the ground water and dissolved VOC mass. Significantly more VOC mass is being removed by soil vapor extraction than by ground water extraction. During 2012, 199 g of VOCs were removed from ground water and 548 g of VOCs were removed from vapor. Based on individual well vapor flow monitoring for 2012, SVE wells W-875-10, W-875-11 and W-875-15 removed most of the vapor mass.

The Central GSA misting system is scheduled to be upgraded and relocated in the near future. Additionally, planning is underway for a wellfield expansion in the northern VOC plume area, which will include the conversion of well W-CGSA-2708 to a ground water extraction well. As mentioned in the most recent GSA Five-Year Review (Valett et al., 2011), further optimization of the Central GSA vapor treatment system during the next five years will include conducting pneumatic communication and additional rebound testing, and periodic reconfiguration of the extraction and air inlet wells.

2.1.3.4. GSA OU Remedy Performance Issues

There were no new issues that affect the performance of the cleanup remedy for the GSA OU during this reporting period. The remedy continues to be effective and protective of human health and the environment, and to make progress toward cleanup.

2.2. Building 834 OU 2

The Building 834 Complex has been used to test the stability of weapons and weapon components under various environmental conditions since the 1950s. Past spills and piping leaks at the Building 834 Complex have resulted in soil and ground water contamination with VOCs and TBOS/TKEBs. Nitrate concentrations in Building 834 ground water that exceed the MCL cleanup standard (45 milligrams per liter [mg/L]) are likely the result of a combination of natural sources and septic system leachate. In addition, a former underground diesel storage tank released diesel to the subsurface.

The Building 834 OU is informally divided into three areas: the core, leachfield (septic system), and distal areas (Figure 2.2-1). The core area generally refers to the vicinity of the buildings and test cells in the center of the Building 834 Complex where the majority of contaminant releases occurred. The leachfield area is located immediately southwest of the core area. The distal (T2) area refers to the area downgradient (south) of the core and leachfield areas. A map of Building 834 OU showing the locations of monitor and extraction wells and treatment facilities is presented on Figure 2.2-1.

The Building 834 GWTS and SVTS began operation in 1995 and 1998, respectively. These systems are located in the Building 834 core area. The ground water extraction wellfield removes VOCs, nitrate, and TBOS/TKEBs from ground water within the Tpsg HSU and the SVTS removes VOCs from soil vapor. Due to the very low ground water yield from individual ground water extraction wells (<0.1 gpm), the GWTS and SVTS have been operated simultaneously in batch mode. Although the GWTS can be operated alone, the SVTS is not operational without ground water extraction due to the upconing of the ground water in the well that covers the well screen and prevents soil vapor flow.

The current extraction wellfield consists of 13 dual extraction wells for both ground water and soil vapor. Ten extraction wells (W-834-B2, -B3, -D4, -D5, -D6, -D7, -D12, -D13, -J1, and -2001) are located within the core area and three (W-834-S1, -S12A, and -S13) in the leachfield area. Extraction well W-834-D5 is connected to the facility but has not been used for extraction since the facility was restarted in October 2004 because the capture area is similar to the capture area of extraction well W-834-D13. Ground water and soil vapor extraction well W-834-2001 was added to the system in March 2007. Extracted ground water from this well contains dissolved-phase diesel related to the former underground diesel storage tank. The GWTS extracts ground water at an approximate combined flow rate of 0.23 gpm and the SVTS extracts soil vapor at a combined flow rate of approximately 103 scfm. The current GWTS configuration includes floating hydrocarbon adsorption devices to remove the floating silicon oil, TBOS/TKEBs, and floating diesel (if any), followed by aqueous-phase GAC to remove VOCs, dissolved-phase TBOS/TKEBs, and diesel from ground water. Nitrate-bearing treated effluent is then discharged via a misting tower onto the landscape for uptake and utilization of the nitrate by indigenous grasses. The current SVTS configuration includes vapor-phase GAC for VOC removal. Treated vapors are discharged to the atmosphere under an air permit issued by the San Joaquin Valley Unified Air Pollution Control District.

Since 2005, a long-term enhanced *in situ* bioremediation treatability test has been taking place at the distal T2 Area. This testing has included biostimulation to transform ground water from oxidizing to reducing conditions and bioaugmentation with KB-1^{TM}, a natural non-pathogenic microbial consortium capable of complete dechlorination of TCE to ethene. This long-term test is described in Sections 2.2.3.3 and 2.2.3.4.

2.2.1. Building 834 OU Ground Water and Soil Vapor Extraction and Treatment System Operations and Monitoring

This section is organized into four subsections: facility performance assessment; operations and maintenance issues; compliance summary; and sampling plan evaluation and modification.

2.2.1.1. Building 834 OU Facility Performance Assessment

The monthly ground water and soil vapor discharge volumes and rates and operational hours for the second semester of 2012 are summarized in Table 2.2-1. The total volumes of ground water and vapor extracted and treated and masses removed during 2012 are presented in Table Summ-1. The cumulative volume of ground water and soil vapor treated and discharged and masses removed are summarized in Table Summ-2. Analytical results for influent and effluent samples collected during the second semester of 2012 are presented in Tables 2.2-2 through 2.2-4. The pH measurement results are presented in Appendix A.

2.2.1.2. Building 834 OU Operations and Maintenance Issues

The following maintenance and operational issues interrupted continuous operations of the Building 834 GWTS and SVTS during the second semester of 2012:

- Site power outages occurred on October 1, October 22, and October 28 shutting down the GWTS and SVTS. Following the shut down on October 1, the SVTS would not restart due to a failure of the blower. The unit was repaired and restarted on October 22.
- Extraction wells W-834-S1, W-834-12A, and W-834-S13 were shut down to protect against damage caused by freezing temperatures on December 13. The GWTS and SVTS were shut down on December 17 to protect against freeze damage.

2.2.1.3. Building 834 OU Compliance Summary

The Building 834 GWTS operated in compliance with the RWQCB Substantive Requirements for Wastewater Discharge. The Building 834 SVTS operated in compliance with the San Joaquin Valley Air Pollution Control District permit limitations.

2.2.1.4. Building 834 OU Facility Sampling Plan Evaluation and Modifications

The Building 834 treatment facility sampling and analysis plan complies with the monitoring requirements in the CMP/CP. The sampling and analysis plan is presented in Table 2.2-5. No modifications were made to the plan during this reporting period.

2.2.1.5. Building 834 OU Treatment Facility and Extraction Wellfield Modifications

No modifications to the treatment facility or to the extraction wellfield were made during this reporting period.

2.2.2. Building 834 OU Ground Water Monitoring

The sampling and analysis plan for ground water monitoring is presented in Table 2.2-6. This table also delineates and explains deviations from the sampling plan and indicates any additions made to the CMP.

During this reporting period, ground water monitoring was conducted in accordance with the CMP monitoring requirements with the following exceptions; ninety-three required analyses were not performed because there was insufficient water in the wells to collect the samples.

Analytical results and ground water elevation measurements obtained during 2012 are presented in Appendices B and C, respectively.

The ground water elevation contour map for the Tpsg HSU is presented on Figure 2.2-2. Ground water elevations for the Tps-$Tnsc_2$ HSU are posted on Figure 2.2-3.

2.2.3. Building 834 OU Remediation Progress Analysis

This section is organized into four subsections: mass removal, analysis of contaminant distribution and concentration trends, remediation optimization evaluation, and performance issues.

2.2.3.1. Building 834 OU Mass Removal

The monthly ground water and soil vapor mass removal estimates for the second semester of 2012 are summarized in Table 2.2-7. The total mass removed during the reporting period and cumulative mass estimates are summarized in Table Summ-1 and Table Summ-2, respectively.

2.2.3.2. Building 834 OU Contaminant Concentrations and Distribution

At the Building 834 OU, VOCs (mainly TCE, but also PCE, cis-1,2-DCE, 1,1,1-TCA and chloroform) are the primary COCs detected in ground water; TBOS/TKEBs and nitrate are the secondary COCs. These COCs have been identified in two shallow HSUs: 1) the Tpsg perched water-bearing gravel zone, and 2) the underlying Tps-$Tnsc_2$ perched horizon.

Total VOC concentration data are contoured for the Tpsg HSU (Figure 2.2-4) and posted for the Tps-$Tnsc_2$ HSU (Figure 2.2-3). Secondary ground water COC concentrations are posted for the Tpsg HSU (Figure 2.2-5 and Figure 2.2-6) and the Tps-$Tnsc_2$ HSU (Figure 2.2-3).

2.2.3.2.1. VOCs Concentrations and Distribution

Although the overall extent of VOCs in the Building 834 OU ground water and soil vapor has not changed significantly, the maximum concentrations have decreased by more than one order-of-magnitude since remediation began in the mid 1990s. VOCs detected in Building 834 area ground water consist primarily of TCE. Other VOCs, including PCE, cis-1,2-DCE, 1,1-DCE, 1,1,2-TCA, trans-1,2-DCE, vinyl chloride and chloroform have also been detected.

The highest VOC concentrations in ground water and soil vapor continue to be detected in the Building 834 core area. Active remediation has reduced VOC ground water concentrations in the more permeable Tpsg HSU from a historic maximum concentration of 1,060,000 µg/L (monitor well W-834-D3, 1993) to a 2012 maximum concentration of 65,000 µg/L in nearby core area extraction well W-834-C5 (July). The maximum 2012 core area TCE, PCE and cis-1,2-DCE concentrations in the Tpsg HSU were from this same sample (W-834-C5, July) at concentrations of 42,000, 140 and 23,000 µg/L, respectively. The historic maximum TCE and PCE concentrations are from W-834-D3 (1993) at 800,000 and 10,000 µg/L, respectively. The historic maximum cis-1,2-DCE concentration is from W-834-D4 (1990) at 540,000 µg/L.

Underlying the Tpsg HSU, the Tps-$Tnsc_2$ HSU in the core area continues to exhibit the highest VOC ground water concentrations in the Building 834 OU and at Site 300. In this HSU, the maximum total VOC concentration during 2012 was 300,000 µg/L (duplicate sample from monitor well W-834-A1, July 25). However, the routine sample from the same well (W-834-A1, July 25) yielded a total VOC result of 200,000 µg/L, a result more typical of concentrations measured in this well during the last few years. The historic maximum concentration for this well is 250,000 µg/L (2001). The maximum 2012 core area TCE and PCE concentrations in the Tps-$Tnsc_2$ HSU in the core area were from the duplicate sample from monitor well W-834-A1 (July 25) at 298,000 and 1,000 µg/L, respectively. The historic maximum TCE and PCE concentrations are from W-834-A1 (2001) at 250,000 and 7,900 µg/L, respectively. Except for the duplicate sample result of 300,000 µg/L, VOCs in ground water in well W-834-A1 have remained stable since this well was installed in 2000 to monitor the Tps-$Tnsc_2$ HSU. Another monitor well screened in the Tps-$Tnsc_2$ HSU, W-834-U1, had a 2012 maximum concentration of 130,000 µg/L total VOCs (February 8). However, subsequent samples from this well yielded 61,000 and 62,000 µg/L total VOCs (February 15 and July 26, respectively). These results are more similar to concentrations typically observed in this well during the last few years. The historic total VOC maximum concentration for well W-834-U1 is 140,000 µg/L in 2000. The maximum 2012 core area cis-1,2-DCE concentration in the Tps-$Tnsc_2$ HSU in the core area is from W-834-U1 at 5,030 µg/L. The historic maximum cis-1,2-DCE concentration is also from

W-834-U1 (2001) at 11,000 µg/L. Except for the February 8, 2012 result cited above, this well has generally shown a decreasing VOC concentration trend since 2000.

During 2012, vinyl chloride was detected in the core and the T2 distal areas. In the core area, cis-1,2-DCE and vinyl chloride are degradation products of TCE during anaerobic intrinsic biodegradation. For example, after core area well W-834-D3 was converted from a dual extraction to a monitor well in 2002, vinyl chloride has been consistently detected in this well at concentrations ranging from 37 to 520 µg/L, including a 2012 maximum of 251 µg/L. The historic maximum for this well is 520 µg/L, detected in 2003. The likely electron donor for this degradation is TBOS/TKEBS. Very low ethene concentrations (0.66 µg/L, W-834-D3) were detected during 2012.

In the T2 distal area, vinyl chloride (and ethene) is the result of an enhanced bioremediation treatability study that began in 2005. Further discussion of *in situ* bioremediation is presented in Sections 2.2.3.3 and 2.2.3.4 below. Chloroform has decreased from a historic maximum concentration of 950 µg/L (extraction well W-834-S1, 1989) to an April 2012 concentration of 0.64 µg/L in the same well. The 2012 maximum chloroform concentration is 2.6 µg/L (well W-834-D13, March), below the chloroform MCL cleanup standard of 80 µg/L. The historic maximum concentration of chloroform in this well is also 2.6 µg/L (November 2007).

During 2012, TCE soil vapor concentrations from the core area SVE wells ranged from 0.13 to 50 $ppm_{v/v}$. These TCE vapor concentrations have decreased by two orders-of-magnitude from the maximum pre-remediation core area concentration of 3,200 $ppm_{v/v}$ (extraction well W-834-D4, 1989). Well W-834-D4 is located approximately 10 feet from well W-834-D3, where the historic maximum ground water VOC concentration in the Tpsg HSU was detected.

In the leachfield area, VOCs in the Tpsg HSU have decreased from a pre-remediation maximum of 179,200 µg/L (extraction well W-834-S1, 1988) to a 2012 (September) maximum concentration of 5,000 µg/L in the same well. The 2012 maximum concentration of 24,000 µg/L was detected in monitor well W-834-2113 (August) located between the leachfield area extraction wells. The historic maximum concentration in this well is 49,000 µg/L in 2008. VOCs in the underlying $Tps\text{-}Tnsc_2$ HSU in the leachfield area are significantly lower than in the core area. In the leachfield area, the 2012 maximum VOC concentration in $Tps\text{-}Tnsc_2$ HSU ground water was 4,900 µg/L (monitor well W-834-S8, August). This HSU has exhibited stable VOC trends since monitoring began in 1989. During 2012, TCE soil vapor concentrations from the Tpsg HSU in the leachfield area ranged from 0.38 to 7.5 $ppm_{v/v}$, significantly lower than the 710 $ppm_{v/v}$ maximum pre-remediation concentration measured in 2004.

Since 2005, the Tpsg HSU in the distal area has been the target of a long-term enhanced *in situ* bioremediation treatability study, including biostimulation using sodium lactate and bioaugmentation using KB-1, a consortium of dechlorinating bacteria that contain Dehalococcoides. TCE concentrations within the biotreatment zone have decreased from a historic maximum of 66,000 µg/L (W-834-T2, 1992) to a pre-treatability study maximum concentration of 30,000 µg/L (W-834-T2, 2004) to a 2012 maximum concentration of 230 µg/L (W-834-1824, August). TCE concentrations outside the treatment zone have decreased from a historic maximum of 86,000 µg/L (W-834-T2A, 1988) to a pre-treatability study maximum concentration of 23,000 µg/L (W-834-T2A, 2004) to a 2012 maximum concentration of 7,900 µg/L (W-834-T2D, August). The underlying $Tps\text{-}Tnsc_2$ HSU is monitored by well W-834-2119, which contained a 2012 maximum VOC concentration 17,000 µg/L (August); historic VOC concentrations in this well have remained stable.

2.2.3.2.2. TBOS/TKEBS Concentrations and Distribution

TBOS/TKEBS concentrations in ground water have decreased from a historic maximum of 7,300,000 µg/L (monitor well W-834-D3, 1995) to a 2012 maximum of 35,600 µg/L (same well, February). This compound is found exclusively in the core area. TBOS/TKEBS concentrations vary from one sampling event to the next, probably because of varying amounts of free-phase TBOS/TKEBS in the subsurface. Historically, floating product has been measured intermittently in some core area wells; however, no floating product was observed during 2012. Because TBOS/TKEBS concentrations in Tpsg HSU wells in the leachfield and distal areas have historically been below reporting limits, sampling for TBOS/TKEBS in the leachfield and distal areas are performed biennial, with approximately half the wells sampled during even numbered years and half sampled during odd numbered years. In those leachfield and distal area wells sampled during 2012, TBOS/TKEBS concentrations were below reporting limits.

Both the concentration and extent of TBOS/TKEBS in ground water are greater in the Tpsg HSU than in the underlying Tps-$Tnsc_2$ HSU. In 2012, TBOS/TKEBS was not detected in the Tps-$Tnsc_2$ HSU. TBOS/TKEBS remains below the reporting limit in guard wells W-834-T1 and W-834-T3.

2.2.3.2.3. Nitrate Concentrations and Distribution

During 2012, nitrate concentrations in ground water exceeded the 45 mg/L MCL cleanup standard in the Building 834 core, leachfield, and distal areas in the Tpsg and Tps-$Tnsc_2$ HSUs. Nitrate in Tpsg HSU ground water during 2012 ranged from a maximum concentration of 300 mg/L (monitor well W-834-M1, February) to below the 0.5 mg/L reporting limit. In the core area, nitrate in the Tpsg HSU varies spatially and temporally due to denitrification associated with the ongoing intrinsic *in situ* biodegradation of TCE. The introduction of oxygen into the subsurface during SVTS operation subdues intrinsic biodegradation and denitrification in some portions of the core area. During 2012, nitrate concentrations in the underlying Tps-$Tnsc_2$ HSU ranged from a maximum of 120 mg/L (monitor well W-834-S8, February) to below the 0.5 mg/L reporting limit.

Although nitrate concentrations in ground water have decreased from a historic maximum of 749 mg/L (monitor well W-834-K1A, 2000), the continued presence of elevated nitrate indicates that an ongoing source of nitrate to ground water exists due to a combination of both natural and anthropogenic sources. Nitrate was not detected in guard wells W-834-T1 and W-834-T3 during 2012.

2.2.3.2.4. Other Contaminant Concentrations and Distribution

The extent of diesel in ground water in the Building 834 area is limited to the vicinity of a former underground storage tank located beneath the paved portion of the core area. During 2012, diesel concentrations were measured in ground water from W-834-U1 at 331 µg/L and 230 µg/L (February 8 and 15, respectively) and from W-834-2001 at 4,800 µg/L (September). Diesel concentrations measured in ground water vary from one sampling event to the next, likely due to varying amounts of free-phase product in the subsurface. No floating product was detected in ground water during 2012.

During 2012, perchlorate was detected in ground water from monitor well W-834-2118 at a maximum concentration of 5.1 µg/L (February) slightly above the 4 µg/L reporting limit but below the 6 µg/L MCL cleanup standard. Perchlorate concentrations in this well have decreased from a historic maximum of 11 µg/L in 2005. During 2012, attempts to sample ground water for perchlorate from monitor wells W-834-S7 and W-834-A2 were unsuccessful due to dry conditions. Ground water from well W-834-S7 has historic perchlorate concentrations ranging from 8.8 to 11 µg/L; ground water from well W-834-A2 has not been analyzed for perchlorate. Semi-annual ground water monitoring for perchlorate will continue for monitor wells W-834-2118, W-834-S7 and W-834-A2.

2.2.3.3. Building 834 OU Remediation Optimization Evaluation

Throughout 2012, the Building 834 ground water and soil vapor treatment systems operated intermittently as described in the First Semester 2012 CMR (Dibley et al., 2012b) and Section 2.2.1.2 above. During the reporting period, no modifications were made to the core or leachfield area extraction wellfields. Substantially more VOC mass is being removed by soil vapor extraction than by ground water extraction. Of the 15,014 g of VOCs removed during 2012, 13,844 g was removed in the vapor-phase.

TCE biodegradation continues within the core area where significant amounts of TBOS/TKEBS are present and serve as an electron donor for intrinsic biodegradation. Historically, the primary byproduct of this biodegradation has been cis-1,2-DCE, although vinyl chloride has also been detected in some wells, especially W-834-D3. In 2012, both cis-1,2-DCE and vinyl chloride were detected in core area ground water, at maximum concentrations of 23,000 µg/L and 251 µg/L, respectively. During the first semester 2012, an *intrinsic* biodegradation evaluation was performed after the treatment system was re-started on February 14, 2012 after having been off since November 29, 2011 to protect against damage caused by freezing temperatures. A description of the evaluation and the results were presented in the First Semester 2012 CMR. The cumulative post treatment facility restart data presented in this report indicated that *in situ* biodegradation is most actively occurring in the core area in the vicinity of monitor well W-834-D3 and extraction well W-834-D4. Very low concentrations of ethene were detected in the core area during 2012, indicating partial biodegradation rather than complete degradation at this time.

The extraction wellfield for the Tpsg HSU within the core area continues to adequately capture the highest VOC concentrations in ground water. Per the recommendations presented in the third Five-Year Review Report for the Building 834 Operable Unit (Valett et al., 2012), VOC concentrations in monitor well W-834-C5 and nearby well W-834-B4 will continue to be monitored closely during the next five years. If these wells exhibit stable or increasing VOC trends, installation of extraction wells in the vicinity of these wells may be considered. In the leachfield area, the extraction wellfield continues to capture some portions of the VOC plume in ground water. However, the areas with the highest concentrations (in the vicinity of monitor well W-834-2113) are not fully captured. VOC concentrations in well W-834-2113 will also be monitored closely during the next five years. If this well exhibits an increasing VOC trend, additional measures, including conversion of this well to an extraction well, installation of an extraction well in the vicinity of well W-834-2113, or implementing *in situ* bioremediation in this area, may be considered.

As described in Section 2.2.3.4, enhanced *in situ* bioremediation is being evaluated as a long-term treatability study in the T2 distal area. Overall, VOC concentrations in the area impacted by the bioremediation study have decreased significantly due to a combination of *in situ* biostimulation, bioaugmentation and dilution. The implementation of wellfield modifications for a bioremediation recirculation cell in this area is planned for 2013.

VOC concentration trends in the underlying Tps-Tnsc$_2$ HSU will also continue to be monitored closely during the next five years. Per the recommendations presented in the Building 834 Five Year Review, if wells W-834-A1 and W-834-2119 exhibit increasing VOC trends, installation of additional extraction wells in this area may be considered.

VOCs in ground water are expected to continue to decrease as remediation progresses. The deep regional Tnbs$_1$ aquifer continues to be free of contaminants as demonstrated by quarterly analyses of ground water from guard wells W-834-T1 and W-834-T3, both screened in the lower Tnbs$_1$ HSU.

2.2.3.4. T2 Treatability Study

The T2 VOC treatability study began in 2005 and post-test rebound monitoring continued during 2012. The primary objective of this pilot-scale treatability study was to assess the performance of enhanced *in situ* bioremediation of TCE at concentrations greater than 10,000 µg/L in a heterogeneous, anisotropic, water-bearing zone typical of contaminant source areas at Site 300. Since 2005, progress of this test has been reported semi-annually in the CMRs. A detailed description of the test results, including procedures, performance assessment, conclusions, and recommendations were recently submitted as Appendix A of the Building 834 Five Year Review (Valett et al., 2011b).

During first semester 2012, ground water samples collected from four T2 area wells (W-834-T2, W-834-1824, W-834-1825, and W-834-1833) were analyzed for light hydrocarbons with results summarized in the First Semester 2012 CMR (Dibley et al., 2012b). Ethene concentrations were highest in well W-834-T2 and W-834-1825 at 290 and 83 µg/L, respectively. The cumulative data presented in the First Semester 2012 CMR indicates that enhanced *in situ* bioremediation of TCE continues in the T2 area, particularly in the vicinity of wells W-834-T2, W-834-1824 and W-834-1825. During the second semester 2012, TCE concentrations were lowest in well W-834-1825 (original bio-augmentation well) at 2.8 µg/L, well W-834-1824 (injection well) at 6.9 µg/L, and well W-834-T2 (first downgradient performance well) at 1.0 µg/L, as compared to the remaining T2 area Tpsg HSU wells that ranged from 4,200 to 7,900 µg/L. Concentrations of cis-1,2-DCE were highest in well W-834-T2 at 260 µg/L, with the remaining wells ranging from 1.4 to 64 µg/L. Vinyl chloride was also highest in W-834-T2 at 410 µg/L, with remaining wells ranging from 1.4 to 16 µg/L.

2.2.3.5. Building 834 OU Remedy Performance Issues

During the reporting period, there were no new issues that affect the performance of the cleanup remedy for the Building 834 OU. Although the remedy continues to be protective of human health and the environment, and effective in cleaning up the Tpsg HSU, it has not significantly decreased VOC concentrations in the underlying Tps-Tnsc$_2$ HSU beneath the core area.

2.3. Pit 6 Landfill (Pit 6) OU 3

The Pit 6 Landfill covers an area of 2.6 acres near the southern boundary of Site 300. This landfill was used from 1964 to 1973 to bury waste in nine unlined debris trenches and animal pits. The buried waste, which includes shop and laboratory equipment and biomedical waste is located on or adjacent to the Corral Hollow-Carnegie Fault. Farther east, the fault trends to the south of two nearby water-supply wells CARNRW1 and CARNRW2. These active water-supply wells are located about 1,000 feet east of the Pit 6 Landfill. They provide water for the nearby Carnegie State Vehicular Recreation Area and are monitored on a monthly basis.

The Pit 6 Landfill was capped and closed in 1997 under CERCLA to prevent further leaching of contaminants resulting from percolation of rainwater through the buried waste. The engineered, multi-layer cap is intended to prevent rainwater infiltration into the landfill, mitigate potential damage by burrowing animals and vegetation, prevent potential hazards from the collapse of void spaces in the buried waste, and prevent the potential flux of VOC vapors through the soil. Surface water flow onto the landfill is minimized by a diversion channel on the north side and drainage channels on the east, west, and south sides of the engineered cap. A map of Pit 6 Landfill OU showing the locations of monitor and water-supply wells is presented on Figure 2.3-1.

2.3.1. Pit 6 Landfill OU Surface Water and Ground Water Monitoring

The sampling and analysis plan for ground water and surface water monitoring is presented in Table 2.3-1. This table also delineates and explains deviations from the sampling plan and indicates any additions made to the CMP.

During the reporting period, ground water monitoring was conducted in accordance with the CMP monitoring and post-closure requirements with the following exceptions; forty required analyses were not performed because there was insufficient water in the wells to collect the samples and four required analyses were not performed due to an inoperable pump.

Analytical results and ground water elevation measurements obtained during 2012 are presented in Appendices B and C, respectively.

The ground water elevation contour map for the Qt-$Tnbs_1$ HSU is presented on Figure 2.3-2.

2.3.2. Pit 6 Landfill OU Remediation Progress Analysis

This section is organized into three subsections: analysis of contaminant distribution and concentration trends; remediation optimization evaluation; and performance issues.

2.3.2.1. Pit 6 Landfill OU Contaminant Distribution and Concentration

At the Pit 6 Landfill OU, VOCs and tritium are the primary COCs detected in ground water. Perchlorate and nitrate are secondary COCs. These constituents have historically been identified within the Qt-$Tnbs_1$ HSU. The concentrations of COCs have significantly declined below historic maximum levels in Pit 6 ground water.

As part of the recent Draft OU3/OU8 Five-Year Review (Buscheck et al., 2012), the Qt-$Tnbs_1$ HSU was formally divided into the Qt-$Tnbs_1$ North HSU (portion north of the Corral Hollow-Carnegie Fault Zone) and the Qt-$Tnbs_1$ South HSU (portion within the Corral Hollow-Carnegie Fault Zone). A deeper water-bearing zone ($Tnbs_1$ Deep HSU) occurs beneath a low permeability confining layer at a depth of 170 feet within the $Tnbs_1$ stratigraphic unit. Based on evaluations of historical water elevation hydrographs, monitor wells EP6-07, K6-27, K6-34 and K6-35, which were previously designated as $Tnbs_1$ Deep HSU wells, are now designated as Qt-$Tnbs_1$ North HSU wells. The main criterion for reinterpreting the Qt-$Tnbs_1$ North HSU designation for these wells is that their long-term hydrographs exhibit a common hydraulic response to pumping from the nearby CARNRW water-supply wells.

Total VOC concentration and tritium activity data are contoured for the Qt-$Tnbs_1$ HSU based on data collected during the second semester of 2012 and are presented on Figures 2.3-3 and 2.3-4, respectively. Secondary COC maps are not presented due to the fact that perchlorate was not detected during 2012 and nitrate was detected above its MCL in only one well.

2.3.2.1.1. VOC Concentrations and Distribution

VOC COCs in Pit 6 Landfill ground water include chloroform, 1,2-DCA, cis-1,2-DCE, trans-1,2-DCE, PCE, 1,1,1-TCA and TCE. Of these VOCs, only TCE and cis-1,2-DCE were detected in Pit 6 Landfill ground water monitor wells at concentrations above the 0.5 µg/L reporting limit during 2012.

In the Qt-$Tnbs_1$ North HSU, TCE concentrations have decreased from a historic maximum of 1.4 µg/L (monitor well K6-36, 2001) to below the 0.5 µg/L reporting limit in the first semester 2012. No other VOCs were detected in the Qt-$Tnbs_1$ North HSU during 2012. Due to insufficient water, ground water samples have not been collected from monitor wells EP6-08 (since April 2008) and K6-24 (since January 2011). During the first semester 2012, two new wells were drilled in the Qt $Tnbs_1$ HSU north of the fault in the vicinity of these wells, but were screened at greater depths in saturated $Tnbs_1$. As shown on Figure 2.3-1, monitor well W-PIT6-2816 was located 30 feet east-southeast of well EP6-08 and well W-PIT6-2817 was located 50 feet east-southeast of monitor well K6-24. VOCs were not detected in ground water samples from these new wells during 2012. VOC samples will be collected from these new wells semi-annually (first and third quarters) starting in 2013.

In the Qt-$Tnbs_1$ South HSU, TCE concentrations have decreased from a historic maximum of 250 µg/L (monitor well K6-19, 1988) to a 2012 maximum concentration of 8.7 µg/L (monitor well EP6-09, January); the second semester 2012 TCE concentration in this well was 5.9 µg/L. For two months in late 1998, ground water was extracted from well EP6-09 to determine the effect on TCE trends. During the period of pumping, TCE concentrations decreased from 14 to 1.4 µg/L. Since 1998, TCE concentrations in well EP6-09 have rebounded and have remained relatively stable. In 2012, TCE was detected in four wells in the Qt-$Tnbs_1$ South HSU (monitor wells EP6-09, K6-16, K6-18 and

K6-19) at concentrations above the reporting limit, but exceeded the 5 µg/L MCL cleanup standard only in EP6-09. Ground water samples from three Qt-$Tnbs_1$ South HSU wells had detectable cis-1,2-DCE at a maximum concentration of 2.1 µg/L (monitor well K6-01S, January); below the 6 µg/L MCL cleanup standard. The presence of cis-1,2-DCE, a degradation product of TCE, suggests that some natural dechlorination may be occurring.

TCE was not detected in the $Tnbs_1$ Deep HSU during 2012. Additionally, during 2012, VOCs were not detected in samples collected from guard wells W-PIT6-1819, K6-17, K6-22 and K6-34. Bromoform, bromodichloromethane, dibromochloromethane and chloroform were detected in samples collected in July 2012, from CARNRW2, a water-supply well for the Carnegie State Vehicular Recreation Area (SVRA) Park. Concentrations of total trihalomethanes (THMs) for these samples were below the MCL of 80 µg/L. Most likely, the THMs detected in well CARNRW2 are the result of intermittent backflow of chlorinated water from the SVRA chlorination system into the well. No other VOCs were detected in the four CARNRW wells during 2012.

2.3.2.1.2. Tritium Concentrations and Distribution

Tritium was detected above the 100 picoCuries per liter (pCi/L) reporting limit in samples from several wells completed in both the Qt-$Tnbs_1$ North and Qt-$Tnbs_1$ South HSUs. Tritium has never been detected in Pit 6 Landfill ground water at activities exceeding the 20,000 pCi/L MCL cleanup standard.

In the Qt-$Tnbs_1$ North HSU, tritium activities have decreased from a historic maximum of 2,150 pCi/L (monitor well K6-36, 2000) to 2012 maximum activity of 174 pCi/L (well W-PIT6-1819, July). Well K6-36 has not been sampled since 2006 due to insufficient water. DOE/NNSA collected samples for tritium analysis from the two new monitor wells W-PIT6-2816 and W-PIT6-2817 installed in the first semester 2012 in areas where other wells screened in the Qt-$Tnsb_1$ North HSU had gone dry. Tritium was detected at 122 pCi/L in a ground water sample collected from well W-PIT6-2817 and was not detected above the 100 pCi/L reporting limit in well W-PIT6-2817. Tritium samples will be collected from these new wells semi-annually (first and third quarters) starting in 2013.

In the Qt-$Tnbs_1$ South HSU, tritium activities have decreased from a historic maximum of 3,420 pCi/L (monitor well BC6-13, 2000) to a 2012 maximum activity of 251 pCi/L (monitor well K6-19, January). Well BC6-13 has been dry since 2000. The historic maximum tritium activity in well K6-19 is 2,520 pCi/L (1999). In 2012, tritium was detected in three wells in the Qt-$Tnbs_1$ South HSU (wells K6-01S, K6-18 and K6-19) at activities above the reporting limit but well below the MCL cleanup standard.

Tritium was not detected in the $Tnbs_1$ Deep HSU during 2012. During 2012, tritium activities were detected in ground water samples from guard well W-PIT6-1819 ranging from 112 pCi/L (January) to 174 pCi/L (July). Prior to 2012, tritium activities in well W-PIT6-1819 ranged from <100 pCi/L to 295 pCi/L. This well is used to define the downgradient extent of tritium in ground water with activities above the 100 pCi/L background level. It is located approximately 100 feet west of the Site 300 boundary within the Carnegie SVRA residence area and approximately 200 feet west of the CARNRW1 and CARNRW2 water-supply wells. During 2012, tritium was not detected (1) in guard wells K6-34, K6-22 or K6-17 or (2) at activities above the 100 pCi/L reporting limit in any of the monthly ground water samples collected from the four CARNRW offsite wells.

2.3.2.1.3. Perchlorate Concentrations and Distribution

During 2012, perchlorate was not detected at or above the 4 µg/L reporting limit in any Qt-$Tnbs_1$ North, Qt-$Tnbs_1$ South, or $Tnbs_1$ Deep HSU ground water samples, including samples collected from guard wells and the CARNRW water-supply wells. Perchlorate concentrations in ground water have steadily decreased from a historic maximum concentration of 65.2 µg/L (monitor well K6-19, 1998) to below the 4 µg/L reporting limit in all wells. DOE/NNSA collected samples for perchlorate analysis from the two new monitor wells W-PIT6-2816 and W-PIT6-2817 installed in the first semester 2012 in areas where other wells screened in the Qt-$Tnsb_1$ North HSU had gone dry. Perchlorate was not detected in ground water samples collected from wells W-PIT6-2816 and W-PIT6-2817. Perchlorate samples will be collected from these new wells annually (first quarter) starting in 2013.

2.3.2.1.4. Nitrate Concentrations and Distribution

During 2012, nitrate was detected in samples collected from wells completed within the Qt-$Tnbs_1$ North and South HSUs.

In the Qt-$Tnbs_1$ North HSU, nitrate was detected in samples from two wells during 2012. Samples from well W-PIT6-1819 contained 8.1 mg/L (January) and 0.53 mg/L (July) of nitrate. DOE/NNSA collected samples for nitrate analysis from the two new monitor wells, W-PIT6-2816 and W-PIT6-2817, installed in the first semester 2012 in areas where other wells screened in the Qt-$Tnsb_1$ North HSU had gone dry. Nitrate was detected in ground water at concentrations of 2.1 mg/L (W-PIT6-2816) and <0.44 mg/L (W-PIT6-2817). Nitrate samples will be collected from these new wells annually (first quarter) starting in 2013. Nitrate concentrations in samples from the two Qt-$Tnbs_1$ wells where it was detected were appreciably below its 45 mg/L MCL cleanup standard and within the range of background. Nitrate was not detected in ground water samples from any wells completed in the Qt-$Tnbs_1$ North HSU at concentrations above the MCL cleanup standard or outside the range of nitrate background levels.

In the Qt-$Tnbs_1$ South HSU, nitrate was detected in ground water above the 45 mg/L MCL cleanup standard in one Pit 6 Landfill OU well (well K6-23) during 2012 (150 and 170 mg/L in January and July, respectively). Well K6-23 consistently yields ground water nitrate concentrations in excess of the MCL cleanup standard and is coincidentally located in close proximity to the Building 899 septic system, which may be a potential source of the nitrate at this location. During 2012, well K6-23 was sampled for a suite of Pharmaceutical and Personal Care Product (PPCP) analytes as potential septic effluent indicators. These PPCP results are discussed in Section 2.3.2.2 below.

Nitrate was not detected in the $Tnbs_1$ Deep HSU during 2012 above the reporting limit. During 2012, nitrate was detected in ground water samples from guard well W-PIT6-1819 at concentrations ranging from 0.53 mg/L (July) to 8.1 mg/L (January). During 2012, nitrate was not detected in (1) guard wells K6-34, K6-22 or K6-17, or (2) water-supply wells CARNRW1 or CARNRW3 above the reporting limit. During 2012, nitrate was detected in inactive water-supply wells (1) CARNRW2 at concentrations ranging from <0.5 to 2.9 mg/L and (2) CARNRW4 at concentrations ranging from <0.5 to 1.2 mg/L.

2.3.2.2. Pit 6 Landfill OU Remediation Optimization Evaluation

The remedy for tritium and VOCs in ground water at the Pit 6 Landfill is Monitored Natural Attenuation (MNA). Ground water levels and contaminants are monitored on a regular basis to: (1) evaluate the efficacy of the natural attenuation remedy in reducing contaminant concentrations, and (2) detect any new chemical releases from the landfill. In general, the primary ground water COCs (VOCs and tritium) at the Pit 6 Landfill OU exhibit generally decreasing trends and ground water levels beneath the landfill remain well below the buried waste. Ground water elevations have decreased beneath two key monitor wells located north of the fault (wells EP6-08 and K6-24). During the first semester 2012, two new wells were drilled in the Qt-$Tnbs_1$ HSU in the vicinity of these wells and were screened at greater depths. Routine samples (semi-annually for primary COCs and annually for secondary COCs) will be collected from these new wells starting in 2013.

In general, VOCs in ground water near Pit 6 exhibit decreasing trends and the VOC plume extent is stable to decreasing. TCE concentrations in ground water remain above the 5 µg/L MCL cleanup standard in samples from only one well (8.7 µg/L, EP6-09). These concentrations have remained relatively stable since 2008. As recommended in the recent Draft OU3/OU8 Five-Year Review

(Buscheck et al, 2012), TCE concentrations will be monitored in ground water from well EP6-09 over the next five years and if concentrations increase or remain above 5 µg/L, remedial measures such as pump-and-treat or enhanced *in situ* bioremediation will be considered for this well. The concentrations of other VOCs are below their MCL cleanup standards in all Pit 6 Landfill ground water monitor wells; only cis-1,2-DCE was detected above the 0.5 µg/L reporting limit in three wells during 2012.

Tritium activities in ground water continue to decrease toward background levels and remain far below the 20,000 pCi/L MCL cleanup standard. In 2012, the maximum tritium activity detected in Pit 6 wells was 251 pCi/L. These low activities show that the MNA remedy for tritium in ground water at the Pit 6 Landfill OU 3 continues to be effective.

Perchlorate concentrations in Pit 6 area ground water have decreased from a maximum of 65.2 µg/L (well K6-19, 1998) to below the reporting limit (4 µg/L). During 2012, perchlorate was not detected in ground water above the reporting limit (4 µg/L) in any samples collected from Pit 6 wells. Perchlorate concentrations have remained below the reporting limit in all Pit 6 wells for over three years.

Nitrate continues to be consistently detected above its 45 mg/L MCL cleanup standard in well K6-23. During 2012, nitrate detections in this well were 150 mg/L (January) and 170 mg/L (July). Well K6-23 is located in close proximity to the Building 899 septic system, which may be a potential source of the nitrate at this location. During 2012, well K6-23 was sampled for a suite of PPCP analytes as potential septic effluent indicators. Of these analytes, four showed detectable concentrations as follows: caffeine at 120 nanograms per liter (ng/L); n,n-diethyl-meta-toluamide (DEET, mosquito repellant) at 18 ng/L; primidone (seizure medication) at 1.4 ng/L; and tris (2-chloroethyl) phosphate (fire retardant) at 1.5 ng/L. These chemicals are strong evidence for septic discharge in the sampled ground water.

2.3.2.3. Pit 6 Landfill OU Performance Issues

Historically, low ground water levels north of the fault have limited the ability to monitor the Pit 6 Landfill OU. However, during the first semester 2012, two new wells (W-PIT6-2816 and W-PIT6-2817) were drilled to saturated $Qt\text{-}Tnbs_1$ HSU north of the fault at greater depths than existing monitor wells. Initial ground water sample results are generally consistent with historical results from shallower wells in the same vicinity. These two new wells have been added to the Pit 6 Landfill OU sampling and analysis plan and sampled semi-annually for primary COCs and annually for secondary COCs starting in 2013. Currently, there is very little contamination above ground water cleanup standards at the Pit 6 Landfill OU.

During 2012, all scheduled samples were collected from guard well W-PIT6-1819 and water-supply wells CARNRW1 and CARNRW2. Based on these results, the remedy continues to be effective and protective of human health and the environment, and to make progress toward cleanup.

2.4. High Explosives Process Area (HEPA) OU 4

The HEPA has been used since the 1950s for the chemical formulation, mechanical pressing, and machining of high explosives (HE) compounds into shaped detonation charges. Surface spills from 1958 to 1986 resulted in the release of contaminants at the former Building 815 steam plant. Subsurface contamination is also attributed to HE waste water discharges into former unlined rinse water lagoons. Another minor source of contamination in ground water resulted from leaking contaminated waste stored at the former Building 829 Waste Accumulation Area (WAA) located near Building 829.

Six GWTSs operate in the HEPA: Building 815-Source (815-SRC), Building 815-Proximal (815-PRX), Building 815-Distal Site Boundary (815-DSB), Building 817-Source (817-SRC), Building 817-Proximal (817-PRX), and Building 829-Source (829-SRC). A map of the HEPA OU showing the locations of monitor and extraction wells and treatment facilities is presented on Figure 2.4-1.

The 815-SRC GWTS began operation in September 2000 removing VOCs (primarily TCE), HE compounds (RDX and High Melting Explosive [HMX]), and perchlorate from ground water. Initially, the system extracted from one extraction well, W-815-02 and consisted of aqueous-phase GAC, an ion-exchange system, and an anaerobic bioreactor for nitrate destruction. The treated effluent was discharged to a misting system. The anaerobic bioreactor was decommissioned in 2003. In 2005, the wellfield was expanded to include extraction well W-815-04, with a current combined flow rate of approximately 1.2 gpm. The current GWTS configuration includes two ion-exchange resin columns connected in series for perchlorate removal, and three aqueous-phase GAC canisters (also connected in series) for VOC and HE compound removal. In 2005, the discharge method of misting was replaced by injection of the treated effluent into well W-815-1918 for *in situ* denitrification in the $Tnbs_2$ HSU. In December 2012, W-815-2803 was added to the extraction wellfield and connected to the 815-SRC treatment facility. This extraction well has a flow rate of <0.5 gpm.

The 815-PRX GWTS began operation in October 2002 removing TCE and perchlorate from ground water. Ground water is extracted from wells W-818-08 and W-818-09 at a current combined flow rate of approximately 2.25 gpm. The current GWTS configuration includes a Cuno filter to remove particulates, two ion-exchange resin columns connected in series for perchlorate removal, and three aqueous-phase GAC canisters (also connected in series) for TCE removal. In 2005, the discharge method of misting was replaced by injection of the treated effluent into well W-815-2134 where an *in situ* natural denitrification process reduces the nitrate to nitrogen in the $Tnbs_2$ HSU.

The 815-DSB GWTS began operation in September 1999 removing low concentrations (less than 10 µg/L) of TCE from ground water extracted near the Site 300 boundary. Ground water was extracted from wells W-35C-04 and W-6ER at a combined flow rate of approximately 3 to 4 gpm. In 2011-2012, the 815-DSB extraction wellfield was expanded to include a new extraction well W-815-2608. The GWTS originally operated intermittently on solar-power until site power was installed in 2005 when 24-hour operations began. The current GWTS configuration includes a Cuno filter to remove particulates and three aqueous-phase GAC canisters connected in series for TCE removal. The treated effluent is discharged to an infiltration trench.

The 817-SRC GWTS began operation in September 2003 removing HE compounds (RDX and HMX) and perchlorate from ground water. Well W-817-01 extracts ground water from a very low yield portion of the $Tnbs_2$ aquifer. It pumps ground water intermittently using solar power at current flow rates ranging from 40 to 160 gallons per month. The current GWTS configuration includes a Cuno filter to remove particulates, two ion-exchange resin columns connected in series for perchlorate removal, and three aqueous-phase GAC canisters (also connected in series) for HE compound removal. Treated ground water is injected into upgradient injection well W-817-06A where an *in situ* natural denitrification process reduces the nitrate to nitrogen in the $Tnbs_2$ HSU.

The 817-PRX GWTS began operation in September 2005 removing VOCs, RDX, and perchlorate from ground water. Initially, ground water was extracted from wells W-817-03 and W-817-04 at a combined flow rate of approximately 1.0 gpm, although the vast majority of ground water was extracted from well W-817-03. In 2007, the extraction wellfield was expanded to include extraction well, W-817-2318. Due to the low yield from ground water extraction well W-817-04, extraction from this well was discontinued in December 2007. Ground water is currently extracted at a combined flow rate of approximately 2.0 gpm. The current GWTS configuration includes a Cuno filter to remove particulates, two aqueous-phase GAC canisters connected in series for TCE and RDX removal, and three ion-exchange resin columns (also connected in series) for perchlorate removal. A third aqueous-phase GAC canister completes the treatment chain, and is placed in this position to remove any residual organic compounds that may be emitted from new ion-exchange resin. Treated ground water containing nitrate is injected into upgradient injection wells W-817-2109 and W-817-02 that were added in 2007. The treated effluent is split between the two injection wells where an *in situ* denitrification process reduces the nitrate to nitrogen in the $Tnbs_2$ HSU.

The 829-SRC GWTS began operation in August 2005 removing VOCs, nitrate, and perchlorate from ground water. The GWTS configuration included two ion-exchange columns containing ion-exchange resin connected in series for perchlorate removal, three aqueous phase GAC canisters (also connected in series) for VOC removal, and a biotreatment unit to treat nitrate. However, the biotreatment unit was not effectively removing nitrate. An Explanation of Significant Difference (ESD) (Ferry et al., 2010) was submitted to the regulatory agencies in 2010. The ESD documented the decision to use ion-exchange treatment media to remove nitrate from ground water, rather than the existing biotreatment unit. Modifications to 829-SRC were initiated in 2010 and were completed June 2011. Solar power continues to be used to extract ground water from well W-829-06 at a flow rate of approximately 1 to 10 gallons per day (gpd). The current configuration includes two ion-exchange resin columns connected in series for perchlorate and nitrate removal and three aqueous phase GAC canisters (also connected in series) for VOC removal. Treated effluent is injected into upgradient well W-829-08.

2.4.1. HEPA OU Ground Water Extraction and Treatment System Operations and Monitoring

This section is organized into four subsections: facility performance assessment; operations and maintenance issues; compliance summary; and sampling plan evaluation and modifications.

2.4.1.1. HEPA OU Facility Performance Assessment

The monthly ground water discharge volumes, extraction flow rates, and operational hours in the second semester of 2012 are summarized in Tables 2.4-1 through 2.4-6. The total volume of ground water extracted and treated and the total contaminant mass removed during 2012 is presented in Table Summ-1. The total volume of ground water treated and discharged and the total contaminant mass removed are summarized in Table Summ-2. Analytical results for influent and effluent samples collected during the second semester of 2012 are presented in Tables 2.4-7 through 2.4-9. The pH measurement results are presented in Appendix A.

2.4.1.2. HEPA OU Operations and Maintenance Issues

The following maintenance activities and operational issues occurred at the 815-SRC, 815-PRX, 815-DSB, 817-SRC, 817-PRX, and 829-SRC GWTSs during the second semester 2012:

<u>815-SRC GWTS</u>

- The GWTS was secured on August 9 to perform preparatory activities for the wellfield expansion/pipeline construction project. The GWTS was restarted on August 16.
- The GWTS shut down on October 10, the system was checked, and restarted on October 16.
- The GWTS shut down due to a site-wide power outage from October 28 to October 29.
- Startup of the new well W-815-2803 was performed on December 10 (see Section 2.4.1.5), samples were collected, and the well was shut down to protect against damage caused by freezing temperatures. The treatment facility remained in operation on the original two extraction wells (W-815-02 and W-815-04).

815-PRX GWTS

- The GWTS was shut down on June 28 to replace spent granular activated carbon treatment media. The system was restarted on July 11, discharging into a bubble until the pH was confirmed to be within discharge limits (6.5 to 8.5).
- The GWTS was turned off on August 1 to change-out the ion exchange resin. The GWTS was restarted on August 2.
- The GWTS shut down during a site-wide power outage from October 28 to October 29.
- The GTWS was shut down on December 17 to protect against freeze damage.

815-DSB GWTS

- Pumping from the new extraction well W-815-2608 was initiated on July 11, and a second set of start-up samples were collected on July 18, 2012.
- The GTWS shut down due to a crack in the expansion pipeline on August 13. When the pipe crack occurred, the system detected the pressure difference in the pipeline and automatically shut down. The pipeline was repaired and the facility was restarted on August 15.
- The GWTS was shut down on September 6 for an extraction wellfield test. The test was run from September 10 to September 11 and normal operations resumed September 11.
- The GWTS automatically shut down on September 18 and was restarted on September 19. The system again shut down automatically on October 6 and was restarted on October 8.
- The GWTS shut down during a site-wide power outage from October 28 to October 29.
- Extraction well W-815-2608 was offline from October 28 to November 5 due to the power outage and ensuing electrical issues.
- An interlock check was performed on November 27.

817-SRC GWTS

- The GWTS shut down on October 24 due to battery failure. The batteries were replaced and the system was restarted on October 25.
- The GWTS shut down during a site-wide power outage from October 28 to October 29.
- The GTWS was shut down on December 17 to protect against freeze damage.

817-PRX GWTS

- The GWTS operated intermittently due to backpressure caused by a pump problem. The system was operated during the work week (24 hours a day/four days a week). The GWTS shut down on July 11 due to an effluent detection of VOCs and back pressure issues, and was left offline for a GAC and ion exchange resin change-out. Change-out was completed on July 19, and the system re-started on July 23 for compliance re-start sampling. Effluent samples were collected on July 23 and July 26, 2012, and the system was again shut down, after which it was operated on the same 4 day per week schedule. A strategy update was performed at the facility on August 13 to operate extraction well W-817-2318 only.
- The GWTS was shut down on September 19 due to a leaking CUNO filter. The filter was repaired and the system was restarted on September 24.
- The pump in extraction well W-817-03 was replaced on October 9.

- The GWTS shut down during a site-wide power outage from October 28 to October 29.
- The GWTS was shut down on November 19 to perform a drawdown test on extraction well W-817-03. The system will be restarted on December 3 extracting from W-817-2318 only.
- The GTWS was shut down on December 17 to protect against freeze damage.

829-SRC GWTS

- The GWTS was shut down on August 22 due to detections of trace concentrations of methylene chloride throughout the system and remained offline for evaluation and later to protect against freeze damage. The source of the methylene chloride is not known, but it is suspected that it may be associated with the previously used contaminated ion-exchange resin. A system cleaning and media change-out will be scheduled after freeze protection is discontinued.

2.4.1.3. HEPA OU Compliance Summary

The 815-SRC, 815-PRX, 815-DSB, 817-SRC, 817-PRX, and 829-SRC GWTSs operated in compliance with the RWQCB Substantive Requirements for Wastewater Discharge. At 817-PRX, 1,2-DCA was detected in the effluent sample collected on July 11, 2012 at a concentration of 0.76 µg/L. LLNL had confirmed that the 1,2-DCA detected was associated with contaminated ion-exchange resin that had been used at this facility. All treatment media were changed out in July and two additional sets of compliance samples were collected on July 23, and July 26, 2012. No VOCs were detected in either of the effluent samples collected. Since the initial detection of 1,2-DCA was below the maximum daily allowable concentration of 5.0 µg/L, and the monthly median was below 0.5 µg/L, this facility remained within compliance.

2.4.1.4. HEPA OU Facility Sampling Plan Evaluation and Modifications

The HEPA OU facility sampling and analysis plan complies with the monitoring requirements in the CMP/CP. The sampling and analysis plan is presented in Table 2.4-10. The only modifications made to the plan included the following:

1) Additional compliance monitoring was conducted at the 817-PRX GWTS in July due to VOC detection in an effluent sample as discussed above.
2) A modified monitoring schedule was conducted at 829-SRC GWTS during this reporting period due to traces of VOC detected in the system as discussed above.

2.4.1.5. HEPA OU Treatment Facility and Extraction Wellfield Modifications

The only modification made within the HEPA OU was related to the extraction wellfield for the 815-SRC GWTS. One new extraction well, W-815-2803, was added to the extraction wellfield. The first set of startup samples were collected on December 10, 2012 upon initiation of ground water extraction from this well. Due to initial limited run time of the new extraction well in December, the second set of startup samples will be collected in 2013.

2.4.2. HEPA OU Ground Water and Surface Water Monitoring

The sampling and analysis plan for ground water and surface water monitoring is presented in Table 2.4-11. This table also explains deviations from the sampling plan and indicates any additions made to the CMP.

During the reporting period, ground water monitoring was conducted in accordance with the CMP monitoring requirements with the following exceptions; twenty-nine required analyses were not performed because there was insufficient water in the wells to collect the samples, nine required analyses were not performed due to access restrictions, and thirty required analysis were not performed due to inoperable pumps (6 wells).

Analytical results and ground water elevation measurements obtained during 2012 are presented in Appendices B and C, respectively.

Ground water elevations for the Tpsg-Tps and $Tnsc_{1b}$ HSUs are posted on Figures 2.4-2 and 2.4-11, respectively. The ground water elevation contour map including hydraulic capture zones for the $Tnbs_2$ HSU is presented on Figure 2.4-6.

2.4.3. HEPA OU Remediation Progress Analysis

This section is organized into four subsections: mass removal; contaminant concentrations and distribution; remediation optimization evaluation; and performance issues.

2.4.3.1. HEPA OU Mass Removal

The monthly ground water mass removal estimates for the second semester of 2012 are summarized in Tables 2.4-12 through 2.4-17. The total mass removed during the reporting period and cumulative mass estimates are summarized in Table Summ-1 and Table Summ-2, respectively.

2.4.3.2. HEPA OU Contaminant Concentrations and Distribution

At the HEPA OU, VOCs (mainly TCE) are the primary COCs detected in ground water; RDX, HMX, 4-ADNT, perchlorate, and nitrate are secondary COCs. Most of the HEPA ground water contamination occurs in the $Tnbs_2$ HSU (Figures 2.4-7, 2.4-8, 2.4-9 and 2.4-10). Some COCs (TCE, RDX, HMX, perchlorate and nitrate) have also been detected in the perched ground water of the Tpsg-Tps HSU in the vicinity of Buildings 815 and 817 (Figures 2.4-3, 2.4-4 and 2.4-5). Minor concentrations of VOCs, perchlorate and nitrate are also present in perched ground water located in the $Tnsc_{1b}$ HSU beneath the former Building 829 Waste Accumulation Area (WAA). The WAA is located in the northwest portion of HEPA (Figure 2.4-1). No contamination has been detected in the Upper and Lower $Tnbs_1$ HSUs in the HEPA OU. Figure 2.4-1 shows the location of new and existing wells in the HEPA OU.

2.4.3.2.1. VOC Concentrations and Distribution

VOCs used in the calculation of total VOCs (mainly TCE, but also carbon tetrachloride, 1,2-DCA, cis-1,2-DCE, chloroform, and 1,1-DCE) have been detected in the sands and gravels of the Tpsg-Tps HSU. Overall, these VOC concentrations have been stable or decreasing over time. During 2012, the maximum total VOC concentration detected in samples from Tpsg-Tps wells was 40 µg/L in 817-PRX extraction well W-817-2318 (July). The maximum historic concentration of total VOCs detected in this HSU is 450 µg/L in monitor well W-815-01 in 1992. Limited recharge has led to insufficient water for sampling in some wells screened in the Tps-Tpsg HSU, including monitor well W-815-01. This monitor well has not been sampled since 1999. VOCs have remained below the 0.5 µg/L reporting limit in Tpsg-Tps well W-35C-05, located near the site boundary.

TCE is the main VOC detected in the Tpsg-Tps HSU. However, as described in the first paragraph of this section, other VOCs used in the calculation of total VOC have also been detected. During 2012, concentrations of 1,1-DCE below its 6 µg/L MCL cleanup standard were detected in two wells screened in the Tpsg-Tpgs HSU: W-815-03 and W-809-01. These wells are located near the Building 815 source area. On two occasions during 2012, chloroform was detected at low concentrations of less than or equal to 2.5 µg/L in Tpsg-Tps monitor well W-815-1928. Trihalomethanes have also been consistently reported in this well at low concentrations. It is possible that a leaking chlorinated water source has impacted this well. Water has been observed discharging at the surface immediately upgradient of this well.

Of the other VOCs used in the calculation of total VOCs, carbon tetrachloride, cis-1,2-DCE, and 1,2-DCA were detected only at one location in the Tpsg-Tps HSU during 2012: monitor well W-814-01. This well is located near the former Building 814 lagoon. During 2012, carbon tetrachloride was detected in monitor well W-814-01 on two occasions, both at concentrations slightly above the 0.5 µg/L State MCL, but below the 5 µg/L Federal MCL. During 2012, 1,2-DCA was detected in monitor well W-814-01 on three occasions at concentrations slightly above the 0.5 µg/L MCL cleanup standard. During 2012, cis-1,2-DCE was detected on three occasions in samples collected from monitor well W-814-01, all at concentrations below the 6 µg/L MCL cleanup standard.

Other VOCs, not used in the calculation of total VOCs, include 1,2-DCE, bromodichloromethane, bromoform, bromomethane, chloroethane, dibromochloromethane and methylene chloride. In Tpsg-Tps HSU monitor well W-814-01, 1,2-DCE was detected during 2012 on one occasion at a concentration of 1.2 µg/L (September). During 2012, bromodichloromethane was detected in monitor well W-815-1928 on two occasions at a maximum concentration of 3.2 µg/L (August). Bromoform was also detected in Tpsg-Tps HSU monitor well W-815-1928 during 2012 at a concentration of 12 µg/L and in Tpsg-Tps monitor well W-809-04 (August) at a concentration of 0.7 µg/L. Dibromochloromethane was detected in well W-815-1928 on one occasion at a concentration of 6.9 µg/L during 2012. As mentioned above, it is possible that a leaking chlorinated water source has impacted this well. In the past, water has been observed discharging at the surface near this well.

In the $Tnbs_2$ HSU, the VOC plume is detached and has migrated from its source near Building 815. As a result, the highest VOC concentrations are found downgradient of Building 815 in the 815-PRX extraction wellfield. Total VOC concentrations in $Tnbs_2$ HSU ground water have decreased from a historic maximum concentration of 110 µg/L in extraction well W-818-08 (1992) to a 2012 maximum VOC concentration of 54 µg/L in nearby monitor well W-818-11 (September).

During 2012, TCE was the main VOC was detected in $Tnbs_2$ HSU, although 1,1-DCE, and chloroform were also detected. During 2012, concentrations of 1,1-DCE below its 6 µg/L MCL cleanup standard were detected in three wells screened in the $Tnbs_2$ HSU: W-818-11, W-815-02, and W-815-04. During 2012, chloroform was also detected in the $Tnbs_2$ HSU at concentrations of 0.5 µg/L or less in water-supply Well 20; this is below the 80 µg/L MCL cleanup standard.

Of the VOCs not used in the calculation of total VOCs, bromomethane, chloroethane, chloromethane, and methylene chloride were detected in ground water samples collected from $Tnbs_2$ HSU well W-815-2608 in June 2012. This sample may have been impacted by a chlorinated water source since these constituents were not found in samples collected in March and November from the same well. Well W-815-2608 was converted to an 815-DSB extraction well on June 28, 2012.

VOCs continue to be detected in ground water from $Tnbs_2$ HSU at the southern end of Building 832 Canyon. This contamination probably originates from sources located in both the Building 832 Canyon OU and in the HEPA OU. In June 2007, monitor well W-830-2216 was connected to the 830-DISS treatment facility as an extraction well. Since pumping began, VOC concentrations have steadily decreased from a maximum historic concentration of 20 µg/L in 2007 to a 2012 maximum concentration of 5.4 µg/L (February). A similar decrease in VOC concentrations has been observed in nearby monitor well W-830-13. During 2012, VOCs detected in wells W-830-2216 and W-830-13 were comprised entirely of TCE.

During 2012, TCE was detected at concentrations below the MCL cleanup level, in five samples (four routine and one duplicate) collected from $Tnbs_2$ onsite guard wells located near the Site 300 boundary. The maximum TCE concentration in these onsite guard wells during 2012 was 2.1 µg/L in guard well W-815-2110 (March). During 2012, TCE was also detected in offsite guard well W-35B-04 at a concentration of 0.5 µg/L (February). Low concentrations of VOCs have been sporadically detected in this guard well over the years. During 2012, VOCs were not detected in samples taken from any other onsite or offsite HEPA $Tnbs_2$ HSU guard wells.

During 2012, VOC concentrations were below the 0.5 µg/L reporting limit in 31 of 32 routine and duplicate samples collected monthly from offsite water-supply well GALLO1. In August 2012, TCE was detected in ground water at a concentration of 0.54 µg/L during a routine GALLO1 sampling event; no TCE was detected in a duplicate sample collected from this well on the same day. Duplicate GALLO1 samples are collected monthly for quality assurance/quality control purposes. Both the routine and duplicate samples were collected on the same date and sent to different laboratories for analysis.

At the 829-SRC treatment facility, VOC concentrations in ground water collected from extraction well W-829-06 ($Tnsc_{1b}$ HSU) have steadily decreased from a historic maximum of 1,013 µg/L in 1993 to a 2012 maximum concentration of 16 µg/L (July). Except for one instance, VOCs detected in extraction well W-829-06 during 2012 were comprised entirely of TCE at concentrations above the 5 µg/L MCL cleanup standard. Chloroform was also detected in extraction well W-829-06 at a concentration of 1.1 µg/L on one occasion during 2012 (November). VOCs have never been detected in ground water from nearby monitor well W-829-1940 or in nearby monitor wells screened in the Lower $Tnbs_1$ HSU.

2.4.3.2.2. HE Compound Concentrations and Distribution

In the HEPA, HE compounds are present in the Tpsg-Tpg and $Tnbs_2$ HSUs. In the Tpsg-Tpg HSU, RDX was detected at a concentration of 98 µg/L in only one monitor well during 2012, W-815-1928 (March). RDX was also detected in this well at a concentration of 19 µg/L in March 2008 and at a concentration of <5 µg/L in March 2003. The cause of these increasing RDX concentrations is unknown; however, an underground water pipeline leak may be mobilizing contaminants in the immediate vicinity of this well. As discussed in Section 2.4.3.2, THMs such as bromodichloromethane have also been consistently reported in this well at low concentrations, suggesting a chlorinated water source. In the past, water has been observed discharging at the surface immediately upgradient of well W-815-1928, near Tpsg-Tps monitor well W-815-03. During 2012, concentrations of 2-amino-4,6-dinitrotoluene (2-ADNT), 4-amino-2,6-dinitrotoluene (4-ADNT) and HMX were also detected in monitor well W-815-1928 on one occasion (March). 2-ADNT and 4-ADNT are probably breakdown products of trinitrotoluene (TNT). RDX was not detected at concentrations above the 1 µg/L cleanup standard in any other ground water samples collected from the Tpsg-Tps HSU during 2012. However, because this HSU is only periodically saturated, many Tpsg-Tps monitor wells screened in this HSU are frequently dry. The historic maximum RDX concentration detected in Tpsg-Tps HSU ground water is 350 µg/L (1988) from well W-815-01; this well has been dry during all sampling attempts since 1999.

In the $Tnbs_2$ HSU, the maximum historic RDX concentration detected in ground water was 204 µg/L measured in 1992 in 817-SRC extraction well W-817-01. Since that time, stable RDX concentration trends have been observed in most $Tnbs_2$ HSU wells located near the 815-SRC and 817-SRC treatment facilities, including extraction well W-817-01. During 2012, the maximum RDX concentration in ground water collected from W-817-01 was 50 µg/L (April). Due to the mobilization of RDX by injection of treated ground water into nearby injection well W-815-1918, concentrations in monitor well W-809-03, located slightly north and upgradient of W-815-1918 have been increasing. The maximum RDX concentration detected in monitor well W-809-03 during 2012 was 168 µg/L (March). RDX concentrations in nearby extraction wells W-815-02 and W-815-04 remained stable during 2012. A new extraction well for the 815-SRC facility (W-815-2803) was installed during the second semester 2012 to increase hydraulic capture of HE compounds and perchlorate in the 815 source area. Unfortunately, HE compound sample analysis did not meet quality assurance standards and the data were rejected. The well will be resampled in early 2013.

The southwestern edge of the RDX plume has remained relatively stable and any future downgradient migration should be captured by extraction well W-817-03. HE compounds tend to sorb to the solid matrix and the extent of RDX contamination at the leading edge of the $Tnbs_2$ HSU RDX plume (west of 817-PRX) has remained relatively stable. RDX was not detected in 815-PRX extraction wells W-818-08 and W-818-09 during 2012. RDX was also not detected at concentrations above the 1 µg/L cleanup standard in any samples collected from $Tnbs_2$ HSU guard wells during 2012. During 2012, RDX was also not detected at concentrations above the 1 µg/L cleanup standard in any ground water samples collected from wells located near the 829-SRC treatment facility in the $Tnsc_{1b}$ HSU.

HMX detections in the $Tnbs_2$ HSU have occurred near the 815-SRC and 817-SRC treatment facilities. HMX concentrations in $Tnbs_2$ HSU ground water have decreased from a historic maximum of 57 µg/L in 1995 (well W-817-01) to a 2012 maximum concentration of 47 µg/L in the same well (April). HMX was detected during 2012 at lower concentrations in several ground water samples collected from 815-SRC wells, including extraction well W-815-02 and monitor well W-809-03. HMX was also detected at a concentration of 1.3 µg/L (March 2012) in downgradient monitor well W-6CD. In the past, neither HMX nor RDX have been detected in this well.

During 2012, 4-ADNT was detected above its 2 µg/L reporting limit in monitor wells W-815-1928, W-809-03 and W-818-11. The highest historic concentration of 4-ADNT detected in the HEPA OU was 24 µg/L, measured in extraction well W-817-01 on September 1997. During 2012, the maximum concentration of 4-ADNT was 14 µg/L in W-809-03 µg/L (March). During 2012, 2-ADNT was detected above its 2 µg/L reporting limit on one occasion (March) in monitor well W-815-1928. During 2012, other HE compounds such as 4-ADNT and 2-ADNT were only detected in wells where RDX is also present.

2.4.3.2.3. Perchlorate Concentrations and Distribution

During 2012, the maximum perchlorate concentration detected in Tpsg-Tps HSU ground water was 11 µg/L in 817-PRX extraction well W-817-2318 (July). The historic maximum perchlorate concentration detected in this well is 17 µg/L in 2008.

In the $Tnbs_2$ HSU, perchlorate concentrations have decreased from a historic maximum of 50 µg/L (extraction well W-817-01, 1998) to a 2012 maximum concentration of 28 µg/L in the same well (April and October). Overall, perchlorate concentrations near this extraction well remain stable. To the south, just beyond the leading edge of the perchlorate plume, perchlorate was not detected above the reporting limit of 4.0 µg/L in monitor well W-818-06 during 2012. Last year, perchlorate was detected at 4.3 µg/L (March 2011), slightly above the reporting limit, in this downgradient monitor well. At the northern edge of the perchlorate plume, perchlorate concentrations reached a maximum 2012 concentration of 12.6 µg/L in monitor well W-809-03 due to the mobilization of perchlorate by injection of treated ground water into nearby 815-SRC injection well W-815-1918. A perchlorate concentration of 10 µg/L (July 2012) was detected in the baseline sample collected from new well W-815-2803. This well was converted to an 815-SRC extraction well in December 2012. Perchlorate was not detected in any of the $Tnbs_2$ HSU guard wells during 2012.

During 2012, perchlorate concentrations in $Tnsc_{1b}$ HSU extraction well W-829-06 have decreased from a historic maximum of 29 µg/L (2000) to a concentration of 8.5 µg/L (April). Perchlorate was not detected above its reporting limit in monitor well W-829-1940 during 2012.

2.4.3.2.4. Nitrate Concentrations and Distribution

During 2012, the maximum nitrate concentration detected in ground water from the Tpsg-Tps HSU was 590 mg/L (well W-6CS, March). Because there are no known potential nitrate sources near this well such as known septic systems or other Site 300 operations, these elevated nitrate levels are suspected to be related to a pre-Site 300 sheep ranch that was discovered in a historic photo of the area. Ground water sampled from all other wells screened in this HSU had significantly lower nitrate concentrations. During 2012, the maximum nitrate concentration found in other wells screened in this HSU was 100 mg/L in 817-PRX extraction well W-817-2318 (January).

During 2012, nitrate concentrations in ground water collected from the $Tnbs_2$ HSU ranged from <0.5 mg/L in the vicinity of the Site 300 boundary to a maximum of 150 mg/L in monitor well W-817-2609 (September). Monitor well W-817-2609 was recently installed to monitor remediation south of the 817-PRX treatment facility. During 2012, nitrate was detected on one occasion in offsite water-supply well GALLO1 at 8.6 mg/L (February). Nitrate was not detected in 23 other samples collected from this well during 2012, including a duplicate sample collected on the same day. Duplicate samples are routinely collected as part of DOE/NNSA's quality assurance program. Nitrate was not detected above the 45 mg/L MCL cleanup standard in ground water from any of the $Tnbs_2$ HSU guard wells sampled during this reporting period.

During 2012, the maximum nitrate concentration detected in ground water collected from the $Tnsc_{1b}$ HSU was 75 mg/L (extraction well W-829-06, March and July). The maximum nitrate concentration detected in monitor well W-829-1940 during 2012 was 23 mg/L (March).

Throughout the reporting period, nitrate concentrations measured in ground water in the HEPA OU continue to support the interpretation that nitrate is being degraded *in situ* by natural processes. Due to microbial denitrification, nitrate concentrations remain below the 45 mg/L cleanup standard in all wells near the southern site boundary where ground water is present under confined conditions.

2.4.3.3. HEPA OU Remediation Optimization Evaluation

Remediation at the HEPA OU is managed by balancing ground water extraction at the site boundary with upgradient pumping in the source and proximal areas. This strategy is designed to capture the leading edge of the VOC plume while minimizing the migration of multiple, co-mingled plumes from the source areas.

Contaminants in the Tpsg-Tps HSU, although limited in areal extent and concentration, include VOCs, perchlorate, HE compounds and nitrate. To remediate this HSU, efforts have been focused in the area with the highest concentrations located near 817-PRX extraction well W-817-2318. This extraction well removes ground water from the Tpsg-Tps HSU near Spring 5. Although remediation efforts are hampered by limited recharge, low ground water yield and dry conditions, concentrations of all COCs in the Tpsg-Tps HSU continue to decline with the exception of monitor well, W-815-1928. Concentrations of HE compounds continue to increase in this well and these contaminants may have been mobilized by a nearby water source that discharges at the ground surface near monitor well W-815-03. The source of this water is unknown.

In the $Tnbs_2$ HSU, extraction wells W-818-08 and W-818-09 continue to capture the areas with the highest VOC concentrations. This extracted groundwater is treated at the 815-PRX treatment facility. During the early part of 2011, extraction flow rates were increased slightly at this facility, resulting in a larger zone of hydraulic capture. COC concentration trends in these wells remained stable during 2012, as these wells continue to capture contaminants from upgradient sources.

Extraction well flow rates at the 817-PRX facility are limited by the injection capacity of the two injection wells: W-817-02 and W-817-2109. To maximize injection capacity, treated ground water is now injected under pressure. This pressurization allowed a moderate increase of 0.5 gpm in flow rate from W-817-03 for a total treatment facility rate of 2 gpm. As described in previous CMRs, one new $Tnbs_2$ HSU well, W-817-2609, was installed during 2010. This monitor well was initially planned to be an extraction well; however, due to low yield it will remain a monitor well for the foreseeable future.

Extraction wells W-6ER and W-35C-04 capture VOCs along the southern site boundary at the leading edge of the VOC plume. The engineering evaluations and upgrades that began at the 815-DSB treatment facility in 2011 were completed in October 2012. During this upgrade, the 815-DSB extraction wellfield was expanded to include well W-815-2608. This extraction well was connected to the 815-DSB treatment facility on June 28, 2012. The well is expected to increase hydraulic capture near guard wells W-815-2111 and W-815-2110. The treatment facility real-time data acquisition system (TFRT) was also updated during the 815-DSB treatment facility upgrade to include real-time monitoring of ground water elevations in these two guard wells.

Well W-815-2803 was installed in April 2012 and was converted to an extraction well and connected to the 815-SRC treatment facility in December 2012. The purpose of the well is to increase hydraulic capture in the 815 source area. RDX concentrations in this well are expected to be in the range of 50 µg/L; however, the initial sample analysis results did not meet QA/QC standards, so they were rejected. No other RDX results are currently available for this well. The concentrations of other COCs detected in samples from this well were within expected ranges: during 2012, the maximum total VOC, perchlorate and nitrate concentrations measured in ground water at well W-815-2803 were 1.5 µg/L, 10 µg/L and 100 mg/L, respectively.

Overall, the extent of the total VOC, perchlorate and nitrate plumes in the HEPA did not change significantly during 2012. RDX concentrations continue to fluctuate above and below the 1 µg/L reporting limit near the leading edge of this plume and HMX was detected for the first time in downgradient monitor well W-6CD at a concentration 1.3 µg/L. No other HE compounds have ever been detected in this well. HE compounds are relatively immobile and declining trends for these COCs are due to focused remediation efforts in the source and proximal areas of this OU. Although RDX concentrations have been increasing near monitor well W-809-03 due to the mobilization of RDX near 815-SRC injection well W-815-1918, the August 2012 RDX concentration was significantly lower (23 µg/L) than previous samples (maximum concentration 168 µg/L in March, 2012). RDX concentration trends in the 815-SRC extraction wells, W-815-02 and W-815-04, continue to decline.

Perchlorate concentrations in the $Tnbs_2$ HSU have decreased steadily since monitoring for this COC began in 1998. Historically, the 817-SRC (W-817-01) and 817-PRX (W-817-03 and W-817-04) extraction wells have had the highest perchlorate concentrations in the HEPA. Perchlorate concentrations measured in ground water upgradient of the 815-SRC extraction wellfield remain stable, except at the leading edge of the plume where concentrations fluctuate near the 4 µg/L level. Near monitor well W-809-03, perchlorate concentrations have been increasing due to the mobilization of the contaminant by the injection of water into W-815-1918, although this trend appears to be stabilizing. Nitrate concentrations in the $Tnbs_2$ HSU near the Site 300 boundary continue to be at or near the reporting limit, demonstrating the continued effectiveness of monitored natural attenuation of nitrate even under pumping conditions.

The 829-SRC GWTS is a small facility that extracts and treats perched ground water located beneath the WAA in the $Tnsc_{1b}$ HSU. During 2012, treated ground water was diverted to a portable water tank rather than being injected in well W-829-08 to allow for additional resin and GAC loading evaluations. This diversion is not expected to have any long-term impact on mass removal at this facility and injection into well W-829-08 is expected to resume during 2013.

Throughout the reporting period, pumping from HEPA extraction wells has been effective in capturing COCs and preventing contaminated ground water from reaching the Site 300 southern boundary. Upgradient injection of treated ground water has also been important in flushing out contaminants in many portions of the HEPA OU. Upgradient and downgradient pumping will continue to be balanced so that hydraulic capture at the Site 300 boundary is maintained without accelerating migration from upgradient sources. During 2012, no VOCs or other COCs were detected in offsite water-supply well, GALLO1, other than one nitrate and one TCE detection. In August 2012, TCE was detected in GALLO1 at a concentration of 0.54 µg/L; however, VOC concentrations in the other 31 samples that were collected and analyzed during 2012 were below the reporting limit, including a duplicate sample that was collected on the same date as the sample with the VOC detection. In February 2012, nitrate was detected in GALLO1 at a concentration of 8.6 mg/L. However, nitrate concentrations in the other 23 samples collected from this well and analyzed during 2012 were below the reporting limit, including a duplicate sample that was collected on the same date as the sample with the nitrate detection. On June 28, 2012, newly-installed well W-815-2608 was connected to the 815-DSB treatment facility. The addition of this well to the extraction wellfield is expected to increase hydraulic capture near guard wells W-815-2111 and W-815-2110 and in the vicinity of GALLO1. Close monitoring of VOC concentrations in the southern site boundary area will also continue, especially near offsite water-supply well GALLO1.

During 2012, the total VOC mass removed from all HEPA treatment facilities was 176 g; the total nitrate mass removed was 764 kg; the total perchlorate mass removed was 54 g; the total RDX removed was 189 g. Nitrate re-injected into the $Tnbs_2$ HSU undergoes *in situ* biotransformation to benign nitrogen gas by anaerobic-denitrifying bacteria.

2.4.3.4. HEPA OU Remedy Performance Issues

There were no new issues that affect the performance of the cleanup remedy for the HEPA OU during this reporting period. The remedy continues to be effective and protective of human health and the environment.

2.5. Building 850/Pit 7 Complex OU 5

High explosive experiments were conducted at the Building 850 Firing Table from the 1950s until 2008. While explosives tests were conducted at Building 850, the firing table was covered with gravel to absorb the shock. The Building 850 Firing Table was routinely rinsed down with water after each experiment to reduce dust. Infiltrating water mobilized chemicals from the contaminated gravel to the underlying bedrock and ground water, however this practice was discontinued in 2004. Until 1989, gravels from the firing table surface were periodically removed and disposed of in several pits in the northwest part of the site.

A Corrective Action Management Unit (CAMU) was constructed in the Building 850 area of OU 5 in 2009 as part of the Building 850 Removal Action. A total of 27,592 cubic yards of polychlorinated biphenyl-, dioxin-, and furan-contaminated soil were excavated from the Building 850 Firing Table area, mixed with Portland cement and water, and consolidated and compacted to form the CAMU. Additional information on the Building 850 Removal Action is presented in the Building 850 Action Memorandum (Dibley et al., 2008b). Design information for the CAMU is presented in the construction subcontractor’s 100% design submittal (SCS Engineers, 2009). The inspection and maintenance program for the CAMU program is described in Section 3. A map of the Building 850 area within OU 5 showing the locations of Building 850, the CAMU, and monitor wells are presented on Figure 2.5-1.

An *in situ* bioremediation treatability study for reduction of perchlorate in ground water immediately downgradient of Building 850 commenced in September 2011. A summary of the current status and preliminary results of the treatability study is presented in Section 2.5.2.2. Preliminary results indicate that the injection of ethyl lactate has resulted in bacterially-motivated reduction of perchlorate and nitrate in the treatment zone to concentrations below reporting limits. Uranium activities in ground water in the treatment zone have also declined as a result of reactions that promote uranium precipitation as a solid.

The Pit 7 Complex area within OU 5 consists of the Pit 3, 4, 5, and 7 Landfills. The Pit 7 Complex landfills were used to dispose of firing table debris and gravel. These pits were constructed by excavating topsoil and alluvial materials to an average depth of 15 to 20 feet (Taffet et al., 1989). The majority of the waste material in the pits came from the firing tables at Buildings 850 and 851, where aboveground detonations were conducted. The waste placed in the pits included wood, plastic, material and debris from tent structures, pea gravel, and exploded test assemblies, some of which contained tritium and depleted uranium.

When rainfall increased to above normal levels, such as during El Niño years, the pit waste and underlying bedrock were often inundated and residual contamination came into contact with shallow subsurface ground water. Ground water contaminants include tritium, uranium, perchlorate, nitrate, and VOCs.

In 1992, an engineered cap was constructed over the Pit 7 Landfill (referred to as the Pit 7 Cap) in compliance with Resource Conservation and Recovery Act (RCRA) requirements. The design included interceptor trenches and surface water drainage channels, a top vegetative layer to prevent erosion, a biotic barrier layer to minimize animal burrowing, and a clay layer of very low permeability to prevent infiltration of precipitation and shallow subsurface interflow that could result in leaching of contaminants. The Pit 7 cap also covers 100% of Pit 4 and approximately 25 to 30% of Pit 3. The original compacted native soil cover on most of Pit 3 and all of Pit 5 remains intact.

The Pit 7 Drainage Diversion System, completed in March 2008, was designed to prevent further releases of COCs from the pits and underlying bedrock to ground water. There are four components that comprise the drainage diversion system:

1. A subsurface drainage network on the western hillslope.
2. Upgraded riprap at the end of the existing north-flowing concrete channel for the Pit 7 Landfill cap.
3. A vegetated surface water diversion swale along the base of the eastern hill-slope, along the paved road (Route 4), including several culverts under Route 4 and dirt fire trails.
4. An upgraded surface water-settling basin at the south end of the existing south-flowing concrete channel for the Pit 7 Landfill cap.

Additional information on the Pit 7 cap and Drainage Diversion System design is presented in the Remedial Design Document for the Pit 7 Complex (Taffet et al., 2008). The detection monitoring, inspection, and maintenance program for the Pit 7 Complex Landfills and the inspection and maintenance program for the Drainage Diversion System are described in Section 3.

The Pit 7-Source (PIT7-SRC) GWTS began operation in May 2010. Three existing monitor wells, NC7-25, NC7-63 and NC7-64, were converted to extraction wells and three wells were drilled to serve as extraction wells (W-PIT7-2305, W-PIT7-2306 and W-PIT7-2307). Three additional wells, W-PIT7-2703, W-PIT7-2704 and W-PIT7-2705, were added to the extraction wellfield in 2012. The GWTS removes uranium, VOCs, nitrate, and perchlorate from ground water in wells within the Quaternary alluvium/Weathered bedrock (Qal/WBR) HSU (NC7-63, NC7-64, W-PIT7-2306, W-PIT7-2703, W-PIT7-2704 and W-PIT7-2705), $Tnbs_1$/$Tnbs_0$ bedrock HSU (NC7-25), and both HSUs (W-PIT7-2305 and W-PIT7-2307). The GWTS extracts ground water at an approximate combined flow rate of 0.2 gpm. The current GWTS configuration includes three ion-exchange resin canisters for the removal of uranium followed by three ion-exchange resin canisters containing a perchlorate-selective resin that is also effective in removing nitrate. Ground water that has been treated to remove uranium, perchlorate, and nitrate is then piped through three aqueous-phase GAC canisters to remove VOCs. The treated water, which still contains tritium, is discharged to an infiltration trench.

A map of the Pit 7 Complex area within OU 5 showing the locations of the landfills, Drainage Diversion System, extraction and monitor wells, and the treatment system is presented on Figure 2.5-1.

The Building 850 area of OU 5 is discussed in Sections 2.5.1 and 2.5.2. The Pit 7 Complex area of OU 5 is discussed in Sections 2.5.3 through 2.5.5.

2.5.1. Building 850 Area of OU 5 Ground Water Monitoring

The sampling and analysis plan for ground water and surface water monitoring is presented in Table 2.5-1. This table also delineates and explains deviations from the sampling plan and indicates any additions made to the CMP.

During the reporting period, ground water monitoring was conducted in accordance with the CMP monitoring requirements with the following exceptions; forty-five required analyses were not performed because there was insufficient water in the wells to collect the samples, one required analysis was not performed due to access restrictions, and six required analyses were not performed due to inoperable pumps (four wells).

Analytical results and ground water elevation measurements obtained during 2012 are presented in Appendices B and C, respectively.

Ground water elevation contour maps for the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs within the OU are presented on Figures 2.5-2 and 2.5-3, respectively. Ground water elevations in both HSUs have generally declined since spring 2011 due to lower than average rainfall during water year 2012.

2.5.2. Building 850 Area of OU 5 Remediation Progress Analysis

This section is organized into three subsections: analysis of contaminant distribution and concentration trends; remediation optimization evaluation; and performance issues.

2.5.2.1. Building 850 Area of OU 5 Contaminant Concentrations and Distribution

In the Building 850 area of OU 5, tritium and perchlorate are the primary COCs detected in ground water; depleted uranium and nitrate are secondary COCs. These constituents have been identified within the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs. The distribution of tritium in the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs, based on data collected during 2012 is contoured on Figures 2.5-4 and 2.5-5, respectively. Concentrations of uranium, nitrate, and perchlorate in Qal/WBR and $Tnbs_1/Tnbs_0$ ground water, based on data collected during 2012, are presented on Figures 2.5-6 through 2.5-11.

2.5.2.1.1. Tritium Activities and Distribution

The highest tritium activities in ground water continue to occur directly downgradient of the Building 850 Firing Table. The maximum tritium activities in ground water downgradient of Building 850 have decreased from a historic maximum of 566,000 pCi/L (monitor well NC7-28, 1985) to a maximum of 38,300 pCi/L during 2012 (monitor well NC7-70, May). Well NC7-70 is located about 20 feet downgradient (east) of the firing table and about 225 feet west and upgradient of well NC7-28. The 2011 maximum tritium activity of 53,300 pCi/L also occurred in a sample from well NC7-70 (May).

The extent of the 20,000 pCi/L MCL cleanup standard ground water tritium activity contour in both the Qal/WBR and $Tnbs_1/Tnbs_0$ bedrock HSUs has decreased slightly compared to 2011. While tritium activities continue to decline in most portions of the Building 850 plume, ground water tritium activities in wells in the farthest downgradient portion of the plume near Pit 1 exhibit a slight increasing trend. However, the overall extent of the 100 pCi/L tritium activity contours in both the Qal/WBR and $Tnbs_1/Tnbs_0$ bedrock HSUs are similar to those of 2011. The reported tritium activity from the first sample collected in August 2012 from new monitor well W-850-2805 was less than anticipated based on the distribution of tritium activities in wells up and down gradient. The baseline ground water sample from W-850-2805 contained only 446 pCi/L of tritium. The anticipated tritium activity was in the 1,000 to 2,000 pCi/L range. The well is screened in the $Tnbs_1/Tnbs_0$ HSU and is located 1,800 feet east and downgradient of Building 850.

Wells W-PIT2-2301 and W-PIT2-2302, both screened in the Qal/WBR HSU and located downgradient of the Pit 2 Landfill, yielded tritium activities within background range (<100 pCi/L) in all samples collected in 2011 and 2012 (May and November). Given the background activities of tritium in the Qal/WBR samples, tritium from Building 850 is apparently not present in this HSU downgradient of the Pit 2 Landfill. Overall, the extent of tritium in ground water with activities above the 20,000 pCi/L MCL cleanup standard continues to decrease, and the extent of ground water with tritium in excess of background is stable (similar to that of previous years).

2.5.2.1.2. Uranium Concentrations and Distribution

Uranium analyses for 2012 were performed primarily by alpha spectroscopy with selected samples analyzed by Inductively Coupled Plasma - Mass Spectrometry **(**ICP-MS). High precision uranium isotope data (uranium-235/uranium-238 [$^{235}U/^{238}U$] atom ratio) for determining the presence of depleted uranium are only available by ICP-MS analysis. The presence of depleted uranium is indicated by a $^{235}U/^{238}U$ atom ratio of less than 0.007. Historic uranium isotope data indicate that distributions of ground water within the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs containing some added depleted uranium extend downgradient about 1,200 feet and 700 feet, respectively, from the Building 850 Firing Table and have remained relatively stable.

Total uranium activities in ground water were below the 20 pCi/L MCL cleanup standard in samples from wells at or downgradient of Building 850 during 2012. The 2012 maximum uranium activity in Building 850 ground water was 20.8 pCi/L in the ground water sample from well W-850-2315. This is the only sample from a well in the Building 850 area that exceeded the 20 pCi/L MCL cleanup standard for uranium and the only time this well has yielded a uranium activity in excess of the MCL. This well is completed in the $Tnbs_1/Tnbs_0$ HSU and is located 1,400 feet south-southeast cross-gradient of Building 850. In 2011, the well also yielded the highest uranium activity in the Building 850 area (20 pCi/L, May). Although these samples were analyzed by alpha spectrometry, samples collected from this well in the past that were analyzed by mass spectrometry always yielded $^{235}U/^{238}U$ atom ratios indicative of natural uranium.

In the area immediately downgradient of Building 850, the maximum 2012 uranium activity in ground water was 18 pCi/L in the October sample from monitor well NC7-28 (February). The January, May, and July samples from this well contained uranium activities of 2.8, 3.8, and 11 pCi/L of uranium, respectively. Historically, well NC7-28 has yielded the highest uranium activities at Building 850. Reducing conditions arising from the enhanced bioremediation treatability study (see Section 2.5.2.2) are most likely responsible for the short-term decrease in uranium activities. Well NC7-28 is immediately downgradient of ethyl lactate injection well W-PIT7-2417. With the cessation of lactate injection and monitoring for perchlorate (and uranium) rebound, uranium activities have rebounded as dissolved oxygen concentrations have risen. The $^{235}U/^{238}U$ atom ratio in all of these NC7-28 samples, as measured by mass spectrometry, indicates added depleted uranium. Uranium activities in wells immediately downgradient of NC7-28, have remained low. Wells W-850-2417 and NC7-61 are located about 25 and 100 feet east, respectively, of well NC7-28. All three of these wells are screened across the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs. During 2012, wells W-850-2417 and NC7-61 yielded samples containing uranium activities of 0.34 pCi/L (October) to 4.0 pCi/L (May) and 4.8 pCi/L (May) to 5.2 pCi/L (February), respectively.

Although depleted uranium has been detected in Qal/WBR and $Tnbs_1/Tnbs_0$ HSU ground water downgradient of the Pit 2 Landfill and from wells in the $Tnbs_1/Tnbs_0$ HSU south of the Pit 2 Landfill, total uranium activities remain below the 20 pCi/L MCL cleanup standard. The uranium isotope data for 2012 suggest this has not changed. The maximum uranium activities detected during 2012 in Qal/WBR and $Tnbs_1/Tnbs_0$ HSU ground water from wells downgradient of the Pit 2 Landfill were 0.69 pCi/L (monitor well W-PIT2-2301, May) and 4.2 pCi/L (monitor well W-PIT2-1934, April), respectively.

2.5.2.1.3. Nitrate Concentrations and Distribution

Nitrate was detected at concentrations at or above the 45 mg/L MCL cleanup standard in samples from seven Building 850 area wells during 2012. The maximum nitrate concentration detected in 2012 was 180 mg/L in the May ground water sample from monitor well NC7-29. This historic local maximum of 180 mg/L was also detected in ground water samples from this same well in 2007 and 2009. Well NC7-29, screened in the $Tnbs_1/Tnbs_0$ HSU, is located south and cross-gradient of Building 850. The 2012 maximum nitrate concentration in wells located directly downgradient of the Building 850 source area was 53 mg/L in the May ground water sample from monitor well NC7-61. Concentrations of nitrate in ground water at the two *in situ* bioremediation treatment zone wells upgradient of well NC7-61, monitor wells NC7-28 and W-850-2417, were below the 0.5 to 1 mg/L reporting limit in samples collected in January, May and July as a result of ethyl lactate injection (see Section 2.5.2.2 for details on the treatability study). A sample was not collected from well W-850-2417 during October and analyzed for nitrate. The October sample from well NC7-28 was below the 0.5 mg/L reporting limit for nitrate.

Historic data indicate that ground water nitrate concentrations in the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs are limited in extent and relatively stable. Overall, except for the *in situ* bioremediation treatment zone, the distribution and concentrations of nitrate in ground water are generally consistent, or have declined slightly from those observed in previous years.

2.5.2.1.4. Perchlorate Concentrations and Distribution

During 2012, perchlorate concentrations exceeding the 6 µg/L MCL cleanup standard were detected in ground water samples from 24 wells east and south of Building 850 and south and east of Pit 1 and Pit 2 in and immediately north of Elk Ravine. Except for the *in situ* bioremediation treatment zone area, comprised of wells NC7-28 and W-850-2417, perchlorate concentrations are similar to or have decreased slightly from last year in samples from Qal/WBR and $Tnbs_1/Tnbs_0$ HSU wells immediately downgradient of Building 850. Wells downgradient of the Building 850 Firing Table continue to exhibit the highest perchlorate concentrations in the Building 850 area. At present, perchlorate concentrations in excess of the 6 µg/L MCL cleanup standard in Qal/WBR and $Tnbs_1/Tnbs_0$ HSU ground water extend continuously 2,000 and 800 feet, respectively, from Building 850 except for the area of the two *in situ* treatment zone wells where perchlorate concentrations are below the 4 µg/L reporting limit. Inclusion of the August 2012 baseline ground water sample perchlorate concentration for well W-850-2805 (<4 µg/L), completed in the $Tnbs_1/Tnbs_0$ HSU and located 1,800 feet east and downgradient of Building 850, indicates that the extent of perchlorate emanating from Building 850 in the $Tnbs_1/Tnbs_0$ HSU is not continuous into the area northeast of the Elk Ravine Fault as previously depicted (Figure 2.5-11). The previously depicted continuous plume length was 2,000 feet and has been revised in 2012 to 800 feet. The 2012 maximum perchlorate concentration of 62 µg/L was detected in the August 16 duplicate sample from well NC7-61, located 550 feet east of the firing table and directly downgradient of the *in situ* bioremediation treatment zone and screened in the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs. The other August 16 sample from well NC7-61 contained 37 µg/L of perchlorate.

Prior to the beginning of the *in situ* bioremediation treatability study, the maximum 2011 perchlorate concentration from well W-850-2417 was 74 µg/L (April). Several slugs of ethyl lactate followed by slugs of previously extracted perchlorate-bearing ground water were injected into this well in September and October of 2011 as the first phase of an *in situ* perchlorate bioremediation treatability study. As a consequence of the ensuing *in situ* bioremediation, subsequent samples of ground water from this well (October and November 2011) did not contain perchlorate in excess of the 4 µg/L reporting limit. Samples collected in January and February 2012 from well W-850-2417 contained 11 and 8.2 µg/L, respectively, of perchlorate indicating some rebound. Additional ethyl lactate slugs followed by slugs of previously-extracted perchlorate-bearing ground water were injected into W-850-2417 in early April. The remaining 2012 monthly samples collected from W-850-2417 and NC7-28 did not contain perchlorate at or in excess of the 4 µg/L reporting limit. Concentrations of perchlorate in the well immediately downgradient of the treatment zone, NC7-61, did not show a decline in perchlorate concentration suggesting that the treatment zone had not yet extended into this area. The May 2012 sample from well NC7-70 also screened in both HSUs and located 20 feet downgradient (east) of the firing table, contained 40.8 µg/L of perchlorate. Water from this well has been cyclically pumped to an aboveground tank since April 2012 in preparation for a tracer test. Additional details of this treatability test are discussed in Section 2.5.2.2.

The overall extent of perchlorate in ground water in and downgradient of the Building 850 area did not change significantly from last year, except for the *in situ* perchlorate bioremediation treatability study area and the area defined by the baseline sample for well W-850-2805, and will continue to be closely monitored.

2.5.2.1.5. HE Compound Concentrations and Distribution

During 2012, ground water samples from 19 wells located in or downgradient of the Building 850 Firing Table were collected and analyzed for the HE compounds, HMX and RDX, at a reporting limit, generally, of 1 µg/L. Contract laboratory reporting limits were higher in the past, varying from 5 to 20 µg/L. The lower reporting limits have enabled definition of the extent of HMX and RDX in Qal/WBR HSU ground water. The source appears to be the Building 850 Firing Table.

During 2012, the 1 µg/L RDX cleanup standard was exceeded in a sample from two of the 19 wells sampled. Last year, the cleanup standard was exceeded in two of 23 wells sampled for RDX. The maximum RDX concentration of 5.3 µg/L was detected in the July 2012 sample from well W-850-2417, located east (downgradient) of the Building 850 Firing Table. The 2011 maximum RDX concentration of 6.5 µg/L was also detected in the April 2011 sample from well W-850-2417. The historic maximum RDX concentration in a sample from this well is 9.3 µg/L (2010). The other well yielding detectable RDX in 2011 (5 µg/L, April) was well NC7-28, located 25 feet east of well W-850-2417 and screened in the same HSU. The October 2011 and first semester 2012 (January and May 2012 samples from wells NC7-28 and W-850-2417 did not yield samples with RDX above the reporting limit (0.87 µg/L). The reduction of RDX concentrations at these wells may be related to reducing conditions that ensued during the ethyl lactate injection in the *in situ* treatment zone.

This year, five wells yielded samples containing HMX above the reporting limit. These wells, NC7-10, NC7-11, NC7-28, NC7-61 and W-850-2417 yielded 2012 maximum concentrations of 2.3 µg/L, 1.9 µg/L, 2.0 µg/L, 6.8 µg/L, and 5.5 µg/L, respectively. The historic maximum HMX concentrations in samples from these wells are 3.7 µg/L (October 2011), 2.2 µg/L (October 2010), 25 µg/L (July 1991), 7.7 µg/L (April 2010), and 11 µg/L (April 2010), respectively. The 2011 maxima for these wells was 3.7 µg/L, 1.8 µg/L, 15 µg/L, <1 µg/L, and <1 mg/L, respectively. These concentrations are all significantly below the Regional Tapwater Screening Level for HMX (1,800 µg/L). HMX was not detected in three (January, May and December) of four 2012 samples from well NC7-28 during 2012, but was detected in the July sample. Due to the insufficient water for sampling, the extent of HMX in ground water has decreased from its 2010 limit, when NC7-54 was last sampled and yielded HMX (700 feet east and southeast of the Building 850 Firing Table), to the vicinity of Qal/WBR HSU wells NC7-10 and NC7-11. The other wells that yielded ground water containing HMX are screened in both the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs. Sampling and analysis of water from monitor well NC7-54 in the future will determine whether the extent has truly diminished.

HE compounds were not detected above the reporting limit in ground water samples from wells screened in the $Tnbs_1/Tnbs_0$ HSU downgradient of Building 850 or from wells screened in the underlying $Tnsc_0$ HSU. The distribution of HE compounds in ground water at Building 850 is less extensive compared to observations made since 2008, when regular sampling and analysis for these chemicals commenced.

This year, the extent RDX is confined to a small area immediately downgradient of the Building 850 Firing Table. HMX in ground water extends about 500 ft east of the firing table.

2.5.2.2. Building 850 Area of OU 5 Remediation Optimization Evaluation

MNA is the selected remedy for remediation of tritium in ground water emanating from the Building 850 area. Recent data indicate MNA continues to be effective in reducing tritium activities in ground water. The highest tritium activities in ground water continue to be located directly downgradient of the tritium sources at the Building 850 Firing Table and continue to decline. The extent of the 20,000 pCi/L MCL cleanup standard tritium activity contours in both the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs continues to diminish. The significant decreases in activities and extent of the Building 850 tritium plume with activities exceeding the MCL cleanup standard indicate that natural attenuation (dispersion, radioactive decay and a decreasing source term) continues to be effective in reducing tritium activities in ground water. In general, ground water tritium activities continue to decline and are significantly below historic highs throughout the Building 850 plume. Although tritium activities are increasing slightly in the Pit 1 area, the leading edge of the tritium plume is stable, is well within the Site 300 interior, and is expected to attenuate within the boundaries of Site 300.

Total uranium activities in ground water were below the 20 pCi/L MCL cleanup standard in samples from wells at or downgradient of the Building 850 area during 2012. Uranium activities of 20.8 pCi/L were detected in the ground water sample from well W-850-2315. However, this well is located 1,400 feet south-southeast and cross-gradient of Building 850, and samples from this well have always yielded $^{235}U/^{238}U$ atom ratios indicative of natural uranium. During 2012, the overall extent of total uranium activities at Building 850 has not changed significantly. The monitoring-only strategy for uranium at Building 850 continues to be protective given that: (1) total uranium activities in ground water in and downgradient from Building 850 are below the 20 pCi/L MCL cleanup standard, and (2) the areal extent of depleted uranium has not changed during the period of monitoring. Temporal trends in $^{235}U/^{238}U$ isotope ratios from past samples have remained stable. The overall extent and maximum concentrations of nitrate and perchlorate in ground water are also similar to those observed in previous years. The exception was that nitrate and perchlorate concentrations decreased below reporting limits in the *in situ* perchlorate bioremediation treatment zone.

The *in situ* perchlorate bioremediation treatability study commenced at Building 850 during the second semester 2011. The objective of this study is to evaluate the efficacy of *in situ* enhanced bioremediation methods in reducing perchlorate concentrations in Building 850 ground water. Prior to starting the test, perchlorate-bearing ground water was extracted from well W-850-2417 located directly downgradient of the Building 850 Firing Table, and was placed in an aboveground storage vessel. From mid-September to mid-October 2011, four five-gallon slugs of ethyl lactate, followed by a 50-gallon slug of the extracted perchlorate-bearing ground water, were injected into well W-850-2417. The 50 gallons of injected ground water mixed with and diluted the ethyl lactate, hastening its transport into the treatment zone. Nearby downgradient well NC7-28 and deeper well W-850-2416 were monitored to evaluate bioremediation performance.

In 2011, reducing conditions, as indicated by low dissolved oxygen concentrations (<1 mg/L) and negative oxidation-reduction potential (ORP), were measured in the treatment zone with *in situ* sensors within days of injection in well W-850-2417, and in less than 3 weeks at performance monitor well NC7-28. These reducing conditions continued through the end of 2011. The test remained in a monitoring and rebound mode through April 2012, when dissolved oxygen concentrations and ORP measurements indicated that reducing conditions no longer existed in the treatment zone. In April 2012, two individual slugs of 2.5 gallons of ethyl lactate were followed by two slugs of 45 to 50 gallons of contaminant-bearing water previously extracted from well W-850-2417. Reducing conditions again returned to the treatment zone within days to weeks with low dissolved oxygen concentrations and negative ORP measured in the wells treatment zone wells.

Monitoring results indicate that microbial reduction significantly reduced perchlorate concentrations in wells W-850-2417 and NC7-28. Perchlorate concentrations in injection well W-850-2417 decreased from pre-test 2011 maximum of 74 µg/L to post-injection 2011 maximum of 13.6 µg/L. By January 2012, perchlorate concentrations in well W-850-2417 had further decreased to 11 µg/L, and were below the 4 µg/L reporting limit in the monthly ground water samples collected during the remainder of 2012. Perchlorate concentrations in downgradient performance monitor well NC7-28 decreased from a pre-test 2011 maximum of 71.3 µg/L to below the 4 µg/L reporting limit in the 2011 post-injection samples. Perchlorate concentrations in well NC7-28 remained below reporting limits in all monthly samples collected during all of 2012.

Although not specifically targeted for bioremediation, nitrate concentrations and uranium activities were also monitored in the injection well W-850-2417 and performance monitor well NC7-28. Nitrate concentrations in wells W-850-2417 and NC7-28 decreased from pre-test 2011 maximum concentrations of 52 mg/L and 57 mg/L, respectively, to below the 0.44 mg/L reporting limit following ethyl lactate injection in 2011. Nitrate concentrations remained below 0.5 mg/L to 1 mg/L reporting limits in all samples collected from these wells during 2012. Total uranium activities in wells W-850-2417 and NC7-28 also decreased from pre-injection 2011 maximum activities of 9.1 pCi/L and 9.8 pCi/L, respectively, to 2011 post-injection activities of 3.5 pCi/L and 2 pCi/L, respectively. Uranium activities in wells NC7-28 and W-850-2417 continued to decrease in the beginning of 2012 with uranium activities to 2.8 pCi/L and 1.7 pCi/L, respectively in January; but had increased slightly to 3.8 pCi/L and 4.0 pCi/L, respectively, in the May 2012 samples. In July, uranium activities were 11 pCi/L and 1.3 pCi/L, respectively, and were 18 pCi/L and 0.34 pCi/L, respectively, by October. The initial decrease in uranium activities is the result of concurrent reduction of U^{+6} species in ground water to U^{+4} species, which form insoluble solids. Later increases likely arise from a combination of oxidation of reduced uranium from solids on mineral surfaces back into solution and arrival of pre-existing dissolved uranium from upgradient.

During early 2013, ground water will continue to be extracted from well NC7-70, which is located immediately downgradient of the Building 850 Firing Table. To increase the volume of the treatment zone, additional slugs of ethyl lactate and extracted ground water will be injected into well NC7-70 that contained perchlorate at a concentration of 40.8 µg/L (May 2012). The November sample from this well did not indicate perchlorate above the 4 µg/L reporting limit. Additional ground water sampling and analysis will confirm if this unexpected result is reliable.

Prior to this new injection phase, fluorescein, a non-toxic tracer, will be injected into NC7-70 with slugs of ground water extracted from the well to independently track the migration of injected fluids along the flow path from well NC7-70 downgradient through the treatment zone to wells W-850-2417, NC7-28, and NC7-61. The regulatory agencies will be kept apprised of the results of the fluorescein injection and overall treatability study. Ethyl lactate injection at well NC7-70 will not commence until time-series concentrations of fluorescein are measured in samples from well NC7-28.

2.5.2.3. Building 850 Area of OU 5 Remedy Performance Issues

There were no new issues that affect the performance of the MNA cleanup remedy for tritium in the Building 850 area during this reporting period. The remedy for tritium continues to be effective and protective of human health and the environment, and to make progress toward cleanup. Perchlorate, uranium and RDX in ground water downgradient of the Building 850 Firing Table will continue to be closely monitored and reported. The *in situ* bioremediation treatability study analytical results will continue to be evaluated in preparation for injection at well NC7-70 and potential future injection at well W-850-2417. The results of this evaluation will be presented in future CMRs. The performance of this technology with respect to uranium and RDX remediation or stabilization will also continue to be evaluated.

2.5.3. Pit 7 Complex Area of OU 5 Ground Water Treatment System Operations and Monitoring

This section is organized into five subsections: facility performance assessment; operations and maintenance issues; compliance summary; facility sampling plan evaluation and modifications; and treatment facility and extraction wellfield modifications.

2.5.3.1. Pit 7 Complex Area of OU 5 Facility Performance Assessment

The monthly ground water discharge volumes and rates and operational hours for the second semester of 2012 are summarized in Table 2.5-2. The total volume of ground water extracted and treated, and masses removed during 2012 are presented in Table Summ-1. The cumulative volume of ground water treated and discharged and masses removed are summarized in Table Summ-2. Analytical results for influent and effluent samples collected during the second semester of 2012 are presented in Tables 2.5-3 through 2.5-6. The pH measurement results are presented in Appendix A.

2.5.3.2. Pit 7 Complex Area of OU 5 Operations and Maintenance Issues

The following maintenance activities and operational issues occurred at the PIT7-SRC GWTS during second semester 2012:

- Pumping was conducted only from extraction well W-PIT7-2305 during construction of the pipeline for the extraction wellfield expansion (see Section 2.5.3.5).
- Spent nitrate ion-exchange resin was replaced on July 18. Uranium resin was changed on July 19 due to back-pressure problems.
- Pumping was reinitiated from extraction wells NC7-63 and NC7-64 on August 7. Well W-PIT7-2306 was left off for well recovery.
- The PIT7-SRC facility was shut down from August 22 to December 10 due to an effluent detection of methylene chloride that is associated with VOC contamination of the new fiber-wound resin vessels and/or resin (see Section 2.5.3.3).
- On November 6, the ion-exchange resin vessel for nitrate treatment was moved in front of the GAC vessels. This vessel was then replaced with a new resin vessel on November 30.
- Extraction wells NC7-63, W-PIT7-2306, and W-PIT7-2704 were shut down on December 17 for well recovery for quarterly sampling. Extraction well W-PIT7-2307 remains off due to pump intake issues.

2.5.3.3. Pit 7 Complex Area of OU 5 Compliance Summary

Following completion of the wellfield expansion construction, the PIT7-SRC GWTS was restarted and startup sampling was conducted on August 21, 2012. Methylene chloride was detected in the startup effluent sample collected on August 21, 2012 at a concentration of 5.1 µg/L, exceeding the maximum daily effluent limit for VOCs of 5.0 µg/L. The GWTS was shut down immediately upon receipt of the sample results on August 22. After collecting a series of investigative samples, the source of the methylene chloride was determined to be the last resin column used for nitrate removal. This column had been installed on July 18, 2012. This column was moved to a position before the GAC to allow the GAC to sorb the methylene chloride, and the system was restarted with the effluent being collected in a storage tank to prevent any possible additional releases. Methylene chloride was again detected in an effluent sample collected on November 13, 2012. The detection was not a non-compliance issue as the effluent was being collected in the tank. An additional investigation was conducted and it was concluded that the source of the contamination was the new fiber wound vessel used for the nitrate resin. Rinseate samples collected from recently purchased vessels were found to contain methylene chloride. The resin used for nitrate removal was also tested and found to be uncontaminated. A new procedure for washing vessels prior to use was implemented. A new cleaned vessel filled with anion-exchange resin was placed in the same position as the previously contaminated column, and the system was restarted. All samples collected in December were within discharge limits. However, because methylene chloride exceeding the maximum daily effluent limit for VOCs of 5.0 µg/L in the August 21 sample, and the facility was shut down precluding the collection and analysis of additional effluent samples, the 0.5 µg/L monthly median effluent limitation was also exceeded, the PIT7-SRC GWTS did not operate within compliance with the RWQCB Substantive Requirements for Wastewater Discharge for one day in August.

2.5.3.4. Pit 7 Complex Area of OU 5 Facility Sampling Plan Evaluation and Modifications

The PIT7-SRC treatment facility sampling and analysis plan complies with the monitoring requirements in the CMP/CP. The treatment facility sampling and analysis plan is presented in Table 2.5-7. Modifications to the plan during this reporting period included no monitoring in September and October due to VOC investigations at the facility.

2.5.3.5. Pit 7 Complex Area of OU 5 Treatment Facility and Extraction Wellfield Modifications

The only modifications made to the system during this reporting period included the addition of three new extraction wells, W-PIT7-2703, W-PIT7-2704, and W-PIT7-2705. These wells were put online starting on August 21, 2012.

2.5.4. Pit 7 Complex Area of OU 5 Ground Water Monitoring

The sampling and analysis plan for ground water and surface water monitoring is presented in Table 2.5-8. This table also delineates and explains deviations from the sampling plan and indicates any additions made to the CMP.

During the reporting period, ground water monitoring was conducted in accordance with the CMP monitoring requirements with the following exceptions; fifty-seven required analyses were not performed because there was insufficient water in the wells to collect the samples and ten required analysis were not performed due to an inoperable pump (one well).

Analytical results and ground water elevation measurements obtained during 2012 are presented in Appendices B and C, respectively.

Ground water elevation contour maps for the Qal/WBR and $Tnbs_1$/$Tnbs_0$ HSUs within the OU are presented on Figures 2.5-2 and 2.5-3, respectively. Ground water elevations in both HSUs have generally declined since spring 2011 due to lower than average rainfall during water year 2012.

2.5.5. Pit 7 Complex Area of OU 5 Remediation Progress Analysis

This section is organized into three subsections: analysis of contaminant distribution and concentration trends; remediation optimization evaluation; and performance issues.

2.5.5.1. Pit 7 Complex Area of OU 5 Mass Removal

The monthly ground water mass removal estimates for the second semester of 2012 are summarized in Table 2.5-9. The total mass removed during the reporting period and cumulative mass estimates are summarized in Table Summ-1 and Table Summ-2, respectively.

2.5.5.2. Pit 7 Complex Area of OU 5 Contaminant Concentrations and Distribution

In the Pit 7 Complex area of OU 5, tritium is the primary COC in ground water, and uranium, perchlorate, nitrate and VOCs are secondary COCs. These constituents have been identified within the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs. The distribution of tritium in the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs, based on data collected during the second semester 2012 is contoured on Figures 2.5-4 and 2.5-5, respectively. Activities of uranium and concentrations of nitrate and perchlorate in Qal/WBR and $Tnbs_1/Tnbs_0$ ground water, based on data collected during the first semester 2012, are presented on Figures 2.5-6 through 2.5-11.

2.5.5.2.1. Tritium Activities and Distribution

Commingled plumes of tritium in ground water extend from Pit 3 and Pit 5 Landfill sources. The Pit 7 Landfill is not an apparent source of tritium to ground water as most of the tritium-bearing experiments at Site 300 were conducted prior to its opening in 1979 (Taffet et al., 2008) and monitor well NC7-48, located directly downgradient of Pit 7 and upgradient of Pit 3, has generally yielded ground water samples that contain tritium activities within background ranges. The ground water sample collected from well NC7-48 in May 2012 contained less than 100 pCi/L of tritium.

Tritium activities in the Qal/WBR HSU ground water in the Pit 7 Complex area have decreased from a historic maximum of 2,660,000 pCi/L in 1998 to a 2012 maximum tritium activity of 233,000 pCi/L in the January sample from monitor well NC7-51. Well NC7-51 is located about 40 feet northeast of Pit 5 and 60 feet east of Pit 3. The 2011 maximum tritium activity was 575,000 pCi/L (April) in samples from extraction well NC7-63, which is located directly downgradient of Pit 3. Subsequently, the October 2011 sample from this well contained 221,000 pCi/L. Well NC7-63 was not sampled during 2012 due to insufficient water to collect samples. Tritium activities in Qal/WBR ground water have generally declined slightly since 2011. Ground water elevations in the Qal/WBR HSU in the Pit 7 Complex in 2011-2012 have generally declined from their 2010-2011 maxima. Following the 2010-2011 rainfall season, water levels generally rose 1 to 2 feet. This was expected, as the drainage diversion system is not designed to completely prevent any water level rises but to minimize the influence of extreme storm events by diverting excess runoff and shallow subsurface flow during very heavy rainfall years (i.e., El Niño events) to prevent water table rises into the landfills. Ground water elevations in the Qal/WBR HSU have typically fluctuated within a narrow 4 feet range during the last few years. Ground water levels generally remain well below the bottoms of the Pit 7 Complex Landfills. In the Qal/WBR HSU, the region of ground water containing tritium in excess of the MCL cleanup standard extends about 1,300 feet southeast from the northern edge of Pit 3. The extent of the 20,000 pCi/L MCL cleanup standard ground water tritium activities in the Qal/WBR HSU in the Pit 7 Complex area is similar to that observed for 2011.

Tritium activities in the $Tnbs_1/Tnbs_0$ HSU ground water in the Pit 7 Complex area have decreased from a historic maximum of 770,000 pCi/L in 1999 to a 2012 maximum tritium activity of 204,000 pCi/L (December). Both the historic and 2012 maximum tritium activities were detected in samples from extraction well NC7-25, located about 250 feet downgradient (northeast) of the Pit 3

Landfill. In general, tritium activities in the $Tnbs_1/Tnbs_0$ HSU are similar or have declined slightly compared to 2011 measurements. The highest tritium activities in $Tnbs_1/Tnbs_0$ HSU in Pit 7 Complex area ground water, in excess of the 20,000 pCi/L MCL cleanup standard, continue to extend about 800 feet northeast of Pit 3 and Pit 5. The extent of tritium in excess of the 20,000 pCi/L MCL cleanup standard in the $Tnbs_1/Tnbs_0$ HSU in the Pit 7 Complex area is also similar to 2011 observations.

Overall, the extent of tritium in ground water with activities in excess of the 100 pCi/L background levels remains stable, and is similar to that observed in 2011.

2.5.5.2.2. Uranium Concentrations and Distribution

Depleted uranium was previously released to ground water from sources in the Pits 3, 5, and 7 Landfills (Taffet et al., 2008). Uranium activities in Qal/WBR HSU ground water in the Pit 7 Complex area have decreased from a historic maximum of 781 pCi/L (well NC7-40, 1998) to a 2012 maximum of 93.7 pCi/L (well NC7-64, April). The maximum historic uranium activity detected in a water sample from monitor well NC7-64 is 252 pCi/L (1998). Well NC7-64 is located directly downgradient (east) of Pit 3 near well NC7-63. The 2011 maximum activity of 172 pCi/L was detected in a sample from extraction well NC7-63. As stated previously, during 2012, well NC7-63 did not contain sufficient water to collect samples. Uranium activities exceeded the 20 pCi/L MCL cleanup standard in samples from 13 wells in the Qal/WBR HSU during 2012. All 13 wells are proximal to the landfills and have historically shown $^{235}U/^{238}U$ isotopic ratios indicating some depleted uranium. The extent of uranium in excess of the MCL cleanup standard in the Qal/WBR HSU is confined to an area directly east of Pit 3 and another area that extends from Pit 5 southeast about 500 feet. The extents of both these regions are stable and similar to what has been observed over the last few years. The extent of depleted uranium in Qal/WBR HSU ground water has changed little since the mid-1990s. However, the June 2012 sample results for uranium (2.3 pCi/L) from new extraction well W-PIT7-2704, completed at the northeast corner of Pit 5, indicates that the extent of uranium in Qal/WBR HSU ground water in excess of the cleanup level is less extensive than previously depicted. Areas of depleted uranium in ground water are bounded by wells that exhibit ground water isotope mass ratios indicative of natural uranium. Sorption and ion-exchange may be responsible for slowing the migration of depleted uranium in ground water compared to conservative contaminants such as tritium.

The maximum uranium activity in a 2012 sample from well W-PIT7-2305 screened in both the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs was 19 pCi/L (December). This sample was analyzed by mass spectrometry; the $^{235}U/^{238}$ atom ratio indicated natural uranium.

Uranium activities in the $Tnbs_1/Tnbs_0$ HSU have decreased from a historic maximum of 51.45 pCi/L in 1998 to a 2012 maximum of 38 pCi/L (December). The 2011 maximum activity was 35.5 pCi/L (June 2011). All these maximum uranium activities were detected in samples from extraction well NC7-25, located about 250 feet downgradient (northeast) of the Pit 3 Landfill. Well NC7-25 is the only $Tnbs_1/Tnbs_0$ HSU well that historically and currently yields ground water containing uranium in excess of the MCL cleanup standard. All historic and current $^{235}U/^{238}U$ atom ratio data indicate that the uranium in NC7-25 ground water is natural. Ground water samples from wells screened in the $Tnbs_1/Tnbs_0$ HSU have not shown depleted uranium mass ratios indicating that depleted uranium has not migrated downward into the $Tnbs_1/Tnbs_0$ HSU.

As is the case for the Building 850 portion of OU 5, uranium activity analyses for 2012 were performed primarily by alpha spectroscopy with selected samples analyzed by Inductively Coupled Plasma-Mass Spectrometry (ICP-MS).

2.5.5.2.3. Nitrate Concentrations and Distribution

Nitrate was detected at concentrations at or above the 45 mg/L MCL cleanup standard in samples from two Pit 7 Complex area monitor wells, NC7-47 and W-PIT7-13, during 2012. These wells are located downgradient and northeast of the Pit 7 Complex area.

The 2012 maximum nitrate concentration detected in the Pit 7 Complex area was 65 mg/L in the April sample from $Tnbs_1/Tnbs_0$ HSU well NC7-47, located northeast and far downgradient of Pit 3. The 2012 maximum nitrate concentration in the Qal/WBR HSU was 44 mg/L (April) from extraction well NC7-64, located immediately downgradient of Pit 3. The 2011 maximum nitrate concentration detected in the Pit 7 Complex area was 90 mg/L in the April sample from Qal/WBR HSU extraction well NC7-63, located immediately downgradient of Pit 3 and 17 feet northeast of well NC7-64. As stated previously, this well was not sampled in 2012 due to insufficient water to collect a sample.

Historic data indicate that nitrate concentrations in the Qal/WBR and $Tnbs_1/Tnbs_0$ HSU ground water are limited in extent and relatively stable. Overall, maximum nitrate concentrations in Pit 7 Complex ground water have decreased from the historic maximum of 363 mg/L (2003). The distribution and concentrations of nitrate in ground water during 2012 are generally similar to what was observed in 2011.

2.5.5.2.4. Perchlorate Concentrations and Distribution

During 2012, perchlorate was detected at concentrations exceeding the 6 µg/L MCL cleanup standard in ground water samples from 16 wells directly northeast and southeast of the landfills.

Perchlorate concentrations in the Qal/WBR HSU ground water in the Pit 7 Complex area have decreased from a historic maximum of 40 µg/L (extraction well W-PIT7-2306, 2009) to a 2012 maximum concentration of 17 µg/L, in the April sample from well W-PIT7-2305, located about 65 feet east and downgradient of Pit 5. The Qal/WBR HSU wells that yielded samples containing perchlorate in excess of the 6 µg/L MCL cleanup standard define an area that extends southeast about 1,200 feet from the middle of Pit 3.

Samples from two $Tnbs_1/Tnbs_0$ HSU wells, NC7-25 and NC7-68, contained perchlorate in excess of the 6 µg/L MCL cleanup standard at 2012 concentrations of 11 µg/L and 11.8 µg/L (December and April) respectively, and define an area that extends about 1,000 feet southeast along the edges of Pits 3 and 5.

The overall extent of perchlorate in ground water in the Pit 7 Complex area did not change significantly from 2011 to 2012.

2.5.5.2.5. VOC Concentrations and Distribution

The VOC COCs in Pit 7 Complex Area ground water include TCE and 1,1-DCE. During 2012, VOCs were detected in ground water samples from seven Pit 7 Complex area wells: one well completed in the $Tnbs_1/Tnbs_0$ HSU (monitor well K7-03), four completed in the Qal/WBR HSU (monitor wells NC7-51, W-PIT7-03 and W-PIT7-2704 and extraction well W-PIT7-2306), and two completed in both HSUs (monitor well K7-01 and extraction well W-PIT7-2307).

Total VOC concentrations in Qal/WBR HSU ground water in the Pit 7 Complex area have decreased from a historic maximum of 21.2 µg/L in 1995 (well NC7-51, comprised of 15 µg/L of TCE and 6.2 µg/L of 1,1-DCE) to a 2012 maximum of 6.2 µg/L (well W-PIT7-2306, May, comprised of 4.5 µg/L of TCE and 1.7 µg/L of 1,1-DCE). 1,1-DCE was not detected above the 0.5 µg/L reporting limit in samples from any other wells screened exclusively in the Qal/WBR HSU. The historic maximum total VOC concentration from well W-PIT7-2306 is 11.1 µg/L (6.7 µg/L of TCE and 4.4 µg/L of 1,1-DCE) detected in a 2007 sample.

The 2012 maximum total VOC concentration measured in a Pit 7 Complex well completed in both the Qal/WBR and $Tnbs_1$/$Tnbs_0$ HSUs was 3.7 µg/L comprised of 2.8 µg/L of TCE and 0.85 µg/L of 1,1-DCE (well W-PIT7-2307, December). In 2011, the maximum total VOC concentration in this well was 9.3 µg/L; 6.5 µg/L of TCE and 2.8 µg/L of 1,1-DCE exceeding the TCE MCL cleanup standard of 5 µg/L but below the 1,1-DCE MCL cleanup standard of 6 µg/L. This year (June), TCE was also detected in a sample from well K7-01, also completed in the Qal/WBR and $Tnbs_1$/$Tnbs_0$ HSUs, at a concentration of 1.2 µg/L; 1,1-DCE was not detected in the sample from K7-01 above the 0.5 µg/L reporting limit.

The maximum 2012 total VOC concentration in a sample from a well screened only in the $Tnbs_1$/$Tnbs_0$ HSU was 1.1 µg/L (well K7-03, April), which was comprised entirely of TCE. 1,1-DCE was not detected above the 0.5 µg/L reporting limit in the sample from well K7-03 or any other wells screened exclusively in the $Tnbs_1$/$Tnbs_0$ HSU.

The data indicate that the extent of VOCs in ground water is limited to the area directly downgradient of Pit 5. Individual VOC concentrations were below cleanup standards in all Pit 7 Complex wells sampled during 2012. In 2011, wells W-PIT7-2306 and W-PIT7-2307 yielded samples with TCE concentrations slightly above the 5 µg/L cleanup standard.

2.5.5.3. Pit 7 Complex Area of OU 5 Remediation Optimization Evaluation

Ground water extraction and treatment at the PIT7-SRC facility began in March 2010. Therefore, the operation timeframe (2 years and 10 months) and associated hydraulic and chemical data from the area amid the generally extremely low sustainable yields are still insufficient to fully assess the effects of ground water extraction and treatment on COC concentration trends and the performance of the extraction wellfield. The total volume of water extracted and treated during the 2012 at PIT7-SRC was about 49,000 gallons. Due to wellfield expansion operations and facility shutdown as a result of methylene chloride detections in the effluent, only about 18,000 gallons of water were extracted and treated during the second semester of 2012. Well W-PIT7-2305 contributed approximately 81% of the flow to the PIT7-SRC facility at an average long-term extraction rate of 0.14 gpm. In 2011, the average flow rate from this well was only 0.062 gpm. Concentrations of COCs in well W-PIT7-2305 ground water have fluctuated since pumping started in 2010, but have shown some decreases from pre-pumping conditions to present. For example:

- Tritium activities decreased from 73,900 pCi/L (January 2010) to 47,400 pCi/L (December 2012).
- Uranium activities decreased slightly from 21 pCi/L (January 2010) to 19 pCi/L (April 2012). Since 2008, the water from this well has contained only natural uranium.
- TCE concentrations decreased from 0.88 µg/L (June 2007) to below the 0.5 µg/L reporting limit (April and December 2012).
- Perchlorate concentrations decreased very slightly from 15 µg/L (June 2009) to 14 µg/L (October 2011). Perchlorate concentrations subsequently increased slightly to 17 µg/L in April 2012 and then decreased to 12 µg/L in December 2012.
- Nitrate concentrations remained virtually unchanged varying from 44 mg/L (August 2008) to 42 mg/L (April 2012).

Based on assessment of water levels and ground water COC trends at well W-PIT7-2307, it appears that ground water pumped to date was derived primarily from the $Tnbs_1$/$Tnbs_0$ bedrock HSU. Because the well may have been largely pumping from the $Tnbs_1$/$Tnbs_0$ HSU, pumping was suspended in early March 2011 and has remained off to avoid pulling contaminants from Qal/WBR HSU ground water into the $Tnbs_1$/$Tnbs_0$ HSU. Ground water elevations have risen since pumping ceased and in late 2012 were still below the contact between coherent bedrock and the Qal/WBR HSU as defined by the seismic velocity boundary. Well NC7-63 has remained offline during 2012 due to insufficient water. Well W-PIT7-2305 has been pumping almost continuously during 2012, except for one day in April and intermittent pumping during facility shutdown (late August to early December). Well NC7-64 was pumping after February 6, when freezing conditions eased. Pumping at wells NC7-64 and W-PIT7-2306 ceased on April 4 to allow water levels to recover. NC7-64 has been pumped intermittently from August to December. Well W-PIT7-2306 began pumping on May 7 and due to very low yields was again off for most all of July to December. Wells NC7-64 and W-PIT7-2306 were not pumped from June 28 to August 8 during wellfield expansion (discussed below).

To increase plume capture and the volume of water containing concentrations of COCs in excess of cleanup standards, the three Qal/WBR HSU extraction wells W-PIT7-2703, W-PIT7-2704 and W-PIT7-2705 (Figure 2.5-1) were connected to the treatment system and began pumping on August 21 to increase mass removal. The first semester 2012 samples from wells W-PIT7-2703, W-PIT7-2704 and W-PIT7-2705 contained, respectively, (1) 70,800 pCi/L, 389 pCi/L and 38,100 pCi/L of tritium, (2) 76 pCi/L, 2.3 pCi/L and 66 pCi/L of uranium, (3) 8.3 µg/L, <4 µg/L, and 6.7 µg/L of perchlorate, and (4) 29 mg/L, 19 mg/L and 27 mg/L of nitrate. VOCs (TCE) were only detected in the sample from well W-PIT7-2704 (0.53 µg/L). Pumping of $Tnbs_1/Tnbs_0$ HSU well NC7-25 also commenced on August 21 to increase uranium mass removal. The uranium in this well has always exhibited a natural $^{235}U/^{238}U$ atom ratio but has historically exceeded the uranium MCL cleanup standard. The facility was shut down on August 22 due to methylene chloride detections in the effluent samples and the wellfield remained off until December 10 except for pumping to collect ground water samples for analysis.

Contaminant mass removal may be increased in 2013 by targeting Qal/WBR HSU ground water in well W-PIT7-2307 by raising the pump intake to the base of the Qal/WBR HSU once water levels in the well rise above the base of the HSU. In the long term, continued pumping of extraction wells, the effects of the drainage diversion system, and rainfall hydrographs will be evaluated as to their overall influence on the extent of saturation and COC concentrations in the Qal/WBR HSU, and in turn, the distribution of ground water available for treatment at PIT7-SRC. The combined average pumping rate from extraction wells to the treatment facility before the addition of the three W-PIT7-2700-series extraction was about 0.14 gpm. Based on early pumping data collected from these newest wells, average combined total pumping rates to the facility could increase to about 0.2 gpm. However, because of the ephemeral saturation and low sustainable yields of wells in the Qal/WBR HSU, mass removal at the treatment facility, especially for uranium, is expected to remain low despite efforts to enhance it.

2.5.5.4. Pit 7 Complex Area of OU 5 Remedy Performance Issues

There were no new issues that affect the performance of the MNA cleanup remedy for tritium in the Pit 7 Complex area during this reporting period. The remedy for tritium continues to be effective and protective of human health and the environment, and to make progress toward cleanup. The extraction and treatment of uranium, perchlorate, VOCs and nitrate continues to reduce the concentrations and mass of these contaminants in Pit 7 Complex ground water. As stated in the previous section, extraction well W-PIT7-2305 pumped the majority of ground water, and concentrations of uranium in samples collected from the well remained similar to 2011 and activities of tritium declined. Uranium activities in these samples remained below MCL cleanup standards. Continued operation of the PIT7-SRC facility and extraction from the three new extraction wells and well NC7-25 provide an opportunity for extraction of increased volumes of ground water and mass removal. However, sustainable yields from all the extraction wells are generally low (<0.1 gpm) and thus large increases in mass removal over time are not anticipated.

During 2012, tritium activities in treated effluent from PIT7-SRC were in the range of 28,000 pCi/L to 49,900 pCi/L, which is equivalent to recent tritium activities in samples from wells completed adjacent to the infiltration trench (wells K7-01, NC7-16 and NC7-21). Since treatment and re-injection began, ground water tritium activity trends at these wells are stable or decreasing. The tritium activities in these wells will continue to be closely monitored to assess any negative impacts to the distribution of tritium in ground water.

The performance summary of PIT7-SRC indicates that:

- Progress has been made in reducing COC concentrations towards cleanup standards: Uranium activities to-date have remained relatively stable, and those in excess of MCL cleanup standards are limited in extent. TCE is present above the MCL cleanup standard in only one well. Perchlorate concentrations are stable to decreasing. Nitrate concentrations and distribution have decreased from historic maxima.
- The extent of uranium in excess of the MCL cleanup standard in the Qal/WBR HSU continues to be confined to an area immediately east of Pit 3 and another area that extends from Pit 5 southeast about 500 feet. The extents of both these regions have remained stable and similar to what has been observed over the last few years. The recent sample results from new extraction well W-PIT7-2704, completed at the northeast corner of Pit 5, indicate that the uranium in Qal/WBR HSU ground water in excess of the cleanup level is less extensive than previously depicted.
- Generally, tritium activities in wells downgradient of the infiltration trench are stable or decreasing, indicating that the discharge of tritium-bearing water is not adversely impacting downgradient ground water.

As discussed in the Remedial Design (RD) for the Pit 7 Complex (Taffet et al., 2008), the drainage diversion system design was not intended to capture 100% of the precipitation that falls in the Pit 7 Complex area. Rather, it was designed to divert excess surface water runoff and shallow subsurface recharge from the hillslopes to the west and east of the Pit 7 Complex landfills during high intensity storms and periods of extreme rainfall (i.e., the 1997-1998 El Niño) to minimize ground water contact with the pit waste and underlying contaminated bedrock. Thus, the drainage diversion system performance can best be evaluated during a future El Niño season or other period of very high rainfall.

Criteria indicating that the drainage diversion system is not operating as intended and corresponding recent performance include:

1. Ground water elevation responses to rainfall events observed in key monitoring wells are similar to those observed before the installation of the drainage diversion system:
    - Drainage diversion system performance is evaluated by 22 monitor wells outfitted in April 2010 with dedicated pressure transducers that measure ground water elevations. Ground water elevations in the Qal/WBR HSU generally decreased slightly during the 2011-2012 rainfall year and have continued decreasing during the current rainfall year. This is likely due primary to a decrease in rainfall in the 2011-2012 rainfall year (approximately 7 inches), compared to the above average rainfall in the 2010-2011 rainfall year (approximately 13 inches).
2. Maximum ground water rises into the pit waste and underlying contaminated bedrock as indicated by ground water elevation data:
    - During and following the 2009-2010, 2010-2011, and 2011-2012 rainfall seasons, ground water levels have remained well below the bottoms of the Pit 7 Complex Landfills. This has also been the case during the current rainfall season.

- Review of these data indicates that ground water elevation responses to rainfall are less than those observed prior to drainage diversion system installation in several wells. For example, in 2005, prior to installation of the drainage diversion system, ground water elevation in well NC7-17, located downgradient of the drainage diversion system at the south end of Pit 7, increased 5 inches per inch of rain received. In 2011, after installation of the drainage diversion system, ground water elevation increased less than 4 inches per inch of rain received for the same time period during the water year. The data indicate a 20% reduction in ground water elevation response to rainfall in well NC7-17 after installation of the drainage diversion system. Total precipitation received during water years 2004-2005 and 2010-2011 was greater than average and almost identical at 13.7 inches and 13.5 inches, respectively. As stated above, precipitation during the 2011-2012 rainfall year was below average and thus, this water elevation response evaluation was not performed for that time period.

3. Increasing trends in tritium, uranium, VOCs, or perchlorate activities/ concentrations are observed over a period of at least four quarters in ground water samples from key wells downgradient of the landfills:
   - COC trends in Pit 7 Complex ground water are decreasing:
     - Tritium activities decreased from a historic maximum of 2,660,000 pCi/L in 1998 to a 2012 maximum tritium activity of 233,000 pCi/L.
     - Uranium activities have decreased from a historic maximum of 781 pCi/L in 1998 to a 2012 maximum of 93.7 pCi/L.
     - Nitrate concentrations have decreased from the historic maximum of 363 mg/L in 2003 to a 2012 maximum of 90 mg/L.
     - Perchlorate concentrations have decreased from a historic maximum of 40 µg/L in 2009 to a 2012 maximum of 17 µg/L.
     - Total VOC concentrations have decreased from a historic maximum of 21.2 µg/L in 1995 to a 2012 maximum of 6.2 µg/L, with concentrations of all VOC COCs below cleanup standards.

Based on the evaluation of data collected during 2012 against the performance criteria, the drainage diversion system appears to be operating as intended. However, it is important to note that the drainage diversion system is designed to divert recharge during peak events and has not yet been tested under the conditions for which it was designed.

2.6. Building 854 OU 6

The Building 854 Complex has been used to test the stability of weapons and weapon components under various environmental conditions and mechanical and thermal stresses. A map of the Building 854 OU showing the locations of monitor and extraction wells and treatment facilities is presented on Figure 2.6-1.

Three GWTSs are currently operated in the Building 854 OU; Building 854-Source (854-SRC), Building 854-Proximal (854-PRX), and Building 854-Distal (854-DIS). One SVTS is also operated at the 854-SRC facility.

The 854-SRC GWTS began operation in December 1999 removing VOCs and perchlorate from ground water. Ground water extraction was expanded in September 2006 from one well, W-854-02, extracting at a flow rate of approximately 1 gpm, to include wells W-854-18A, W-854-17, and W-854-2218 currently extracting at an approximate combined flow rate of 1.7 gpm. The GWTS configuration includes a particulate filtration system, two ion-exchange resin columns connected in series for perchlorate removal, and three aqueous-phase GAC units connected in series for VOC removal. Nitrate-bearing treated effluent is then discharged via a misting tower onto the landscape for uptake and utilization of the nitrate by indigenous grasses.

A SVTS began operation at the 854-SRC in November 2005. Soil vapor is currently extracted from well W-854-1834 at an approximate flow rate of 45 to 50 scfm. This system consists of vapor-phase GAC to remove VOCs from extracted soil vapor. Treated vapors are discharged to the atmosphere under a permit issued by the San Joaquin Valley Air Pollution Control District.

The 854-PRX GWTS began operation in November 2000 removing VOCs, nitrate, and perchlorate from ground water. Ground water is currently extracted at an approximate flow rate of 1.5 gpm from well W-854-03, located southeast of the Building 854 complex. The GWTS configuration includes two ion-exchange resin columns connected in-series for perchlorate removal, three aqueous-phase GAC units connected in series for VOC removal, and an aboveground containerized wetland biotreatment for nitrate removal prior to being discharged into an infiltration trench. In 2007, the treatment system was modified to replace the solar power with site power to increase the volume of extracted ground water by operating the GWTS 24-hours a day.

The 854-DIS GWTS is solar-powered and began operation in July 2006 removing VOCs and perchlorate from ground water. Ground water is extracted from well W-854-2139. The current operational flow rate averaged over time is approximately 700 to 800 gallons per month. The GWTS configuration includes two ion-exchange resin columns connected in series for perchlorate treatment followed by three aqueous-phase GAC units connected in series for VOC removal prior to discharge to an infiltration trench.

2.6.1. Building 854 OU Ground Water Treatment System Operations and Monitoring

This section is organized into five subsections: facility performance assessment; operations and maintenance issues; receiving water monitoring; compliance summary; and sampling plan evaluation and modifications.

2.6.1.1. Building 854 OU Facility Performance Assessment

The monthly ground water discharge volumes and rates and operational hours for the second semester of 2012 are summarized in Tables 2.6-1 through 2.6-3. The total volume of ground water treated and masses removed during 2012 are presented in Table Summ-1. The cumulative volume of ground water treated and discharged and the masses removed are summarized in Table Summ-2. Analytical results for influent and effluent samples collected during the second semester of 2012 are presented in Tables 2.6-4 and 2.6-5. The pH measurement results are presented in Appendix A.

2.6.1.2. Building 854 OU Operations and Maintenance Issues

The following maintenance activities and operational issues occurred at the 854-SRC GWTS and SVTS, and 854-PRX and 854-DIS GWTSs during the second semester of 2012:

<u>854-SRC GWTS and SVTS</u>

- The GWTS was shut down on November 1 to change out the GAC. The GWTS was restarted on November 26 discharging to a portable tank because of elevated pH above discharge limits caused by the new GAC that had been installed. The effluent was discharged to a portable tank until pH was below 8.5.
- Extraction well W-854-18A was shut down on December 17 to protect against freeze damage.

854-PRX GWTS

- The GWTS was secured August 13 due to a failing pump in extraction well W-854-03. The pump was replaced and the system was restarted on August 21.
- The GWTS was shut down on September 4 due to a leaking seam on a carbon vessel. A patch was applied on September 5, however the GWTS remained offline while the ion-exchange resin was changed on October 18, but the system was not restarted due to resin evaluation. The GWTS was restarted on November 5. However, the system was shut off when the GAC vessel began to leak (at a different location) upon restart. The GWTS was shut off and three smaller, fiber vessels were installed. The system was restarted on November 26 discharging to a portable tank because of elevated pH above discharge limits caused by new GAC that had been installed. The effluent discharged to a portable tank until the pH was below 8.5 (discharge limit). The GWTS started with normal discharge operations on December 3 upon completion of the GAC conditioning.

854-DIS GWTS

- The GWTS was shut down on December 17 to protect against freeze damage.

2.6.1.3. Building 854 OU Compliance Summary

The 854-SRC, 854-PRX, and 854-DIS GWTSs all operated in compliance with the RWQCB Substantive Requirements for Wastewater Discharge. Nitrate concentrations in the 854-PRX GWTS extraction well and facility influent have continued to remain below the 45 mg/L nitrate cleanup standard since February 2010. The 854-SRC SVTS operated in compliance with San Joaquin Valley Air Pollution Control District permit limitations.

2.6.1.4. Building 854 OU Facility Sampling Plan Evaluation and Modifications

The Building 854 OU facility sampling and analysis plan complies with the monitoring requirements in the CMP/CP. The sampling and analysis plan is presented in Table 2.6-6. The only modifications to the plan included no effluent monitoring at 854-SRC in November due to the system being shut down for complete GAC vessel replacement, and no monitoring at the 854-PRX in October and November since it was shut down for replacement of leaking GAC vessels and testing of replacement vessels.

2.6.1.5. Building 854 OU Treatment Facility and Extraction Wellfield Modifications

There were no treatment facility or extraction wellfield modifications made to the 854-PRX, 854-DIS, or 854-SRC GWTSs, or the 854-SRC SVTS, during the reporting period.

2.6.2. Building 854 OU Ground Water Monitoring

The sampling and analysis plan for ground water and surface water monitoring is presented in Table 2.6-7. This table also delineates and explains deviations from the sampling plan and indicates any additions made to the CMP.

During the reporting period, ground water monitoring was conducted in accordance with the CMP monitoring requirements with the following exceptions: twenty-four required analyses were not performed because there was insufficient water in the wells to collect the samples.

Analytical results and ground water elevation measurements obtained during 2012 are presented in Appendices B and C, respectively.

A ground water elevation contour map for the $Tnbs_1/Tnsc_0$ HSU is presented on Figure 2.6-2. Ground water elevations are posted for the Qls and $Tnbs_1$ HSUs on Figure 2.6-6. Ground water elevations observed in the HSUs were similar to those observed in previous years.

2.6.3. Building 854 OU Remediation Progress Analysis

This section is organized into four subsections: mass removal; analysis of contaminant distribution and concentration trends; remediation optimization evaluation; and performance issues.

2.6.3.1. Building 854 OU Mass Removal

The monthly ground water mass removal estimates for the second semester of 2012 are summarized in Tables 2.6-8 through 2.6-10. The total mass removed during the reporting period and cumulative mass estimates are summarized in Table Summ-1 and Table Summ-2, respectively.

2.6.3.2. Building 854 OU Contaminant Concentrations and Distribution

At the Building 854 OU, VOCs (TCE) and perchlorate are the primary COCs detected in ground water; nitrate is a secondary COC. These COCs have been identified primarily in the $Tnbs_1/Tnsc_0$ HSU.

Total VOC concentration data for the $Tnbs_1/Tnsc_0$ HSU are contoured on Figure 2.6-3. Isoconcentration data for perchlorate and nitrate for the $Tnbs_1/Tnsc_0$ HSU are presented on Figures 2.6-4 and 2.6-5, respectively. A map showing ground water elevations, total VOCs, perchlorate and nitrate for the combined Qls and $Tnbs_1$ HSUs is presented on Figure 2.6-6. Hydraulic capture zones are presented on the $Tnbs_1/Tnsc_0$ HSU ground water elevation and total VOC and perchlorate maps (Figures 2.6-2, 2.6-3 and 2.6-4).

2.6.3.2.1. VOC Concentrations and Distribution

During 2012, the maximum concentration of VOCs in $Tnbs_1/Tnsc_0$ HSU ground water was 100 µg/L (extraction well W-854-02, February). TCE comprises all of the VOCs observed in ground water at Building 854, except for low cis-1,2-DCE concentrations detected in samples from monitor well W-854-17 and extraction well W-854-2139. During 2012, the maximum cis-1,2-DCE ground water concentrations were detected in the October samples from wells W-854-17 and W-854-2139 at 3.4 µg/L and 0.64 µg/L, respectively, below the 6 µg/L MCL cleanup standard. Overall, VOC concentrations in the $Tnbs_1/Tnsc_0$ HSU have decreased nearly two orders of magnitude from a historic pre-remediation maximum of 2,900 µg/L (extraction well W-854-02, 1997).

Two VOC plumes exist in the $Tnbs_1/Tnsc_0$ HSU: a northern plume and a less extensive southern plume. The northern plume encompasses the 854-SRC and 854-PRX areas and is separated from the southern plume by a region where VOC concentrations are below the 0.5 µg/L reporting limit (at wells W-854-1902 and W-854-1822). The southern plume is in the vicinity of former water-supply Well 13. While the extent of VOCs impacting Building 854 ground water with concentrations above the 0.5 µg/L reporting limit has remained relatively stable over time, since remediation began: (1) the portion of the northern VOC plume with concentrations greater than 50 µg/L has decreased and is currently limited to the immediate vicinity of the Building 854 source area; (2) the extent of the northern VOC plume with concentrations greater than 10 µg/L has decreased; and (3) the extent of the southern VOC plume with concentrations greater than 5 µg/L has decreased significantly.

VOCs were also detected in shallow perched ground water in monitor well W-854-10 (screened in the $Tnbs_1$ unit but above the $Tnbs_1/Tnsc_0$ HSU) located in the Building 854 source area during 2008, 2009, 2010, 2011 and this year at maximum concentrations of 34 µg/L, 17 µg/L, 41 µg/L, 8.9 µg/L and 14 µg/L (October), respectively. The long-term total VOC concentrations in ground water at this well exhibit a slightly increasing trend with intermittent decreases. The recent intermittent increases and declines in VOC concentrations roughly correlate with declines and increases in water elevations in excess of 1 foot over a 3 month period suggesting that VOC concentrations in this thin perched water-bearing zone are diluted by intermittent recent recharge events. During 2012, as in 2011, VOCs were not detected in the sample from monitor well W-854-14, located near Building 858 and screened in a perched zone in the $Tnbs_1$, also above the $Tnbs_1/Tnsc_0$ HSU. During 2012, as in 2011, VOCs were not detected in the sample from the one Qls monitor well, W-854-15, that contained water. The maximum historic VOC (entirely TCE) vapor concentration within the Building 854 OU was measured in 854-SRC SVTS extraction well W-854-1834 (4.4 $ppm_{v/v}$, November 2005). The maximum 2012 TCE vapor concentration of 0.44 $ppm_{v/v}$ was measured in the February 2012 sample from this well.

2.6.3.2.2. Perchlorate Concentrations and Distribution

The maximum perchlorate concentrations in $Tnbs_1/Tnsc_0$ HSU ground water are generally decreasing from the historic maximum of 27 µg/L in 2003 to a 2012 maximum of 13.4 µg/L (May). Both the historic and recent maximum perchlorate concentrations were detected in monitor well W-854-1823, located downgradient of the 854-PRX facility. Perchlorate at this location is not currently captured by any ground water extraction well(s).

The distribution of perchlorate in $Tnbs_1/Tnsc_0$ HSU ground water observed during 2012 is similar to its extent in 2010 and 2011. During 2012, perchlorate was not detected in ground water samples from any well screened in the Qls HSU or perched $Tnbs_1$ water-bearing zones. In October 2010, 6.1 µg/L of perchlorate was reported in the sample from Qls HSU well W-854-15, but was not detected above the 4 µg/L reporting limit in the first semester 2010 sample, two 2011 samples, or two 2012 samples.

2.6.3.2.3. Nitrate Concentrations and Distribution

During 2012, the maximum nitrate concentration in $Tnbs_1/Tnsc_0$ HSU ground water was 54 mg/L (extraction well W-854-02, April). Additionally, during 2012, nitrate was detected above its MCL cleanup standard in the sample from monitor well W-854-14, screened in the perched $Tnbs_1$ water-bearing zone (230 mg/L, May) located near Building 858. The continued presence of elevated nitrate in samples from well W-854-14 could be due to impact from the Building 858 septic system. Ground water isotope (nitrogen and oxygen isotopes) and dissolved noble gas data collected in the Building 854 OU, including Springs 10 and 11, as part of the Site 300 nitrate MNA study indicated some evidence of localized *in situ* denitrification in Neroly Formation ground water. The distribution of nitrate in the $Tnbs_1/Tnsc_0$ HSU in the distal area remains low and essentially unchanged since this study was conducted. This year, a sample from monitor well W-854-05, which is screened in the Qls HSU immediately north of the VOC source area, contained nitrate at a concentration above the 45 mg/L MCL cleanup standard (59 mg/L, May). Nitrate was not detected above the MCL cleanup standard in the sample from monitor well W-854-10, which is screened in the perched $Tnbs_1$ water-bearing zone near the VOC source area.

2.6.3.3. Building 854 OU Remediation Optimization Evaluation

Since the 2006 expansion of the 854-SRC GWTS wellfield, the total volume of extracted ground water and contaminant mass removed has declined slightly. During 2012, 170 g of VOC mass were removed from ground water by the facility. In 2010 and 2011, the facility removed 260 g and 200 g of VOCs, respectively. In 2006 and 2007, the facility removed 280 g and 260 g of VOCs, respectively. Ground water extraction continues to adequately capture the highest VOC concentrations. If well W-854-2218 can be pumped at a higher sustainable flow rate, the total volume of ground water treated and VOC mass removed at 854-SRC can be increased. A hydraulic test to evaluate potential for higher sustained pumping rate may be conducted at well W-854-2218 in 2013.

In 2012, the 854-SRC soil vapor extraction well W-854-1834 yielded TCE vapor concentrations of 0.44 $ppm_{v/v}$, 0.31 $ppm_{v/v}$, 0.21 $ppm_{v/v}$, and 0.31 $ppm_{v/v}$, in February, April, July, and October, respectively. During 2012, the 854-SRC SVTS removed 930 g of VOC vapor mass, compared to 570 g, removed during 2011. When operating, over the last seven years despite declining VOC vapor concentrations, VOC mass continues to be removed from the source area due to relatively high vapor flow rates. This VOC mass is likely volatilizing from vadose zone sources beneath the Building 854 source area and VOC vapors from the underlying dissolved VOC plume in $Tnbs_1$/$Tnsc_0$ ground water. Due to continued removal of VOC mass, DOE/LLNL plan to operate the 854-SRC SVTS until vapor concentrations remain below reporting limits after extended shutdown periods and SVE shutoff criteria have been met. Over the next five years, it will be determined if prerequisites to begin an SVE system shut-off evaluation have been attained as described in Appendix C of the Site 300 Site-Wide Record of Decision (U.S. DOE, 2008).

During 2012, the 854-PRX GWTS removed 28 g of VOC mass. In 2011, the GWTS removed 22 g of VOC mass. Well W-854-03 can be pumped at a higher sustainable flow rate and optimization efforts at 854-PRX in 2013 will include hydraulic testing followed by increased pumping of this extraction well. Increased pumping rates and resulting increased effluent volume may necessitate an infiltration trench capacity test. Recommendations for this work will be included in the Building 854 OU Five Year Review. If the infiltration trench capacity is not adequate for the higher volumes of effluent, several options for discharging this effluent will be considered including misting, enlarging the infiltration trench, and installation of a Tmss HSU injection well.

During 2012, the 854-DIS GWTS removed 1.6 g of VOC mass. In 2011, the GWTS removed 1.4 g of VOC mass. The one extraction well at the 854-DIS GWTS (W-854-2139) pumps at a low average rate of approximately 1,200 gallons per month because the formation around the well becomes rapidly dewatered and the well cannot sustain prolonged pumping.

Samples of ground water from areas of elevated nitrate will be analyzed for nitrogen isotopes as a part of an effort to document if MNA is occurring within the Building 854 OU. This evaluation will be presented in the Five Year Review report.

2.6.3.4. Building 854 OU Remedy Performance Issues

There were no new issues that affect the performance of the cleanup remedy for the Building 854 OU during this reporting period. The overall remedy continues to be effective and protective of human health and the environment, and to make progress toward cleanup.

2.7. Building 832 Canyon OU 7

Building 832 Canyon facilities were used to test the stability of weapons and associated components under various environmental conditions. Contaminants were released from Buildings 830 and 832 through piping leaks and surface spills during testing activities at these buildings.

Three GWTSs and two SVTS are operated in the Building 832 Canyon OU: Building 832-Source (832-SRC), Building 830-Source (830-SRC), and Building 830-Distal South (830-DISS). The 832-SRC and 830-SRC facilities extract and treat both ground water and soil vapor, while the 830-DISS facility extracts and treats ground water only.

A map of Building 832 OU showing the locations of monitor and extraction wells and treatment facilities is presented on Figure 2.7-1.

The 832-SRC GWTS removes VOCs and perchlorate from ground water and the SVTS removes VOCs from soil vapor. The GWTS and SVTS began operation in September and October 1999, respectively. Initially, ground water was extracted from nine wells at a combined total flow rate that initially ranged from 30 to 300 gpd. The total flow eventually dropped to 5 to 50 gpd due to lowering of the water table by pumping. In early 2005, the source area extraction wellfield was reduced to two wells (W-832-12 and W-832-15) operating with vacuum enhancement and a combined flow rate ranging from 60 to 220 gpd. In late 2005, the extraction wellfield was expanded to include three additional downgradient wells (W-832-01, W-832-10, and W-832-11). As a result, the combined flow rate increased to about 1,300 gpd, and VOC concentrations in 832-SRC facility influent increased four-fold. Well W-832-25 was connected to the 832-SRC facility in July 2006. Currently, ground water is extracted from wells W-832-01, W-832-10, W-832-11, W-832-12, W-832-15 and W-832-25 at an approximate combined flow rate of 0.16 gpm. Soil vapor is extracted from wells W-832-12 and W-832-15 at an approximate combined flow rate of approximately 3.0 to 4.4 scfm. The current GWTS configuration includes two ion-exchange resin columns connected in series to remove perchlorate, and three aqueous-phase GAC units (also connected in series) to remove VOCs. Nitrate-bearing treated effluent is then discharged via a misting tower over the landscape for uptake and utilization of the nitrate by indigenous grasses. A positive displacement rotary lobe blower is used to create a vacuum at selected wellheads through a system of piping manifolds. The contaminated vapors are treated using three vapor-phase GAC units connected in series. Treated soil vapors are then discharged to the atmosphere under a permit issued by the San Joaquin Valley Air Pollution Control District.

The 830-SRC GWTS removes VOCs and perchlorate from ground water and the SVTS removes VOCs from soil vapor. The GWTS and SVTS began operation in February and May 2003, respectively. Ground water was extracted from four wells at a total flow rate ranging from 5 to 100 gpd. The 830-SRC extraction wellfield was expanded in 2006; seven GWTS extraction wells (W-830-49, W-830-1829, W-830-2213, W-830-2214, W-830-57, W-830-60, and W-830-2215) were added to the original three (W-830-1807, W-830-19, and W-830-59). The expansion well testing began in 2006. The tests were completed and the expanded wellfield was in full operation during the first semester 2007. During the second semester 2009, both wells W-830-1829 and W-830-2213 were converted back to monitor wells due to lack of water for extraction. In early 2010, the 830-SRC GWTS was modified so that ground water extracted from higher flow Upper $Tnbs_1$ HSU extraction wells (W-830-2215, W-830-60, and W-830-57) was routed around the 830-SRC ion-exchange canisters. Perchlorate has not been detected above the reporting limit (4 µg/L) since 2005 in these wells. This bypass is expected to improve the operation of the treatment facility by decreasing backpressure, allowing for increased ground water flow and mass removal rates. Ground water extracted from low-flow $Tnsc_{1a}$ well W-830-2214 still contains perchlorate above the discharge limit; this well does not bypass the perchlorate treatment system. The 830-SRC GWTS is currently extracting ground water at a combined flow rate of approximately 5 to 7 gpm. The GWTS configuration includes a Cuno filter for particulate filtration, two ion-exchange resin columns connected in-series to remove perchlorate, and three in-series aqueous-phase GAC units to remove VOCs. Nitrate-bearing treated effluent is then discharged via a misting tower over the landscape for uptake and utilization of the nitrate by indigenous grasses. The 830-SRC soil vapor extraction wellfield was also expanded to include well W-830-49 in 2006. Soil vapor is extracted from wells W-830-1807 and W-830-49 using a liquid ring vacuum pump at a current combined flow rate of approximately 30 to 33 scfm. The contaminated vapors are treated using three vapor-phase GAC units connected in series. Treated soil vapors are then discharged to the atmosphere under a permit issued by the San Joaquin Valley Unified Air Pollution Control District.

The 830-DISS GWTS began operation in July 2000, removing VOCs, perchlorate, and nitrate from ground water. During a typical year, approximately 1 to 2.5 gpm of ground water is extracted from extraction wells W-830-51 and W-830-52 using natural artesian pressure and less than 0.5 gpm of ground water is extracted from well W-830-53 using natural artesian pressure. The GWTS configuration consisted of two aqueous-phase GAC units in series to remove VOCs, two in-series ion-exchange resin columns to remove perchlorate, and three bioreactor units for nitrate reduction. These units were open-container wetland bioreactors containing microorganisms that use nitrate during cellular respiration. Acetic acid was added to the process stream as a carbon source. Treatment system effluent was discharged via a storm drain that discharges to the Corral Hollow alluvium. At the request of the RWQCB, the facility was modified during the first semester 2007 to cease discharge of treated water to a surface water drainage way. The modification included the addition of a fourth well, W-830-2216, to the extraction wellfield. The GWTS is now extracting ground water at a combined flow rate of approximately 2 to 4 gpm. Currently, extracted ground water flows through ion-exchange canisters to remove perchlorate at the 830-DISS location. The water is piped to the Central GSA GWTS for VOC removal. Nitrate-bearing treated effluent is then discharged via a misting tower over the landscape for uptake and utilization of the nitrate by indigenous grasses.

2.7.1. Building 832 Canyon OU Ground Water and Soil Vapor Extraction and Treatment System Operations and Monitoring

This section is organized into four subsections: facility performance assessment; operations and maintenance issues; compliance summary; and sampling plan evaluation and modifications.

2.7.1.1. Building 832 Canyon OU Facility Performance Assessment

The monthly ground water and soil vapor discharge volumes, rates, and operational hours for the second semester of 2012 are summarized in Tables 2.7-1 through 2.7-3. The total volume of ground water and vapor extracted and treated and mass removed during 2012 are presented in Table Summ-1. The cumulative volume of ground water and soil vapor treated and discharged and mass removed are summarized in Table Summ-2. Analytical results for influent and effluent samples collected during the second semester of 2012 are presented in Tables 2.7-4 and 2.7-5. The pH measurement results are presented in Appendix A.

2.7.1.2. Building 832 Canyon OU Operations and Maintenance Issues

The following maintenance activities and operational issues occurred at the 832-SRC GWTS and SVTS, 830-SRC GWTS and SVTS, and 830-DISS GWTS during the second semester of 2012:

<u>830-SRC GWTS and SVTS</u>

- Extraction well W-830-49 was offline on July 23 due to low level switch problems. The pump was repaired and restarted on August 22.
- The pump in extraction well W-830-1807 failed on July 23 and was replaced on July 31.
- The pump in extraction well W-830-57 failed on July 9 and was replaced on July 31.
- Discharge of treated effluent was switched to the north misting tower location on October 9.
- The GWT and SVTS were shut down on October 15 to replace spent GAC in the first and second vessel positions. The systems were restarted on October 22.
- A site power outage on October 22 and October 28 caused the GWTS and SVTS to shut down. The systems were restarted on October 23 and October 29. The SVTS would not restart on October 29 due to a failed blower. A new blower was purchased and will be installed January 2013.
- Extraction well W 830-60 failed on December 6. A new pump was installed December 13.
- Extraction wells W-830-19, W-830-49, W-830-59, W-830-1807, and W-830-2214 were shut down to protect against damage caused by freezing temperatures on December 13.

832-SRC GWTS and SVTS

- The GWTS and SVTS were shut down on July 25 for a resin change-out and restarted on July 26.
- Extraction well W-832-10 was shut off from August 14 to August 22 due to a cracked discharge line.
- A cracked airline hose was repaired on September 24.
- A site power outage on October 22 and October 28 caused the GWTS and SVTS to shut down. The systems were restarted on October 23 and October 29.
- Extraction wells W-832-01, W-832-10, W-832-11, and W-832-25 were shut down to protect against damage caused by freezing temperatures on December 13. The GWTS and SVTS were shut down on December 17 to protect against freeze damage.

830-DISS GWTS

- The GWTS was temporarily shut down for a resin change out on August 30.
- The GWTS shut down on October 22 because the Central GSA facility shutdown due to a power outage. The system was restarted on October 23.
- The GWTS was shut down on December 19 due to the Central GSA being shut down to protect against freeze damage.

2.7.1.3. Building 832 Canyon OU Compliance Summary

The 830-SRC, 832-SRC, and 830-DISS GWTSs operated in compliance with RWQCB Substantive Requirements during the reporting period. The 830-SRC SVTS operated in compliance with the San Joaquin Valley Air Pollution Control District permit limitations.

2.7.1.4. Building 832 Canyon OU Facility Sampling Plan Evaluation and Modifications

The Building 832 Canyon OU treatment facility sampling and analysis plan complies with the monitoring requirements in the CMP/CP. The sampling and analysis plan is presented in Table 2.7-6. No modifications were made to any of the plans during this reporting period.

2.7.1.5. Building 832 Canyon OU Treatment Facility and Extraction Wellfield Modifications

No treatment facility or wellfield modifications were made to any of the OU 7 GWTSs or SVTSs during this reporting period.

2.7.2. Building 832 Canyon OU Ground Water Monitoring

The sampling and analysis plan for ground water and surface water monitoring is presented in Table 2.7-7. This table explains deviations from the sampling plan and indicates any additions made to the CMP.

During the reporting period, ground water monitoring was conducted in accordance with the CMP monitoring requirements with the following exceptions; seventy required analyses were not performed because there was insufficient water in the wells to collect the samples and thirteen required analyses were not performed due to inoperable pumps (two wells).

Analytical results and ground water elevation measurements obtained during 2012 are presented in Appendices B and C, respectively.

Ground water elevations and flow directions for the Qal/WBR and $Tnsc_{1a}$ HSUs are presented on Figures 2.7-2 and 2.7-4, respectively. Ground water elevation contour maps for the $Tnsc_{1b}$ and Upper $Tnbs_1$ HSUs are presented on Figures 2.7-3 and 2.7-5, respectively.

2.7.3. Building 832 Canyon OU Remediation Progress Analysis

This section is organized into four subsections: mass removal; contaminant concentrations and distribution; remediation optimization evaluation; and performance issues.

2.7.3.1. Building 832 Canyon OU Mass Removal

The monthly ground water and soil vapor mass removal estimates for the second semester of 2012 are summarized in Tables 2.7-8 through 2.7-10. The total masses removed during the reporting period and cumulative mass estimates are summarized in Table Summ-1 and Table Summ-2, respectively.

2.7.3.2. Building 832 Canyon OU Contaminant Concentrations and Distribution

At the Building 832 Canyon OU, VOCs (mostly TCE) are the primary COCs detected in ground water. Cis-1,2-DCE is a COC at both Buildings 830 and 832; chloroform and PCE are COCs at Building 830. Perchlorate and nitrate are secondary COCs. These constituents have been identified primarily in the Qal/WBR HSU (Figures 2.7-6, 2.7-10 and 2.7-13), $Tnsc_{1b}$ HSU (Figures 2.7-7, 2,7-11 and 2.7-14) and $Tnsc_{1a}$ HSU (Figure 2.7-8, 2.7-12 and 2.7-15). VOCs have also been detected at low concentrations in Building 832 Canyon in the $Tnbs_2$ and Upper $Tnbs_1$ HSUs (Figure 2.7-9).

2.7.3.2.1. VOC Concentrations and Distribution

VOCs detected in Building 830 area ground water consist primarily of TCE. During 2012, the other VOCs present above the reporting limit in the Building 830 source area were PCE, cis-1,2-DCE, trans-1,2-DCE, chloroform, 1,2-DCA, 1,1,2-TCA and Freon 11. Of these VOCs, only TCE, cis-1,2-DCE, trans-1,2-DCE, 1,2-DCA were detected at concentrations above their respective CA and/or EPA MCLs. VOC concentrations and distribution are discussed by HSU below.

Since remediation began in 1999 in the Building 830 source area, VOC concentrations in Qal/WBR HSU ground water near 830-SRC have decreased by an order-of-magnitude from a historic maximum of 10,000 µg/L (well SVI-830-035, 2003) to a 2012 maximum concentration of 1,600 µg/L (well SVI-830-035, February). VOC concentrations detected in soil vapor continue to decline in the Building 830 source area. VOC concentrations collected from dual extraction well W-830-1807 have decreased from a historic maximum concentration of 35 $ppm_{v/v}$ in 2004 to a 2012 maximum concentration of 0.79 $ppm_{v/v}$ (May). This well is screened across both the Qal/WBR and $Tnsc_{1b}$ HSUs. VOC concentrations detected in soil vapor collected from dual extraction well W-830-49 have decreased from a historic maximum concentration of 259 $ppm_{v/v}$ in 2007 to a 2012 maximum concentration of 1.5 $ppm_{v/v}$ (September). This well is screened in the $Tnsc_{1b}$ HSU.

VOCs detected in Building 832 area ground water consisted primarily of TCE. During 2012, the other VOCs present above the reporting limit in the Building 832 source area were cis-1,2-DCE, chloroform and Freon 11. Of these VOCs, only TCE was present in the Building 832 area at concentrations above its MCL cleanup standard during 2012.

Since remediation began in 1999 in the Building 832 source area, VOC concentrations in wells screened in the Qal/WBR HSU have decreased from a historic maximum of 1,800 µg/L (well W-832-18, 1998) to a 2012 maximum concentration of 299 µg/L in monitor well W-832-23 (August). Well W-832-23 is screened across both the Qal/WBR and $Tnsc_{1b}$ HSUs. Monitor well W-832-18, which is screened at a shallower depth than W-832-23, was dry during all 2012 sampling events. Ground water samples for VOC analyses were also not collected during 2012 from several other wells located in the Building 832 source area because the water table dropped below the screened intervals in these wells. These non-sampled wells were W-832-14, W-832-16, W-832-18, W-832-19, W-832-21 and W-832-22.

VOC concentrations detected in soil vapor are also declining in the Building 832 source area. VOC concentrations detected in soil vapor samples collected from well W-832-15 have decreased from a historic maximum concentration of 1.8 $ppm_{v/v}$ in 2001 to a 2012 maximum concentration of 0.18 $ppm_{v/v}$ (November). VOCs detected in well W-832-12 have decreased from a maximum concentration of 1.1 $ppm_{v/v}$ in 2008 to a 2012 maximum concentration of 0.32 $ppm_{v/v}$ (November). Both dual extraction wells are screened across the Qal/WBR and $Tnsc_{1b}$ HSUs.

During 2012, VOC concentrations in ground water samples taken from Qal/WBR HSU guard wells W-35B-01 and W-880-02, located south of Building 832 Canyon near the Site 300 southern boundary, were below reporting limits (<0.5 µg/L), except on one occasion. In June, PCE was detected in ground water samples collected from guard well W-880-02 at 0.51 µg/L, slightly above the reporting limit. VOC concentrations in these two guard wells have decreased from a historic maximum of 1.9 µg/L in well W-35B-01 in 2001.

Since remediation began in 2000 in the Building 830 source area, VOC concentrations in ground water in the $Tnsc_{1b}$ HSU have decreased from a historic maximum of 13,000 µg/L in extraction well W-830-49 (2003) to a 2012 maximum of 2,900 µg/L in downgradient well W-830-19 (February, April, and October). The maximum concentration observed in W-830-49 during 2012 was 1,400 µg/L (October). At the 830-DISS GWTS, VOC concentrations in $Tnsc_{1b}$ HSU artesian wells W-830-51, W-830-52, and W-830-53, have decreased from a historic maximum of 170 µg/L (extraction well W-830-51, 2002) to a 2012 maximum concentration of 28 µg/L in W-830-51 (February) and W-830-53 (July). Farther south along Building 832 Canyon, the leading edge of the $Tnsc_{1b}$ VOC plume continues to be contained within Site 300 boundary based on total VOC concentrations below the 0.5 µg/L reporting limit in guard wells W-830-1730 and W-4C. During 2012, a new monitor well, W-830-2806, was installed to the southwest of the Building 830 source area in the $Tnsc_{1b}$ HSU. This well will be added to the sampling plan after final well development and baseline sampling is complete.

Since remediation of the $Tnsc_{1a}$ HSU began in early 2007, VOC concentrations in ground water have generally decreased from 1,700 µg/L (monitor well W-830-27, 1998) to a 2012 maximum concentration of 1,200 µg/L in extraction well W-830-2214 (February). Although the current maximum concentration in all $Tnsc_{1a}$ HSU wells is currently less than the historical maximum, concentrations in extraction well W-830-2214 have been increasing since 2009. This well was installed in 2006 and initially had stable VOC concentration trends. Because of the low yields and limited recharge of this extraction well, increased pumping and hydraulic capture from this well is not possible. As recommended in the 2011 Five-Year Review (Helmig et al., 2011), a down gradient $Tnsc_{1a}$ well, W-830-2701, was installed in 2011 to be connected to 830-SRC. The decision whether to connect it as an extraction well to the 830-SRC treatment facility will be made after hydraulic testing is conducted in 2013.

Since remediation began in the Upper $Tnbs_1$ HSU, VOC concentrations in ground water have decreased from a historic maximum of 100 µg/L (monitor well W-830-28, 1998) to a 2012 maximum concentration of 27 µg/L in extraction well W-830-60 (February). The maximum VOC concentration observed in monitor well W-830-28 during the 2012 was 21 µg/L (February). During 2012, VOCs were not detected above the 0.5 µg/L reporting limit in guard wells W-830-15 and W-832-2112. Both wells are screened in the Upper $Tnbs_1$ HSU.

2.7.3.2.2. HE Compound Concentrations and Distribution

During 2012, HE compounds were not detected in ground water in any Building 832 Canyon OU wells.

2.7.3.2.3. Perchlorate Concentrations and Distribution

Perchlorate concentrations detected in Qal/WBR HSU ground water have decreased from a historic maximum of 51 µg/L (830-SRC monitor well W-830-34, 1998) to a 2012 maximum concentration of 13 µg/L (832-SRC monitor well W-832-13, March). During 2012, perchlorate was not detected in ground water from monitor well W-830-34 above the reporting limit of 4.0 µg/L. The maximum perchlorate concentration detected in ground water downgradient of the 832 source area during 2012 was 7.4 µg/L (February) in monitor well W-832-23. During 2012, perchlorate was not detected above the 4 µg/L reporting limit in Qal/WBR HSU guard wells W-35B-01 and W-880-02.

The maximum perchlorate concentration sampled in the $Tnsc_{1b}$ HSU ground water during 2012 was also 13 µg/L in well W-832-13 (March); this well is located in the Building 832 source area. Historically, monitor well W-830-58 has contained the highest perchlorate ground water concentration (26 µg/L, 2001); this well is located in the 830 source area. During 2012, the maximum perchlorate concentration in ground water collected from this well was 7.7 µg/L (February). Perchlorate was not detected above the reporting limit in $Tnsc_{1b}$ HSU guard wells W-830-1730, W-4C or W-880-03 during 2012; however, guard well W-880-03 was not sampled due to an inoperable pump.

During 2012, the maximum perchlorate ground water concentration detected in the $Tnsc_{1a}$ HSU was 7 µg/L in extraction well W-832-25 (July). The historic maximum perchlorate concentration (13 µg/L) was detected in 1999 in the $Tnsc_{1a}$ HSU extraction well W-832-25.

During 2012, perchlorate was not detected above the reporting limit of 4 µg/L in any ground water samples collected from the Upper $Tnbs_1$ HSU.

2.7.3.2.4. Nitrate Concentrations and Distribution

Nitrate ground water concentrations remain high in the vicinity of the Building 832 and 830 source areas and low or below the reporting limit (<0.5 mg/L) in the downgradient, deeper parts of all Building 832 Canyon HSUs.

During 2012, nitrate ground water concentrations detected in samples from the Qal/WBR HSU ranged from the <0.5 mg/L reporting limit (guard wells) near the site boundary to 180 mg/L in piezometer SVI-830-033 (February) located in the Building 830 source area. The historic maximum concentration of nitrate detected in the Qal/WBR HSU also occurred in SVI-830-033 (240 mg/L, 2008).

The maximum nitrate concentrations detected in samples of the $Tnsc_{1b}$ HSU ground water during 2012 was 190 mg/L in extraction well W-830-49 (February). Historically, well W-830-49 has contained the highest nitrate concentrations in the $Tnsc_{1b}$ HSU (501 mg/L, 1998). Nitrate concentrations in the $Tnsc_{1b}$ guard wells during 2012 ranged from <0.5 mg/L to 2.4 mg/L in well W-830-1730 (August), significantly below the 45 mg/L MCL cleanup standard.

During 2012, the maximum nitrate ground water concentration detected in samples from the $Tnsc_{1a}$ HSU was 110 mg/L in 830-SRC monitor well W-830-27 (February). Historically, well W-830-27 had the highest nitrate concentrations in the $Tnsc_{1a}$ HSU (160 mg/L, 2002). During 2012, nitrate ground water concentrations detected in samples collected from the Upper $Tnbs_1$ ranged from <0.5 mg/L to 7.9 m/L in extraction W-830-2215 (February). Historically, well W-830-28 has had the highest nitrate concentrations in the $UTnbs_1$ HSU (21 mg/L, 1997). During 2012, a nitrate concentration of 6.5 mg/L was detected in ground water collected from this well. Nitrate ground water concentrations were not detected above the 45 mg/L MCL cleanup standard in any Upper $Tnbs_1$ HSU guard wells during 2012. The very low nitrate concentrations in the downgradient areas and the absence of detectable nitrate in the southern site boundary guard wells are consistent with the interpretation that nitrate is naturally attenuating *in situ*.

2.7.3.3. Building 832 Canyon OU Remediation Optimization Evaluation

During 2012, ground water and soil vapor extraction wellfield operations continued in the Building 832 Canyon OU to prevent offsite plume migration, reduce source area concentrations, and remove contaminant mass. The expanded 832-SRC and 830-SRC extraction wellfields have increased hydraulic capture, while preventing the downward migration of contaminants into deeper HSUs and/or laterally toward the site boundary and Site 300 water-supply wells, Well 18 and Well 20. Ground water yield from many 830-SRC and 832-SRC extraction wells continues to be low and hydraulic capture is difficult to assess in some areas because these wells cannot maintain continuous operation. The low yields are due to a combination of low hydraulic conductivity geologic materials, dewatering, and limited recharge.

In the Qal/WBR and $Tnsc_{1b}$ HSUs, the extraction wellfield targets the highest VOC plume concentrations emanating from the Building 832 and Building 830 source areas, but steep terrain and unstable canyon bottom soil conditions limit the availability of sites for new wells. Ground water extraction is further constrained by limited recharge and declining water levels in both source areas. During 2012, some extraction wells were offline for part of the reporting period due to pump repairs and freeze protection. No long-term impact is expected as a result of these shutdowns.

Near the 832-SRC treatment facility, concentration trends in extraction wells have remained stable as declining water levels and low yields limit ground water extraction. Soil vapor extraction accounts for most of the VOC mass extracted from this area. During 2012, 14 g of total VOC mass were removed by the 832-SRC GWTS and 48 g were removed by the 832-SRC SVTS. At the 830-SRC treatment facility, both ground water and soil vapor extraction play an important role in removing VOC mass. At the 830-SRC treatment facility, 1,200 g of total VOC mass were removed by the GWTS and 940 g were removed by the SVTS during 2012. At 830-DISS GWTS, 48 g of VOC mass were removed during 2012. In addition, totals of 402 kg of nitrate and 7.3 g of perchlorate were removed by the 832-SRC, 830-SRC and 830-DISS GTWSs during 2012.

Active remediation of the $Tnsc_{1a}$ HSU began in 2007 and the $Tnsc_{1a}$ extraction wellfield currently consists of two wells: W-830-2214, located near the 830-SRC treatment facility, and W-832-25, located downgradient of the 832-SRC treatment facility in the distal area of this plume. Since 2007, total VOC ground water concentrations have remained stable in extraction well W-832-25, but continue to show increasing trends in extraction well W-830-2214. Water levels continue to decline in both the 830-SRC and 832-SRC areas, limiting continuous extraction from the $Tnsc_{1b}$ and $Tnsc_{1a}$ HSUs.

To increase hydraulic capture in the $Tnsc_{1a}$ HSU downgradient of extraction well W-830-2214, W-830-2701 was installed near Upper $Tnbs_1$ HSU extraction well W-830-60 in 2011. Since installation, VOC concentrations detected in this well have ranged from 0.76 µg/L to 11 µg/L, perchlorate concentrations have been below the reporting limit of 4 µg/L, and nitrate concentrations have been significantly below the 45 mg/L MCL cleanup standard. Per the recommendations of the 832 Canyon Five-Year Review (Helmig et al., 2011), this well may be connected to the 830-SRC treatment facility depending on concentrations present after a baseline hydraulic test is conducted in 2013. During 2012, one new $Tnsc_{1a}$ HSU monitor well, W-830-2806, was installed west of well W-830-2701. This well will be added to the sampling and analysis plan after final well development and baseline sampling are completed.

Extraction wells in the Upper $Tnbs_1$ target areas with the highest total VOC concentrations. Since remediation began in this HSU, the overall extent of total VOCs has also decreased significantly and ground water samples collected from monitor well W-830-1832, which is located on the leading edge of the VOC plume, have been below the reporting limit for three years. Ground water in Upper $Tnbs_1$ guard wells W-830-15 and W-832-2112, located downgradient of well W-830-1832 and upgradient of water-supply Well 20, continues to show analytical results near the 0.4 mg/L reporting limit and significantly below the 45 mg/L MCL cleanup standard for nitrate and below the reporting limits for all other COCs.

As described in the High Explosives Process Area section, well W-830-2216 extracts ground water from the $Tnbs_2$ HSU. Contamination in this well is probably due to a combination of sources located in the HEPA and Building 832 Canyon OUs. Since extraction began in 2007, total VOC concentrations in extraction well W-830-2216 have been consistently declining. During 2012, the maximum concentration of total VOCs in extraction well W-830-2216 was 5.4 µg/L (February). During 2012, the maximum total VOC concentration in nearby monitor well W-830-13, was 8.6 µg/L (March). TCE was the only VOC detected in W-830-2216 and W-830-13 during 2012. The extracted ground water is treated at the 830-DISS treatment facility.

As extraction proceeds from the 832-SRC, 830-SRC and 830-DISS extraction wells, it is expected that concentrations in all Building 832 Canyon HSUs will continue to decline. Over the past year, the extent of the VOC plume in the Upper $Tnbs_1$ HSU has decreased slightly and this trend is expected to persist with continued pumping. VOC concentration trends in the Upper $Tnbs_1$ HSU continue to be monitored closely because pumping at water-supply Well 20 and backup water-supply Well 18 has the potential to influence the distribution of contaminants. After Site 300 begins using the Hetch Hetchy reservoir as its main water supply, Well 20 will become a backup water-supply well and Well 18 will no longer be used.

2.7.3.4. Building 832 Canyon OU Remedy Performance Issues

No new issues were identified during this reporting period that could impact the long-term performance of the cleanup remedy for the Building 832 Canyon OU. The remedy continues to make progress toward cleanup and to be protective of human health and of the environment.

2.8. Site 300 Site-Wide OU 8

The Site 300 Site-Wide OU is comprised of release sites at which no significant impacts to ground water and no unacceptable risk to human health or the environment are present. For this reason, a monitoring-only interim remedy was selected for the release sites in the Site-Wide Record of Decision (U.S. DOE, 2008). The monitoring conducted during the reporting period for these release sites is discussed below. Analytical results and ground water elevation measurements obtained during 2012 from the OU 8 locations are presented in Appendices B and C, respectively.

2.8.1. Building 801 and Pit 8 Landfill

The Building 801 Firing Table was used for explosives testing until it was discontinued in 1998, and the firing table gravel and some underlying soil were removed. Waste fluid discharges to the Building 801 Dry Well from the late 1950s to 1984, resulted in contamination of the soil and ground water. Debris from the firing table was buried in the nearby Pit 8 Landfill until 1974. A map of the Building 801 and Pit 8 Landfill area showing the locations of the building, firing table, landfill, and monitor wells is presented on Figure 2.8-1.

2.8.1.1. Building 801 and Pit 8 Landfill Ground Water Monitoring

Wells K8-01, -02B, -03B, -04, and -05 monitor Building 801 ground water contaminants that were released from the Building 801 dry well. Wells K8-02B, K8-04, and K8-05 are also used as monitor wells to detect any releases from the Pit 8 Landfill. Detection monitoring of this landfill, which is discussed in Section 3.2, is conducted to determine if releases have occurred.

The sampling and analysis plan for ground water monitoring is presented in Table 2.8-1. This table delineates any additions made to the CMP.

During the reporting period, ground water monitoring was conducted in accordance with the CMP monitoring requirements with the following exceptions; seventeen required analyses were not performed due to an inoperable pump (one well).

The approximate generalized ground water flow direction, ground water elevations, and individual VOC concentrations, nitrate, and perchlorate for the $Tnbs_1/Tnbs_0$ HSU are posted on Figure 2.8-1.

2.8.1.2. Building 801 and Pit 8 Landfill Contaminant Concentrations and Distribution

At Building 801, the VOCs comprised of chloroform, 1,2-DCA and TCE are the primary COCs detected in ground water; perchlorate and nitrate are the secondary COCs. There are no COCs in ground water at the Pit 8 Landfill. The results of the detection monitoring of the Pit 8 Landfill are discussed in Section 3.2.

During 2012, the maximum total VOC concentration detected in ground water samples from wells in the Building 801/Pit 8 Landfill area was 5.2 µg/L (well K8-01, May). Well K8-01 is downgradient of the Building 801 dry well VOC release site and upgradient/cross-gradient of Pit 8. The maximum VOC concentration was comprised of 3.6 µg/L of TCE and 1.6 µg/L of 1,2-DCA. Of these COCs, only 1,2-DCA was detected above its MCL cleanup standard of 0.5 µg/L during 2012. However, the 2012 maximum 1,2-DCA concentration of 1.7 µg/L detected in well K8-01 (November) ground water represents a decrease from the historic maximum 1,2-DCA concentration of 5 µg/L detected in the same well in 1990. TCE was not detected above its 5 µg/L MCL cleanup standard and chloroform was not detected in any wells above the 0.5 µg/L reporting limit. Overall, VOC concentrations detected in ground water samples collected from wells downgradient of Building 801 have decreased from a historic maximum of 10 µg/L (well K8-01, 1990).

During 2012, perchlorate was not detected above its 4 µg/L reporting limit in ground water samples from any Building 801/Pit 8 monitor wells.

Nitrate concentrations in ground water in the vicinity of Building 801/Pit 8 Landfill have been relatively stable over time. The 2012 maximum nitrate concentration detected in ground water collected from the Building 801/Pit 8 Landfill area was 52 mg/L (well K8-04, May). This sample from monitor well K8-04 and a sample from monitor well K8-01 (49 mg/L, May; a duplicate sample collected the same day contained 38 mg/L) were the only samples that exceeded the 45 mg/L MCL cleanup standard for nitrate. The historic maximum nitrate concentration observed in the area is 64 mg/L, detected in samples collected from well K8-01 in 2002. The historic maximum nitrate detection in well K8-04 is 61 mg/L (May 2009). Nitrate concentrations in ground water at the Building 801/Pit 8 Landfill are generally similar to previous years.

Nitrate and 1,2-DCA are the only COCs remaining above their cleanup standards at Building 801.

2.8.2. Building 833

TCE was used as a heat-exchange fluid at Building 833 from 1959 to 1982 and was released through spills and rinse water disposal, resulting in TCE-contamination of soil and shallow perched ground water. A map showing the locations of the building and monitor wells is presented on Figure 2.8-2.

2.8.2.1. Building 833 Ground Water Monitoring

The sampling and analysis plan for ground water monitoring is presented in Table 2.8-2. This table delineates any additions made to the CMP.

During the reporting period, ground water monitoring was conducted in accordance with the CMP monitoring requirements with the following exceptions; eight required analyses were not performed because there was insufficient water in the wells to collect the samples.

The approximate generalized ground water flow direction, ground water elevations and individual VOC concentrations for the Tpsg HSU are posted on Figure 2.8-2.

2.8.2.2. Building 833 Contaminant Concentrations and Distribution

At Building 833, the VOCs TCE and cis-1,2-DCE are the primary COCs in ground water; there are no secondary COCs.

The Tpsg HSU is a shallow, highly ephemeral, perched water-bearing zone. During heavy rainfall events, this HSU may become saturated, but quarterly monitoring of the wells from 1993 to present has shown little evidence of saturation. When saturated, monitoring conducted since 1993 has shown a decline in VOC concentrations in Tpsg HSU ground water.

The historic maximum concentration of VOCs measured in the Tpsg HSU is 2,100 µg/L (entirely TCE) detected in monitor well W-833-03 in August 1992. The most recent sampling of well W-833-03 in June 2000, revealed 20 µg/L of VOCs (entirely TCE), showing a two orders of magnitude decrease in concentrations. Well W-833-03 has been consistently dry since 2000 including two attempts to sample in March and June 2012. During 2012, another monitor well screened in the Tpsg HSU, W-833-33, yielded a sample in March with 120 µg/L of VOCs (entirely TCE). In February 2011, this well yielded a sample with 150 µg/L of VOCs (entirely TCE). The historic maximum VOC concentration detected in well W-833-33 is 170 µg/L (entirely TCE) in 2008. During 2012, other than well W-833-33, the remaining seven wells screened in the Tpsg HSU were either dry or contained insufficient water to collect a sample.

The other primary COC, cis-1,2-DCE, has only been detected five times and most recently in 1993, all in well W-833-12. The historic maximum cis-1,2-DCE concentration was 58 µg/L, detected in 1993. This compound has not been detected in other area wells.

During 2012, VOCs were not detected in ground water samples collected in March and September from monitor well W-833-30 screened in the deeper $Tnbs_1$ HSU, indicating that VOC contamination continues to be confined to the shallow Tpsg perched water-bearing zone. The historic maximum VOC concentration in well W-833-30 is 1.6 µg/L (entirely PCE), detected in November 1992. This analytical result is suspect and considered spurious as it was only one of two reported detections of VOCs in a sample from this well. The other reported detection of VOCs occurred in the August 1992 sample, comprised of 0.7 µg/L of carbon disulfide and 0.8 µg/L of chloroform, both of which are likely laboratory artifacts. The other primary COC, cis-1,2-DCE, has never been detected in this deeper $Tnbs_1$ HSU well.

TCE in Tpsg HSU ground water is the only COC remaining above its cleanup standard (5 µg/L) at Building 833.

2.8.3. Building 845 Firing Table and Pit 9 Landfill

The Building 845 Firing Table was used from 1958 until 1963 to conduct explosives experiments. Leaching from Building 845 Firing Table debris resulted in minor contamination of subsurface soil with depleted uranium and HMX detected in samples collected from boreholes drilled in 1989. A map showing the locations of the building, landfill, and monitor wells are presented on Figure 2.8-3.

2.8.3.1. Building 845 and Pit 9 Landfill Ground Water Monitoring

No ground water COCs were identified for the Building 845/Pit 9 Landfill area. Wells K9-01 through K9-04 monitor ground water in the Building 845 and Pit 9 Landfill area to:

- Detect any future releases from the Pit 9 Landfill, and
- Detect any impacts to ground water from HMX and uranium in subsurface soil and rock.

These monitor wells are screened in the lower Neroly Formation $Tnsc_0$ HSU. Detection monitoring of the Pit 9 Landfill is discussed in Section 3.3.

The sampling and analysis plan for ground water monitoring is presented in Table 2.8-3. This table delineates any additions made to the CMP.

During the reporting period, ground water monitoring was conducted in accordance with the CMP monitoring requirements with the following exceptions; eight required analyses were not performed due to an inoperable pump in well K9-04.

The approximate generalized ground water flow direction, ground water elevations, HMX concentrations, uranium activities, and $^{235}U/^{238}U$ atom ratios for the $Tnsc_0$ HSU are presented on Figure 2.8-3.

2.8.3.2. Building 845 and Pit 9 Landfill Contaminant Concentrations and Distribution

There are no ground water COCs at the Building 845 and the Pit 9 Landfill. The detection monitoring constituents: VOCs, nitrate, tritium, perchlorate, HE compounds, uranium isotopes, Title 26 metals, lithium, and fluoride concentrations/activities in samples collected during 2012 were either below reporting limits or within the range of background concentrations. Because uranium and the HE compound HMX were identified as COCs in subsurface soil at Building 845/Pit 9 Landfill, ground water in this area is monitored for these constituents.

During 2012, HMX concentrations in ground water samples remain below the 1 µg/L reporting limit. Historically, HMX has not been detected above reporting limit since the four area monitor wells were installed in 1989.

In 2012, uranium activities in ground water samples remained very low (<1 pCi/L) and $^{235}U/^{238}U$ atom ratios indicate the presence of only natural uranium. The results of the detection monitoring of the Pit 8 Landfill are discussed in Section 3.2.

These data continue to indicate that there have been no releases from the Pit 9 Landfill nor impacts to ground water from HMX and uranium in subsurface soil.

2.8.4. Building 851 Firing Table

The Building 851 Firing Table has been used since 1962 to conduct explosives experiments. A map depicting the locations of the firing table and monitor wells is presented on Figure 2.8-4.

2.8.4.1. Building 851 Ground Water Monitoring

The sampling and analysis plan for ground water monitoring is presented in Table 2.8-4. This table delineates any additions made to the CMP.

During the reporting period, ground water monitoring was conducted in accordance with the CMP monitoring requirements with the following exceptions; one required analysis was not performed because there was insufficient water in the well to collect the sample.

Ground water elevations, total uranium activities, and $^{235}U/^{238}U$ atom ratios for the Tmss HSU are posted on Figure 2.8-4.

2.8.4.2. Building 851 Contaminant Concentrations and Distribution

At the Building 851 Firing Table, uranium is the primary and only COC detected in ground water; there are no secondary COCs.

Uranium activities in ground water in the Building 851 Firing Table area have always been well below the 20 pCi/L MCL cleanup standard for total uranium and within the range of background levels. Although background uranium activity at Site 300 may vary based on ground water age, major-ion chemistry, and aquifer lithology, single-digit uranium activities are clearly within the range of Site 300 background. However, ground water continues to be monitored to detect any impacts to ground water from uranium in subsurface soil and rock.

During 2012, maximum total uranium activity detected in ground water samples from wells in the Building 851 area was 1.3 pCi/L (well W-851-08, May); samples from the three remaining wells contained uranium activities below reporting limits. The historic maximum uranium activity in well W-851-08 is 2.06 pCi/L observed in 1993. The historic maximum uranium activity in ground water at Building 851 is 3.2 pCi/L (well W-851-07, 1991); the 2012 activity for well W-851-07 was below the reporting limit.

During 2012, the atom ratio of $^{235}U/^{238}U$ indicated the presence of some depleted uranium in samples from well W-851-06 (atom ratio of 0.0056). The samples from wells W-851-05, W-851-07 and W-851-08 contained only natural uranium. Due to the low mass of ^{235}U in the sample (less than reporting limit) for well W-851-05, the reporting limit was used as the numerator in the $^{235}U/^{238}U$ ratio calculation, resulting in an atom ratio (which is not quantifiable) that includes the range of atom ratios including that of enriched uranium. In reality, the uranium is wholly natural in this sample. Overall, uranium activities in ground water are similar to previous years and remain well below the 20 pCi/L MCL cleanup standard and within the range of natural background levels.

3. Detection Monitoring, Inspection, and Maintenance Program for the Pits 2, 3, 4, 5, 6, 7, 8, and 9 Landfills and Inspection and Maintenance Program for the Drainage Diversion System and Building 850 CAMU

The Detection Monitoring Program is designed to detect any future releases of contaminants from the Pit 2, 3, 4, 5, 6, 7, 8, and 9 Landfills. This section presents the results for ground water detection monitoring of these landfills, and any landfill inspections or maintenance conducted during the reporting period. This section also includes any inspection and maintenance activities conducted for the Pit 7 Drainage Diversion System and Building 850 CAMU during the reporting period.

3.1. Pit 2 Landfill

The Pit 2 Landfill was used from 1956 until 1960 to dispose of firing table debris from Buildings 801 and 802. Ground water data indicate that a past discharge of potable water to support a red-legged frog habitat located upgradient from the landfill may have leached depleted uranium from the buried waste. The frogs were relocated and the water discharge was discontinued, thereby removing the leaching mechanism. No contaminants were identified in surface or subsurface soil at the Pit 2 Landfill. No risk to human or ecological receptors has been identified at the Pit 2 Landfill.

3.1.1. Sampling and Analysis Plan Modifications

Detection monitoring of detection monitor wells located downgradient of the Pit 2 Landfill, is conducted annually for VOCs, nitrate, tritium, perchlorate, HE compounds, uranium isotopes, Title 26 metals, lithium, and fluoride. Detection monitoring wells for the Pit 2 Landfill include W-PIT2-1934, W-PIT2-1935, K2-01C, and NC2-08.

The sampling and analysis plan for the Pit 2 Landfill ground water Detection Monitoring Program is presented in Table 3.1-1.

During the reporting period ground water monitoring was conducted in accordance with the CMP monitoring requirements with the following exception; eleven required analyses were not performed due to an inoperable pump in K2-01C. There were no modifications made to the plan.

Analytical results and ground water elevation measurements obtained during 2012 are presented in Appendices B and C, respectively.

3.1.2. Contaminant Detection Monitoring Results

A map showing the locations of monitor wells and the Pit 2 Landfill is presented on Figure 2.5-1. Ground water elevation contour maps for the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs including the Pit 2 are presented on Figures 2.5-2 and 2.5-3, respectively. Depth to ground water within the $Tnbs_1/Tnbs_0$ HSU beneath the Pit 2 Landfill currently ranges from over 50 feet to over 70 feet.

The distribution of tritium in the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs, based on 2012 data is contoured on Figures 2.5-4 and 2.5-5, respectively. Concentrations of the uranium, nitrate, and perchlorate in Qal/WBR and $Tnbs_1/Tnbs_0$ ground water, based on 2012 data, are presented on Figures 2.5-6 through 2.5-11.

The 2012 ground water samples from monitor wells W-PIT2-2301 (May) and W-PIT2-2302 (May and November), screened in the Qal/WBR HSU and located downgradient from Pit 2 Landfill, did not contain tritium above the reporting limit/background activity (100 pCi/L). The maximum 2012 tritium activity within the $Tnbs_1/Tnbs_0$ HSU in the area immediately south of the Pit 2 Landfill was $3,520 \pm 714$ pCi/L (monitor well NC2-08, May). The historic maximum tritium activity of 49,100 pCi/L was detected in 1986 samples (January and August) from monitor well K2-01C. These data indicate that tritium activities in $Tnbs_1/Tnbs_0$ HSU ground water immediately downgradient of the landfill are decreasing and are currently a fraction of the historic maximum.

Uranium isotope data from ground water samples collected from Qal/WBR wells W-PIT2-2301 and W-PIT2-2302 during 2012 (May) contained low activities of total uranium (0.69 pCi/L and 0.14 pCi/L, respectively). The maximum 2012 uranium activity detected in a ground water sample from the Pit 2 area was 4.2 pCi/L (monitor well W-PIT2-1934, April). This well is completed in the $Tnbs_1/Tnbs_0$ HSU. The uranium activities detected in both the Qal/WBR and $Tnbs_1/Tnbs_0$ HSU ground water samples are well within the range of natural uranium background. Prior to 2005, potable water was discharged near to maintain a wetland habitat for red-legged frogs (a Federally-listed endangered species) within a drainage channel that extends along the northern and eastern margin of the Pit 2 Landfill. While this discharge occurred, increased uranium concentrations in wells in the Pit 2 area were observed. The release of depleted uranium from Pit 2 may have occurred during this time period as a result of this discharge. This discharge was discontinued in 2005. Since the discharge was discontinued, total uranium activities in ground water from $Tnbs_1/Tnbs_0$ HSU monitor wells W-PIT2-1934 and W-PIT2-1935, both located along the northern margin of the Pit 2 Landfill, have decreased. The samples collected from wells W-PIT2-1934 (above) and W-PIT2-1935 during 2012 and analyzed by mass spectrometry contained 4.2 and 2.7.pCi/L of uranium, respectively (April). The sample from well W-PIT2-1934 contained a small percentage of depleted uranium while the sample from well W-PIT2-1935 contained only natural uranium.

During 2012, perchlorate was detected above the 4 µg/L reporting limit but below the 6 µg/L MCL cleanup standard in a sample from one Pit 2 area well (NC2-08, 5.2 µg/L, May). The other detection monitoring constituents: VOCs, nitrate, HE compounds, Title 26 metals, lithium, and fluoride concentrations/activities in samples collected during 2012 were either below reporting limits or within the range of background concentrations.

There was no evidence of a new contaminant releases from the Pit 2 Landfill indicated by the 2012 ground water detection monitoring data.

3.1.3. Landfill Inspection Results

The Pit 2 Landfill was inspected during the first and second semesters of 2012. No problems were identified.

3.1.4. Annual Subsidence Monitoring Results

Annual subsidence monitoring was conducted during the second semester of 2012. No evidence of subsidence was detected.

3.1.5. Maintenance

No maintenance was necessary or conducted on Pit 2 during 2012.

3.2. Pit 6 Landfill

The Pit 6 landfill was used from 1964 to 1973 to bury waste in nine unlined debris trenches and animal pits, including shop and laboratory equipment and biomedical waste. The Pit 6 Landfill was capped and closed in 1997 to prevent further leaching of contaminants that likely resulted from percolation of rainwater through the buried waste. Detection monitoring of the Pit 6 Landfill is conducted to identify any future releases to ground water in accordance with the requirements of the Pit 6 Post-Closure Plan.

3.2.1. Sampling and Analysis Plan Modifications

Historically, detection monitoring was conducted quarterly in six wells located downgradient of the Pit 6 Landfill (EP6-06, EP6-08, EP6-09, K6-01S, K6-19, and K6-36) for halogenated VOCs, tritium, aromatic VOCs (benzene, toluene, ethylbenzene, and xylenes); beryllium, mercury, total uranium, gross alpha/beta, perchlorate, and nitrate. Also, historically, field measurements for pH, TDS, specific conductance, and temperature were collected quarterly. In 2012, DOE/NNSA proposed, and the regulatory agencies agreed that, starting in 2013, these wells will be sampled semi-annually for halogenated VOCs and tritium and annually for the remaining constituents. Field measurements will be collected annually. The regulatory agencies also agreed that the changes to the detection monitoring program would be implemented during second semester 2012, with third quarter 2012 results summarized in this report (2012 Annual CMR). The detection monitor wells were not sampled for analysis of any constituents during fourth quarter 2012. Results of the first and second quarter 2012 monitoring were reported in the previously submitted quarterly monitoring reports (Blake et al, 2012a and b). Results summarized in Section 3.2.2 below are for third quarter 2012 only. The results of the detection monitoring for 2012 are presented in Appendix B (Tables B-3.05 and B-3.06). Ground water elevation measurements obtained during 2012 are presented in Appendix C.

During third quarter 2012, ground water monitoring was conducted in accordance with detection monitoring requirements with the following exceptions: twenty-two required analyses were not performed because wells EP6-08 and K6-36 were dry.

3.2.2. Contaminant Detection Monitoring Results

A map showing the locations of monitor wells at the Pit 6 Landfill is presented on Figure 2.3-1. A ground water elevation contour map for the Qt-$Tnbs_1$ HSU is presented on Figure 2.3-2. The distribution of total VOCs and tritium in the Qt-$Tnbs_1$ HSU is presented on Figures 2.3-3 and 2.3-4, respectively. There was no evidence of a new contaminant release from the Pit 6 Landfill as indicated by the third quarter 2012 ground water detection monitoring data.

Data collected during the third quarter of 2012 do not differ significantly from the previous quarter. Wells K6-36 and EP6-08 were either dry or contained insufficient water to collect samples this quarter.

Tritium and VOCs that were released to ground water from the landfill prior to its closure in 1998 continue to be detected. Tritium activities continued to exceed the statistical limit of 100 pCi/L in ground water samples from one downgradient detection monitor well (K6-19) during the third quarter 2012 from a routine sample (173 pCi/L, July). Tritium activity in this well is lower than the level reported last quarter K6-19 (229 pCi/L). Historically, tritium activities in well K6-19 have dropped since September 1999 from the maximum of 2,520 pCi/L. Since then, tritium activities have decreased (Campbell, 2007; Blake et al., 2011) and have always been well below the 20,000 pCi/L MCL.

The VOCs detected in Pit 6 detection monitor wells, including TCE, were not detected at concentrations greater than the statistical limit in any ground water samples collected during the third quarter of 2012. TCE concentrations have decreased from a historic maximum of 250 µg/L (monitor well K6-19, 1988) to a 2012 maximum concentration of 8.7 µg/L (monitor well EP6-09, January). Further discussion of VOC distribution is presented in Section 2.3.2.1.1 of this CMR report. The other detection monitoring constituents: (aromatic VOCs, beryllium, mercury, total uranium, gross alpha/beta, perchlorate and nitrate) in samples collected from the detection monitor wells during third quarter 2012 were either below reporting limits, or below their respective statistical limit and MCLs.

3.2.3. Landfill Inspection Results

The Pit 6 Landfill was inspected during the second quarter of 2012 by Abri Engineering. Inspection results were summarized in the Second Quarter 2012 Detection Monitoring Report. No problems were reported.

3.2.4. Annual Subsidence Monitoring Results

Annual subsidence monitoring was conducted during the third quarter of 2012. No problems were reported.

3.2.5. Maintenance

A post-closure visual maintenance inspection was performed during the fourth quarter of 2012 by LLNL staff. With the exception of only a few minor maintenance procedures such as removing tumbleweeds from the drainage system, this inspection demonstrated the continued functional and structural integrity of the cap, vegetative cover, and drainage system.

3.3. Pit 8 Landfill

Pit 8 Landfill received debris from the Building 801 Firing Table until 1974, when it was covered with compacted soil. There is no evidence of contaminant releases from the landfill.

3.3.1. Sampling and Analysis Plan Modifications

Detection monitoring of detection monitor wells located downgradient of the Pit 2 Landfill, is conducted annually for VOCs, nitrate, tritium, perchlorate, HE compounds, uranium isotopes, Title 26 metals, lithium, and fluoride. Detection monitoring wells for the Pit 8 Landfill include downgradient wells K8-02B, K8-04, and K8-05. Data from wells K8-01 and K8-03B that are located upgradient from the Pit 8 Landfill and downgradient of the Building 801 release site are also used for comparative purposes.

The sampling and analysis plan for the Pit 8 Landfill ground water Detection Monitoring Program is presented in Table 2.8-1.

During the reporting period, ground water monitoring was conducted in accordance with the CMP monitoring requirements with the following exceptions; seventeen required analyses were not performed due to inoperable pumps.

Analytical results and ground water elevation measurements obtained during 2012 are presented in Appendices B and C, respectively.

3.3.2. Contaminant Detection Monitoring Results

A map of the Building 801 and Pit 8 Landfill area showing the locations of the building, firing table, landfill, monitor wells and 2012 ground water elevations and total VOC, perchlorate, and nitrate concentrations is presented as Figure 2.8-1.

Historic and current data indicate that VOCs detected in ground water in the Pit 8 Landfill area are the result of releases from the former Building 801D dry well, which have migrated downgradient from Building 801 to the area beneath the landfill. The highest concentration (5.2 µg/L) of VOCs, comprised of 3.6 µg/L of TCE and 1.6 µg/L of 1,2-DCA, during 2012 (May) continues to be observed at monitor well K8-01, located immediately upgradient of Pit 8 and downgradient of Building 801. The presence of VOCs (1.5 µg/L of TCE and 0.8 µg/L of 1,2-DCA) in ground water samples from monitor well K8-04, immediately downgradient of the Pit 8 Landfill (2.3 µg/L, May) appears to be a continuation of the VOC plume originating at the Building 801 dry well and not indicative of a release from the Pit 8 Landfill. All the 2012 samples from these two wells contained 1,2-DCA in excess of the 0.5 µg/L MCL cleanup standard, to a maximum of 1.7 µg/L (K8-01, November). The maximum 2012 nitrate concentration detected in a ground water sample from a well in the Pit 8 Landfill area was 52 mg/L (monitor well K8-04, May). A duplicate sample from upgradient monitor well K8-01 (49 mg/L, May) was the only other sample from the Pit 8 area that exceeded the 45 mg/L cleanup standard for nitrate.

Tritium activities in all samples collected from wells in the Pit 8 Landfill area during 2012 were below the reporting limit (<100 pCi/L), except for the regular and duplicate samples from monitor well K8-01 (110 ± 76.7 and 141 ± 66.0 pCi/L, respectively). These activities are all within the range of background.

The other detection monitoring constituents: perchlorate, HE compounds, uranium isotopes, Title 26 metals, lithium, and fluoride concentrations/activities in samples collected during 2012 from wells upgradient/cross-gradient and downgradient of the Pit 8 Landfill were either below reporting limits or within the range of background concentrations.

Of the constituents monitored during 2012 as part of the Detection Monitoring Program in $Tnbs_1/Tnbs_0$ HSU ground water from Pit 8 Landfill area wells, only 1,2-DCA and nitrate exceeded applicable cleanup standards.

There was no evidence of a new contaminant release from the Pit 8 Landfill indicated by the 2012 ground water detection monitoring data.

3.3.3. Landfill Inspection Results

The Pit 8 Landfill was inspected during the first and second semesters of 2012. No problems were reported.

3.3.4. Annual Subsidence Monitoring Results

Annual subsidence monitoring was conducted during the second semester of 2012. No evidence of subsidence was detected.

3.3.5. Maintenance

No maintenance was necessary or conducted at Pit 8 during 2012.

3.4. Pit 9 Landfill

Debris generated at the Building 845 Firing Table was buried in the Pit 9 Landfill from 1958 until 1963. There has been no evidence of contaminant releases from the Pit 9 Landfill.

3.4.1. Sampling and Analysis Plan Modifications

Detection monitoring is conducted in wells located downgradient of the Pit 9 Landfill, annually for VOCs, nitrate, tritium, perchlorate, HE compounds, uranium isotopes, Title 26 metals, lithium, and fluoride. Detection monitoring wells for the Pit 9 Landfill include K9-01, K9-02, K9-03, and K9-04.

The sampling and analysis plan for the Pit 9 Landfill ground water Detection Monitoring Program is presented in Table 2.8-3.

During the reporting period, ground water monitoring was conducted in accordance with the CMP monitoring requirements with the following exceptions; eight required analyses were not performed due to an inoperable pump in K9-04.

Analytical results and ground water elevation measurements obtained during 2012 are presented in Appendices B and C, respectively.

3.4.2. Contaminant Detection Monitoring Results

A map showing the locations of the building, landfill, monitoring wells, approximate generalized ground water flow direction, ground water elevations, HMX concentrations, uranium activities, and $^{235}U/^{238}U$ atom ratios is presented on Figure 2.8-3. The detection monitoring constituents: VOCs, nitrate, tritium, perchlorate, HE compounds, uranium isotopes, Title 26 metals, lithium, and fluoride concentrations/activities in samples collected during 2012 were either below reporting limits or within the range of background concentrations. There was no evidence of a new release from the Pit 9 Landfill in 2012.

3.4.3. Landfill Inspection Results

The Pit 9 Landfill was inspected during 2012.

3.4.4. Annual Subsidence Monitoring Results

Annual subsidence monitoring was conducted during the second semester of 2012. No evidence of subsidence was detected.

3.4.5. Maintenance

No maintenance was necessary or conducted at Pit 9 during 2012.

3.5. Pit 7 Complex Landfills

The Pit 3, 4, 5, and 7 Landfills are collectively designated the Pit 7 Landfill Complex. Firing table debris containing tritium, depleted uranium, and metals was placed in the pits in the 1950s through the 1980s. The Pit 4 and 7 Landfills, and about 25-30% of Pit 3, were capped in 1992. During years of above-normal rainfall (i.e., 1997-1998 El Niño), ground water rose into the bottom of the landfills and the underlying contaminated bedrock. This resulted in the release of tritium, uranium, VOCs, perchlorate, and nitrate to ground water. In addition to these COCs, ground water samples from Pit 7 Complex detection monitor wells are also analyzed for metals, HE compounds, and PCBs as these constituents may have been contained in the firing table gravels placed in the landfills.

3.5.1. Sampling and Analysis Plan Modifications

Detection monitoring is conducted in wells located downgradient of the Pit 7 Landfill Complex annually for VOCs, nitrate, tritium, perchlorate, HE compounds, uranium isotopes, Title 26 metals, lithium, fluoride, and PCBs.

The sampling and analysis plan for the Pit 7 Complex Landfill ground water Detection Monitoring Program is presented in Table 2.5-8.

During the reporting period, ground water monitoring was conducted in accordance with the CMP monitoring requirements with the following exceptions; ten required analyses were not performed due to an inoperable pump.

Analytical results and ground water elevation measurements obtained during 2012 are presented in Appendices B and C, respectively.

3.5.2. Contaminant Detection Monitoring Results

A map showing the locations of detection monitor wells and the Pit 7 Complex Landfill is presented on Figure 2.5-1. Wells K7-01, K7-03, K7-06, K7-09, K7-10, NC7-26, NC7-47 and NC7-48 comprise the current detection monitoring well network for the Pit 7 Complex. Wells K7-01, K7-03 and NC7-26 are located downgradient of Pit 5 and Pit 7; well K7-06 is upgradient of Pit 7, wells K7-09 and K7-10 are cross-gradient of Pits 3, 5, and 7; well NC7-48 is immediately downgradient of Pit 7, and well NC7-47 is far downgradient of Pits 3 and 7.

The detection monitor wells are screened in the following HSUs:

- NC7-48: Qal/WBR HSU.
- K7-01 and K7-06: Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs.
- K7-03, K7-10, NC7-26 and NC7-47: $Tnbs_1/Tnbs_0$ HSU.
- K7-09: $Tnsc_0$ HSU. Well K7-09 was not sampled during the first semester due to an inoperable pump. It was sampled during the second semester.

Ground water extraction and treatment at the PIT7-Source (PIT7-SRC) facility began in March 2010. Pumping on the extraction wells proximal to Pits 3 and 5 has an impact on the distribution and magnitudes of COC concentrations observed.

Depth to ground water is currently a minimum of 10-15 feet below the buried waste in Landfill Pits 3, 4, 5 and 7.

3.5.2.1. Tritium

The Pit 3 and 5 Landfills have been identified as the sources of previous releases of tritium to ground water. The Pit 7 Landfill is not an apparent source of tritium in ground water as most of the tritium-bearing experiments conducted at Site 300 occurred prior to its opening in 1979 (Taffet et al., 2008).

The highest tritium activity detected in 2012 ground water sample from a Pit 7 Complex detection monitor well was 70,200 pCi/L (April) in $Tnbs_1/Tnbs_0$ HSU well K7-03. Tritium activities in samples from this well have generally been declining from the historic maximum activity detected in a water sample from this well of 216,000 pCi/L in March 1993. Last year, the maximum tritium activity in a sample from this well was 71,000 pCi/L.

Tritium activities in samples from detection monitor well K7-01 have decreased from the historic maximum activity of 72,900 pCi/L in October 1999 to a 2012 maximum activity of 32,100 pCi/L detected in the October sample from this well. Last year, a maximum tritium activity of 38,600 pCi/L was detected in the May 2011 sample from this well.

Tritium activities in samples from detection monitor well NC7-26 have decreased from the historic maximum activity of 30,000 pCi/L to a 2012 maximum activity of 740 pCi/L in the October sample. Last year, the maximum tritium activity in a sample from this well was 1,800 pCi/L.

Tritium activities in all samples collected this semester from upgradient well K7-06, cross-gradient wells K7-09 and K7-10, downgradient well NC7-48, and far downgradient well NC7-47 were all below the 100 pCi/L reporting limit/background activity.

In general, the extent of tritium in the $Tnbs_1$/$Tnbs_0$ and Qal/WBR HSUs in the Pit 7 Complex area are consistent with those observed in 2011, and tritium activities continue to decrease from the historical maximum and 2011 activities. No new release of tritium from the landfills is indicated by the 2012 ground water tritium data.

A discussion of tritium that was previously released to ground water from the Pit 7 Complex Landfills is presented in Section 2.5.5.2.1.

3.5.2.2. Uranium

Depleted uranium was previously released to ground water from sources in Pits 3, 5 and 7 (Taffet et al., 2008). Uranium activities were below the 20 pCi/L MCL cleanup standard in all detection monitor well samples collected during 2012. The maximum uranium activity in a 2012 sample from a detection monitor well was 16 pCi/L (May) from well K7-01. Uranium activities in ground water samples from this well have generally fluctuated within a few pCi/L of the 20 pCi/L MCL cleanup standard since the 1997-1998 El Niño and $^{235}U/^{238}U$ isotopic ratios have indicated added depleted uranium. The historic maximum uranium activity detected in a sample from this well was 27 pCi/L (September 1984).

The next highest uranium activity in a 2012 detection monitor well sample was 5.9 pCi/L in the April 2012 sample from well NC7-48. Uranium activities in samples from this well have declined from the historic maximum of 104.9 pCi/L detected in this well after the 1997-98 El Niño (March 1998). Ground water samples from this well have historically contained depleted uranium.

Uranium activities in samples from all detection monitor wells have generally decreased from their historic maximum uranium activities. During 2012, uranium activities in samples from wells K7-06, K7-10, NC7-26, and NC7-47 are generally near or below individual isotope detection limits.

The extent of uranium in Qal/WBR and $Tnbs_1$/$Tnbs_0$ ground water is similar to recent years. Ground water uranium data from 2012 do not indicate any new releases of uranium from the Pit 7 Complex Landfills. A discussion of uranium that was previously released to ground water from the Pit 7 Complex Landfills is presented in Section 2.5.5.2.2.

3.5.2.3. Nitrate

The maximum nitrate concentration detected in a 2012 sample from a Pit 7 Complex detection monitor well was 65 mg/L (April) from $Tnbs_1$/$Tnbs_0$ HSU well NC7-47. Ground water samples from well NC7-47 have never contained any other COCs in excess of background concentrations. None of the other detection monitoring wells yielded 2012 samples containing nitrate concentrations in excess of the 45 mg/L MCL cleanup standard. Nitrate concentrations in samples from the other detection monitor wells ranged from <0.5 mg/L at well NC7-26 to 41 mg/L at well K7-01. Nitrate concentrations trends in the detection monitoring wells are all stable, and generally decreasing from their historic maxima. The current distribution of nitrate in Pit 7 Complex ground water has declined from previous years. Current data do not indicate any new releases of nitrate from any of the landfills. A discussion of nitrate that was previously released to ground water from the Pit 7 Complex Landfills is presented in Section 2.5.5.2.3.

3.5.2.4. Perchlorate

Wells K7-01 (screened in the Qal/WBR and $Tnbs_1/Tnbs_0$ HSUs) and K7-03 (screened in the $Tnbs_1/Tnbs_0$ HSU) are the only detection monitor wells from which ground water samples have historically contained perchlorate at concentrations in excess of the 4 µg/L reporting limit. Perchlorate concentrations in samples from these wells have decreased from the historic maximum of 25 µg/L at well K7-01 (July 2006) and 29 µg/L at well K7-03 (April 2005) to 10 µg/L and 6.7 µg/L of perchlorate, respectively, during 2012. The overall extent of perchlorate in ground water in the Pit 7 Complex area did not change significantly from 2011 to present. The 2012 data do not indicate any new releases of perchlorate from any of the landfills. A discussion of perchlorate that was previously released to ground water from the Pit 7 Complex landfills is presented in Section 2.5.5.2.4.

3.5.2.5. Volatile Organic Compounds

During 2012, VOCs were detected in samples from only two detection monitor wells at concentrations above reporting limits. These samples from wells K7-01 (June) and K7-03 (April) contained 1.2 µg/L and 1.1 µg/L of total VOCs (all as TCE), respectively. The historic maximum VOC concentrations in samples from these wells were 20 µg/L (well K7-01, May 1985) and 15.2 µg/L (well K7-03, July 1985). VOC concentrations have generally been declining in samples from these wells since the times of those maxima. The overall extent of VOCs in ground water in the Pit 7 Complex area did not change significantly from 2011 to present. The 2012 data do not indicate any new releases of VOCs from any of the landfills. A discussion of VOCs that were previously released to ground water from the Pit 7 Complex Landfills is presented in Section 2.5.5.2.5.

3.5.2.6. Title 26 Metals and Lithium

During 2012, Title 26 metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium and zinc) and lithium were not detected in ground water samples from the Pit 7 Complex area detection monitoring wells at concentrations in excess of background concentrations. These data did not indicate a release of metals during the semester from any of the landfills.

3.5.2.7. High Explosives (HE) Compounds

During 2012, HE compounds were not detected in ground water samples from the Pit 7 Complex area detection monitoring wells at concentrations in excess of individual compound detection limits of 1 to 2 µg/L. These data did not indicate a release of HE compounds during the semester from any of the landfills.

3.5.2.8. Polychlorinated Biphenyls (PCBs)

During 2012, PCB compounds were not detected in ground water samples from the Pit 7 Complex area detection monitoring wells at concentrations in excess of individual compound detection limits of approximately 0.5 µg/L. These data do not indicate a release of PCBs during the year from any of the landfills.

3.5.3. Landfill Inspection Results

The Pit 7 landfill cap engineering inspection was conducted on May 2, 2012. The independent professional engineer recommended that vegetative debris be removed from the drainage ditch and that joints between concrete sections be sealed as needed. He also recommended repairing animal burrows greater than 6 inches in diameter. The landfill cover was also inspected by LLNL twice during 2012. No other issues were observed. The Pit 3 and 5 Landfill covers were not inspected during 2012.

3.5.4. Annual Subsidence Monitoring Results

Annual subsidence monitoring of the Pit 7 landfill was conducted during the second semester of 2012. No evidence of subsidence was observed.

3.5.5. Maintenance

Maintenance was not performed on any of the pit covers during the first semester of 2012. The drainage channels were cleared of debris, concrete joints were sealed, and the animal burrows in excess of 6 inches in diameter were filled early in the second semester of 2012.

3.6. Pit 7 Complex Drainage Diversion System

A Drainage Diversion System was constructed in the Pit 7 Complex area of OU 5 in 2007-2008 (Section 2.6). The Pit 7 Drainage Diversion System is inspected and maintained per the requirements of the Inspection and Maintenance Plan (Taffet et al., 2008).

3.6.1. Drainage Diversion System Inspection Results

Monthly rainy season inspections occurred during 2012. The drainage diversion system was inspected on January 12 and March 13 (in-season), April 11 (post-season), October 15 (pre-season), and November 15 and December 3 (in-season). Post-season inspections indicated sediment and vegetative debris accumulation. In addition, squirrel damage to the channel banks was observed during the January, March, and April inspections. The animal burrow damage was confined to the eastern vegetated channel portion of the drainage diversion system. Some tumbleweeds were observed during the October, November, and December inspections. No other issues were noted.

3.6.2. Drainage Diversion System Maintenance

Vegetative debris and sediment buildup were removed during the first semester of 2012. In addition, during the first semester, squirrel damage to the channel banks was repaired and rip rap that had become dislodged was moved back to around pipes at southern settling basin. The tumbleweeds were removed during the October, November and December inspections.

3.7. Building 850 CAMU

A CAMU was constructed in the Building 850 area of OU 5 in 2009 as part of the Building 850 Removal Action (Section 2.5). The Building 850 CAMU is inspected and maintained per the requirements of the Inspection and Maintenance Plan (SCS Engineers, 2010).

3.7.1. Building 850 CAMU Inspection Results

CAMU inspections are typically conducted during the second semester in July (post-season) and October (pre-season). A CAMU inspection was conducted once in 2012 on September 17. Weeds were noted on the edges of the CAMU. No other issues were noted.

3.7.2. Building 850 CAMU Maintenance

To mitigate the weeds growing on the edges of the CAMU, a pre-emergent herbicide was applied during the second semester of 2012.

4. Risk and Hazard Management Program

The goal of the Site 300 Risk and Hazard Management Program is to protect human health and the environment by controlling exposure to contaminants during remediation. Risk and hazard management is conducted in areas of Site 300 where the exposure point risk exceeded 1×10^{-6} or the hazard index exceeded 1 in the baseline risk assessment. Institutional controls have been implemented to manage risks. The CMP/CP requires that the institution controls in place at Site 300 be evaluated annually. The completed Institutional Controls Monitoring Checklist for 2011 is presented in Appendix D.

4.1. Human Health Risk and Hazard Management

The CMP/CP requires that the risk and hazard associated with volatile contaminants in the subsurface migrating upward into indoor and outdoor ambient air and being inhaled by workers be re-evaluated annually using current data, where the risk exceeds 10^{-6} and the hazard indices exceeds 1.

The onsite worker inhalation risk associated with vapor intrusion from the subsurface into indoor and outdoor air is discussed in Section 4.1.1. The onsite worker inhalation risk associated with springs is discussed in Section 4.1.2.

4.1.1. Annual Inhalation Risk Evaluation

The CMP (Dibley et al., 2009a) requires that the risk and hazard associated with volatile contaminants in the subsurface migrating upward into indoor and outdoor ambient air and being inhaled by workers be re-evaluated annually using current data. The following risk evaluations were performed during 2012:

- Indoor Ambient Air in Building 834D
- Indoor Ambient Air in Building 830

The risk and hazard management is complete for a building when the estimated risk is below 10^{-6} and the hazard index is below 1 for two consecutive years. The risk and hazard management has been completed and was not evaluated for the following:

- Outdoor Ambient Air Near Building 834D (Dibley et al., 2003 and 2004)
- Outdoor Ambient Air Near Building 815 (Dibley et al., 2003 and 2004)
- Outdoor Ambient Air in Building 854F (Dibley et al., 2003 and 2004)
- Outdoor Ambient Air Near Building 830 (Dibley et al., 2003 and 2004)
- Indoor Ambient Air Near Building 832F (Dibley et al., 2003 and 2004, building demolished in 2005)
- Indoor Ambient Air in Building 854F (building demolished in 2005)
- Indoor Ambient Air in Building 854A (Dibley et al., 2005 and 2006)
- Indoor Ambient Air in Building 833 (Dibley et al., 2010a and 2011)

Institutional controls, such as restricting access to or activities in areas of elevated risk, remained in place during 2012 to prevent unacceptable exposure to contaminants during remediation for those buildings and areas that continue to show an unacceptable risk and/or hazard.

Between 2003 and 2005, inhalation risk and hazard resulting from transport of VOC vapors from ground water to the building foundations and subsequently into indoor ambient air was estimated using the Johnson-Ettinger Model (U.S. EPA, 2002). Between 2005 and 2011, the model results were updated to reflect the chemical-specific toxicity criteria referenced in the "Interim Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air" (DTSC, 2005). In 2011, U.S. EPA updated the toxicity values for a number of contaminants, including TCE (U.S. EPA, 2011). Also in 2011, the California DTSC updated the toxicity values for a number of contaminants (DTSC, 2011). The current inhalation risk and hazard resulting from transport of VOC vapors from ground water to the building foundations and subsequently into indoor ambient air was estimated using the

Johnson-Ettinger Model (U.S. EPA, 2002) after the cancer inhalation unit risk (IUR) and the non-cancer reference concentration (RfC) were updated based on the 2011 California Department of Toxic Substances criteria. For TCE, the IUR was 4.1 x 10^{-6} per (micrograms per meters cubed [µg/m^3])$^{-1}$ and the RfC was 2.0 x 10^{-3} milligrams per meters cubed (mg/m^3). For vinyl chloride, the IUR was 7.8 x 10^{-5} per (µg/m^3)$^{-1}$ and the RfC was 1.0 x 10^{-1} mg/m^3. For PCE, the IUR was 5.9 x 10^{-6} per (µg/m^3)$^{-1}$ and the RfC was 3.5 x 10^{-2} mg/m^3.

The following conservative methodology is used in developing the input values for each model. A representative soil column was developed combining the borehole geology information from wells and boreholes that are within a 100 foot radius of the modeled building or site. The resulting soil column was simplified into three strata as input to the Johnson-Ettinger Model by conservatively selecting the most permeable soil types for each stratum. The highest observed ground water elevation at the site was used as the source depth. The highest observed VOC ground water concentration in a well located in close proximity to the building or site being modeled was selected as the source concentration. If the VOC of interest was not detected in any nearby wells, then the highest detection limit was used as the source concentration. For the Johnson-Ettinger Model, site-specific building dimensions were used.

The individual chemical risk, hazard index, and cumulative risk values estimated for the indoor ambient air are reported in Table 4.1-1 for those buildings evaluated in 2012. Generally the VOC concentrations in wells show a declining trend, specifically in areas where there are ground water and soil vapor treatment systems in operation.

As shown in Table 4.1-1, the estimated risk in 2012 remained above 10^{-6} and/or the hazard quotient remained above 1 for the indoor ambient air exposure pathway evaluated at Building 834D. At Building 830, the estimated risk in 2012 was also above 10^{-6} and/or the hazard quotient was above 1 for the indoor ambient air exposure pathway evaluated. Accordingly, the building occupancy restrictions, engineered controls, monitoring, and annual risk evaluations will continue for Buildings 834D and 830 in accordance with the CMP/CP. In addition, during 2012, active remediation using ground water and soil vapor extraction continued at both locations.

4.1.2. Spring Ambient Air Inhalation Risk Evaluation

4.1.2.1. VOC-Contaminated Springs

The CMP requires annual sampling of outdoor air above VOC-contaminated surface water, when surface water is present to determine VOC concentrations.

An unacceptable risk or hazard was identified during the baseline risk assessment (Webster-Scholten, 1994) for the inhalation of VOCs at four locations:

1. Spring 3 (Building 832 Canyon OU) – Cumulative risk 7 x 10^{-5}, hazard index 2.3 due to TCE and PCE.
2. Spring 5 (HEPA OU) – Cumulative risk 1 x 10^{-5}, due to 1,1-DCE and TCE.
3. Spring 7 (Pit 6 Landfill OU) – Cumulative risk 4 x 10^{-5}, hazard index 1.5 due to TCE, PCE 1,2-DCA, and chloroform.
4. The Carnegie State Vehicular Recreation Area pond (offsite, east of the Pit 6 Landfill) – Cumulative risk 3 x 10^{-6} (hypothetical), due to TCE.

The risk and hazard management evaluation for Spring 3 was completed in 2009. The estimated risk has remained below 10^{-6} and the hazard index remained below 1 for two consecutive years. No unacceptable risk or hazard to onsite workers exists. Therefore, the annual ambient air inhalation risk evaluation was continued for the following springs in 2012:

- Ambient Air Near Spring 5 in the HEPA OU.

- Ambient Air Near Spring 7 in the Pit 6 Landfill OU.

No surface water or green hydrophilic vegetation was present at Springs 5 and 7 during first semester 2012, therefore no ambient air VOC sampling was performed. Springs 5 and 7 have been devoid of surface water or green hydrophilic vegetation since monitoring began in 2003. These springs will be monitored for the presence of surface water or green hydrophilic vegetation in 2013 and air samples will be collected if water is present.

Water-supply well CARNRW-2 is used to fill the Carnegie State Vehicular Recreation Area pond. The baseline risk assessment indicated that if the VOC source in the Pit 6 Landfill OU was not controlled, contaminated ground water could migrate to well CARNRW-2 and result in an unacceptable risk from inhaling VOC vapors volatilizing from the pond. However, an engineered cap was placed over the Pit 6 Landfill preventing infiltration of precipitation and further releases of contaminants from the landfill. The VOC plume originating from the Pit 6 Landfill has not impacted CARNRW-2. No unacceptable risk or hazard exists.

4.1.2.2. Tritium-Contaminated Springs

An unacceptable cumulative risk of 1×10^{-3} was identified in the baseline risk assessment for the inhalation of tritium at Well 8 Spring in the Building 850 area. The risk associated with the inhalation of tritium vapors volatilizing from Well 8 Spring is based on the maximum tritium activity detected (770,000 pCi/L) in 1972. The tritium activities in Well 8 Spring have steadily declined over the decades. The 2009 CMP/CP indicated that the inhalation risk associated with tritium in surface water volatilizing into outdoor ambient air would be re-evaluated annually when surface water is present. The surface water will be sampled and analyzed for tritium semi-annually. The maximum activity will be compared to the current tritium vapor PRG for tap water.

The risk re-evaluation of Well 8 Spring could not be performed in 2012 due to lack of water in the spring. No samples were collected from Well 8 Spring in 2012. Sampling and risk re-evaluation will be conducted in 2013 if surface water is present. Workers do not occupy or plan to occupy the site in the near future, therefore site use restrictions will be maintained and the annual sampling continued until the activity remains below the PRG for two years.

4.2. Ecological Risk and Hazard Management

4.2.1. Ecological Risk and Hazard Management Measures and Contingency Plan Actions Required by the 2009 Compliance Monitoring Report/Contingency Plan

The ecological risk and hazard management measures described in the 2009 CMP/CP (Dibley et al., 2009a) were developed to meet the Remedial Action Objectives for environmental protection. These objectives are to:

1. Ensure ecological receptors important at the individual level of ecological organization (special-status species, i.e., State of California or federally-listed threatened or endangered species or State of California species of special concern) do not reside in areas where relevant hazard indices exceed 1.
2. Ensure changes in contaminant conditions do not threaten wildlife populations and vegetation communities.

The ecological risk and hazard management measures required by the 2009 CMP/CP include:

- Periodically evaluating available biological survey data from the Buildings 801, 851 and the HEPA to determine potential population-level impacts to ground squirrel and deer exposed to cadmium in surface soil in these areas, as well as re-evaluating the ecological hazard associated with cadmium in surface soil in these areas.

- Ensuring the integrity of the Pit 7 Complex landfill caps to prevent exposure to burrowing animals from uranium.
- Evaluating changes in existing contaminant and ecological conditions in OUs 1 through 8 every five years, including re-evaluating VOCs in burrow air in the event that ground water VOC concentrations increase to levels that previously posed a risk to burrowing animals.

As part of the contingency plan presented in the 2009 CMP/CP, periodic review of available biological survey data (e.g., preconstruction survey data, biological monitoring data, surveys conducted for Environmental Impact Statement/Environmental Impact Report (EIS/EIR) preparation, etc.) for the presence of new special-status species is required. Any new special-status species identified is to be evaluated for potential impact from the presence of contamination using the process laid out in the 2009 CMP/CP. The results of this evaluation will be reported on in the annual CMRs.

In addition to reporting on the ecological risk and hazard management and contingency plan measures described in the 2009 CMP/CP, this and future compliance monitoring reports will address several new constituents identified in surface soil and surface water during the most recent five year ecological review for which ecological hazard could not be adequately evaluated due to either a limited data set or the lack of background data. The results of the most recent Five-Year Ecological Review were reported in the 2008 Annual CMR (Dibley et al., 2009b).

This report, and subsequent compliance monitoring reports prepared during the reporting period in which the 2009 CMP/CP is active, will report on ecological risk and hazard management measures and ecological contingency plan actions required by the 2009 CMP/CP.

4.2.2. Cadmium in Surface Soil

As described above, the 2009 CMP/CP required that available biological survey data be periodically reviewed to identify changes in the abundance of deer or ground squirrel over time that could indicate impacts to the populations in the Buildings 801 and 851 areas, and the HEPA from cadmium in surface soil. However, as reported on in the 2011 First Semester CMR, a review of the EPA Ecological Soil Screening Levels for cadmium (U.S. EPA, 2005) and a re-evaluation of the cadmium baseline ecological risk assessment conducted in the Site-Wide Remedial Investigation (SWRI) (Webster-Scholten et al., 1994) concluded that deer and ground squirrels are not at risk from cadmium in surface soil in these areas. Therefore, reviewing available biological survey data from the Buildings 801 and 851 areas and the HEPA to identify changes in the abundance of deer or ground squirrel over time has been discontinued.

The 2009 CMP/CP also required a re-evaluation of the ecological hazard associated with cadmium in surface soil in the Buildings 801 and 851 areas, and the HEPA to determine if continuation of risk and hazard management measures are necessary as a result of potential impact to burrowing or ground dwelling special-status species. As described in the 2011 Annual CMR, the re-evaluation of ecological hazard associated with cadmium in surface soil in the Building 801 area and HEPA showed cadmium to no longer be an ecological hazard to burrowing or ground dwelling special-status species. Therefore, cadmium is no longer considered a contaminant of ecological concern in these areas, and was dropped from further consideration.

The re-evaluation of cadmium in the Building 851 area was inconclusive due to the lack of surface soil samples directly behind the Building 851 Firing Table. Therefore, eight additional surface soil samples were collected from this area in November of 2012 (Figure 4.2-1). Cadmium was less than the detection limit of 0.5 milligrams per kilogram (mg/kg) in all samples. As there is no evidence that cadmium is an ecological hazard to burrowing or ground dwelling special-status species in the Building 851 area, cadmium is no longer considered a contaminant of ecological concern in this area, and will be dropped from further consideration. However, an area that is currently used as a programmatic lay-down area behind Building 851 was not sampled due to its highly disturbed nature and poor habitat value. Should this area be retired from use as a lay-down area in the future, sampling for the presence of cadmium is recommended.

As a result of the review of the EPA Ecological Soil Screening Levels for cadmium (U.S. EPA, 2005), the re-evaluation of the cadmium baseline ecological risk assessment conducted in the SWRI (Webster-Scholten et al., 1994), and the additional surface soil sampling conducted in the Building 801 and Building 851 areas and the HEPA, the presence of cadmium is no longer considered a potential ecological hazard to the deer and ground squirrel populations, nor a potential ecological hazard to burrowing or ground dwelling special-status species. Therefore, cadmium is no longer considered an ecological contaminant of concern in these areas, and is dropped from further consideration.

4.2.3. Uranium in Subsurface Soil within the Pit 7 Complex Landfills

As part of the Five-Year Ecological Review reported on in the 2008 Annual CMR, results of samples of pit waste that were collected from borings through the Pit 3 and 5 landfills at depths 4 feet or greater were determined to contain uranium at concentrations that posed a hazard if ingested by ground squirrels, burrowing owls, or kit fox. While this area represents potential habitat for burrowing owls and kit fox, neither species has been observed in this area.

The 2009 CMP/CP requires the Pit 7 Complex landfills to be inspected and any burrows or holes in the cover filled to prevent unacceptable exposure of animals to the pit waste. This is done as part of the inspection and maintenance program for the Pit 7 Complex. Section 3.4.3 describes the quarterly landfill inspection results, Section 3.4.4 describes the annual subsidence monitoring results, and Section 3.4.5 describes any maintenance performed. Inspection of the Pit 7 Complex landfills is done annually by LLNL personnel, as well as Abri Environmental Engineering. No animal burrows were visible during the annual inspection made by LLNL personnel on April 10, 2012. A few small burrowing animal holes, approximately 2-4 inches in diameter, and several larger holes, approximately 12 inches in diameter, were observed during the annual inspection conducted on May 2, 2012 by Abri Environmental Engineering. Recommendations were made to repair the holes greater than 12 inches. An additional inspection of the Pit 7 Complex landfills was conducted by LLNL personnel on December 4, 2012 following a major storm. Animal burrows were visible, and were filled on the day of the inspection.

4.2.4. Constituents Identified in the 2008 Five Year Ecological Review Requiring Additional Evaluation

As reported in the 2010 First Semester CMR (Dibley et al., 2010b), the ecological hazard of several new constituents detected in surface soil and surface water could not be adequately evaluated in the Five-Year Ecological Review due to either a limited data set or the lack of a developed background value. In surface soil, the ecological hazard from potassium-40 was not evaluated due to the lack of a developed background level. Available Site 300 surface soil data were reviewed to identify existing data on potassium-40 in surface soil and to determine if sufficient data were available to determine a Site 300 background level for potassium-40.

Almost 400 surface soil samples have been analyzed for potassium-40 at Site 300. Potassium-40 is a surface soil constituent sampled for at twelve locations throughout Site 300 as part of the routine environmental monitoring conducted by the Environmental Functional Area and reported on in the annual Lawrence Livermore National Laboratory environmental reports (LLNL, 2012). These locations have been sample annually since 1987. Figure 4.2-2 shows the log-probability plot of all potassium-40 surface soil data collected at Site 300 since 1987. Potassium-40 activities at Site 300 range from 7 picoCuries per gram (pCi/g) to 18.24 pCi/g, forming a continuous distribution within this range of activities. The highest activity, 18.24 pCi/g, was detected in 1988 at the routine monitoring site at the northern perimeter of Site 300, located away from programmatic activity and considered to be a background location. Potassium is a natural constituent of soils. In the Site 300 area, potassium levels can be up to 2.4% (24,000 mg/kg) as determined by airborne gamma-ray spectroscopy (Duval et al., 2005). Potassium-40 is 0.012% of naturally occurring potassium and has a specific activity of 0.0000071 Ci/g (ANL, 2005). Thus, maximum background activities at Site 300 would be expected to be in the range of 20 pCi/g, consistent with the maximum background activity of 18.24 pCi/g shown in Figure 4.2-2. Since potassium-40 is found at background levels at Site 300, it is not considered an ecological contaminant of concern, and thus will not be considered further.

The Five-Year Ecological Review concluded that chloride, ortho-phosphate, total phosphorus, nitrate plus nitrite, ammonia nitrogen and uranium in several springs required additional evaluation to determine their potential ecological hazard. As reported in the 2010 First Semester CMR, additional evaluation showed that many of these constituents were within Site 300 background or the data were misinterpreted in the Five-Year Ecological Review, and thus were dropped from further consideration. Constituents that require additional evaluation include chloride in Spring 14, total phosphorus as P and ammonia in Spring 4, and total uranium in Springs 10 and 11.

Although the maximum chloride concentration detected in Spring 14 exceeds the maximum concentration observed in background springs, the chloride concentration in the most recent sample collected from Spring 14 was below the maximum concentration detected in the background springs. Spring 14 is scheduled to be sampled for chloride in the first quarter of 2013.

The single sample from Spring 4 analyzed for total phosphorus as P exceeded the maximum concentration observed in the background springs. The maximum concentration of ammonia nitrogen (8.7 mg/L) in Spring 4 was detected in the most recent sample available that was analyzed for this constituent (June 2000). Ammonia nitrogen concentrations in background springs were not available at the time of the Five-Year Ecological Review. Spring 17, a Site 300 background spring, was sampled for ammonia nitrogen in August 2012. Ammonia nitrogen was detected in this spring at a concentration of 0.52 mg/L. Spring 4 is scheduled to be sampled for ammonia nitrogen and total phosphorus in the first quarter of 2013.

The maximum total uranium concentration as mg/L (estimated from uranium-238 results) in Spring 10 and Spring 11 exceeded the Site 300 background concentration in the June 2002 sample, the most recent sample available for both springs at the time of the Five-Year Ecological Review. Both samples were analyzed for uranium isotopes using mass spectrometry, and results from both springs showed an uranium-235/uranium-238 ratio of 0.0072. This is the natural ratio for these uranium isotopes, and indicates no added depleted uranium is present.

Spring 11 was again sampled in August of 2012. Spring 10 was dry at this time, and thus a sample could not be obtained. Spring 11 continues to show high concentrations of uranium (0.074 mg/L) compared to the Site 300 maximum background concentration of 0.028 mg/L (detected in Spring 16). The uranium-235/uranium-238 ratio was again 0.0072. Spring 16, a Site 300 background spring located in the same canyon as Springs 10 and 11, was dry, and therefore a sample could not be obtained. Both Springs 10 and 16 will be sampled for uranium when water is again available from these springs. Data from the additional spring sampling will be reported on in future compliance monitoring reports as they become available.

4.2.5. Identification and Evaluation of New Special Status Species

Contingency actions that are described in the 2009 CMP/CP include periodically evaluating available biological survey data (e.g., pre-construction survey data, biological monitoring data, surveys conducted for EIR/EIS preparation) for the presence of new special-status species and reporting the results of the evaluation in the annual compliance monitoring reports. New biological information collected since the completion of the Five-Year Ecological Review (years 2009 and 2010) was evaluated and reported on in the 2010 Annual CMR. New biological information for the year 2011 was evaluated and reported on in the 2011 Annual CMR. For the year 2012, data from surveys conducted for all ground disturbing activities and observations made by LLNL wildlife biologists and ecologists were evaluated. No new special-status species were identified in areas of potentially elevated ecological risk. A new population of the diamond-petaled poppy (*Eschscholtzia rhombipetela*, a California Native Plant Society List 1B species) was identified along the northwest perimeter of Site 300 in 2012. All Site 300 populations of the diamond-petaled poppy had very large number of individuals in 2012. All Site 300 diamond-petaled poppy populations are located outside of areas of potentially elevated ecological risk.

5. Data Management Program

The management of data collected during second semester 2012 was subject to Environmental Restoration Department (ERD) data management process and standard operating procedures (Goodrich and Lorega, 2012). This data management process tracks sample and analytical information from initial sampling plan through data storage in a relational database. As part of the standard operating procedures for data quality, this process includes sample planning, chain of custody tracking, sample collection history, electronic and hard copy analytical results receipt, strict data validation and verification, data quality control procedures, and data retrieval and presentation. The use of this system promotes and provides a consistent data set of known quality. Quality assurance and quality control are performed consistently on all data.

5.1. Modifications to Existing Procedures

The relational database used to maintain the data for the CMR continued to be Oracle on Linux servers. The upgrade of Oracle from 11.2.0.2 to 11.2.0.3 was completed. General maintenance and refinements continued. Improvements and additions to the ERD data management process continued to be implemented in an ongoing effort to automate and upgrade the applications, including verifications, field location tool, field measurement entry tool, the performance price adjustment tool, and the mass removal status analysis tool. The Treatment Facility Real Time (TFRT) application, a high frequency data acquisition system for treatment facilities and associated extraction wells, continued to be improved extending options available to users and refining tools to improve usability. Database fields were added and web page display modified to assist field operations staff plan the sampling activities associated with purge water. The capacity of one of the main TFRT tables was extended and the date field was modified in order to track milliseconds. Graphing tools that used Highcharts were upgraded to use Highstock and many other user-requested refinements were added. The ability to handle negative depth to water measurements was added to the ground water elevation tool to accommodate artesian well conditions at Site 300. The tool to create the Sampling and Analysis Plan Tables used in this document was improved to indicate partially (insufficient water for complete analysis) collected samples as taken. The license and server for EarthVision software, which is used to visualize and interpret environmental data, were upgraded to version 8.1. The Drilling Locator and Cross-Section webtools were upgraded to work with the new version of EarthVision on Linux. Standard operating procedures are up to date.

5.2. New Procedures

The process of re-architecting existing computer programs that generate web pages continues, with the dual goals of improving maintainability and user efficiency. The OPERA (Optimized

Environmental Remediation Analysis) tools were modified to use the upgraded version of EarthVision and incorporated into the web-based Taurus Environmental Information Management System (TEIMS). The ability to estimate and forecast prices and sample counts was added to bid package pricing tool. The display of special instructions for well sampling has been incorporated into the Sample Planning and COC Tracking (SPACT) tool to improve the efficiency of pre-sampling coordination and to alert sampling personnel of potential safety hazards in the field.

6. Quality Assurance/Quality Control Program

LLNL conducted all compliance monitoring in accordance with the approved Quality Assurance Project Plan (QAPP) (Dibley, 1999) requirements for planning, performing, documenting, and verifying the quality of activities and data. The QAPP was prepared for CERCLA compliance and ensures that the precision, accuracy, completeness, and representativeness of project data are known and are of acceptable quality. The QAPP is used in conjunction with the LLNL ERD Standard Operating Procedures (SOPs), Operations and Maintenance Manuals (O&Ms), Work Plans, Sampling Plans, Integration Work Sheets (IWSs), and Site Safety Plans. Modifications to existing LLNL quality assurance/quality control (QA/QC) procedures, new QA/QC procedures that were implemented during this reporting period, self-assessments, quality issues and corrective actions, and analytical and field quality control are discussed in this section.

6.1. Modifications to Existing Procedures

Twenty-nine ERD SOPs were finalized and released as Revision 14 in May 2012. Revision 14 consists of the following procedures:

- SOP 1.1: Field Borehole Logging-Rev. 6.
- SOP 1.2: Borehole Sampling of Unconsolidated Sediments and Rock-Rev. 6.
- SOP 1.3: Drilling-Rev. 6.
- SOP 1.4: Well Installation-Rev. 6.
- SOP 1.5: Initial Well Development-Rev. 6.
- SOP 1.6: Borehole Geophysical Logging-Rev. 6.
- SOP 1.7: Well Closure-Rev. 5.
- SOP 1.10: Soil Vapor Surveys-Rev. 6.
- SOP 1.11: Soil Surface Flux Monitoring of Gaseous Emission-Rev. 3.
- SOP 1.13: Operation of the AMS TR7000 Well Management System-Rev. 1.
- SOP 1.15: Well Site Core Handling-Rev. 3.
- SOP 1.16: Four Wheel All Terrain Vehicle (ATV) Operation-Rev. 2.
- SOP 1.17: Soil Vapor Monitoring and Sampling-Rev. 4.
- SOP 4.1: General instructions for Field Personnel-Rev. 8.
- SOP 4.2: Sample Control and Documentation-Rev. 8.
- SOP 4.4: Guide to Packaging and Shipping of Samples-Rev. 7.
- SOP 4.5: General Equipment Decontamination-Rev. 6.
- SOP 4.6: Validation and Verification of Radiological and Nonradiological Data Generated by Analytical Laboratories-Rev. 6.

A number of procedures, as listed, will continue in the review and update process, and will be released as part of a subsequent revision:

- SOP 1.8: Disposal of Investigation-Derived Wastes (Drill Cuttings, Core Samples, and Drilling Mud).
- SOP 1.14: Final Well Development/Specific Capacity Tests at LLNL Livermore Site and Site 300.
- SOP 2.8: Installation of Dedicated Sampling Devices.
- SOP 3.1: Water-Level Measurements.
- SOP 3.2: Pressure Transducer Field Calibration.
- SOP 3.3: Hydraulic Testing (Slug/Bail).
- SOP 3.4: Hydraulic Testing (Pumping).
- SOP 4.7A: Livermore Site Treatment and Disposal of Well Development and Well Purge Fluids.
- SOP 4.14: Mapping with the Trimble Pathfinder Pro XR GPS System.

6.2. New Procedures

A new procedure titled, "Site 300 Treatment Media Inventory and Tracking Process" is being developed and will also be released in a subsequent revision. The procedure is part of ERD's path forward to help ensure treatment media meets specific acceptance criteria prior to utilizing the material(s) at treatment facilities. Additionally, the procedure outlines processes to effectively track treatment media by type, quantity, and by facility where media is installed, as well as a treatment media sample collection and analysis plan. A process has begun to move procedures from the Operations and Maintenance Manual, Volume 1, into the set of SOPs. The procedures will undergo the review, update, and formatting process prior to including them with the next release of SOPs.

6.3. Self-assessments

ERD participates in self-assessments, both formal and informal. Assessments are conducted to evaluate work activities to procedural, QA, management, and Integrated Safety Management System (ISMS) practices. External regulatory agencies and management performs frequent assessments and management work observations, verifications, and inspections (MOVIs) of ERD work activities. There were a total of thirty-two assessments consisting of MOVIs, a DOE Consolidated Auditing Program (DOECAP) analytical laboratory audit, and a Management Self-assessment (MSA) of Site 300 CERCLA monitoring and ERD discretionary sampling conducted during 2012. Issues and deficiencies observed during assessments are tracked from inception to resolution using the institutional Issues Tracking System (ITS). There were no deficiencies associated with the assessments worthy of tracking in ITS; however, there were observations noted, issues discussed, and determinations made as a result of the MSA. Issues observed during the analytical laboratory assessment are managed through the DOECAP process.

The IWSs are in the process of undergoing a triennial review, which consists of a complete review and approval of the safety document(s) by the Environmental, Safety, & Health team, the Facility Point of Contact, the Responsible Individual, and the Authorizing Individual. To date, one IWS has completed the triennial review and approval process; three IWSs are currently in process and pending approval, and three IWSs are being internally evaluated prior to the triennial review.

6.4. Quality Issues and Corrective Actions

Quality improvement, nonconformance, and corrective action reporting is documented using the Quality Improvement Form (QIF). QIF (QIF-11-003) remains open from early 2011. QIF-11-003 was generated to describe the event where methylene chloride was detected in the 829-SRC Treatment Facility effluent due to the usage of contaminated resin. The corrective action for this issue has been implemented but the QIF has not yet been closed-out. Three QIFs were processed during the first semester 2012 reporting period. QIF-12-001 was developed to describe an event where a Contract Analytical Laboratory (CAL) reported EPA Method 8330 analytic results with failed Laboratory Control Sample (LCS) recoveries. Corrective action was successfully implemented and the QIF closed out. QIF-12-002 described an incident where a CAL courier made only a partial pick up of samples designated for analysis. The courier was re-trained and the QIF closed out. QIF-12-003 was developed due to a CAL that failed to send samples out to a subcontracted laboratory for analysis. The samples exceeded their Hold Time making it necessary for ERD to resample eight locations and re-submit for analysis. The analyses were performed at no cost to ERD. The CAL process for shipping samples out to subcontracted laboratories was improved and personnel were retrained. The QIF was successfully closed out.

6.5. Analytical Quality Control

Data review, validation, and verification are conducted on 100% of the incoming analytical data in accordance with ERD SOP 4.6: Validation and Verification of Radiological and Nonradiological Data Generated by Analytical Laboratories. Contract analytical laboratories are contractually required to provide internal quality control (QC) checks in the form of method blanks, laboratory control samples, matrix spikes, and matrix spike or sample duplicate results with every analysis. During the data validation process, the analytical QC data and associated QC acceptance criteria (control limits) are reviewed. Data qualifier flags are assigned to analytical data that fall outside the QC acceptance criteria. Data qualifier flags and their definitions are listed in the Acronyms and Abbreviations in the Tables section of this report. The qualifier flags, when they exist, appear next to the analytical data presented in the treatment facility compliance tables of this report. Because rejected data are not used for decision-making, the rejected analytical data are not displayed in the tables, only the “R” flag is presented. Data is qualified as rejected only when there is a serious deficiency in the ability to analyze the sample and meet QC criteria.

CALs are required to participate in a Proficiency Testing (PT) Program in which they analyze PT samples provided by an external source, as a means to evaluate a laboratory’s performance in a specific area of testing. As a participant in the PT Program, BC Laboratories, Inc. performed nitroaromatics in water by EPA Method 8330, resulting in a failure of five of the fourteen compounds in the E8330LOW suite. The failed tests for compounds nitrobenzene, tetryl, and 2,4,6-trinitrotoluene were all biased high due to the reported value being above the acceptable upper control limit. False positives were reported for compounds 4-amino-2,6-dinitrotoluene and 2,4-dinitrotoluene. In evaluating the possible impact on ERD data, the compound tetryl was not an issue since the compound is not included in the 8330 suite of compounds utilized by ERD. Out of the remaining compounds that were reported biased-high or reported as false positives, there was a single positive detection of nitrobenzene found in the ERD data set. Nitrobenzene was detected in a ground water sample collected from well W-812-02 on January 31, 2012. The monitor well W-812-02 was re-sampled on July 23, 2012 and submitted to BC Laboratories, Inc. for the E8330LOW test. A collocated sample was also collected at the same time and sent to a different CAL for the E8330LOW analysis.

The E8330LOW test results reported by BC Laboratories, Inc. from well W-812-02 collected on July 23, 2012 consisted of HMX at 11 µg/L and nitrobenzene at 43 µg/L. The collocated sample collected from W-812-02 on July 23, 2012 and submitted to Caltest Analytical Laboratory for an E8330LOW test resulted in no detections above the reporting limits for any of the 8330 compounds. A follow-up sampling event is planned for the first quarter of the 2013 calendar year.

6.6. Field Quality Control

There were no issues regarding trip blank, field blank, or equipment blank analyses encountered during this reporting period.

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Figure 2.5-10. Building 850 and Pit 7 Complex area perchlorate isoconcentration contour map for the Qal/WBR hydrostratigraphic unit.

Figure 2.5-11. Building 850 and Pit 7 Complex area perchlorate isoconcentration contour map for the $Tnbs_1$/ $Tnbs_0$ hydrostratigraphic unit.

Figure 2.6-1. Building 854 Operable Unit site map showing monitor and extraction wells, and treatment facilities.

Figure 2.6-2. Building 854 Operable Unit ground water potentiometric surface map for the $Tnbs_1/Tnsc_0$ hydrostratigraphic unit.

Figure 2.6-3. Building 854 Operable Unit total VOC isoconcentration contour map and individual VOC concentrations for the $Tnbs_1/Tnsc_0$ hydrostratigraphic unit.

Figure 2.6-4. Building 854 Operable Unit perchlorate isoconcentration contour map for the $Tnbs_1/Tnsc_0$ hydrostratigraphic unit.

Figure 2.6-5. Building 854 Operable Unit map showing nitrate concentrations for the $Tnbs_1/Tnsc_0$ hydrostratigraphic unit.

Figure 2.6-6. Building 854 Operable Unit map showing ground water elevations, individual VOC, perchlorate, and nitrate concentrations for the combined Qls and $Tnbs_1$ hydrostratigraphic units.

Figure 2.7-1. Building 832 Canyon Operable Unit site map showing monitor, extraction and water-supply wells, and treatment facilities.

Figure 2.7-2. Building 832 Canyon Operable Unit map showing ground water elevations and ground water flow direction for the Qal/WBR hydrostratigraphic unit.

Figure 2.7-3. Building 832 Canyon Operable Unit ground water potentiometric surface map for the $Tnsc_{1b}$ hydrostratigraphic unit.

Figure 2.7-4. Building 832 Canyon Operable Unit map showing ground water elevations and ground water flow direction for the $Tnsc_{1a}$ hydrostratigraphic unit.

Figure 2.7-5. Building 832 Canyon Operable Unit ground water potentiometric surface map for the Upper $Tnbs_1$ hydrostratigraphic unit.

Figure 2.7-6. Building 832 Canyon Operable Unit map showing individual VOC concentrations for the Qal/WBR hydrostratigraphic unit.

Figure 2.7-7. Building 832 Canyon Operable Unit total VOC isoconcentration contour map and individual VOC concentrations for the $Tnsc_{1b}$ hydrostratigraphic unit.

Figure 2.7-8. Building 832 Canyon Operable Unit map showing individual VOC concentrations for the $Tnsc_{1a}$ hydrostratigraphic unit.

Figure 2.7-9. Building 832 Canyon Operable Unit total VOC isoconcentration contour map and individual VOC concentrations for the Upper $Tnbs_1$ hydrostratigraphic unit.

Figure 2.7-10. Building 832 Canyon Operable Unit map showing perchlorate concentrations for the Qal/WBR hydrostratigraphic unit.

Figure 2.7-11. Building 832 Canyon Operable Unit perchlorate isoconcentration contour map for the $Tnsc_{1b}$ hydrostratigraphic unit.

Figure 2.7-12. Building 832 Canyon Operable Unit map showing perchlorate concentrations for the $Tnsc_{1a}$ hydrostratigraphic unit.

Figure 2.7-13. Building 832 Canyon Operable Unit map showing nitrate concentrations for the Qal/WBR hydrostratigraphic unit.

Figure 2.7-14. Building 832 Canyon Operable Unit map showing nitrate concentrations for the $Tnsc_{1b}$ hydrostratigraphic unit.

Figure 2.7-15. Building 832 Canyon Operable Unit map showing nitrate concentrations for the $Tnsc_{1a}$ hydrostratigraphic unit.

Figure 2.8-1. Building 801 Firing Table and Pit 8 Landfill site map showing monitor well locations, ground water elevations, approximate ground water flow direction, and nitrate, perchlorate and individual VOC concentrations in the $Tnbs_1/Tnbs_0$ hydrostratigraphic unit.

Figure 2.8-2. Building 833 site map showing monitor well locations, ground water elevations, approximate ground water flow direction, and individual VOC concentrations in the Tpsg hydrostratigraphic unit.

Figure 2.8-3. Building 845 Firing Table and Pit 9 Landfill site map showing monitor well locations, ground water elevations, approximate ground water flow direction, and High Melting Point Explosive concentrations, uranium activities and $^{235}U/^{238}U$ isotope atom ratios in the $Tnsc_0$ hydrostratigraphic unit.

Figure 2.8-4. Building 851 Firing Table site map showing monitor well locations, ground water elevations, approximate ground water flow direction, uranium activities, and $^{235}U/^{238}U$ isotope atom ratios in the Tmss hydrostratigraphic unit.

Figure 4.2-1. Surface soil cadmium concentrations in milligrams per kilogram (mg/kg) in the vicinity of Building 851.

Figure 4.2-2. Log-probability plot of Potassium-40 in surface soil at Site 300.

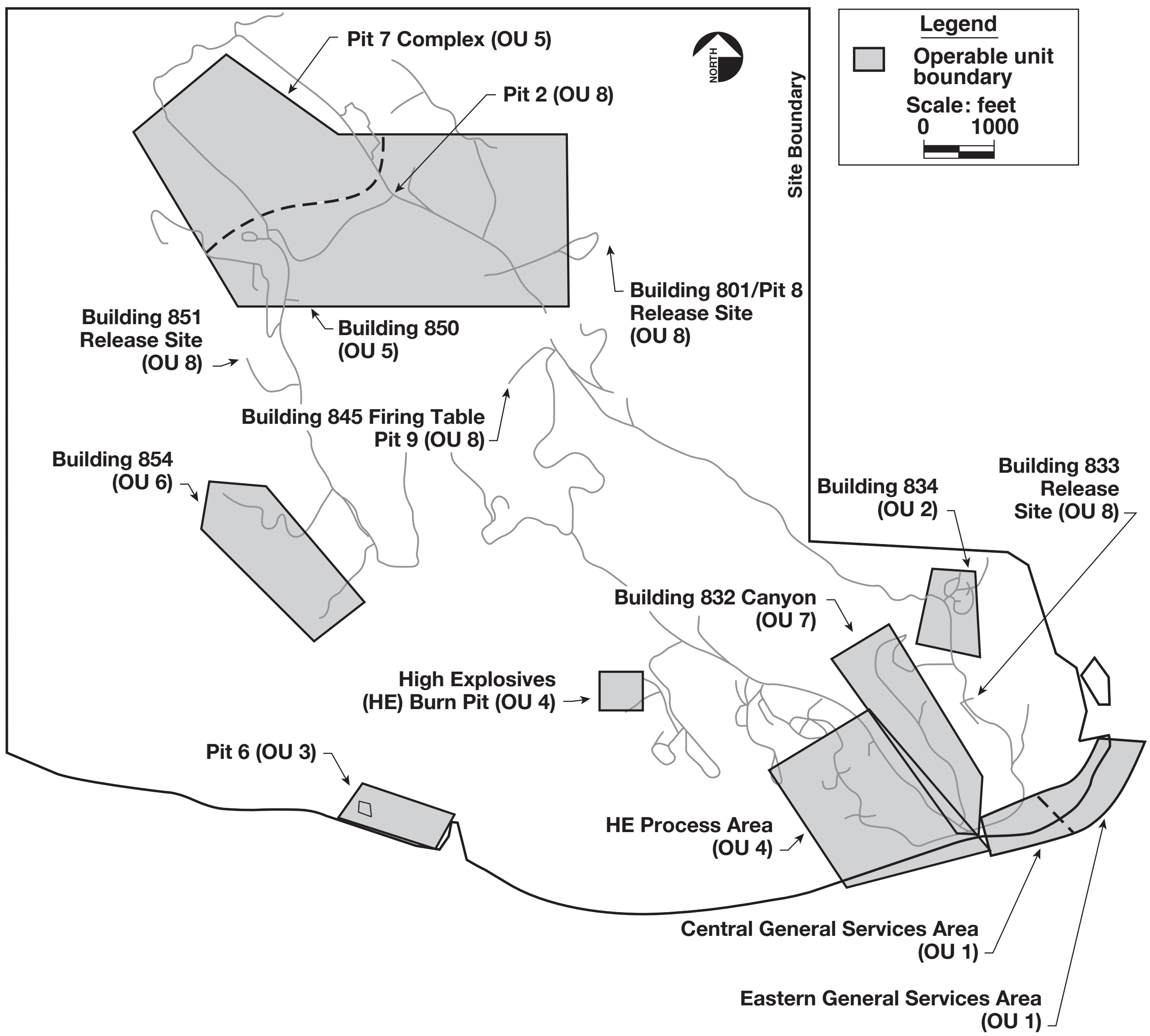

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Figure 2-1. Site 300 map showing Operable Unit locations.

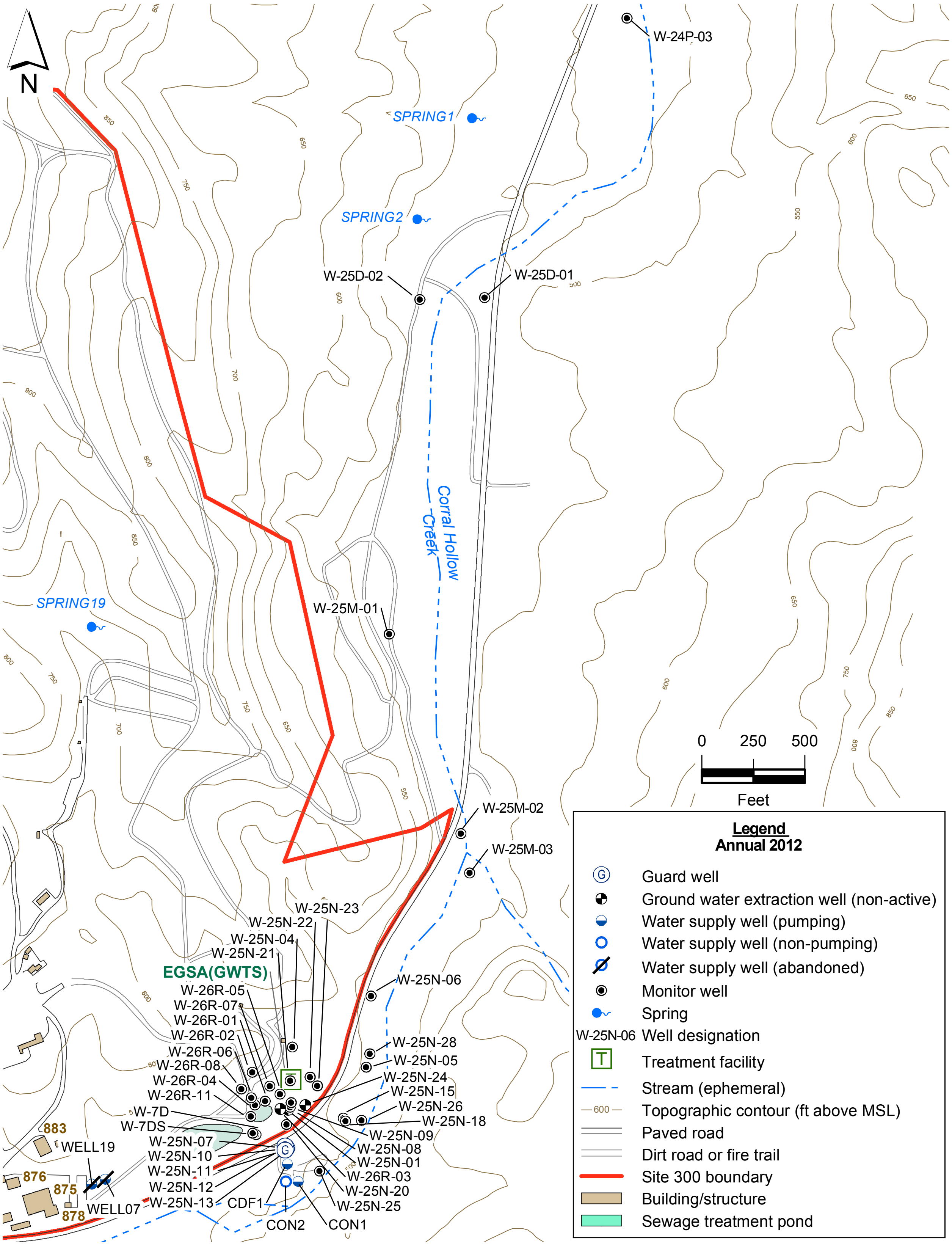


Figure 2.1-1. Eastern General Services Area Operable Unit site map showing monitor, extraction and water-supply wells, and treatment facilities.

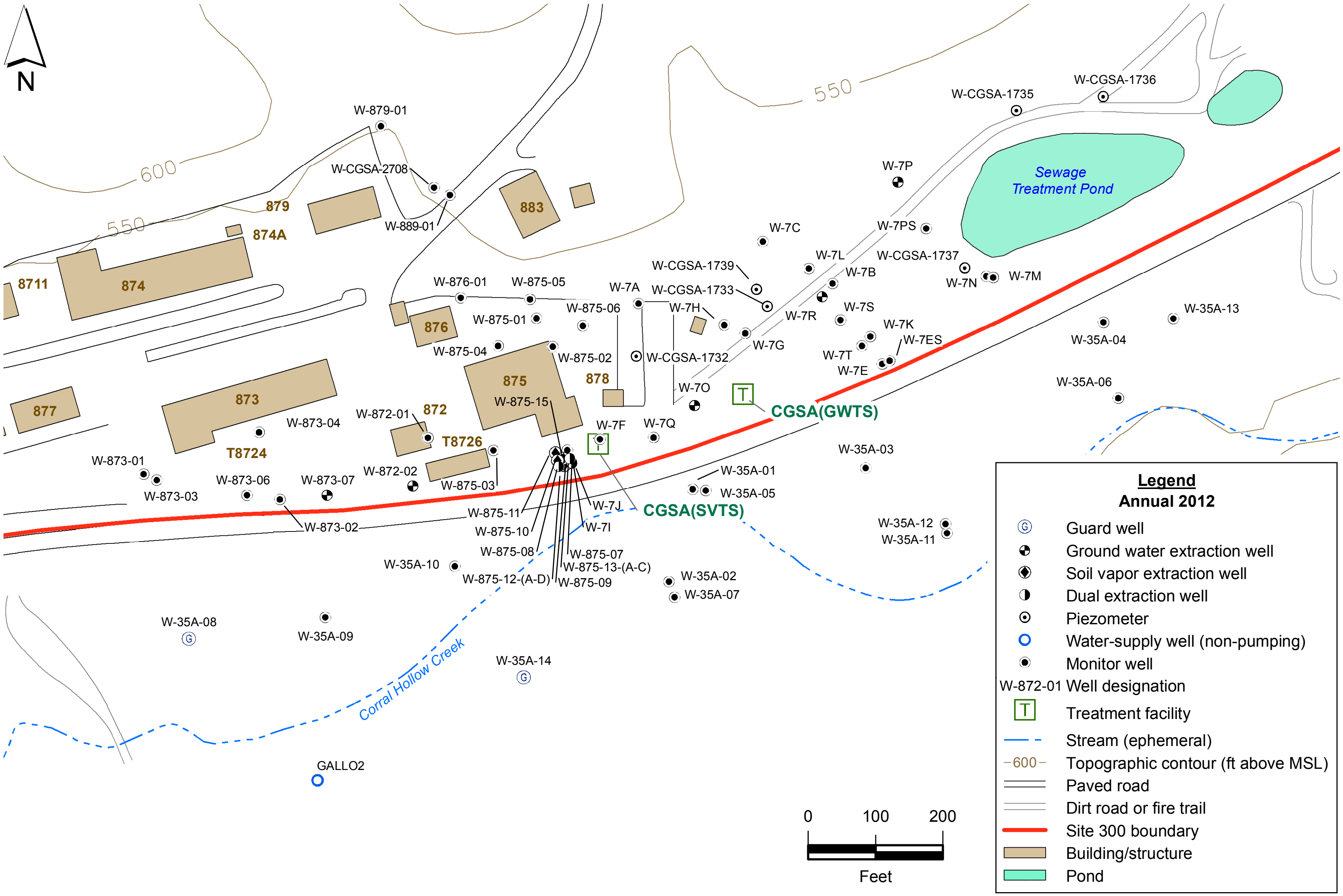


Figure 2.1-2. Central General Services Area Operable Unit site map showing monitor, extraction and water-supply wells, and treatment facilities.

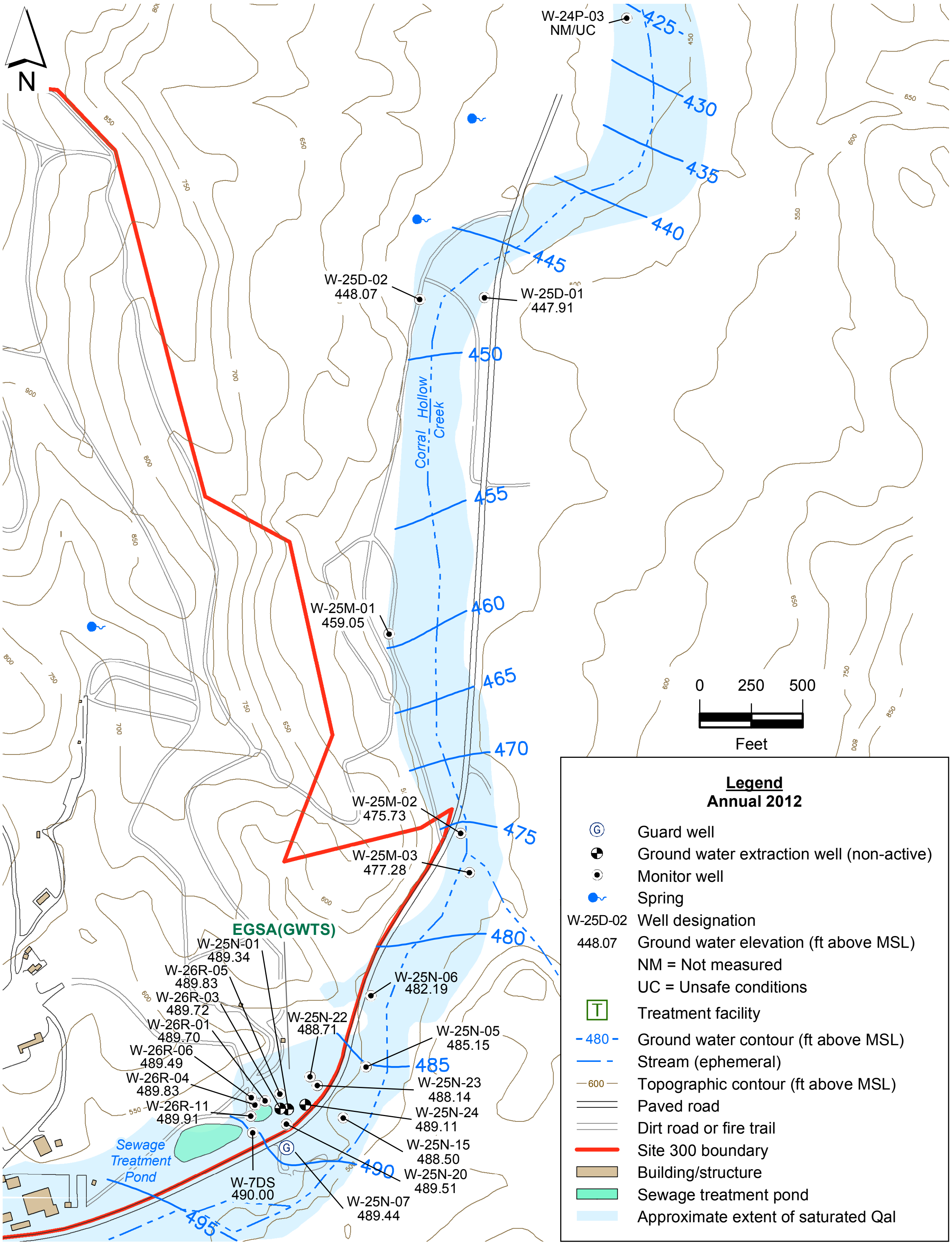


Figure 2.1-3. Eastern General Services Area Operable Unit ground water potentiometric surface map for the Qal-Tnbs$_1$ hydrostratigraphic unit.

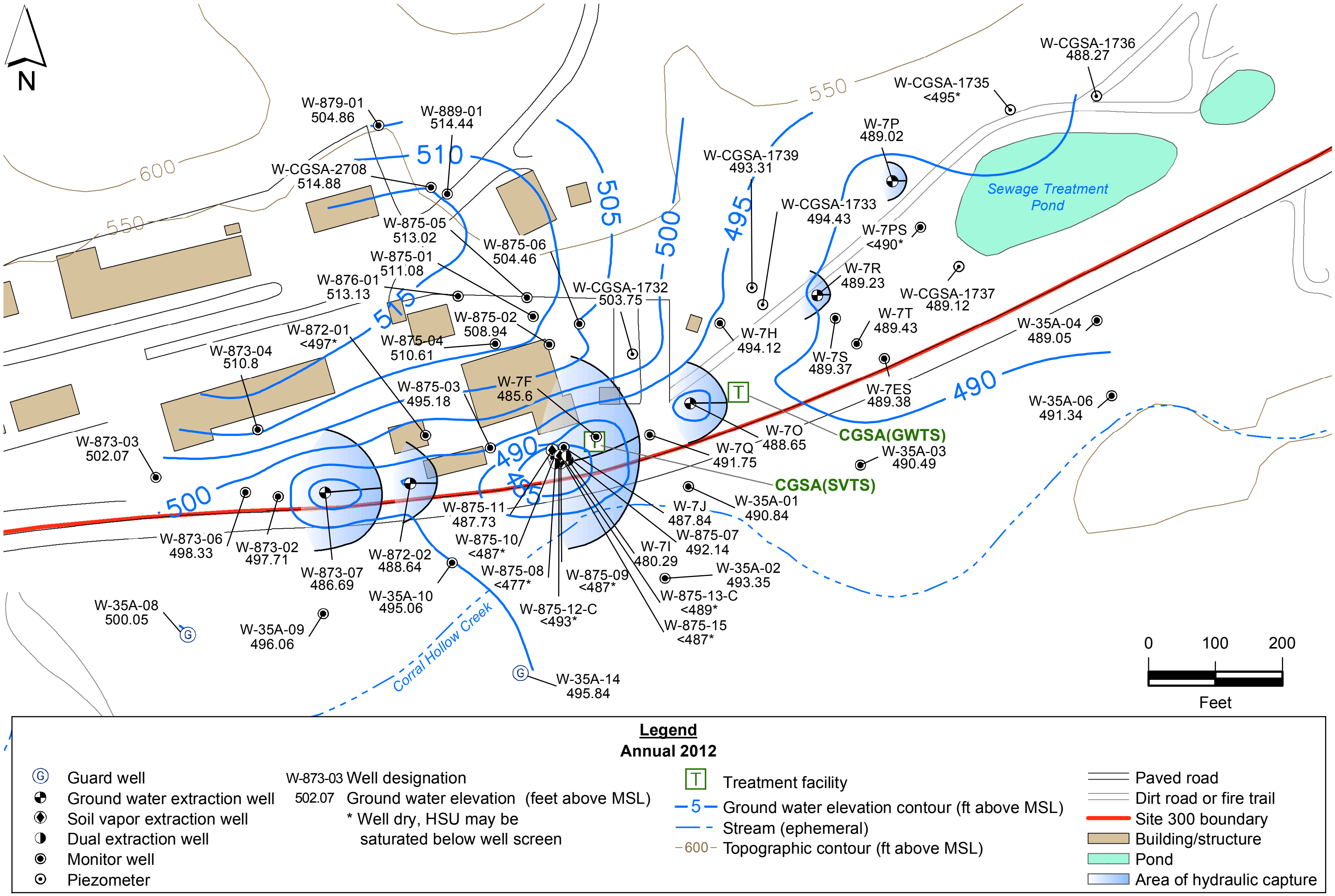


Figure 2.1-4. Central General Services Area Operable Unit ground water potentiometric surface map for the Qt-Tnsc$_1$ and Qal-Tnbs$_1$ hydrostratigraphic units.

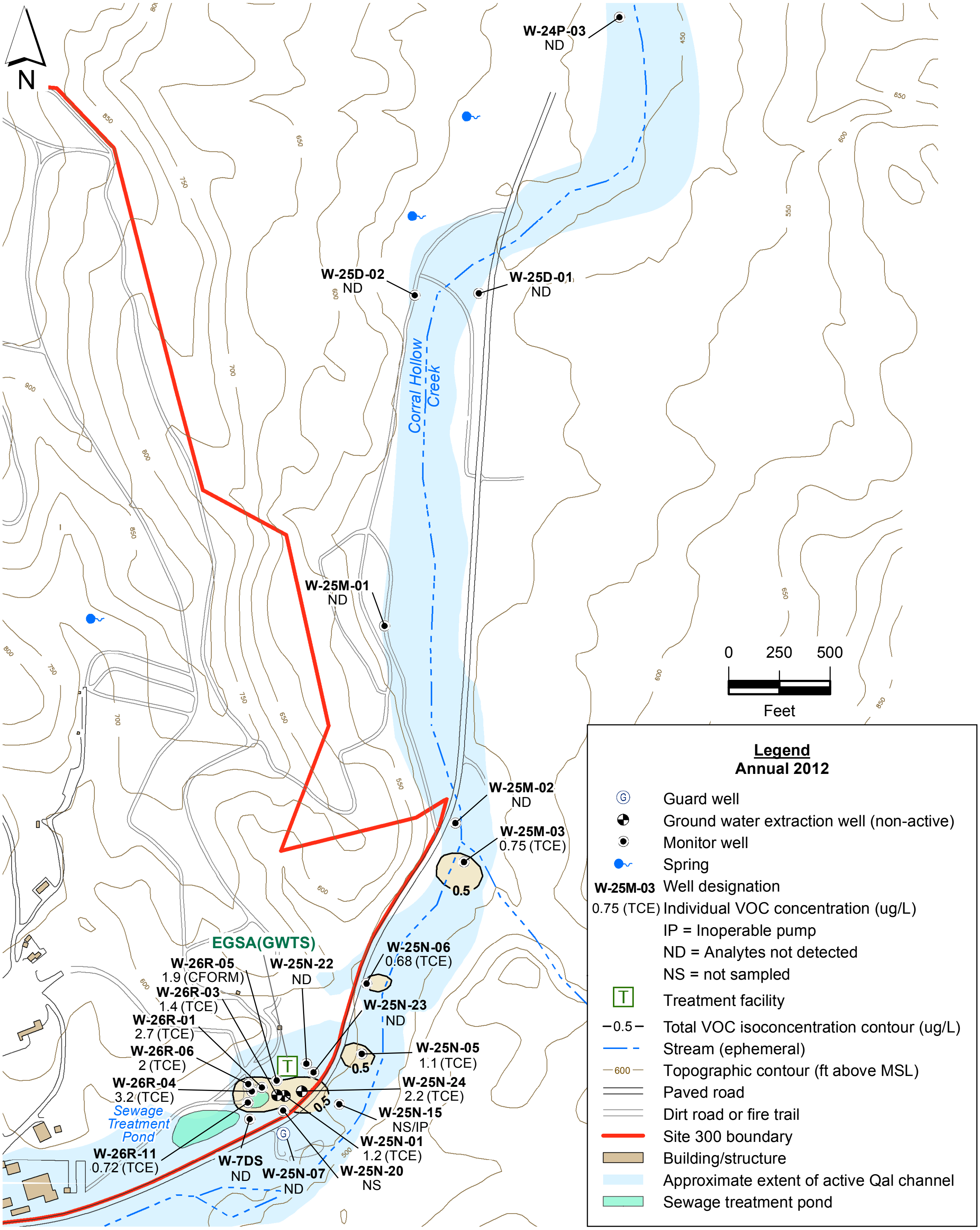


Figure 2.1-5. Eastern General Services Area Operable Unit total VOC isoconcentration contour map and individual VOC concentrations for the Qal-Tnbs$_1$ hydrostratigraphic unit.

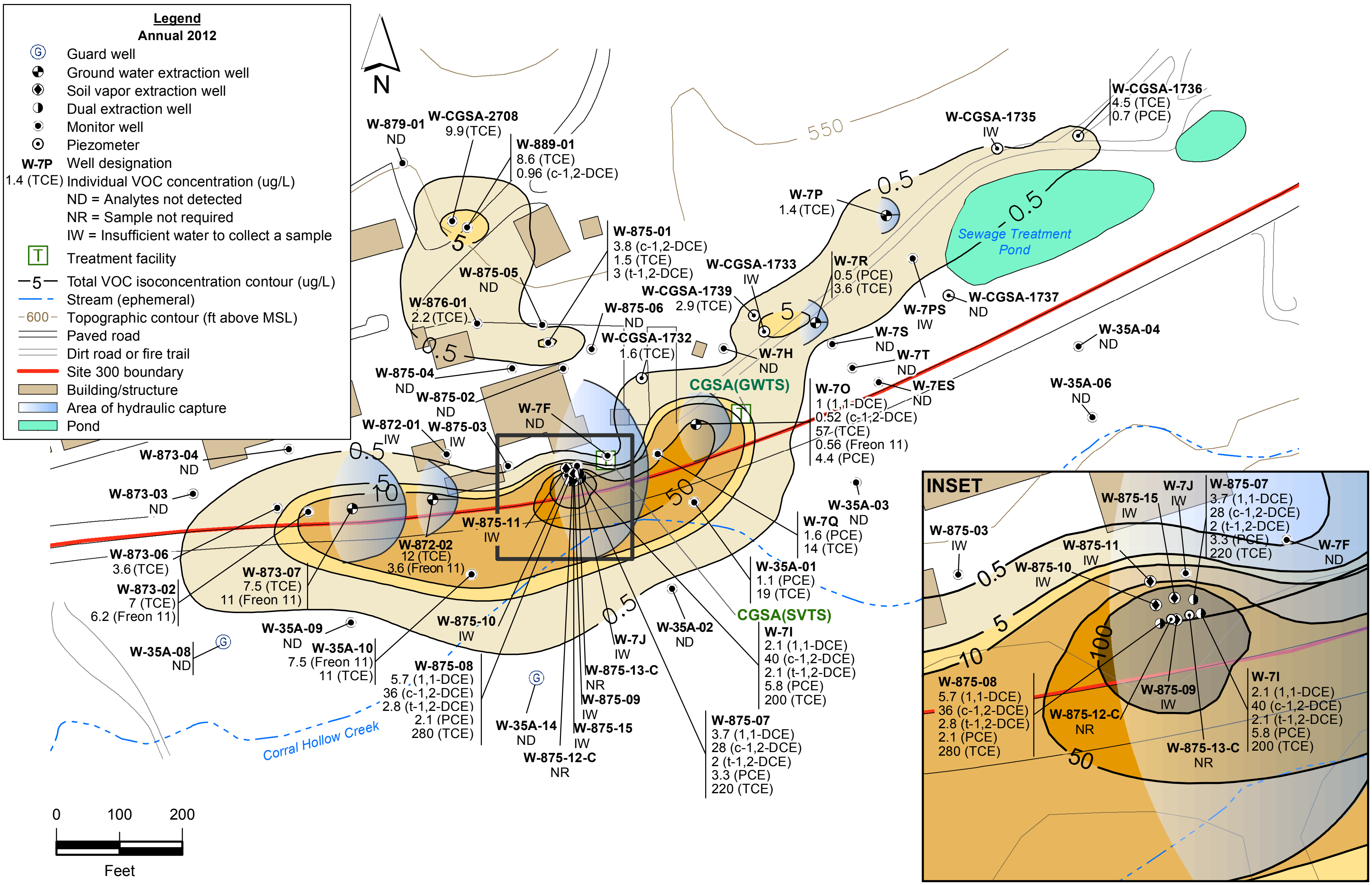


Figure 2.1-6 Central General Services Area Operable Unit total VOC isoconcentration contour map and individual VOC concentrations for the Qt-Tnsc$_1$ and Qal-Tnbs$_1$ hydrostratigraphic units.

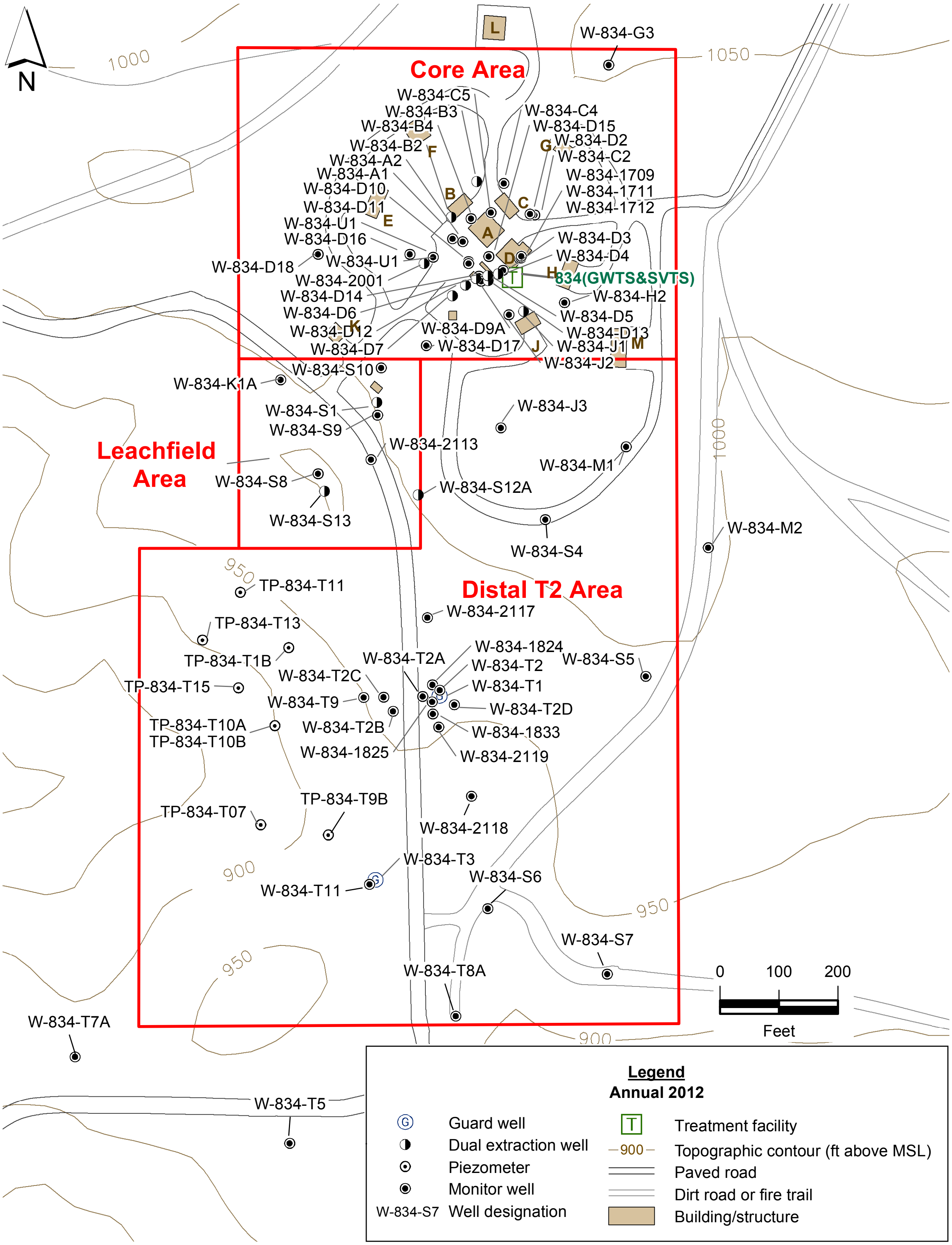


Figure 2.2-1. Building 834 Operable Unit site map showing monitor and extraction wells, and treatment facilities.

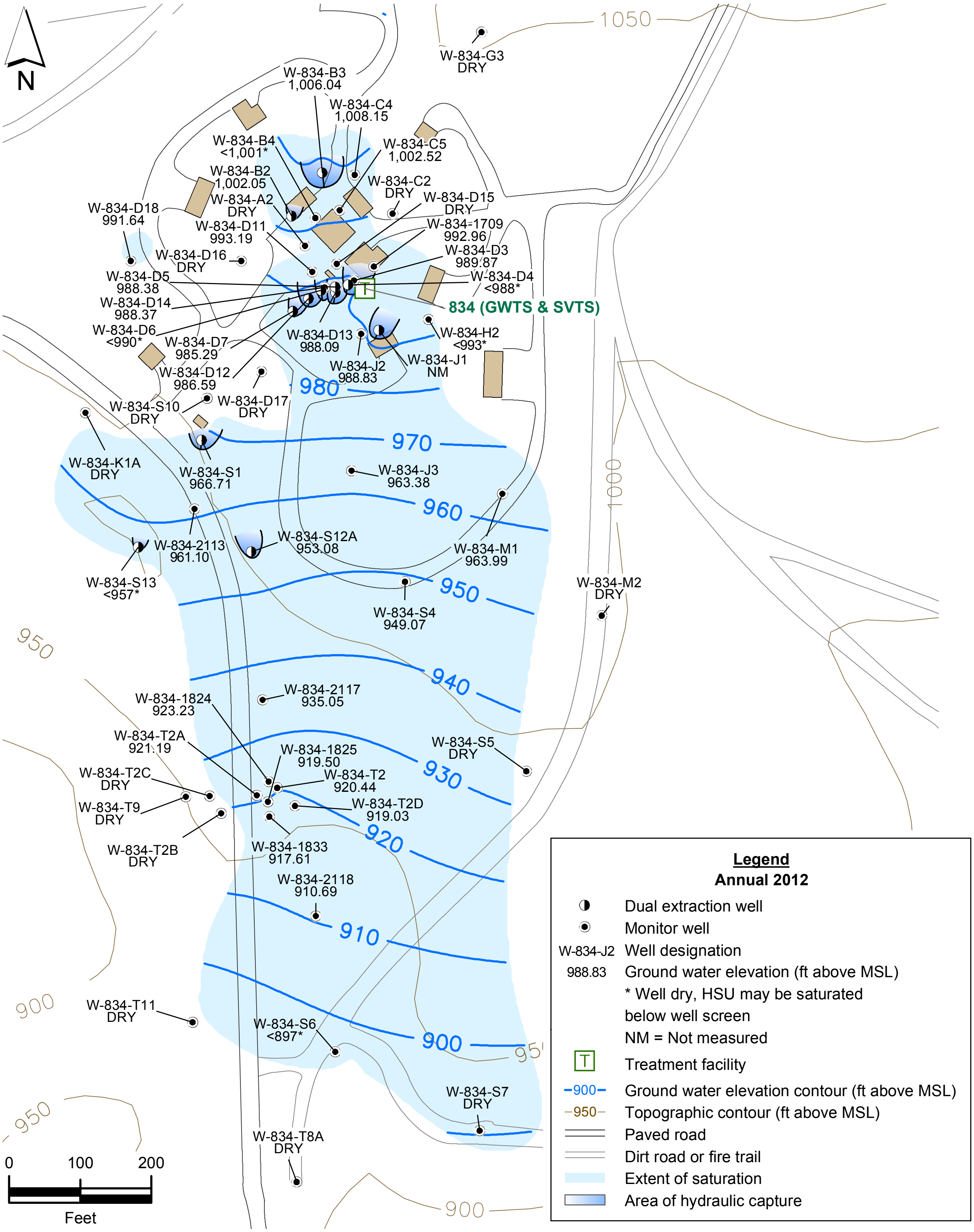


Figure 2.2-2. Building 834 Operable Unit ground water potentiometric surface map for the Tpsg perched water-bearing zone.

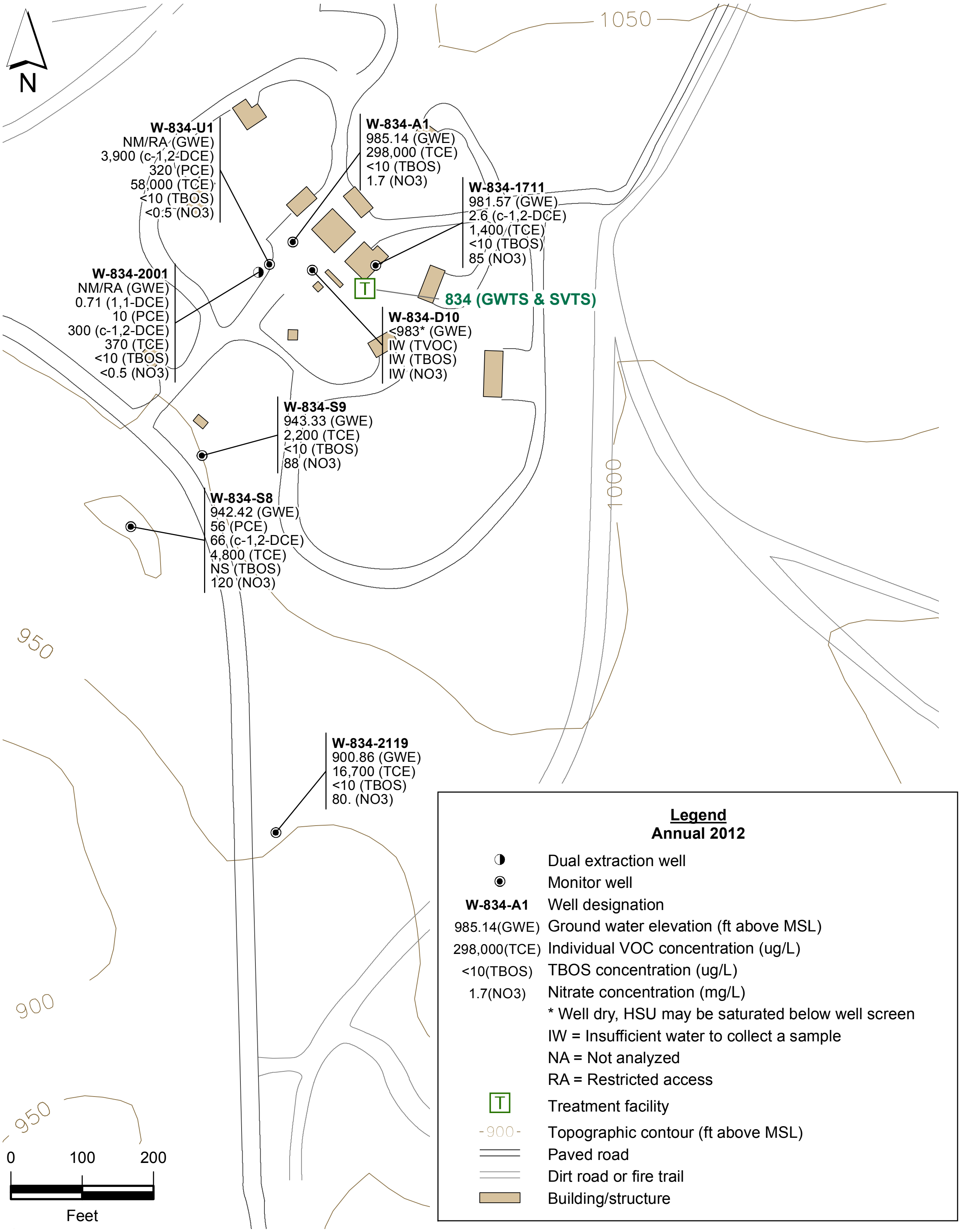


Figure 2.2-3. Building 834 Operable Unit map showing ground water elevations, and individual VOC, TBOS/TKEBS, and nitrate concentrations for the Tps-Tnsc$_2$ hydrostratigraphic unit.

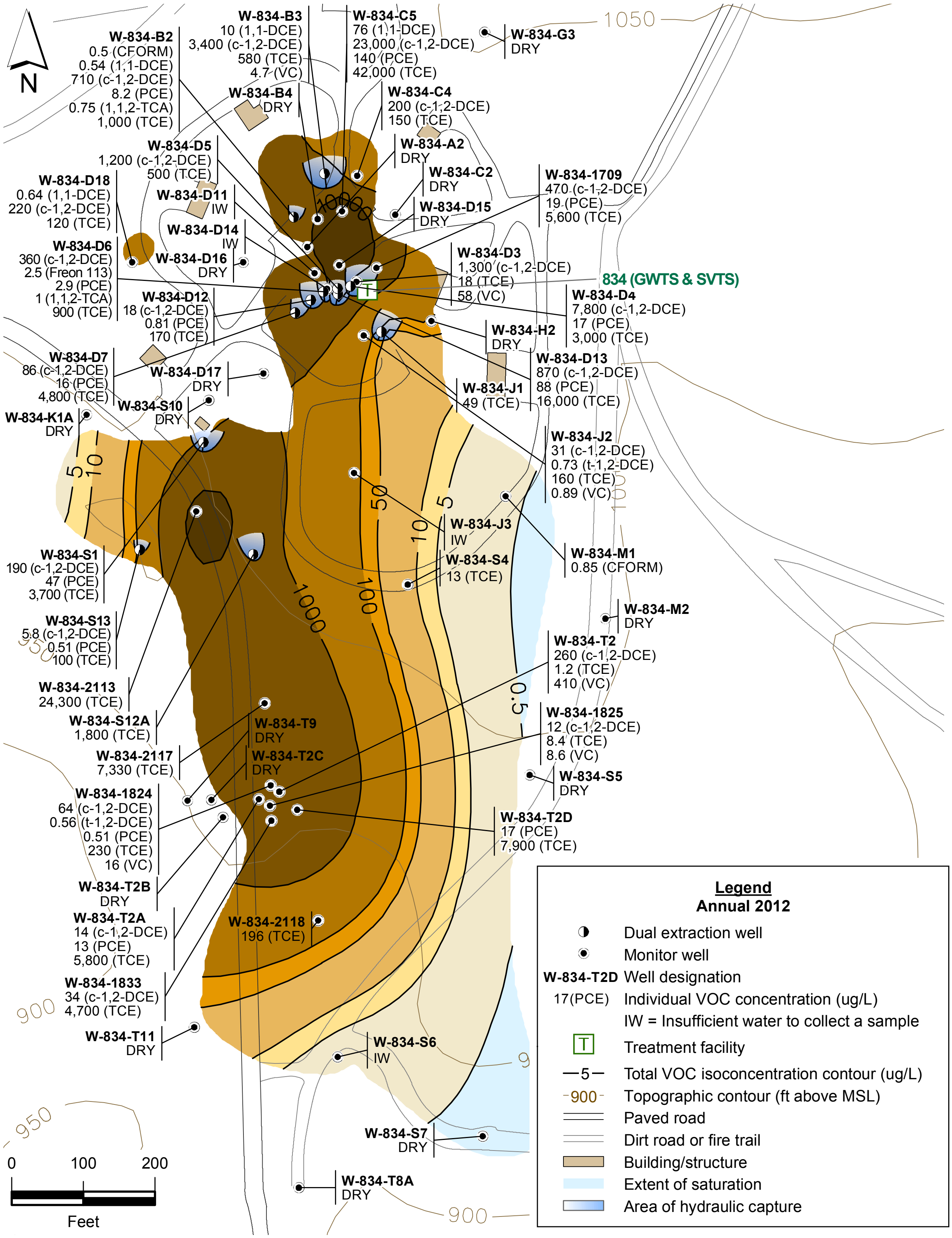


Figure 2.2-4. Building 834 Operable Unit total VOC isoconcentration contour map and individual VOC concentrations for the Tpsg perched water-bearing zone.

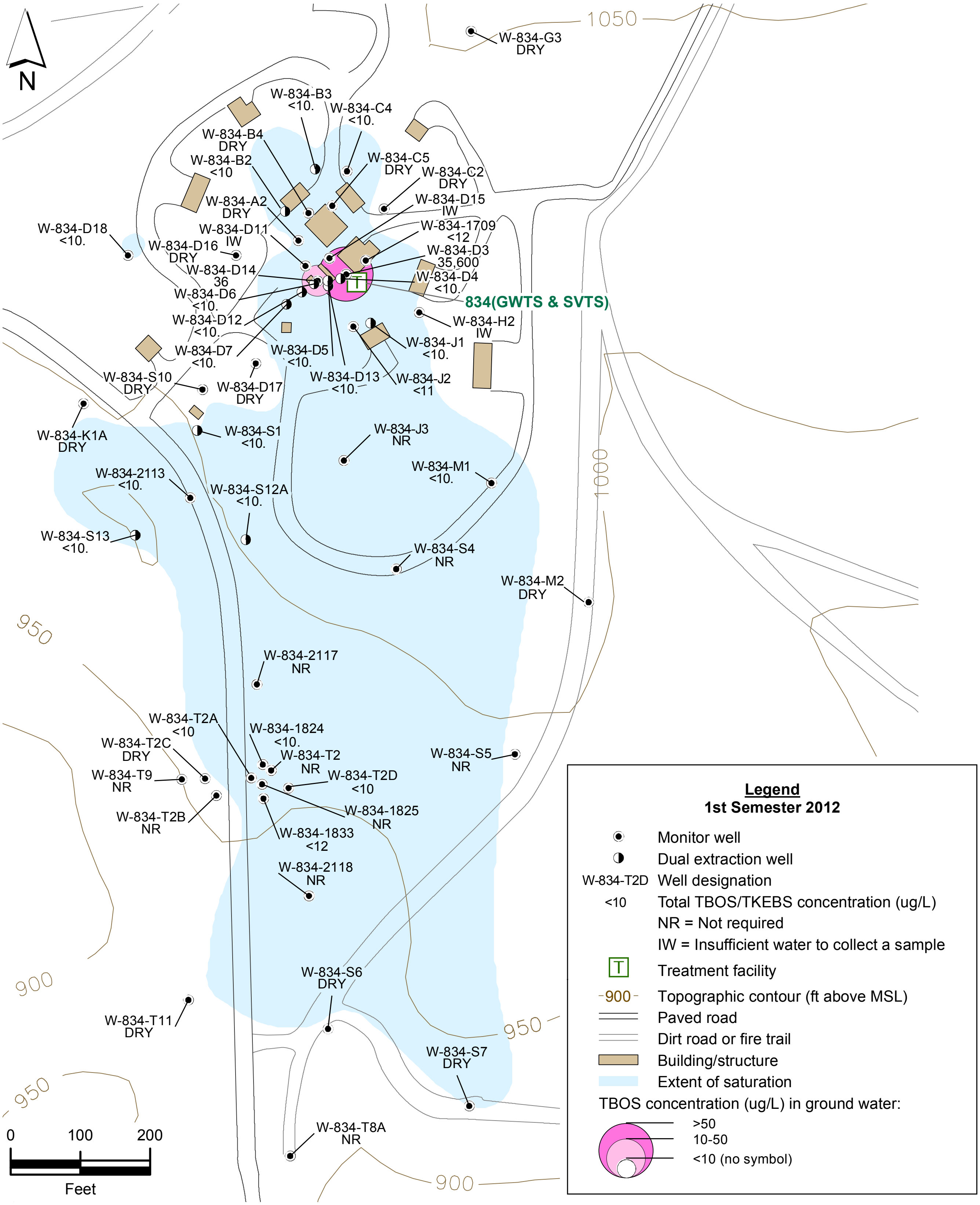


Figure 2.2-5. Building 834 Operable Unit map showing TBOS/TKEBS concentrations for the Tpsg perched water-bearing zone.

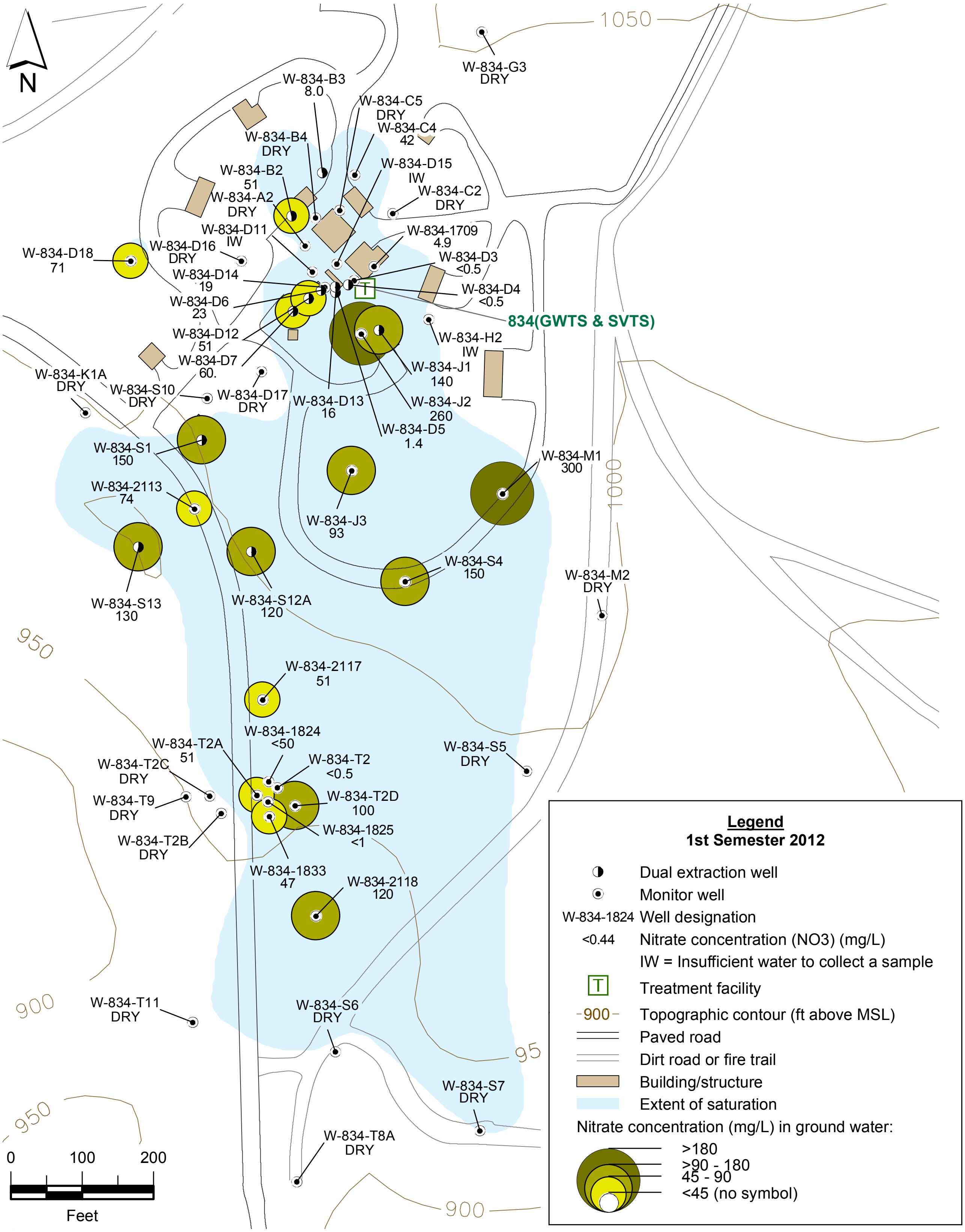


Figure 2.2-6. Building 834 Operable Unit map showing nitrate concentrations for the Tpsg perched water-bearing zone.

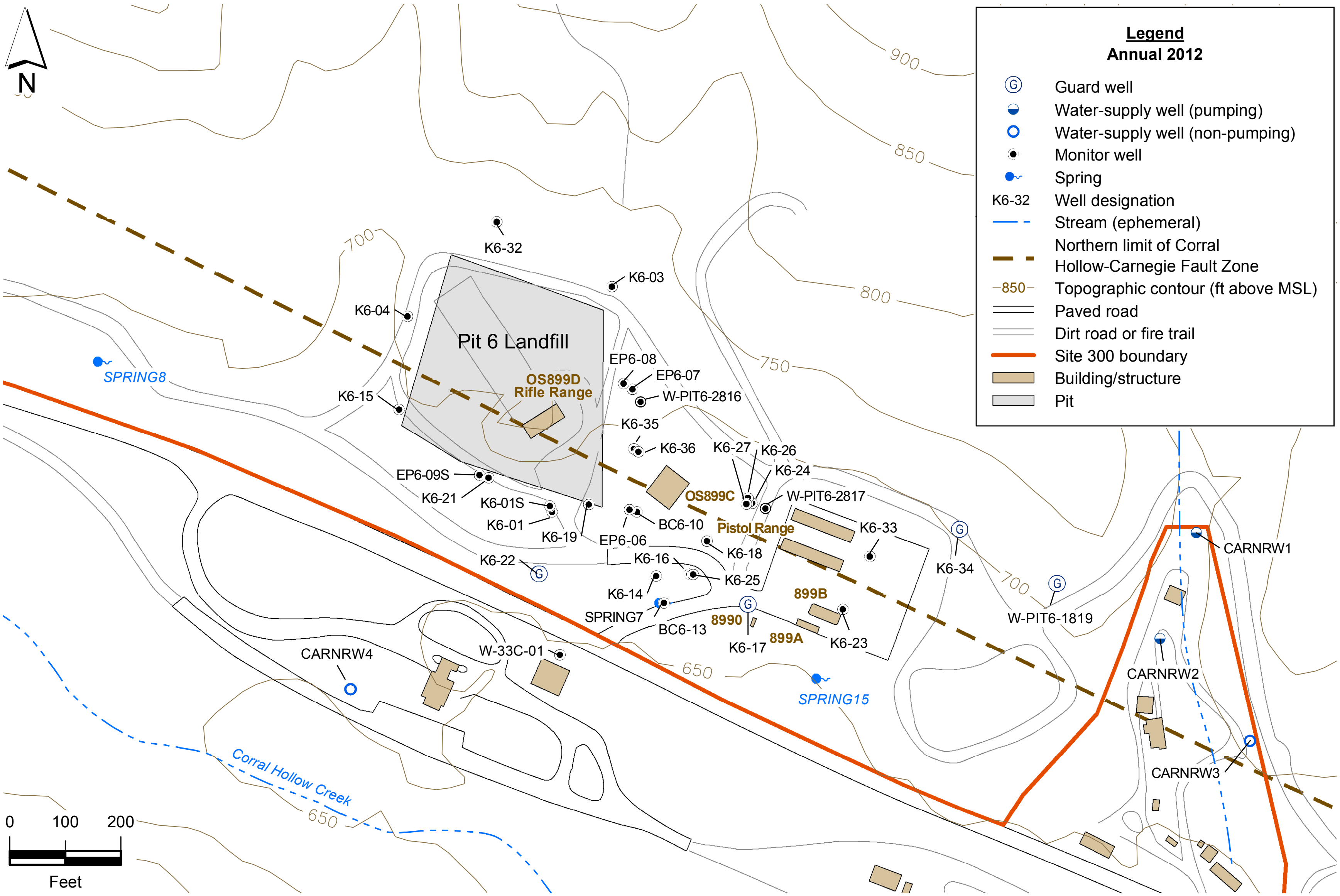


Figure 2.3-1. Pit 6 Landfill Operable Unit site map showing monitor and water-supply wells.

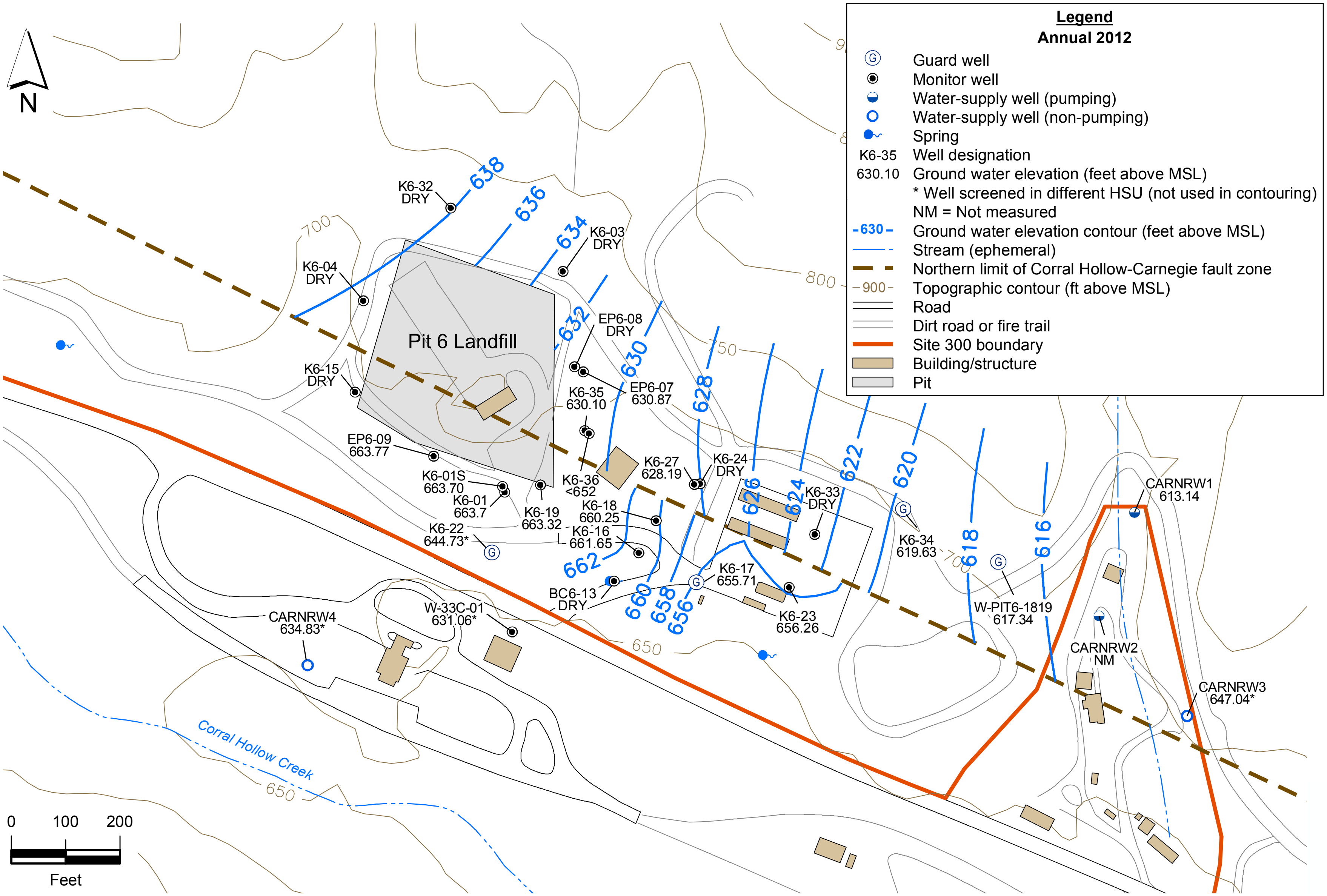


Figure 2.3-2. Pit 6 Landfill Operable Unit ground water potentiometric surface map for the Qt-Tnbs$_1$ hydrostratigraphic unit.

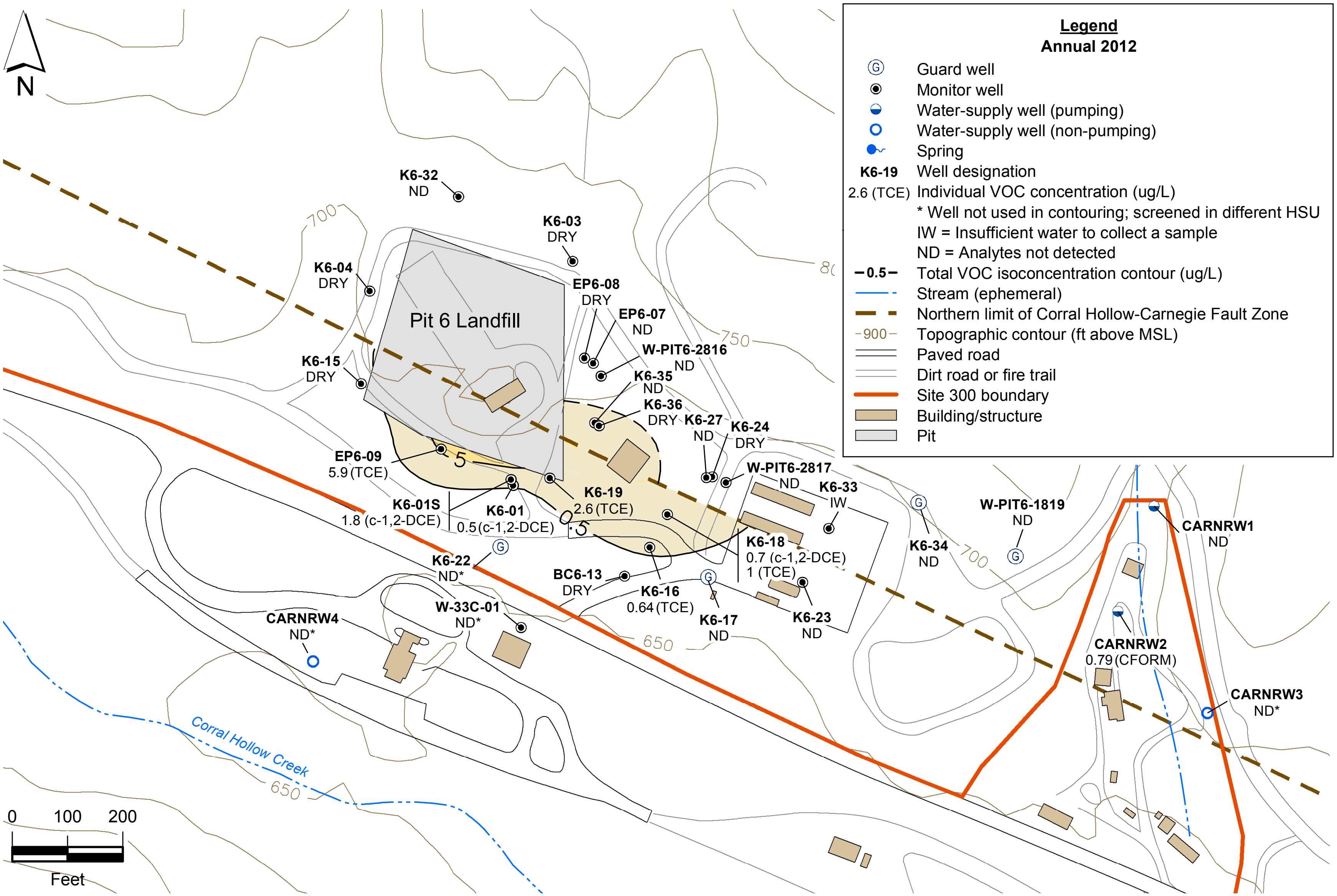


Figure 2.3-3. Pit 6 Landfill Operable Unit total VOC isoconcentration contour map and individual VOC concentrations for the Qt-Tnbs$_1$ hydrostratigraphic unit.

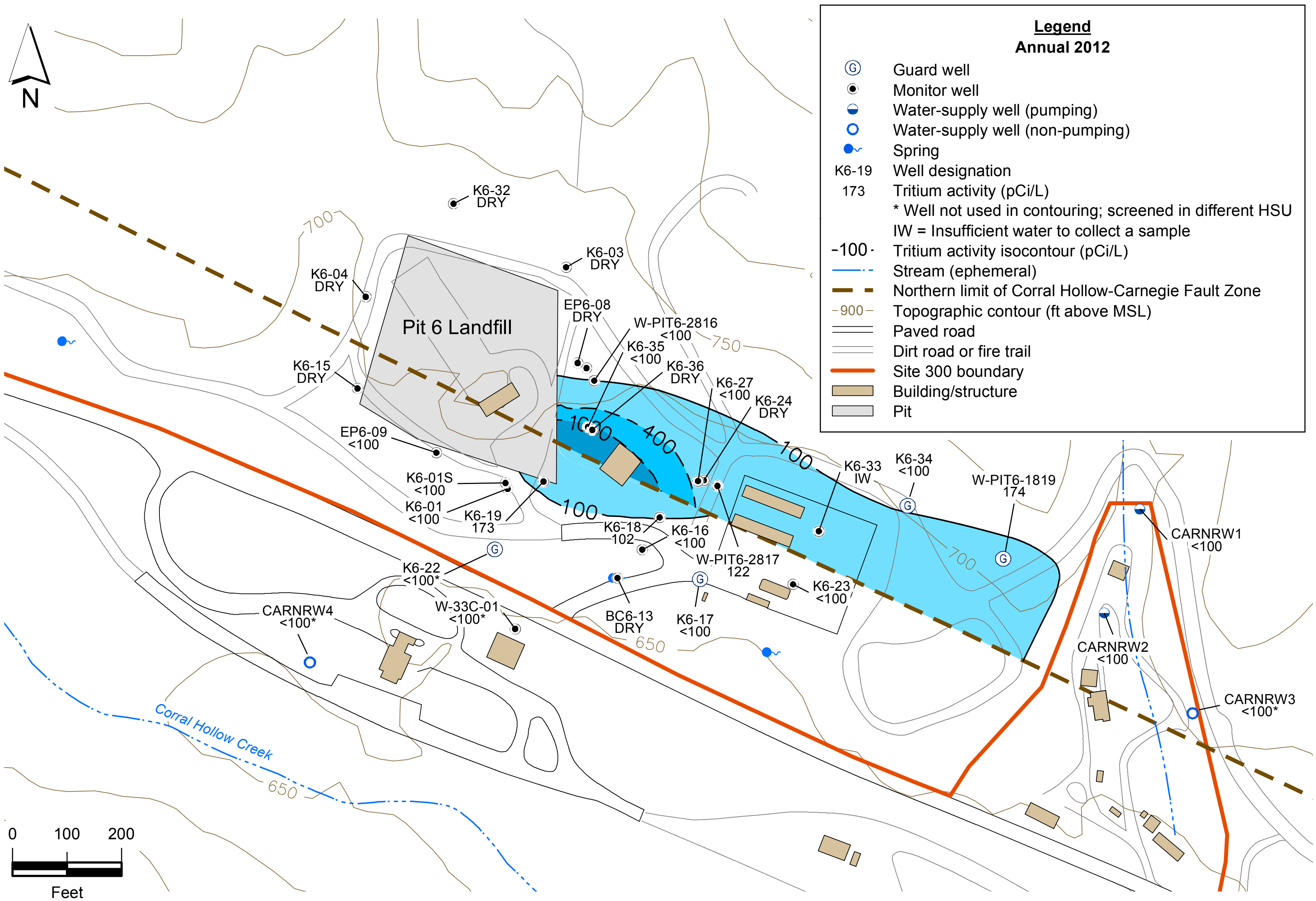


Figure 2.3-4. Pit 6 Landfill Operable Unit tritium activity isocontour map for the Qt-Tnbs$_1$ hydrostratigraphic unit.

Figure 2.4-1. High Explosives Process Area Operable Unit site map showing monitor, extraction, injection and water-supply wells, and treatment facilities.

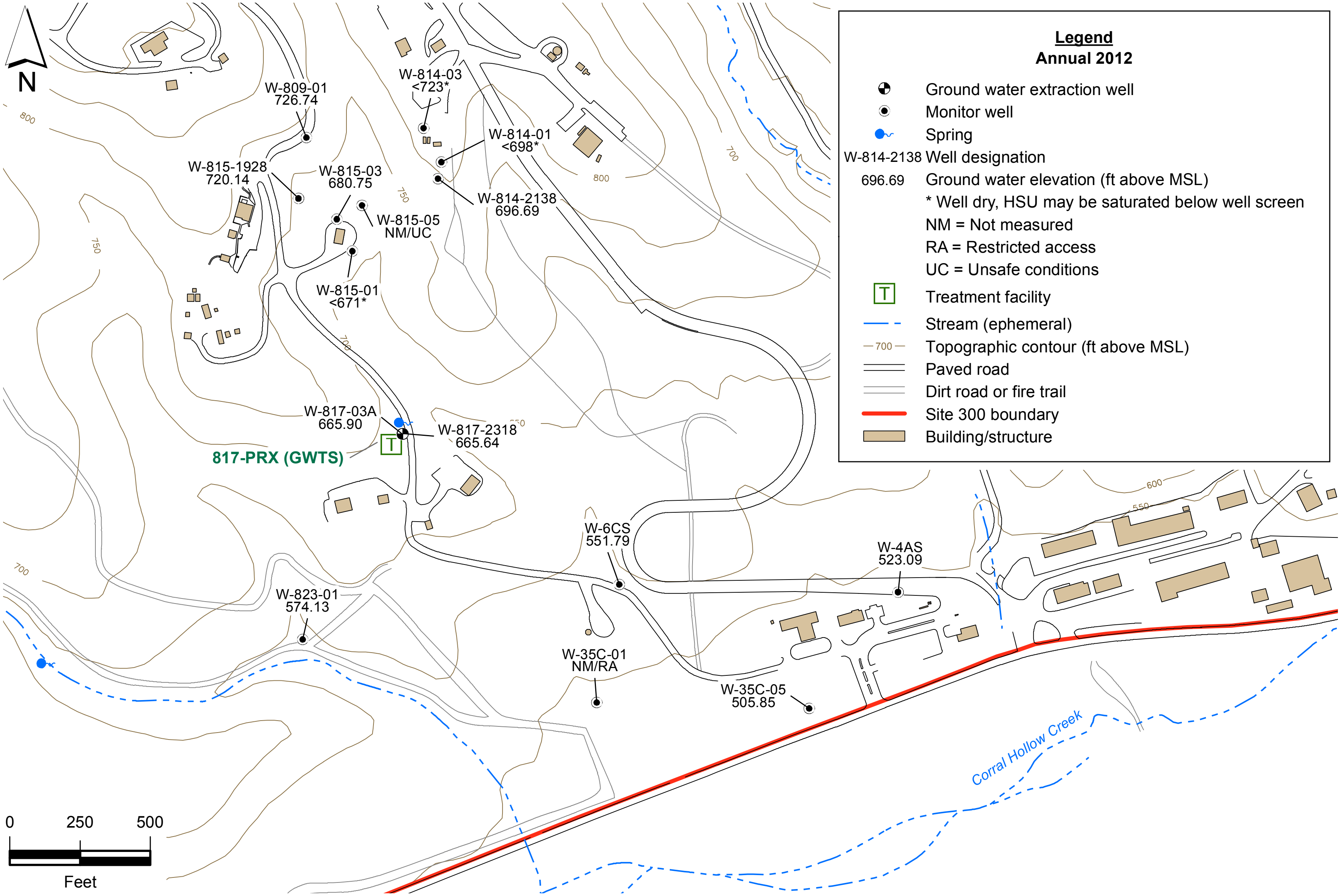


Figure 2.4-2. High Explosives Process Area Operable Unit map showing ground water elevations for the Tpsg-Tps hydrostratigraphic unit.

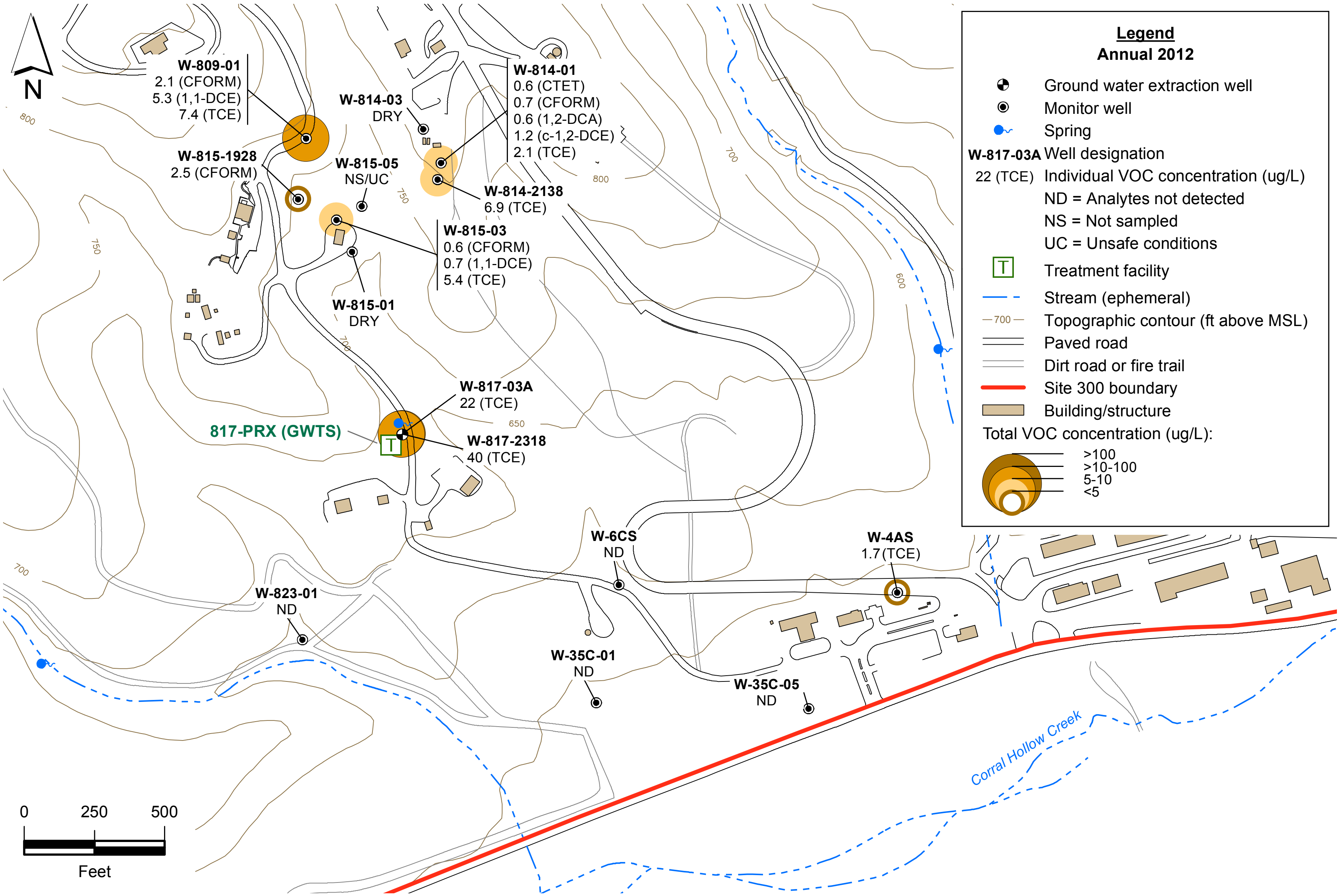


Figure 2.4-3. High Explosives Process Area Operable Unit map showing individual VOC concentrations for the Tpsg-Tps hydrostratigraphic unit.

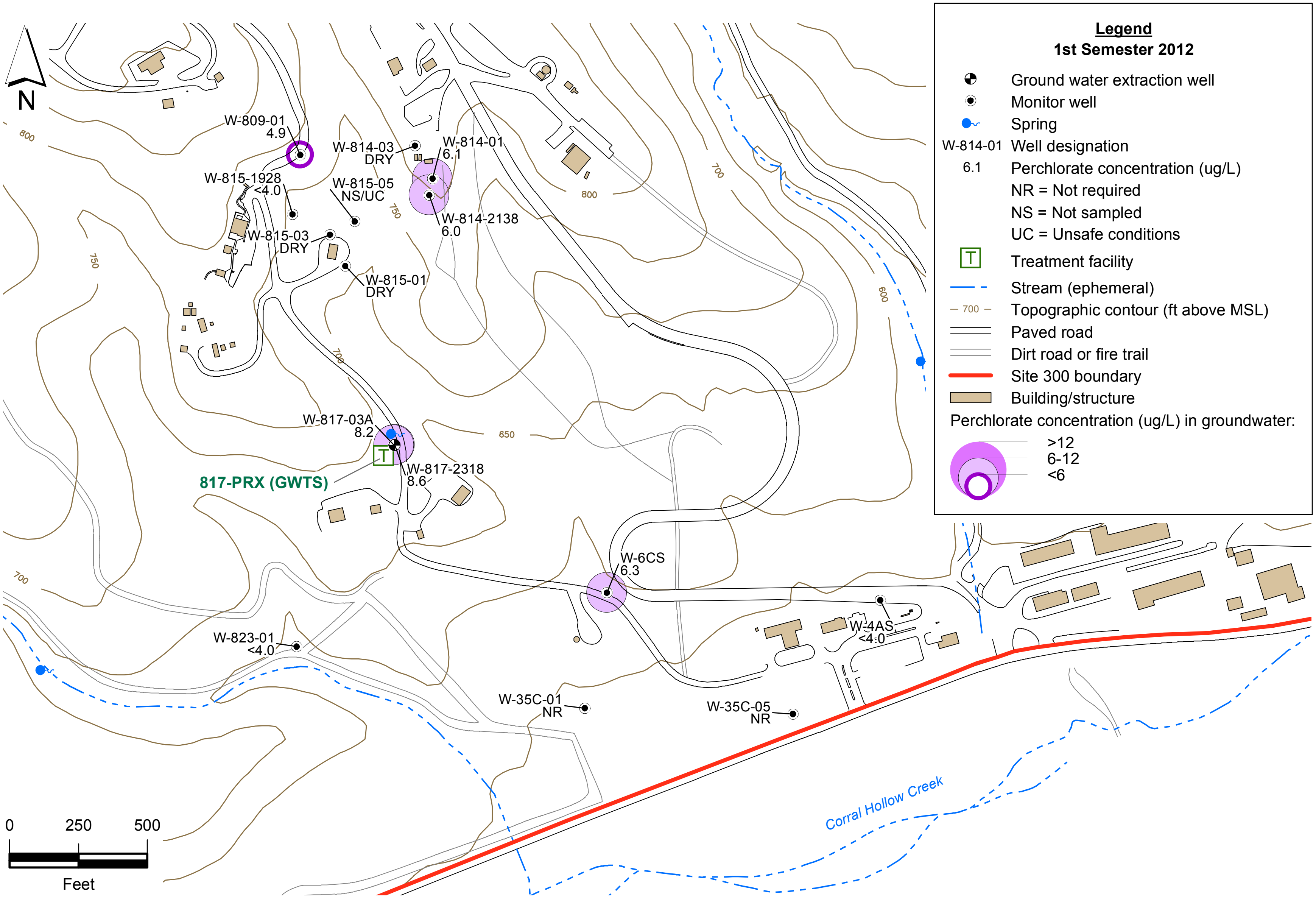


Figure 2.4-4. High Explosives Process Area Operable Unit map showing perchlorate concentrations for the Tpsg-Tps hydrostratigraphic unit.

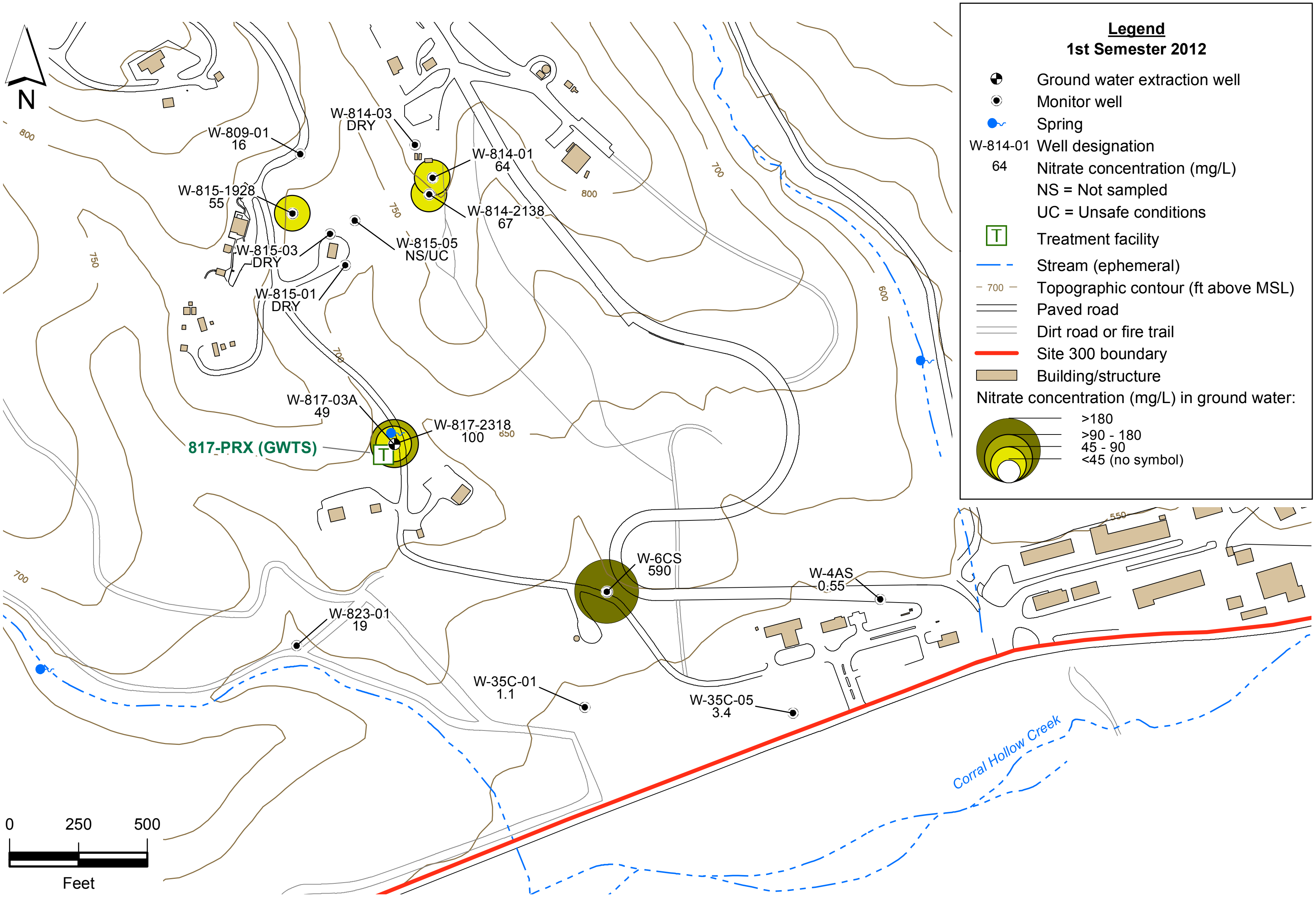


Figure 2.4-5. High Explosives Process Area Operable Unit map showing nitrate concentrations for the Tpsg-Tps hydrostratigraphic unit.

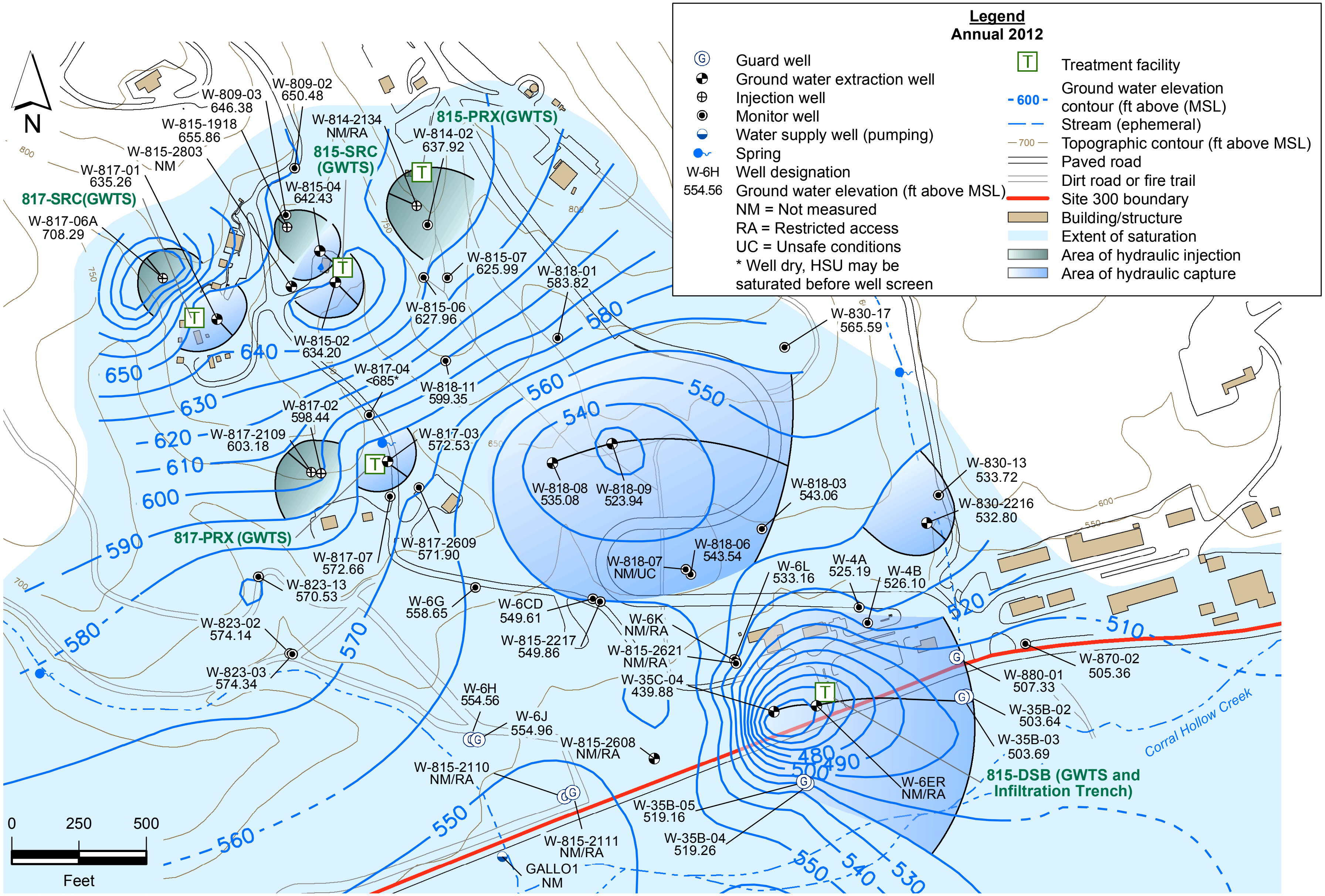


Figure 2.4-6. High Explosives Process Area Operable Unit ground water potentiometric surface map for the Tnbs$_2$ hydrostratigraphic unit.

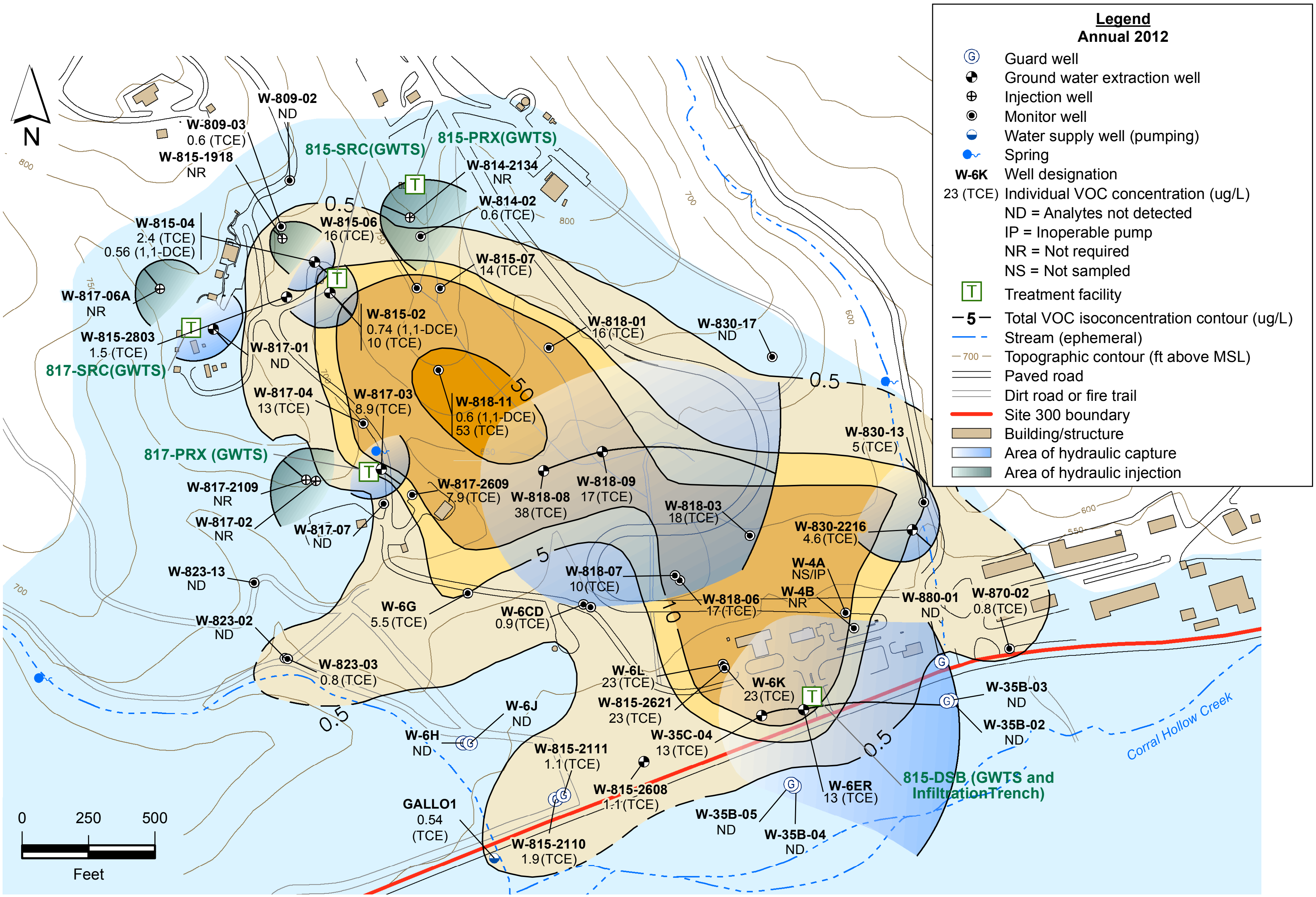


Figure 2.4-7. High Explosives Process Area Operable Unit total VOC isoconcentration contour map and individual VOC concentrations for the Tnbs$_2$ hydrostratigraphic unit.

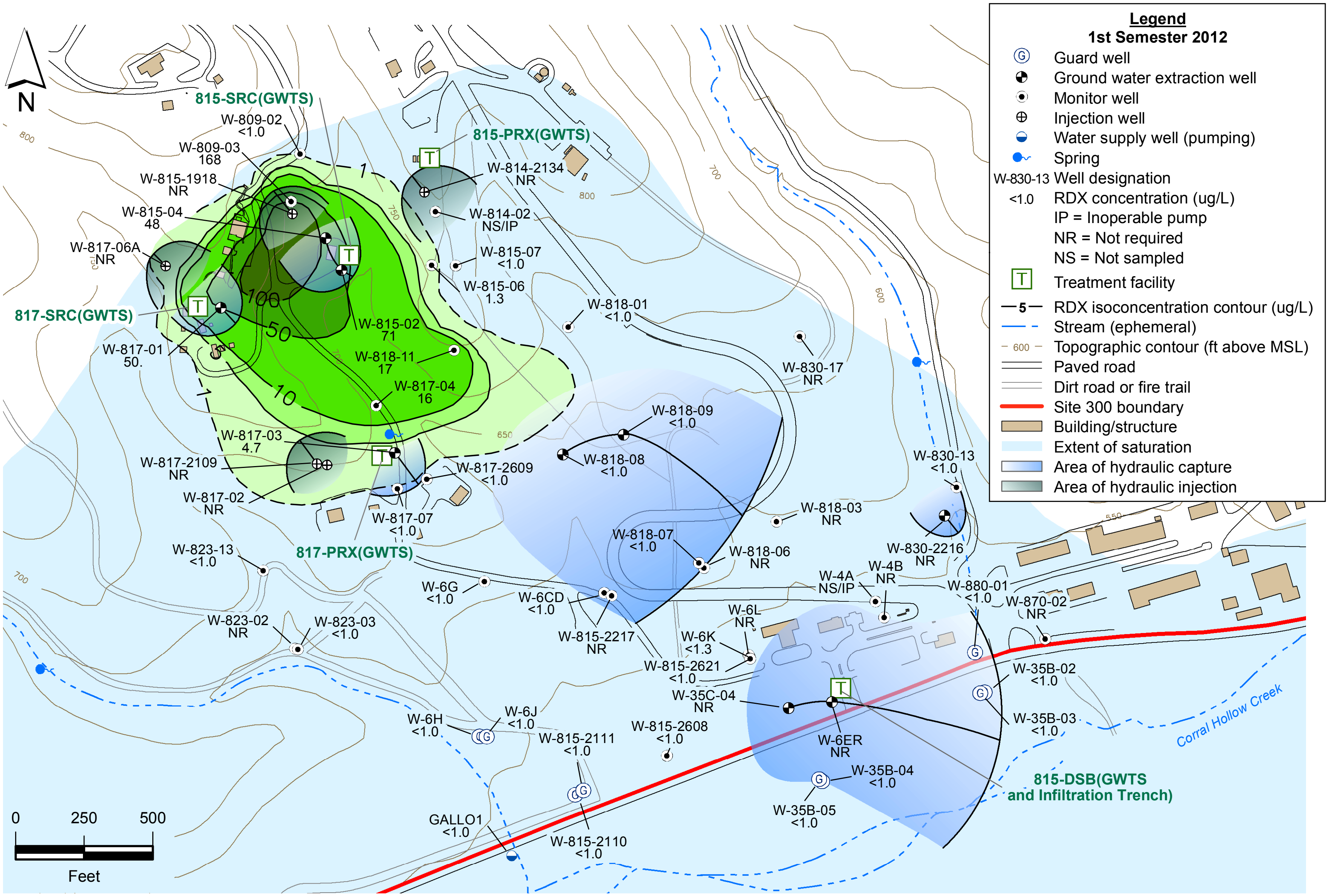


Figure 2.4-8. High Explosives Process Area Operable Unit RDX isoconcentration contour map for the Tnbs$_2$ hydrostratigraphic unit.

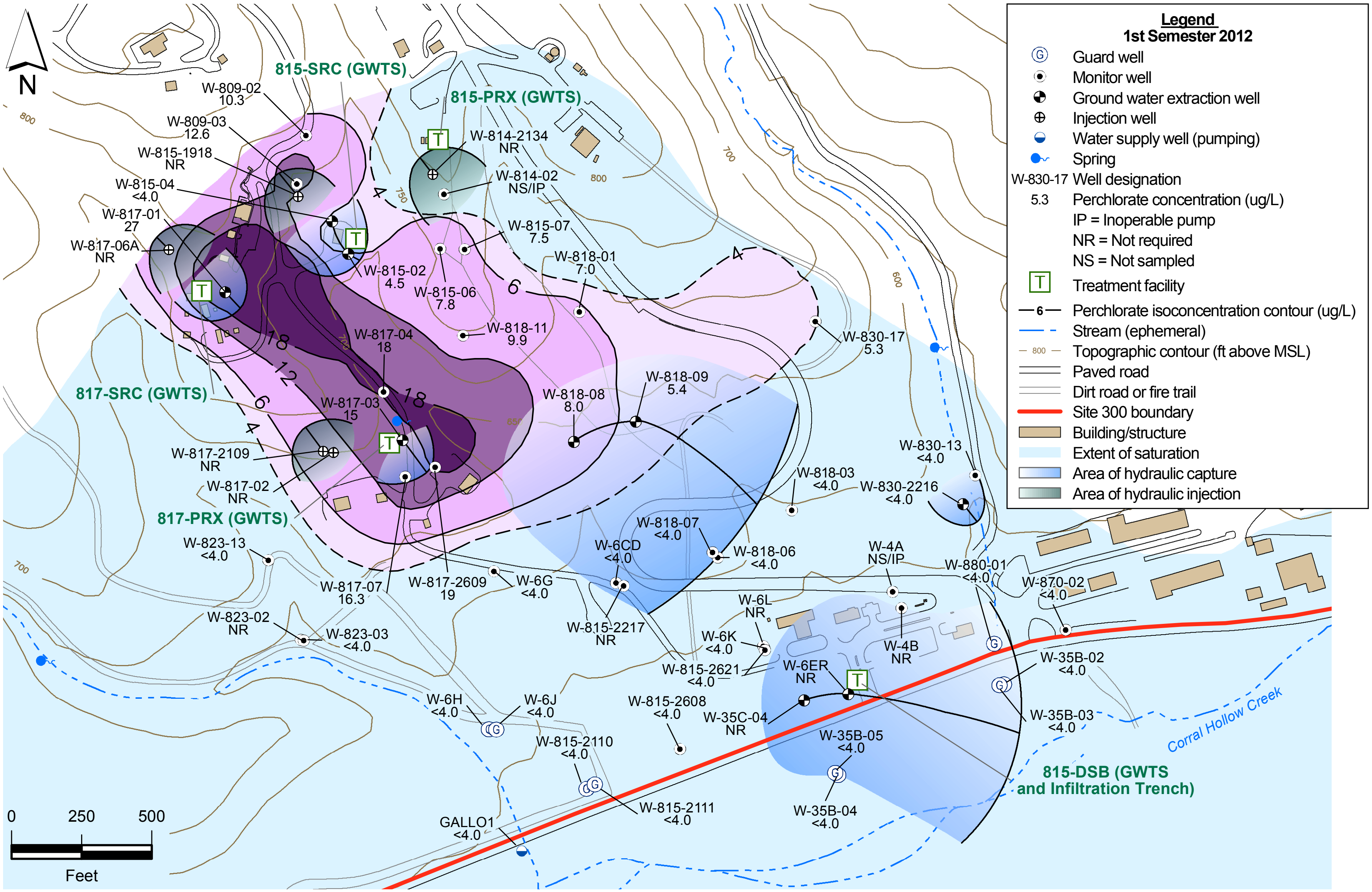


Figure 2.4-9. High Explosives Process Area Operable Unit perchlorate isoconcentration contour map for the Tnbs$_2$ hydrostratigraphic unit.

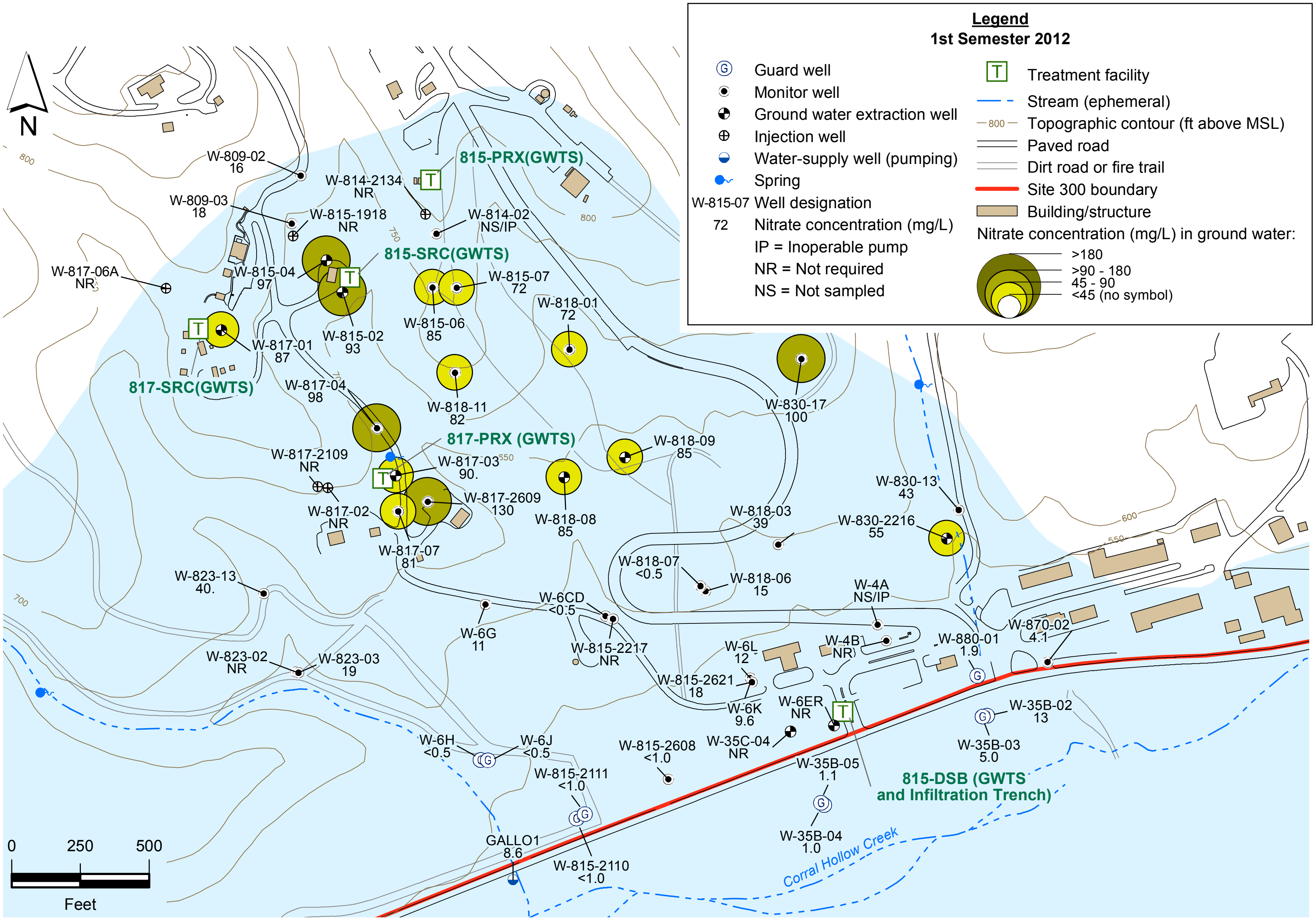


Figure 2.4-10. High Explosives Process Area Operable Unit map showing nitrate concentrations for the Tnbs$_2$ hydrostratigraphic unit.

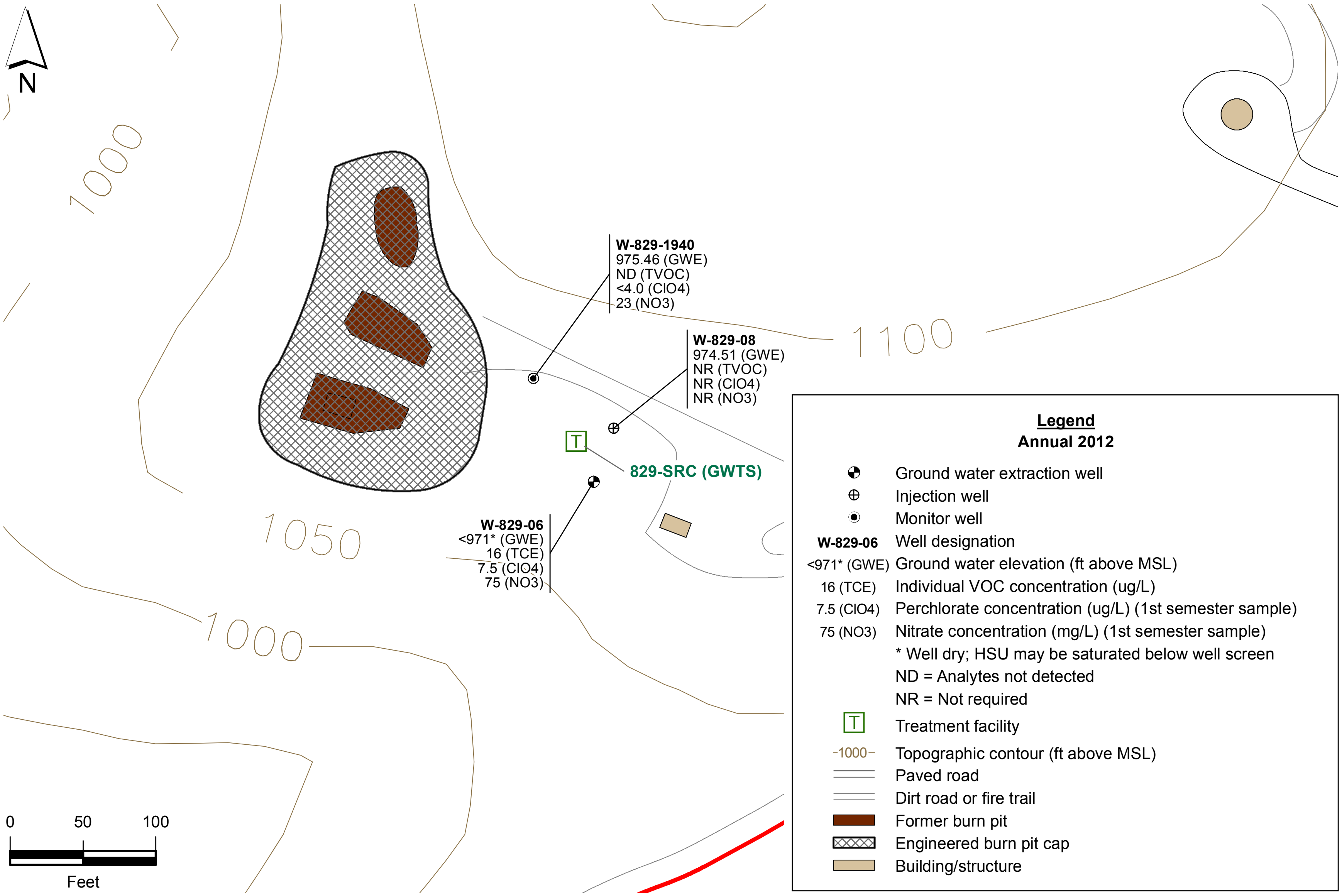


Figure 2.4-11. Building 829 burn pit site map showing monitor, extraction, and injection wells; ground water elevations; and individual VOC, perchlorate, and nitrate concentrations for the $Tnsc_{1b}$ hydrostratigraphic unit.

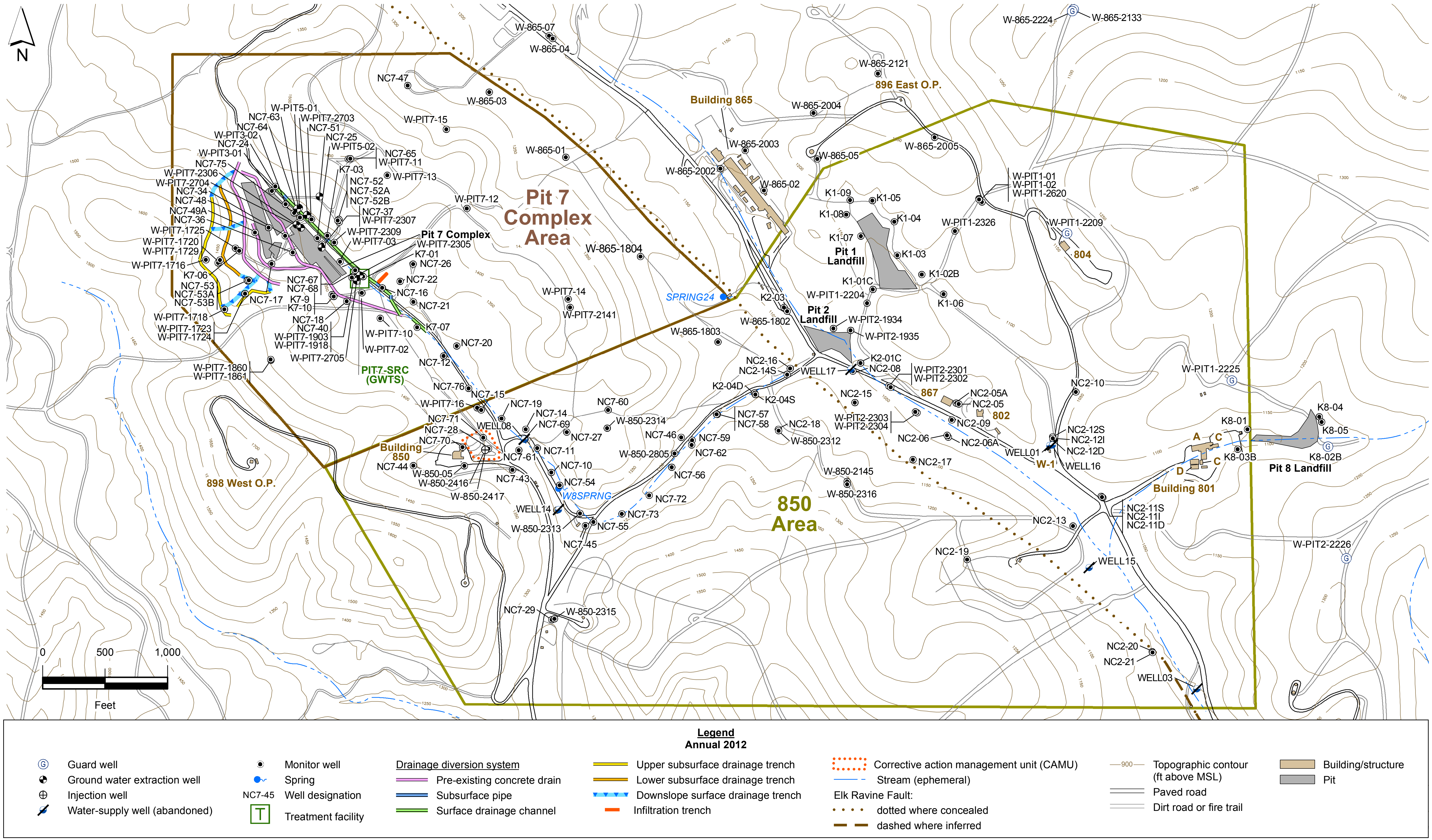


Figure 2.5-1. Building 850 and Pit 7 Complex area site map showing monitor, extraction, and injection wells, treatment facility and other remediation features.

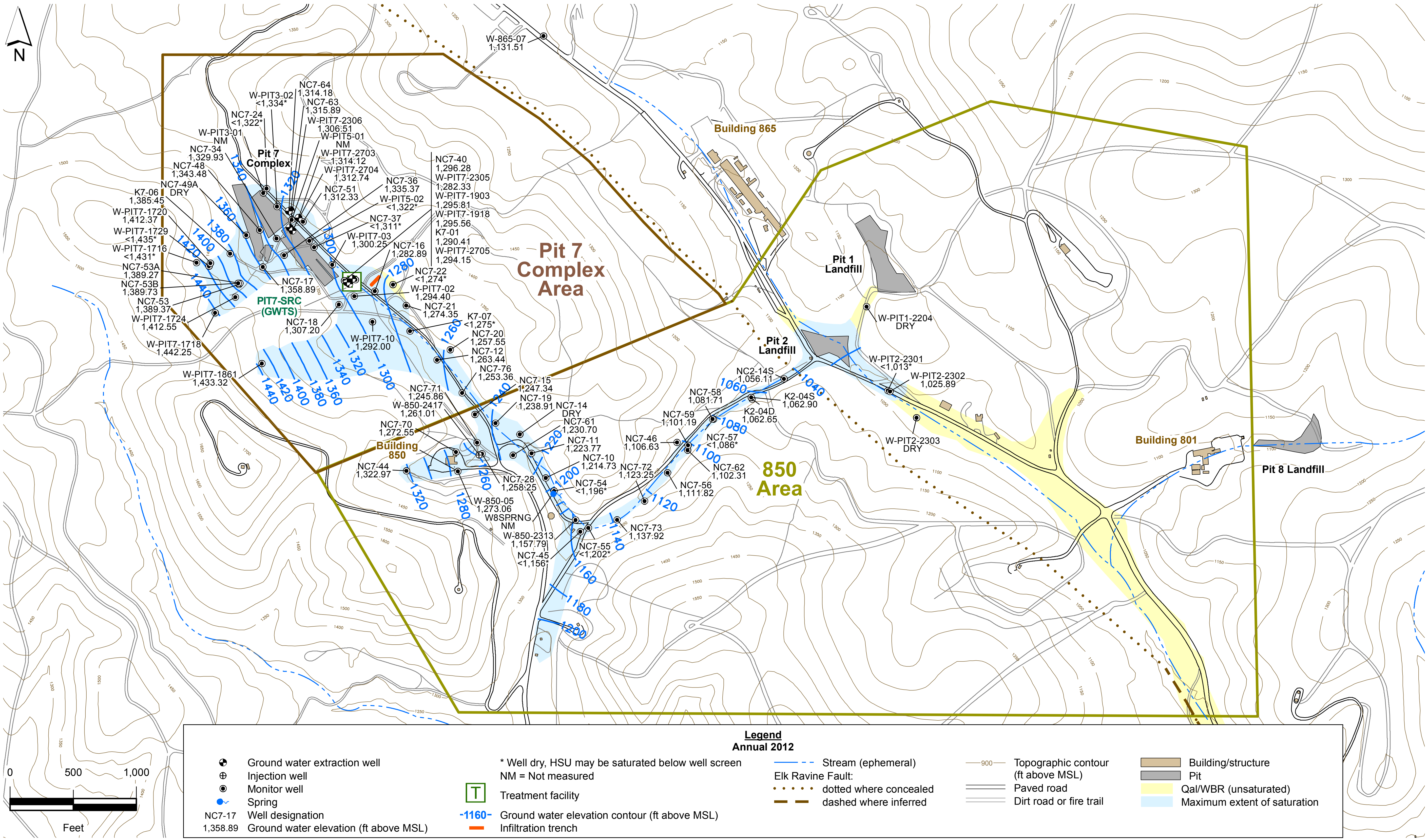


Figure 2.5-2. Building 850 and Pit 7 Complex area ground water potentiometric surface map for the Qal/WBR hydrostratigraphic unit.

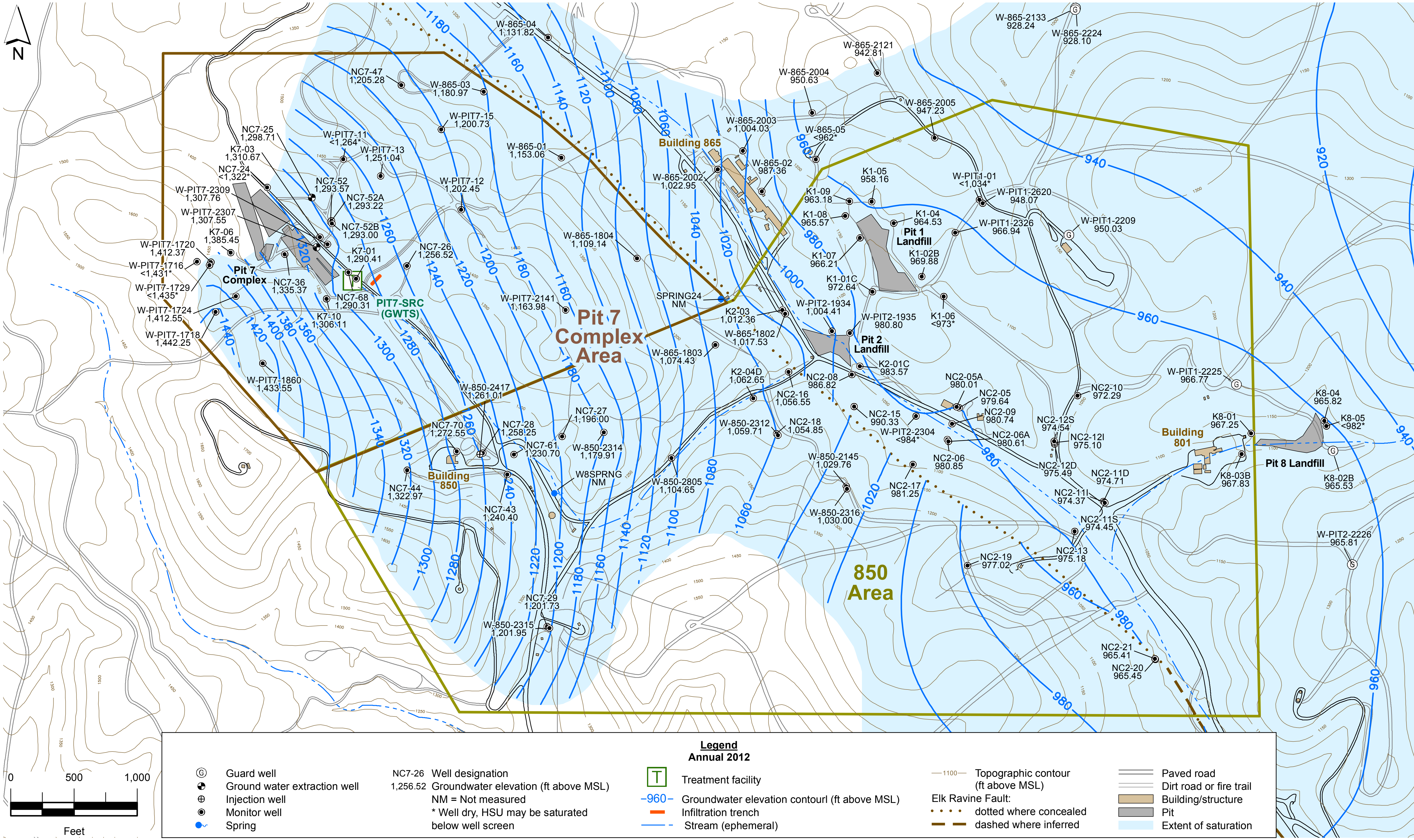


Figure 2.5-3. Building 850 and Pit 7 Complex area ground water potentiometric surface map for the $Tnbs_1/Tnbs_0$ hydrostratigraphic unit.

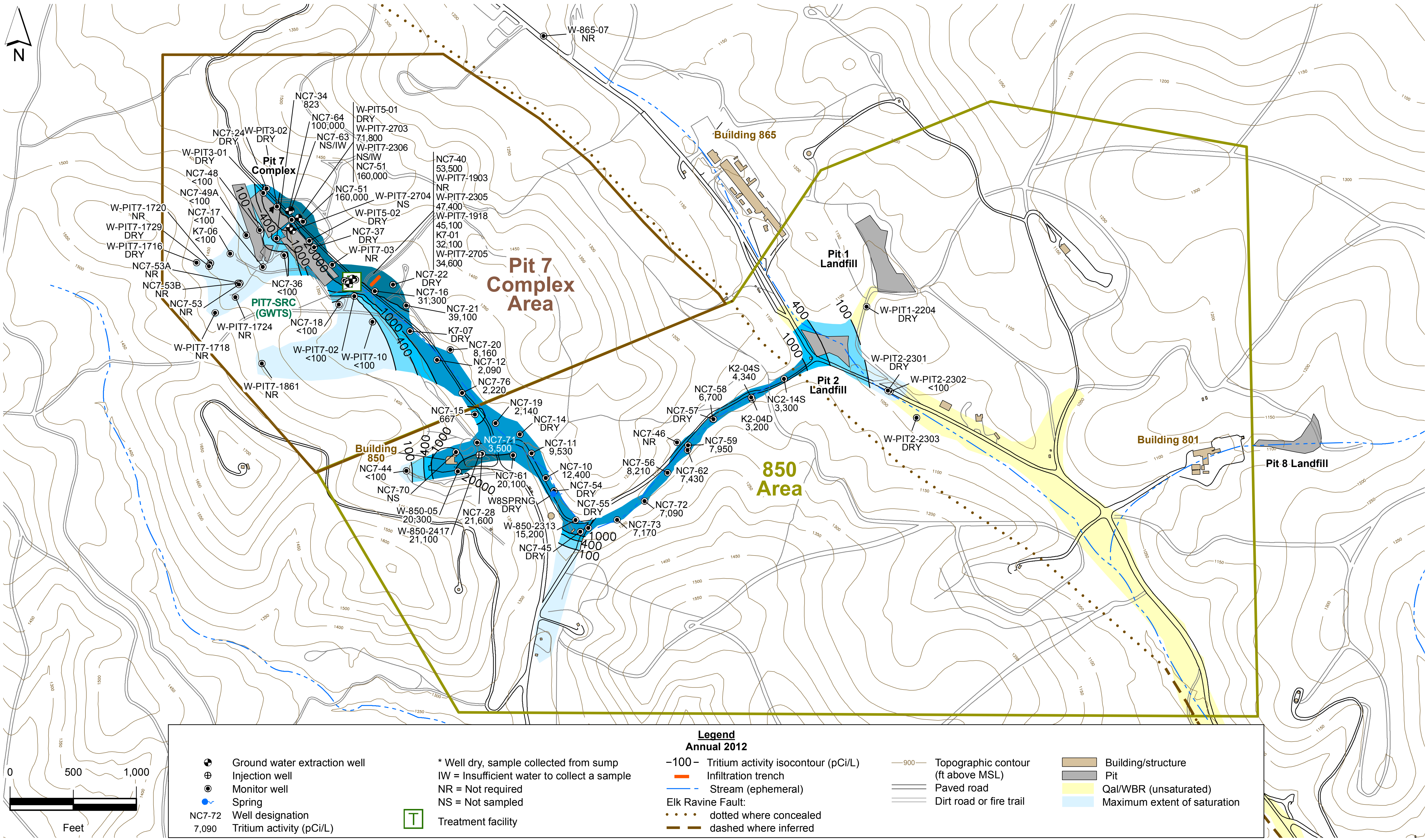


Figure 2.5-4. Building 850 and Pit 7 Complex area tritium activity isocontour map for the Qal/WBR hydrostratigraphic unit.

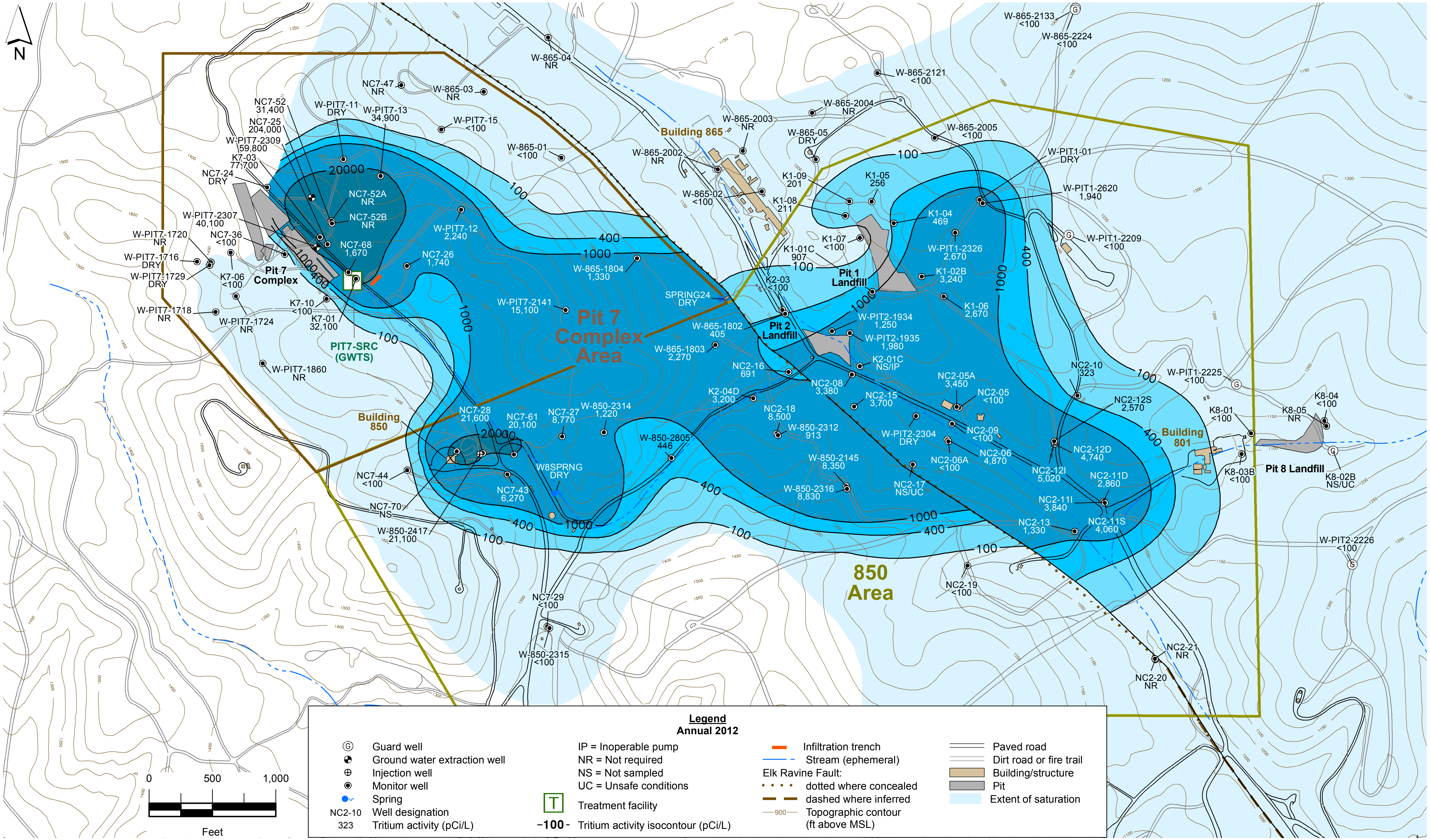


Figure 2.5-5. Building 850 and Pit 7 Complex area tritium activity isocontour map for the $Tnbs_1/Tnbs_0$ hydrostratigraphic unit.

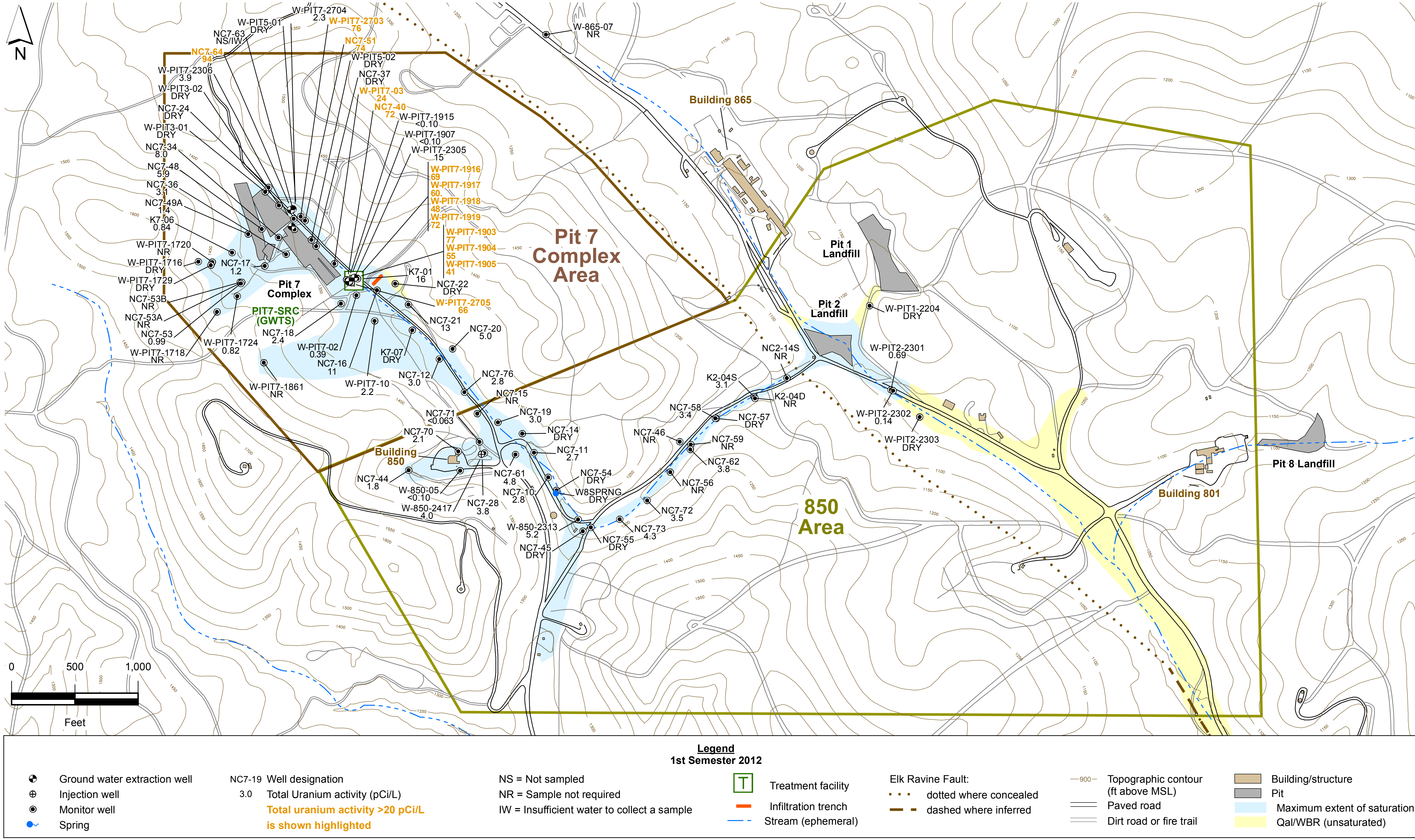


Figure 2.5-6. Building 850 and Pit 7 Complex area map showing ground water uranium activities for the Qal/WBR hydrostratigraphic unit.

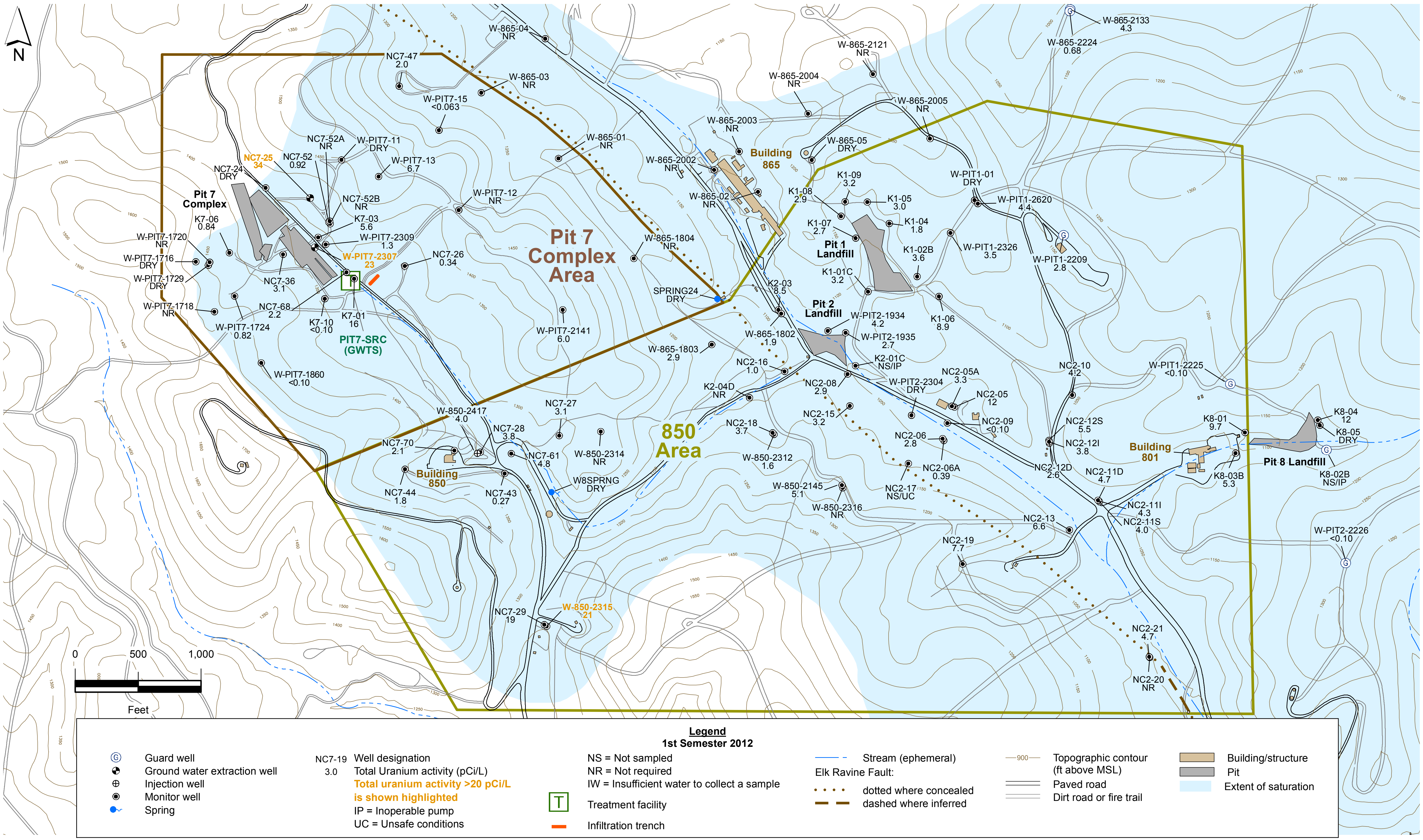


Figure 2.5-7. Building 850 and Pit 7 Complex area map showing ground water uranium activities for the $Tnbs_1/Tnbs_0$ hydrostratigraphic unit.

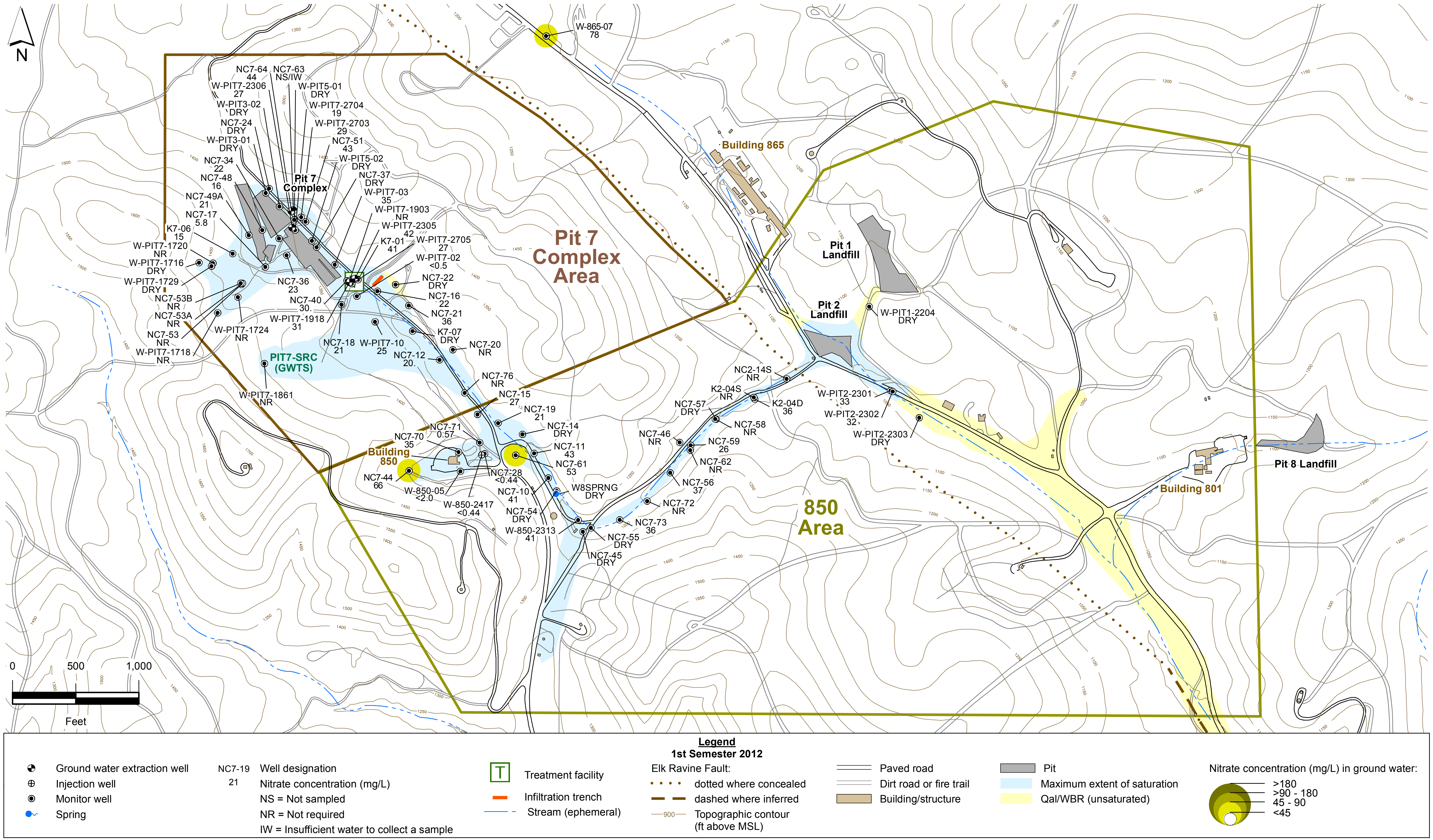


Figure 2.5-8. Building 850 and Pit 7 Complex area map showing nitrate concentrations for the Qal/WBR hydrostratigraphic unit.

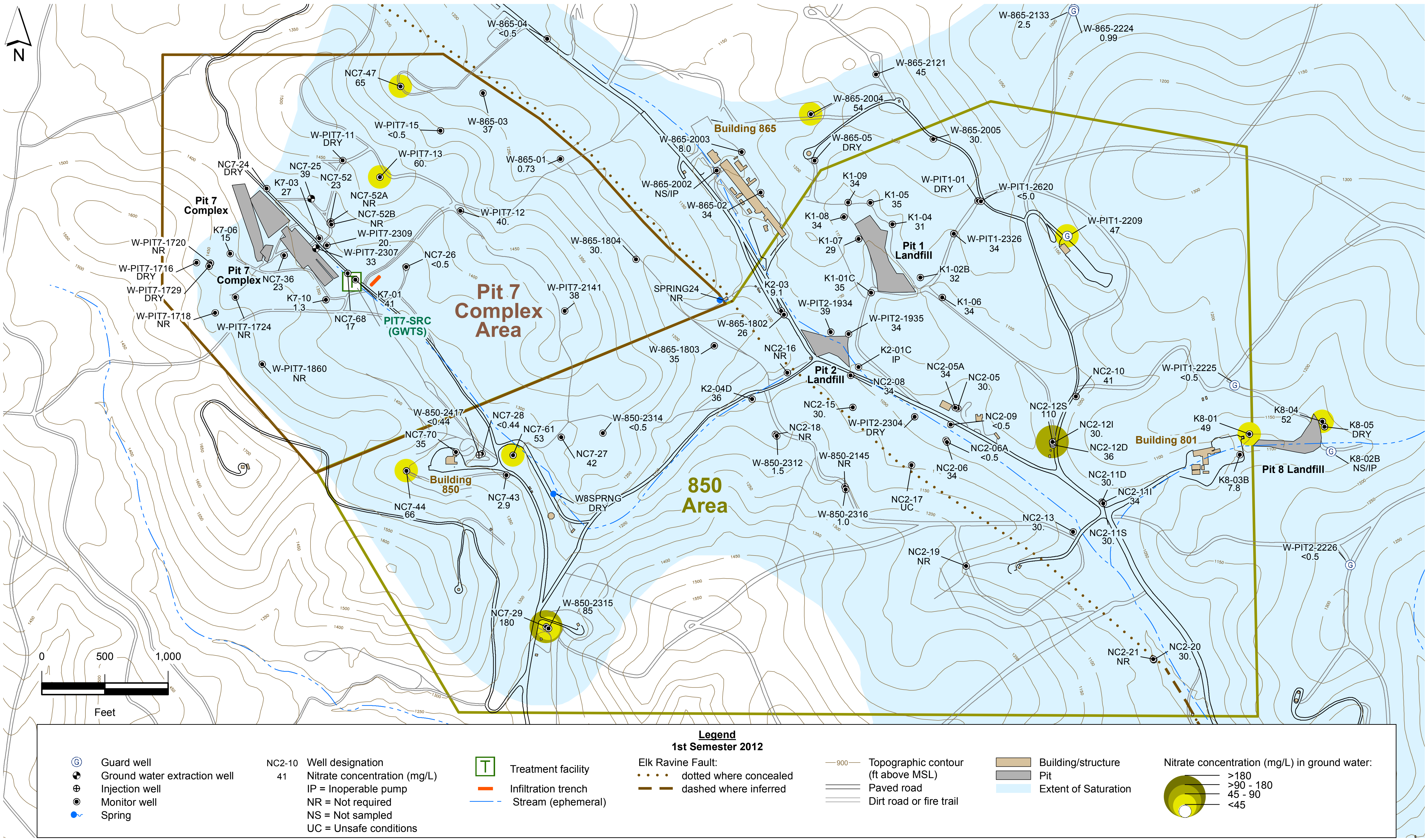


Figure 2.5-9. Building 850 and Pit 7 Complex area map showing nitrate concentrations for the Tnbs$_1$/Tnbs$_0$ hydrostratigraphic unit.

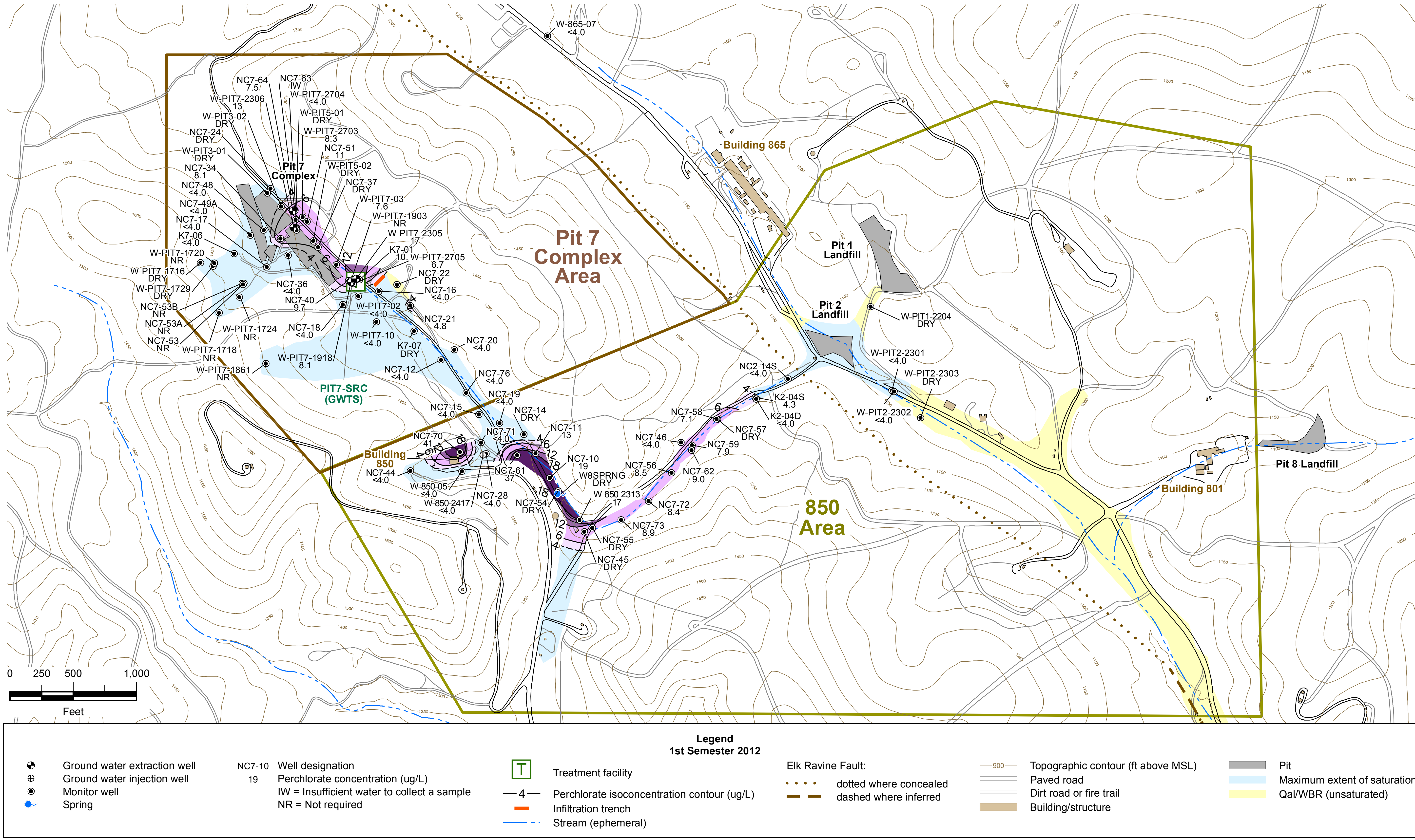


Figure 2.5-10. Building 850 and Pit 7 Complex area perchlorate isoconcentration contour map for the Qal/WBR hydrostratigraphic unit.

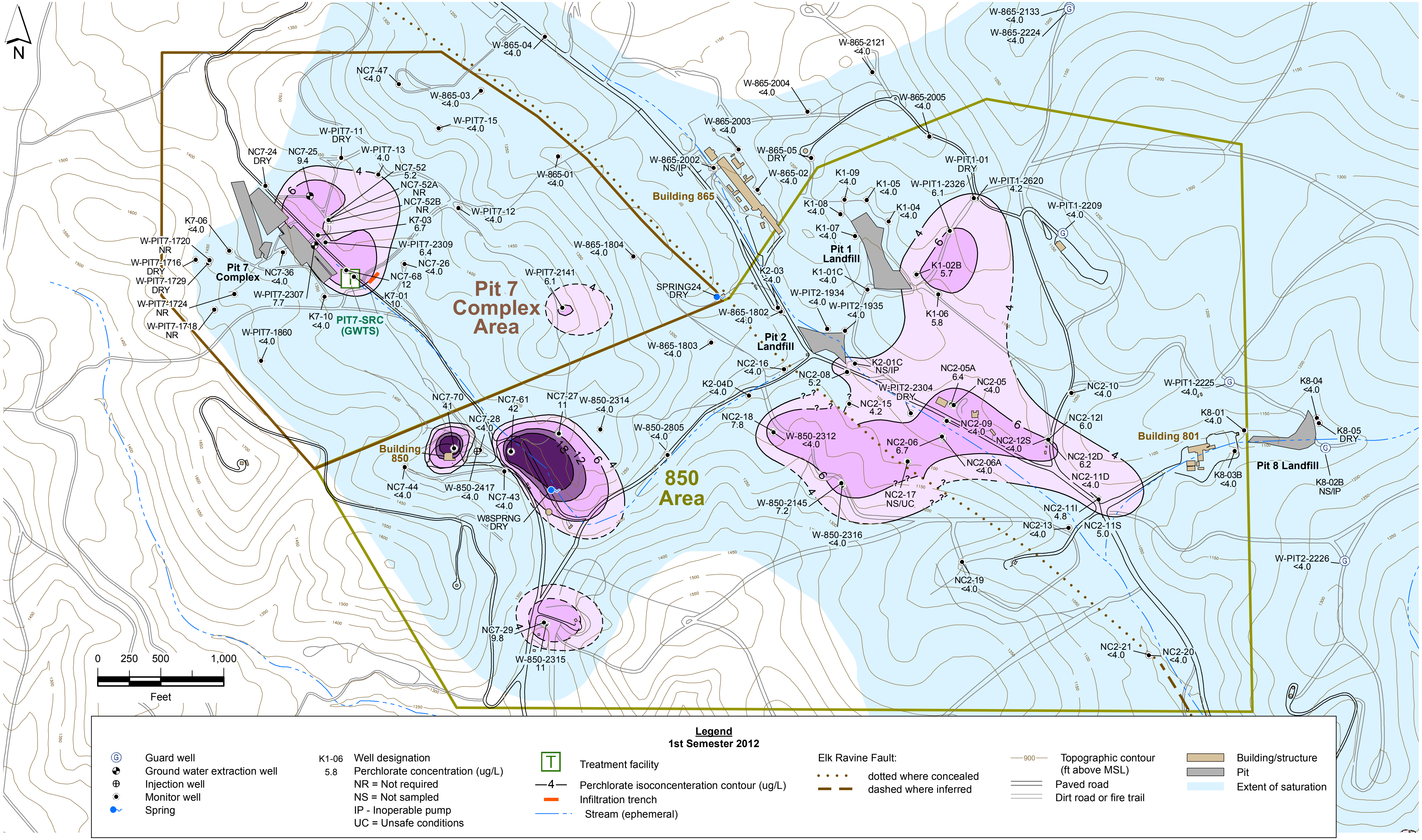


Figure 2.5-11. Building 850 and Pit 7 Complex area perchlorate isoconcentration contour map for the $Tnbs_1/Tnbs_0$ hydrostratigraphic unit.

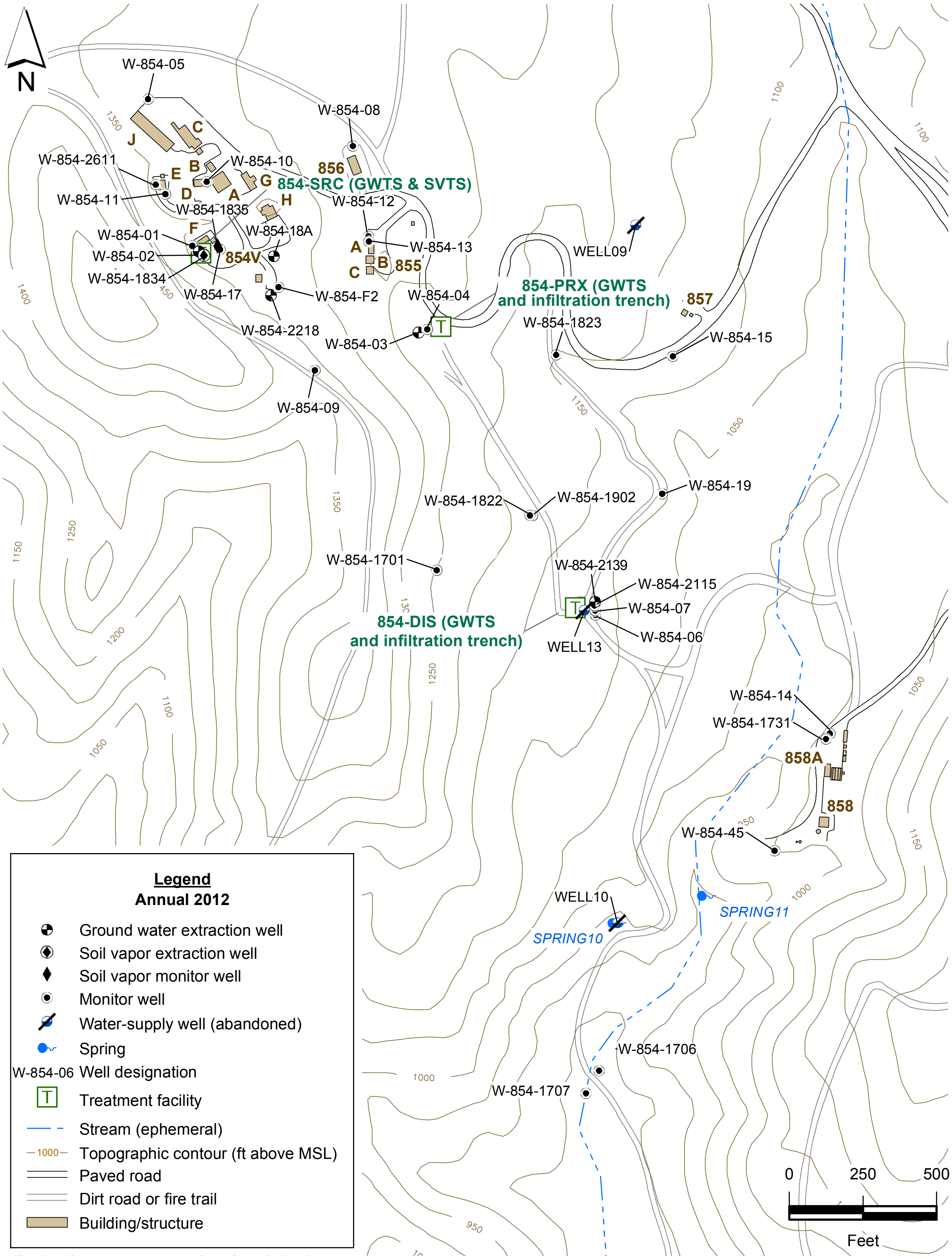


Figure 2.6-1. Building 854 Operable Unit site map showing monitor and extraction wells, and treatment facilities.

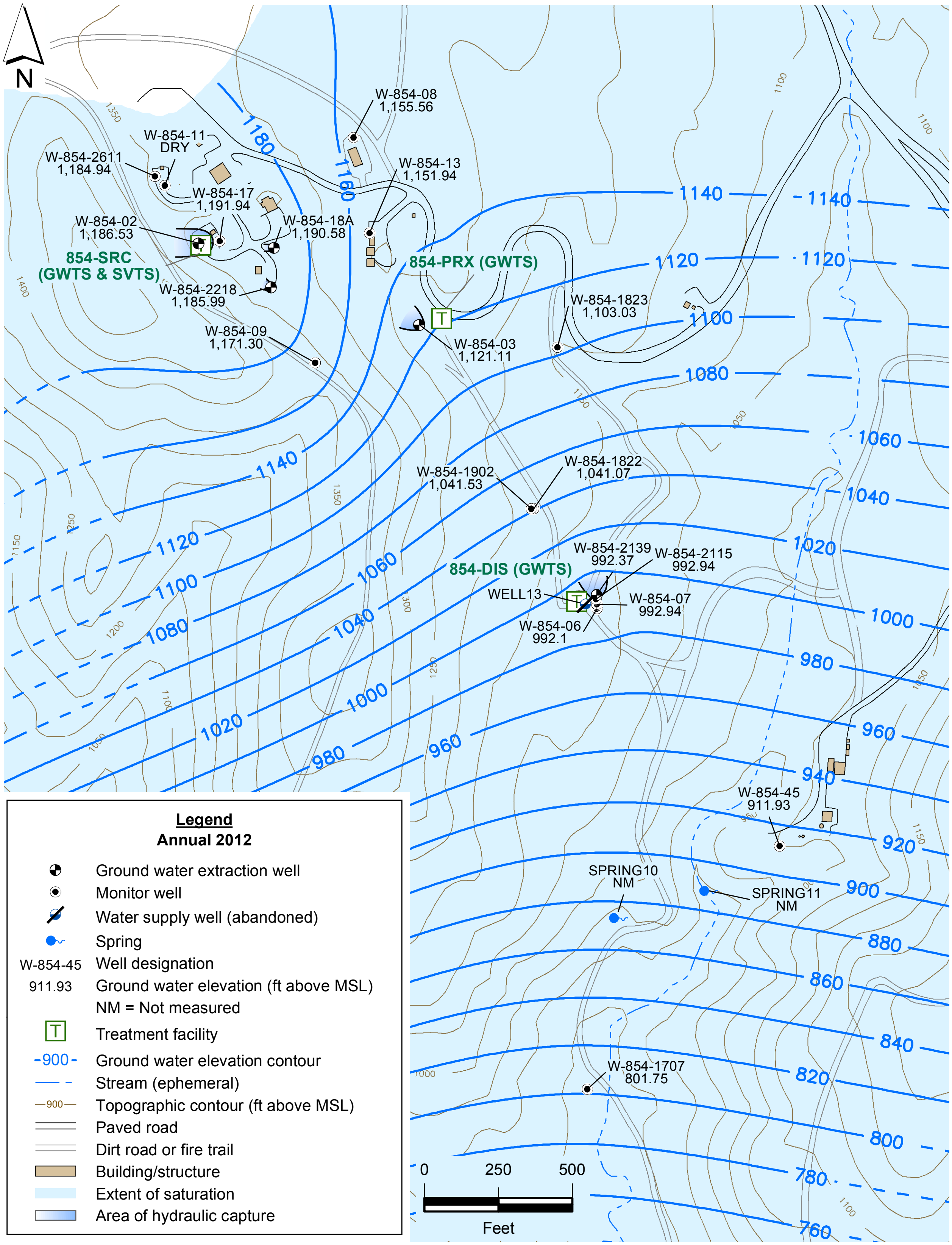


Figure 2.6-2. Building 854 Operable Unit ground water potentiometric surface map for the $Tnbs_1/Tnsc_0$ hydrostratigraphic unit.

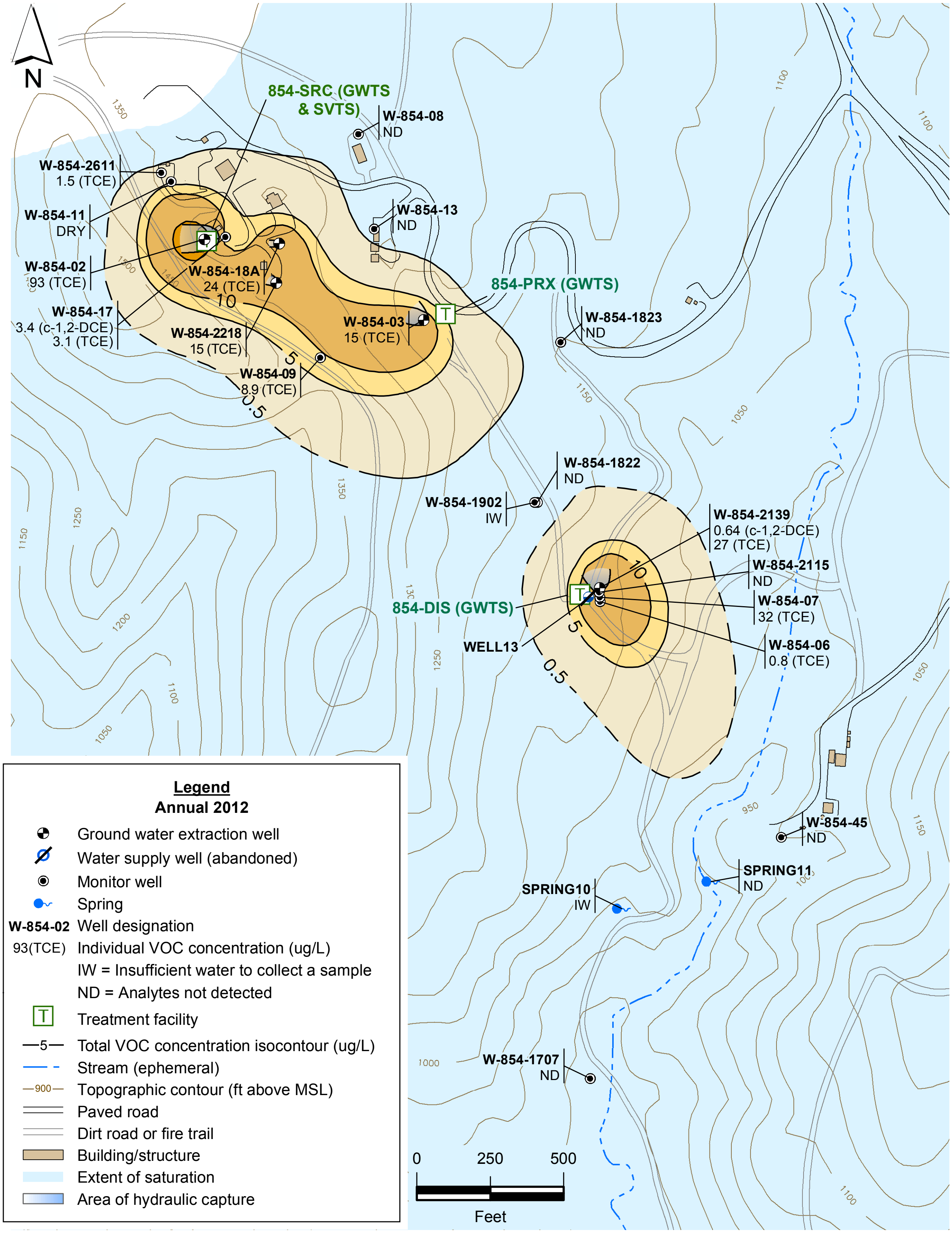


Figure 2.6-3. Building 854 Operable Unit total VOC isoconcentration contour map and individual VOC concentrations for the $Tnbs_1/Tnsc_0$ hydrostratigraphic unit.

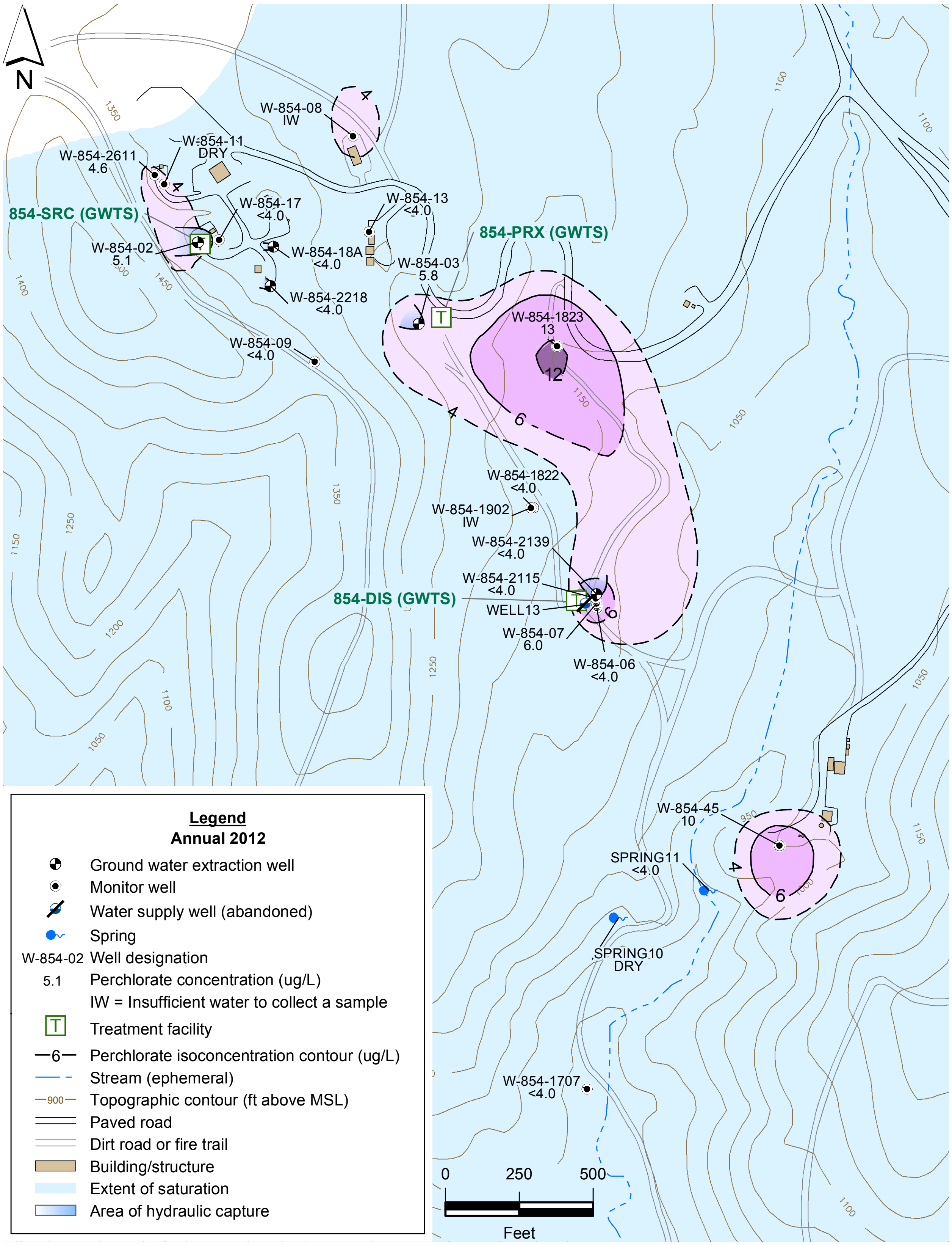


Figure 2.6-4. Building 854 Operable Unit perchlorate isoconcentration contour map for the Tnbs$_1$/Tnsc$_0$ hydrostratigraphic unit.

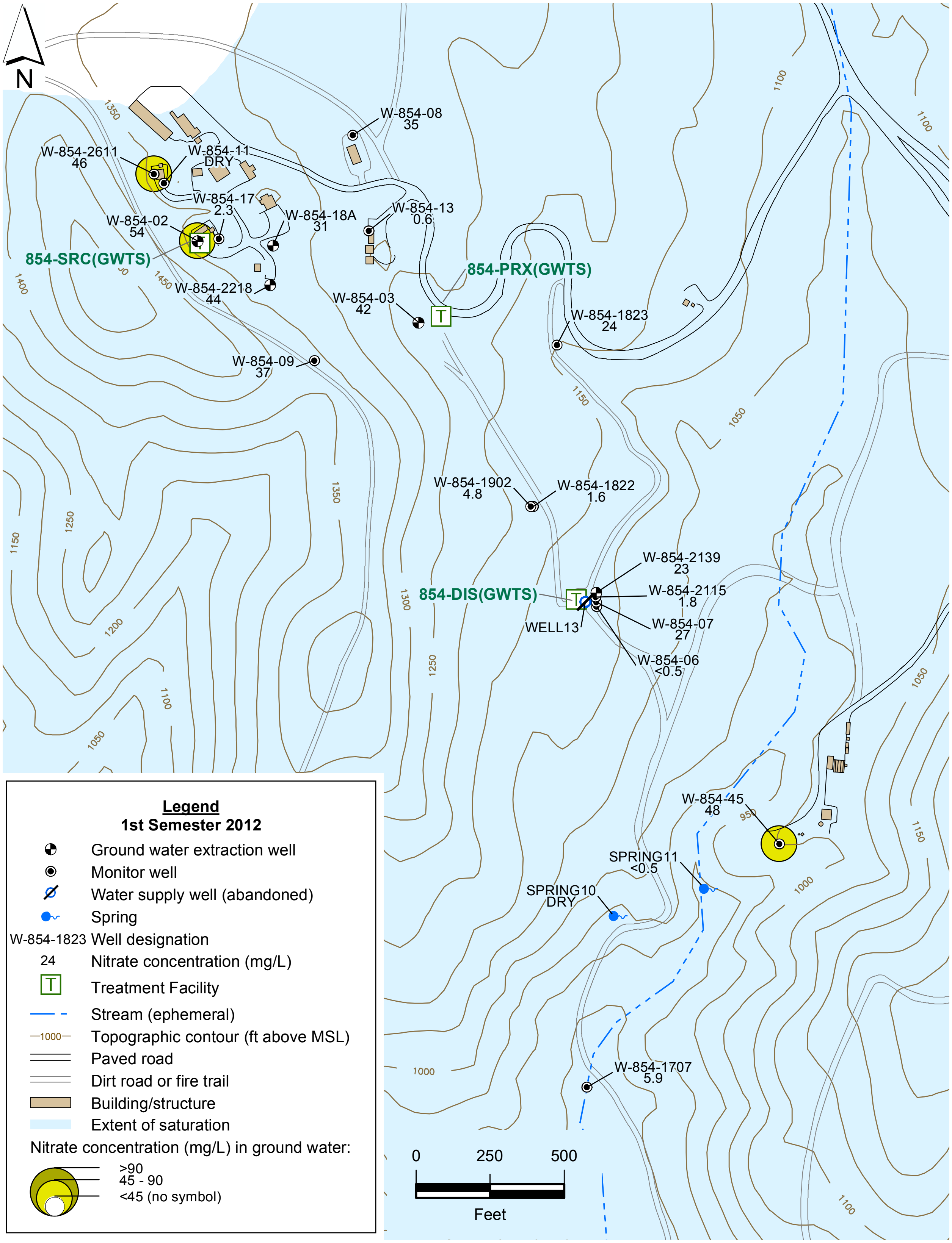


Figure 2.6-5. Building 854 Operable Unit map showing nitrate concentrations for the $Tnbs_1$/$Tnsc_0$ hydrostratigraphic unit.

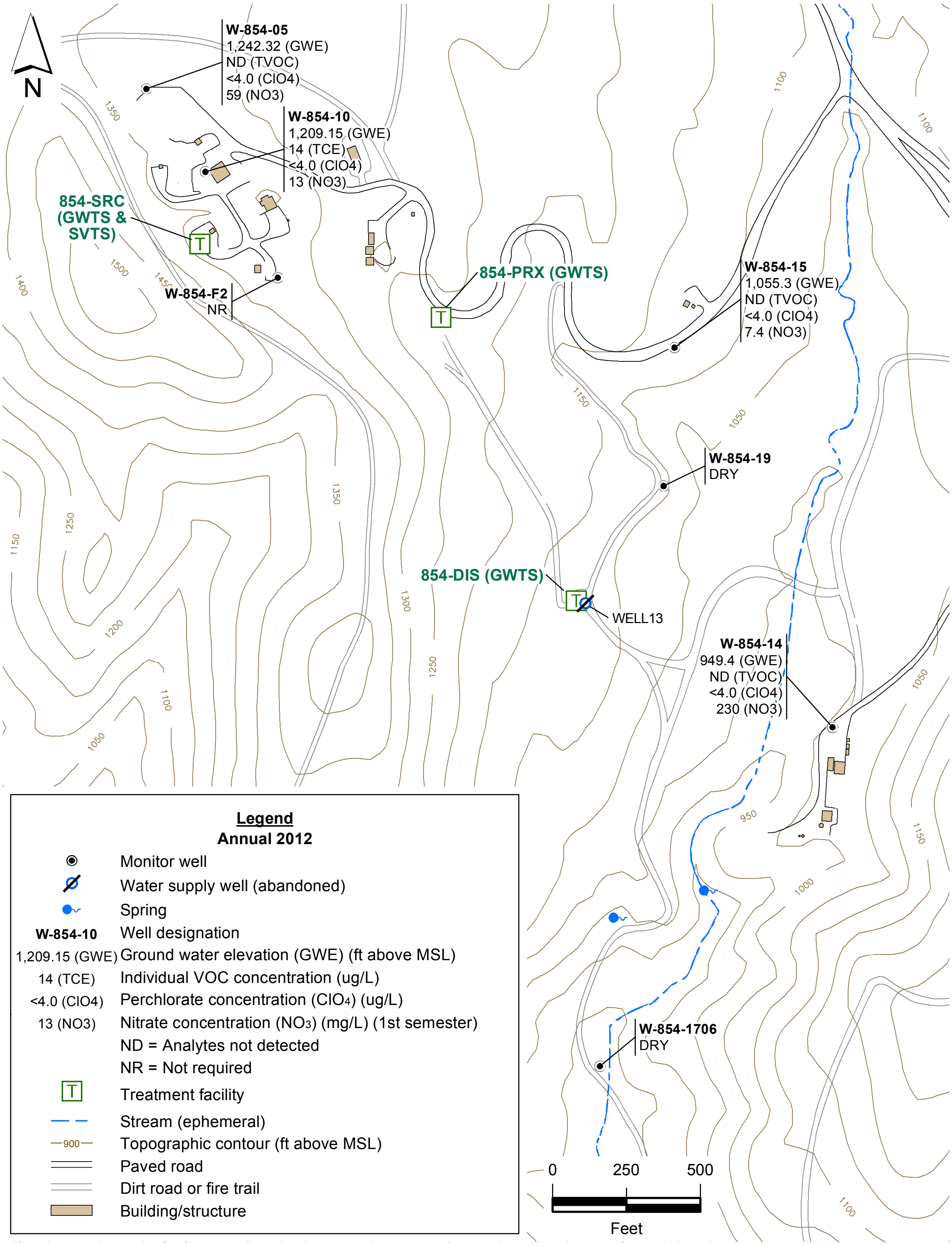


Figure 2.6-6. Building 854 Operable Unit map showing ground water elevations, individual VOC, perchlorate, and nitrate concentrations for the combined Qls and $Tnbs_1$ hydrostratigraphic units.

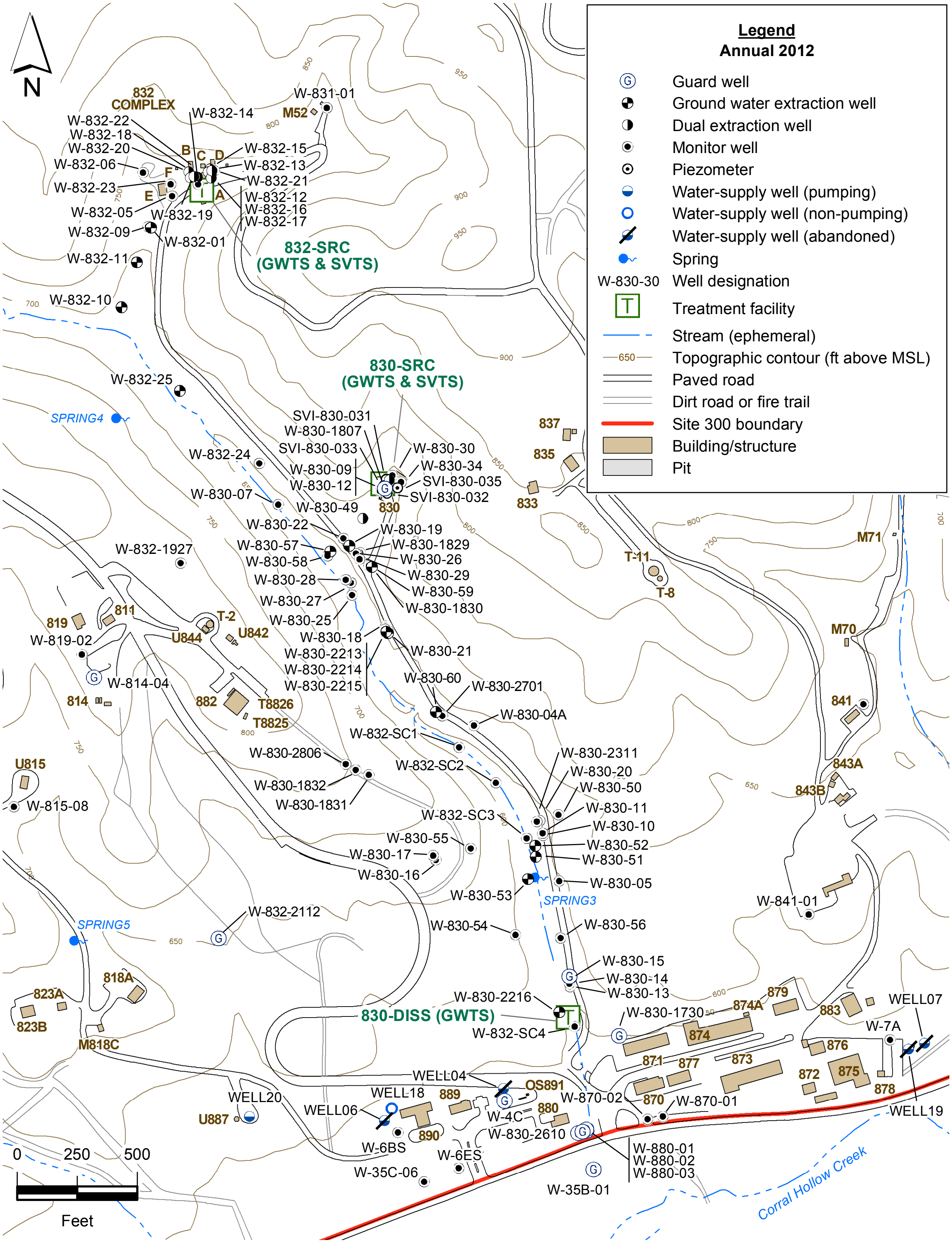


Figure 2.7-1. Building 832 Canyon Operable Unit site map showing monitor, extraction and water-supply wells, and treatment facilities.

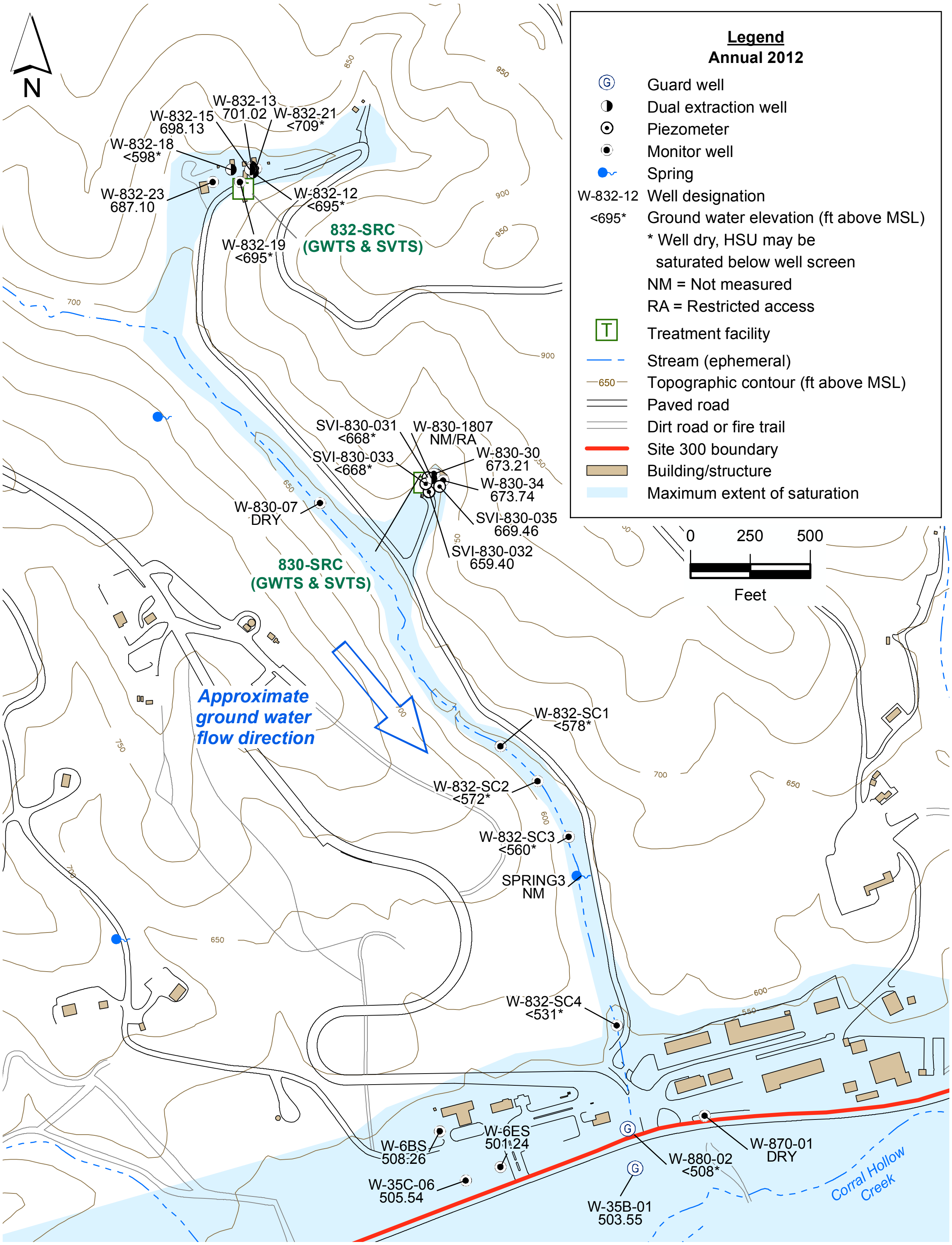


Figure 2.7-2. Building 832 Canyon Operable Unit map showing ground water elevations and ground water flow direction for the Qal/WBR hydrostratigraphic unit.

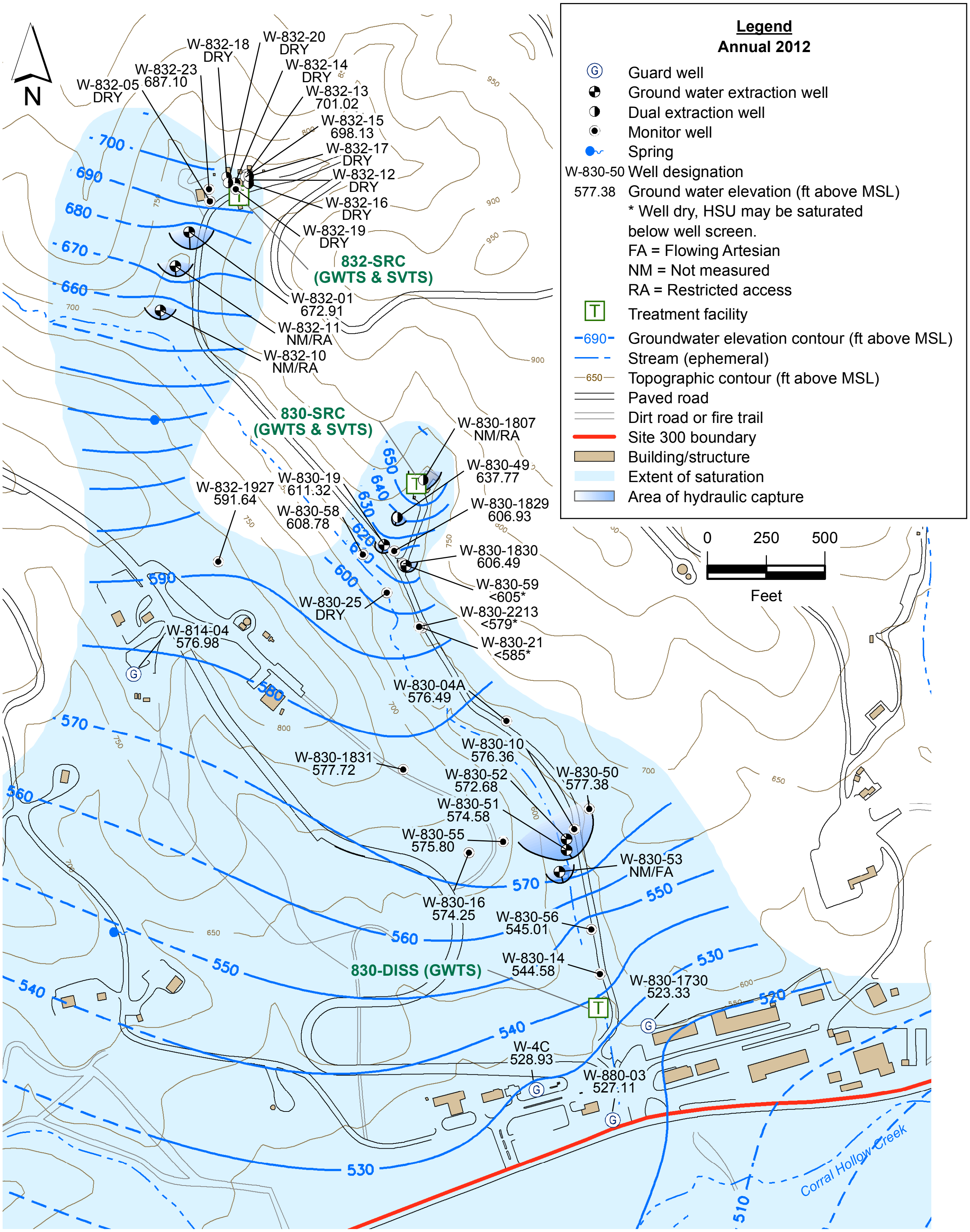
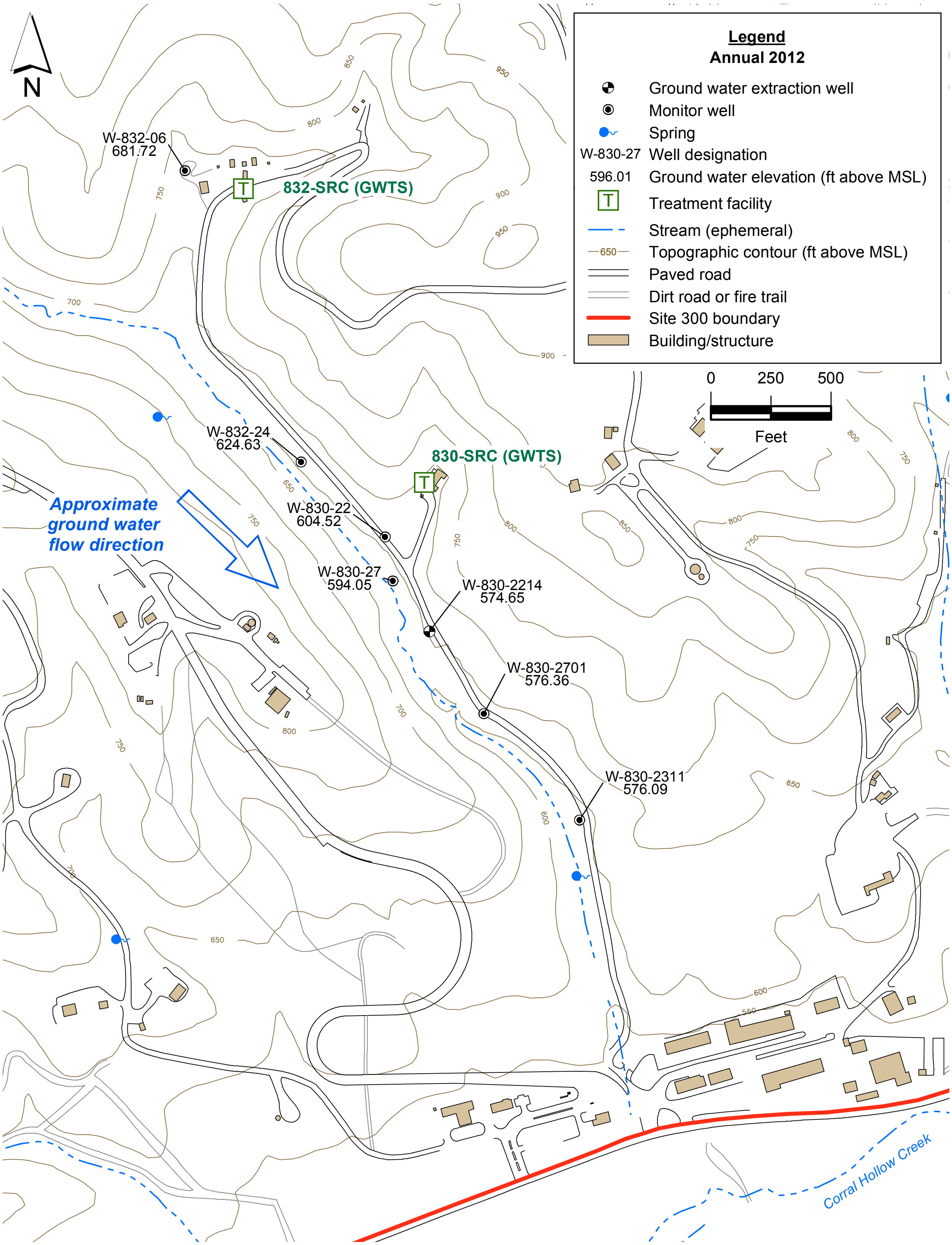


Figure 2.7-3. Building 832 Canyon Operable Unit ground water potentiometric surface map for the $Tnsc_{1b}$ hydrostratigraphic unit.



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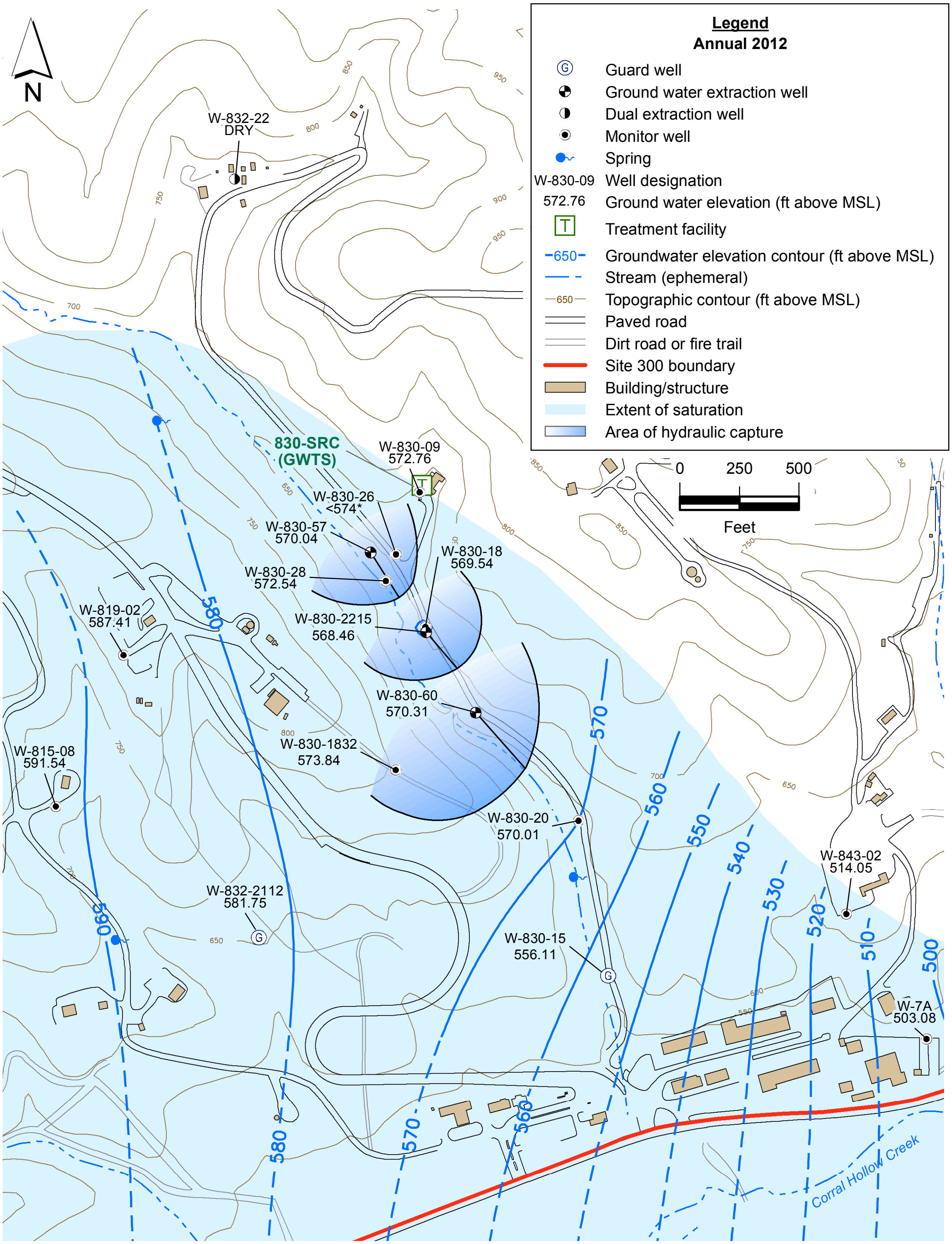

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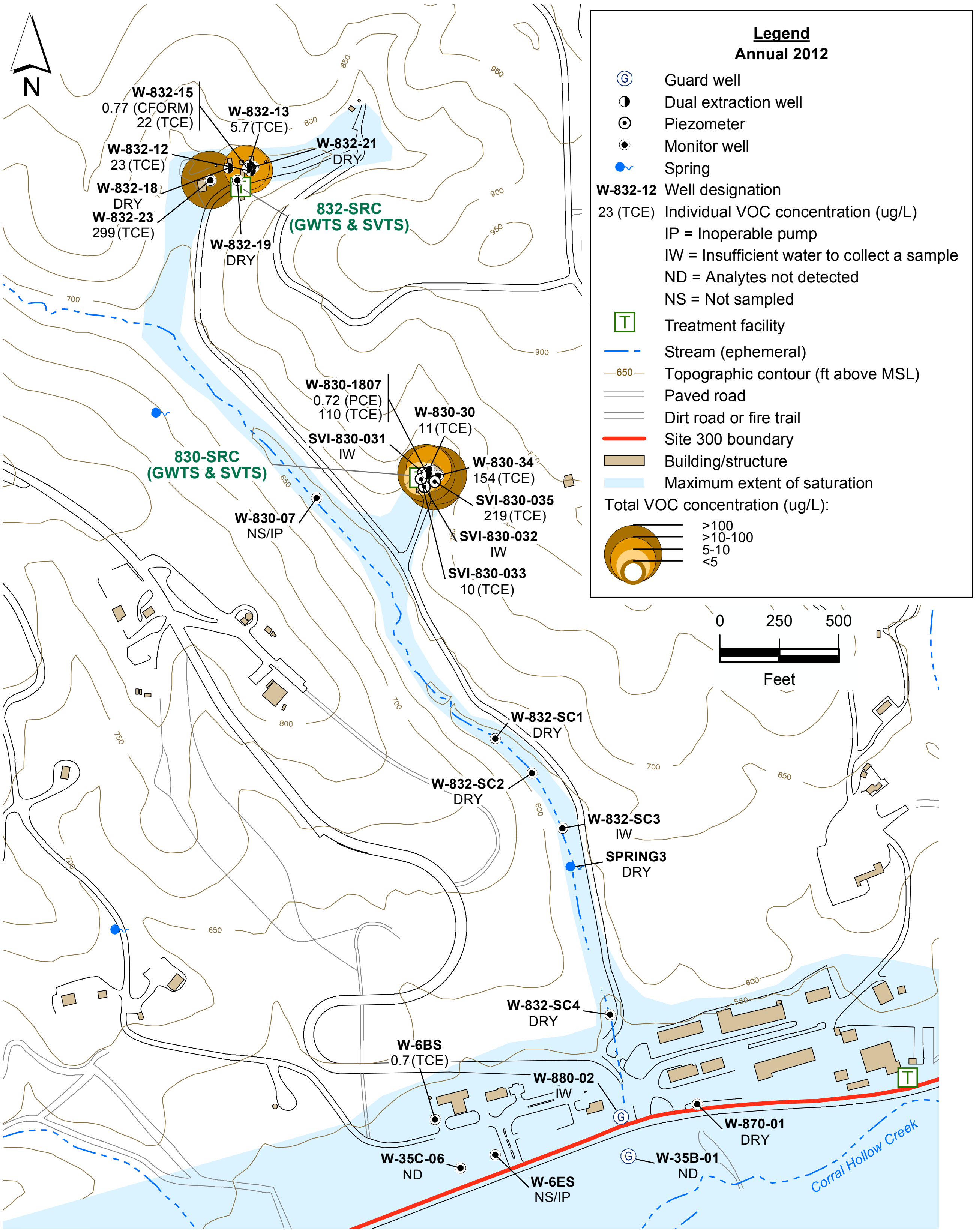

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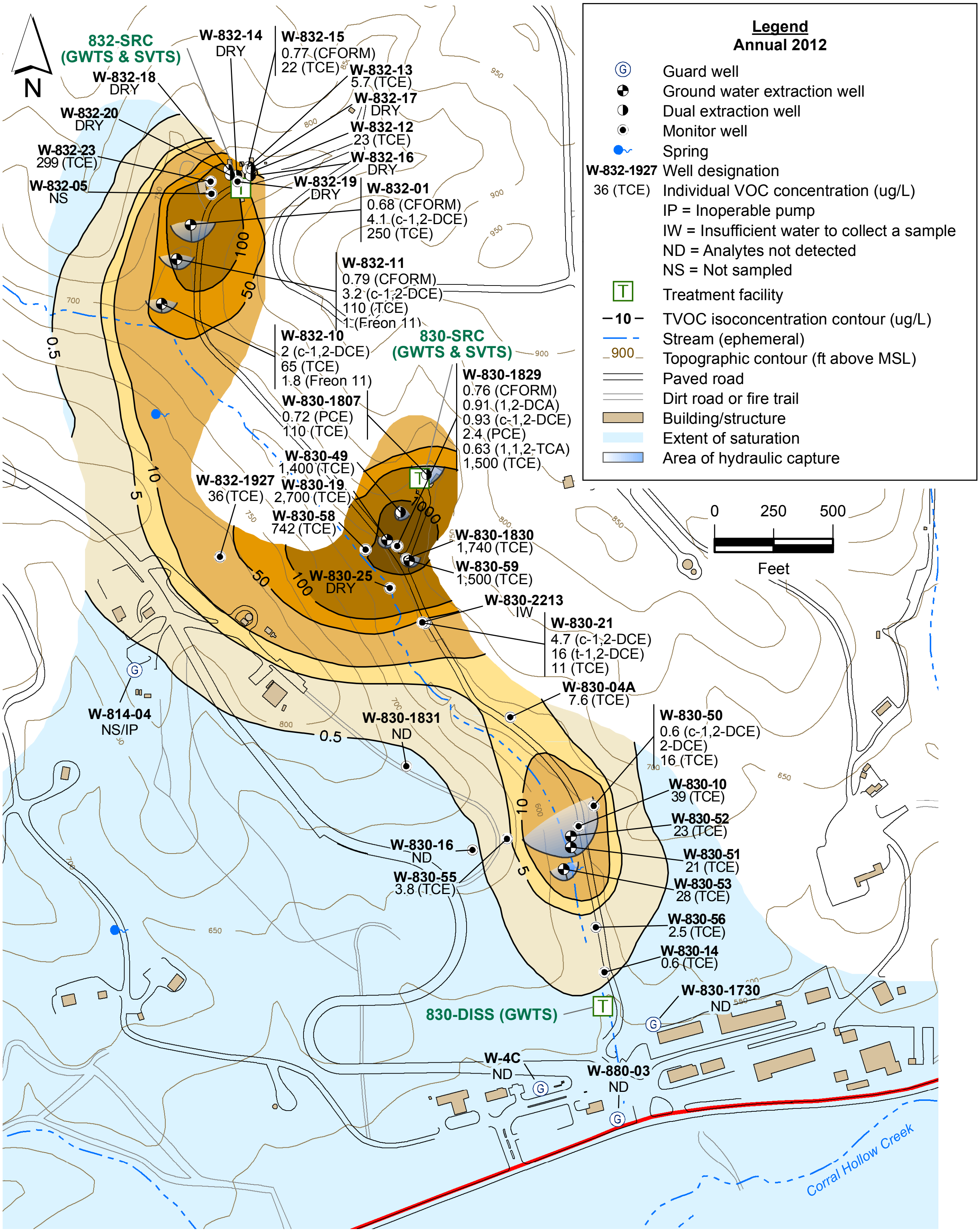
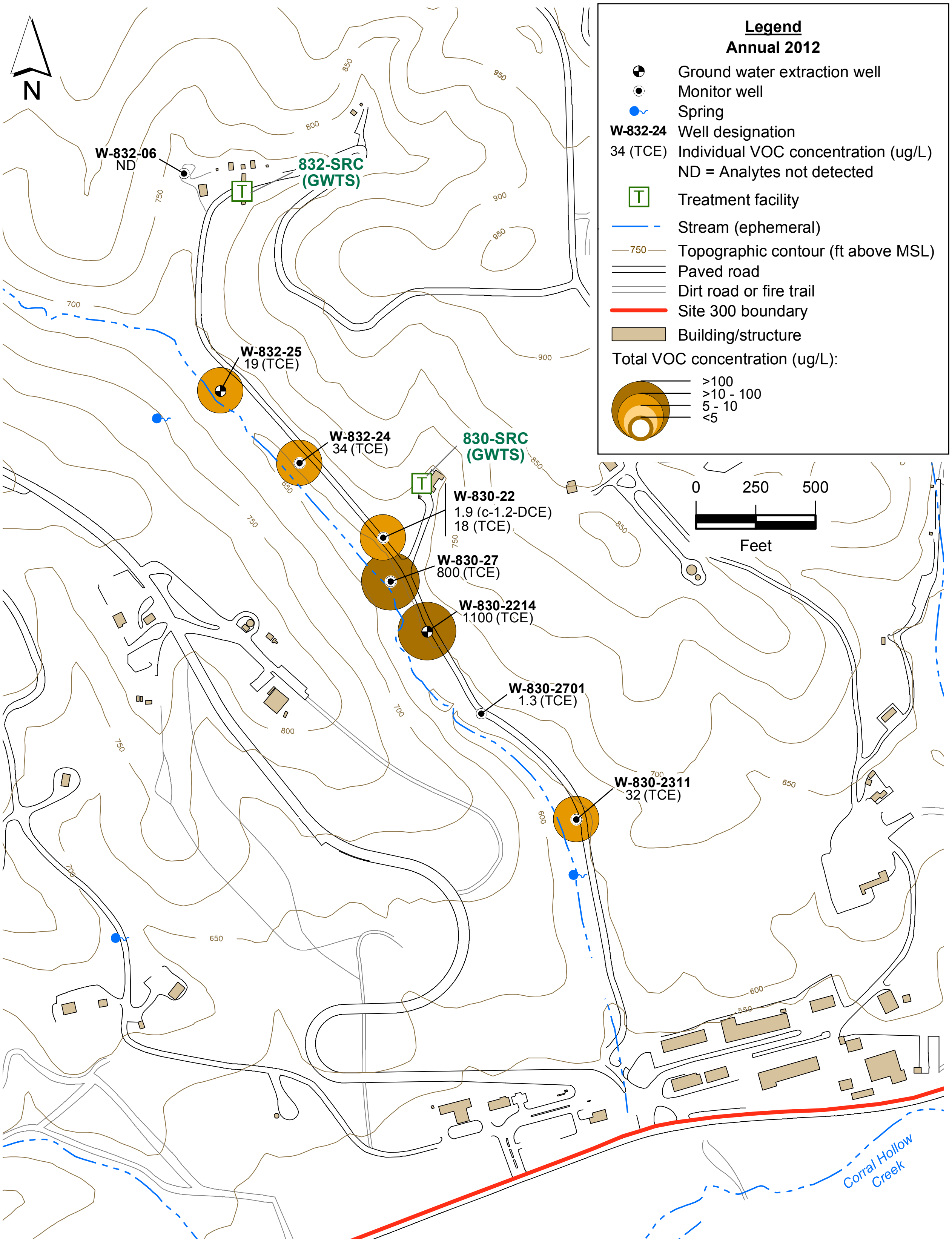


Figure 2.7-7. Building 832 Canyon Operable Unit total VOC isoconcentration contour map and individual VOC concentrations for the Tnsc$_{1b}$ hydrostratigraphic unit.



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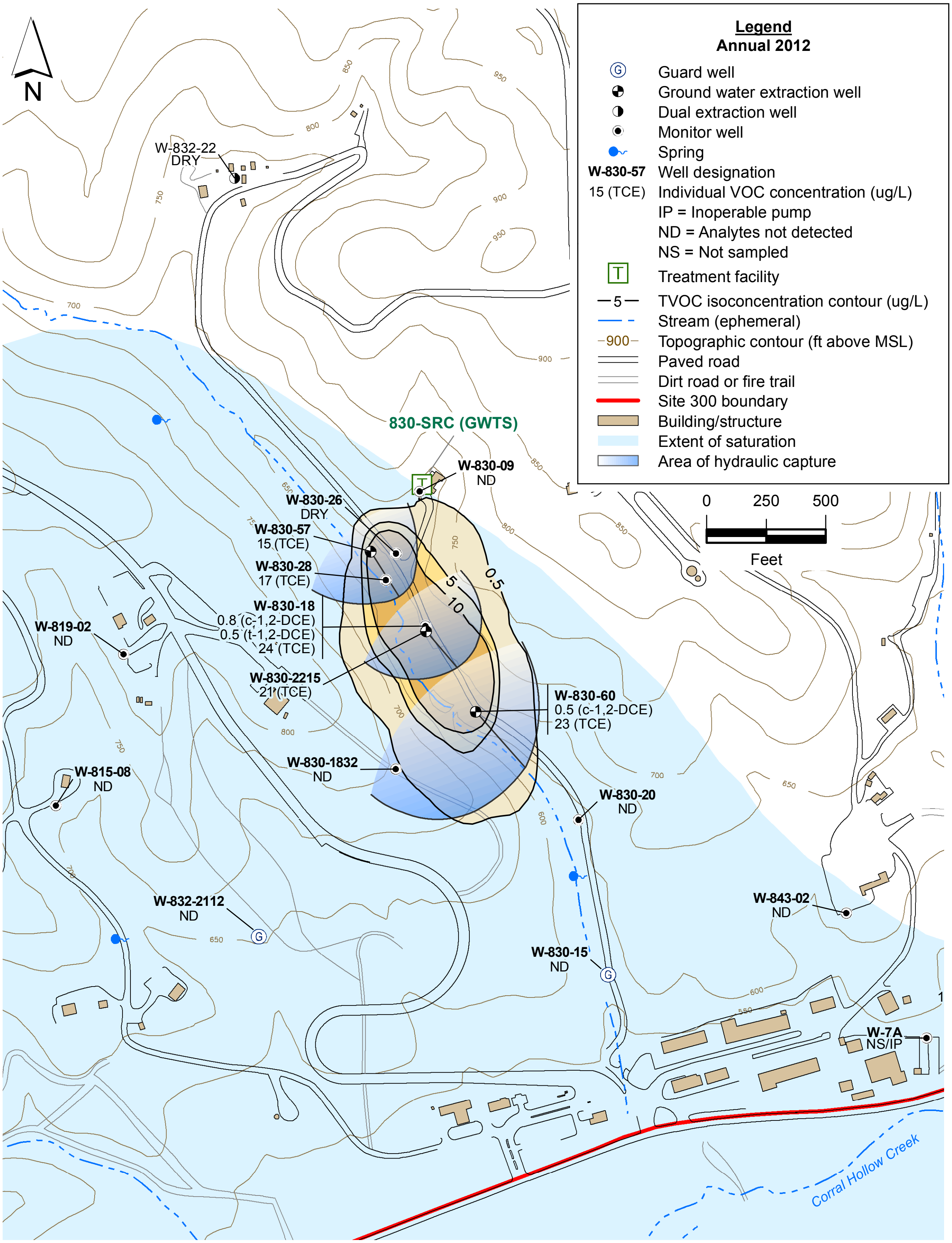

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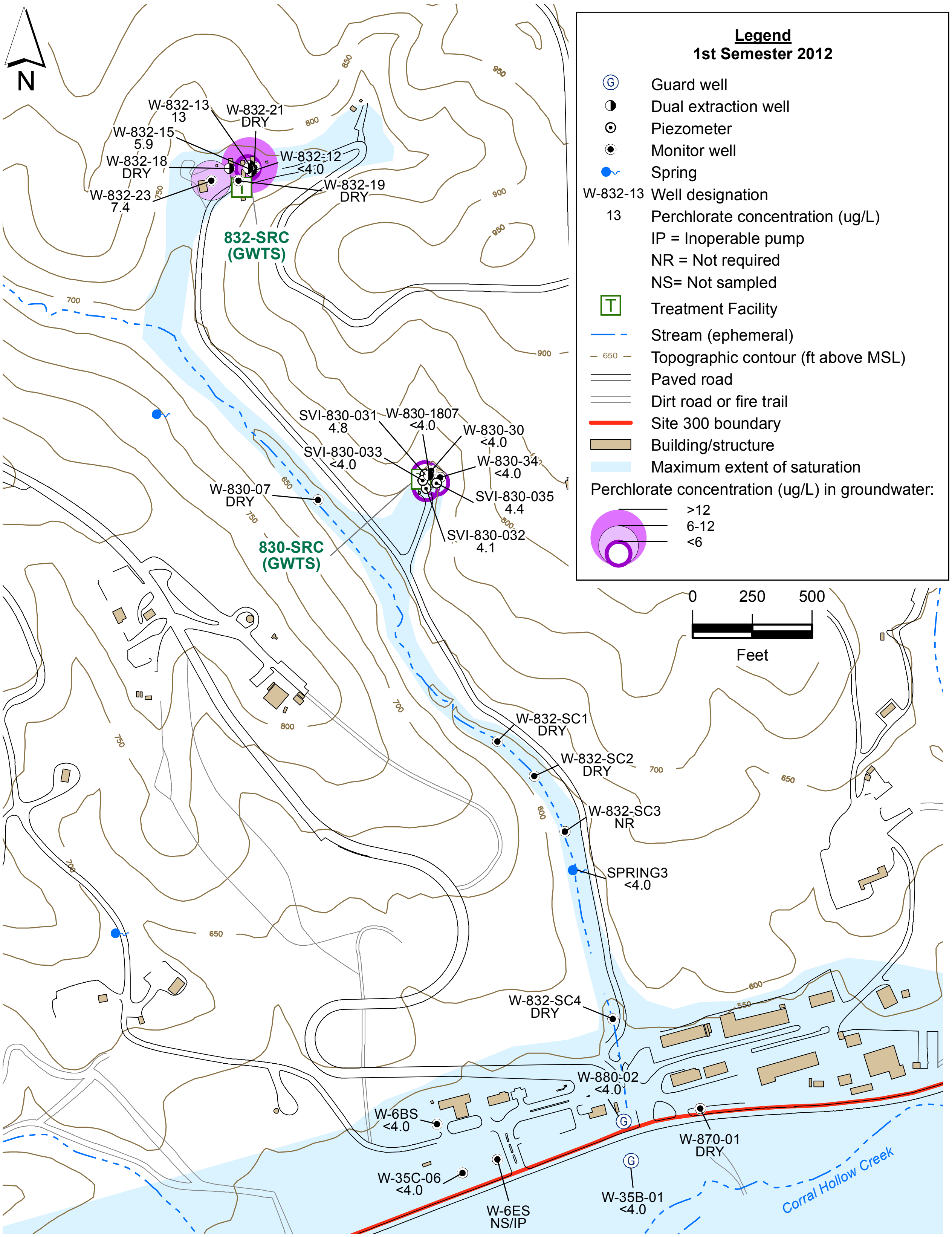

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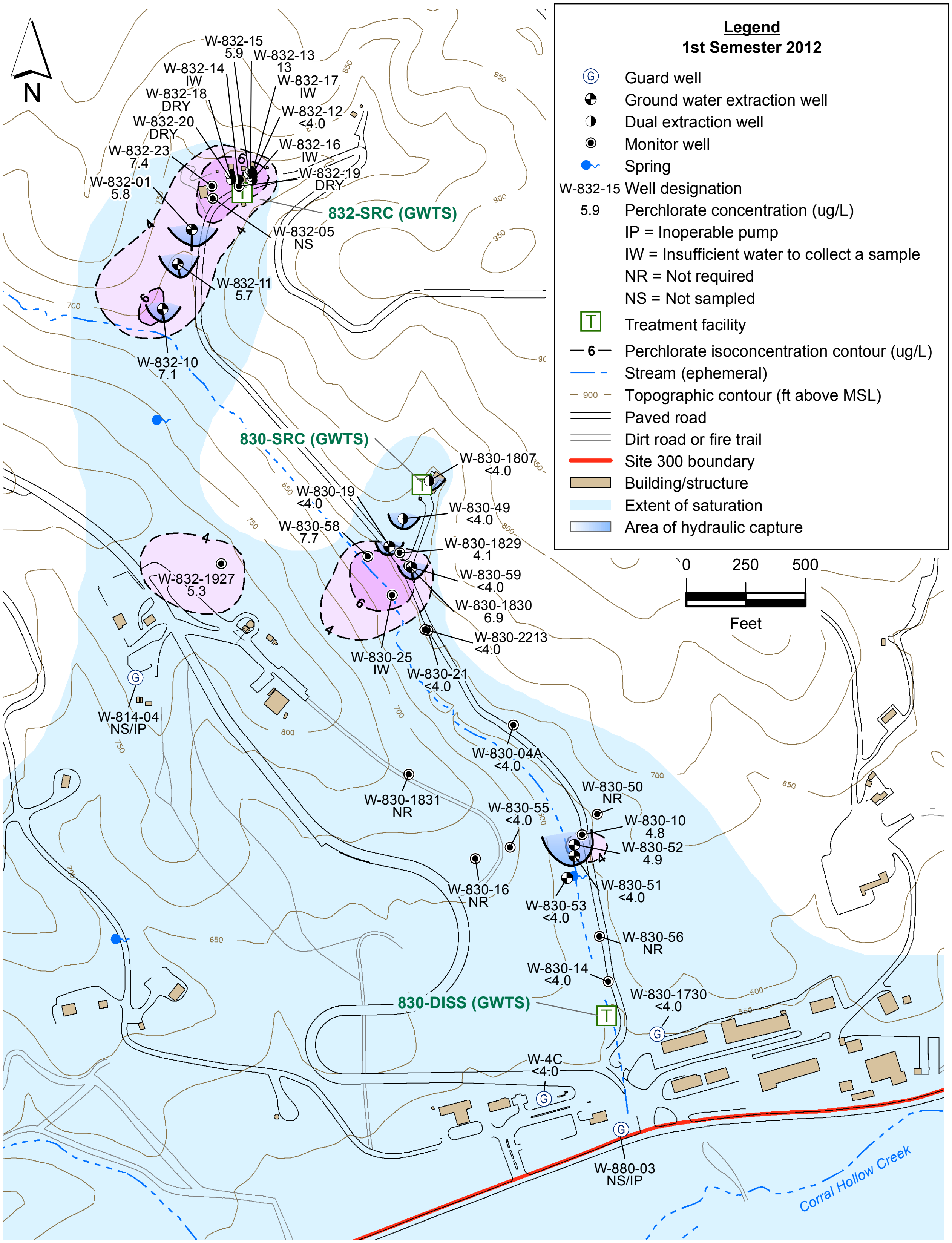

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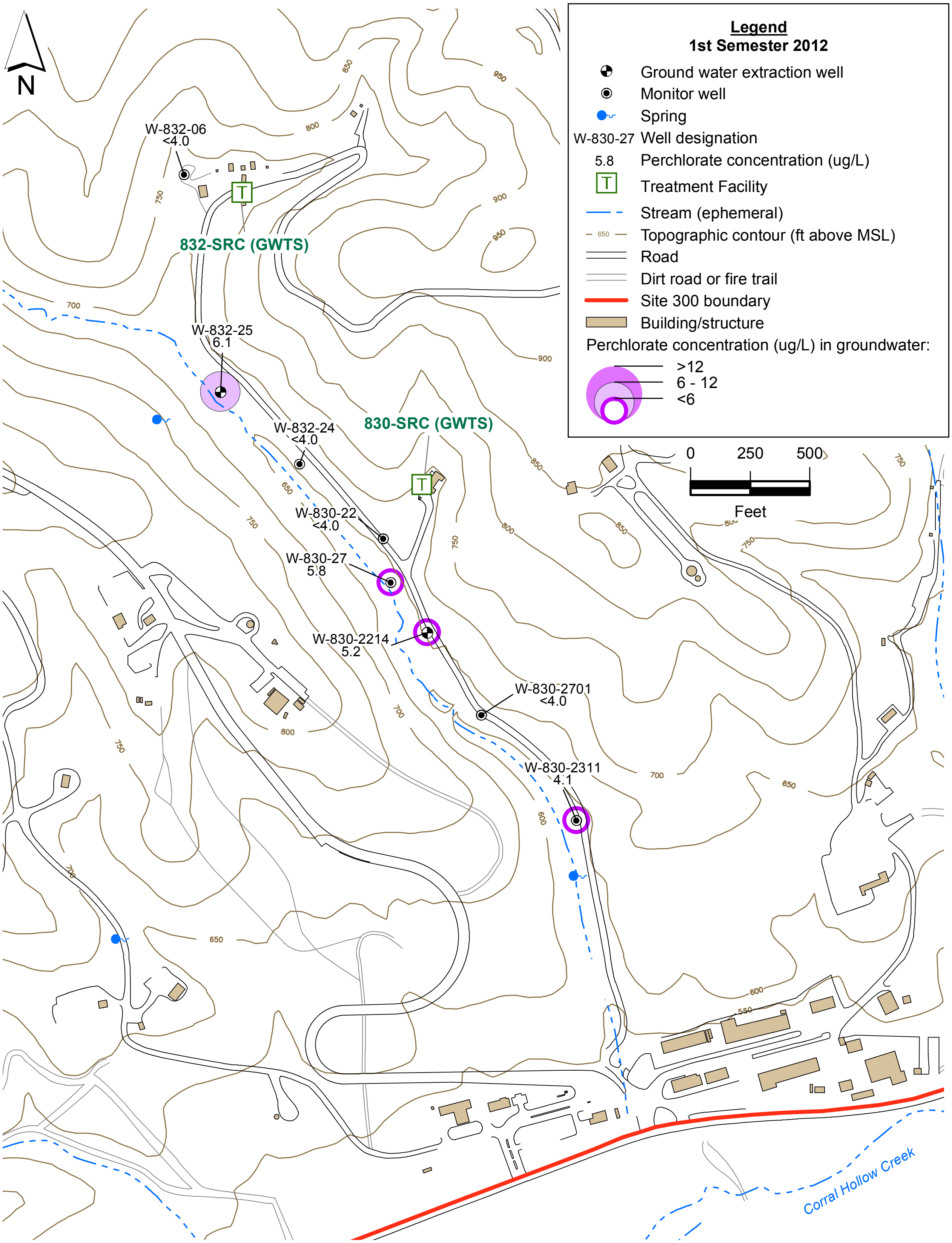

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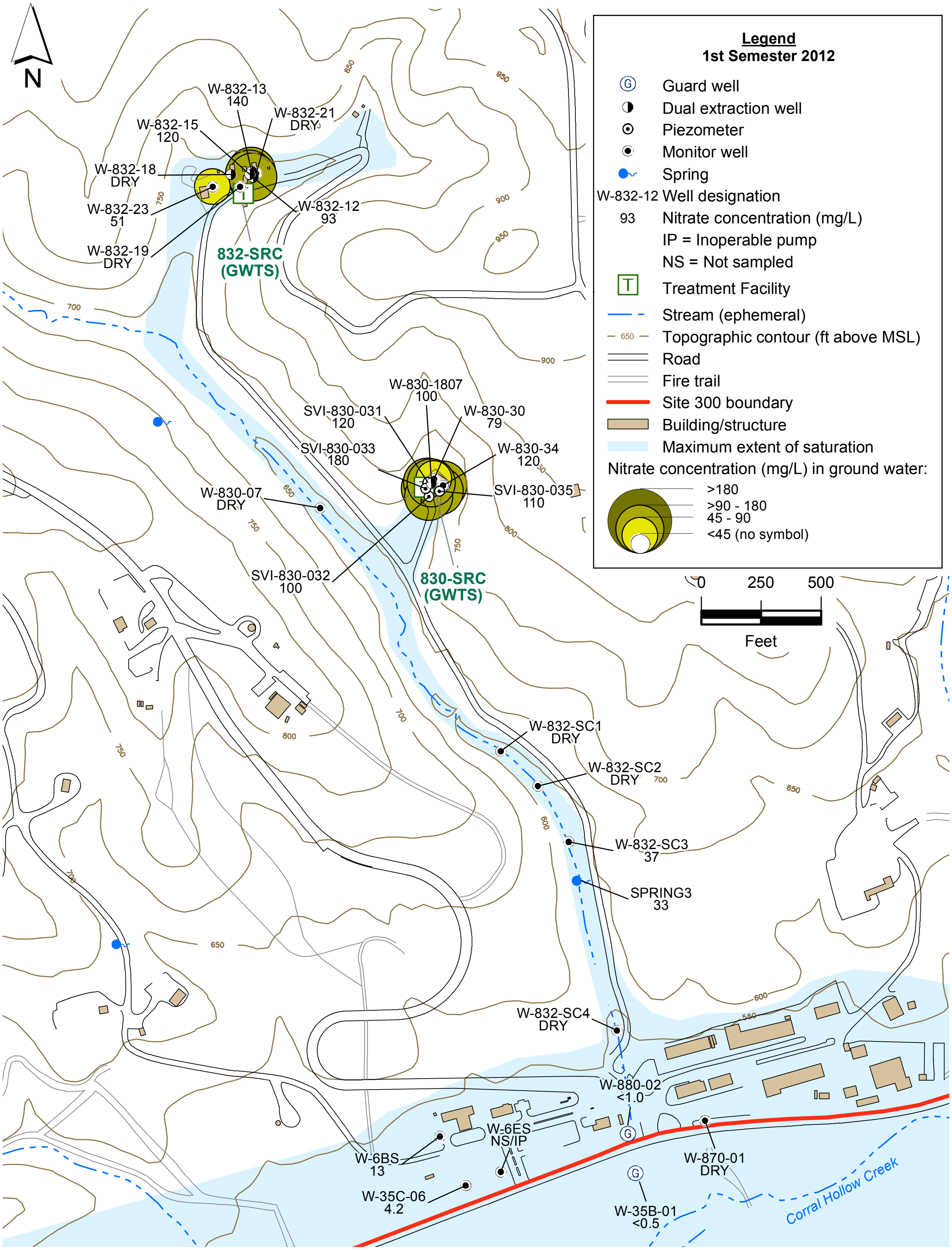

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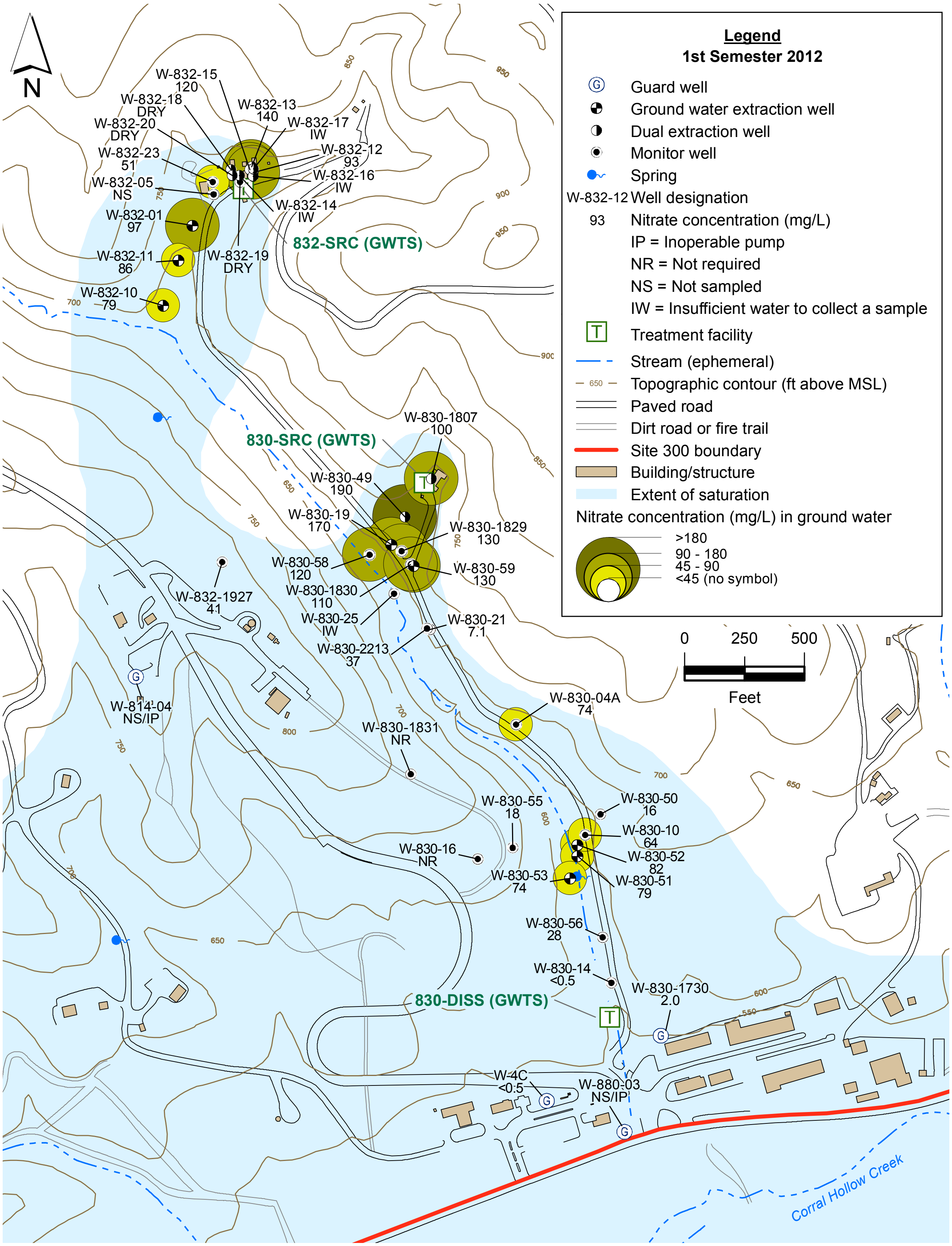

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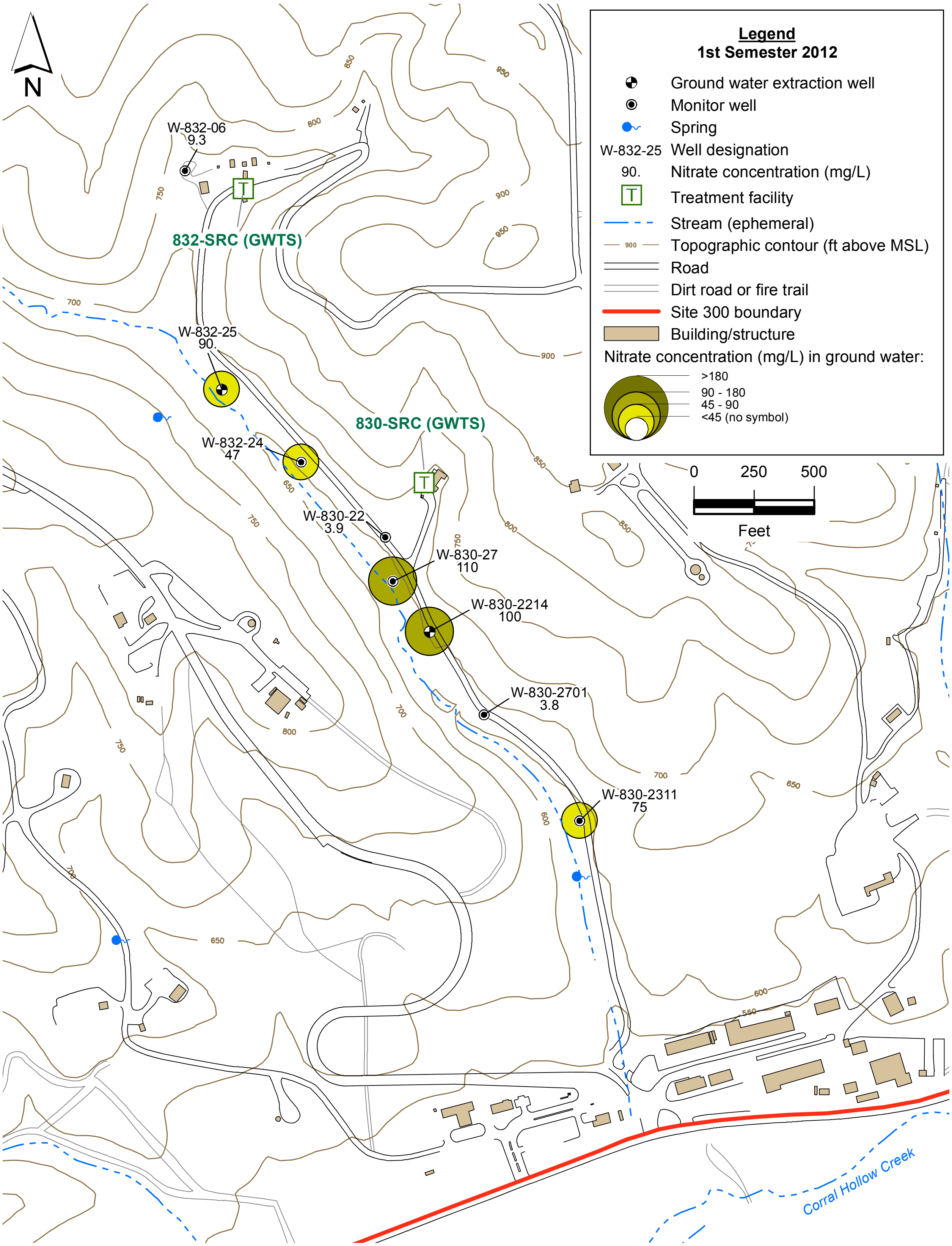

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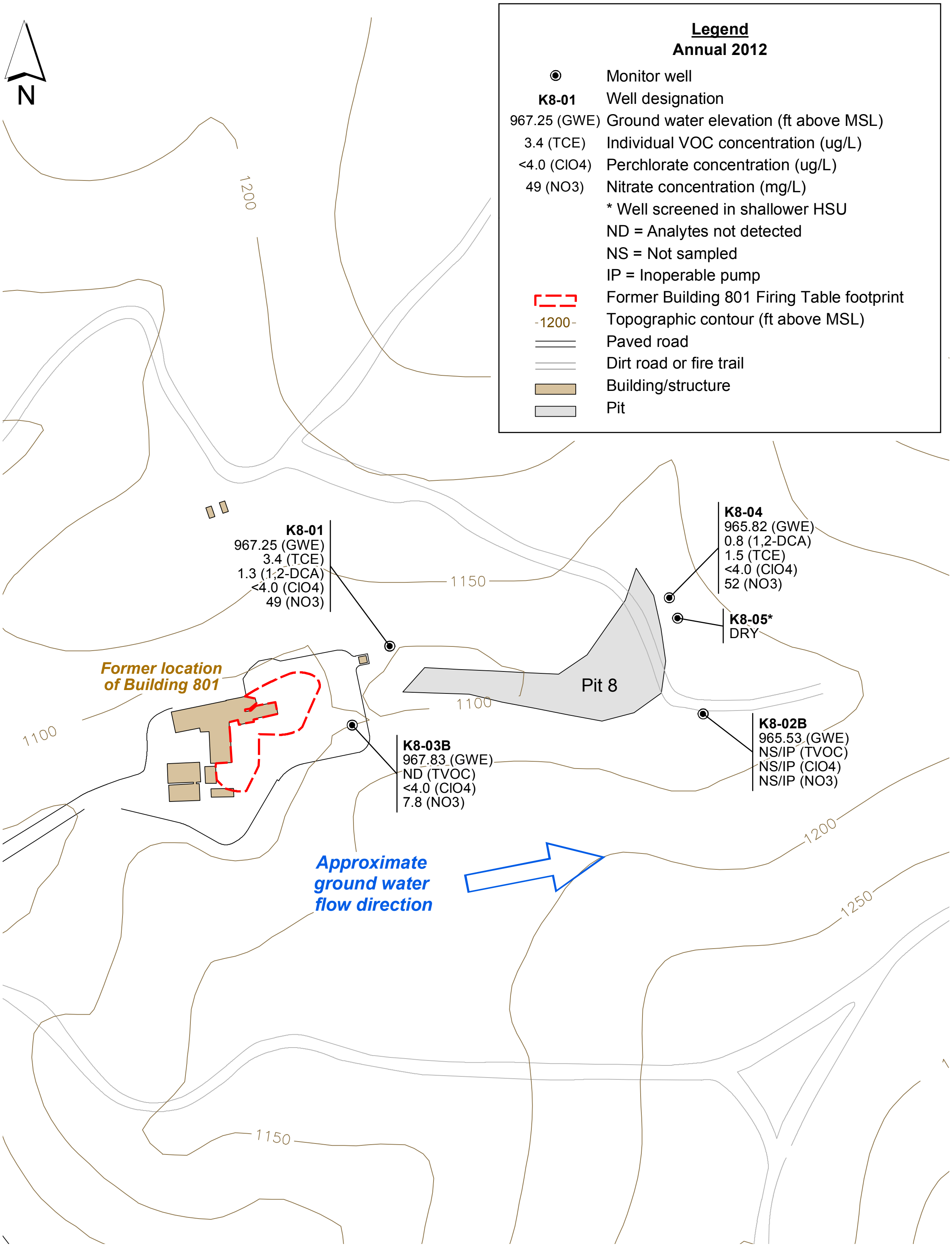

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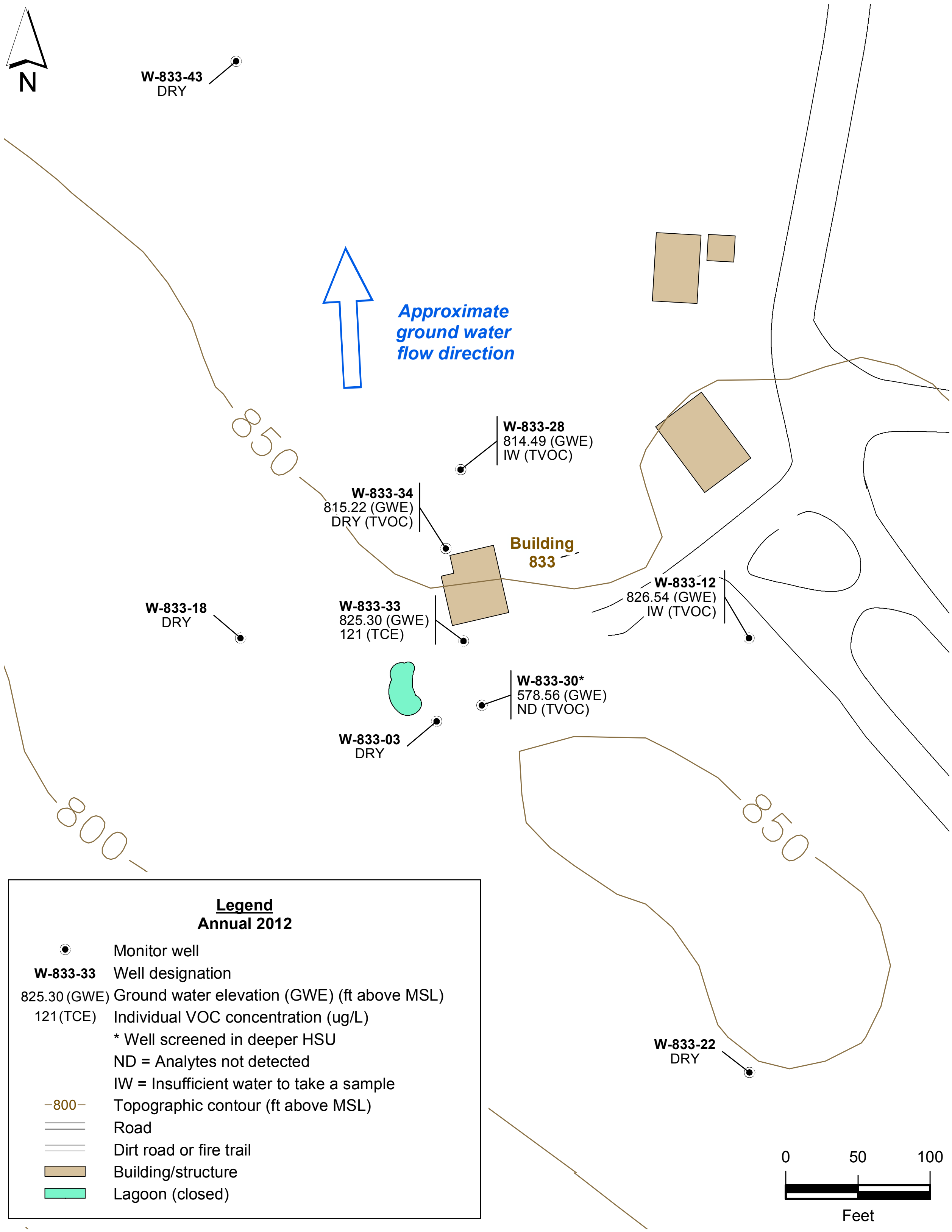

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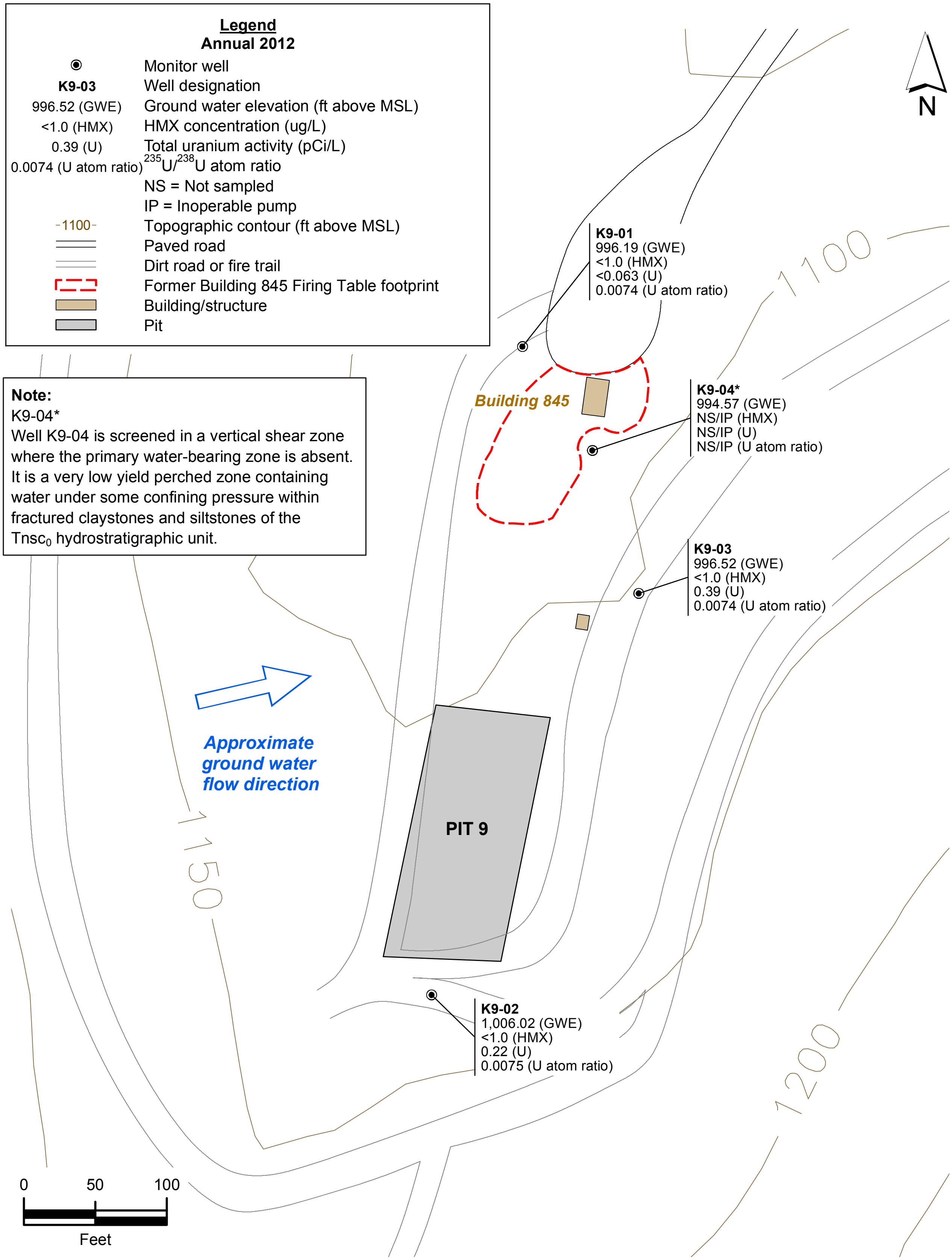

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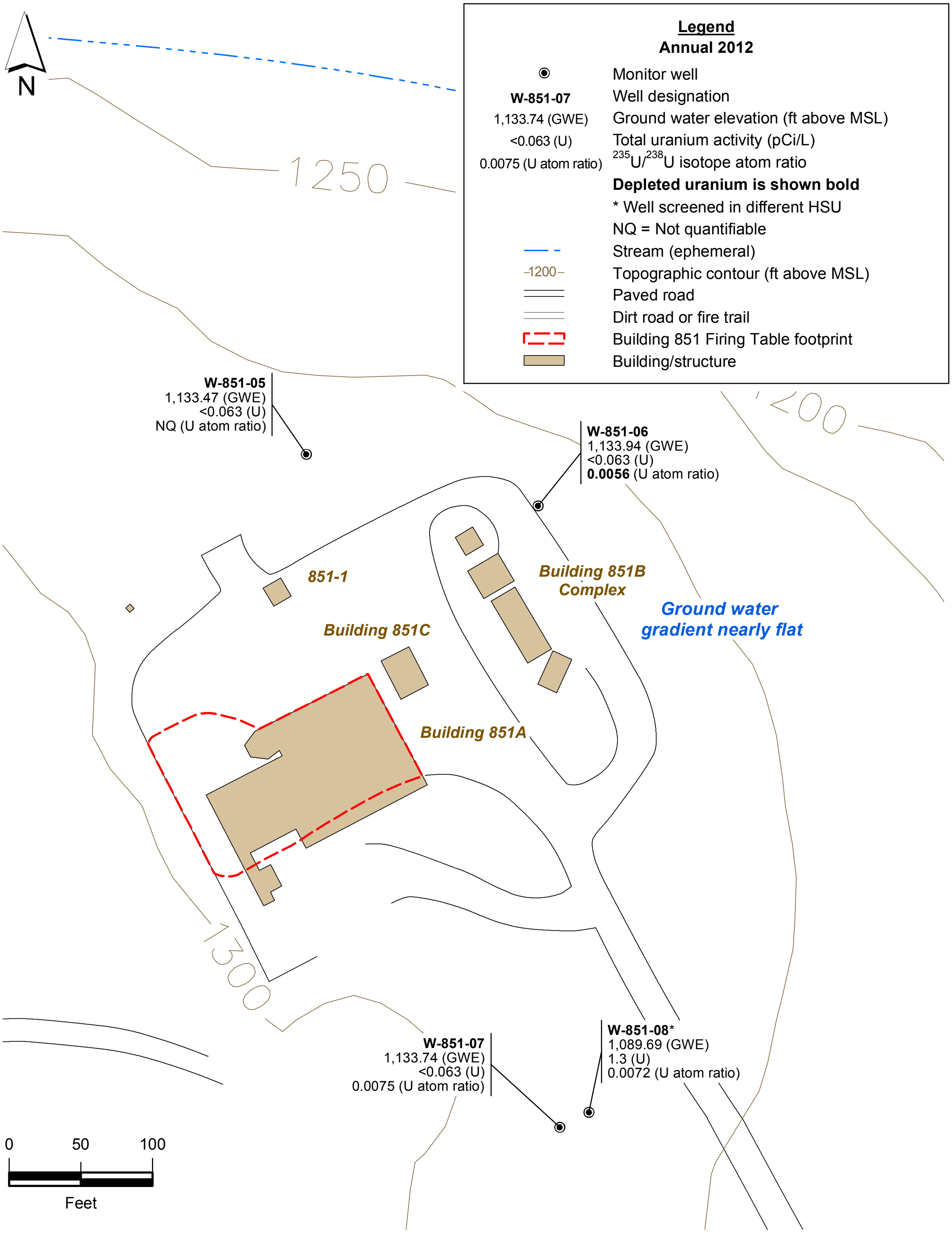

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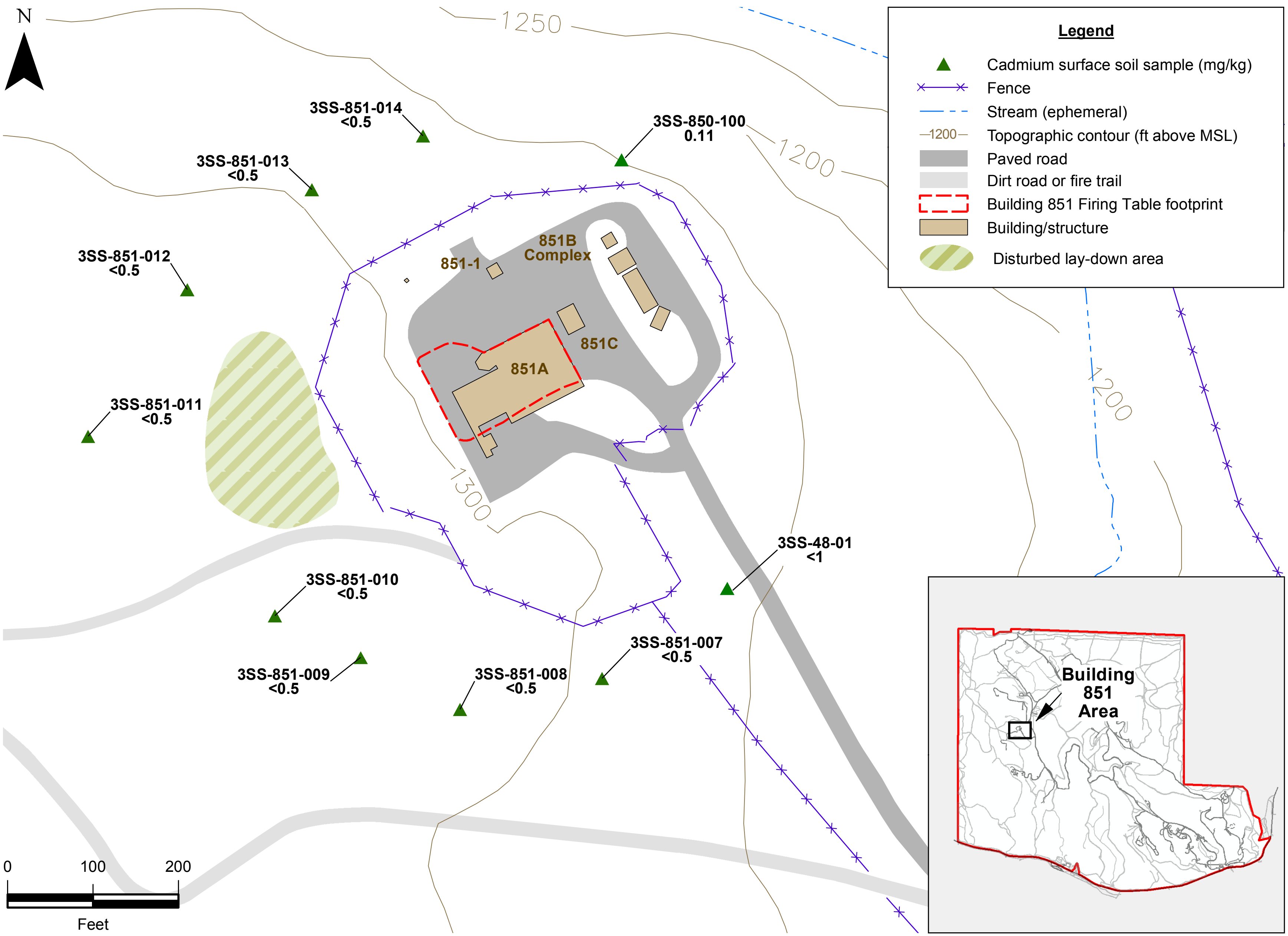

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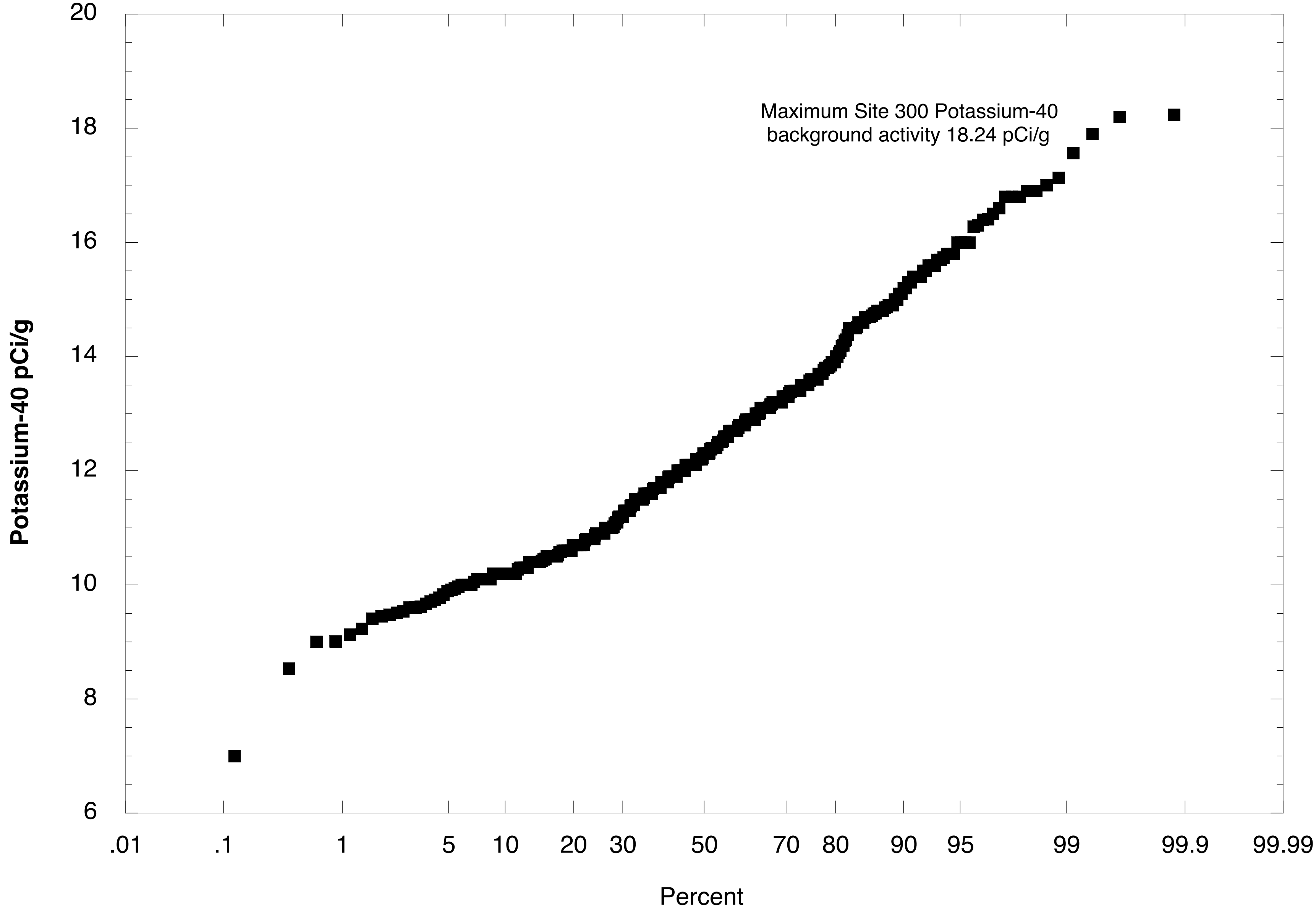

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Tables

Acronyms and Abbreviations

2-ADNT	2-Amino-4,6-dinitrotoluene
4-ADNT	4-Amino-2,6-dinitrotoluene
815	Building 815
817	Building 817
829	Building 829
832	Building 832
834	Building 834
850	Building 850
854	Building 854
A	Annual
As N	As nitrogen
As $CaCO_3$	As calcium carbonate
BTEX	Benzene, toluene, ethyl benzene, and xylene
°C	Degrees Celsius
C12-C24	Diesel range organic compounds in the carbon 12 to carbon 24 range
CAL	Contracted analytical laboratories
CAMU	Corrective Action Management Unit
CAP	Corrective and Preventative Action Program
CDFG	California Department of Fish and Game
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFE	Carbon filter effluent
CFI	Carbon filter influent
CF2I	Second aqueous phase granular carbon filter influent
CF3I	Third aqueous phase granular carbon filter influent
cfm	Cubic feet per minute
CFV2	Second vapor phase granular activated carbon filter effluent
CGSA	Central General Services Area
CHC	Corral hollow creek
CMP/CP	Compliance Monitoring Plan/Contingency Plan
CMR	Compliance Monitoring Report
CO_2	Carbon dioxide
COC	Contaminants of Concern
DCA	Dichloroethane
DCE	Dichloroethylene or dichloroethene
DEET	N,n-diethyl-meta-toluamide
DIS	Discretionary sampling (not required by the CMP)
DISS	Distal south
DMW	Detection monitor well
DOE	Department of Energy

DOECAP	DOE Consolidated Auditing Program
DSB	Distal Site Boundary
DTSC	Department of Toxic Substances Control
DUP	Duplicate or collocated QC sample
E	Effluent (acronym found in Treatment Facility Sampling Plan Tables)
E	Sample to be collected during even numbered years (i.e., 2012) (acronym found in Sampling Plan Tables)
EcoSSLs	Ecological Soil Screening Levels
EGSA	Eastern General Services Area
EIS/EIR	Environmental Impact Statement/Environmental Impact Report
EMS	Environmental Management System
EPA	Environmental Protection Agency
ERD	Environmental Restoration Department
ES&H	Environmental Safety and Health
EV	Effluent vapor
EW	Extraction well
Freon 11	Trichlorofluoromethane
Freon 113	1,1,2-trichloro-1,2,2-trifluoroethane
ft	Feet
ft^3	Cubic feet
g	Gram(s)
GAC	Granular activated carbon
gal	Gallon(s)
GIS	Geographic Information Systems
gpd	Gallons per day
gpm	Gallons per minute
GSA	General Services Area
GTU	Ground Water Treatment Unit.
GW	Guard well
GWTS	Ground Water Treatment System
HE	High Explosives
HEPA	High Explosives Process Area
H-H	Hetch-Hetchy
HMX	High-Melting Explosive
HQ	Hazard quotient
HSU	Hydrostratigraphic unit
I	Influent
ICP-MS	Inductively Coupled Plasma - Mass Spectrometry
ISMA	*In Situ* Microcosm Array
ISMS	Integrated Safety Management System
ISO	International Organization for Standardization
ITS	Issues Tracking System
IUR	Inhalation Unit Risk

IV	Influent vapor
IW	Injection well
IWS	Integrated Work Sheet
K-40	Potassium-40
kft^3	Thousands of cubic feet
kg	Kilograms
kgal	Thousands of gallons
km	Kilometers
LCS	Laboratory Control Sample
LHC	Light hydrocarbon
LLNL	Lawrence Livermore National Laboratory
µg/L	Micrograms per liter
$\mu g/m^3$	Micrograms per meters cubed
µmhos/cm	Micro ohms per centimeter
µS	Microsiemens
M	Monthly
MCL	Maximum Contaminant Level
Mgal	Millions of gallons
mg/kg	Milligram per kilogram
mg/kg/d	Milligram per kilogram per day
mg/L	Milligrams per liter
mg/m^3	Milligrams per meters cubed
MNA	Monitored Natural Attenuation
MOVI	Management observations, verifications, and inspections
MSA	Management self-assessment
MSL	Mean Sea Level
MTU	Miniature Treatment Unit
mv	Millivolts
MWB	Monitor well used for background
N	No
N_2	Nitrogen
NB	Nitrobenzene
ng/L	Nanograms per liter
NO_3	Nitrate
NA	Not applicable
NT	Nitrotoluene
NTU	Nephelometric turbidity units
O	Sample to be collected during odd numbered years (i.e., 2013)
OR	Occurrence Report
ORP	Oxidation/reduction potential
OU	Operable unit
O&M	Operations and Maintenance
PPCP	Pharmaceutical and Personal Care Product analytes

P/PO_4	Phosphorous
PCBs	Polychlorinated biphenyls
PCE	Tetrachloroethene
pCi/g	PicoCuries per gram
pCi/L	PicoCuries per liter
pH	A measure of the acidity or alkalinity of an aqueous solution
PHG	Public Health Goal
PLC	Programmatic logic control
ppb_v	Parts per billion by volume
ppm_v	Parts per million on a volume-to-volume basis
PBA	Programmatic Biological Assessment
PRX	Proximal
PRXN	Proximal north
PSDMP	Post-Monitoring Shutdown Plan
PT	Proficiency Testing
PTMW	Plume Tracking Monitor Well
PTU	Portable Treatment Unit
Q	Quarterly
QAPP	Quality Assurance Project Plan
QA/QC	Quality assurance/quality control
QIF	Quality Improvement Form
RAOs	Remedial Action Objectives
R1	Receiving water sampling point located 100 ft upstream
R2	Receiving water sampling point located 100 ft downstream
RDX	Research Department explosive
REA	Reanalysis
REX	Resample
RfC	Reference Concentration
ROD	Record of Decision
RPM	Remedial Project Manager
RWQCB	Regional Water Quality Control Board
S	Semi-annual
Scfm	Standard cubic feet per minute
SOP	Standard Operating Procedure
SOW	Statement of work
SPACT	Sample Planning and Chain of Custody Tracking
SPR	Spring
SRC	Source
STU	Solar-powered Treatment Unit
SVE	Soil Vapor Extraction
SVTS	Soil Vapor Treatment System
SVI	Soil Vapor Influent

SWEIS	Site-Wide Environmental Impact Statement
SWFS	Site Wide Feasibility Study
SWRI	Site-Wide Remedial Investigation
TBOS	Tetrabutyl orthosilicate
TCA	Trichloroethane
TFRT	Treatment Facility Real Time
THMs	Trihalomethanes
TKEBS	Tetrakis (2-ethylbutyl) silane
TCE	Trichloroethene
TDS	Total dissolved solids
TF	Treatment facility
TNB	Trinitrobenzene
TNT	Trinitrotoluene
TRV	Toxicity Reference Value
$^{235}U/^{238}U$	Atom ratio of the isotopes uranium-235 and uranium-238
U.S.	United States
USFWS	U.S. Fish and Wildlife Service
VCF4I	Fourth vapor phase granular activated carbon filter influent
VE	Vapor effluent
VES	Vapor extraction system
VI	Vapor influent
VOC	Volatile organic compound
WAA	Waste accumulation area
WGMG	Water Guidance and Monitoring Group
WS	Water supply well
Y	Yes

Hydrogeologic Units

Lower $Tnbs_1$ = Lower member of the Neroly lower blue sandstone, below claystone marker bed (regional aquifer).
Qal = Quaternary alluvium.
Qls = Quaternary landslide.
Qt = Quaternary terrace.
Tmss = Miocene Cierbo Formation—lower siltstone/claystone member.
$Tnsc_{1a}$, $Tnsc_{1b}$, $Tnsc_{1c}$ = Sandstone bodies within the $Tnsc_1$ Neroly middle siltstone/claystone (1a = deepest).
$Tnbs_1$ = Lower member of the Neroly lower blue sandstone.
$Tnbs_0$ = Neroly silty sandstone.
$Tnbs_2$ = Miocene Neroly upper blue sandstone.
$Tnsc_0$ = Tertiary Neroly Formation—lower siltstone/claystone member.
$Tnsc_2$ = Miocene Neroly Formation—upper siltstone/claystone member.
Tps = Pliocene non-marine unit.
Tpsg = Miocene non-marine unit (gravel facies).
Tts = Tesla Formation.
$UTnbs_1$ = Upper member of the Neroly lower blue sandstone, above claystone marker bed.
WBR = Weathered bedrock.

Data Qualifier Flag Definitions

B = Analyte found in method blank, sample results should be evaluated.

D = Analysis performed at a secondary dilution or concentration (i.e., vapor samples).

E = The analyte was detected below the LLNL reporting limit, but above the analytical laboratory minimum detection limit.

F = Analyte found in field blank, trip blank, or equipment blank.

G = Quantitated using fuel calibration, but does not match typical fuel fingerprint.

H = Sample analyzed outside of holding time, sample results should be evaluated.

I = Surrogate recoveries were outside of QC limits.

J = Analyte was positively identified; the associated numerical value is the proximate concentration of the analyte in the sample.

L = Spike accuracy not within control limits.

O = Duplicate spike or sample precision not within control limits.

R = Sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

S = Analytical results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.

T = Analyte is tentatively identified compound; result is approximate.

Requested Analyses

AS:UISO =	Uranium isotopes performed by alpha spectrometry.
DWMETALS:ALL =	Drinking water metals suite performed by various analytical methods.
E200.7:FE =	Iron performed by EPA Method 200.7.
E200.7:Li =	Lithium performed by EPA Method 200.7.
E200.7:SI =	Silica performed by EPA Method 200.7.
E200.8:AS =	Arsenic performed by EPA Method 200.8.
E200.8:CR =	Chromium performed by EPA Method 200.8.
E200.8:MN =	Manganese performed by EPA Method 200.8.
E200.8:SE =	Selenium performed by EPA Method 200.8.
E300.0:NO3 =	Nitrate performed by EPA Method 300.0.
E300.0:PERC =	Perchlorate performed by EPA Method 300.0.
E300.0:O-PO2 =	Orthophosphate performed by EPA Method 300.0.
E340.2:ALL =	Fluoride performed by EPA method 340.2.
E502.2:ALL =	Volatile organic compounds performed by EPA Method 502.2.
E601:ALL =	Halogenated volatile organic compounds performed by EPA Method 601.
E624:ALL =	Volatile organic compounds performed by EPA Method 624.
E8082A =	Polychlorinated biphenyls performed by EPA Method 8082A.
E8260:ALL =	Volatile organic compounds performed by EPA Method 8260.
E8330LOW:ALL =	High explosive compounds performed by EPA Method 8330.
E8330:R+H =	High explosive compounds RDX and HMX performed by EPA Method 8330.
E8330:TNT =	Trinitrotoluene performed by EPA Method 8330.
E906:ALL =	Tritium performed by EPA Method 906.
EM8015:DIESEL =	Diesel range organic compounds performed by modified EPA Method 8015.
GENMIN:ALL =	General minerals suite performed by various analytical methods.
MS:UISO =	Uranium isotopes performed by mass spectrometry.
T26METALS:ALL =	Title 26 metals.
TBOS:ALL =	Tetrabutylorthosilicate/ Tetrakis (2-ethylbutyl) silane.

Ground Water Elevation Table Notes

ABD = Abandoned.
AD = Drilling of adjacent new wells disturbed water level.
BLOC = Well Blocked.
BS = Water detected below bottom of screened interval.
CB = Installation completed as a Christy box.
DRY = No water detected in well casing at time of measurement.
FA = Flowing artesian well, water elevation converted.
FL = Flowing.
ME = Measuring error suspected.
MSL = Mean Sea Level.
MT = Measured twice.
NA = Information not available.
NM = Not Measured.
NOM = Not on field map.
PD = Predevelopment measurement.
PE = Pump Extraction.
PF = Pump not running at time of measurement.
PS = Measurement taken just before sampling.
PT = Pump test interfered with measurement.
RA = Restricted access.
UC = Unsafe conditions.
VE = Vacuum Extraction.
WE = Well equilibrium suspect.
WR = Well recovery.

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Table 2.7-1. Building 832-Source (832-SRC) volumes of ground water and soil vapor extracted and discharged, July 1, 2012 through December 31, 2012.

Table 2.7-2. Building 830-Source (830-SRC) volumes of ground water and soil vapor extracted and discharged, July 1, 2012 through December 31, 2012.

Table 2.7-3. Building 830-Distal South (830-DISS) volumes of ground water and soil vapor extracted and discharged, July 1, 2012 through December 31, 2012.

Table 2.7-4. Building 832 Canyon Operable Unit volatile organic compounds (VOCs) in ground water extraction and treatment system influent and effluent.

Table 2.7-5. Building 832 Canyon Operable Unit perchlorate in ground water extraction and treatment system influent and effluent.

Table 2.7-6. Building 832 Canyon Operable Unit treatment facility sampling and analysis plan.

Table 2.7-7. Building 832 Canyon Operable Unit ground and surface water sampling and analysis plan.

Table 2.7-8. Building 832-Source (832-SRC) mass removed, July 1, 2012 through December 31, 2012.

Table 2.7-9. Building 830-Source (830-SRC) mass removed, July 1, 2012 through December 31, 2012.

Table 2.7-10. Building 830-Distal South (830-DISS) mass removed, July 1, 2012 through December 31, 2012.

Table 2.8-1. Building 801 and Pit 8 Landfill area ground water sampling and analysis plan.

Table 2.8-2. Building 833 area ground water sampling and analysis plan.

Table 2.8-3. Building 845 Firing Table and Pit 9 Landfill area ground water sampling and analysis plan.

Table 2.8-4. Building 851 area ground water sampling and analysis plan.

Table 3.1-1. Pit 2 Landfill area ground water sampling and analysis plan.

Table 4.1-1. Summary of inhalation risks and hazards resulting from transport of contaminant vapors to indoor and outdoor ambient air.

Table Summ-1. Mass removed, January 1, 2012 through December 31, 2012.

Treatment facility	Volume of ground water treated (thousands of gal)	Volume of soil vapor treated (thousands of cf)	Estimated total VOC mass removed (g)	Estimated total perchlorate mass removed (g)	Estimated total nitrate mass removed (kg)	Estimated total RDX mass removed (g)	Estimated total TBOS/ TKEBS mass removed (g)	Estimated total Uranium mass removed (g)
CGSA GWTS	1,576	NA	200	NA	NA	NA	NA	NA
CGSA SVTS	NA	17,061	550	NA	NA	NA	NA	NA
834 GWTS	112	NA	1,200	NA	28	NA	0.23	NA
834 SVTS	NA	48,605	14,000	NA	NA	NA	NA	NA
815-SRC GWTS	829	NA	23	4.1	300	180	NA	NA
815-PRX GWTS	853	NA	86	19	270	NA	NA	NA
815-DSB GWTS	1,680	NA	46	NA	NA	NA	NA	NA
817-SRC GWTS	13	NA	0	1.3	4.1	2.2	NA	NA
817-PRX GWTS	548	NA	21	30	190	7.2	NA	NA
829-SRC GWTS	1	NA	0.070	0.039	0.28	NA	NA	NA
PIT7-SRC GWTS	49	NA	0.17	2.8	7.1	NA	NA	4.9
854-SRC GWTS	1,204	NA	170	5.6	210	NA	NA	NA
854-SRC SVTS	NA	20,588	930	NA	NA	NA	NA	NA
854-PRX GWTS	366	NA	28	11	54	NA	NA	NA
854-DIS GWTS	14	NA	1.6	0.20	1.2	NA	NA	NA
832-SRC GWTS	58	NA	14	1.1	22	NA	NA	NA
832-SRC SVTS	NA	1,706	48	NA	NA	NA	NA	NA
830-SRC GWTS	2,017	NA	1,200	2.5	170	NA	NA	NA
830-SRC SVTS	NA	11,816	940	NA	NA	NA	NA	NA
830-DISS GWTS	787	NA	48	3.7	210	NA	NA	NA
Total	10,107	99,777	20,000	81	1,500	190	0.23	4.9

Notes:

815 = Building 815.
817 = Building 817.
829 = Building 829.
830 = Building 830.
832 = Building 832.
834 = Building 834.
854 = Building 854.
cf = Cubic feet.
CGSA = Central General Services Area.
DIS = Distal.
DISS = Distal south.
DSB = Distal site boundary.
g = Grams.
gal = Gallons.
GWTS = Ground water treatment system.
kg = Kilograms.
NA = Not applicable.
PRX = Proximal.
RDX = Research Department Explosive.
SRC = Source.
SVTS = Soil vapor treatment system.
TBOS = Tetra 2-ethylbutylorthosilicate.
TKEBS = Tetrakis (2-ethylbutyl) silane.
VOC = Volatile organic compound.

Nitrate re-injected into the $Tnbs_2$ HSU undergoes in situ biotransformation to benign N_2 gas by anaerobic denitrifying bacteria. Nitrate mass removal is calculated assuming complete removal of nitrate from treated ground water. At Pit7, re-injected effluent may contain nitrate concentrations below the discharge limit but above the detection limit. Thus, nitrate mass removal calculations at Pit7 are overestimated.

Table Summ-2. Summary of cumulative remediation.

Treatment facility	Volume of ground water treated (thousands of gallons)	Volume of soil vapor treated (thousands of Cubic feet)	Estimated total VOC mass removed (kg)	Estimated total perchlorate mass removed (g)	Estimated total nitrate mass removed (kg)	Estimated total RDX mass removed (kg)	Estimated total TBOS/ TKEBS mass removed (kg)	Estimated total Uranium mass removed (kg)
EGSA GWTS	309,379	NA	7.6	NA	NA	NA	NA	NA
CGSA GWTS	24,249	NA	26	NA	NA	NA	NA	NA
CGSA SVTS	NA	163,516	77	NA	NA	NA	NA	NA
834 GWTS	1,193	NA	45	NA	300	NA	9.5	NA
834 SVTS	NA	365,939	340	NA	NA	NA	NA	NA
815-SRC GWTS*	6,617	NA	0.16	260	2,300	1.7	NA	NA
815-PRX GWTS*	7,970	NA	0.86	190	2,400	NA	NA	NA
815-DSB GWTS	16,074	NA	0.58	NA	NA	NA	NA	NA
817-SRC GWTS*	47	NA	0	4.7	15	0.0081	NA	NA
817-PRX GWTS*	4,173	NA	0.17	360	1,500	0.11	NA	NA
829-SRC GWTS	6	NA	0.00040	0.20	1.7	NA	NA	NA
PIT7-SRC GWTS	176	NA	0.0027	8.3	25	NA	NA	0.017
854-SRC GWTS	10,832	NA	5.7	160	2,000	NA	NA	NA
854-SRC SVTS	NA	101,571	12	NA	NA	NA	NA	NA
854-PRX GWTS	3,719	NA	0.67	160	620	NA	NA	NA
854-DIS GWTS	62	NA	0.0078	1.0	4.9	NA	NA	NA
832-SRC GWTS	854	NA	0.26	22	330	NA	NA	NA
832-SRC SVTS	NA	23,621	2.0	NA	NA	NA	NA	NA
830-SRC GWTS	11,021	NA	7.0	20	840	NA	NA	NA
830-SRC SVTS	NA	65,737	52	NA	NA	NA	NA	NA
830-PRXN GWTS	1,949	NA	0.26	NA	22	NA	NA	NA
830-DISS GWTS	8,095	NA	1.6	65	2,000	NA	NA	NA
Total	406,416	720,383	580	1,300	12,000	1.8	9.5	0.017

Notes:

815 = Building 815.
817 = Building 817.
829 = Building 829.
830 = Building 830.
832 = Building 832.
834 = Building 834.
854 = Building 854.
CGSA = Central General Services Area.
DIS = Distal.
DISS = Distal south.
DSB = Distal site boundary.
EGSA = Eastern General Services Area.
GWTS = Ground water treatment system.
kg = Kilograms.
NA = Not applicable.
PRX = Proximal.
PRXN = Proximal North.
RDX = Research Department Explosive.
SRC = Source.
SVTS = Soil vapor treatment system.
TBOS = Tetra 2-ethylbutylorthosilicate.
TKEBS = Tetrakis (2-ethylbutyl) silane.
VOC = Volatile organic compound.

* Nitrate re-injected into the $Tnbs_2$ HSU undergoes in situ biotransformation to benign N_2 gas by anaerobic denitrifying bacteria. Nitrate mass removal is calculated assuming complete removal of nitrate from treated ground water. At Pit7, re-injected effluent may contain nitrate concentrations below the discharge limit but above the detection limit. Thus, nitrate mass removal calculations at Pit7 are overestimated.

Table 2-1. Wells and boreholes installed during 2012.

Well name	Well type	OU	Well/Borehole installation date	HSU	Drill Depth (ft-bgs)	Casing depth (ft-bgs)	Screened interval (ft-bgs)	Primary COCs	Primary COC sampling frequency	Secondary COCs	Secondary COC sampling frequency
W-850-2805	MW	OU5	3/20/12	$Tnbs_1/Tnbs_0$	100	55.2	44.7-54.7	Tritium, Perchlorate	Semi-annually	Uranium, Nitrate	Annually
W-815-2803	EW	OU4	4/5/12	$Tnbs_2$	120	112	91.9-111.3	VOCs	Semi-annually	RDX, HMX, 4-ADNT, Perchlorate, Nitrate	Annually
W-PIT6-2817	MW	OU3	4/20/12	$Qt\text{-}Tnbs_1$	86	74	58.8-73.6	VOCs, Tritium	Semi-annually	Perchlorate, Nitrate	Annually
W-PIT6-2816	MW	OU3	5/3/12	$Qt\text{-}Tnbs_1$	110	90.9	70-90	VOCs, Tritium	Semi-annually	Perchlorate, Nitrate	Annually
W-830-2806	MW	OU7	6/14/12	$Tnsc_{1a}$	239	238.2	232.8-237.8	VOCs	Semi-annually	Perchlorate, Nitrate	Annually
W-812-2807	MW	OU9 (Non-CMP)	7/12/12	$Tnbs_1/Tnbs_0$	100	74.2	59-74	TBD	NA	TBD	NA
W-812-2808	MW	OU9 (Non-CMP)	7/24/12	$Tnsc_0$	100	40.2	30-40	TBD	NA	TBD	NA
W-812-2809	MW	OU9 (Non-CMP)	10/2/12	Qal/WBR	66[a]	56.2[a]	45.6-55.6[a]	TBD	NA	TBD	NA

Notes:

bgs = Below ground surface.
COC = Contaminant of concern.
ft = Feet.
HSU = Hydrostratigraphic unit.
OU = Operable Unit.
MW = Monitor Well.
EW = Extraction Well.
HMX = High-Melting Explosive.
RDX = Research Department Explosive.
VOCs = Volatile organic compounds.
4-ADNT = 4-amino-2,6-dinitrotoluene.
TBD = To be determined. Total uranium, perchlorate, nitrate, VOCs, and RDX were identified as ground water COCs in the Draft RI/FS for Building 812 (Taffet et al., 2008).
NA = Not applicable.

[a] This well was drilled and constructed at an angle of 40 degrees below horizontal; all depth measurements in this table are along this 40 degree angle and are not true vertical.

Table 2.1-1. Central General Services Area (CGSA) volumes of ground water and soil vapor extracted and discharged, July 1, 2012 through December 31, 2012.

Treatment facility	Month	SVTS Operational hours	GWTS Operational hours	Volume of vapor extracted (thousands of cf)	Volume of ground water discharged (gal)
CGSA	July	840	432	1,873	141,307
	August	696	408	1,546	83,485
	September	696	390	1,540	84,545
	October	816	432	1,775	97,922
	November	480	336	1,058	67,500
	December	696	312	1,570	77,505
Total		4,224	2,310	9,362	552,264

Table 2.1-2. General Services Area Operable Unit volatile organic compounds (VOCs) in ground water extraction and treatment system influent and effluent.

Location	Date	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetra-chloride (µg/L)	Chloro-form (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
CGSA-I	7/2/12	32	0.51	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5
CGSA-I	10/2/12	34	1.5	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.53	<0.5	<0.5
CGSA-E	7/2/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CGSA-E	8/7/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CGSA-E	9/4/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CGSA-E	10/2/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CGSA-E	11/5/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CGSA-E[a]	12/4/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

[a] **No samples collected in December due to GWTS non-operational.**

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.1-2 (Cont.). Analyte detected but not reported in main table.

Location	Date	Detection frequency	1,2-DCE (total) (µg/L)
CGSA-I	7/2/12	1 of 18	1.3
CGSA-I	10/2/12	1 of 18	1.1
CGSA-E	7/2/12	0 of 18	–
CGSA-E	8/7/12	0 of 18	–
CGSA-E	9/4/12	0 of 18	–
CGSA-E	10/2/12	0 of 18	–
CGSA-E	11/5/12	0 of 18	–
CGSA-E[a]	12/4/12	0 of 18	–

Notes:

[a] **No samples collected in December due to GWTS non-operational.**

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.1-3. Central General Services Area Operable Unit treatment facility sampling and analysis plan.

Sample location	Sample identification	Parameter	Frequency
CGSA GWTS			
Influent Port	**CGSA-I**	**VOCs**	**Quarterly**
		pH	**Quarterly**
Effluent Port	**CGSA-E**	**VOCs**	**Monthly**
		pH	**Monthly**
834 SVTS			
Influent Port	**CGSA-VI**	**No Monitoring Requirements**	
Effluent Port	**CGSA-VE**	**VOCs**	**Weekly[a]**
Intermediate GAC	**CGSA-VCF4I**	**VOCs**	**Weekly[a]**

Notes:

[a] Weekly monitoring for VOCs will consist of the use of a flame-ionization detector, photo-ionization detector, or other District-approved VOC detection device.

One duplicate and one blank (given fictitious labels) shall be taken for every 12 samples.

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.1-4. Central General Services Area ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-35A-01	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	2	Y	
W-35A-01	PTMW	Qt-Tnsc1	Q	DIS	E601:ALL	3	Y	
W-35A-01	PTMW	Qt-Tnsc1	Q	DIS	E601:ALL	3	Y	
W-35A-01	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	4	Y	
W-35A-02	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	2	Y	
W-35A-02	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	4	Y	
W-35A-03	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	2	Y	
W-35A-03	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	4	Y	
W-35A-04	PTMW	Qt-Tnsc1	A	WGMG	E502.2:ALL	4	Y	
W-35A-04	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	2	Y	
W-35A-04	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	4	Y	
W-35A-05	PTMW	UTnbs1	S	CMP	E601:ALL	2	Y	
W-35A-05	PTMW	UTnbs1	S	CMP	E601:ALL	4	Y	
W-35A-06	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	2	Y	
W-35A-06	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	4	Y	
W-35A-07	PTMW	LTnbs1	S	CMP	E601:ALL	2	Y	
W-35A-07	PTMW	LTnbs1	S	CMP	E601:ALL	4	Y	
W-35A-08	GW	Qt-Tnsc1	Q	CMP	E601:ALL	1	Y	
W-35A-08	GW	Qt-Tnsc1	Q	CMP	E601:ALL	2	Y	
W-35A-08	GW	Qt-Tnsc1	Q	CMP	E601:ALL	3	Y	
W-35A-08	GW	Qt-Tnsc1	Q	CMP	E601:ALL	4	Y	
W-35A-09	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	2	N	Inoperable pump.
W-35A-09	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	4	Y	
W-35A-10	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	2	N	Inoperable pump.
W-35A-10	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	4	Y	
W-35A-11	PTMW	LTnbs1	S	CMP	E601:ALL	2	Y	
W-35A-11	PTMW	LTnbs1	S	CMP	E601:ALL	4	Y	
W-35A-12	PTMW	UTnbs1	S	CMP	E601:ALL	2	Y	
W-35A-12	PTMW	UTnbs1	S	CMP	E601:ALL	4	Y	
W-35A-13	PTMW	UTnbs1	S	CMP	E601:ALL	2	Y	
W-35A-13	PTMW	UTnbs1	S	CMP	E601:ALL	4	Y	
W-35A-14	GW	Qt-Tnsc1	Q	CMP	E601:ALL	1	Y	
W-35A-14	GW	Qt-Tnsc1	Q	CMP	E601:ALL	2	Y	
W-35A-14	GW	Qt-Tnsc1	Q	CMP	E601:ALL	3	Y	
W-35A-14	GW	Qt-Tnsc1	Q	CMP	E601:ALL	4	Y	
W-7A	PTMW	UTnbs1	S	CMP	E601:ALL	2	N	Inoperable pump.
W-7A	PTMW	UTnbs1	S	CMP	E601:ALL	4	N	Inoperable pump.
W-7B	PTMW	UTnbs1	S	CMP	E601:ALL	2	Y	
W-7B	PTMW	UTnbs1	S	CMP	E601:ALL	4	Y	
W-7C	PTMW	UTnbs1	S	CMP	E601:ALL	2	N	Inoperable pump.
W-7C	PTMW	UTnbs1	S	CMP	E601:ALL	4	N	Inoperable pump.
W-7E	PTMW	UTnbs1	S	CMP	E601:ALL	2	Y	
W-7E	PTMW	UTnbs1	S	CMP	E601:ALL	4	Y	
W-7ES	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	2	Y	
W-7ES	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	4	Y	
W-7F	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	2	Y	
W-7F	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	4	Y	
W-7G	PTMW	LTnbs1	S	CMP	E601:ALL	2	Y	
W-7G	PTMW	LTnbs1	S	CMP	E601:ALL	4	Y	
W-7H	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	2	Y	
W-7H	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	4	Y	
W-7I	EW	Qt-Tnsc1	S	DIS-TF	E601:ALL	1	N	Insufficient water.
W-7I	EW	Qt-Tnsc1	S	CMP-TF	E601:ALL	2	Y	
W-7I	EW	Qt-Tnsc1	S	DIS-TF	E601:ALL	3	Y	
W-7I	EW	Qt-Tnsc1	S	CMP-TF	E601:ALL	4	Y	
W-7J	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	2	Y	

Table 2.1-4. Central General Services Area ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-7J	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	4	N	Dry.
W-7K	PTMW	LTnbs1	S	CMP	E601:ALL	2	Y	
W-7K	PTMW	LTnbs1	S	CMP	E601:ALL	4	Y	
W-7L	PTMW	UTnbs1	S	CMP	E601:ALL	2	Y	
W-7L	PTMW	UTnbs1	S	CMP	E601:ALL	4	Y	
W-7M	PTMW	LTnbs1	S	CMP	E601:ALL	2	Y	
W-7M	PTMW	LTnbs1	S	CMP	E601:ALL	4	Y	
W-7N	PTMW	UTnbs1	S	CMP	E601:ALL	2	Y	
W-7N	PTMW	UTnbs1	S	CMP	E601:ALL	4	Y	
W-7O	EW	Qt-Tnsc1	S	DIS-TF	E601:ALL	1	Y	
W-7O	EW	Qt-Tnsc1	S	CMP-TF	E601:ALL	2	Y	
W-7O	EW	Qt-Tnsc1	S	DIS-TF	E601:ALL	3	Y	
W-7O	EW	Qt-Tnsc1	S	CMP-TF	E601:ALL	4	Y	
W-7P	EW	Qal-Tnbs1	S	DIS-TF	E601:ALL	1	Y	
W-7P	EW	Qal-Tnbs1	S	CMP-TF	E601:ALL	2	Y	
W-7P	EW	Qal-Tnbs1	S	DIS-TF	E601:ALL	3	Y	
W-7P	EW	Qal-Tnbs1	S	CMP-TF	E601:ALL	4	N	Insufficient water.
W-7PS	PTMW	Qal-Tnbs1	S	CMP	E601:ALL	2	Y	
W-7PS	PTMW	Qal-Tnbs1	S	CMP	E601:ALL	4	N	Dry.
W-7Q	PTMW	Qt-Tnsc1	S	DIS	E601:ALL	2	Y	
W-7Q	PTMW	Qt-Tnsc1	S	DIS	E601:ALL	4	Y	
W-7R	EW	Qt-Tnsc1	S	DIS-TF	E601:ALL	1	Y	
W-7R	EW	Qt-Tnsc1	S	CMP-TF	E601:ALL	2	Y	
W-7R	EW	Qt-Tnsc1	S	DIS-TF	E601:ALL	3	Y	
W-7R	EW	Qt-Tnsc1	S	CMP-TF	E601:ALL	4	Y	
W-7S	PTMW	Qt-Tnsc1	S	DIS	E601:ALL	2	Y	
W-7S	PTMW	Qt-Tnsc1	S	DIS	E601:ALL	4	Y	
W-7T	PTMW	Qt-Tnsc1	S	DIS	E601:ALL	2	Y	
W-7T	PTMW	Qt-Tnsc1	S	DIS	E601:ALL	4	Y	
W-843-01	PTMW	LTnbs1	S	CMP	E601:ALL	2	Y	
W-843-01	PTMW	LTnbs1	S	CMP	E601:ALL	4	Y	
W-843-02	PTMW	UTnbs1	S	CMP	E601:ALL	2	Y	
W-843-02	PTMW	UTnbs1	S	CMP	E601:ALL	4	Y	
W-872-01	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	2	N	Dry.
W-872-01	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	4	N	Dry.
W-872-02	EW	Qt-Tnsc1	S	DIS-TF	E601:ALL	1	Y	
W-872-02	EW	Qt-Tnsc1	S	CMP-TF	E601:ALL	2	Y	
W-872-02	EW	Qt-Tnsc1	S	DIS-TF	E601:ALL	3	Y	
W-872-02	EW	Qt-Tnsc1	S	CMP-TF	E601:ALL	4	Y	
W-873-01	PTMW	LTnbs1	S	CMP	E601:ALL	2	Y	
W-873-01	PTMW	LTnbs1	S	CMP	E601:ALL	4	Y	
W-873-02	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	2	Y	
W-873-02	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	4	Y	
W-873-03	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	2	Y	
W-873-03	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	4	Y	
W-873-04	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	2	Y	
W-873-04	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	4	Y	
W-873-06	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	2	Y	
W-873-06	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	4	Y	
W-873-07	EW	Qt-Tnsc1	S	DIS-TF	E601:ALL	1	Y	
W-873-07	EW	Qt-Tnsc1	S	CMP-TF	E601:ALL	2	Y	
W-873-07	EW	Qt-Tnsc1	S	DIS-TF	E601:ALL	3	Y	
W-873-07	EW	Qt-Tnsc1	S	CMP-TF	E601:ALL	4	Y	
W-875-01	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	2	Y	
W-875-01	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	4	Y	
W-875-02	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	2	Y	

Table 2.1-4. Central General Services Area ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-875-02	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	4	Y	
W-875-03	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	2	Y	
W-875-03	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	4	N	Dry.
W-875-04	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	2	Y	
W-875-04	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	4	Y	
W-875-05	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	2	Y	
W-875-05	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	4	Y	
W-875-06	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	2	Y	
W-875-06	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	4	Y	
W-875-07	EW	Qt-Tnsc1	S	DIS-TF	E601:ALL	1	Y	
W-875-07	EW	Qt-Tnsc1	S	CMP-TF	E601:ALL	2	Y	
W-875-07	EW	Qt-Tnsc1	S	DIS-TF	E601:ALL	3	N	Insufficient water.
W-875-07	EW	Qt-Tnsc1	S	CMP-TF	E601:ALL	4	Y	
W-875-08	EW	Qt-Tnsc1	S	DIS-TF	E601:ALL	1	Y	
W-875-08	EW	Qt-Tnsc1	S	CMP-TF	E601:ALL	2	Y	
W-875-08	EW	Qt-Tnsc1	S	DIS-TF	E601:ALL	3	Y	
W-875-08	EW	Qt-Tnsc1	S	CMP-TF	E601:ALL	4	Y	
W-875-09	EW	Qt-Tnsc1	S	DIS-TF	E601:ALL	1	N	Dry
W-875-09	EW	Qt-Tnsc1	S	CMP-TF	E601:ALL	2	N	Dry.
W-875-09	EW	Qt-Tnsc1	S	DIS-TF	E601:ALL	3	N	Dry
W-875-09	EW	Qt-Tnsc1	S	CMP-TF	E601:ALL	4	N	Dry.
W-875-10	EW	Qt-Tnsc1	S	DIS-TF	E601:ALL	1	N	Dry
W-875-10	EW	Qt-Tnsc1	S	CMP-TF	E601:ALL	2	N	Dry.
W-875-10	EW	Qt-Tnsc1	S	DIS-TF	E601:ALL	3	N	Dry
W-875-10	EW	Qt-Tnsc1	S	CMP-TF	E601:ALL	4	N	Dry.
W-875-11	EW	Qt-Tnsc1	S	DIS-TF	E601:ALL	1	N	Insufficient water.
W-875-11	EW	Qt-Tnsc1	S	CMP-TF	E601:ALL	2	N	Insufficient water.
W-875-11	EW	Qt-Tnsc1	S	DIS-TF	E601:ALL	3	N	Insufficient water.
W-875-11	EW	Qt-Tnsc1	S	CMP-TF	E601:ALL	4	N	Dry.
W-875-11	EW	Qt-Tnsc1	S	DIS-TF	E601:ALL	1	N	Dry
W-875-11	EW	Qt-Tnsc1	S	DIS-TF	E601:ALL	3	N	Dry
W-875-15	EW	Qt-Tnsc1	S	CMP-TF	E601:ALL	2	N	Dry.
W-875-15	EW	Qt-Tnsc1	S	CMP-TF	E601:ALL	4	N	Dry.
W-876-01	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	2	Y	
W-876-01	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	4	Y	
W-879-01	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	2	Y	
W-879-01	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	4	Y	
W-889-01	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	2	Y	
W-889-01	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	4	Y	
W-CGSA-1732	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	2	N	Insufficient water.
W-CGSA-1732	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	4	Y	
W-CGSA-1733	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	2	N	Insufficient water.
W-CGSA-1733	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	4	N	Dry.
W-CGSA-1735	PTMW	Qal-Tnbs1	S	CMP	E601:ALL	2	N	Insufficient water.
W-CGSA-1735	PTMW	Qal-Tnbs1	S	CMP	E601:ALL	4	N	Dry.
W-CGSA-1736	PTMW	Qal-Tnbs1	S	CMP	E601:ALL	2	N	Insufficient water.
W-CGSA-1736	PTMW	Qal-Tnbs1	S	CMP	E601:ALL	4	N	Insufficient water.
W-CGSA-1737	PTMW	Qal-Tnbs1	S	CMP	E601:ALL	2	Y	
W-CGSA-1737	PTMW	Qal-Tnbs1	S	CMP	E601:ALL	4	Y	
W-CGSA-1739	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	2	Y	
W-CGSA-1739	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	4	Y	
W-CGSA-2708	PTMW	Qt-Tnsc1	S	CMP	E601:ALL	4	Y	

Table 2.1-5. Eastern General Services Area ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
CDF1	WS	LTnbs1	A	WGMG	E502.2:ALL	1	Y	
CDF1	WS	LTnbs1	M	CMP	E601:ALL	1	Y	
CDF1	WS	LTnbs1	M	CMP	E601:ALL	1	Y	
CDF1	WS	LTnbs1	M	CMP	E601:ALL	1	Y	
CDF1	WS	LTnbs1	M	CMP	E601:ALL	2	Y	
CDF1	WS	LTnbs1	M	CMP	E601:ALL	2	Y	
CDF1	WS	LTnbs1	M	CMP	E601:ALL	2	Y	
CDF1	WS	LTnbs1	M	CMP	E601:ALL	3	Y	
CDF1	WS	LTnbs1	M	CMP	E601:ALL	3	Y	
CDF1	WS	LTnbs1	M	CMP	E601:ALL	3	Y	
CDF1	WS	LTnbs1	M	CMP	E601:ALL	4	Y	
CDF1	WS	LTnbs1	M	CMP	E601:ALL	4	Y	
CDF1	WS	LTnbs1	M	CMP	E601:ALL	4	Y	
CON1	WS	LTnbs1	A	WGMG	E502.2:ALL	1	Y	
CON1	WS	LTnbs1	M	CMP	E601:ALL	1	Y	
CON1	WS	LTnbs1	M	CMP	E601:ALL	1	Y	
CON1	WS	LTnbs1	M	CMP	E601:ALL	1	Y	
CON1	WS	LTnbs1	M	CMP	E601:ALL	2	Y	
CON1	WS	LTnbs1	M	CMP	E601:ALL	2	Y	
CON1	WS	LTnbs1	M	CMP	E601:ALL	2	Y	
CON1	WS	LTnbs1	M	CMP	E601:ALL	3	Y	
CON1	WS	LTnbs1	M	CMP	E601:ALL	3	Y	
CON1	WS	LTnbs1	M	CMP	E601:ALL	3	Y	
CON1	WS	LTnbs1	M	CMP	E601:ALL	4	Y	
CON1	WS	LTnbs1	M	CMP	E601:ALL	4	Y	
CON1	WS	LTnbs1	M	CMP	E601:ALL	4	Y	
CON2	WS	LTnbs1	A	WGMG	E601:ALL	1	Y	
CON2	WS	LTnbs1	M	CMP	E601:ALL	1	Y	
CON2	WS	LTnbs1	M	CMP	E601:ALL	1	Y	
CON2	WS	LTnbs1	M	CMP	E601:ALL	2	Y	
CON2	WS	LTnbs1	M	CMP	E601:ALL	2	Y	
CON2	WS	LTnbs1	M	CMP	E601:ALL	2	Y	
CON2	WS	LTnbs1	M	CMP	E601:ALL	3	Y	
CON2	WS	LTnbs1	M	CMP	E601:ALL	3	Y	
CON2	WS	LTnbs1	M	CMP	E601:ALL	3	Y	
CON2	WS	LTnbs1	M	CMP	E601:ALL	4	Y	
CON2	WS	LTnbs1	M	CMP	E601:ALL	4	Y	
CON2	WS	LTnbs1	M	CMP	E601:ALL	4	Y	
W-24P-03	PTMW	Qal-Tnbs1	Q	DIS	AS:UISO	2	Y	
W-24P-03	PTMW	Qal-Tnbs1	Q	DIS	E601:ALL	1	Y	
W-24P-03	PTMW	Qal-Tnbs1	Q	DIS	GENMIN:ALL	2	Y	
W-25D-01	PTMW	Qal-Tnbs1	A	PSDMP	E601:ALL	1	Y	
W-25D-02	PTMW	Qal-Tnbs1	A	PSDMP	E601:ALL	1	Y	
W-25M-01	PTMW	Qal-Tnbs1	A	PSDMP	E601:ALL	1	Y	
W-25M-02	PTMW	Qal-Tnbs1	A	PSDMP	E601:ALL	1	Y	
W-25M-03	PTMW	Qal-Tnbs1	A	PSDMP	E601:ALL	1	Y	
W-25N-01	PTMW	Qal-Tnbs1	A	DIS	E200.8:AG	1	Y	
W-25N-01	PTMW	Qal-Tnbs1	A	DIS	E200.8:AS	1	Y	
W-25N-01	PTMW	Qal-Tnbs1	A	DIS	E200.8:BA	1	Y	
W-25N-01	PTMW	Qal-Tnbs1	A	DIS	E200.8:CD	1	Y	
W-25N-01	PTMW	Qal-Tnbs1	A	DIS	E200.8:CR	1	Y	
W-25N-01	PTMW	Qal-Tnbs1	A	DIS	E200.8:PB	1	Y	
W-25N-01	PTMW	Qal-Tnbs1	A	DIS	E200.8:SE	1	Y	

Table 2.1-5. Eastern General Services Area ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-25N-01	PTMW	Qal-Tnbs1	A	DIS	E245.2:ALL	1	Y	
W-25N-01	PTMW	Qal-Tnbs1	S	PSDMP	E601:ALL	1	Y	
W-25N-01	PTMW	Qal-Tnbs1	A	DIS	GENMIN:ALL	1	Y	
W-25N-04	PTMW	LTnbs1	A	DIS	E200.8:AG	1	Y	
W-25N-04	PTMW	LTnbs1	A	DIS	E200.8:AS	1	Y	
W-25N-04	PTMW	LTnbs1	A	DIS	E200.8:BA	1	Y	
W-25N-04	PTMW	LTnbs1	A	DIS	E200.8:CD	1	Y	
W-25N-04	PTMW	LTnbs1	A	DIS	E200.8:CR	1	Y	
W-25N-04	PTMW	LTnbs1	A	DIS	E200.8:PB	1	Y	
W-25N-04	PTMW	LTnbs1	A	DIS	E200.8:SE	1	Y	
W-25N-04	PTMW	LTnbs1	A	DIS	E245.2:ALL	1	Y	
W-25N-04	PTMW	LTnbs1	A	PSDMP	E601:ALL	1	Y	
W-25N-04	PTMW	LTnbs1	A	DIS	GENMIN:ALL	1	Y	
W-25N-05	PTMW	Qal-Tnbs1	S	PSDMP	E601:ALL	1	Y	
W-25N-06	PTMW	Qal-Tnbs1	A	PSDMP	E601:ALL	1	Y	
W-25N-07	GW	Qal-Tnbs1	Q	PSDMP	E601:ALL	1	Y	
W-25N-08	PTMW	LTnbs1	A	PSDMP	E601:ALL	1	Y	
W-25N-09	PTMW	LTnbs1	A	PSDMP	E601:ALL	1	Y	
W-25N-10	GW	LTnbs1	Q	PSDMP	E601:ALL	1	Y	
W-25N-11	GW	LTnbs1	Q	PSDMP	E601:ALL	1	Y	
W-25N-12	GW	LTnbs1	Q	PSDMP	E601:ALL	1	Y	
W-25N-13	GW	LTnbs1	Q	PSDMP	E601:ALL	1	Y	
W-25N-15	PTMW	Qal-Tnbs1	A	PSDMP	E601:ALL	1	N	Inoperable pump.
W-25N-18	PTMW	LTnbs1	A	PSDMP	E601:ALL	1	Y	
W-25N-20	PTMW	Qal-Tnbs1	A	PSDMP	E601:ALL	1	N	No access.
W-25N-21	PTMW	LTnbs1	A	DIS	E200.8:AG	1	Y	
W-25N-21	PTMW	LTnbs1	A	DIS	E200.8:AS	1	Y	
W-25N-21	PTMW	LTnbs1	A	DIS	E200.8:BA	1	Y	
W-25N-21	PTMW	LTnbs1	A	DIS	E200.8:CD	1	Y	
W-25N-21	PTMW	LTnbs1	A	DIS	E200.8:CR	1	Y	
W-25N-21	PTMW	LTnbs1	A	DIS	E200.8:PB	1	Y	
W-25N-21	PTMW	LTnbs1	A	DIS	E200.8:SE	1	Y	
W-25N-21	PTMW	LTnbs1	A	DIS	E245.2:ALL	1	Y	
W-25N-21	PTMW	LTnbs1	A	PSDMP	E601:ALL	1	Y	
W-25N-21	PTMW	LTnbs1	A	DIS	GENMIN:ALL	1	Y	
W-25N-22	PTMW	Qal-Tnbs1	A	PSDMP	E601:ALL	1	Y	
W-25N-23	PTMW	Qal-Tnbs1	S	PSDMP	E601:ALL	1	Y	
W-25N-24	PTMW	Qal-Tnbs1	A	DIS	E200.8:AG	1	Y	
W-25N-24	PTMW	Qal-Tnbs1	A	DIS	E200.8:AS	1	Y	
W-25N-24	PTMW	Qal-Tnbs1	A	DIS	E200.8:BA	1	Y	
W-25N-24	PTMW	Qal-Tnbs1	A	DIS	E200.8:CD	1	Y	
W-25N-24	PTMW	Qal-Tnbs1	A	DIS	E200.8:CR	1	Y	
W-25N-24	PTMW	Qal-Tnbs1	A	DIS	E200.8:PB	1	Y	
W-25N-24	PTMW	Qal-Tnbs1	A	DIS	E200.8:SE	1	Y	
W-25N-24	PTMW	Qal-Tnbs1	A	DIS	E245.2:ALL	1	Y	
W-25N-24	PTMW	Qal-Tnbs1	S	PSDMP	E601:ALL	1	Y	
W-25N-24	PTMW	Qal-Tnbs1	A	DIS	GENMIN:ALL	1	Y	
W-25N-25	PTMW	UTnbs1	A	PSDMP	E601:ALL	1	Y	
W-25N-26	PTMW	LTnbs1	A	PSDMP	E601:ALL	1	Y	
W-25N-28	PTMW	LTnbs1	A	PSDMP	E601:ALL	1	Y	
W-26R-01	PTMW	Qal-Tnbs1	S	PSDMP	E601:ALL	1	Y	
W-26R-02	PTMW	LTnbs1	A	PSDMP	E601:ALL	1	Y	
W-26R-03	PTMW	Qal-Tnbs1	A	DIS	E200.8:AG	1	Y	

Table 2.1-5. Eastern General Services Area ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-26R-03	PTMW	Qal-Tnbs1	A	DIS	E200.8:AS	1	Y	
W-26R-03	PTMW	Qal-Tnbs1	A	DIS	E200.8:BA	1	Y	
W-26R-03	PTMW	Qal-Tnbs1	A	DIS	E200.8:CD	1	Y	
W-26R-03	PTMW	Qal-Tnbs1	A	DIS	E200.8:CR	1	Y	
W-26R-03	PTMW	Qal-Tnbs1	A	DIS	E200.8:PB	1	Y	
W-26R-03	PTMW	Qal-Tnbs1	A	DIS	E200.8:SE	1	Y	
W-26R-03	PTMW	Qal-Tnbs1	A	DIS	E245.2:ALL	1	Y	
W-26R-03	PTMW	Qal-Tnbs1	S	PSDMP	E601:ALL	1	Y	
W-26R-03	PTMW	Qal-Tnbs1	A	DIS	GENMIN:ALL	1	Y	
W-26R-04	PTMW	Qal-Tnbs1	Q	DIS	AS:UISO	2	Y	
W-26R-04	PTMW	Qal-Tnbs1	S	PSDMP	E601:ALL	1	Y	
W-26R-04	PTMW	Qal-Tnbs1	Q	DIS	GENMIN:ALL	2	Y	
W-26R-05	PTMW	Qal-Tnbs1	S	PSDMP	E601:ALL	1	Y	
W-26R-06	PTMW	Qal-Tnbs1	S	PSDMP	E601:ALL	1	Y	
W-26R-06	PTMW	Qal-Tnbs1	S	PSDMP	E601:ALL	3	Y	
W-26R-06	PTMW	Qal-Tnbs1	S	CMP	E601:ALL	4	Y	
W-26R-07	PTMW	LTnbs1	A	PSDMP	E601:ALL	1	Y	
W-26R-08	PTMW	LTnbs1	A	PSDMP	E601:ALL	1	Y	
W-26R-11	PTMW	Qal-Tnbs1	S	DIS	E601:ALL	1	Y	
W-26R-11	PTMW	Qal-Tnbs1	S	DIS	E601:ALL	3	Y	
W-26R-11	PTMW	Qal-Tnbs1	S	DIS	E601:ALL	4	Y	
W-7D	PTMW	LTnbs1	A	PSDMP	E601:ALL	1	Y	
W-7DS	PTMW	Qal-Tnbs1	A	PSDMP	E601:ALL	1	Y	
W-7DS	PTMW	Qal-Tnbs1	S	DIS	E601:ALL	3	Y	
W-7DS	PTMW	Qal-Tnbs1	S	CMP	E601:ALL	4	Y	

Table 2.1-6. Central General Services Area (CGSA) mass removed, July 1, 2012 through December 31, 2012.

Treatment facility	Month	SVTS VOC mass removed (g)	GWTS VOC mass removed (g)	Perchlorate mass removed (g)	Nitrate mass removed (kg)	RDX mass removed (g)	TBOS/TKEBS mass removed (g)
CGSA	July	47	30	NA	NA	NA	NA
	August	38	20	NA	NA	NA	NA
	September	83	20	NA	NA	NA	NA
	October	95	19	NA	NA	NA	NA
	November	57	13	NA	NA	NA	NA
	December	3.9	15	NA	NA	NA	NA
Total		320	120	NA	NA	NA	NA

Table 2.2-1. Building 834 (834) volumes of ground water and soil vapor extracted and discharged, July 1, 2012 through December 31, 2012.

Treatment facility	Month	SVTS Operational hours	GWTS Operational hours	Volume of vapor extracted (thousands of cf)	Volume of ground water discharged (gal)
834	July	841	841	5,892	14,501
	August	669	669	4,843	6,524
	September	697	697	4,997	10,745
	October	245	246	1,754	4,162
	November	672	671	4,965	9,624
	December	499	499	3,677	6,765
Total		3,623	3,623	26,128	52,321

Table 2.2-2. Building 834 Operable Unit volatile organic compounds (VOCs) in ground water extraction and treatment system influent and effluent.

Location	Date	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetra-chloride (µg/L)	Chloro-form (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
834-I	7/2/12	2,300 D	14 D	310 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
834-I	10/1/12	1,900 D	14	210 D	<50 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	<0.5
834-E	7/2/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
834-E	8/1/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
834-E	9/4/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
834-E	10/1/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
834-E	11/5/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
834-E	12/3/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.2-2 (Cont.). Analyte detected but not reported in main table.

Location	Date	Detection frequency	1,2-DCE (total) (µg/L)
834-I	7/2/12	1 of 18	310 D
834-I	10/1/12	1 of 18	210 D
834-E	7/2/12	0 of 18	–
834-E	8/1/12	0 of 18	–
834-E	9/4/12	0 of 18	–
834-E	10/1/12	0 of 18	–
834-E	11/5/12	0 of 18	–
834-E	12/3/12	0 of 18	–

Notes:

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.2-3. Building 834 Operable Unit diesel range organic compounds in ground water extraction and treatment system influent and effluent.

Location	Date	Diesel Range Organics (C12-C24) (μg/L)
834-I	7/2/12	<200
834-I	10/1/12	<200
834-E	7/2/12	<200
834-E	8/1/12	<200
834-E	9/4/12	<200
834-E	10/1/12	<200
834-E	11/5/12	<200
834-E	12/3/12	<200

Notes:

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.2-4. Building 834 Operable Unit tetrabutyl orthosilicate/tetrakis (2-ethylbutyl) silane (TBOS/TKEBS) in ground water extraction and treatment system influent and effluent.

Location	Date	TBOS (μg/L)
834-I	7/2/12	<10
834-I	10/1/12	25
834-E	7/2/12	<10
834-E	8/1/12	<10
834-E	9/4/12	<10
834-E	10/1/12	<10 L
834-E	11/5/12	<10
834-E	12/3/12	<10

Notes:

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.2-5. Building 834 Operable Unit treatment facility sampling and analysis plan.

Sample location	Sample identification	Parameter	Frequency
834 GWTS			
Influent Port	834-I	VOCs	Quarterly
		TBOS/TKEBS	Quarterly
		Diesel	Quarterly
		pH	Quarterly
Effluent Port	834-E	VOCs	Monthly
		TBOS/TKEBS	Monthly
		Diesel	Monthly
		pH	Monthly
834 SVTS			
Influent Port	834-VI	No Monitoring Requirements	
Effluent Port	834-VE	VOCs	Weekly[a]
Intermediate GAC	834-VCF4I	VOCs	Weekly[a]

Notes:

[a] **Weekly monitoring for VOCs will consist of the use of a flame-ionization detector, photo-ionization detector, or other District-approved VOC detection device.**

One duplicate and one blank (given fictitious labels) shall be taken for every 12 samples.

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.2-6. Building 834 Operable Unit ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-834-1709	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-1709	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-1709	PTMW	Tpsg	S	CMP	E601:ALL	3	Y	
W-834-1709	PTMW	Tpsg	A	CMP	TBOS:ALL	1	Y	
W-834-1711	PTMW	Tps-Tnsc2	A	CMP	E300.0:NO3	1	Y	
W-834-1711	PTMW	Tps-Tnsc2	S	CMP	E601:ALL	1	Y	
W-834-1711	PTMW	Tps-Tnsc2	S	CMP	E601:ALL	3	Y	
W-834-1711	PTMW	Tps-Tnsc2	A	CMP	TBOS:ALL	1	Y	
W-834-1824	PTMW	Tpsg	A	DIS	E200.7:FE	1	Y	
W-834-1824	PTMW	Tpsg	A	DIS	E200.8:MN	1	Y	
W-834-1824	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-1824	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-1824	PTMW	Tpsg	S	CMP	E601:ALL	3	Y	
W-834-1824	PTMW	Tpsg	Q	DIS	E601:ALL	4	Y	
W-834-1824	PTMW	Tpsg	E	CMP	TBOS:ALL	1	Y	
W-834-1825	PTMW	Tpsg	A	DIS	E200.7:FE	1	Y	
W-834-1825	PTMW	Tpsg	A	DIS	E200.8:MN	1	Y	
W-834-1825	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-1825	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-1825	PTMW	Tpsg	S	CMP	E601:ALL	3	Y	
W-834-1825	PTMW	Tpsg	Q	DIS	E601:ALL	4	Y	
W-834-1825	PTMW	Tpsg	O	CMP	TBOS:ALL	1	N	To be sampled in 2013.
W-834-1833	PTMW	Tpsg	A	DIS	E200.7:FE	1	Y	
W-834-1833	PTMW	Tpsg	A	DIS	E200.8:MN	1	Y	
W-834-1833	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-1833	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-1833	PTMW	Tpsg	S	CMP	E601:ALL	3	Y	
W-834-1833	PTMW	Tpsg	Q	DIS	E601:ALL	4	Y	
W-834-1833	PTMW	Tpsg	E	CMP	TBOS:ALL	1	Y	
W-834-2001	EW	Tps-Tnsc2	A	CMP-TF	E300.0:NO3	1	Y	
W-834-2001	EW	Tps-Tnsc2	S	CMP-TF	E601:ALL	1	Y	
W-834-2001	EW	Tps-Tnsc2	S	CMP-TF	E601:ALL	3	Y	
W-834-2001	EW	Tps-Tnsc2	S	DIS-TF	E624:ALL	2	Y	
W-834-2001	EW	Tps-Tnsc2	S	DIS-TF	E624:ALL	4	Y	
W-834-2001	EW	Tps-Tnsc2	S	DIS-TF	EM8015:DIESEL	1	Y	
W-834-2001	EW	Tps-Tnsc2	S	DIS-TF	EM8015:DIESEL	3	Y	
W-834-2001	EW	Tps-Tnsc2	A	CMP-TF	TBOS:ALL	1	Y	
W-834-2001	EW	Tps-Tnsc2	A	DIS-TF	TBOS:ALL	3	Y	
W-834-2113	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-2113	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-2113	PTMW	Tpsg	S	CMP	E601:ALL	3	Y	
W-834-2113	PTMW	Tpsg	E	CMP	TBOS:ALL	1	Y	
W-834-2117	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-2117	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-2117	PTMW	Tpsg	S	CMP	E601:ALL	3	Y	
W-834-2117	PTMW	Tpsg	O	CMP	TBOS:ALL	1	N	To be sampled in 2013.
W-834-2118	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-2118	PTMW	Tpsg	S	DIS	E300.0:PERC	1	Y	
W-834-2118	PTMW	Tpsg	S	DIS	E300.0:PERC	3	Y	
W-834-2118	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-2118	PTMW	Tpsg	S	CMP	E601:ALL	3	Y	
W-834-2118	PTMW	Tpsg	O	CMP	TBOS:ALL	1	N	To be sampled in 2013.
W-834-2119	PTMW	Tps-Tnsc2	A	CMP	E300.0:NO3	1	Y	
W-834-2119	PTMW	Tps-Tnsc2	S	CMP	E601:ALL	1	Y	
W-834-2119	PTMW	Tps-Tnsc2	S	CMP	E601:ALL	3	Y	
W-834-2119	PTMW	Tps-Tnsc2	E	CMP	TBOS:ALL	1	Y	
W-834-A1	PTMW	Tps-Tnsc2	A	CMP	E300.0:NO3	1	Y	
W-834-A1	PTMW	Tps-Tnsc2	S	CMP	E601:ALL	1	Y	
W-834-A1	PTMW	Tps-Tnsc2	S	CMP	E601:ALL	3	Y	
W-834-A1	PTMW	Tps-Tnsc2	E	DIS	EM8015:DRANGE	1	Y	

Table 2.2-6. Building 834 Operable Unit ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-834-A1	PTMW	Tps-Tnsc2	A	CMP	TBOS:ALL	1	Y	
W-834-A2	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Dry.
W-834-A2	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Dry.
W-834-A2	PTMW	Tpsg	S	CMP	E601:ALL	3	N	Dry.
W-834-A2	PTMW	Tpsg	O	DIS	EM8015:DRANGE	1	N	To be sampled in 2013.
W-834-A2	PTMW	Tpsg	A	CMP	TBOS:ALL	1	N	Dry.
W-834-B2	EW	Tpsg	A	CMP-TF	E300.0:NO3	1	Y	
W-834-B2	EW	Tpsg	S	CMP-TF	E601:ALL	1	Y	
W-834-B2	EW	Tpsg	S	DIS-TF	E601:ALL	2	Y	
W-834-B2	EW	Tpsg	S	CMP-TF	E601:ALL	3	Y	
W-834-B2	EW	Tpsg	S	DIS-TF	E601:ALL	4	Y	
W-834-B2	EW	Tpsg	A	CMP-TF	TBOS:ALL	1	Y	
W-834-B2	EW	Tpsg	A	DIS-TF	TBOS:ALL	3	Y	
W-834-B3	EW	Tpsg	A	CMP-TF	E300.0:NO3	1	Y	
W-834-B3	EW	Tpsg	S	CMP-TF	E601:ALL	1	Y	
W-834-B3	EW	Tpsg	S	DIS-TF	E601:ALL	2	Y	
W-834-B3	EW	Tpsg	S	CMP-TF	E601:ALL	3	Y	
W-834-B3	EW	Tpsg	S	DIS-TF	E601:ALL	4	Y	
W-834-B3	EW	Tpsg	A	CMP-TF	TBOS:ALL	1	Y	
W-834-B3	EW	Tpsg	A	DIS-TF	TBOS:ALL	3	Y	
W-834-B4	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Dry.
W-834-B4	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Dry.
W-834-B4	PTMW	Tpsg	S	CMP	E601:ALL	3	N	Dry.
W-834-B4	PTMW	Tpsg	A	CMP	TBOS:ALL	1	N	Dry.
W-834-C2	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Dry.
W-834-C2	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Dry.
W-834-C2	PTMW	Tpsg	S	CMP	E601:ALL	3	N	Dry.
W-834-C2	PTMW	Tpsg	A	CMP	TBOS:ALL	1	N	Dry.
W-834-C4	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-C4	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-C4	PTMW	Tpsg	S	CMP	E601:ALL	3	Y	
W-834-C4	PTMW	Tpsg	A	CMP	TBOS:ALL	1	Y	
W-834-C5	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Dry.
W-834-C5	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Dry.
W-834-C5	PTMW	Tpsg	S	CMP	E601:ALL	3	Y	
W-834-C5	PTMW	Tpsg	A	CMP	TBOS:ALL	1	N	Dry.
W-834-D10	PTMW	Tps-Tnsc2	A	CMP	E300.0:NO3	1	N	Insufficient water.
W-834-D10	PTMW	Tps-Tnsc2	S	CMP	E601:ALL	1	N	Insufficient water.
W-834-D10	PTMW	Tps-Tnsc2	S	CMP	E601:ALL	3	N	Dry.
W-834-D10	PTMW	Tps-Tnsc2	O	DIS	EM8015:DRANGE	1	N	To be sampled in 2013.
W-834-D10	PTMW	Tps-Tnsc2	A	CMP	TBOS:ALL	1	N	Insufficient water.
W-834-D11	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Insufficient water.
W-834-D11	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Insufficient water.
W-834-D11	PTMW	Tpsg	S	CMP	E601:ALL	3	N	Insufficient water.
W-834-D11	PTMW	Tpsg	A	CMP	TBOS:ALL	1	N	Insufficient water.
W-834-D12	EW	Tpsg	A	CMP-TF	E300.0:NO3	1	Y	
W-834-D12	EW	Tpsg	S	CMP-TF	E601:ALL	1	Y	
W-834-D12	EW	Tpsg	S	DIS-TF	E601:ALL	2	Y	
W-834-D12	EW	Tpsg	S	CMP-TF	E601:ALL	3	Y	
W-834-D12	EW	Tpsg	S	DIS-TF	E601:ALL	4	Y	
W-834-D12	EW	Tpsg	A	CMP-TF	TBOS:ALL	1	Y	
W-834-D12	EW	Tpsg	A	DIS-TF	TBOS:ALL	3	Y	
W-834-D13	EW	Tpsg	A	CMP-TF	E300.0:NO3	1	Y	
W-834-D13	EW	Tpsg	S	CMP-TF	E601:ALL	1	Y	
W-834-D13	EW	Tpsg	S	DIS-TF	E601:ALL	2	Y	
W-834-D13	EW	Tpsg	S	CMP-TF	E601:ALL	3	Y	
W-834-D13	EW	Tpsg	S	DIS-TF	E601:ALL	4	Y	
W-834-D13	EW	Tpsg	A	CMP-TF	TBOS:ALL	1	Y	
W-834-D13	EW	Tpsg	A	DIS-TF	TBOS:ALL	3	Y	
W-834-D14	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	

Table 2.2-6. Building 834 Operable Unit ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-834-D14	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-D14	PTMW	Tpsg	S	CMP	E601:ALL	3	N	Insufficient water.
W-834-D14	PTMW	Tpsg	A	CMP	TBOS:ALL	1	Y	
W-834-D15	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Insufficient water.
W-834-D15	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Insufficient water.
W-834-D15	PTMW	Tpsg	S	CMP	E601:ALL	3	N	Dry.
W-834-D15	PTMW	Tpsg	A	CMP	TBOS:ALL	1	N	Insufficient water.
W-834-D16	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Dry.
W-834-D16	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Dry.
W-834-D16	PTMW	Tpsg	S	CMP	E601:ALL	3	N	Dry.
W-834-D16	PTMW	Tpsg	O	DIS	EM8015:DRANGE	1	N	To be sampled in 2013.
W-834-D16	PTMW	Tpsg	A	CMP	TBOS:ALL	1	N	Dry.
W-834-D17	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Dry.
W-834-D17	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Dry.
W-834-D17	PTMW	Tpsg	S	CMP	E601:ALL	3	N	Dry.
W-834-D17	PTMW	Tpsg	O	DIS	EM8015:DRANGE	1	N	To be sampled in 2013.
W-834-D17	PTMW	Tpsg	A	CMP	TBOS:ALL	1	N	Dry.
W-834-D18	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-D18	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-D18	PTMW	Tpsg	S	CMP	E601:ALL	3	Y	
W-834-D18	PTMW	Tpsg	A	CMP	TBOS:ALL	1	Y	
W-834-D2	PTMW	LTnbs1	A	CMP	E300.0:NO3	1	N	Dry.
W-834-D2	PTMW	LTnbs1	A	CMP	E601:ALL	1	N	Dry.
W-834-D2	PTMW	LTnbs1	A	CMP	TBOS:ALL	1	N	Dry.
W-834-D3	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-D3	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-D3	PTMW	Tpsg	S	CMP	E601:ALL	3	Y	
W-834-D3	PTMW	Tpsg	A	CMP	TBOS:ALL	1	Y	
W-834-D4	EW	Tpsg	A	CMP-TF	E300.0:NO3	1	Y	
W-834-D4	EW	Tpsg	S	CMP-TF	E601:ALL	1	Y	
W-834-D4	EW	Tpsg	S	DIS-TF	E601:ALL	2	Y	
W-834-D4	EW	Tpsg	S	CMP-TF	E601:ALL	3	Y	
W-834-D4	EW	Tpsg	S	DIS-TF	E601:ALL	4	Y	
W-834-D4	EW	Tpsg	A	CMP-TF	TBOS:ALL	1	Y	
W-834-D4	EW	Tpsg	A	DIS-TF	TBOS:ALL	3	Y	
W-834-D5	EW	Tpsg	A	CMP-TF	E300.0:NO3	1	Y	
W-834-D5	EW	Tpsg	S	CMP-TF	E601:ALL	1	Y	
W-834-D5	EW	Tpsg	S	CMP-TF	E601:ALL	3	Y	
W-834-D5	EW	Tpsg	A	CMP-TF	TBOS:ALL	1	Y	
W-834-D6	EW	Tpsg	A	CMP-TF	E300.0:NO3	1	Y	
W-834-D6	EW	Tpsg	S	CMP-TF	E601:ALL	1	Y	
W-834-D6	EW	Tpsg	S	DIS-TF	E601:ALL	2	Y	
W-834-D6	EW	Tpsg	S	CMP-TF	E601:ALL	3	Y	
W-834-D6	EW	Tpsg	S	DIS-TF	E601:ALL	4	Y	
W-834-D6	EW	Tpsg	A	CMP-TF	TBOS:ALL	1	Y	
W-834-D6	EW	Tpsg	A	DIS-TF	TBOS:ALL	3	Y	
W-834-D7	EW	Tpsg	A	CMP-TF	E300.0:NO3	1	Y	
W-834-D7	EW	Tpsg	S	CMP-TF	E601:ALL	1	Y	
W-834-D7	EW	Tpsg	S	DIS-TF	E601:ALL	2	Y	
W-834-D7	EW	Tpsg	S	CMP-TF	E601:ALL	3	Y	
W-834-D7	EW	Tpsg	S	DIS-TF	E601:ALL	4	Y	
W-834-D7	EW	Tpsg	A	CMP-TF	TBOS:ALL	1	Y	
W-834-D7	EW	Tpsg	A	DIS-TF	TBOS:ALL	3	Y	
W-834-D9A	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	N	Dry.
W-834-D9A	PTMW	Tnbs2	A	CMP	E601:ALL	1	N	Dry.
W-834-D9A	PTMW	Tnbs2	A	CMP	TBOS:ALL	1	N	Dry.
W-834-G3	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Dry.
W-834-G3	PTMW	Tpsg	A	CMP	E601:ALL	1	N	Dry.
W-834-G3	PTMW	Tpsg	A	CMP	TBOS:ALL	1	N	Dry.
W-834-H2	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Insufficient water.

Table 2.2-6. Building 834 Operable Unit ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-834-H2	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Insufficient water.
W-834-H2	PTMW	Tpsg	S	CMP	E601:ALL	3	N	Dry.
W-834-H2	PTMW	Tpsg	A	CMP	TBOS:ALL	1	N	Insufficient water.
W-834-J1	EW	Tpsg	A	CMP-TF	E300.0:NO3	1	Y	
W-834-J1	EW	Tpsg	S	CMP-TF	E601:ALL	1	Y	
W-834-J1	EW	Tpsg	S	DIS-TF	E601:ALL	2	Y	
W-834-J1	EW	Tpsg	S	CMP-TF	E601:ALL	3	Y	
W-834-J1	EW	Tpsg	S	DIS-TF	E601:ALL	4	Y	
W-834-J1	EW	Tpsg	A	CMP-TF	TBOS:ALL	1	Y	
W-834-J1	EW	Tpsg	A	DIS-TF	TBOS:ALL	3	Y	
W-834-J2	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-J2	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-J2	PTMW	Tpsg	S	CMP	E601:ALL	3	Y	
W-834-J2	PTMW	Tpsg	A	CMP	TBOS:ALL	1	Y	
W-834-J3	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-J3	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-J3	PTMW	Tpsg	S	CMP	E601:ALL	3	N	Dry.
W-834-J3	PTMW	Tpsg	O	CMP	TBOS:ALL	1	N	To be sampled in 2013.
W-834-K1A	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Dry.
W-834-K1A	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Dry.
W-834-K1A	PTMW	Tpsg	S	CMP	E601:ALL	3	N	Dry.
W-834-K1A	PTMW	Tpsg	A	CMP	TBOS:ALL	1	N	Dry.
W-834-M1	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-M1	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-M1	PTMW	Tpsg	S	CMP	E601:ALL	3	Y	
W-834-M1	PTMW	Tpsg	E	CMP	TBOS:ALL	1	Y	
W-834-M2	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Dry.
W-834-M2	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Dry.
W-834-M2	PTMW	Tpsg	S	CMP	E601:ALL	3	N	Dry.
W-834-M2	PTMW	Tpsg	E	CMP	TBOS:ALL	1	N	Dry.
W-834-S1	EW	Tpsg	A	CMP-TF	E300.0:NO3	1	Y	
W-834-S1	EW	Tpsg	S	CMP-TF	E601:ALL	1	Y	
W-834-S1	EW	Tpsg	S	DIS-TF	E601:ALL	2	Y	
W-834-S1	EW	Tpsg	S	CMP-TF	E601:ALL	3	Y	
W-834-S1	EW	Tpsg	S	DIS-TF	E601:ALL	4	Y	
W-834-S1	EW	Tpsg	A	CMP-TF	TBOS:ALL	1	Y	
W-834-S1	EW	Tpsg	A	DIS-TF	TBOS:ALL	3	Y	
W-834-S10	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Dry.
W-834-S10	PTMW	Tpsg	S	CMP	E624:ALL	1	N	Dry.
W-834-S10	PTMW	Tpsg	S	CMP	E624:ALL	3	N	Dry.
W-834-S10	PTMW	Tpsg	A	CMP	TBOS:ALL	1	N	Dry.
W-834-S12A	EW	Tpsg	A	CMP-TF	E300.0:NO3	1	Y	
W-834-S12A	EW	Tpsg	S	CMP-TF	E601:ALL	1	Y	
W-834-S12A	EW	Tpsg	S	DIS-TF	E601:ALL	2	Y	
W-834-S12A	EW	Tpsg	S	CMP-TF	E601:ALL	3	Y	
W-834-S12A	EW	Tpsg	S	DIS-TF	E601:ALL	4	Y	
W-834-S12A	EW	Tpsg	A	CMP-TF	TBOS:ALL	1	Y	
W-834-S12A	EW	Tpsg	A	DIS-TF	TBOS:ALL	3	Y	
W-834-S13	EW	Tpsg	A	CMP-TF	E300.0:NO3	1	Y	
W-834-S13	EW	Tpsg	S	CMP-TF	E601:ALL	1	Y	
W-834-S13	EW	Tpsg	S	DIS-TF	E601:ALL	2	Y	
W-834-S13	EW	Tpsg	S	CMP-TF	E601:ALL	3	Y	
W-834-S13	EW	Tpsg	S	DIS-TF	E601:ALL	4	Y	
W-834-S13	EW	Tpsg	A	CMP-TF	TBOS:ALL	1	Y	
W-834-S13	EW	Tpsg	A	DIS-TF	TBOS:ALL	3	Y	
W-834-S4	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-S4	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-S4	PTMW	Tpsg	S	CMP	E601:ALL	3	Y	
W-834-S4	PTMW	Tpsg	O	CMP	TBOS:ALL	1	N	To be sampled in 2013.
W-834-S5	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Dry.

Table 2.2-6. Building 834 Operable Unit ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-834-S5	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Dry.
W-834-S5	PTMW	Tpsg	S	CMP	E601:ALL	3	N	Dry.
W-834-S5	PTMW	Tpsg	O	CMP	TBOS:ALL	1	N	To be sampled in 2013.
W-834-S6	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Dry.
W-834-S6	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Dry.
W-834-S6	PTMW	Tpsg	S	CMP	E601:ALL	3	N	Insufficient water.
W-834-S6	PTMW	Tpsg	E	CMP	TBOS:ALL	1	N	Dry.
W-834-S7	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Dry.
W-834-S7	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Dry.
W-834-S7	PTMW	Tpsg	S	CMP	E601:ALL	3	N	Dry.
W-834-S7	PTMW	Tpsg	E	CMP	TBOS:ALL	1	N	Dry.
W-834-S8	PTMW	Tps-Tnsc2	A	CMP	E300.0:NO3	1	Y	
W-834-S8	PTMW	Tps-Tnsc2	S	CMP	E601:ALL	1	Y	
W-834-S8	PTMW	Tps-Tnsc2	S	CMP	E601:ALL	3	Y	
W-834-S8	PTMW	Tps-Tnsc2	O	DIS	EM8015:DRANGE	1	N	To be sampled in 2013.
W-834-S8	PTMW	Tps-Tnsc2	O	CMP	TBOS:ALL	1	N	To be sampled in 2013.
W-834-S9	PTMW	Tps-Tnsc2	A	CMP	E300.0:NO3	1	Y	
W-834-S9	PTMW	Tps-Tnsc2	S	CMP	E601:ALL	1	Y	
W-834-S9	PTMW	Tps-Tnsc2	S	CMP	E601:ALL	3	Y	
W-834-S9	PTMW	Tps-Tnsc2	E	DIS	EM8015:DRANGE	1	Y	
W-834-S9	PTMW	Tps-Tnsc2	E	CMP	TBOS:ALL	1	Y	
W-834-T1	GW	LTnbs1	S	CMP	E300.0:NO3	1	Y	
W-834-T1	GW	LTnbs1	S	CMP	E300.0:NO3	3	Y	
W-834-T1	GW	LTnbs1	Q	CMP	E601:ALL	1	Y	
W-834-T1	GW	LTnbs1	Q	CMP	E601:ALL	2	Y	
W-834-T1	GW	LTnbs1	Q	CMP	E601:ALL	3	Y	
W-834-T1	GW	LTnbs1	Q	CMP	E601:ALL	4	Y	
W-834-T1	GW	LTnbs1	S	CMP	TBOS:ALL	1	Y	
W-834-T1	GW	LTnbs1	S	CMP	TBOS:ALL	3	Y	
W-834-T11	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Dry.
W-834-T11	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Dry.
W-834-T11	PTMW	Tpsg	S	CMP	E601:ALL	3	N	Dry.
W-834-T11	PTMW	Tpsg	E	CMP	TBOS:ALL	1	N	Dry.
W-834-T2	PTMW	Tpsg	A	DIS	E200.7:FE	1	Y	
W-834-T2	PTMW	Tpsg	A	DIS	E200.8:MN	1	Y	
W-834-T2	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-T2	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-T2	PTMW	Tpsg	S	CMP	E601:ALL	3	Y	
W-834-T2	PTMW	Tpsg	Q	DIS	E601:ALL	4	Y	
W-834-T2	PTMW	Tpsg	O	CMP	TBOS:ALL	1	N	To be sampled in 2013.
W-834-T2A	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-T2A	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-T2A	PTMW	Tpsg	S	CMP	E601:ALL	3	Y	
W-834-T2A	PTMW	Tpsg	Q	DIS	E601:ALL	4	Y	
W-834-T2A	PTMW	Tpsg	E	CMP	TBOS:ALL	1	Y	
W-834-T2B	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Dry.
W-834-T2B	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Dry.
W-834-T2B	PTMW	Tpsg	S	CMP	E601:ALL	3	N	Dry.
W-834-T2B	PTMW	Tpsg	O	CMP	TBOS:ALL	1	N	To be sampled in 2013.
W-834-T2C	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Dry.
W-834-T2C	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Dry.
W-834-T2C	PTMW	Tpsg	S	CMP	E601:ALL	3	N	Dry.
W-834-T2C	PTMW	Tpsg	E	CMP	TBOS:ALL	1	N	Dry.
W-834-T2D	PTMW	Tpsg	A	CMP	E300.0:NO3	1	Y	
W-834-T2D	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-834-T2D	PTMW	Tpsg	S	CMP	E601:ALL	3	Y	
W-834-T2D	PTMW	Tpsg	Q	DIS	E601:ALL	4	Y	
W-834-T2D	PTMW	Tpsg	E	CMP	TBOS:ALL	1	Y	
W-834-T3	GW	LTnbs1	S	CMP	E300.0:NO3	1	Y	
W-834-T3	GW	LTnbs1	S	CMP	E300.0:NO3	3	Y	

Table 2.2-6. Building 834 Operable Unit ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-834-T3	GW	LTnbs1	Q	CMP	E601:ALL	1	Y	
W-834-T3	GW	LTnbs1	Q	CMP	E601:ALL	2	Y	
W-834-T3	GW	LTnbs1	Q	CMP	E601:ALL	3	Y	
W-834-T3	GW	LTnbs1	Q	CMP	E601:ALL	4	Y	
W-834-T3	GW	LTnbs1	S	CMP	TBOS:ALL	1	Y	
W-834-T3	GW	LTnbs1	S	CMP	TBOS:ALL	3	Y	
W-834-T5	PTMW	Tps-Tnsc2	A	CMP	E300.0:NO3	1	Y	
W-834-T5	PTMW	Tps-Tnsc2	S	CMP	E601:ALL	1	Y	
W-834-T5	PTMW	Tps-Tnsc2	S	CMP	E601:ALL	3	Y	
W-834-T5	PTMW	Tps-Tnsc2	E	CMP	TBOS:ALL	1	Y	
W-834-T7A	PTMW	Tps-Tnsc2	A	CMP	E300.0:NO3	1	N	Dry.
W-834-T7A	PTMW	Tps-Tnsc2	S	CMP	E601:ALL	1	N	Dry.
W-834-T7A	PTMW	Tps-Tnsc2	S	CMP	E601:ALL	3	N	Dry.
W-834-T7A	PTMW	Tps-Tnsc2	O	CMP	TBOS:ALL	1	N	To be sampled in 2013.
W-834-T8A	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Dry.
W-834-T8A	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Dry.
W-834-T8A	PTMW	Tpsg	S	CMP	E601:ALL	3	N	Dry.
W-834-T8A	PTMW	Tpsg	O	CMP	TBOS:ALL	1	N	To be sampled in 2013.
W-834-T9	PTMW	Tpsg	A	CMP	E300.0:NO3	1	N	Dry.
W-834-T9	PTMW	Tpsg	S	CMP	E601:ALL	1	N	Dry.
W-834-T9	PTMW	Tpsg	S	CMP	E601:ALL	3	N	Dry.
W-834-T9	PTMW	Tpsg	O	CMP	TBOS:ALL	1	N	To be sampled in 2013.
W-834-U1	PTMW	Tps-Tnsc2	A	CMP	E300.0:NO3	1	Y	
W-834-U1	PTMW	Tps-Tnsc2	S	CMP	E624:ALL	1	Y	
W-834-U1	PTMW	Tps-Tnsc2	S	CMP	E624:ALL	3	Y	
W-834-U1	PTMW	Tps-Tnsc2	A	DIS	EM8015:DIESEL	1	Y	
W-834-U1	PTMW	Tps-Tnsc2	A	CMP	TBOS:ALL	1	Y	

Table 2.2-7. Building 834 (834) mass removed, July 1, 2012 through December 31, 2012.

Treatment facility	Month	SVTS VOC mass removed (g)	GWTS VOC mass removed (g)	Perchlorate mass removed (g)	Nitrate mass removed (kg)	RDX mass removed (g)	TBOS/TKEBS mass removed (g)
834	July	750	170	NA	3.5	NA	0
	August	610	69	NA	1.7	NA	0
	September	820	84	NA	2.6	NA	0.068
	October	290	32	NA	0.83	NA	0.017
	November	1,000	80	NA	2.5	NA	0.051
	December	750	59	NA	1.6	NA	0.076
Total		4,300	490	NA	13	NA	0.21

Table 2.3-1. Pit 6 Landfill Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
BC6-10	PTMW	LTnbs1	A	CMP	E300.0:NO3	1	Y	
BC6-10	PTMW	LTnbs1	A	CMP	E300.0:PERC	1	Y	
BC6-10	PTMW	LTnbs1	S	CMP	E601:ALL	1	Y	
BC6-10	PTMW	LTnbs1	S	CMP	E601:ALL	3	Y	
BC6-10	PTMW	LTnbs1	S	CMP	E906:ALL	1	Y	
BC6-10	PTMW	LTnbs1	S	CMP	E906:ALL	3	Y	
BC6-13	PTMW	Qt-Tnbs1	E	CMP	E300.0:NO3	1	N	Dry.
BC6-13	PTMW	Qt-Tnbs1	E	CMP	E300.0:PERC	1	N	Dry.
BC6-13	PTMW	Qt-Tnbs1	E	CMP	E601:ALL	1	N	Dry.
BC6-13	PTMW	Qt-Tnbs1	E	CMP	E906:ALL	1	N	Dry.
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	1	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	1	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	1	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	2	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	2	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	2	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	3	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	3	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	3	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	4	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	4	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	4	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	1	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	1	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	1	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	2	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	2	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	2	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	3	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	3	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	3	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	4	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	4	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	4	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E601:ALL	1	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E601:ALL	1	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E601:ALL	1	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E601:ALL	2	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E601:ALL	2	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E601:ALL	2	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E601:ALL	3	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E601:ALL	3	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E601:ALL	3	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E601:ALL	4	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E601:ALL	4	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E601:ALL	4	Y	
CARNRW1	WS	Qt-Tnbs1	Q	WGMG	E624:ALL	1	Y	
CARNRW1	WS	Qt-Tnbs1	Q	WGMG	E624:ALL	2	Y	
CARNRW1	WS	Qt-Tnbs1	Q	WGMG	E624:ALL	3	Y	
CARNRW1	WS	Qt-Tnbs1	Q	WGMG	E624:ALL	4	Y	
CARNRW1	WS	Qt-Tnbs1	Q	WGMG	E900:ALL	1	Y	
CARNRW1	WS	Qt-Tnbs1	Q	WGMG	E900:ALL	2	Y	
CARNRW1	WS	Qt-Tnbs1	Q	WGMG	E900:ALL	3	Y	
CARNRW1	WS	Qt-Tnbs1	Q	WGMG	E900:ALL	4	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E906:ALL	1	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E906:ALL	1	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E906:ALL	1	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E906:ALL	2	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E906:ALL	2	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E906:ALL	2	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E906:ALL	3	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E906:ALL	3	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E906:ALL	3	Y	

Table 2.3-1. Pit 6 Landfill Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
CARNRW1	WS	Qt-Tnbs1	M	CMP	E906:ALL	4	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E906:ALL	4	Y	
CARNRW1	WS	Qt-Tnbs1	M	CMP	E906:ALL	4	Y	
CARNRW2	WS	Qt-Tnbs1	Q	WGMG	AS:UISO	1	Y	
CARNRW2	WS	Qt-Tnbs1	Q	WGMG	AS:UISO	2	Y	
CARNRW2	WS	Qt-Tnbs1	Q	WGMG	AS:UISO	3	Y	
CARNRW2	WS	Qt-Tnbs1	Q	WGMG	AS:UISO	4	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	1	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	1	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	1	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	2	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	2	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	2	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	3	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	3	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	3	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	4	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	4	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	4	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	1	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	1	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	1	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	2	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	2	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	2	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	3	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	3	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	3	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	4	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	4	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	4	Y	
CARNRW2	WS	Qt-Tnbs1	Q	WGMG	E502.2:ALL	1	Y	
CARNRW2	WS	Qt-Tnbs1	Q	WGMG	E502.2:ALL	2	Y	
CARNRW2	WS	Qt-Tnbs1	Q	WGMG	E502.2:ALL	3	Y	
CARNRW2	WS	Qt-Tnbs1	Q	WGMG	E502.2:ALL	4	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E601:ALL	1	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E601:ALL	1	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E601:ALL	1	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E601:ALL	2	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E601:ALL	2	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E601:ALL	2	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E601:ALL	3	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E601:ALL	3	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E601:ALL	3	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E601:ALL	4	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E601:ALL	4	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E601:ALL	4	Y	
CARNRW2	WS	Qt-Tnbs1	Q	WGMG	E900:ALL	1	Y	
CARNRW2	WS	Qt-Tnbs1	Q	WGMG	E900:ALL	2	Y	
CARNRW2	WS	Qt-Tnbs1	Q	WGMG	E900:ALL	3	Y	
CARNRW2	WS	Qt-Tnbs1	Q	WGMG	E900:ALL	4	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E906:ALL	1	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E906:ALL	1	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E906:ALL	1	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E906:ALL	2	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E906:ALL	2	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E906:ALL	2	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E906:ALL	3	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E906:ALL	3	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E906:ALL	3	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E906:ALL	4	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E906:ALL	4	Y	
CARNRW2	WS	Qt-Tnbs1	M	CMP	E906:ALL	4	Y	

Table 2.3-1. Pit 6 Landfill Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	1	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	1	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	1	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	2	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	2	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	2	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	3	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	3	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	3	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	4	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	4	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	4	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	1	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	1	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	1	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	2	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	2	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	2	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	3	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	3	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	3	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	4	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	4	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	4	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E601:ALL	1	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E601:ALL	1	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E601:ALL	1	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E601:ALL	2	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E601:ALL	2	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E601:ALL	2	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E601:ALL	3	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E601:ALL	3	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E601:ALL	3	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E601:ALL	4	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E601:ALL	4	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E601:ALL	4	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E906:ALL	1	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E906:ALL	1	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E906:ALL	1	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E906:ALL	2	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E906:ALL	2	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E906:ALL	2	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E906:ALL	3	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E906:ALL	3	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E906:ALL	3	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E906:ALL	4	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E906:ALL	4	Y	
CARNRW3	WS	Qt-Tnbs1	M	CMP	E906:ALL	4	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	1	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	1	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	1	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	2	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	2	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	2	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	3	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	3	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	3	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	4	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	4	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:NO3	4	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	1	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	1	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	1	Y	

Table 2.3-1. Pit 6 Landfill Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	2	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	2	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	2	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	3	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	3	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	3	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	4	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	4	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E300.0:PERC	4	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E601:ALL	1	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E601:ALL	1	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E601:ALL	1	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E601:ALL	2	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E601:ALL	2	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E601:ALL	2	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E601:ALL	3	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E601:ALL	3	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E601:ALL	3	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E601:ALL	4	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E601:ALL	4	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E601:ALL	4	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E906:ALL	1	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E906:ALL	1	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E906:ALL	1	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E906:ALL	2	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E906:ALL	2	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E906:ALL	2	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E906:ALL	3	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E906:ALL	3	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E906:ALL	3	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E906:ALL	4	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E906:ALL	4	Y	
CARNRW4	WS	Qt-Tnbs1	M	CMP	E906:ALL	4	Y	
EP6-06	DMW	LTnbs1	Q	WGMG	AS:UISO	1	Y	
EP6-06	DMW	LTnbs1	Q	WGMG	AS:UISO	2	Y	
EP6-06	DMW	LTnbs1	Q	WGMG	AS:UISO	3	Y	
EP6-06	DMW	LTnbs1	Q	WGMG	E160.1:ALL	1	Y	
EP6-06	DMW	LTnbs1	Q	WGMG	E160.1:ALL	2	Y	
EP6-06	DMW	LTnbs1	Q	WGMG	E160.1:ALL	3	Y	
EP6-06	DMW	LTnbs1	Q	WGMG	E300.0:NO3	1	Y	
EP6-06	DMW	LTnbs1	Q	WGMG	E300.0:NO3	2	Y	
EP6-06	DMW	LTnbs1	Q	WGMG	E300.0:NO3	3	Y	
EP6-06	DMW	LTnbs1	Q	WGMG	E300.0:PERC	1	Y	
EP6-06	DMW	LTnbs1	Q	WGMG	E300.0:PERC	2	Y	
EP6-06	DMW	LTnbs1	Q	WGMG	E300.0:PERC	3	Y	
EP6-06	DMW	LTnbs1	Q	WGMG	E8260:ALL	1	Y	
EP6-06	DMW	LTnbs1	Q	WGMG	E8260:ALL	2	Y	
EP6-06	DMW	LTnbs1	Q	WGMG	E8260:ALL	3	Y	
EP6-06	DMW	LTnbs1	Q	WGMG	E900:ALL	1	Y	
EP6-06	DMW	LTnbs1	Q	WGMG	E900:ALL	2	Y	
EP6-06	DMW	LTnbs1	Q	WGMG	E900:ALL	3	Y	
EP6-06	DMW	LTnbs1	Q	WGMG	E906:ALL	1	Y	
EP6-06	DMW	LTnbs1	Q	WGMG	E906:ALL	2	Y	
EP6-06	DMW	LTnbs1	Q	WGMG	E906:ALL	3	Y	
EP6-06	DMW	LTnbs1	Q	WGMG	METROSURV:ALL	1	Y	
EP6-06	DMW	LTnbs1	Q	WGMG	METROSURV:ALL	2	Y	
EP6-06	DMW	LTnbs1	Q	WGMG	METROSURV:ALL	3	Y	
EP6-07	PTMW	LTnbs1	A	CMP	E300.0:NO3	1	Y	
EP6-07	PTMW	LTnbs1	A	CMP	E300.0:PERC	1	Y	
EP6-07	PTMW	LTnbs1	S	CMP	E601:ALL	1	Y	
EP6-07	PTMW	LTnbs1	S	CMP	E601:ALL	3	Y	
EP6-07	PTMW	LTnbs1	S	CMP	E906:ALL	1	Y	
EP6-07	PTMW	LTnbs1	S	CMP	E906:ALL	3	Y	

Table 2.3-1. Pit 6 Landfill Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
EP6-08	DMW	Qt-Tnbs1	Q	WGMG	AS:UISO	1	N	Dry.
EP6-08	DMW	Qt-Tnbs1	Q	WGMG	AS:UISO	2	N	Dry.
EP6-08	DMW	Qt-Tnbs1	Q	WGMG	AS:UISO	3	N	Dry.
EP6-08	DMW	Qt-Tnbs1	Q	WGMG	E160.1:ALL	1	N	Dry.
EP6-08	DMW	Qt-Tnbs1	Q	WGMG	E160.1:ALL	2	N	Dry.
EP6-08	DMW	Qt-Tnbs1	Q	WGMG	E160.1:ALL	3	N	Dry.
EP6-08	DMW	Qt-Tnbs1	Q	WGMG	E300.0:NO3	1	N	Dry.
EP6-08	DMW	Qt-Tnbs1	Q	WGMG	E300.0:NO3	2	N	Dry.
EP6-08	DMW	Qt-Tnbs1	Q	WGMG	E300.0:NO3	3	N	Dry.
EP6-08	DMW	Qt-Tnbs1	Q	WGMG	E300.0:PERC	1	N	Dry.
EP6-08	DMW	Qt-Tnbs1	Q	WGMG	E300.0:PERC	2	N	Dry.
EP6-08	DMW	Qt-Tnbs1	Q	WGMG	E300.0:PERC	3	N	Dry.
EP6-08	DMW	Qt-Tnbs1	Q	WGMG	E8260:ALL	1	N	Dry.
EP6-08	DMW	Qt-Tnbs1	Q	WGMG	E8260:ALL	2	N	Dry.
EP6-08	DMW	Qt-Tnbs1	Q	WGMG	E8260:ALL	3	N	Dry.
EP6-08	DMW	Qt-Tnbs1	Q	WGMG	E900:ALL	1	N	Dry.
EP6-08	DMW	Qt-Tnbs1	Q	WGMG	E900:ALL	2	N	Dry.
EP6-08	DMW	Qt-Tnbs1	Q	WGMG	E900:ALL	3	N	Dry.
EP6-08	DMW	Qt-Tnbs1	Q	WGMG	E906:ALL	1	N	Dry.
EP6-08	DMW	Qt-Tnbs1	Q	WGMG	E906:ALL	2	N	Dry.
EP6-08	DMW	Qt-Tnbs1	Q	WGMG	E906:ALL	3	N	Dry.
EP6-08	DMW	Qt-Tnbs1	Q	WGMG	METROSURV:ALL	1	N	Dry.
EP6-08	DMW	Qt-Tnbs1	Q	WGMG	METROSURV:ALL	2	N	Dry.
EP6-08	DMW	Qt-Tnbs1	Q	WGMG	METROSURV:ALL	3	N	Dry.
EP6-09	DMW	Qt-Tnbs1	Q	WGMG	AS:UISO	1	Y	
EP6-09	DMW	Qt-Tnbs1	Q	WGMG	AS:UISO	2	Y	
EP6-09	DMW	Qt-Tnbs1	Q	WGMG	AS:UISO	3	Y	
EP6-09	DMW	Qt-Tnbs1	Q	WGMG	E160.1:ALL	1	Y	
EP6-09	DMW	Qt-Tnbs1	Q	WGMG	E160.1:ALL	2	Y	
EP6-09	DMW	Qt-Tnbs1	Q	WGMG	E160.1:ALL	3	Y	
EP6-09	DMW	Qt-Tnbs1	Q	WGMG	E300.0:NO3	1	Y	
EP6-09	DMW	Qt-Tnbs1	Q	WGMG	E300.0:NO3	2	Y	
EP6-09	DMW	Qt-Tnbs1	Q	WGMG	E300.0:NO3	3	Y	
EP6-09	DMW	Qt-Tnbs1	Q	WGMG	E300.0:PERC	1	Y	
EP6-09	DMW	Qt-Tnbs1	Q	WGMG	E300.0:PERC	2	Y	
EP6-09	DMW	Qt-Tnbs1	Q	WGMG	E300.0:PERC	3	Y	
EP6-09	DMW	Qt-Tnbs1	Q	WGMG	E8260:ALL	1	Y	
EP6-09	DMW	Qt-Tnbs1	Q	WGMG	E8260:ALL	2	Y	
EP6-09	DMW	Qt-Tnbs1	Q	WGMG	E8260:ALL	3	Y	
EP6-09	DMW	Qt-Tnbs1	Q	WGMG	E900:ALL	1	Y	
EP6-09	DMW	Qt-Tnbs1	Q	WGMG	E900:ALL	2	Y	
EP6-09	DMW	Qt-Tnbs1	Q	WGMG	E900:ALL	3	Y	
EP6-09	DMW	Qt-Tnbs1	Q	WGMG	E906:ALL	1	Y	
EP6-09	DMW	Qt-Tnbs1	Q	WGMG	E906:ALL	2	Y	
EP6-09	DMW	Qt-Tnbs1	Q	WGMG	E906:ALL	3	Y	
EP6-09	DMW	Qt-Tnbs1	Q	WGMG	METROSURV:ALL	1	Y	
EP6-09	DMW	Qt-Tnbs1	Q	WGMG	METROSURV:ALL	2	Y	
EP6-09	DMW	Qt-Tnbs1	Q	WGMG	METROSURV:ALL	3	Y	
K6-01	DMW	Qt-Tnbs1	A	CMP	E300.0:NO3	1	Y	
K6-01	DMW	Qt-Tnbs1	A	CMP	E300.0:PERC	1	Y	
K6-01	DMW	Qt-Tnbs1	S	CMP	E601:ALL	1	Y	
K6-01	DMW	Qt-Tnbs1	S	CMP	E601:ALL	3	Y	
K6-01	DMW	Qt-Tnbs1	S	CMP	E906:ALL	1	Y	
K6-01	DMW	Qt-Tnbs1	S	CMP	E906:ALL	3	Y	
K6-01S	DMW	Qt-Tnbs1	Q	WGMG	AS:UISO	1	Y	
K6-01S	DMW	Qt-Tnbs1	Q	WGMG	AS:UISO	2	Y	
K6-01S	DMW	Qt-Tnbs1	Q	WGMG	AS:UISO	3	Y	
K6-01S	DMW	Qt-Tnbs1	Q	WGMG	E160.1:ALL	1	Y	
K6-01S	DMW	Qt-Tnbs1	Q	WGMG	E160.1:ALL	2	Y	
K6-01S	DMW	Qt-Tnbs1	Q	WGMG	E160.1:ALL	3	Y	
K6-01S	DMW	Qt-Tnbs1	Q	WGMG	E300.0:NO3	1	Y	
K6-01S	DMW	Qt-Tnbs1	Q	WGMG	E300.0:NO3	2	Y	
K6-01S	DMW	Qt-Tnbs1	Q	WGMG	E300.0:NO3	3	Y	

Table 2.3-1. Pit 6 Landfill Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
K6-01S	DMW	Qt-Tnbs1	Q	WGMG	E300.0:PERC	1	Y	
K6-01S	DMW	Qt-Tnbs1	Q	WGMG	E300.0:PERC	2	Y	
K6-01S	DMW	Qt-Tnbs1	Q	WGMG	E300.0:PERC	3	Y	
K6-01S	DMW	Qt-Tnbs1	Q	WGMG	E8260:ALL	1	Y	
K6-01S	DMW	Qt-Tnbs1	Q	WGMG	E8260:ALL	2	Y	
K6-01S	DMW	Qt-Tnbs1	Q	WGMG	E8260:ALL	3	Y	
K6-01S	DMW	Qt-Tnbs1	Q	WGMG	E900:ALL	1	Y	
K6-01S	DMW	Qt-Tnbs1	Q	WGMG	E900:ALL	2	Y	
K6-01S	DMW	Qt-Tnbs1	Q	WGMG	E900:ALL	3	Y	
K6-01S	DMW	Qt-Tnbs1	Q	WGMG	E906:ALL	1	Y	
K6-01S	DMW	Qt-Tnbs1	Q	WGMG	E906:ALL	2	Y	
K6-01S	DMW	Qt-Tnbs1	Q	WGMG	E906:ALL	3	Y	
K6-01S	DMW	Qt-Tnbs1	Q	WGMG	METROSURV:ALL	1	Y	
K6-01S	DMW	Qt-Tnbs1	Q	WGMG	METROSURV:ALL	2	Y	
K6-01S	DMW	Qt-Tnbs1	Q	WGMG	METROSURV:ALL	3	Y	
K6-03	PTMW	Qt-Tnbs1	A	CMP	E300.0:NO3	1	N	Dry.
K6-03	PTMW	Qt-Tnbs1	A	CMP	E300.0:PERC	1	N	Dry.
K6-03	PTMW	Qt-Tnbs1	S	CMP	E601:ALL	1	N	Dry.
K6-03	PTMW	Qt-Tnbs1	S	CMP	E601:ALL	3	N	Dry.
K6-03	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	1	N	Dry.
K6-03	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	3	N	Dry.
K6-04	PTMW	Qt-Tnbs1	A	CMP	E300.0:NO3	1	N	Inoperable pump.
K6-04	PTMW	Qt-Tnbs1	A	CMP	E300.0:PERC	1	N	Inoperable pump.
K6-04	PTMW	Qt-Tnbs1	S	CMP	E601:ALL	1	N	Inoperable pump.
K6-04	PTMW	Qt-Tnbs1	S	CMP	E601:ALL	3	N	Insufficient water.
K6-04	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	1	N	Inoperable pump.
K6-04	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	3	N	Insufficient water.
K6-14	PTMW	LTnbs1	A	CMP	E300.0:NO3	1	Y	
K6-14	PTMW	LTnbs1	A	CMP	E300.0:PERC	1	Y	
K6-14	PTMW	LTnbs1	S	CMP	E601:ALL	1	Y	
K6-14	PTMW	LTnbs1	S	CMP	E601:ALL	3	Y	
K6-14	PTMW	LTnbs1	S	CMP	E906:ALL	1	Y	
K6-14	PTMW	LTnbs1	S	CMP	E906:ALL	3	Y	
K6-15	PTMW	Qt-Tnbs1	A	CMP	E300.0:NO3	1	N	Dry.
K6-15	PTMW	Qt-Tnbs1	A	CMP	E300.0:PERC	1	N	Dry.
K6-15	PTMW	Qt-Tnbs1	S	CMP	E601:ALL	1	N	Dry.
K6-15	PTMW	Qt-Tnbs1	S	CMP	E601:ALL	3	N	Dry.
K6-15	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	1	N	Dry.
K6-15	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	3	N	Dry.
K6-16	PTMW	Qt-Tnbs1	A	CMP	E300.0:NO3	1	Y	
K6-16	PTMW	Qt-Tnbs1	A	CMP	E300.0:PERC	1	Y	
K6-16	PTMW	Qt-Tnbs1	S	CMP	E601:ALL	1	Y	
K6-16	PTMW	Qt-Tnbs1	S	CMP	E601:ALL	3	Y	
K6-16	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	1	Y	
K6-16	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	3	Y	
K6-17	GW	Qt-Tnbs1	S	CMP	E300.0:NO3	1	Y	
K6-17	GW	Qt-Tnbs1	S	CMP	E300.0:NO3	3	Y	
K6-17	GW	Qt-Tnbs1	S	CMP	E300.0:PERC	1	Y	
K6-17	GW	Qt-Tnbs1	S	CMP	E300.0:PERC	3	Y	
K6-17	GW	Qt-Tnbs1	Q	CMP	E601:ALL	1	Y	
K6-17	GW	Qt-Tnbs1	Q	CMP	E601:ALL	2	Y	
K6-17	GW	Qt-Tnbs1	Q	CMP	E601:ALL	3	Y	
K6-17	GW	Qt-Tnbs1	Q	CMP	E601:ALL	4	Y	
K6-17	GW	Qt-Tnbs1	Q	CMP	E906:ALL	1	Y	
K6-17	GW	Qt-Tnbs1	Q	CMP	E906:ALL	2	Y	
K6-17	GW	Qt-Tnbs1	Q	CMP	E906:ALL	3	Y	
K6-17	GW	Qt-Tnbs1	Q	CMP	E906:ALL	4	Y	
K6-18	PTMW	Qt-Tnbs1	A	CMP	E300.0:NO3	1	Y	
K6-18	PTMW	Qt-Tnbs1	A	CMP	E300.0:PERC	1	Y	
K6-18	PTMW	Qt-Tnbs1	S	CMP	E601:ALL	1	Y	
K6-18	PTMW	Qt-Tnbs1	S	CMP	E601:ALL	3	Y	
K6-18	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	1	Y	
K6-18	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	3	Y	

Table 2.3-1. Pit 6 Landfill Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
K6-19	DMW	Qt-Tnbs1	Q	WGMG	AS:UISO	1	Y	
K6-19	DMW	Qt-Tnbs1	Q	WGMG	AS:UISO	2	Y	
K6-19	DMW	Qt-Tnbs1	Q	WGMG	AS:UISO	3	Y	
K6-19	DMW	Qt-Tnbs1	Q	WGMG	E160.1:ALL	1	Y	
K6-19	DMW	Qt-Tnbs1	Q	WGMG	E160.1:ALL	2	Y	
K6-19	DMW	Qt-Tnbs1	Q	WGMG	E160.1:ALL	3	Y	
K6-19	DMW	Qt-Tnbs1	Q	WGMG	E300.0:NO3	1	Y	
K6-19	DMW	Qt-Tnbs1	Q	WGMG	E300.0:NO3	2	Y	
K6-19	DMW	Qt-Tnbs1	Q	WGMG	E300.0:NO3	3	Y	
K6-19	DMW	Qt-Tnbs1	Q	WGMG	E300.0:PERC	1	Y	
K6-19	DMW	Qt-Tnbs1	Q	WGMG	E300.0:PERC	2	Y	
K6-19	DMW	Qt-Tnbs1	Q	WGMG	E300.0:PERC	3	Y	
K6-19	DMW	Qt-Tnbs1	Q	WGMG	E8260:ALL	1	Y	
K6-19	DMW	Qt-Tnbs1	Q	WGMG	E8260:ALL	2	Y	
K6-19	DMW	Qt-Tnbs1	Q	WGMG	E8260:ALL	3	Y	
K6-19	DMW	Qt-Tnbs1	Q	WGMG	E900:ALL	1	Y	
K6-19	DMW	Qt-Tnbs1	Q	WGMG	E900:ALL	2	Y	
K6-19	DMW	Qt-Tnbs1	Q	WGMG	E900:ALL	3	Y	
K6-19	DMW	Qt-Tnbs1	Q	WGMG	E906:ALL	1	Y	
K6-19	DMW	Qt-Tnbs1	Q	WGMG	E906:ALL	2	Y	
K6-19	DMW	Qt-Tnbs1	Q	WGMG	E906:ALL	3	Y	
K6-19	DMW	Qt-Tnbs1	Q	WGMG	METROSURV:ALL	1	Y	
K6-19	DMW	Qt-Tnbs1	Q	WGMG	METROSURV:ALL	2	Y	
K6-19	DMW	Qt-Tnbs1	Q	WGMG	METROSURV:ALL	3	Y	
K6-21	PTMW	LTnbs1	A	CMP	E300.0:NO3	1	N	Dry.
K6-21	PTMW	LTnbs1	A	CMP	E300.0:PERC	1	N	Dry.
K6-21	PTMW	LTnbs1	A	CMP	E601:ALL	1	N	Dry.
K6-21	PTMW	LTnbs1	A	CMP	E906:ALL	1	N	Dry.
K6-22	GW	Qt-Tnbs1	S	CMP	E300.0:NO3	1	Y	
K6-22	GW	Qt-Tnbs1	S	CMP	E300.0:NO3	3	Y	
K6-22	GW	Qt-Tnbs1	S	CMP	E300.0:PERC	1	Y	
K6-22	GW	Qt-Tnbs1	S	CMP	E300.0:PERC	3	Y	
K6-22	GW	Qt-Tnbs1	Q	CMP	E601:ALL	1	Y	
K6-22	GW	Qt-Tnbs1	Q	CMP	E601:ALL	2	Y	
K6-22	GW	Qt-Tnbs1	Q	CMP	E601:ALL	3	Y	
K6-22	GW	Qt-Tnbs1	Q	CMP	E601:ALL	4	Y	
K6-22	GW	Qt-Tnbs1	Q	CMP	E906:ALL	1	Y	
K6-22	GW	Qt-Tnbs1	Q	CMP	E906:ALL	2	Y	
K6-22	GW	Qt-Tnbs1	Q	CMP	E906:ALL	3	Y	
K6-22	GW	Qt-Tnbs1	Q	CMP	E906:ALL	4	Y	
K6-23	PTMW	Qt-Tnbs1	S	CMP	E300.0:NO3	1	Y	
K6-23	PTMW	Qt-Tnbs1	S	CMP	E300.0:NO3	3	Y	
K6-23	PTMW	Qt-Tnbs1	A	CMP	E300.0:PERC	1	Y	
K6-23	PTMW	Qt-Tnbs1	S	CMP	E601:ALL	1	Y	
K6-23	PTMW	Qt-Tnbs1	S	CMP	E601:ALL	3	Y	
K6-23	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	1	Y	
K6-23	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	3	Y	
K6-24	PTMW	Qt-Tnbs1	A	CMP	E300.0:NO3	1	N	Dry.
K6-24	PTMW	Qt-Tnbs1	A	CMP	E300.0:PERC	1	N	Dry.
K6-24	PTMW	Qt-Tnbs1	S	CMP	E601:ALL	1	N	Dry.
K6-24	PTMW	Qt-Tnbs1	S	CMP	E601:ALL	3	N	Dry.
K6-24	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	1	N	Dry.
K6-24	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	3	N	Dry.
K6-25	PTMW	Tmss	A	CMP	E300.0:NO3	1	Y	
K6-25	PTMW	Tmss	A	CMP	E300.0:PERC	1	Y	
K6-25	PTMW	Tmss	S	CMP	E601:ALL	1	Y	
K6-25	PTMW	Tmss	S	CMP	E601:ALL	3	Y	
K6-25	PTMW	Tmss	S	CMP	E906:ALL	1	Y	
K6-25	PTMW	Tmss	S	CMP	E906:ALL	3	Y	
K6-26	PTMW	LTnbs1	A	CMP	E300.0:NO3	1	Y	
K6-26	PTMW	LTnbs1	A	CMP	E300.0:PERC	1	Y	
K6-26	PTMW	LTnbs1	S	CMP	E601:ALL	1	Y	
K6-26	PTMW	LTnbs1	S	CMP	E601:ALL	3	Y	

Table 2.3-1. Pit 6 Landfill Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
K6-26	PTMW	LTnbs1	S	CMP	E906:ALL	1	Y	
K6-26	PTMW	LTnbs1	S	CMP	E906:ALL	3	Y	
K6-27	PTMW	LTnbs1	A	CMP	E300.0:NO3	1	Y	
K6-27	PTMW	LTnbs1	A	CMP	E300.0:PERC	1	Y	
K6-27	PTMW	LTnbs1	S	CMP	E601:ALL	1	Y	
K6-27	PTMW	LTnbs1	S	CMP	E601:ALL	3	Y	
K6-27	PTMW	LTnbs1	S	CMP	E906:ALL	1	Y	
K6-27	PTMW	LTnbs1	S	CMP	E906:ALL	3	Y	
K6-32	PTMW	Qt-Tnbs1	A	CMP	E300.0:NO3	1	N	Dry.
K6-32	PTMW	Qt-Tnbs1	A	CMP	E300.0:PERC	1	N	Dry.
K6-32	PTMW	Qt-Tnbs1	S	CMP	E601:ALL	1	N	Dry.
K6-32	PTMW	Qt-Tnbs1	S	CMP	E601:ALL	3	N	Dry.
K6-32	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	1	N	Dry.
K6-32	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	3	N	Dry.
K6-33	PTMW	Qt-Tnbs1	A	CMP	E300.0:NO3	1	N	Insufficient water.
K6-33	PTMW	Qt-Tnbs1	A	CMP	E300.0:PERC	1	N	Insufficient water.
K6-33	PTMW	Qt-Tnbs1	S	CMP	E601:ALL	1	N	Insufficient water.
K6-33	PTMW	Qt-Tnbs1	S	CMP	E601:ALL	3	N	Insufficient water.
K6-33	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	1	N	Insufficient water.
K6-33	PTMW	Qt-Tnbs1	S	CMP	E906:ALL	3	N	Insufficient water.
K6-34	GW	LTnbs1	S	CMP	E300.0:NO3	1	Y	
K6-34	GW	LTnbs1	S	CMP	E300.0:NO3	3	Y	
K6-34	GW	LTnbs1	S	CMP	E300.0:PERC	1	Y	
K6-34	GW	LTnbs1	S	CMP	E300.0:PERC	3	Y	
K6-34	GW	LTnbs1	Q	CMP	E601:ALL	1	Y	
K6-34	GW	LTnbs1	Q	CMP	E601:ALL	2	Y	
K6-34	GW	LTnbs1	Q	CMP	E601:ALL	3	Y	
K6-34	GW	LTnbs1	Q	CMP	E601:ALL	4	Y	
K6-34	GW	LTnbs1	Q	CMP	E906:ALL	1	Y	
K6-34	GW	LTnbs1	Q	CMP	E906:ALL	2	Y	
K6-34	GW	LTnbs1	Q	CMP	E906:ALL	3	Y	
K6-34	GW	LTnbs1	Q	CMP	E906:ALL	4	Y	
K6-35	PTMW	LTnbs1	A	CMP	E300.0:NO3	1	Y	
K6-35	PTMW	LTnbs1	A	CMP	E300.0:PERC	1	Y	
K6-35	PTMW	LTnbs1	S	CMP	E601:ALL	1	Y	
K6-35	PTMW	LTnbs1	S	CMP	E601:ALL	3	Y	
K6-35	PTMW	LTnbs1	S	CMP	E906:ALL	1	Y	
K6-35	PTMW	LTnbs1	S	CMP	E906:ALL	3	Y	
K6-36	DMW	Qt-Tnbs1	Q	WGMG	AS:UISO	1	N	Dry.
K6-36	DMW	Qt-Tnbs1	Q	WGMG	AS:UISO	2	N	Dry.
K6-36	DMW	Qt-Tnbs1	Q	WGMG	AS:UISO	3	N	Dry.
K6-36	DMW	Qt-Tnbs1	Q	WGMG	E160.1:ALL	1	N	Dry.
K6-36	DMW	Qt-Tnbs1	Q	WGMG	E160.1:ALL	2	N	Dry.
K6-36	DMW	Qt-Tnbs1	Q	WGMG	E160.1:ALL	3	N	Dry.
K6-36	DMW	Qt-Tnbs1	Q	WGMG	E300.0:NO3	1	N	Dry.
K6-36	DMW	Qt-Tnbs1	Q	WGMG	E300.0:NO3	2	N	Dry.
K6-36	DMW	Qt-Tnbs1	Q	WGMG	E300.0:NO3	3	N	Dry.
K6-36	DMW	Qt-Tnbs1	Q	WGMG	E300.0:PERC	1	N	Dry.
K6-36	DMW	Qt-Tnbs1	Q	WGMG	E300.0:PERC	2	N	Dry.
K6-36	DMW	Qt-Tnbs1	Q	WGMG	E300.0:PERC	3	N	Dry.
K6-36	DMW	Qt-Tnbs1	Q	WGMG	E8260:ALL	1	N	Dry.
K6-36	DMW	Qt-Tnbs1	Q	WGMG	E8260:ALL	2	N	Dry.
K6-36	DMW	Qt-Tnbs1	Q	WGMG	E8260:ALL	3	N	Dry.
K6-36	DMW	Qt-Tnbs1	Q	WGMG	E900:ALL	1	N	Dry.
K6-36	DMW	Qt-Tnbs1	Q	WGMG	E900:ALL	2	N	Dry.
K6-36	DMW	Qt-Tnbs1	Q	WGMG	E900:ALL	3	N	Dry.
K6-36	DMW	Qt-Tnbs1	Q	WGMG	E906:ALL	1	N	Dry.
K6-36	DMW	Qt-Tnbs1	Q	WGMG	E906:ALL	2	N	Dry.
K6-36	DMW	Qt-Tnbs1	Q	WGMG	E906:ALL	3	N	Dry.
K6-36	DMW	Qt-Tnbs1	Q	WGMG	METROSURV:ALL	1	N	Dry.
K6-36	DMW	Qt-Tnbs1	Q	WGMG	METROSURV:ALL	2	N	Dry.
K6-36	DMW	Qt-Tnbs1	Q	WGMG	METROSURV:ALL	3	N	Dry.
W-33C-01	PTMW	Tts	A	CMP	E300.0:NO3	1	Y	

Table 2.3-1. Pit 6 Landfill Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-33C-01	PTMW	Tts	A	CMP	E300.0:PERC	1	Y	
W-33C-01	PTMW	Tts	S	CMP	E601:ALL	1	Y	
W-33C-01	PTMW	Tts	S	CMP	E601:ALL	3	Y	
W-33C-01	PTMW	Tts	S	CMP	E906:ALL	1	Y	
W-33C-01	PTMW	Tts	S	CMP	E906:ALL	3	Y	
W-34-01	MWB	UTnbs1	A	DIS	E300.0:NO3	1	Y	
W-34-01	MWB	UTnbs1	A	DIS	E300.0:PERC	1	Y	
W-34-01	MWB	UTnbs1	A	DIS	E601:ALL	1	Y	
W-34-01	MWB	UTnbs1	A	DIS	E906:ALL	1	Y	
W-34-02	MWB	LTnbs1	A	DIS	E300.0:NO3	1	Y	
W-34-02	MWB	LTnbs1	A	DIS	E300.0:PERC	1	Y	
W-34-02	MWB	LTnbs1	A	DIS	E601:ALL	1	Y	
W-34-02	MWB	LTnbs1	A	DIS	E906:ALL	1	Y	
SPRING15	SPR	Qt-Tnbs1	O	CMP	E300.0:NO3	1	N	To be sampled in 2013.
SPRING15	SPR	Qt-Tnbs1	O	CMP	E300.0:PERC	1	N	To be sampled in 2013.
SPRING15	SPR	Qt-Tnbs1	O	CMP	E601:ALL	1	N	To be sampled in 2013.
SPRING15	SPR	Qt-Tnbs1	O	CMP	E906:ALL	1	N	To be sampled in 2013.
W-PIT6-1819	GW	Qt-Tnbs1	S	CMP	E300.0:NO3	1	Y	
W-PIT6-1819	GW	Qt-Tnbs1	S	CMP	E300.0:NO3	3	Y	
W-PIT6-1819	GW	Qt-Tnbs1	S	CMP	E300.0:PERC	1	Y	
W-PIT6-1819	GW	Qt-Tnbs1	S	CMP	E300.0:PERC	3	Y	
W-PIT6-1819	GW	Qt-Tnbs1	Q	CMP	E601:ALL	1	Y	
W-PIT6-1819	GW	Qt-Tnbs1	Q	CMP	E601:ALL	2	Y	
W-PIT6-1819	GW	Qt-Tnbs1	Q	CMP	E601:ALL	3	Y	
W-PIT6-1819	GW	Qt-Tnbs1	Q	CMP	E601:ALL	4	Y	
W-PIT6-1819	GW	Qt-Tnbs1	Q	CMP	E906:ALL	1	Y	
W-PIT6-1819	GW	Qt-Tnbs1	Q	CMP	E906:ALL	2	Y	
W-PIT6-1819	GW	Qt-Tnbs1	Q	CMP	E906:ALL	3	Y	
W-PIT6-1819	GW	Qt-Tnbs1	Q	CMP	E906:ALL	4	Y	
W-PIT6-2816	PTMW	Qt-Tnbs1	U	DIS	DWMETALS:ALL	2	Y	New well Baseline sampling.
W-PIT6-2816	PTMW	Qt-Tnbs1	U	DIS	E200.7:SI	2	Y	New well Baseline sampling.
W-PIT6-2816	PTMW	Qt-Tnbs1	U	DIS	E300.0:PERC	2	Y	New well Baseline sampling.
W-PIT6-2816	PTMW	Qt-Tnbs1	U	DIS	E624:ALL	2	Y	New well Baseline sampling.
W-PIT6-2816	PTMW	Qt-Tnbs1	U	DIS	E8330LOW:ALL	2	Y	New well Baseline sampling.
W-PIT6-2816	PTMW	Qt-Tnbs1	U	DIS	E900:ALL	2	Y	New well Baseline sampling.
W-PIT6-2816	PTMW	Qt-Tnbs1	U	DIS	E906:ALL	2	Y	New well Baseline sampling.
W-PIT6-2816	PTMW	Qt-Tnbs1	U	DIS	GENMIN:ALL	2	Y	New well Baseline sampling.
W-PIT6-2816	PTMW	Qt-Tnbs1	U	DIS	KPA:UTOT	2	Y	New well Baseline sampling.
W-PIT6-2816	PTMW	Qt-Tnbs1	U	DIS	MS:UISO	2	Y	New well Baseline sampling.
W-PIT6-2817	PTMW	Qt-Tnbs1	U	DIS	DWMETALS:ALL	2	Y	New well Baseline sampling.
W-PIT6-2817	PTMW	Qt-Tnbs1	U	DIS	E200.7:SI	2	Y	New well Baseline sampling.
W-PIT6-2817	PTMW	Qt-Tnbs1	U	DIS	E300.0:PERC	2	Y	New well Baseline sampling.
W-PIT6-2817	PTMW	Qt-Tnbs1	U	DIS	E624:ALL	2	Y	New well Baseline sampling.
W-PIT6-2817	PTMW	Qt-Tnbs1	U	DIS	E8330LOW:ALL	2	Y	New well Baseline sampling.
W-PIT6-2817	PTMW	Qt-Tnbs1	U	DIS	E900:ALL	2	Y	New well Baseline sampling.
W-PIT6-2817	PTMW	Qt-Tnbs1	U	DIS	E906:ALL	2	Y	New well Baseline sampling.
W-PIT6-2817	PTMW	Qt-Tnbs1	U	DIS	GENMIN:ALL	2	Y	New well Baseline sampling.
W-PIT6-2817	PTMW	Qt-Tnbs1	U	DIS	KPA:UTOT	2	Y	New well Baseline sampling.
W-PIT6-2817	PTMW	Qt-Tnbs1	U	DIS	MS:UISO	2	Y	New well Baseline sampling.

Table 2.4-1. Building 815-Source (815-SRC) volumes of ground water and soil vapor extracted and discharged, July 1, 2012 through December 31, 2012.

Treatment facility	Month	SVTS Operational hours	GWTS Operational hours	Volume of vapor extracted (thousands of cf)	Volume of ground water discharged (gal)
815-SRC	July	NA	834	NA	95,389
	August	NA	507	NA	56,733
	September	NA	672	NA	70,144
	October	NA	555	NA	57,037
	November	NA	716	NA	48,608
	December	NA	669	NA	70,318
Total		NA	3,953	NA	398,229

Table 2.4-2. Building 815-Proximal (815-PRX) volumes of ground water and soil vapor extracted and discharged, July 1, 2012 through December 31, 2012.

Treatment facility	Month	SVTS Operational hours	GWTS Operational hours	Volume of vapor extracted (thousands of cf)	Volume of ground water discharged (gal)
815-PRX	July	NA	508	NA	73,214
	August	NA	654	NA	81,827
	September	NA	680	NA	76,649
	October	NA	822	NA	86,335
	November	NA	728	NA	76,781
	December	NA	465	NA	43,891
Total		NA	3,857	NA	438,697

Table 2.4-3. Building 815-Distal Site Boundary (815-DSB) volumes of ground water and soil vapor extracted and discharged, July 1, 2012 through December 31, 2012.

Treatment facility	Month	SVTS Operational hours	GWTS Operational hours	Volume of vapor extracted (thousands of cf)	Volume of ground water discharged (gal)
815-DSB	July	NA	691	NA	185,561
	August	NA	553	NA	183,286
	September	NA	563	NA	184,386
	October	NA	601	NA	192,994
	November	NA	619	NA	183,201
	December	NA	622	NA	178,877
Total		NA	3,649	NA	1,108,305

Table 2.4-4. Building 817-Source (817-SRC) volumes of ground water and soil vapor extracted and discharged, July 1, 2012 through December 31, 2012.

Treatment facility	Month	SVTS Operational hours	GWTS Operational hours	Volume of vapor extracted (thousands of cf)	Volume of ground water discharged (gal)
817-SRC	July	NA	23	NA	1,432
	August	NA	22	NA	1,241
	September	NA	23	NA	1,348
	October	NA	30	NA	1,702
	November	NA	27	NA	1,512
	December	NA	18	NA	962
Total		NA	143	NA	8,197

Table 2.4-5. Building 817-Proximal (817-PRX) volumes of ground water and soil vapor extracted and discharged, July 1, 2012 through December 31, 2012.

Treatment facility	Month	SVTS Operational hours	GWTS Operational hours	Volume of vapor extracted (thousands of cf)	Volume of ground water discharged (gal)
817-PRX	July	NA	51	NA	4,731
	August	NA	173	NA	3,587
	September	NA	263	NA	3,126
	October	NA	727	NA	1,909
	November	NA	187	NA	1,700
	December	NA	156	NA	1,034
Total		NA	1,557	NA	16,087

Table 2.4-6. Building 829-Source (829-SRC) volumes of ground water and soil vapor extracted and discharged, July 1, 2012 through December 31, 2012.

Treatment facility	Month	SVTS Operational hours	GWTS Operational hours	Volume of vapor extracted (thousands of cf)	Volume of ground water discharged (gal)
829-SRC	July	NA	840	NA	315
	August	NA	551	NA	189
	September	NA	0	NA	0
	October	NA	0	NA	0
	November	NA	0	NA	0
	December	NA	0	NA	0
Total		NA	1,391	NA	504

Table 2.4-7. High Explosives Process Area Operable Unit volatile organic compounds (VOCs) in ground water extraction and treatment system influent and effluent.

Location	Date	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetra-chloride (µg/L)	Chloro-form (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
Building 815-Distal Site Boundry															
815-DSB-I	7/18/12	4.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-DSB-I	10/1/12	6	<0.5	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-DSB-E	7/18/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-DSB-E	8/7/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-DSB-E	9/4/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-DSB-E	10/1/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-DSB-E	11/5/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-DSB-E	12/4/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Building 815-Proximal															
815-PRX-I	7/16/12	27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-PRX-I	10/1/12	27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-PRX-E	7/16/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-PRX-E	8/7/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-PRX-E	9/5/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-PRX-E	10/1/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-PRX-E	11/12/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-PRX-E	12/10/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Building 815-Source															
815-SRC-I	7/3/12	6.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.66	<0.5	<0.5	<0.5	<0.5	<0.5
815-SRC-I	10/2/12	7.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.89	<0.5	<0.5	<0.5	<0.5	<0.5
815-SRC-E	7/3/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-SRC-E	8/7/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-SRC-E	9/5/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-SRC-E	10/2/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-SRC-E	11/12/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
815-SRC-E	12/10/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table 2.4-7 (Cont.). High Explosives Process Area Operable Unit volatile organic compounds (VOCs) in ground water extraction and treatment system influent and effluent.

Location	Date	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetra-chloride (µg/L)	Chloro-form (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
Building 817-Proximal [a]															
817-PRX-I	7/11/12	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
817-PRX-I	10/2/12	33	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
817-PRX-E	7/11/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.76	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
817-PRX-E	7/23/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
817-PRX-E	7/26/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
817-PRX-E	8/7/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
817-PRX-E	9/5/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
817-PRX-E	10/2/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
817-PRX-E	11/12/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
817-PRX-E	12/10/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Building 817-Source															
817-SRC-I	7/3/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
817-SRC-I	10/1/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
817-SRC-E	7/3/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
817-SRC-E	8/7/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
817-SRC-E	9/5/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
817-SRC-E	10/1/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
817-SRC-E	11/12/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
817-SRC-E	12/10/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Building 829-Source [b]															
829-SRC-I	7/9/12	16	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
829-SRC-I	9/10/12	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
829-SRC-I	11/12/12	5.8	<0.5	<0.5	<0.5	<0.5	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
829-SRC-E	7/9/12	<0.5 IJ	<0.5 IJ	<0.5 IJ	<0.5 IJ	<0.5 IJ	<0.5 IJ	<0.5 IJ	<0.5 IJ	<0.5 IJ	<0.5 IJ	<0.5 IJ	<0.5 IJ	<0.5 IJ	<0.5 IJ
829-SRC-E	8/1/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
829-SRC-E	9/10/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Notes appear on the following page.

Table 2.4-7 (Cont.). High Explosives Process Area Operable Unit volatile organic compounds (VOCs) in ground water extraction and treatment system influent and effluent.

Notes:

[a] **Additional compliance monitoring conducted due to detection of 1,2-DCA in effluent sample collected on July 11, 2012.**

[b] **System operated in testing mode all quarter due to internal system contamination related to treatment media vessels.**

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.4-7 (Cont.). Analyte detected but not reported in main table.

Location	Date	Detection frequency	Methylene Chloride (µg/L)
Building 815-Distal Site Boundry			
815-DSB-I	7/18/12	0 of 18	–
815-DSB-I	10/1/12	0 of 18	–
815-DSB-E	7/18/12	0 of 18	–
815-DSB-E	8/7/12	0 of 18	–
815-DSB-E	9/4/12	0 of 18	–
815-DSB-E	10/1/12	0 of 18	–
815-DSB-E	11/5/12	0 of 18	–
815-DSB-E	12/4/12	0 of 18	–
Building 815-Proximal			
815-PRX-I	7/16/12	0 of 18	–
815-PRX-I	10/1/12	0 of 18	–
815-PRX-E	7/16/12	0 of 18	–
815-PRX-E	8/7/12	0 of 18	–
815-PRX-E	9/5/12	0 of 18	–
815-PRX-E	10/1/12	0 of 18	–
815-PRX-E	11/12/12	0 of 18	–
815-PRX-E	12/10/12	0 of 18	–
Building 815-Source			
815-SRC-I	7/3/12	0 of 18	–
815-SRC-I	10/2/12	0 of 18	–
815-SRC-E	7/3/12	0 of 18	–
815-SRC-E	8/7/12	0 of 18	–
815-SRC-E	9/5/12	0 of 18	–
815-SRC-E	10/2/12	0 of 18	–
815-SRC-E	11/12/12	0 of 18	–
815-SRC-E	12/10/12	0 of 18	–
Building 817-Proximal[a]			
817-PRX-I	7/11/12	0 of 18	–
817-PRX-I	10/2/12	0 of 18	–
817-PRX-E	7/11/12	0 of 18	–
817-PRX-E	7/23/12	0 of 18	–
817-PRX-E	7/26/12	0 of 18	–
817-PRX-E	8/7/12	0 of 18	–
817-PRX-E	9/5/12	0 of 18	–
817-PRX-E	10/2/12	0 of 18	–
817-PRX-E	11/12/12	0 of 18	–
817-PRX-E	12/10/12	0 of 18	–

Table 2.4-7 (Cont.). Analyte detected but not reported in main table.

Location	Date	Detection frequency	Methylene Chloride (μg/L)
Building 817-Source			
817-SRC-I	7/3/12	0 of 18	–
817-SRC-I	10/1/12	0 of 18	–
817-SRC-E	7/3/12	0 of 18	–
817-SRC-E	8/7/12	0 of 18	–
817-SRC-E	9/5/12	0 of 18	–
817-SRC-E	10/1/12	0 of 18	–
817-SRC-E	11/12/12	0 of 18	–
817-SRC-E	12/10/12	0 of 18	–
Building 829-Source[b]			
829-SRC-I	7/9/12	0 of 18	–
829-SRC-I	9/10/12	0 of 18	–
829-SRC-I	11/12/12	0 of 18	–
829-SRC-E	7/9/12	0 of 18	–
829-SRC-E	8/1/12	0 of 18	–
829-SRC-E	9/10/12	1 of 18	2.2

Notes:

[a] **Additional compliance monitoring conducted due to detection of 1,2-DCA in effluent sample collected on July 11, 2012.**

[b] **System operated in testing mode all quarter due to internal system contamination related to treatment media vessels.**

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.4-8. High Explosives Process Area Operable Unit nitrate and perchlorate in ground water extraction and treatment system influent and effluent.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (μg/L)
Building 815-Distal Site Boundry[a]			
815-DSB-I	**7/18/12**	**<0.5**	**–**
815-DSB-I	**10/1/12**	**<1 D**	**–**
Building 815-Proximal[b]			
815-PRX-I	**7/16/12**	**–**	**5.8**
815-PRX-I	**10/1/12**	**–**	**4.8**
815-PRX-E	**7/16/12**	**–**	**<4**
815-PRX-E	**8/7/12**	**–**	**<4**
815-PRX-E	**9/5/12**	**–**	**<4**
815-PRX-E	**10/1/12**	**–**	**<4**
815-PRX-E	**11/12/12**	**–**	**<4**
815-PRX-E	**12/10/12**	**–**	**<4**
Building 815-Source[b]			
815-SRC-I	**7/3/12**	**–**	**<4**
815-SRC-I	**10/2/12**	**–**	**<4**
815-SRC-E	**7/3/12**	**–**	**<4 L**
815-SRC-E	**8/7/12**	**–**	**<4**
815-SRC-E	**9/5/12**	**–**	**<4**
815-SRC-E	**10/2/12**	**–**	**<4**
815-SRC-E	**11/12/12**	**–**	**<4**
815-SRC-E	**12/10/12**	**–**	**<4**
Building 817-Proximal[b,c]			
817-PRX-I	**7/11/12**	**–**	**11 O**
817-PRX-I	**10/2/12**	**–**	**9.2**
817-PRX-E	**7/11/12**	**–**	**<4**
817-PRX-E	**7/23/12**	**–**	**<4**
817-PRX-E	**7/26/12**	**–**	**<4**
817-PRX-E	**8/7/12**	**–**	**<4**
817-PRX-E	**9/5/12**	**–**	**<4**
817-PRX-E	**10/2/12**	**–**	**<4**
817-PRX-E	**11/12/12**	**–**	**<4**
817-PRX-E	**12/10/12**	**–**	**<4**

Table 2.4-8 (Cont.). High Explosives Process Area Operable Unit nitrate and perchlorate in ground water extraction and treatment system influent and effluent.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
Building 817-Source[b]			
817-SRC-I	7/3/12	–	22 D
817-SRC-I	10/1/12	–	28 D
817-SRC-E	7/3/12	–	<4 L
817-SRC-E	8/7/12	–	<4
817-SRC-E	9/5/12	–	<4
817-SRC-E	10/1/12	–	<4
817-SRC-E	11/12/12	–	<4
817-SRC-E	12/10/12	–	<4
Building 829-Source[d]			
829-SRC-I	7/9/12	75 D	7.7
829-SRC-I	11/12/12	38 D	5.1
829-SRC-E	7/9/12	<0.5	<4 L
829-SRC-E	8/1/12	<0.5	<4
829-SRC-E	9/10/12	<1 D	<4

Notes:

[a] No nitrate or perchlorate monitoring required; nitrate measured for trend analysis only.

[b] No nitrate monitoring required.

[c] Additional compliance monitoring conducted due to detection of 1,2-DCA in effluent sample collected on July 11, 2012.

[d] System operated in testing mode all quarter due to internal system contamination related to treatment media vessels.

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.4-9. High Explosives Process Area Operable Unit high explosive compounds in ground water extraction and treatment system influent and effluent.

Location	Date	1,3,5-TNB (µg/L)	1,3-DNB (µg/L)	2,4-DNT (µg/L)	2,6-DNT (µg/L)	2-Amino-4,6- DNT (µg/L)	2-NT (µg/L)	3-NT (µg/L)	4-Amino-2,6- DNT (µg/L)	4-NT (µg/L)	HMX (µg/L)	NB (µg/L)	RDX (µg/L)	TNT (µg/L)
Building 815-Distal Site Boundry[a]		–	–	–	–	–	–	–	–	–	–	–	–	–
Building 815-Proximal[b]														
815-PRX-E	7/16/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
815-PRX-E	10/1/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
Building 815-Source														
815-SRC-I	7/3/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	8.3	<2	<1	<2
815-SRC-I	10/2/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	5.6	<2	44	<2
815-SRC-E[c]	7/3/12	<2 IJ	<2 IJ	<2 IJ	<2 IJ	<2 IJ	<2 IJ	<2 IJ	<2 IJ	<2 IJ	<1 IJ	<2 IJ	IJR	IJR
815-SRC-E	8/7/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
815-SRC-E	9/5/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
815-SRC-E	10/2/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
815-SRC-E[c]	11/12/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
815-SRC-E	12/10/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
Building 817-Proximal[d]														
817-PRX-I	7/11/12	<2	<2	<2 O	<2	<2	<2	<2	<2	<2	<1 LO	<2	7.5 O	<2 O
817-PRX-I	10/2/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
817-PRX-E	7/11/12	<2	<2	<2	<2 L	<2	<2	<2	<2	<2	<1 L	<2	<1 L	<2 L
817-PRX-E	7/23/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
817-PRX-E	7/26/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
817-PRX-E	8/7/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
817-PRX-E	9/5/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
817-PRX-E	10/2/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
817-PRX-E	11/12/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
817-PRX-E	12/10/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2

Table 2.4-9 (Cont.). High Explosives Process Area Operable Unit high explosive compounds in ground water extraction and treatment system influent and effluent.

Location	Date	1,3,5-TNB (µg/L)	1,3-DNB (µg/L)	2,4-DNT (µg/L)	2,6-DNT (µg/L)	2-Amino-4,6- DNT (µg/L)	2-NT (µg/L)	3-NT (µg/L)	4-Amino-2,6- DNT (µg/L)	4-NT (µg/L)	HMX (µg/L)	NB (µg/L)	RDX (µg/L)	TNT (µg/L)
Building 817-Source														
817-SRC-I	7/3/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	20	<2	49	<2
817-SRC-I	10/1/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	17	<2	38	<2
817-SRC-E[c]	7/3/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	R	R
817-SRC-E	8/7/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
817-SRC-E	9/5/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
817-SRC-E	10/1/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
817-SRC-E	11/12/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
817-SRC-E	12/10/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
Building 829-Source[e]														

Notes:

[a] No high explosive compound monitoring required.

[b] No influent and only quarterly effluent high explosive monitoring required.

[c] Data R flagged represent rejected data due to laboratory errors; notification of data rejection not obtained in time to resample.

[d] Additional effluent samples collected due to 1,2-DCA hit in sample collected on July 11, 2012.

[e] No high explosive compound monitoring required.

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.4-10. High Explosives Process Area Operable Unit treatment facility sampling and analysis plan.

Sample location	Sample identification	Parameter	Frequency
815-SRC GWTS			
Influent Port	**815-SRC-I**	**VOCs**	**Quarterly**
		HE Compounds	**Quarterly**
		Perchlorate	**Quarterly**
Effluent Port	**815-SRC-E**	**VOCs**	**Monthly**
		HE Compounds	**Monthly**
		Perchlorate	**Monthly**
		pH	**Monthly**
815-PRX GWTS			
Influent Port	**815-PRX-I**	**VOCs**	**Quarterly**
		Perchlorate	**Quarterly**
Effluent Port	**815-PRX-E**	**VOCs**	**Monthly**
		HE Compounds	**Quarterly**
		Perchlorate	**Monthly**
		pH	**Monthly**
815-DSB GWTS			
Influent Port	**815-DSB-I**	**VOCs**	**Quarterly**
Effluent Port	**815-DSB-E**	**VOCs**	**Monthly**
		pH	**Monthly**
817-SRC GWTS			
Influent Port	**W-817-01-817-SRC-I**	**VOCs**	**Quarterly**
		HE Compounds	**Quarterly**
		Perchlorate	**Quarterly**
Effluent Port	**817-SRC-E**	**VOCs**	**Monthly**
		HE Compounds	**Monthly**
		Perchlorate	**Monthly**
		pH	**Monthly**

Table 2.4-10 (Con't.). High Explosives Process Area Operable Unit treatment facility sampling and analysis plans.

Sample location	Sample identification	Parameter	Frequency
817-PRX GWTS			
Influent Port	**817-PRX-I**	**VOCs**	**Quarterly**
		HE Compounds	**Quarterly**
		Perchlorate	**Quarterly**
Effluent Port	**817-PRX-E**	**VOCs**	**Monthly**
		HE Compounds	**Monthly**
		Perchlorate	**Monthly**
		pH	**Monthly**
829-SRC GWTS			
Influent Port	**W-829-06-829-SRC-I**	**VOCs**	**Quarterly**
		Perchlorate	**Quarterly**
		Nitrate	**Quarterly**
Effluent Port	**829-SRC-E**	**VOCs**	**Monthly**
		Perchlorate	**Monthly**
		Nitrate	**Monthly**
		pH	**Monthly**

Notes:

One duplicate and one blank (given fictitious labels) shall be taken for every 12 samples.

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.4-11. High Explosives Process Area Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
GALLO1	WS	Tnbs2	M	CMP	E300.0:NO3	1	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:NO3	1	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:NO3	1	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:NO3	2	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:NO3	2	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:NO3	2	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:NO3	3	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:NO3	3	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:NO3	3	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:NO3	4	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:NO3	4	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:NO3	4	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:PERC	1	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:PERC	1	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:PERC	1	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:PERC	2	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:PERC	2	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:PERC	2	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:PERC	3	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:PERC	3	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:PERC	3	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:PERC	4	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:PERC	4	Y	
GALLO1	WS	Tnbs2	M	CMP	E300.0:PERC	4	Y	
GALLO1	WS	Tnbs2	Q	WGMG	E502.2:ALL	1	Y	
GALLO1	WS	Tnbs2	Q	WGMG	E502.2:ALL	2	Y	
GALLO1	WS	Tnbs2	Q	WGMG	E502.2:ALL	3	Y	
GALLO1	WS	Tnbs2	Q	WGMG	E502.2:ALL	4	Y	
GALLO1	WS	Tnbs2	M	CMP	E601:ALL	1	Y	
GALLO1	WS	Tnbs2	M	CMP	E601:ALL	1	Y	
GALLO1	WS	Tnbs2	M	CMP	E601:ALL	1	Y	
GALLO1	WS	Tnbs2	M	CMP	E601:ALL	2	Y	
GALLO1	WS	Tnbs2	M	CMP	E601:ALL	2	Y	
GALLO1	WS	Tnbs2	M	CMP	E601:ALL	2	Y	
GALLO1	WS	Tnbs2	M	CMP	E601:ALL	3	Y	
GALLO1	WS	Tnbs2	M	CMP	E601:ALL	3	Y	
GALLO1	WS	Tnbs2	M	CMP	E601:ALL	3	Y	
GALLO1	WS	Tnbs2	M	CMP	E601:ALL	4	Y	
GALLO1	WS	Tnbs2	M	CMP	E601:ALL	4	Y	
GALLO1	WS	Tnbs2	M	CMP	E601:ALL	4	Y	
GALLO1	WS	Tnbs2	M	CMP	E8330LOW:ALL	1	Y	
GALLO1	WS	Tnbs2	M	CMP	E8330LOW:ALL	1	Y	
GALLO1	WS	Tnbs2	M	CMP	E8330LOW:ALL	1	Y	
GALLO1	WS	Tnbs2	M	CMP	E8330LOW:ALL	2	Y	
GALLO1	WS	Tnbs2	M	CMP	E8330LOW:ALL	2	Y	
GALLO1	WS	Tnbs2	M	CMP	E8330LOW:ALL	2	Y	
GALLO1	WS	Tnbs2	M	CMP	E8330LOW:ALL	3	Y	
GALLO1	WS	Tnbs2	M	CMP	E8330LOW:ALL	3	Y	
GALLO1	WS	Tnbs2	M	CMP	E8330LOW:ALL	3	Y	
GALLO1	WS	Tnbs2	M	CMP	E8330LOW:ALL	4	Y	
GALLO1	WS	Tnbs2	M	CMP	E8330LOW:ALL	4	Y	
GALLO1	WS	Tnbs2	M	CMP	E8330LOW:ALL	4	Y	
SPRING14	SPR	Tpsg-Tps	O	CMP	E300.0:NO3	1	N	To be sampled in 2013.
SPRING14	SPR	Tpsg-Tps	O	CMP	E300.0:PERC	1	N	To be sampled in 2013.
SPRING14	SPR	Tpsg-Tps	O	CMP	E601:ALL	1	N	To be sampled in 2013.
SPRING14	SPR	Tpsg-Tps	O	CMP	E8330LOW:ALL	1	N	To be sampled in 2013.
SPRING5	SPR	Tpsg-Tps	A	CMP	E300.0:NO3	1	N	Dry.
SPRING5	SPR	Tpsg-Tps	A	CMP	E300.0:PERC	1	N	Dry.
SPRING5	SPR	Tpsg-Tps	S	CMP	E601:ALL	1	N	Dry.
SPRING5	SPR	Tpsg-Tps	S	CMP	E601:ALL	3	N	Dry.
SPRING5	SPR	Tpsg-Tps	A	CMP	E8330LOW:ALL	1	N	Dry.
W-35B-01	GW	Qal/WBR	S	CMP	E300.0:NO3	1	Y	

Table 2.4-11. High Explosives Process Area Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-35B-01	GW	Qal/WBR	S	CMP	E300.0:NO3	3	Y	
W-35B-01	GW	Qal/WBR	S	CMP	E300.0:PERC	1	Y	
W-35B-01	GW	Qal/WBR	S	CMP	E300.0:PERC	3	Y	
W-35B-01	GW	Qal/WBR	Q	CMP	E601:ALL	1	Y	
W-35B-01	GW	Qal/WBR	Q	CMP	E601:ALL	2	Y	
W-35B-01	GW	Qal/WBR	Q	CMP	E601:ALL	3	Y	
W-35B-01	GW	Qal/WBR	Q	CMP	E601:ALL	4	Y	
W-35B-01	GW	Qal/WBR	S	CMP	E8330LOW:ALL	1	Y	
W-35B-01	GW	Qal/WBR	S	CMP	E8330LOW:ALL	3	Y	
W-35B-02	GW	Tnbs2	S	CMP	E300.0:NO3	1	Y	
W-35B-02	GW	Tnbs2	S	CMP	E300.0:NO3	3	Y	
W-35B-02	GW	Tnbs2	S	CMP	E300.0:PERC	1	Y	
W-35B-02	GW	Tnbs2	S	CMP	E300.0:PERC	3	Y	
W-35B-02	GW	Tnbs2	Q	CMP	E601:ALL	1	Y	
W-35B-02	GW	Tnbs2	Q	CMP	E601:ALL	2	Y	
W-35B-02	GW	Tnbs2	Q	CMP	E601:ALL	3	Y	
W-35B-02	GW	Tnbs2	Q	CMP	E601:ALL	4	Y	
W-35B-02	GW	Tnbs2	S	CMP	E8330LOW:ALL	1	Y	
W-35B-02	GW	Tnbs2	S	CMP	E8330LOW:ALL	3	Y	
W-35B-03	GW	Tnbs2	S	CMP	E300.0:NO3	1	Y	
W-35B-03	GW	Tnbs2	S	CMP	E300.0:NO3	3	Y	
W-35B-03	GW	Tnbs2	S	CMP	E300.0:PERC	1	Y	
W-35B-03	GW	Tnbs2	S	CMP	E300.0:PERC	3	Y	
W-35B-03	GW	Tnbs2	Q	CMP	E601:ALL	1	Y	
W-35B-03	GW	Tnbs2	Q	CMP	E601:ALL	2	Y	
W-35B-03	GW	Tnbs2	Q	CMP	E601:ALL	3	Y	
W-35B-03	GW	Tnbs2	Q	CMP	E601:ALL	4	Y	
W-35B-03	GW	Tnbs2	S	CMP	E8330LOW:ALL	1	Y	
W-35B-03	GW	Tnbs2	S	CMP	E8330LOW:ALL	3	Y	
W-35B-04	GW	Tnbs2	S	CMP	E300.0:NO3	1	Y	
W-35B-04	GW	Tnbs2	S	CMP	E300.0:NO3	3	Y	
W-35B-04	GW	Tnbs2	S	CMP	E300.0:PERC	1	Y	
W-35B-04	GW	Tnbs2	S	CMP	E300.0:PERC	3	Y	
W-35B-04	GW	Tnbs2	Q	CMP	E601:ALL	1	Y	
W-35B-04	GW	Tnbs2	Q	CMP	E601:ALL	2	Y	
W-35B-04	GW	Tnbs2	Q	CMP	E601:ALL	3	Y	
W-35B-04	GW	Tnbs2	Q	CMP	E601:ALL	4	Y	
W-35B-04	GW	Tnbs2	S	CMP	E8330LOW:ALL	1	Y	
W-35B-04	GW	Tnbs2	S	CMP	E8330LOW:ALL	3	Y	
W-35B-05	GW	Tnbs2	S	CMP	E300.0:NO3	1	Y	
W-35B-05	GW	Tnbs2	S	CMP	E300.0:NO3	3	Y	
W-35B-05	GW	Tnbs2	S	CMP	E300.0:PERC	1	Y	
W-35B-05	GW	Tnbs2	S	CMP	E300.0:PERC	3	Y	
W-35B-05	GW	Tnbs2	Q	CMP	E601:ALL	1	Y	
W-35B-05	GW	Tnbs2	Q	CMP	E601:ALL	2	Y	
W-35B-05	GW	Tnbs2	Q	CMP	E601:ALL	3	Y	
W-35B-05	GW	Tnbs2	Q	CMP	E601:ALL	4	Y	
W-35B-05	GW	Tnbs2	S	CMP	E8330LOW:ALL	1	Y	
W-35B-05	GW	Tnbs2	S	CMP	E8330LOW:ALL	3	Y	
W-35C-01	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	Y	
W-35C-01	PTMW	Tpsg-Tps	O	CMP	E300.0:PERC	1	N	To be sampled in 2013.
W-35C-01	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	Y	
W-35C-01	PTMW	Tpsg-Tps	S	CMP	E601:ALL	3	Y	
W-35C-01	PTMW	Tpsg-Tps	O	CMP	E8330LOW:ALL	1	N	To be sampled in 2013.
W-35C-02	PTMW	Tnbs1	O	CMP	E300.0:NO3	1	N	To be sampled in 2013.
W-35C-02	PTMW	Tnbs1	O	CMP	E300.0:PERC	1	N	To be sampled in 2013.
W-35C-02	PTMW	Tnbs1	S	CMP	E601:ALL	1	Y	
W-35C-02	PTMW	Tnbs1	S	CMP	E601:ALL	3	Y	
W-35C-02	PTMW	Tnbs1	A	CMP	E8330LOW:ALL	1	Y	
W-35C-04	EW	Tnbs2	O	CMP-TF	E300.0:NO3	1	N	To be sampled in 2013.
W-35C-04	EW	Tnbs2	O	CMP-TF	E300.0:PERC	1	N	To be sampled in 2013.
W-35C-04	EW	Tnbs2	S	CMP-TF	E601:ALL	1	Y	

Table 2.4-11. High Explosives Process Area Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-35C-04	EW	Tnbs2	S	DIS-TF	E601:ALL	2	Y	
W-35C-04	EW	Tnbs2	S	CMP-TF	E601:ALL	3	Y	
W-35C-04	EW	Tnbs2	S	DIS-TF	E601:ALL	4	Y	
W-35C-04	EW	Tnbs2	O	CMP-TF	E8330LOW:ALL	1	N	To be sampled in 2013.
W-35C-05	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	Y	
W-35C-05	PTMW	Tpsg-Tps	O	CMP	E300.0:PERC	1	N	To be sampled in 2013.
W-35C-05	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	Y	
W-35C-05	PTMW	Tpsg-Tps	S	CMP	E601:ALL	3	Y	
W-35C-05	PTMW	Tpsg-Tps	O	CMP	E8330LOW:ALL	1	N	To be sampled in 2013.
W-35C-06	PTMW	Qal/WBR	E	CMP	E300.0:NO3	1	Y	
W-35C-06	PTMW	Qal/WBR	E	CMP	E300.0:PERC	1	Y	
W-35C-06	PTMW	Qal/WBR	S	CMP	E601:ALL	1	Y	
W-35C-06	PTMW	Qal/WBR	S	CMP	E601:ALL	3	Y	
W-35C-06	PTMW	Qal/WBR	A	CMP	E8330LOW:ALL	1	Y	
W-35C-07	PTMW	Tnsc2	E	CMP	E300.0:NO3	1	Y	
W-35C-07	PTMW	Tnsc2	E	CMP	E300.0:PERC	1	Y	
W-35C-07	PTMW	Tnsc2	S	CMP	E601:ALL	1	Y	
W-35C-07	PTMW	Tnsc2	S	CMP	E601:ALL	3	Y	
W-35C-07	PTMW	Tnsc2	E	CMP	E8330LOW:ALL	1	Y	
W-35C-08	PTMW	Tnsc2	A	CMP	E300.0:NO3	1	Y	
W-35C-08	PTMW	Tnsc2	A	CMP	E300.0:PERC	1	Y	
W-35C-08	PTMW	Tnsc2	S	CMP	E601:ALL	1	Y	
W-35C-08	PTMW	Tnsc2	S	CMP	E601:ALL	3	Y	
W-35C-08	PTMW	Tnsc2	O	CMP	E8330LOW:ALL	1	N	To be sampled in 2013.
W-4A	PTMW	Tnbs2	E	CMP	E300.0:NO3	1	N	Inoperable pump.
W-4A	PTMW	Tnbs2	E	CMP	E300.0:PERC	1	N	Inoperable pump.
W-4A	PTMW	Tnbs2	S	CMP	E601:ALL	1	N	Inoperable pump.
W-4A	PTMW	Tnbs2	S	CMP	E601:ALL	3	N	Inoperable pump.
W-4A	PTMW	Tnbs2	E	CMP	E8330LOW:ALL	1	N	Inoperable pump.
W-4AS	PTMW	Tpsg-Tps	Q	DIS	AS:UISO	1	Y	
W-4AS	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	Y	
W-4AS	PTMW	Tpsg-Tps	E	CMP	E300.0:PERC	1	Y	
W-4AS	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	Y	
W-4AS	PTMW	Tpsg-Tps	S	CMP	E601:ALL	3	Y	
W-4AS	PTMW	Tpsg-Tps	E	CMP	E8330LOW:ALL	1	Y	
W-4AS	PTMW	Tpsg-Tps	Q	DIS	GENMIN:ALL	1	Y	
W-4B	PTMW	Tnbs2	O	CMP	E300.0:NO3	1	N	To be sampled in 2013.
W-4B	PTMW	Tnbs2	O	CMP	E300.0:PERC	1	N	To be sampled in 2013.
W-4B	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-4B	PTMW	Tnbs2	S	CMP	E601:ALL	3	Y	
W-4B	PTMW	Tnbs2	O	CMP	E8330LOW:ALL	1	N	To be sampled in 2013.
W-4C	GW	Tnsc1b	S	CMP	E300.0:NO3	1	Y	
W-4C	GW	Tnsc1b	S	CMP	E300.0:NO3	3	Y	
W-4C	GW	Tnsc1b	S	CMP	E300.0:PERC	1	Y	
W-4C	GW	Tnsc1b	S	CMP	E300.0:PERC	3	Y	
W-4C	GW	Tnsc1b	Q	CMP	E601:ALL	1	Y	
W-4C	GW	Tnsc1b	Q	CMP	E601:ALL	2	Y	
W-4C	GW	Tnsc1b	Q	CMP	E601:ALL	3	Y	
W-4C	GW	Tnsc1b	Q	CMP	E601:ALL	4	Y	
W-6BD	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	Y	
W-6BD	PTMW	Tpsg-Tps	E	CMP	E300.0:PERC	1	Y	
W-6BD	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	Y	
W-6BD	PTMW	Tpsg-Tps	S	CMP	E601:ALL	3	Y	
W-6BD	PTMW	Tpsg-Tps	E	CMP	E8330LOW:ALL	1	Y	
W-6BS	PTMW	Qal/WBR	Q	DIS	AS:UISO	1	Y	
W-6BS	PTMW	Qal/WBR	A	CMP	E300.0:NO3	1	Y	
W-6BS	PTMW	Qal/WBR	E	CMP	E300.0:PERC	1	Y	
W-6BS	PTMW	Qal/WBR	S	CMP	E601:ALL	1	Y	
W-6BS	PTMW	Qal/WBR	S	CMP	E601:ALL	3	Y	
W-6BS	PTMW	Qal/WBR	E	CMP	E8330LOW:ALL	1	Y	
W-6BS	PTMW	Qal/WBR	Q	DIS	GENMIN:ALL	1	Y	
W-6CD	PTMW	Tnbs2	E	CMP	E300.0:NO3	1	Y	

Table 2.4-11. High Explosives Process Area Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-6CD	PTMW	Tnbs2	E	CMP	E300.0:PERC	1	Y	
W-6CD	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-6CD	PTMW	Tnbs2	S	CMP	E601:ALL	3	Y	
W-6CD	PTMW	Tnbs2	E	CMP	E8330LOW:ALL	1	Y	
W-6CI	PTMW	Tnsc2	A	CMP	E300.0:NO3	1	Y	
W-6CI	PTMW	Tnsc2	A	CMP	E300.0:PERC	1	Y	
W-6CI	PTMW	Tnsc2	S	CMP	E601:ALL	1	Y	
W-6CI	PTMW	Tnsc2	S	CMP	E601:ALL	3	Y	
W-6CI	PTMW	Tnsc2	A	CMP	E8330LOW:ALL	1	Y	
W-6CS	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	Y	
W-6CS	PTMW	Tpsg-Tps	A	CMP	E300.0:PERC	1	Y	
W-6CS	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	Y	
W-6CS	PTMW	Tpsg-Tps	S	CMP	E601:ALL	3	Y	
W-6CS	PTMW	Tpsg-Tps	A	CMP	E8330LOW:ALL	1	Y	
W-6EI	PTMW	Tnsc2	A	CMP	E300.0:NO3	1	Y	
W-6EI	PTMW	Tnsc2	A	CMP	E300.0:PERC	1	Y	
W-6EI	PTMW	Tnsc2	S	CMP	E601:ALL	1	Y	
W-6EI	PTMW	Tnsc2	S	CMP	E601:ALL	3	Y	
W-6EI	PTMW	Tnsc2	A	CMP	E8330LOW:ALL	1	Y	
W-6ER	EW	Tnbs2	O	CMP-TF	E300.0:NO3	1	N	To be sampled in 2013.
W-6ER	EW	Tnbs2	O	CMP-TF	E300.0:PERC	1	N	To be sampled in 2013.
W-6ER	EW	Tnbs2	S	CMP-TF	E601:ALL	1	Y	
W-6ER	EW	Tnbs2	S	DIS-TF	E601:ALL	2	Y	
W-6ER	EW	Tnbs2	S	CMP-TF	E601:ALL	3	Y	
W-6ER	EW	Tnbs2	S	DIS-TF	E601:ALL	4	Y	
W-6ER	EW	Tnbs2	O	CMP-TF	E8330LOW:ALL	1	N	To be sampled in 2013.
W-6ES	PTMW	Qal/WBR	E	CMP	E300.0:NO3	1	N	Inoperable pump.
W-6ES	PTMW	Qal/WBR	E	CMP	E300.0:PERC	1	N	Inoperable pump.
W-6ES	PTMW	Qal/WBR	S	CMP	E601:ALL	1	N	Inoperable pump.
W-6ES	PTMW	Qal/WBR	S	CMP	E601:ALL	3	N	Inoperable pump.
W-6ES	PTMW	Qal/WBR	A	CMP	E8330LOW:ALL	1	N	Inoperable pump.
W-6F	PTMW	Tnsc2	A	CMP	E300.0:NO3	1	Y	
W-6F	PTMW	Tnsc2	A	CMP	E300.0:PERC	1	Y	
W-6F	PTMW	Tnsc2	S	CMP	E601:ALL	1	Y	
W-6F	PTMW	Tnsc2	S	CMP	E601:ALL	3	Y	
W-6F	PTMW	Tnsc2	A	CMP	E8330LOW:ALL	1	Y	
W-6G	PTMW	Tnbs2	Q	DIS	AS:UISO	3	Y	
W-6G	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	Y	
W-6G	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	Y	
W-6G	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-6G	PTMW	Tnbs2	S	CMP	E601:ALL	3	Y	
W-6G	PTMW	Tnbs2	A	CMP	E8330LOW:ALL	1	Y	
W-6G	PTMW	Tnbs2	Q	DIS	GENMIN:ALL	3	Y	
W-6H	GW	Tnbs2	S	CMP	E300.0:NO3	1	Y	
W-6H	GW	Tnbs2	S	CMP	E300.0:NO3	3	Y	
W-6H	GW	Tnbs2	S	CMP	E300.0:PERC	1	Y	
W-6H	GW	Tnbs2	S	CMP	E300.0:PERC	3	Y	
W-6H	GW	Tnbs2	Q	CMP	E601:ALL	1	Y	
W-6H	GW	Tnbs2	Q	CMP	E601:ALL	2	Y	
W-6H	GW	Tnbs2	Q	CMP	E601:ALL	3	Y	
W-6H	GW	Tnbs2	Q	CMP	E601:ALL	4	Y	
W-6H	GW	Tnbs2	S	CMP	E8330LOW:ALL	1	Y	
W-6H	GW	Tnbs2	S	CMP	E8330LOW:ALL	3	Y	
W-6I	PTMW	Tpsg-Tps	O	CMP	E300.0:NO3	1	N	To be sampled in 2013.
W-6I	PTMW	Tpsg-Tps	O	CMP	E300.0:PERC	1	N	To be sampled in 2013.
W-6I	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	Y	
W-6I	PTMW	Tpsg-Tps	S	CMP	E601:ALL	3	Y	
W-6I	PTMW	Tpsg-Tps	O	CMP	E8330LOW:ALL	1	N	To be sampled in 2013.
W-6J	GW	Tnbs2	S	CMP	E300.0:NO3	1	Y	
W-6J	GW	Tnbs2	S	CMP	E300.0:NO3	3	Y	
W-6J	GW	Tnbs2	S	CMP	E300.0:PERC	1	Y	
W-6J	GW	Tnbs2	S	CMP	E300.0:PERC	3	Y	

Table 2.4-11. High Explosives Process Area Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-6J	GW	Tnbs2	Q	CMP	E601:ALL	1	Y	
W-6J	GW	Tnbs2	Q	CMP	E601:ALL	2	Y	
W-6J	GW	Tnbs2	Q	CMP	E601:ALL	3	Y	
W-6J	GW	Tnbs2	Q	CMP	E601:ALL	4	Y	
W-6J	GW	Tnbs2	S	CMP	E8330LOW:ALL	1	Y	
W-6J	GW	Tnbs2	S	CMP	E8330LOW:ALL	3	Y	
W-6K	PTMW	Tnbs2	Q	DIS	AS:UISO	1	Y	
W-6K	PTMW	Tnbs2	E	CMP	E300.0:NO3	1	Y	
W-6K	PTMW	Tnbs2	E	CMP	E300.0:PERC	1	Y	
W-6K	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-6K	PTMW	Tnbs2	S	CMP	E601:ALL	3	Y	
W-6K	PTMW	Tnbs2	E	CMP	E8330LOW:ALL	1	Y	
W-6K	PTMW	Tnbs2	Q	DIS	GENMIN:ALL	1	Y	
W-6L	PTMW	Tnbs2	Q	DIS	AS:UISO	1	Y	
W-6L	PTMW	Tnbs2	O	CMP	E300.0:NO3	1	N	To be sampled in 2013.
W-6L	PTMW	Tnbs2	O	CMP	E300.0:PERC	1	N	To be sampled in 2013.
W-6L	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-6L	PTMW	Tnbs2	S	CMP	E601:ALL	3	Y	
W-6L	PTMW	Tnbs2	O	CMP	E8330LOW:ALL	1	N	To be sampled in 2013.
W-6L	PTMW	Tnbs2	Q	DIS	GENMIN:ALL	1	Y	
W-806-06A	PTMW	Tnsc1b	O	CMP	E300.0:NO3	1	N	To be sampled in 2013.
W-806-06A	PTMW	Tnsc1b	O	CMP	E300.0:PERC	1	N	To be sampled in 2013.
W-806-06A	PTMW	Tnsc1b	O	CMP	E601:ALL	1	N	To be sampled in 2013.
W-806-06A	PTMW	Tnsc1b	O	CMP	E8330LOW:ALL	1	N	To be sampled in 2013.
W-806-07	PTMW	Tnbs2	O	CMP	E300.0:NO3	1	N	To be sampled in 2013.
W-806-07	PTMW	Tnbs2	O	CMP	E300.0:PERC	1	N	To be sampled in 2013.
W-806-07	PTMW	Tnbs2	O	CMP	E601:ALL	1	N	To be sampled in 2013.
W-806-07	PTMW	Tnbs2	O	CMP	E8330LOW:ALL	1	N	To be sampled in 2013.
W-808-01	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	Y	
W-808-01	PTMW	Tpsg-Tps	A	CMP	E300.0:PERC	1	Y	
W-808-01	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	Y	
W-808-01	PTMW	Tpsg-Tps	S	CMP	E601:ALL	3	Y	
W-808-01	PTMW	Tpsg-Tps	O	CMP	E8330LOW:ALL	1	N	To be sampled in 2013.
W-808-02	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	N	Dry.
W-808-02	PTMW	Tpsg-Tps	A	CMP	E300.0:PERC	1	N	Dry.
W-808-02	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	N	Dry.
W-808-02	PTMW	Tpsg-Tps	S	CMP	E601:ALL	3	N	Dry.
W-808-02	PTMW	Tpsg-Tps	O	CMP	E8330LOW:ALL	1	N	To be sampled in 2013.
W-808-03	PTMW	UTnbs1	A	CMP	E300.0:NO3	1	Y	
W-808-03	PTMW	UTnbs1	A	CMP	E300.0:PERC	1	Y	
W-808-03	PTMW	UTnbs1	S	CMP	E601:ALL	1	Y	
W-808-03	PTMW	UTnbs1	S	CMP	E601:ALL	3	Y	
W-808-03	PTMW	UTnbs1	O	CMP	E8330LOW:ALL	1	N	To be sampled in 2013.
W-809-01	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	Y	
W-809-01	PTMW	Tpsg-Tps	A	CMP	E300.0:PERC	1	Y	
W-809-01	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	Y	
W-809-01	PTMW	Tpsg-Tps	S	CMP	E601:ALL	3	Y	
W-809-01	PTMW	Tpsg-Tps	A	CMP	E8330LOW:ALL	1	Y	
W-809-02	PTMW	Tnbs2	Q	DIS	AS:UISO	3	Y	
W-809-02	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	Y	
W-809-02	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	Y	
W-809-02	PTMW	Tnbs2	A	DIS	E300.0:PERC	3	Y	
W-809-02	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-809-02	PTMW	Tnbs2	S	CMP	E601:ALL	3	Y	
W-809-02	PTMW	Tnbs2	A	CMP	E8330LOW:ALL	1	Y	
W-809-02	PTMW	Tnbs2	Q	DIS	GENMIN:ALL	3	Y	
W-809-03	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	Y	
W-809-03	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	Y	
W-809-03	PTMW	Tnbs2	A	DIS	E300.0:PERC	3	Y	
W-809-03	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-809-03	PTMW	Tnbs2	S	CMP	E601:ALL	3	Y	
W-809-03	PTMW	Tnbs2	A	CMP	E8330LOW:ALL	1	Y	

Table 2.4-11. High Explosives Process Area Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-809-03	PTMW	Tnbs2	A	DIS	E8330LOW:ALL	3	Y	
W-809-04	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	Y	
W-809-04	PTMW	Tpsg-Tps	A	CMP	E300.0:PERC	1	Y	
W-809-04	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	Y	
W-809-04	PTMW	Tpsg-Tps	S	CMP	E601:ALL	3	Y	
W-809-04	PTMW	Tpsg-Tps	A	CMP	E8330LOW:ALL	1	Y	
W-810-01	PTMW	UTnbs1	A	CMP	E300.0:NO3	1	N	Unsafe conditions.
W-810-01	PTMW	UTnbs1	A	CMP	E300.0:PERC	1	N	Unsafe conditions.
W-810-01	PTMW	UTnbs1	S	CMP	E601:ALL	1	N	Unsafe conditions.
W-810-01	PTMW	UTnbs1	S	CMP	E601:ALL	3	Y	
W-810-01	PTMW	UTnbs1	A	CMP	E8330LOW:ALL	1	N	Unsafe conditions.
W-814-01	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	Y	
W-814-01	PTMW	Tpsg-Tps	A	CMP	E300.0:PERC	1	Y	
W-814-01	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	Y	
W-814-01	PTMW	Tpsg-Tps	S	CMP	E601:ALL	3	Y	
W-814-01	PTMW	Tpsg-Tps	A	CMP	E8330LOW:ALL	1	Y	
W-814-02	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	N	Inoperable pump.
W-814-02	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	N	Inoperable pump.
W-814-02	PTMW	Tnbs2	S	CMP	E601:ALL	1	N	Inoperable pump.
W-814-02	PTMW	Tnbs2	S	CMP	E601:ALL	3	Y	
W-814-02	PTMW	Tnbs2	A	CMP	E8330LOW:ALL	1	N	Inoperable pump.
W-814-03	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	N	Dry.
W-814-03	PTMW	Tpsg-Tps	A	CMP	E300.0:PERC	1	N	Dry.
W-814-03	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	N	Dry.
W-814-03	PTMW	Tpsg-Tps	S	CMP	E601:ALL	3	N	Dry.
W-814-03	PTMW	Tpsg-Tps	A	CMP	E8330LOW:ALL	1	N	Dry.
W-814-04	GW	Tnsc1b	S	CMP	E300.0:NO3	1	N	Inoperable pump.
W-814-04	GW	Tnsc1b	S	CMP	E300.0:NO3	3	N	Inoperable pump.
W-814-04	GW	Tnsc1b	S	CMP	E300.0:PERC	1	N	Inoperable pump.
W-814-04	GW	Tnsc1b	S	CMP	E300.0:PERC	3	N	Inoperable pump.
W-814-04	GW	Tnsc1b	Q	CMP	E601:ALL	1	N	Inoperable pump.
W-814-04	GW	Tnsc1b	Q	CMP	E601:ALL	2	N	Inoperable pump.
W-814-04	GW	Tnsc1b	Q	CMP	E601:ALL	3	N	Inoperable pump.
W-814-04	GW	Tnsc1b	Q	CMP	E601:ALL	4	N	Inoperable pump.
W-814-2138	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	Y	
W-814-2138	PTMW	Tpsg-Tps	A	CMP	E300.0:PERC	1	Y	
W-814-2138	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	Y	
W-814-2138	PTMW	Tpsg-Tps	S	CMP	E601:ALL	3	Y	
W-814-2138	PTMW	Tpsg-Tps	A	CMP	E8330LOW:ALL	1	Y	
W-815-01	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	N	Dry.
W-815-01	PTMW	Tpsg-Tps	A	CMP	E300.0:PERC	1	N	Dry.
W-815-01	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	N	Dry.
W-815-01	PTMW	Tpsg-Tps	S	CMP	E601:ALL	3	N	Dry.
W-815-01	PTMW	Tpsg-Tps	A	CMP	E8330LOW:ALL	1	N	Dry.
W-815-02	EW	Tnbs2	A	CMP-TF	E300.0:NO3	1	Y	
W-815-02	EW	Tnbs2	A	CMP-TF	E300.0:PERC	1	Y	
W-815-02	EW	Tnbs2	A	DIS-TF	E300.0:PERC	3	Y	
W-815-02	EW	Tnbs2	S	CMP-TF	E601:ALL	1	Y	
W-815-02	EW	Tnbs2	S	DIS-TF	E601:ALL	2	Y	
W-815-02	EW	Tnbs2	S	CMP-TF	E601:ALL	3	Y	
W-815-02	EW	Tnbs2	S	DIS-TF	E601:ALL	4	Y	
W-815-02	EW	Tnbs2	A	CMP-TF	E8330LOW:ALL	1	Y	
W-815-02	EW	Tnbs2	A	DIS-TF	E8330LOW:ALL	3	Y	
W-815-03	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	N	Dry.
W-815-03	PTMW	Tpsg-Tps	A	CMP	E300.0:PERC	1	N	Dry.
W-815-03	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	N	Dry.
W-815-03	PTMW	Tpsg-Tps	S	CMP	E601:ALL	3	Y	
W-815-03	PTMW	Tpsg-Tps	A	CMP	E8330LOW:ALL	1	N	Dry.
W-815-04	EW	Tnbs2	A	CMP-TF	E300.0:NO3	1	Y	
W-815-04	EW	Tnbs2	A	CMP-TF	E300.0:PERC	1	Y	
W-815-04	EW	Tnbs2	A	DIS-TF	E300.0:PERC	3	Y	
W-815-04	EW	Tnbs2	S	CMP-TF	E601:ALL	1	Y	

Table 2.4-11. High Explosives Process Area Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-815-04	EW	Tnbs2	S	DIS-TF	E601:ALL	2	Y	
W-815-04	EW	Tnbs2	S	CMP-TF	E601:ALL	3	Y	
W-815-04	EW	Tnbs2	S	DIS-TF	E601:ALL	4	Y	
W-815-04	EW	Tnbs2	A	CMP-TF	E8330LOW:ALL	1	Y	
W-815-04	EW	Tnbs2	A	DIS-TF	E8330LOW:ALL	3	Y	
W-815-05	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	N	Unsafe conditions.
W-815-05	PTMW	Tpsg-Tps	A	CMP	E300.0:PERC	1	N	Unsafe conditions.
W-815-05	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	N	Unsafe conditions.
W-815-05	PTMW	Tpsg-Tps	S	CMP	E601:ALL	3	N	Unsafe conditions.
W-815-05	PTMW	Tpsg-Tps	A	CMP	E8330LOW:ALL	1	N	Unsafe conditions.
W-815-06	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	Y	
W-815-06	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	Y	
W-815-06	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-815-06	PTMW	Tnbs2	S	CMP	E601:ALL	3	Y	
W-815-06	PTMW	Tnbs2	A	CMP	E8330LOW:ALL	1	Y	
W-815-07	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	Y	
W-815-07	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	Y	
W-815-07	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-815-07	PTMW	Tnbs2	S	CMP	E601:ALL	3	Y	
W-815-07	PTMW	Tnbs2	A	CMP	E8330LOW:ALL	1	Y	
W-815-08	PTMW	UTnbs1	A	CMP	E300.0:NO3	1	Y	
W-815-08	PTMW	UTnbs1	A	CMP	E300.0:PERC	1	Y	
W-815-08	PTMW	UTnbs1	S	CMP	E601:ALL	1	Y	
W-815-08	PTMW	UTnbs1	S	CMP	E601:ALL	3	Y	
W-815-08	PTMW	UTnbs1	A	CMP	E8330LOW:ALL	1	Y	
W-815-1928	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	Y	
W-815-1928	PTMW	Tpsg-Tps	A	CMP	E300.0:PERC	1	Y	
W-815-1928	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	Y	
W-815-1928	PTMW	Tpsg-Tps	S	CMP	E601:ALL	3	Y	
W-815-1928	PTMW	Tpsg-Tps	A	CMP	E8330LOW:ALL	1	Y	
W-815-2110	GW	Tnbs2	S	CMP	E300.0:NO3	1	Y	
W-815-2110	GW	Tnbs2	S	CMP	E300.0:NO3	3	Y	
W-815-2110	GW	Tnbs2	S	CMP	E300.0:PERC	1	Y	
W-815-2110	GW	Tnbs2	S	CMP	E300.0:PERC	3	Y	
W-815-2110	GW	Tnbs2	Q	CMP	E601:ALL	1	Y	
W-815-2110	GW	Tnbs2	Q	CMP	E601:ALL	2	Y	
W-815-2110	GW	Tnbs2	Q	CMP	E601:ALL	3	Y	
W-815-2110	GW	Tnbs2	Q	CMP	E601:ALL	4	Y	
W-815-2110	GW	Tnbs2	S	CMP	E8330LOW:ALL	1	Y	
W-815-2110	GW	Tnbs2	S	CMP	E8330LOW:ALL	3	Y	
W-815-2111	GW	Tnbs2	S	CMP	E300.0:NO3	1	Y	
W-815-2111	GW	Tnbs2	S	CMP	E300.0:NO3	3	Y	
W-815-2111	GW	Tnbs2	S	CMP	E300.0:PERC	1	Y	
W-815-2111	GW	Tnbs2	S	CMP	E300.0:PERC	3	Y	
W-815-2111	GW	Tnbs2	Q	CMP	E601:ALL	1	Y	
W-815-2111	GW	Tnbs2	Q	CMP	E601:ALL	2	Y	
W-815-2111	GW	Tnbs2	Q	CMP	E601:ALL	3	Y	
W-815-2111	GW	Tnbs2	Q	CMP	E601:ALL	4	Y	
W-815-2111	GW	Tnbs2	S	CMP	E8330LOW:ALL	1	Y	
W-815-2111	GW	Tnbs2	S	CMP	E8330LOW:ALL	3	Y	
W-815-2217	PTMW	Tnbs2	O	CMP	E300.0:NO3	1	N	To be sampled in 2013.
W-815-2217	PTMW	Tnbs2	O	CMP	E300.0:PERC	1	N	To be sampled in 2013.
W-815-2217	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-815-2217	PTMW	Tnbs2	S	CMP	E601:ALL	3	Y	
W-815-2217	PTMW	Tnbs2	O	CMP	E8330LOW:ALL	1	N	To be sampled in 2013.
W-815-2608	EW	Tnbs2	S	CMP	E300.0:NO3	1	Y	
W-815-2608	EW	Tnbs2	S	CMP-TF	E300.0:NO3	3	N	Inoperable pump.
W-815-2608	EW	Tnbs2	S	CMP	E300.0:PERC	1	Y	
W-815-2608	EW	Tnbs2	S	CMP-TF	E300.0:PERC	3	N	Inoperable pump.
W-815-2608	EW	Tnbs2	Q	CMP	E601:ALL	1	Y	
W-815-2608	EW	Tnbs2	Q	CMP	E601:ALL	2	Y	
W-815-2608	EW	Tnbs2	Q	CMP-TF	E601:ALL	3	N	Inoperable pump.

Table 2.4-11. High Explosives Process Area Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-815-2608	EW	Tnbs2	Q	CMP-TF	E601:ALL	4	Y	
W-815-2608	EW	Tnbs2	S	CMP	E8330LOW:ALL	1	Y	
W-815-2608	EW	Tnbs2	S	CMP-TF	E8330LOW:ALL	3	N	Inoperable pump.
W-815-2621	PTMW	Tnbs2	S	CMP	E300.0:NO3	1	Y	
W-815-2621	PTMW	Tnbs2	S	CMP	E300.0:NO3	3	Y	
W-815-2621	PTMW	Tnbs2	S	CMP	E300.0:PERC	1	Y	
W-815-2621	PTMW	Tnbs2	S	CMP	E300.0:PERC	3	Y	
W-815-2621	PTMW	Tnbs2	Q	CMP	E601:ALL	1	Y	
W-815-2621	PTMW	Tnbs2	Q	CMP	E601:ALL	2	Y	
W-815-2621	PTMW	Tnbs2	Q	CMP	E601:ALL	3	Y	
W-815-2621	PTMW	Tnbs2	Q	CMP	E601:ALL	4	N	Insufficient water.
W-815-2621	PTMW	Tnbs2	S	CMP	E8330LOW:ALL	1	Y	
W-815-2621	PTMW	Tnbs2	S	CMP	E8330LOW:ALL	3	Y	
W-815-2803	EW	Tnbs2	U	DIS	DWMETALS:ALL	3	Y	New well Baseline sampling.
W-815-2803	EW	Tnbs2	U	DIS	E200.7:SI	3	Y	New well Baseline sampling.
W-815-2803	EW	Tnbs2	U	DIS	E300.0:PERC	1	Y	New well Baseline sampling.
W-815-2803	EW	Tnbs2	U	DIS	E300.0:PERC	3	Y	New well Baseline sampling.
W-815-2803	EW	Tnbs2	Q	CMP-TF	E601:ALL	4	Y	
W-815-2803	EW	Tnbs2	U	DIS	E624:ALL	3	Y	New well Baseline sampling.
W-815-2803	EW	Tnbs2	U	DIS	E8330LOW:ALL	3	Y	New well Baseline sampling.
W-815-2803	EW	Tnbs2	U	DIS	E900:ALL	3	Y	New well Baseline sampling.
W-815-2803	EW	Tnbs2	U	DIS	E906:ALL	3	Y	New well Baseline sampling.
W-815-2803	EW	Tnbs2	U	DIS	GENMIN:ALL	3	Y	New well Baseline sampling.
W-815-2803	EW	Tnbs2	U	DIS	KPA:UTOT	3	Y	New well Baseline sampling.
W-815-2803	EW	Tnbs2	U	DIS	MS:UISO	3	Y	New well Baseline sampling.
W-817-01	EW	Tnbs2	Q	DIS-TF	AS:UISO	2	Y	
W-817-01	EW	Tnbs2	A	DIS-TF	E300.0:NO3	1	Y	
W-817-01	EW	Tnbs2	Q	DIS-TF	E300.0:PERC	1	Y	
W-817-01	EW	Tnbs2	Q	DIS-TF	E300.0:PERC	2	Y	
W-817-01	EW	Tnbs2	Q	DIS-TF	E300.0:PERC	3	Y	
W-817-01	EW	Tnbs2	Q	DIS-TF	E300.0:PERC	4	Y	
W-817-01	EW	Tnbs2	Q	DIS-TF	E601:ALL	1	Y	
W-817-01	EW	Tnbs2	Q	DIS-TF	E601:ALL	2	Y	
W-817-01	EW	Tnbs2	Q	DIS-TF	E601:ALL	3	Y	
W-817-01	EW	Tnbs2	Q	DIS-TF	E601:ALL	4	Y	
W-817-01	EW	Tnbs2	Q	DIS-TF	E8330LOW:ALL	1	Y	
W-817-01	EW	Tnbs2	Q	DIS-TF	E8330LOW:ALL	2	Y	
W-817-01	EW	Tnbs2	Q	DIS-TF	E8330LOW:ALL	3	Y	
W-817-01	EW	Tnbs2	Q	DIS-TF	E8330LOW:ALL	4	Y	
W-817-01	EW	Tnbs2	Q	DIS-TF	GENMIN:ALL	2	Y	
W-817-03	EW	Tnbs2	A	CMP-TF	E300.0:NO3	1	Y	
W-817-03	EW	Tnbs2	A	CMP-TF	E300.0:PERC	1	Y	
W-817-03	EW	Tnbs2	A	DIS-TF	E300.0:PERC	3	Y	
W-817-03	EW	Tnbs2	S	CMP-TF	E601:ALL	1	Y	
W-817-03	EW	Tnbs2	S	DIS-TF	E601:ALL	2	Y	
W-817-03	EW	Tnbs2	S	CMP-TF	E601:ALL	3	Y	
W-817-03	EW	Tnbs2	A	CMP-TF	E8330LOW:ALL	1	Y	
W-817-03	EW	Tnbs2	A	DIS-TF	E8330LOW:ALL	3	Y	
W-817-03A	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	Y	
W-817-03A	PTMW	Tpsg-Tps	A	CMP	E300.0:PERC	1	Y	
W-817-03A	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	Y	
W-817-03A	PTMW	Tpsg-Tps	S	CMP	E601:ALL	3	Y	
W-817-03A	PTMW	Tpsg-Tps	A	CMP	E8330LOW:ALL	1	Y	
W-817-04	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	Y	
W-817-04	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	Y	
W-817-04	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-817-04	PTMW	Tnbs2	S	CMP	E601:ALL	3	Y	
W-817-04	PTMW	Tnbs2	A	CMP	E8330LOW:ALL	1	Y	
W-817-05	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	Y	
W-817-05	PTMW	Tnsc1b	A	CMP	E300.0:PERC	1	Y	
W-817-05	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-817-05	PTMW	Tnsc1b	S	CMP	E601:ALL	3	Y	

Table 2.4-11. High Explosives Process Area Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-817-05	PTMW	Tnsc1b	A	CMP	E8330LOW:ALL	1	Y	
W-817-07	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	Y	
W-817-07	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	Y	
W-817-07	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-817-07	PTMW	Tnbs2	S	CMP	E601:ALL	3	Y	
W-817-07	PTMW	Tnbs2	A	CMP	E8330LOW:ALL	1	Y	
W-817-2318	EW	Tpsg-Tps	A	CMP-TF	E300.0:NO3	1	Y	
W-817-2318	EW	Tpsg-Tps	A	CMP-TF	E300.0:PERC	1	Y	
W-817-2318	EW	Tpsg-Tps	A	DIS-TF	E300.0:PERC	3	Y	
W-817-2318	EW	Tpsg-Tps	S	CMP-TF	E601:ALL	1	Y	
W-817-2318	EW	Tpsg-Tps	S	DIS-TF	E601:ALL	2	Y	
W-817-2318	EW	Tpsg-Tps	S	CMP-TF	E601:ALL	3	Y	
W-817-2318	EW	Tpsg-Tps	S	DIS-TF	E601:ALL	4	Y	
W-817-2318	EW	Tpsg-Tps	A	CMP-TF	E8330LOW:ALL	1	Y	
W-817-2318	EW	Tpsg-Tps	A	DIS-TF	E8330LOW:ALL	3	Y	
W-817-2609	PTMW	Tnbs2	S	CMP	E300.0:NO3	1	Y	
W-817-2609	PTMW	Tnbs2	S	CMP	E300.0:NO3	3	Y	
W-817-2609	PTMW	Tnbs2	S	CMP	E300.0:PERC	1	Y	
W-817-2609	PTMW	Tnbs2	S	CMP	E300.0:PERC	3	Y	
W-817-2609	PTMW	Tnbs2	Q	CMP	E601:ALL	1	Y	
W-817-2609	PTMW	Tnbs2	Q	CMP	E601:ALL	2	Y	
W-817-2609	PTMW	Tnbs2	Q	CMP	E601:ALL	3	Y	
W-817-2609	PTMW	Tnbs2	Q	CMP	E601:ALL	4	Y	
W-817-2609	PTMW	Tnbs2	S	CMP	E8330LOW:ALL	1	Y	
W-817-2609	PTMW	Tnbs2	S	CMP	E8330LOW:ALL	3	Y	
W-818-01	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	Y	
W-818-01	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	Y	
W-818-01	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-818-01	PTMW	Tnbs2	S	CMP	E601:ALL	3	Y	
W-818-01	PTMW	Tnbs2	A	CMP	E8330LOW:ALL	1	Y	
W-818-03	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	Y	
W-818-03	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	Y	
W-818-03	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-818-03	PTMW	Tnbs2	S	CMP	E601:ALL	3	Y	
W-818-03	PTMW	Tnbs2	O	CMP	E8330LOW:ALL	1	N	To be sampled in 2013.
W-818-04	PTMW	Tnsc2	A	CMP	E300.0:NO3	1	Y	
W-818-04	PTMW	Tnsc2	A	CMP	E300.0:PERC	1	Y	
W-818-04	PTMW	Tnsc2	S	CMP	E601:ALL	1	Y	
W-818-04	PTMW	Tnsc2	S	CMP	E601:ALL	3	Y	
W-818-04	PTMW	Tnsc2	A	CMP	E8330LOW:ALL	1	Y	
W-818-06	PTMW	Tnbs2	Q	DIS	AS:UISO	3	Y	
W-818-06	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	Y	
W-818-06	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	Y	
W-818-06	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-818-06	PTMW	Tnbs2	S	CMP	E601:ALL	3	Y	
W-818-06	PTMW	Tnbs2	O	CMP	E8330LOW:ALL	1	N	To be sampled in 2013.
W-818-06	PTMW	Tnbs2	Q	DIS	GENMIN:ALL	3	Y	
W-818-07	PTMW	Tnbs2	Q	DIS	AS:UISO	3	Y	
W-818-07	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	Y	
W-818-07	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	Y	
W-818-07	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-818-07	PTMW	Tnbs2	S	CMP	E601:ALL	3	Y	
W-818-07	PTMW	Tnbs2	E	CMP	E8330LOW:ALL	1	Y	
W-818-07	PTMW	Tnbs2	Q	DIS	GENMIN:ALL	3	Y	
W-818-08	EW	Tnbs2	A	CMP-TF	E300.0:NO3	1	Y	
W-818-08	EW	Tnbs2	A	CMP-TF	E300.0:PERC	1	Y	
W-818-08	EW	Tnbs2	A	DIS-TF	E300.0:PERC	3	Y	
W-818-08	EW	Tnbs2	S	CMP-TF	E601:ALL	1	Y	
W-818-08	EW	Tnbs2	S	DIS-TF	E601:ALL	2	Y	
W-818-08	EW	Tnbs2	S	CMP-TF	E601:ALL	3	Y	
W-818-08	EW	Tnbs2	S	DIS-TF	E601:ALL	4	Y	
W-818-08	EW	Tnbs2	A	CMP-TF	E8330LOW:ALL	1	Y	

Table 2.4-11. High Explosives Process Area Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-818-09	EW	Tnbs2	A	CMP-TF	E300.0:NO3	1	Y	
W-818-09	EW	Tnbs2	A	CMP-TF	E300.0:PERC	1	Y	
W-818-09	EW	Tnbs2	A	DIS-TF	E300.0:PERC	3	Y	
W-818-09	EW	Tnbs2	S	CMP-TF	E601:ALL	1	Y	
W-818-09	EW	Tnbs2	S	DIS-TF	E601:ALL	2	Y	
W-818-09	EW	Tnbs2	S	CMP-TF	E601:ALL	3	Y	
W-818-09	EW	Tnbs2	S	DIS-TF	E601:ALL	4	Y	
W-818-09	EW	Tnbs2	A	CMP-TF	E8330LOW:ALL	1	Y	
W-818-11	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	Y	
W-818-11	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	Y	
W-818-11	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-818-11	PTMW	Tnbs2	S	CMP	E601:ALL	3	Y	
W-818-11	PTMW	Tnbs2	A	CMP	E8330LOW:ALL	1	Y	
W-819-02	PTMW	UTnbs1	A	CMP	E300.0:NO3	1	Y	
W-819-02	PTMW	UTnbs1	A	CMP	E300.0:PERC	1	Y	
W-819-02	PTMW	UTnbs1	S	CMP	E601:ALL	1	Y	
W-819-02	PTMW	UTnbs1	S	CMP	E601:ALL	3	Y	
W-819-02	PTMW	UTnbs1	A	CMP	E8330LOW:ALL	1	Y	
W-823-01	PTMW	Tpsg-Tps	A	CMP	E300.0:NO3	1	Y	
W-823-01	PTMW	Tpsg-Tps	A	CMP	E300.0:PERC	1	Y	
W-823-01	PTMW	Tpsg-Tps	S	CMP	E601:ALL	1	Y	
W-823-01	PTMW	Tpsg-Tps	S	CMP	E601:ALL	3	Y	
W-823-01	PTMW	Tpsg-Tps	A	CMP	E8330LOW:ALL	1	Y	
W-823-01	PTMW	Tpsg-Tps	A	DIS	EM8015:DIESEL	1	Y	
W-823-02	PTMW	Tnbs2	O	CMP	E300.0:NO3	1	N	To be sampled in 2013.
W-823-02	PTMW	Tnbs2	O	CMP	E300.0:PERC	1	N	To be sampled in 2013.
W-823-02	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-823-02	PTMW	Tnbs2	S	CMP	E601:ALL	3	Y	
W-823-02	PTMW	Tnbs2	O	CMP	E8330LOW:ALL	1	N	To be sampled in 2013.
W-823-02	PTMW	Tnbs2	A	DIS	EM8015:DIESEL	1	Y	
W-823-03	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	Y	
W-823-03	PTMW	Tnbs2	E	CMP	E300.0:PERC	1	Y	
W-823-03	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-823-03	PTMW	Tnbs2	S	CMP	E601:ALL	3	Y	
W-823-03	PTMW	Tnbs2	E	CMP	E8330LOW:ALL	1	Y	
W-823-03	PTMW	Tnbs2	A	DIS	EM8015:DIESEL	1	Y	
W-823-13	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	Y	
W-823-13	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	Y	
W-823-13	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-823-13	PTMW	Tnbs2	S	CMP	E601:ALL	3	Y	
W-823-13	PTMW	Tnbs2	A	CMP	E8330LOW:ALL	1	Y	
W-827-01	PTMW	Tnbs2	O	CMP	E300.0:NO3	1	N	To be sampled in 2013.
W-827-01	PTMW	Tnbs2	O	CMP	E300.0:PERC	1	N	To be sampled in 2013.
W-827-01	PTMW	Tnbs2	O	CMP	E601:ALL	1	N	To be sampled in 2013.
W-827-01	PTMW	Tnbs2	O	CMP	E8330LOW:ALL	1	N	To be sampled in 2013.
W-827-02	PTMW	Tnsc1	O	CMP	E300.0:NO3	1	N	To be sampled in 2013.
W-827-02	PTMW	Tnsc1	O	CMP	E300.0:PERC	1	N	To be sampled in 2013.
W-827-02	PTMW	Tnsc1	O	CMP	E601:ALL	1	N	To be sampled in 2013.
W-827-02	PTMW	Tnsc1	O	CMP	E8330LOW:ALL	1	N	To be sampled in 2013.
W-827-03	PTMW	UTnbs1	O	CMP	E300.0:NO3	1	N	To be sampled in 2013.
W-827-03	PTMW	UTnbs1	O	CMP	E300.0:PERC	1	N	To be sampled in 2013.
W-827-03	PTMW	UTnbs1	O	CMP	E601:ALL	1	N	To be sampled in 2013.
W-827-03	PTMW	UTnbs1	O	CMP	E8330LOW:ALL	1	N	To be sampled in 2013.
W-827-04	PTMW	LTnbs1	A	CMP	E300.0:NO3	1	N	Insufficient water.
W-827-04	PTMW	LTnbs1	A	CMP	E300.0:PERC	1	N	Insufficient water.
W-827-04	PTMW	LTnbs1	S	CMP	E601:ALL	1	N	Insufficient water.
W-827-04	PTMW	LTnbs1	S	CMP	E601:ALL	3	N	Insufficient water.
W-827-04	PTMW	LTnbs1	A	CMP	E8330LOW:ALL	1	N	Insufficient water.
W-827-05	PTMW	LTnbs1	A	CMP	E300.0:NO3	1	Y	
W-827-05	PTMW	LTnbs1	A	CMP	E300.0:PERC	1	Y	
W-827-05	PTMW	LTnbs1	S	CMP	E601:ALL	1	Y	
W-827-05	PTMW	LTnbs1	S	CMP	E601:ALL	3	Y	

Table 2.4-11. High Explosives Process Area Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-827-05	PTMW	LTnbs1	A	CMP	E8330LOW:ALL	1	Y	
W-829-06	EW	Tnsc1b	Q	DIS-TF	E300.0:NO3	1	Y	
W-829-06	EW	Tnsc1b	Q	DIS-TF	E300.0:NO3	2	Y	
W-829-06	EW	Tnsc1b	Q	DIS-TF	E300.0:NO3	3	Y	
W-829-06	EW	Tnsc1b	Q	DIS-TF	E300.0:PERC	1	Y	
W-829-06	EW	Tnsc1b	Q	DIS-TF	E300.0:PERC	2	Y	
W-829-06	EW	Tnsc1b	Q	DIS-TF	E300.0:PERC	3	Y	
W-829-06	EW	Tnsc1b	Q	DIS-TF	E601:ALL	1	Y	
W-829-06	EW	Tnsc1b	Q	DIS-TF	E601:ALL	2	Y	
W-829-06	EW	Tnsc1b	Q	DIS-TF	E601:ALL	3	Y	
W-829-06	EW	Tnsc1b	A	DIS-TF	E8330LOW:ALL	1	Y	
W-829-15	DMW	LTnbs1	A	WGMG	E300.0:PERC	2	Y	
W-829-15	DMW	LTnbs1	A	WGMG	E624:ALL	2	Y	
W-829-15	DMW	LTnbs1	A	WGMG	E8330:R+H	2	Y	
W-829-15	DMW	LTnbs1	A	WGMG	E8330:TNT	2	Y	
W-829-1938	DMW	LTnbs1	Q	WGMG	E300.0:PERC	1	Y	
W-829-1938	DMW	LTnbs1	Q	WGMG	E300.0:PERC	2	Y	
W-829-1938	DMW	LTnbs1	Q	WGMG	E300.0:PERC	3	Y	
W-829-1938	DMW	LTnbs1	Q	WGMG	E300.0:PERC	4	Y	
W-829-1938	DMW	LTnbs1	Q	WGMG	E624:ALL	1	Y	
W-829-1938	DMW	LTnbs1	Q	WGMG	E624:ALL	2	Y	
W-829-1938	DMW	LTnbs1	Q	WGMG	E624:ALL	3	Y	
W-829-1938	DMW	LTnbs1	Q	WGMG	E624:ALL	4	Y	
W-829-1938	DMW	LTnbs1	Q	WGMG	E8330:R+H	1	Y	
W-829-1938	DMW	LTnbs1	Q	WGMG	E8330:R+H	2	Y	
W-829-1938	DMW	LTnbs1	Q	WGMG	E8330:R+H	3	Y	
W-829-1938	DMW	LTnbs1	Q	WGMG	E8330:R+H	4	Y	
W-829-1938	DMW	LTnbs1	Q	WGMG	E8330:TNT	1	Y	
W-829-1938	DMW	LTnbs1	Q	WGMG	E8330:TNT	2	Y	
W-829-1938	DMW	LTnbs1	Q	WGMG	E8330:TNT	3	Y	
W-829-1938	DMW	LTnbs1	Q	WGMG	E8330:TNT	4	Y	
W-829-1940	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	Y	
W-829-1940	PTMW	Tnsc1b	A	CMP	E300.0:PERC	1	Y	
W-829-1940	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-829-1940	PTMW	Tnsc1b	S	CMP	E601:ALL	3	Y	
W-829-1940	PTMW	Tnsc1b	A	CMP	E8330LOW:ALL	1	Y	
W-829-22	DMW	LTnbs1	A	WGMG	E300.0:PERC	2	Y	
W-829-22	DMW	LTnbs1	A	WGMG	E624:ALL	2	Y	
W-829-22	DMW	LTnbs1	A	WGMG	E8330:R+H	2	Y	
W-829-22	DMW	LTnbs1	A	WGMG	E8330:TNT	2	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:NO3	1	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:NO3	1	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:NO3	1	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:NO3	2	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:NO3	2	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:NO3	2	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:NO3	3	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:NO3	3	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:NO3	3	N	Inoperable pump.
WELL18	WS	Tnbs1	M	CMP	E300.0:NO3	4	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:NO3	4	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:NO3	4	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:PERC	1	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:PERC	1	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:PERC	1	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:PERC	2	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:PERC	2	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:PERC	2	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:PERC	3	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:PERC	3	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:PERC	3	N	Inoperable pump.
WELL18	WS	Tnbs1	M	CMP	E300.0:PERC	4	Y	

Table 2.4-11. High Explosives Process Area Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
WELL18	WS	Tnbs1	M	CMP	E300.0:PERC	4	Y	
WELL18	WS	Tnbs1	M	CMP	E300.0:PERC	4	Y	
WELL18	WS	Tnbs1	M	CMP	E601:ALL	1	Y	
WELL18	WS	Tnbs1	M	CMP	E601:ALL	1	Y	
WELL18	WS	Tnbs1	M	CMP	E601:ALL	1	Y	
WELL18	WS	Tnbs1	M	CMP	E601:ALL	2	Y	
WELL18	WS	Tnbs1	M	CMP	E601:ALL	2	Y	
WELL18	WS	Tnbs1	M	CMP	E601:ALL	2	Y	
WELL18	WS	Tnbs1	M	CMP	E601:ALL	3	Y	
WELL18	WS	Tnbs1	M	CMP	E601:ALL	3	Y	
WELL18	WS	Tnbs1	M	CMP	E601:ALL	3	N	Inoperable pump.
WELL18	WS	Tnbs1	M	CMP	E601:ALL	4	Y	
WELL18	WS	Tnbs1	M	CMP	E601:ALL	4	Y	
WELL18	WS	Tnbs1	M	CMP	E601:ALL	4	Y	
WELL18	WS	Tnbs1	M	CMP	E8330LOW:ALL	1	Y	
WELL18	WS	Tnbs1	M	CMP	E8330LOW:ALL	1	Y	
WELL18	WS	Tnbs1	M	CMP	E8330LOW:ALL	1	Y	
WELL18	WS	Tnbs1	M	CMP	E8330LOW:ALL	2	Y	
WELL18	WS	Tnbs1	M	CMP	E8330LOW:ALL	2	Y	
WELL18	WS	Tnbs1	M	CMP	E8330LOW:ALL	2	Y	
WELL18	WS	Tnbs1	M	CMP	E8330LOW:ALL	3	Y	
WELL18	WS	Tnbs1	M	CMP	E8330LOW:ALL	3	Y	
WELL18	WS	Tnbs1	M	CMP	E8330LOW:ALL	3	N	Inoperable pump.
WELL18	WS	Tnbs1	M	CMP	E8330LOW:ALL	4	Y	
WELL18	WS	Tnbs1	M	CMP	E8330LOW:ALL	4	Y	
WELL18	WS	Tnbs1	M	CMP	E8330LOW:ALL	4	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:NO3	1	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:NO3	1	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:NO3	1	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:NO3	2	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:NO3	2	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:NO3	2	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:NO3	3	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:NO3	3	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:NO3	3	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:NO3	4	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:NO3	4	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:NO3	4	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:PERC	1	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:PERC	1	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:PERC	1	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:PERC	2	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:PERC	2	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:PERC	2	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:PERC	3	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:PERC	3	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:PERC	3	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:PERC	4	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:PERC	4	Y	
WELL20	WS	Tnbs1	M	CMP	E300.0:PERC	4	Y	
WELL20	WS	Tnbs1	M	WGMG	E502.2:ALL	1	Y	
WELL20	WS	Tnbs1	M	WGMG	E502.2:ALL	1	Y	
WELL20	WS	Tnbs1	M	WGMG	E502.2:ALL	1	Y	
WELL20	WS	Tnbs1	M	WGMG	E502.2:ALL	2	Y	
WELL20	WS	Tnbs1	M	WGMG	E502.2:ALL	2	Y	
WELL20	WS	Tnbs1	M	WGMG	E502.2:ALL	2	Y	
WELL20	WS	Tnbs1	M	WGMG	E502.2:ALL	3	Y	
WELL20	WS	Tnbs1	M	WGMG	E502.2:ALL	3	Y	
WELL20	WS	Tnbs1	M	WGMG	E502.2:ALL	3	Y	
WELL20	WS	Tnbs1	M	WGMG	E502.2:ALL	4	Y	
WELL20	WS	Tnbs1	M	WGMG	E502.2:ALL	4	Y	
WELL20	WS	Tnbs1	M	WGMG	E502.2:ALL	4	Y	

Table 2.4-11. High Explosives Process Area Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
WELL20	WS	Tnbs1	M	CMP	E8330LOW:ALL	1	Y	
WELL20	WS	Tnbs1	M	CMP	E8330LOW:ALL	1	Y	
WELL20	WS	Tnbs1	M	CMP	E8330LOW:ALL	1	Y	
WELL20	WS	Tnbs1	M	CMP	E8330LOW:ALL	2	Y	
WELL20	WS	Tnbs1	M	CMP	E8330LOW:ALL	2	Y	
WELL20	WS	Tnbs1	M	CMP	E8330LOW:ALL	2	Y	
WELL20	WS	Tnbs1	M	CMP	E8330LOW:ALL	3	Y	
WELL20	WS	Tnbs1	M	CMP	E8330LOW:ALL	3	Y	
WELL20	WS	Tnbs1	M	CMP	E8330LOW:ALL	3	Y	
WELL20	WS	Tnbs1	M	CMP	E8330LOW:ALL	4	Y	
WELL20	WS	Tnbs1	M	CMP	E8330LOW:ALL	4	Y	
WELL20	WS	Tnbs1	M	CMP	E8330LOW:ALL	4	Y	

Table 2.4-12. Building 815-Source (815-SRC) mass removed, July 1, 2012 through December 31, 2012.

Treatment facility	Month	SVTS VOC mass removed (g)	GWTS VOC mass removed (g)	Perchlorate mass removed (g)	Nitrate mass removed (kg)	RDX mass removed (g)	TBOS/TKEBS mass removed (g)
815-SRC	July	NA	2.6	0	34	20	NA
	August	NA	1.5	0	20	12	NA
	September	NA	1.9	0	25	14	NA
	October	NA	1.8	0	20	12	NA
	November	NA	1.4	0	17	9.9	NA
	December	NA	2.2	0	25	14	NA
Total		NA	11	0	140	82	NA

Notes:

***Nitrate re-injected into the $Tnbs_2$ HSU undergoes in-situ biotransformation to benign N_2 gas by anaerobic denitrifying bacteria.**

Table 2.4-13. Building 815-Proximal (815-PRX) mass removed, July 1, 2012 through December 31, 2012.

Treatment facility	Month	SVTS VOC mass removed (g)	GWTS VOC mass removed (g)	Perchlorate mass removed (g)	Nitrate mass removed (kg)	RDX mass removed (g)	TBOS/TKEBS mass removed (g)
815-PRX	July	NA	7.0	1.5	24	NA	NA
	August	NA	7.8	1.7	26	NA	NA
	September	NA	7.2	1.6	25	NA	NA
	October	NA	8.0	1.8	28	NA	NA
	November	NA	7.2	1.6	25	NA	NA
	December	NA	4.0	0.90	14	NA	NA
Total		NA	41	9.0	140	NA	NA

Notes:

***Nitrate re-injected into the $Tnbs_2$ HSU undergoes in situ biotransformation to benign N_2 gas by anaerobic denitrifying bacteria.**

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Table 2.4-14. Building 815-Distal Site Boundary (815-DSB) mass removed, July 1, 2012 through December 31, 2012.

Treatment facility	Month	SVTS VOC mass removed (g)	GWTS VOC mass removed (g)	Perchlorate mass removed (g)	Nitrate mass removed (kg)	RDX mass removed (g)	TBOS/TKEBS mass removed (g)
815-DSB	July	NA	2.6	NA	NA	NA	NA
	August	NA	4.0	NA	NA	NA	NA
	September	NA	4.2	NA	NA	NA	NA
	October	NA	4.1	NA	NA	NA	NA
	November	NA	4.4	NA	NA	NA	NA
	December	NA	4.0	NA	NA	NA	NA
Total		NA	23	NA	NA	NA	NA

Table 2.4-15. Building 817-Source (817-SRC) mass removed, July 1, 2012 through December 31, 2012.

Treatment facility	Month	SVTS VOC mass removed (g)	GWTS VOC mass removed (g)	Perchlorate mass removed (g)	Nitrate mass removed (kg)	RDX mass removed (g)	TBOS/TKEBS mass removed (g)
817-SRC	July	NA	0	0.12	0.45	0.27	NA
	August	NA	0	0.10	0.39	0.23	NA
	September	NA	0	0.11	0.42	0.25	NA
	October	NA	0	0.18	0.54	0.24	NA
	November	NA	0	0.16	0.47	0.22	NA
	December	NA	0	0.10	0.30	0.14	NA
Total		NA	0	0.78	2.6	1.3	NA

Notes:

***Nitrate re-injected into the $Tnbs_2$ HSU undergoes in-situ biotransformation to benign N_2 gas by anaerobic denitrifying bacteria.**

Table 2.4-16. Building 817-Proximal (817-PRX) mass removed, July 1, 2012 through December 31, 2012.

Treatment facility	Month	SVTS VOC mass removed (g)	GWTS VOC mass removed (g)	Perchlorate mass removed (g)	Nitrate mass removed (kg)	RDX mass removed (g)	TBOS/TKEBS mass removed (g)
817-PRX	July	NA	0.33	0.31	1.7	0.13	NA
	August	NA	0.25	0.23	1.3	0.093	NA
	September	NA	0.24	0.20	1.1	0.075	NA
	October	NA	0.22	0.095	0.71	0.017	NA
	November	NA	0.15	0.099	0.61	0.032	NA
	December	NA	0.14	0.043	0.39	0	NA
Total		NA	1.3	0.98	5.7	0.34	NA

Notes:
***Nitrate re-injected into the $Tnbs_2$ HSU undergoes in-situ biotransformation to benign N_2 gas by anaerobic denitrifying bacteria.**

Table 2.4-17. Building 829-Source (829-SRC) mass removed, July 1, 2012 through December 31, 2012.

Treatment facility	Month	SVTS VOC mass removed (g)	GWTS VOC mass removed (g)	Perchlorate mass removed (g)	Nitrate mass removed (kg)	RDX mass removed (g)	TBOS/TKEBS mass removed (g)
829-SRC	July	NA	0.019	0.0092	0.089	NA	NA
	August	NA	0.011	0.0055	0.054	NA	NA
	September	NA	0	0	0	NA	NA
	October	NA	0	0	0	NA	NA
	November	NA	0	0	0	NA	NA
	December	NA	0	0	0	NA	NA
Total		NA	0.030	0.015	0.14	NA	NA

Table 2.5-1. Building 850 Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	1	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	2	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	3	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	4	N	Inoperable pump.
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	1	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	2	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	3	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	4	N	Inoperable pump.
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	1	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	2	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	3	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	4	N	Inoperable pump.
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	1	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	2	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	3	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	4	N	Inoperable pump.
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	1	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	2	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	3	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	4	N	Inoperable pump.
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	1	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	2	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	3	Y	
K1-01C	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	4	N	Inoperable pump.
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	1	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	2	N	Inoperable pump.
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	3	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	4	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	1	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	2	N	Inoperable pump.
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	3	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	4	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	1	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	2	N	Inoperable pump.
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	3	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	4	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	1	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	2	N	Inoperable pump.
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	3	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	4	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	1	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	2	N	Inoperable pump.
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	3	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	4	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	1	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	2	N	Inoperable pump.
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	3	Y	
K1-02B	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	4	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	1	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	2	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	3	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	4	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	1	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	2	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	3	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	4	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	1	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	2	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	3	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	4	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	1	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	2	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	3	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	4	Y	

Table 2.5-1. Building 850 Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	1	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	2	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	3	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	4	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	1	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	2	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	3	Y	
K1-04	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	4	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	1	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	2	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	3	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	4	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	1	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	2	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	3	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	4	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	1	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	2	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	3	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	4	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	1	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	2	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	3	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	4	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	1	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	2	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	3	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	4	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	1	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	2	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	3	Y	
K1-05	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	4	Y	
K1-06	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
K1-06	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
K1-06	PTMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	1	Y	
K1-06	PTMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	2	Y	
K1-06	PTMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	3	Y	
K1-06	PTMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	4	N	Insufficient water.
K1-06	PTMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	1	Y	
K1-06	PTMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	2	Y	
K1-06	PTMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	3	Y	
K1-06	PTMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	4	N	Insufficient water.
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	1	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	2	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	3	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	4	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	1	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	2	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	3	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	4	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	1	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	2	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	3	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	4	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	1	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	2	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	3	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	4	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	1	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	2	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	3	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	4	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	1	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	2	Y	

Table 2.5-1. Building 850 Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	3	Y	
K1-07	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	4	Y	
K1-07	DMW	Tnbs1-Tnbs0	A	DIS	MS:UISO	2	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	1	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	2	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	3	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	4	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	1	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	2	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	3	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	4	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	1	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	2	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	3	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	4	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	1	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	2	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	3	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	4	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	1	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	2	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	3	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	4	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	1	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	2	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	3	Y	
K1-08	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	4	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	1	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	2	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	3	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	4	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	1	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	2	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	3	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	4	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	1	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	2	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	3	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	4	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	1	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	2	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	3	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	4	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	1	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	2	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	3	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	4	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	1	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	2	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	3	Y	
K1-09	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	4	Y	
K2-03	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
K2-03	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
K2-03	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
K2-03	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
K2-03	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
K2-03	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
K2-04D	PTMW	Tnbs1-Tnbs0	O	CMP	AS:UISO	2	N	To be sampled in 2013.
K2-04D	PTMW	Tnbs1-Tnbs0	E	CMP	E300.0:NO3	2	Y	
K2-04D	PTMW	Tnbs1-Tnbs0	A	WGMG	E300.0:PERC	2	Y	
K2-04D	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
K2-04D	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
K2-04D	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
K2-04S	PTMW	Qal/WBR	E	CMP	AS:UISO	2	Y	

Table 2.5-1. Building 850 Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
K2-04S	PTMW	Qal/WBR	O	CMP	E300.0:NO3	2	N	To be sampled in 2013.
K2-04S	PTMW	Qal/WBR	A	WGMG	E300.0:PERC	2	Y	
K2-04S	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	Y	
K2-04S	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
K2-04S	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC2-05	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC2-05	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC2-05	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC2-05	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC2-05	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-05	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-05A	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC2-05A	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC2-05A	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC2-05A	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC2-05A	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-05A	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-06	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC2-06	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC2-06	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC2-06	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC2-06	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-06	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-06A	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC2-06A	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC2-06A	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC2-06A	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-06A	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-06A	PTMW	Tnbs1-Tnbs0	A	CMP	MS:UISO	2	Y	
NC2-09	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC2-09	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC2-09	PTMW	Tnbs1-Tnbs0	A	DIS	E300.0:PERC	2	Y	
NC2-09	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-09	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-10	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC2-10	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC2-10	PTMW	Tnbs1-Tnbs0	A	DIS	E300.0:PERC	2	Y	
NC2-10	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-10	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-11D	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC2-11D	PTMW	Tnbs1-Tnbs0	S	WGMG	E300.0:PERC	2	Y	
NC2-11D	PTMW	Tnbs1-Tnbs0	S	WGMG	E300.0:PERC	4	Y	
NC2-11D	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-11D	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-11D	PTMW	Tnbs1-Tnbs0	A	CMP	MS:UISO	2	Y	
NC2-11I	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC2-11I	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC2-11I	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC2-11I	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC2-11I	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-11I	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-11S	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC2-11S	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC2-11S	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC2-11S	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC2-11S	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-11S	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-12D	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC2-12D	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC2-12D	PTMW	Tnbs1-Tnbs0	A	WGMG	E300.0:PERC	2	Y	
NC2-12D	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC2-12D	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-12D	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-12I	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	

Table 2.5-1. Building 850 Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
NC2-12I	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC2-12I	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC2-12I	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC2-12I	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-12I	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-12S	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC2-12S	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC2-12S	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC2-12S	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC2-12S	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-12S	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-13	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC2-13	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC2-13	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC2-13	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC2-13	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-13	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-14S	PTMW	Qal/WBR	O	CMP	AS:UISO	2	N	To be sampled in 2013.
NC2-14S	PTMW	Qal/WBR	O	CMP	E300.0:NO3	2	N	To be sampled in 2013.
NC2-14S	PTMW	Qal/WBR	S	CMP	E300.0:PERC	1	Y	
NC2-14S	PTMW	Qal/WBR	S	CMP	E300.0:PERC	3	Y	
NC2-14S	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC2-14S	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC2-15	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC2-15	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC2-15	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC2-15	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC2-15	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-15	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-16	PTMW	Tnbs1-Tnbs0	E	CMP	AS:UISO	2	Y	
NC2-16	PTMW	Tnbs1-Tnbs0	O	CMP	E300.0:NO3	2	N	To be sampled in 2013.
NC2-16	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	1	Y	
NC2-16	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	3	Y	
NC2-16	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-16	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-17	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	N	Inoperable pump.
NC2-17	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	N	Inoperable pump.
NC2-17	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	N	Inoperable pump.
NC2-17	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	N	Inoperable pump.
NC2-17	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	N	Inoperable pump.
NC2-17	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	N	Inoperable pump.
NC2-18	PTMW	Tnbs1-Tnbs0	S	CMP	AS:UISO	2	Y	
NC2-18	PTMW	Tnbs1-Tnbs0	S	CMP	AS:UISO	4	Y	
NC2-18	PTMW	Tnbs1-Tnbs0	O	CMP	E300.0:NO3	2	N	To be sampled in 2013.
NC2-18	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC2-18	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC2-18	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-18	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-19	PTMW	Tnbs1-Tnbs0	E	CMP	AS:UISO	2	Y	
NC2-19	PTMW	Tnbs1-Tnbs0	O	CMP	E300.0:NO3	2	N	To be sampled in 2013.
NC2-19	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC2-19	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC2-19	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-19	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-20	PTMW	Tnbs1-Tnbs0	O	CMP	AS:UISO	2	N	To be sampled in 2013.
NC2-20	PTMW	Tnbs1-Tnbs0	E	CMP	E300.0:NO3	2	Y	
NC2-20	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	2	Y	
NC2-20	PTMW	Tnbs1-Tnbs0	A	CMP	E906:ALL	2	Y	
NC2-21	PTMW	Tnbs1-Tnbs0	E	CMP	AS:UISO	2	Y	
NC2-21	PTMW	Tnbs1-Tnbs0	O	CMP	E300.0:NO3	2	N	To be sampled in 2013.
NC2-21	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	2	Y	
NC2-21	PTMW	Tnbs1-Tnbs0	A	CMP	E906:ALL	2	Y	
NC7-10	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
NC7-10	PTMW	Qal/WBR	S	DIS	E300.0:PERC	1	Y	

Table 2.5-1. Building 850 Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
NC7-10	PTMW	Qal/WBR	S	DIS	E300.0:PERC	3	Y	
NC7-10	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	2	Y	
NC7-10	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	4	Y	
NC7-10	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-10	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-10	PTMW	Qal/WBR	A	CMP	MS:UISO	2	Y	
NC7-11	PTMW	Qal/WBR	A	CMP	AS:UISO	2	Y	
NC7-11	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
NC7-11	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	Y	
NC7-11	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	Y	
NC7-11	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	4	Y	
NC7-11	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-11	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-14	PTMW	Qal/WBR	A	CMP	AS:UISO	2	N	Dry.
NC7-14	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	N	Dry.
NC7-14	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	N	Dry.
NC7-14	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	N	Dry.
NC7-14	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Dry.
NC7-14	PTMW	Qal/WBR	S	CMP	E906:ALL	4	N	Dry.
NC7-15	PTMW	Qal/WBR	O	CMP	AS:UISO	2	N	To be sampled in 2013.
NC7-15	PTMW	Qal/WBR	E	CMP	E300.0:NO3	2	Y	
NC7-15	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	
NC7-15	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	2	Y	
NC7-15	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	4	Y	
NC7-15	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-15	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-19	PTMW	Qal/WBR	E	CMP	AS:UISO	2	Y	
NC7-19	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
NC7-19	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	Y	
NC7-19	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	Y	
NC7-19	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	2	Y	
NC7-19	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	4	Y	
NC7-19	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-19	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-27	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC7-27	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC7-27	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC7-27	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC7-27	PTMW	Tnbs1-Tnbs0	S	DIS	E8330LOW:ALL	2	Y	
NC7-27	PTMW	Tnbs1-Tnbs0	S	DIS	E8330LOW:ALL	4	Y	
NC7-27	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC7-27	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	Q	DIS	DWMETALS:ALL	1	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	Q	DIS	DWMETALS:ALL	2	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	Q	DIS	DWMETALS:ALL	3	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	Q	DIS	DWMETALS:ALL	4	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	Q	DIS	E300.0:NO3	1	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	Q	DIS	E300.0:NO3	3	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	Q	DIS	E300.0:NO3	4	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	M	DIS	E300.0:PERC	1	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	M	DIS	E300.0:PERC	1	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	M	DIS	E300.0:PERC	1	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	M	DIS	E300.0:PERC	2	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	M	DIS	E300.0:PERC	2	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	M	DIS	E300.0:PERC	3	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	M	DIS	E300.0:PERC	3	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	M	DIS	E300.0:PERC	3	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	M	DIS	E300.0:PERC	4	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	M	DIS	E300.0:PERC	4	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	E	DIS	E8082A:ALL	2	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	Q	DIS	E8330LOW:ALL	1	Y	

Table 2.5-1. Building 850 Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
NC7-28	PTMW	Tnbs1-Tnbs0	Q	DIS	E8330LOW:ALL	2	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	Q	DIS	E8330LOW:ALL	3	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	Q	DIS	E8330LOW:ALL	4	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	M	DIS	E906:ALL	1	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	M	DIS	E906:ALL	1	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	M	DIS	E906:ALL	1	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	M	DIS	E906:ALL	2	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	M	DIS	E906:ALL	3	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	M	DIS	E906:ALL	3	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	M	DIS	E906:ALL	3	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	Q	DIS	GENMIN:ALL	1	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	Q	DIS	GENMIN:ALL	2	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	Q	DIS	GENMIN:ALL	3	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	Q	DIS	GENMIN:ALL	4	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	M	DIS	KPA:UTOT	1	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	M	DIS	KPA:UTOT	1	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	M	DIS	KPA:UTOT	1	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	M	DIS	KPA:UTOT	2	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	M	DIS	KPA:UTOT	2	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	M	DIS	KPA:UTOT	3	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	M	DIS	KPA:UTOT	3	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	M	DIS	KPA:UTOT	3	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	M	DIS	KPA:UTOT	4	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	M	DIS	KPA:UTOT	4	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	M	DIS	KPA:UTOT	4	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	Q	DIS	MS:UISO	1	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	A	CMP	MS:UISO	2	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	Q	DIS	MS:UISO	3	Y	
NC7-28	PTMW	Tnbs1-Tnbs0	Q	DIS	MS:UISO	4	Y	
NC7-29	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC7-29	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC7-29	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC7-29	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC7-29	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC7-29	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC7-43	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC7-43	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC7-43	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC7-43	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC7-43	PTMW	Tnbs1-Tnbs0	S	DIS	E8330LOW:ALL	2	Y	
NC7-43	PTMW	Tnbs1-Tnbs0	S	DIS	E8330LOW:ALL	4	Y	
NC7-43	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC7-43	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC7-44	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC7-44	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC7-44	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC7-44	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC7-44	PTMW	Tnbs1-Tnbs0	E	DIS	E8082A:ALL	2	Y	
NC7-44	PTMW	Tnbs1-Tnbs0	S	DIS	E8330LOW:ALL	2	Y	
NC7-44	PTMW	Tnbs1-Tnbs0	S	DIS	E8330LOW:ALL	4	Y	
NC7-44	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC7-44	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC7-46	PTMW	Qal/WBR	O	CMP	AS:UISO	2	N	To be sampled in 2013.
NC7-46	PTMW	Qal/WBR	O	CMP	E300.0:NO3	2	N	To be sampled in 2013.
NC7-46	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	
NC7-46	PTMW	Qal/WBR	A	CMP	E906:ALL	2	Y	
NC7-54	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	N	Dry.
NC7-54	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	N	Dry.
NC7-54	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	N	Dry.
NC7-54	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Dry.
NC7-54	PTMW	Qal/WBR	S	CMP	E906:ALL	4	N	Dry.
NC7-55	PTMW	Qal/WBR	A	CMP	AS:UISO	2	N	Dry.

Table 2.5-1. Building 850 Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
NC7-55	PTMW	Qal/WBR	O	CMP	E300.0:NO3	2	N	To be sampled in 2013.
NC7-55	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	N	Dry.
NC7-55	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	N	Dry.
NC7-55	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Dry.
NC7-55	PTMW	Qal/WBR	S	CMP	E906:ALL	4	N	Dry.
NC7-56	PTMW	Qal/WBR	O	CMP	AS:UISO	2	N	To be sampled in 2013.
NC7-56	PTMW	Qal/WBR	E	CMP	E300.0:NO3	2	Y	
NC7-56	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	Y	
NC7-56	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	Y	
NC7-56	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	2	Y	
NC7-56	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	4	Y	
NC7-56	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-56	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-57	PTMW	Qal/WBR	O	CMP	AS:UISO	2	N	To be sampled in 2013.
NC7-57	PTMW	Qal/WBR	E	CMP	E300.0:NO3	2	N	Dry.
NC7-57	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	N	Dry.
NC7-57	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	N	Dry.
NC7-57	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Dry.
NC7-57	PTMW	Qal/WBR	S	CMP	E906:ALL	4	N	Dry.
NC7-58	PTMW	Qal/WBR	E	CMP	AS:UISO	2	Y	
NC7-58	PTMW	Qal/WBR	O	CMP	E300.0:NO3	2	N	To be sampled in 2013.
NC7-58	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	Y	
NC7-58	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	Y	
NC7-58	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-58	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-59	PTMW	Qal/WBR	O	CMP	AS:UISO	2	N	To be sampled in 2013.
NC7-59	PTMW	Qal/WBR	E	CMP	E300.0:NO3	2	Y	
NC7-59	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	Y	
NC7-59	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	Y	
NC7-59	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-59	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-60	PTMW	Tnsc0	E	CMP	AS:UISO	2	Y	
NC7-60	PTMW	Tnsc0	A	CMP	E300.0:NO3	2	Y	
NC7-60	PTMW	Tnsc0	S	CMP	E300.0:PERC	1	Y	
NC7-60	PTMW	Tnsc0	S	CMP	E300.0:PERC	3	Y	
NC7-60	PTMW	Tnsc0	S	DIS	E8330LOW:ALL	2	Y	
NC7-60	PTMW	Tnsc0	S	DIS	E8330LOW:ALL	4	Y	
NC7-60	PTMW	Tnsc0	S	CMP	E906:ALL	2	Y	
NC7-60	PTMW	Tnsc0	S	CMP	E906:ALL	4	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	Q	DIS	DWMETALS:ALL	1	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	Q	DIS	DWMETALS:ALL	2	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	Q	DIS	DWMETALS:ALL	3	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	Q	DIS	DWMETALS:ALL	4	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	1	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	M	DIS	E300.0:PERC	1	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	M	DIS	E300.0:PERC	1	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	2	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	M	DIS	E300.0:PERC	2	N	Sampling Plan adjustment/change
NC7-61	PTMW	Tnbs1-Tnbs0	M	DIS	E300.0:PERC	2	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	3	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	M	DIS	E300.0:PERC	3	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	M	DIS	E300.0:PERC	3	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	4	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	M	DIS	E300.0:PERC	4	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	M	DIS	E300.0:PERC	4	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	Q	DIS	E8330LOW:ALL	1	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	Q	DIS	E8330LOW:ALL	2	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	Q	DIS	E8330LOW:ALL	3	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	Q	DIS	E8330LOW:ALL	4	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	M	DIS	E906:ALL	1	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	M	DIS	E906:ALL	1	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	M	DIS	E906:ALL	1	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	S	WGMG	E906:ALL	2	Y	

Table 2.5-1. Building 850 Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
NC7-61	PTMW	Tnbs1-Tnbs0	M	DIS	E906:ALL	2	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	M	DIS	E906:ALL	3	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	M	DIS	E906:ALL	3	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	M	DIS	E906:ALL	3	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	S	WGMG	E906:ALL	4	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	Q	DIS	GENMIN:ALL	1	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	Q	DIS	GENMIN:ALL	2	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	Q	DIS	GENMIN:ALL	3	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	Q	DIS	GENMIN:ALL	4	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	M	DIS	KPA:UTOT	1	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	M	DIS	KPA:UTOT	1	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	M	DIS	KPA:UTOT	2	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	M	DIS	KPA:UTOT	2	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	M	DIS	KPA:UTOT	3	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	M	DIS	KPA:UTOT	3	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	M	DIS	KPA:UTOT	3	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	M	DIS	KPA:UTOT	4	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	M	DIS	KPA:UTOT	4	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	M	DIS	KPA:UTOT	4	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	Q	DIS	MS:UISO	1	Y	
NC7-61	PTMW	Tnbs1-Tnbs0	A	CMP	MS:UISO	2	Y	
NC7-62	PTMW	Qal/WBR	E	CMP	AS:UISO	2	Y	
NC7-62	PTMW	Qal/WBR	O	CMP	E300.0:NO3	2	N	To be sampled in 2013.
NC7-62	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	Y	
NC7-62	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	Y	
NC7-62	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-62	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-69	PTMW	Tmss	A	CMP	AS:UISO	2	Y	
NC7-69	PTMW	Tmss	A	CMP	E300.0:NO3	2	Y	
NC7-69	PTMW	Tmss	S	CMP	E300.0:PERC	2	Y	
NC7-69	PTMW	Tmss	S	CMP	E300.0:PERC	4	Y	
NC7-69	PTMW	Tmss	S	DIS	E8330LOW:ALL	2	Y	
NC7-69	PTMW	Tmss	S	DIS	E8330LOW:ALL	4	Y	
NC7-69	PTMW	Tmss	S	CMP	E906:ALL	2	Y	
NC7-69	PTMW	Tmss	S	CMP	E906:ALL	4	Y	
NC7-70	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC7-70	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC7-70	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC7-70	PTMW	Tnbs1-Tnbs0	S	DIS	E8330LOW:ALL	2	Y	
NC7-70	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC7-70	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	N	Restricted access.
NC7-70	PTMW	Tnbs1-Tnbs0	M	DIS	KPA:UTOT	4	Y	
NC7-70	PTMW	Tnbs1-Tnbs0	A	CMP	MS:UISO	2	Y	
NC7-71	PTMW	Qal/WBR	Q	DIS	DWMETALS:ALL	1	Y	
NC7-71	PTMW	Qal/WBR	Q	DIS	DWMETALS:ALL	2	Y	
NC7-71	PTMW	Qal/WBR	Q	DIS	DWMETALS:ALL	3	Y	
NC7-71	PTMW	Qal/WBR	Q	DIS	DWMETALS:ALL	4	Y	
NC7-71	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
NC7-71	PTMW	Qal/WBR	Q	DIS	E300.0:NO3	3	Y	
NC7-71	PTMW	Qal/WBR	Q	DIS	E300.0:NO3	4	Y	
NC7-71	PTMW	Qal/WBR	M	DIS	E300.0:PERC	1	Y	
NC7-71	PTMW	Qal/WBR	M	DIS	E300.0:PERC	1	Y	
NC7-71	PTMW	Qal/WBR	M	DIS	E300.0:PERC	1	Y	
NC7-71	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	Y	
NC7-71	PTMW	Qal/WBR	M	DIS	E300.0:PERC	2	Y	
NC7-71	PTMW	Qal/WBR	M	DIS	E300.0:PERC	3	Y	
NC7-71	PTMW	Qal/WBR	M	DIS	E300.0:PERC	3	Y	
NC7-71	PTMW	Qal/WBR	M	DIS	E300.0:PERC	3	Y	
NC7-71	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	Y	
NC7-71	PTMW	Qal/WBR	M	DIS	E300.0:PERC	4	Y	
NC7-71	PTMW	Qal/WBR	M	DIS	E300.0:PERC	4	Y	
NC7-71	PTMW	Qal/WBR	Q	DIS	E8330LOW:ALL	1	Y	
NC7-71	PTMW	Qal/WBR	Q	DIS	E8330LOW:ALL	2	Y	
NC7-71	PTMW	Qal/WBR	Q	DIS	E8330LOW:ALL	3	Y	

Table 2.5-1. Building 850 Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
NC7-71	PTMW	Qal/WBR	Q	DIS	E8330LOW:ALL	4	Y	
NC7-71	PTMW	Qal/WBR	M	DIS	E906:ALL	1	Y	
NC7-71	PTMW	Qal/WBR	M	DIS	E906:ALL	1	Y	
NC7-71	PTMW	Qal/WBR	M	DIS	E906:ALL	1	Y	
NC7-71	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-71	PTMW	Qal/WBR	M	DIS	E906:ALL	2	Y	
NC7-71	PTMW	Qal/WBR	M	DIS	E906:ALL	3	Y	
NC7-71	PTMW	Qal/WBR	M	DIS	E906:ALL	3	Y	
NC7-71	PTMW	Qal/WBR	M	DIS	E906:ALL	3	Y	
NC7-71	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-71	PTMW	Qal/WBR	Q	DIS	GENMIN:ALL	1	Y	
NC7-71	PTMW	Qal/WBR	Q	DIS	GENMIN:ALL	2	Y	
NC7-71	PTMW	Qal/WBR	Q	DIS	GENMIN:ALL	3	Y	
NC7-71	PTMW	Qal/WBR	Q	DIS	GENMIN:ALL	4	Y	
NC7-71	PTMW	Qal/WBR	M	DIS	KPA:UTOT	1	Y	
NC7-71	PTMW	Qal/WBR	M	DIS	KPA:UTOT	1	Y	
NC7-71	PTMW	Qal/WBR	M	DIS	KPA:UTOT	1	Y	
NC7-71	PTMW	Qal/WBR	M	DIS	KPA:UTOT	2	Y	
NC7-71	PTMW	Qal/WBR	M	DIS	KPA:UTOT	2	Y	
NC7-71	PTMW	Qal/WBR	M	DIS	KPA:UTOT	3	Y	
NC7-71	PTMW	Qal/WBR	M	DIS	KPA:UTOT	3	Y	
NC7-71	PTMW	Qal/WBR	M	DIS	KPA:UTOT	3	Y	
NC7-71	PTMW	Qal/WBR	M	DIS	KPA:UTOT	4	Y	
NC7-71	PTMW	Qal/WBR	M	DIS	KPA:UTOT	4	Y	
NC7-71	PTMW	Qal/WBR	M	DIS	KPA:UTOT	4	Y	
NC7-71	PTMW	Qal/WBR	Q	DIS	MS:UISO	1	Y	
NC7-71	PTMW	Qal/WBR	A	CMP	MS:UISO	2	Y	
NC7-71	PTMW	Qal/WBR	Q	DIS	MS:UISO	3	Y	
NC7-71	PTMW	Qal/WBR	Q	DIS	MS:UISO	4	Y	
NC7-72	PTMW	Qal/WBR	E	CMP	AS:UISO	2	Y	
NC7-72	PTMW	Qal/WBR	O	CMP	E300.0:NO3	2	N	To be sampled in 2013.
NC7-72	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	Y	
NC7-72	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	Y	
NC7-72	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	2	Y	
NC7-72	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	4	Y	
NC7-72	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-72	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-73	PTMW	Qal/WBR	A	CMP	AS:UISO	2	Y	
NC7-73	PTMW	Qal/WBR	E	CMP	E300.0:NO3	2	Y	
NC7-73	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	Y	
NC7-73	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	Y	
NC7-73	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	2	Y	
NC7-73	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	4	Y	
NC7-73	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-73	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
SPRING24	SPR	Tnbs1-Tnbs0	E	CMP	AS:UISO	2	N	Dry.
SPRING24	SPR	Tnbs1-Tnbs0	O	CMP	E300.0:NO3	2	N	To be sampled in 2013.
SPRING24	SPR	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	N	Dry.
SPRING24	SPR	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	N	Dry.
SPRING24	SPR	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	N	Dry.
SPRING24	SPR	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	N	Dry.
W-850-05	PTMW	Qal/WBR	A	CMP	AS:UISO	2	Y	
W-850-05	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
W-850-05	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	Y	
W-850-05	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	Y	
W-850-05	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	2	Y	
W-850-05	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	4	Y	
W-850-05	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
W-850-05	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
W-850-05	PTMW	Qal/WBR	A	DIS	MS:UISO	4	Y	
W-850-2145	PTMW	Tnbs1-Tnbs0	E	CMP	AS:UISO	2	Y	
W-850-2145	PTMW	Tnbs1-Tnbs0	O	CMP	E300.0:NO3	2	N	To be sampled in 2013.
W-850-2145	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
W-850-2145	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	

Table 2.5-1. Building 850 Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-850-2145	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
W-850-2145	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
W-850-2312	PTMW	Tnbs1-Tnbs0	E	CMP	AS:UISO	2	Y	
W-850-2312	PTMW	Tnbs1-Tnbs0	E	CMP	E300.0:NO3	2	Y	
W-850-2312	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
W-850-2312	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
W-850-2312	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
W-850-2312	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
W-850-2313	PTMW	Qal/WBR	A	CMP	AS:UISO	2	Y	
W-850-2313	PTMW	Qal/WBR	E	CMP	E300.0:NO3	2	Y	
W-850-2313	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	Y	
W-850-2313	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	Y	
W-850-2313	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	2	Y	
W-850-2313	PTMW	Qal/WBR	S	DIS	E8330LOW:ALL	4	Y	
W-850-2313	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
W-850-2313	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
W-850-2313	PTMW	Qal/WBR	A	DIS	MS:UISO	2	Y	
W-850-2314	PTMW	Tnbs1-Tnbs0	O	CMP	AS:UISO	2	N	To be sampled in 2013.
W-850-2314	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
W-850-2314	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
W-850-2314	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
W-850-2314	PTMW	Tnbs1-Tnbs0	S	DIS	E8330LOW:ALL	2	Y	
W-850-2314	PTMW	Tnbs1-Tnbs0	S	DIS	E8330LOW:ALL	4	Y	
W-850-2314	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
W-850-2314	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
W-850-2315	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
W-850-2315	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
W-850-2315	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
W-850-2315	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
W-850-2315	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
W-850-2315	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
W-850-2316	PTMW	Tnbs1-Tnbs0	O	CMP	AS:UISO	2	N	To be sampled in 2013.
W-850-2316	PTMW	Tnbs1-Tnbs0	E	CMP	E300.0:NO3	2	Y	
W-850-2316	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
W-850-2316	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
W-850-2316	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
W-850-2316	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
W-850-2416	PTMW	Tnsc0	Q	DIS	DWMETALS:ALL	1	Y	
W-850-2416	PTMW	Tnsc0	Q	DIS	DWMETALS:ALL	2	Y	
W-850-2416	PTMW	Tnsc0	Q	DIS	DWMETALS:ALL	3	Y	
W-850-2416	PTMW	Tnsc0	Q	DIS	DWMETALS:ALL	4	Y	
W-850-2416	PTMW	Tnsc0	Q	DIS	E300.0:NO3	1	Y	
W-850-2416	PTMW	Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-850-2416	PTMW	Tnsc0	Q	DIS	E300.0:NO3	3	Y	
W-850-2416	PTMW	Tnsc0	Q	DIS	E300.0:NO3	4	Y	
W-850-2416	PTMW	Tnsc0	M	DIS	E300.0:PERC	1	Y	
W-850-2416	PTMW	Tnsc0	M	DIS	E300.0:PERC	1	Y	
W-850-2416	PTMW	Tnsc0	M	DIS	E300.0:PERC	1	Y	
W-850-2416	PTMW	Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-850-2416	PTMW	Tnsc0	M	DIS	E300.0:PERC	2	Y	
W-850-2416	PTMW	Tnsc0	M	DIS	E300.0:PERC	3	Y	
W-850-2416	PTMW	Tnsc0	M	DIS	E300.0:PERC	3	Y	
W-850-2416	PTMW	Tnsc0	M	DIS	E300.0:PERC	3	Y	
W-850-2416	PTMW	Tnsc0	S	CMP	E300.0:PERC	4	Y	
W-850-2416	PTMW	Tnsc0	M	DIS	E300.0:PERC	4	Y	
W-850-2416	PTMW	Tnsc0	M	DIS	E300.0:PERC	4	Y	
W-850-2416	PTMW	Tnsc0	Q	DIS	E8330LOW:ALL	1	Y	
W-850-2416	PTMW	Tnsc0	Q	DIS	E8330LOW:ALL	2	Y	
W-850-2416	PTMW	Tnsc0	Q	DIS	E8330LOW:ALL	3	Y	
W-850-2416	PTMW	Tnsc0	Q	DIS	E8330LOW:ALL	4	Y	
W-850-2416	PTMW	Tnsc0	M	DIS	E906:ALL	1	Y	
W-850-2416	PTMW	Tnsc0	M	DIS	E906:ALL	1	Y	
W-850-2416	PTMW	Tnsc0	M	DIS	E906:ALL	1	Y	
W-850-2416	PTMW	Tnsc0	S	CMP	E906:ALL	2	Y	

Table 2.5-1. Building 850 Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-850-2416	PTMW	Tnsc0	M	DIS	E906:ALL	2	Y	
W-850-2416	PTMW	Tnsc0	M	DIS	E906:ALL	3	Y	
W-850-2416	PTMW	Tnsc0	M	DIS	E906:ALL	3	Y	
W-850-2416	PTMW	Tnsc0	M	DIS	E906:ALL	3	Y	
W-850-2416	PTMW	Tnsc0	S	CMP	E906:ALL	4	Y	
W-850-2416	PTMW	Tnsc0	Q	DIS	GENMIN:ALL	1	Y	
W-850-2416	PTMW	Tnsc0	Q	DIS	GENMIN:ALL	2	Y	
W-850-2416	PTMW	Tnsc0	Q	DIS	GENMIN:ALL	3	Y	
W-850-2416	PTMW	Tnsc0	Q	DIS	GENMIN:ALL	4	Y	
W-850-2416	PTMW	Tnsc0	M	DIS	KPA:UTOT	1	Y	
W-850-2416	PTMW	Tnsc0	M	DIS	KPA:UTOT	1	Y	
W-850-2416	PTMW	Tnsc0	M	DIS	KPA:UTOT	1	Y	
W-850-2416	PTMW	Tnsc0	M	DIS	KPA:UTOT	2	Y	
W-850-2416	PTMW	Tnsc0	M	DIS	KPA:UTOT	2	Y	
W-850-2416	PTMW	Tnsc0	M	DIS	KPA:UTOT	3	Y	
W-850-2416	PTMW	Tnsc0	M	DIS	KPA:UTOT	3	Y	
W-850-2416	PTMW	Tnsc0	M	DIS	KPA:UTOT	3	Y	
W-850-2416	PTMW	Tnsc0	M	DIS	KPA:UTOT	4	Y	
W-850-2416	PTMW	Tnsc0	M	DIS	KPA:UTOT	4	Y	
W-850-2416	PTMW	Tnsc0	M	DIS	KPA:UTOT	4	Y	
W-850-2416	PTMW	Tnsc0	Q	DIS	MS:UISO	1	Y	
W-850-2416	PTMW	Tnsc0	A	CMP	MS:UISO	2	Y	
W-850-2416	PTMW	Tnsc0	Q	DIS	MS:UISO	3	Y	
W-850-2416	PTMW	Tnsc0	Q	DIS	MS:UISO	4	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	Q	DIS	DWMETALS:ALL	1	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	Q	DIS	DWMETALS:ALL	2	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	Q	DIS	DWMETALS:ALL	3	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	Q	DIS	DWMETALS:ALL	4	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	Q	DIS	E300.0:NO3	1	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	Q	DIS	E300.0:NO3	3	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	Q	DIS	E300.0:NO3	4	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	M	DIS	E300.0:PERC	1	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	M	DIS	E300.0:PERC	1	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	M	DIS	E300.0:PERC	1	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	M	DIS	E300.0:PERC	2	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	M	DIS	E300.0:PERC	3	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	M	DIS	E300.0:PERC	3	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	M	DIS	E300.0:PERC	3	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	M	DIS	E300.0:PERC	4	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	M	DIS	E300.0:PERC	4	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	Q	DIS	E8330LOW:ALL	1	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	Q	DIS	E8330LOW:ALL	2	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	Q	DIS	E8330LOW:ALL	3	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	Q	DIS	E8330LOW:ALL	4	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	M	DIS	E906:ALL	1	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	M	DIS	E906:ALL	1	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	M	DIS	E906:ALL	1	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	M	DIS	E906:ALL	2	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	M	DIS	E906:ALL	3	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	M	DIS	E906:ALL	3	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	M	DIS	E906:ALL	3	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	Q	DIS	GENMIN:ALL	1	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	Q	DIS	GENMIN:ALL	2	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	Q	DIS	GENMIN:ALL	3	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	Q	DIS	GENMIN:ALL	4	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	M	DIS	KPA:UTOT	1	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	M	DIS	KPA:UTOT	1	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	M	DIS	KPA:UTOT	1	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	M	DIS	KPA:UTOT	2	Y	

Table 2.5-1. Building 850 Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-850-2417	PTMW	Tnbs1-Tnbs0	M	DIS	KPA:UTOT	2	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	M	DIS	KPA:UTOT	3	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	M	DIS	KPA:UTOT	3	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	M	DIS	KPA:UTOT	3	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	M	DIS	KPA:UTOT	4	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	M	DIS	KPA:UTOT	4	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	M	DIS	KPA:UTOT	4	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	Q	DIS	MS:UISO	1	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	Q	DIS	MS:UISO	2	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	Q	DIS	MS:UISO	3	Y	
W-850-2417	PTMW	Tnbs1-Tnbs0	Q	DIS	MS:UISO	4	Y	
W-850-2805	PTMW	Tnbs1/Tnbs0	U	DIS	E300.0:PERC	3	Y	New well Baseline sampling.
W-850-2805	PTMW	Tnbs1/Tnbs0	U	DIS	E624:ALL	3	Y	New well Baseline sampling.
W-850-2805	PTMW	Tnbs1/Tnbs0	U	DIS	E8330LOW:ALL	3	Y	New well Baseline sampling.
W-850-2805	PTMW	Tnbs1/Tnbs0	U	DIS	E900:ALL	3	Y	New well Baseline sampling.
W-850-2805	PTMW	Tnbs1/Tnbs0	U	DIS	E906:ALL	3	Y	New well Baseline sampling.
W-850-2805	PTMW	Tnbs1/Tnbs0	U	DIS	GENMIN:ALL	3	Y	New well Baseline sampling.
W-850-2805	PTMW	Tnbs1/Tnbs0	U	DIS	KPA:UTOT	3	Y	New well Baseline sampling.
W-850-2805	PTMW	Tnbs1/Tnbs0	U	DIS	MS:UISO	3	Y	New well Baseline sampling.
W-865-02	PTMW	Tnbs1-Tnbs0	A	DIS	DWMETALS:ALL	1	Y	
W-865-02	PTMW	Tnbs1-Tnbs0	S	DIS	E300.0:NO3	1	Y	
W-865-02	PTMW	Tnbs1-Tnbs0	S	DIS	E300.0:NO3	3	Y	
W-865-02	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	1	Y	
W-865-02	PTMW	Tnbs1-Tnbs0	S	DIS	E601:ALL	1	Y	
W-865-02	PTMW	Tnbs1-Tnbs0	S	DIS	E601:ALL	3	Y	
W-865-02	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	1	Y	
W-865-02	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	3	Y	
W-865-05	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	1	N	Dry.
W-865-05	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	1	N	Dry.
W-865-05	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	3	N	Dry.
W-865-1802	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
W-865-1802	PTMW	Tnbs1-Tnbs0	A	DIS	E300.0:NO3	2	Y	
W-865-1802	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	2	Y	
W-865-1802	PTMW	Tnbs1-Tnbs0	S	DIS	E601:ALL	1	Y	
W-865-1802	PTMW	Tnbs1-Tnbs0	S	DIS	E601:ALL	3	Y	
W-865-1802	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
W-865-1802	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
W-865-1803	PTMW	Tnbs1-Tnbs0	E	CMP	AS:UISO	2	Y	
W-865-1803	PTMW	Tnbs1-Tnbs0	E	CMP	E300.0:NO3	2	Y	
W-865-1803	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
W-865-1803	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
W-865-1803	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
W-865-1803	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
W-865-2005	PTMW	Tnbs1-Tnbs0	A	DIS	DWMETALS:ALL	1	Y	
W-865-2005	PTMW	Tnbs1-Tnbs0	S	DIS	E300.0:NO3	1	Y	
W-865-2005	PTMW	Tnbs1-Tnbs0	S	DIS	E300.0:NO3	3	Y	
W-865-2005	PTMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	1	Y	
W-865-2005	PTMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	2	Y	
W-865-2005	PTMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	3	Y	
W-865-2005	PTMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	4	Y	
W-865-2005	PTMW	Tnbs1-Tnbs0	S	DIS	E601:ALL	1	Y	
W-865-2005	PTMW	Tnbs1-Tnbs0	S	DIS	E601:ALL	3	Y	
W-865-2005	PTMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	1	Y	
W-865-2005	PTMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	2	Y	
W-865-2005	PTMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	3	Y	
W-865-2005	PTMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	4	Y	
W-865-2121	PTMW	Tnbs1-Tnbs0	A	DIS	DWMETALS:ALL	1	Y	
W-865-2121	PTMW	Tnbs1-Tnbs0	S	DIS	E300.0:NO3	1	Y	
W-865-2121	PTMW	Tnbs1-Tnbs0	S	DIS	E300.0:NO3	3	Y	
W-865-2121	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	1	Y	
W-865-2121	PTMW	Tnbs1-Tnbs0	S	DIS	E601:ALL	1	Y	
W-865-2121	PTMW	Tnbs1-Tnbs0	S	DIS	E601:ALL	3	Y	
W-865-2121	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
W-865-2121	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	

Table 2.5-1. Building 850 Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-865-2133	GW	Tnbs1-Tnbs0	S	CMP	AS:UISO	1	Y	
W-865-2133	GW	Tnbs1-Tnbs0	S	CMP	AS:UISO	3	Y	
W-865-2133	GW	Tnbs1-Tnbs0	A	DIS	DWMETALS:ALL	1	Y	
W-865-2133	GW	Tnbs1-Tnbs0	S	DIS	E300.0:NO3	1	Y	
W-865-2133	GW	Tnbs1-Tnbs0	S	DIS	E300.0:NO3	3	Y	
W-865-2133	GW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	1	Y	
W-865-2133	GW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	2	Y	
W-865-2133	GW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	3	Y	
W-865-2133	GW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	4	Y	
W-865-2133	GW	Tnbs1-Tnbs0	S	DIS	E601:ALL	1	Y	
W-865-2133	GW	Tnbs1-Tnbs0	S	DIS	E601:ALL	3	Y	
W-865-2133	GW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	1	Y	
W-865-2133	GW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	2	Y	
W-865-2133	GW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	3	Y	
W-865-2133	GW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	4	Y	
W-865-2224	GW	Tnbs1-Tnbs0	S	CMP	AS:UISO	2	Y	
W-865-2224	GW	Tnbs1-Tnbs0	S	CMP	AS:UISO	4	Y	
W-865-2224	GW	Tnbs1-Tnbs0	S	CMP	E300.0:NO3	2	Y	
W-865-2224	GW	Tnbs1-Tnbs0	S	CMP	E300.0:NO3	4	Y	
W-865-2224	GW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	1	Y	
W-865-2224	GW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	2	Y	
W-865-2224	GW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	3	Y	
W-865-2224	GW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	4	Y	
W-865-2224	GW	Tnbs1-Tnbs0	S	DIS	E601:ALL	2	Y	
W-865-2224	GW	Tnbs1-Tnbs0	S	DIS	E601:ALL	4	Y	
W-865-2224	GW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	1	Y	
W-865-2224	GW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	2	Y	
W-865-2224	GW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	3	Y	
W-865-2224	GW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	4	Y	
W-PIT1-01	PTMW	Tnbs1-Tnbs0	O	CMP	AS:UISO	1	N	To be sampled in 2013.
W-PIT1-01	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	1	N	Dry.
W-PIT1-01	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	3	N	Dry.
W-PIT1-01	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	1	N	Dry.
W-PIT1-01	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	3	N	Dry.
W-PIT1-2204	PTMW	Qal/WBR	A	CMP	AS:UISO	2	N	Insufficient water.
W-PIT1-2204	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	N	Insufficient water.
W-PIT1-2204	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	N	Insufficient water.
W-PIT1-2204	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	N	Insufficient water.
W-PIT1-2204	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Insufficient water.
W-PIT1-2204	PTMW	Qal/WBR	S	CMP	E906:ALL	4	N	Insufficient water.
W-PIT1-2209	GW	Tnbs1-Tnbs0	S	CMP	AS:UISO	2	Y	
W-PIT1-2209	GW	Tnbs1-Tnbs0	S	CMP	AS:UISO	4	Y	
W-PIT1-2209	GW	Tnbs1-Tnbs0	S	CMP	E300.0:NO3	2	Y	
W-PIT1-2209	GW	Tnbs1-Tnbs0	S	CMP	E300.0:NO3	4	Y	
W-PIT1-2209	GW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	1	Y	
W-PIT1-2209	GW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	2	Y	
W-PIT1-2209	GW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	3	Y	
W-PIT1-2209	GW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	4	Y	
W-PIT1-2209	GW	Tnbs1-Tnbs0	S	DIS	E601:ALL	2	Y	
W-PIT1-2209	GW	Tnbs1-Tnbs0	S	DIS	E601:ALL	4	Y	
W-PIT1-2209	GW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	1	Y	
W-PIT1-2209	GW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	2	Y	
W-PIT1-2209	GW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	3	Y	
W-PIT1-2209	GW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	4	Y	
W-PIT1-2225	GW	Tnbs1-Tnbs0	S	CMP	AS:UISO	2	Y	
W-PIT1-2225	GW	Tnbs1-Tnbs0	S	CMP	AS:UISO	4	Y	
W-PIT1-2225	GW	Tnbs1-Tnbs0	S	CMP	E300.0:NO3	2	Y	
W-PIT1-2225	GW	Tnbs1-Tnbs0	S	CMP	E300.0:NO3	4	Y	
W-PIT1-2225	GW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	1	Y	
W-PIT1-2225	GW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	2	Y	
W-PIT1-2225	GW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	3	Y	
W-PIT1-2225	GW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	4	Y	
W-PIT1-2225	GW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	1	Y	
W-PIT1-2225	GW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	2	Y	

Table 2.5-1. Building 850 Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-PIT1-2225	GW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	3	Y	
W-PIT1-2225	GW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	4	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	1	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	2	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	3	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	AS:UISO	4	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	1	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	2	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	3	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:NO3	4	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	1	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	2	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	3	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	4	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	1	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	2	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	3	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E8260:ALL	4	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	1	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	2	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	3	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E8330:R+H	4	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	1	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	2	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	3	Y	
W-PIT1-2326	DMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	4	Y	
W-PIT1-2620	PTMW	Tnbs1-Tnbs0	E	CMP	AS:UISO	2	Y	
W-PIT1-2620	PTMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	1	Y	
W-PIT1-2620	PTMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	2	Y	
W-PIT1-2620	PTMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	3	N	Inoperable pump.
W-PIT1-2620	PTMW	Tnbs1-Tnbs0	Q	WGMG	E300.0:PERC	4	Y	
W-PIT1-2620	PTMW	Tnbs1-Tnbs0	S	DIS	E601:ALL	2	Y	
W-PIT1-2620	PTMW	Tnbs1-Tnbs0	S	DIS	E601:ALL	4	Y	
W-PIT1-2620	PTMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	1	Y	
W-PIT1-2620	PTMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	2	Y	
W-PIT1-2620	PTMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	3	N	Inoperable pump.
W-PIT1-2620	PTMW	Tnbs1-Tnbs0	Q	WGMG	E906:ALL	4	Y	
W-PIT7-16	PTMW	Tnsc0	A	CMP	AS:UISO	2	Y	
W-PIT7-16	PTMW	Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-PIT7-16	PTMW	Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-PIT7-16	PTMW	Tnsc0	S	CMP	E300.0:PERC	4	Y	
W-PIT7-16	PTMW	Tnsc0	S	DIS	E8330LOW:ALL	2	Y	
W-PIT7-16	PTMW	Tnsc0	S	DIS	E8330LOW:ALL	4	Y	
W-PIT7-16	PTMW	Tnsc0	S	CMP	E906:ALL	2	Y	
W-PIT7-16	PTMW	Tnsc0	S	CMP	E906:ALL	4	Y	
W8SPRNG	SPR	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	N	Dry.
W8SPRNG	SPR	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	N	Dry.
W8SPRNG	SPR	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	N	Dry.
W8SPRNG	SPR	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	N	Dry.
W8SPRNG	SPR	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	N	Dry.
W8SPRNG	SPR	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	N	Dry.

Table 2.5-2. PIT7-Source (PIT7-SRC) volumes of ground water and soil vapor extracted and discharged, July 1, 2012 through December 31, 2012.

Treatment facility	Month	SVTS Operational hours	GWTS Operational hours	Volume of vapor extracted (thousands of cf)	Volume of ground water discharged (gal)
PIT7-SRC	July	NA	793	NA	7,296
	August	NA	507	NA	4,535
	September	NA	4	NA	245
	October	NA	1	NA	31
	November	NA	22	NA	561
	December	NA	411	NA	5,555
Total		NA	1,738	NA	18,223

Table 2.5-3. Pit 7-Source (PIT7-SRC) volatile organic compounds (VOCs) in ground water extraction and treatment system influent and effluent.

Location	Date	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetra-chloride (µg/L)	Chloro-form (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
PIT7-SRC-I	7/10/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PIT7-SRC-I	8/21/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PIT7-SRC-I	12/10/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PIT7-SRC-E	7/10/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PIT7-SRC-E	8/7/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PIT7-SRC-E	8/21/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PIT7-SRC-E	11/13/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PIT7-SRC-E	12/4/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PIT7-SRC-E	12/10/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

Additional influent and effluent monitoring was conducted due to investigation into methylene chloride detections.
See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.5-3 (Cont.). Analyte detected but not reported in main table.

Location	Date	Detection frequency	Methylene chloride (µg/L)
PIT7-SRC-I	7/10/12	0 of 18	–
PIT7-SRC-I	8/21/12	0 of 18	–
PIT7-SRC-I	12/10/12	0 of 18	–
PIT7-SRC-E	7/10/12	0 of 18	–
PIT7-SRC-E	8/7/12	0 of 18	–
PIT7-SRC-E	8/21/12	1 of 18	5.1
PIT7-SRC-E	11/13/12	1 of 18	1.8
PIT7-SRC-E	12/4/12	0 of 18	–
PIT7-SRC-E	12/10/12	0 of 18	–

Notes appear on the following page.

Table 2.5-3 (Cont.). Analyte detected but not reported in main table.

Notes:

Additional influent and effluent monitoring was conducted due to investigation into methylene chloride detections.
See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.5-4. Pit 7-Source (PIT7-SRC) nitrate and perchlorate in ground water extraction and treatment system influent and effluent.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (μg/L)
PIT7-SRC-I	7/10/12	39	14
PIT7-SRC-I	8/21/12	34	8.3
PIT7-SRC-I	12/10/12	32	11
PIT7-SRC-E	7/10/12	42	<4
PIT7-SRC-E	8/7/12	<0.5	<4
PIT7-SRC-E	8/21/12	<0.5	<4
PIT7-SRC-E	12/10/12	10	<4

Notes:

Additional influent and effluent monitoring was conducted due to investigation into methylene chloride detections.
See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.5-5. Pit 7-Source (PIT7-SRC) total uranium in ground water extraction and treatment system influent and effluent.

Location	Date	Total Uranium (pCi/L)
PIT7-SRC-I	7/10/12	14.2 ± 1.43
PIT7-SRC-I	8/21/12	21.3 ± 2.32
PIT7-SRC-I	12/10/12	40.1 ± 4.07
PIT7-SRC-E	7/10/12	<0.3
PIT7-SRC-E	8/7/12	<0.3
PIT7-SRC-E	8/21/12	<0.3
PIT7-SRC-E	12/10/12	<0.3

Notes:

Additional influent and effluent monitoring was conducted due to investigation into methylene chloride detections.
See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.5-6. Pit 7-Source (PIT7-SRC) tritium in ground water extraction and treatment system influent and effluent.

Location	Date	Tritium (pCi/L)
PIT7-SRC-I	7/10/12	39900 ± 7750
PIT7-SRC-I	8/21/12	38000 ± 7380
PIT7-SRC-I	12/10/12	49100 ± 9550
PIT7-SRC-E	7/10/12	40100 ± 7790
PIT7-SRC-E	8/7/12	40900 ± 7950
PIT7-SRC-E	8/21/12	46700 ± 9070
PIT7-SRC-E	12/10/12	49900 ± 9700

Notes:

Additional influent and effluent monitoring was conducted due to investigation into methylene chloride detections.

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.5-7. Pit 7-Source (PIT7-SRC) treatment facility sampling and analysis plan.

Sample location	Sample identification	Parameter	Frequency
PIT7-SRC GWTS			
Influent Port	PIT7-SRC-I	VOCs	Quarterly
		Uranium	Quarterly
		Perchlorate	Quarterly
		Nitrate	Quarterly
		Tritium[a]	Quarterly
		pH	Quarterly
Effluent Port	PIT7-SRC-E	VOCs	Monthly
		Uranium	Monthly
		Perchlorate	Monthly
		Nitrate	Monthly
		Tritium[a]	Monthly
		pH	Monthly

Notes:

[a] **Although tritium is not treated/removed by the PIT7-SRC GWTS, tritium activities will be monitoring to determine levels that are being discharged to the infiltration trench.**

One duplicate and one blank (given fictitious labels) shall be taken for every 12 samples.

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.5-8. Pit 7 Complex Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
K7-01	DMW	Tnbs1-Tnbs0	A	CMP	E200.7:LI	2	Y	
K7-01	DMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
K7-01	DMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	2	Y	
K7-01	DMW	Tnbs1-Tnbs0	A	CMP	E340.2:ALL	2	Y	
K7-01	DMW	Tnbs1-Tnbs0	A	CMP	E601:ALL	2	Y	
K7-01	DMW	Tnbs1-Tnbs0	A	CMP	E8082A:ALL	2	Y	
K7-01	DMW	Tnbs1-Tnbs0	A	CMP	E8330LOW:ALL	2	Y	
K7-01	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
K7-01	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
K7-01	DMW	Tnbs1-Tnbs0	A	CMP	MS:UISO	2	Y	
K7-01	DMW	Tnbs1-Tnbs0	A	CMP	T26METALS:ALL	2	Y	
K7-03	DMW	Tnbs1-Tnbs0	A	CMP	E200.7:LI	2	Y	
K7-03	DMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
K7-03	DMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	2	Y	
K7-03	DMW	Tnbs1-Tnbs0	A	CMP	E340.2:ALL	2	Y	
K7-03	DMW	Tnbs1-Tnbs0	A	CMP	E601:ALL	2	Y	
K7-03	DMW	Tnbs1-Tnbs0	A	CMP	E8082A:ALL	2	Y	
K7-03	DMW	Tnbs1-Tnbs0	A	CMP	E8330LOW:ALL	2	Y	
K7-03	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
K7-03	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
K7-03	DMW	Tnbs1-Tnbs0	A	CMP	MS:UISO	2	Y	
K7-03	DMW	Tnbs1-Tnbs0	A	CMP	T26METALS:ALL	2	Y	
K7-06	DMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
K7-06	DMW	Tnbs1-Tnbs0	A	CMP	E200.7:LI	2	Y	
K7-06	DMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
K7-06	DMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
K7-06	DMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
K7-06	DMW	Tnbs1-Tnbs0	A	CMP	E340.2:ALL	2	Y	
K7-06	DMW	Tnbs1-Tnbs0	A	CMP	E601:ALL	2	Y	
K7-06	DMW	Tnbs1-Tnbs0	A	CMP	E8082A:ALL	2	Y	
K7-06	DMW	Tnbs1-Tnbs0	A	CMP	E8330LOW:ALL	2	Y	
K7-06	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
K7-06	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
K7-06	DMW	Tnbs1-Tnbs0	A	CMP	T26METALS:ALL	2	Y	
K7-07	PTMW	Qal/WBR	A	CMP	AS:UISO	2	N	Dry.
K7-07	PTMW	Qal/WBR	E	CMP	E300.0:NO3	2	N	Dry.
K7-07	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	N	Dry.
K7-07	PTMW	Qal/WBR	A	CMP	E601:ALL	2	N	Dry.
K7-07	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Dry.
K7-07	PTMW	Qal/WBR	S	CMP	E906:ALL	4	N	Dry.
K7-09	DMW	Tnsc0	A	CMP	AS:UISO	2	N	Inoperable pump.
K7-09	DMW	Tnsc0	A	CMP	E200.7:LI	2	N	Inoperable pump.
K7-09	DMW	Tnsc0	A	CMP	E300.0:NO3	2	N	Inoperable pump.
K7-09	DMW	Tnsc0	S	CMP	E300.0:PERC	2	N	Inoperable pump.
K7-09	DMW	Tnsc0	S	CMP	E300.0:PERC	4	Y	
K7-09	DMW	Tnsc0	A	CMP	E340.2:ALL	2	N	Inoperable pump.
K7-09	DMW	Tnsc0	A	CMP	E601:ALL	2	N	Inoperable pump.
K7-09	DMW	Tnsc0	A	CMP	E8082A:ALL	2	N	Inoperable pump.
K7-09	DMW	Tnsc0	A	CMP	E8330LOW:ALL	2	N	Inoperable pump.
K7-09	DMW	Tnsc0	S	CMP	E906:ALL	2	N	Inoperable pump.
K7-09	DMW	Tnsc0	S	CMP	E906:ALL	4	Y	
K7-09	DMW	Tnsc0	A	CMP	T26METALS:ALL	2	N	Inoperable pump.
K7-10	DMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
K7-10	DMW	Tnbs1-Tnbs0	A	CMP	E200.7:LI	2	Y	
K7-10	DMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
K7-10	DMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	2	Y	
K7-10	DMW	Tnbs1-Tnbs0	A	CMP	E340.2:ALL	2	Y	
K7-10	DMW	Tnbs1-Tnbs0	A	CMP	E601:ALL	2	Y	
K7-10	DMW	Tnbs1-Tnbs0	A	CMP	E8082A:ALL	2	Y	
K7-10	DMW	Tnbs1-Tnbs0	A	CMP	E8330LOW:ALL	2	Y	
K7-10	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
K7-10	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	

Table 2.5-8. Pit 7 Complex Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
K7-10	DMW	Tnbs1-Tnbs0	A	CMP	T26METALS:ALL	2	Y	
NC7-12	PTMW	Qal/WBR	A	CMP	AS:UISO	2	Y	
NC7-12	PTMW	Qal/WBR	E	CMP	E300.0:NO3	2	Y	
NC7-12	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	
NC7-12	PTMW	Qal/WBR	A	CMP	E601:ALL	2	Y	
NC7-12	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-12	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-12	PTMW	Qal/WBR	A	DIS	MS:UISO	2	Y	
NC7-16	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
NC7-16	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	
NC7-16	PTMW	Qal/WBR	A	CMP	E601:ALL	2	Y	
NC7-16	PTMW	Qal/WBR	S	DIS	E906:ALL	1	Y	
NC7-16	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-16	PTMW	Qal/WBR	S	DIS	E906:ALL	3	Y	
NC7-16	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-16	PTMW	Qal/WBR	Q	DIS	MS:UISO	1	Y	
NC7-16	PTMW	Qal/WBR	A	CMP	MS:UISO	2	Y	
NC7-16	PTMW	Qal/WBR	Q	DIS	MS:UISO	3	Y	
NC7-16	PTMW	Qal/WBR	Q	DIS	MS:UISO	4	Y	
NC7-17	PTMW	Qal/WBR	A	CMP	AS:UISO	2	Y	
NC7-17	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
NC7-17	PTMW	Qal/WBR	E	CMP	E300.0:PERC	2	Y	
NC7-17	PTMW	Qal/WBR	A	CMP	E601:ALL	2	Y	
NC7-17	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-17	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-18	PTMW	Qal/WBR	A	CMP	AS:UISO	2	Y	
NC7-18	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
NC7-18	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	
NC7-18	PTMW	Qal/WBR	A	CMP	E601:ALL	2	Y	
NC7-18	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-18	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-20	PTMW	Qal/WBR	A	CMP	AS:UISO	2	Y	
NC7-20	PTMW	Qal/WBR	O	CMP	E300.0:NO3	2	N	To be sampled in 2013.
NC7-20	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	
NC7-20	PTMW	Qal/WBR	A	CMP	E601:ALL	2	Y	
NC7-20	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-20	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-21	PTMW	Qal/WBR	A	CMP	AS:UISO	2	Y	
NC7-21	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
NC7-21	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	
NC7-21	PTMW	Qal/WBR	A	CMP	E601:ALL	2	Y	
NC7-21	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-21	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-22	PTMW	Qal/WBR	A	CMP	AS:UISO	2	N	Dry.
NC7-22	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	N	Dry.
NC7-22	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	N	Dry.
NC7-22	PTMW	Qal/WBR	A	CMP	E601:ALL	2	N	Dry.
NC7-22	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Dry.
NC7-22	PTMW	Qal/WBR	S	CMP	E906:ALL	4	N	Dry.
NC7-24	PTMW	Qal/WBR	A	CMP	AS:UISO	2	N	Dry.
NC7-24	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	N	Dry.
NC7-24	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	N	Dry.
NC7-24	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Dry.
NC7-24	PTMW	Qal/WBR	S	CMP	E906:ALL	4	N	Dry.
NC7-25	EW	Tnbs1-Tnbs0	A	CMP-TF	AS:UISO	2	Y	
NC7-25	EW	Tnbs1-Tnbs0	A	CMP-TF	E300.0:NO3	2	Y	
NC7-25	EW	Tnbs1-Tnbs0	A	CMP-TF	E300.0:PERC	2	Y	
NC7-25	EW	Tnbs1-Tnbs0	A	DIS-TF	E300.0:PERC	4	Y	
NC7-25	EW	Tnbs1-Tnbs0	A	CMP-TF	E601:ALL	2	Y	
NC7-25	EW	Tnbs1-Tnbs0	A	DIS-TF	E601:ALL	4	Y	
NC7-25	EW	Tnbs1-Tnbs0	S	CMP-TF	E906:ALL	2	Y	
NC7-25	EW	Tnbs1-Tnbs0	S	CMP-TF	E906:ALL	4	Y	

Table 2.5-8. Pit 7 Complex Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
NC7-25	EW	Tnbs1-Tnbs0	A	DIS-TF	KPA:UTOT	2	Y	
NC7-25	EW	Tnbs1-Tnbs0	A	DIS-TF	MS:UISO	4	Y	
NC7-26	DMW	Tnbs1-Tnbs0	A	CMP	E200.7:LI	2	Y	
NC7-26	DMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC7-26	DMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	2	Y	
NC7-26	DMW	Tnbs1-Tnbs0	A	DIS	E300.0:PERC	4	Y	
NC7-26	DMW	Tnbs1-Tnbs0	A	CMP	E340.2:ALL	2	Y	
NC7-26	DMW	Tnbs1-Tnbs0	A	CMP	E601:ALL	2	Y	
NC7-26	DMW	Tnbs1-Tnbs0	A	CMP	E8082A:ALL	2	Y	
NC7-26	DMW	Tnbs1-Tnbs0	A	CMP	E8330LOW:ALL	2	Y	
NC7-26	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC7-26	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC7-26	DMW	Tnbs1-Tnbs0	A	CMP	MS:UISO	2	Y	
NC7-26	DMW	Tnbs1-Tnbs0	A	CMP	T26METALS:ALL	2	Y	
NC7-34	PTMW	Qal/WBR	A	CMP	AS:UISO	2	Y	
NC7-34	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
NC7-34	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	
NC7-34	PTMW	Qal/WBR	A	CMP	E601:ALL	2	Y	
NC7-34	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-34	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-36	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC7-36	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC7-36	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	2	Y	
NC7-36	PTMW	Tnbs1-Tnbs0	A	CMP	E601:ALL	2	Y	
NC7-36	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC7-36	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC7-37	PTMW	Qal/WBR	A	CMP	AS:UISO	2	N	Dry.
NC7-37	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	N	Dry.
NC7-37	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	N	Dry.
NC7-37	PTMW	Qal/WBR	A	CMP	E601:ALL	2	N	Dry.
NC7-37	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Dry.
NC7-37	PTMW	Qal/WBR	S	CMP	E906:ALL	4	N	Dry.
NC7-40	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
NC7-40	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	
NC7-40	PTMW	Qal/WBR	A	CMP	E601:ALL	2	Y	
NC7-40	PTMW	Qal/WBR	S	DIS	E906:ALL	1	Y	
NC7-40	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-40	PTMW	Qal/WBR	S	DIS	E906:ALL	3	Y	
NC7-40	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-40	PTMW	Qal/WBR	Q	DIS	MS:UISO	1	Y	
NC7-40	PTMW	Qal/WBR	Q	DIS	MS:UISO	2	Y	
NC7-40	PTMW	Qal/WBR	Q	DIS	MS:UISO	3	Y	
NC7-40	PTMW	Qal/WBR	Q	DIS	MS:UISO	4	Y	
NC7-47	DMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC7-47	DMW	Tnbs1-Tnbs0	A	CMP	E200.7:LI	2	Y	
NC7-47	DMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC7-47	DMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	2	Y	
NC7-47	DMW	Tnbs1-Tnbs0	A	CMP	E340.2:ALL	2	Y	
NC7-47	DMW	Tnbs1-Tnbs0	A	CMP	E601:ALL	2	Y	
NC7-47	DMW	Tnbs1-Tnbs0	A	CMP	E8082A:ALL	2	Y	
NC7-47	DMW	Tnbs1-Tnbs0	A	CMP	E8330LOW:ALL	2	Y	
NC7-47	DMW	Tnbs1-Tnbs0	A	CMP	E906:ALL	2	Y	
NC7-47	DMW	Tnbs1-Tnbs0	A	CMP	T26METALS:ALL	2	Y	
NC7-48	DMW	Qal/WBR	A	CMP	E200.7:LI	2	Y	
NC7-48	DMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
NC7-48	DMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	
NC7-48	DMW	Qal/WBR	A	CMP	E340.2:ALL	2	Y	
NC7-48	DMW	Qal/WBR	A	CMP	E601:ALL	2	Y	
NC7-48	DMW	Qal/WBR	A	CMP	E8082A:ALL	2	Y	
NC7-48	DMW	Qal/WBR	A	CMP	E8330LOW:ALL	2	Y	
NC7-48	DMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-48	DMW	Qal/WBR	S	CMP	E906:ALL	4	Y	

Table 2.5-8. Pit 7 Complex Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
NC7-48	DMW	Qal/WBR	A	CMP	MS:UISO	2	Y	
NC7-48	DMW	Qal/WBR	A	CMP	T26METALS:ALL	2	Y	
NC7-49A	PTMW	Qal/WBR	A	CMP	AS:UISO	2	Y	
NC7-49A	PTMW	Qal/WBR	E	CMP	E300.0:NO3	2	Y	
NC7-49A	PTMW	Qal/WBR	E	CMP	E300.0:PERC	2	Y	
NC7-49A	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-49A	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-50	CW	Tmss	E	DIS	AS:UISO	2	Y	
NC7-51	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
NC7-51	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	
NC7-51	PTMW	Qal/WBR	A	CMP	E601:ALL	2	Y	
NC7-51	PTMW	Qal/WBR	S	DIS	E906:ALL	1	Y	
NC7-51	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-51	PTMW	Qal/WBR	S	DIS	E906:ALL	3	Y	
NC7-51	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
NC7-51	PTMW	Qal/WBR	Q	DIS	MS:UISO	1	Y	
NC7-51	PTMW	Qal/WBR	A	CMP	MS:UISO	2	Y	
NC7-51	PTMW	Qal/WBR	Q	DIS	MS:UISO	3	Y	
NC7-51	PTMW	Qal/WBR	Q	DIS	MS:UISO	4	Y	
NC7-52	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC7-52	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC7-52	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	2	Y	
NC7-52	PTMW	Tnbs1-Tnbs0	A	CMP	E601:ALL	2	Y	
NC7-52	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	1	Y	
NC7-52	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	3	Y	
NC7-53	PTMW	Qal/WBR	A	DIS	AS:UISO	2	Y	
NC7-53	PTMW	Qal/WBR	O	CMP	E300.0:NO3	2	N	To be sampled in 2013.
NC7-53	PTMW	Qal/WBR	O	CMP	E300.0:PERC	2	N	To be sampled in 2013.
NC7-53	PTMW	Qal/WBR	O	DIS	E906:ALL	2	N	To be sampled in 2013.
NC7-63	EW	Qal/WBR	A	CMP-TF	AS:UISO	2	N	Dry.
NC7-63	EW	Qal/WBR	A	CMP-TF	E300.0:NO3	2	N	Dry.
NC7-63	EW	Qal/WBR	A	CMP-TF	E300.0:PERC	2	N	Dry.
NC7-63	EW	Qal/WBR	A	CMP-TF	E601:ALL	2	N	Dry.
NC7-63	EW	Qal/WBR	S	CMP-TF	E906:ALL	2	N	Dry.
NC7-63	EW	Qal/WBR	S	CMP-TF	E906:ALL	4	N	Dry.
NC7-64	EW	Qal/WBR	A	CMP-TF	AS:UISO	2	Y	
NC7-64	EW	Qal/WBR	A	CMP-TF	E300.0:NO3	2	Y	
NC7-64	EW	Qal/WBR	A	CMP-TF	E300.0:PERC	2	Y	
NC7-64	EW	Qal/WBR	A	DIS-TF	E300.0:PERC	4	Y	
NC7-64	EW	Qal/WBR	A	CMP-TF	E601:ALL	2	Y	
NC7-64	EW	Qal/WBR	A	DIS-TF	E601:ALL	4	Y	
NC7-64	EW	Qal/WBR	S	CMP-TF	E906:ALL	2	Y	
NC7-64	EW	Qal/WBR	S	CMP-TF	E906:ALL	4	Y	
NC7-64	EW	Qal/WBR	Q	DIS-TF	KPA:UTOT	1	Y	
NC7-64	EW	Qal/WBR	Q	DIS-TF	KPA:UTOT	2	Y	
NC7-64	EW	Qal/WBR	Q	DIS-TF	KPA:UTOT	3	Y	
NC7-64	EW	Qal/WBR	Q	DIS-TF	KPA:UTOT	4	Y	
NC7-64	EW	Qal/WBR	A	DIS-TF	MS:UISO	4	Y	
NC7-65	PTMW	Tnsc0	A	CMP	AS:UISO	2	Y	
NC7-65	PTMW	Tnsc0	A	CMP	E300.0:NO3	2	Y	
NC7-65	PTMW	Tnsc0	A	CMP	E300.0:PERC	2	Y	
NC7-65	PTMW	Tnsc0	A	CMP	E601:ALL	2	Y	
NC7-65	PTMW	Tnsc0	S	CMP	E906:ALL	2	Y	
NC7-65	PTMW	Tnsc0	S	CMP	E906:ALL	4	Y	
NC7-65	PTMW	Tnsc0	A	DIS	MS:UISO	2	Y	
NC7-67	PTMW	Tnsc0	A	CMP	AS:UISO	2	Y	
NC7-67	PTMW	Tnsc0	A	CMP	E300.0:NO3	2	Y	
NC7-67	PTMW	Tnsc0	A	CMP	E300.0:PERC	2	Y	
NC7-67	PTMW	Tnsc0	A	CMP	E601:ALL	2	Y	
NC7-67	PTMW	Tnsc0	S	CMP	E906:ALL	2	Y	
NC7-67	PTMW	Tnsc0	S	CMP	E906:ALL	4	Y	
NC7-68	PTMW	Tnbs1-Tnbs0	A	DIS	AS:UISO	2	Y	

Table 2.5-8. Pit 7 Complex Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
NC7-68	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC7-68	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	2	Y	
NC7-68	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC7-68	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC7-75	PTMW	Tnsc0	A	CMP	AS:UISO	2	Y	
NC7-75	PTMW	Tnsc0	A	CMP	E300.0:NO3	2	Y	
NC7-75	PTMW	Tnsc0	S	CMP	E300.0:PERC	2	Y	
NC7-75	PTMW	Tnsc0	S	CMP	E300.0:PERC	4	Y	
NC7-75	PTMW	Tnsc0	A	CMP	E601:ALL	2	Y	
NC7-75	PTMW	Tnsc0	S	CMP	E906:ALL	2	Y	
NC7-75	PTMW	Tnsc0	S	CMP	E906:ALL	4	Y	
NC7-76	PTMW	Qal/WBR	A	CMP	AS:UISO	2	Y	
NC7-76	PTMW	Qal/WBR	O	CMP	E300.0:NO3	2	N	To be sampled in 2013.
NC7-76	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	
NC7-76	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
NC7-76	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
W-865-01	PTMW	Tnbs1-Tnbs0	A	DIS	DWMETALS:ALL	1	Y	
W-865-01	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	1	Y	
W-865-01	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	1	Y	
W-865-01	PTMW	Tnbs1-Tnbs0	S	DIS	E601:ALL	1	Y	
W-865-01	PTMW	Tnbs1-Tnbs0	S	DIS	E601:ALL	3	Y	
W-865-01	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	1	Y	
W-865-01	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	3	Y	
W-865-03	PTMW	Tnbs1-Tnbs0	A	DIS	E300.0:NO3	1	Y	
W-865-03	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	1	Y	
W-865-03	PTMW	Tnbs1-Tnbs0	A	DIS	E906:ALL	1	Y	
W-865-1804	PTMW	Tnbs1-Tnbs0	E	CMP	E300.0:NO3	1	Y	
W-865-1804	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	1	Y	
W-865-1804	PTMW	Tnbs1-Tnbs0	A	DIS	E300.0:PERC	3	Y	
W-865-1804	PTMW	Tnbs1-Tnbs0	S	DIS	E601:ALL	1	Y	
W-865-1804	PTMW	Tnbs1-Tnbs0	S	DIS	E601:ALL	3	Y	
W-865-1804	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	1	Y	
W-865-1804	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	3	Y	
W-PIT3-01	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	N	Dry.
W-PIT3-01	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	N	Dry.
W-PIT3-01	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Dry.
W-PIT3-01	PTMW	Qal/WBR	S	CMP	E906:ALL	4	N	Dry.
W-PIT3-01	PTMW	Qal/WBR	A	CMP	MS:UISO	2	N	Dry.
W-PIT3-02	PTMW	Qal/WBR	A	CMP	AS:UISO	2	N	Dry.
W-PIT3-02	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	N	Dry.
W-PIT3-02	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	N	Dry.
W-PIT3-02	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Dry.
W-PIT3-02	PTMW	Qal/WBR	S	CMP	E906:ALL	4	N	Dry.
W-PIT5-01	PTMW	Qal/WBR	A	CMP	AS:UISO	2	N	Dry.
W-PIT5-01	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	N	Dry.
W-PIT5-01	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	N	Dry.
W-PIT5-01	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Dry.
W-PIT5-01	PTMW	Qal/WBR	S	CMP	E906:ALL	4	N	Dry.
W-PIT5-02	PTMW	Qal/WBR	A	CMP	AS:UISO	2	N	Dry.
W-PIT5-02	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	N	Dry.
W-PIT5-02	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	N	Dry.
W-PIT5-02	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Dry.
W-PIT5-02	PTMW	Qal/WBR	S	CMP	E906:ALL	4	N	Dry.
W-PIT7-02	PTMW	Qal/WBR	A	CMP	AS:UISO	2	Y	
W-PIT7-02	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
W-PIT7-02	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	
W-PIT7-02	PTMW	Qal/WBR	S	CMP	E906:ALL	1	Y	
W-PIT7-02	PTMW	Qal/WBR	S	CMP	E906:ALL	3	Y	
W-PIT7-03	PTMW	Qal/WBR	A	CMP	AS:UISO	2	Y	
W-PIT7-03	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
W-PIT7-03	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	
W-PIT7-03	PTMW	Qal/WBR	S	CMP	E601:ALL	2	Y	

Table 2.5-8. Pit 7 Complex Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-PIT7-03	PTMW	Qal/WBR	S	CMP	E601:ALL	4	Y	
W-PIT7-03	PTMW	Qal/WBR	A	CMP	E906:ALL	1	Y	
W-PIT7-10	PTMW	Qal/WBR	A	CMP	AS:UISO	2	Y	
W-PIT7-10	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
W-PIT7-10	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	
W-PIT7-10	PTMW	Qal/WBR	A	CMP	E601:ALL	2	Y	
W-PIT7-10	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
W-PIT7-10	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
W-PIT7-11	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	N	Dry.
W-PIT7-11	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	N	Dry.
W-PIT7-11	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	2	N	Dry.
W-PIT7-11	PTMW	Tnbs1-Tnbs0	A	CMP	E601:ALL	2	N	Dry.
W-PIT7-11	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	N	Dry.
W-PIT7-11	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	N	Dry.
W-PIT7-12	PTMW	Tnbs1-Tnbs0	O	CMP	AS:UISO	2	N	To be sampled in 2013.
W-PIT7-12	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
W-PIT7-12	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	2	Y	
W-PIT7-12	PTMW	Tnbs1-Tnbs0	A	DIS	E300.0:PERC	4	Y	
W-PIT7-12	PTMW	Tnbs1-Tnbs0	A	CMP	E601:ALL	2	Y	
W-PIT7-12	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
W-PIT7-12	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
W-PIT7-13	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
W-PIT7-13	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
W-PIT7-13	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	2	Y	
W-PIT7-13	PTMW	Tnbs1-Tnbs0	A	CMP	E601:ALL	2	Y	
W-PIT7-13	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
W-PIT7-13	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
W-PIT7-14	PTMW	Tnsc0	O	DIS	AS:UISO	2	N	To be sampled in 2013.
W-PIT7-14	PTMW	Tnsc0	A	CMP	E300.0:PERC	2	Y	
W-PIT7-14	PTMW	Tnsc0	A	CMP	E906:ALL	2	Y	
W-PIT7-14	PTMW	Tnsc0	A	DIS	MS:UISO	2	Y	
W-PIT7-15	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
W-PIT7-15	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:PERC	2	Y	
W-PIT7-15	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
W-PIT7-15	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
W-PIT7-15	PTMW	Tnbs1-Tnbs0	A	CMP	MS:UISO	2	Y	
W-PIT7-1860	PTMW	Tnbs1-Tnbs0	E	DIS	AS:UISO	2	Y	
W-PIT7-1860	PTMW	Tnbs1-Tnbs0	E	CMP	E300.0:PERC	2	Y	
W-PIT7-1860	PTMW	Tnbs1-Tnbs0	E	CMP	E906:ALL	2	Y	
W-PIT7-1861	PTMW	Qal/WBR	O	CMP	AS:UISO	2	N	To be sampled in 2013.
W-PIT7-1861	PTMW	Qal/WBR	O	CMP	E300.0:NO3	2	N	To be sampled in 2013.
W-PIT7-1861	PTMW	Qal/WBR	O	CMP	E300.0:PERC	2	N	To be sampled in 2013.
W-PIT7-1861	PTMW	Qal/WBR	O	CMP	E906:ALL	2	N	To be sampled in 2013.
W-PIT7-1903	PTMW	Qal/WBR	A	DIS	AS:UISO	2	Y	
W-PIT7-1903	PTMW	Qal/WBR	A	DIS	E300.0:O-PO2	2	Y	
W-PIT7-1904	PTMW	Qal/WBR	A	DIS	AS:UISO	2	Y	
W-PIT7-1904	PTMW	Qal/WBR	A	DIS	E300.0:O-PO2	2	Y	
W-PIT7-1905	PTMW	Qal/WBR	A	DIS	AS:UISO	2	Y	
W-PIT7-1905	PTMW	Qal/WBR	A	DIS	E300.0:O-PO2	2	Y	
W-PIT7-1907	PTMW	Qal/WBR	A	DIS	AS:UISO	2	Y	
W-PIT7-1907	PTMW	Qal/WBR	A	DIS	E300.0:O-PO2	2	Y	
W-PIT7-1915	PTMW	Qal/WBR	A	DIS	AS:UISO	2	Y	
W-PIT7-1915	PTMW	Qal/WBR	A	DIS	E300.0:O-PO2	2	Y	
W-PIT7-1916	PTMW	Qal/WBR	A	DIS	AS:UISO	2	Y	
W-PIT7-1916	PTMW	Qal/WBR	A	DIS	E300.0:O-PO2	2	Y	
W-PIT7-1917	PTMW	Qal/WBR	A	DIS	AS:UISO	2	Y	
W-PIT7-1917	PTMW	Qal/WBR	A	DIS	E300.0:O-PO2	2	Y	
W-PIT7-1918	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
W-PIT7-1918	PTMW	Qal/WBR	A	DIS	E300.0:O-PO2	2	Y	
W-PIT7-1918	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	
W-PIT7-1918	PTMW	Qal/WBR	A	DIS	E300.0:PERC	4	Y	
W-PIT7-1918	PTMW	Qal/WBR	A	CMP	E601:ALL	2	Y	

Table 2.5-8. Pit 7 Complex Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-PIT7-1918	PTMW	Qal/WBR	A	DIS	E601:ALL	4	Y	
W-PIT7-1918	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
W-PIT7-1918	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
W-PIT7-1918	PTMW	Qal/WBR	A	CMP	MS:UISO	2	Y	
W-PIT7-1919	PTMW	Qal/WBR	A	DIS	AS:UISO	2	Y	
W-PIT7-1919	PTMW	Qal/WBR	A	DIS	E300.0:O-PO2	2	Y	
W-PIT7-2141	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
W-PIT7-2141	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
W-PIT7-2141	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
W-PIT7-2141	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
W-PIT7-2141	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
W-PIT7-2141	PTMW	Tnbs1-Tnbs0	A	CMP	MS:UISO	2	Y	
W-PIT7-2305	EW	Qal/WBR	A	CMP-TF	AS:UISO	2	Y	
W-PIT7-2305	EW	Qal/WBR	A	CMP-TF	E300.0:NO3	2	Y	
W-PIT7-2305	EW	Qal/WBR	A	CMP-TF	E300.0:PERC	2	Y	
W-PIT7-2305	EW	Qal/WBR	A	DIS-TF	E300.0:PERC	4	Y	
W-PIT7-2305	EW	Qal/WBR	A	CMP-TF	E601:ALL	2	Y	
W-PIT7-2305	EW	Qal/WBR	A	DIS-TF	E601:ALL	4	Y	
W-PIT7-2305	EW	Qal/WBR	S	CMP-TF	E906:ALL	2	Y	
W-PIT7-2305	EW	Qal/WBR	S	CMP-TF	E906:ALL	4	Y	
W-PIT7-2305	EW	Qal/WBR	Q	DIS-TF	KPA:UTOT	1	Y	
W-PIT7-2305	EW	Qal/WBR	Q	DIS-TF	KPA:UTOT	2	Y	
W-PIT7-2305	EW	Qal/WBR	Q	DIS-TF	KPA:UTOT	3	Y	
W-PIT7-2305	EW	Qal/WBR	Q	DIS-TF	KPA:UTOT	4	Y	
W-PIT7-2305	EW	Qal/WBR	A	DIS-TF	MS:UISO	4	Y	
W-PIT7-2306	EW	Qal/WBR	A	CMP-TF	AS:UISO	2	Y	
W-PIT7-2306	EW	Qal/WBR	A	CMP-TF	E300.0:NO3	2	Y	
W-PIT7-2306	EW	Qal/WBR	A	CMP-TF	E300.0:PERC	2	Y	
W-PIT7-2306	EW	Qal/WBR	A	CMP-TF	E601:ALL	2	Y	
W-PIT7-2306	EW	Qal/WBR	S	CMP-TF	E906:ALL	2	Y	
W-PIT7-2306	EW	Qal/WBR	S	CMP-TF	E906:ALL	4	N	Insufficient water.
W-PIT7-2306	EW	Qal/WBR	Q	DIS-TF	KPA:UTOT	1	Y	
W-PIT7-2306	EW	Qal/WBR	Q	DIS-TF	KPA:UTOT	2	Y	
W-PIT7-2307	EW	Qal/WBR	A	CMP-TF	AS:UISO	2	Y	
W-PIT7-2307	EW	Qal/WBR	A	CMP-TF	E300.0:NO3	2	Y	
W-PIT7-2307	EW	Qal/WBR	A	CMP-TF	E300.0:PERC	2	Y	
W-PIT7-2307	EW	Qal/WBR	A	DIS-TF	E300.0:PERC	4	Y	
W-PIT7-2307	EW	Qal/WBR	A	CMP-TF	E601:ALL	2	Y	
W-PIT7-2307	EW	Qal/WBR	A	DIS-TF	E601:ALL	4	Y	
W-PIT7-2307	EW	Qal/WBR	S	CMP-TF	E906:ALL	2	Y	
W-PIT7-2307	EW	Qal/WBR	S	CMP-TF	E906:ALL	4	Y	
W-PIT7-2307	EW	Qal/WBR	Q	DIS-TF	KPA:UTOT	1	Y	
W-PIT7-2307	EW	Qal/WBR	Q	DIS-TF	KPA:UTOT	2	Y	
W-PIT7-2307	EW	Qal/WBR	Q	DIS-TF	KPA:UTOT	3	Y	
W-PIT7-2307	EW	Qal/WBR	Q	DIS-TF	KPA:UTOT	4	Y	
W-PIT7-2307	EW	Qal/WBR	A	DIS-TF	MS:UISO	4	Y	
W-PIT7-2309	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
W-PIT7-2309	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	
W-PIT7-2309	PTMW	Qal/WBR	A	CMP	E601:ALL	2	Y	
W-PIT7-2309	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
W-PIT7-2309	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
W-PIT7-2309	PTMW	Qal/WBR	A	CMP	MS:UISO	2	Y	
W-PIT7-2703	PTMW	Qal/WBR	A	CMP	AS:UISO	2	Y	
W-PIT7-2703	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
W-PIT7-2703	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	
W-PIT7-2703	PTMW	Qal/WBR	A	DIS-TF	E300.0:PERC	4	Y	
W-PIT7-2703	PTMW	Qal/WBR	A	CMP	E601:ALL	2	Y	
W-PIT7-2703	PTMW	Qal/WBR	A	DIS-TF	E601:ALL	4	Y	
W-PIT7-2703	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
W-PIT7-2703	PTMW	Qal/WBR	S	CMP-TF	E906:ALL	4	Y	
W-PIT7-2703	PTMW	Qal/WBR	A	DIS-TF	MS:UISO	4	Y	
W-PIT7-2704	PTMW	Qal/WBR	A	CMP	AS:UISO	2	Y	

Table 2.5-8. Pit 7 Complex Area of Operable Unit 5 ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-PIT7-2704	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
W-PIT7-2704	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	
W-PIT7-2704	PTMW	Qal/WBR	A	CMP	E601:ALL	2	Y	
W-PIT7-2704	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
W-PIT7-2704	PTMW	Qal/WBR	S	CMP-TF	E906:ALL	4	N	Insufficient water.
W-PIT7-2705	PTMW	Qal/WBR	A	CMP	AS:UISO	2	Y	
W-PIT7-2705	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
W-PIT7-2705	PTMW	Qal/WBR	A	CMP	E300.0:PERC	2	Y	
W-PIT7-2705	PTMW	Qal/WBR	A	DIS-TF	E300.0:PERC	4	Y	
W-PIT7-2705	PTMW	Qal/WBR	A	CMP	E601:ALL	2	Y	
W-PIT7-2705	PTMW	Qal/WBR	A	DIS-TF	E601:ALL	4	Y	
W-PIT7-2705	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
W-PIT7-2705	PTMW	Qal/WBR	S	CMP-TF	E906:ALL	4	Y	
W-PIT7-2705	PTMW	Qal/WBR	A	DIS-TF	MS:UISO	4	Y	

Table 2.5-9. PIT7-Source (PIT7-SRC) mass removed, July 1, 2012 through December 31, 2012.

Treatment facility	Month	SVTS VOC mass removed (g)	GWTS VOC mass removed (g)	Perchlorate mass removed (g)	Nitrate mass removed (kg)	Total Uranium mass removed (g)
PIT7-SRC	July	NA	0	0.47	1.2	0.55
	August	NA	0	0.28	0.69	0.43
	September	NA	0	0.0079	0.012	0.067
	October	NA	0	0.0014	0.0016	0.0089
	November	NA	0.00023	0.025	0.033	0.16
	December	NA	0	0.24	0.64	1.0
Total		NA	0.00023	1.0	2.5	2.2

Table 2.6-1. Building 854-Source (854-SRC) volumes of ground water and soil vapor extracted and discharged, July 1, 2012 through December 31, 2012.

Treatment facility	Month	SVTS Operational hours	GWTS Operational hours	Volume of vapor extracted (thousands of cf)	Volume of ground water discharged (gal)
854-SRC	July	793	793	2,205	146,305
	August	717	713	1,978	125,942
	September	670	673	1,867	118,953
	October	792	808	2,239	136,072
	November	672	34	1,885	5,705
	December	697	234	2,008	46,609
Total		4,341	3,255	12,182	579,586

Table 2.6-2. Building 854-Proximal (854-PRX) volumes of ground water and soil vapor extracted and discharged, July 1, 2012 through December 31, 2012.

Treatment facility	Month	SVTS Operational hours	GWTS Operational hours	Volume of vapor extracted (thousands of cf)	Volume of ground water discharged (gal)
854-PRX	July	NA	794	NA	45,927
	August	NA	434	NA	25,060
	September	NA	121	NA	7,194
	October	NA	0	NA	0
	November	NA	14	NA	842
	December	NA	337	NA	20,851
Total		NA	1,700	NA	99,874

Table 2.6-3. Building 854-Distal (854-DIS) volumes of ground water and soil vapor extracted and discharged, July 1, 2012 through December 31, 2012.

Treatment facility	Month	SVTS Operational hours	GWTS Operational hours	Volume of vapor extracted (thousands of cf)	Volume of ground water discharged (gal)
854-DIS	July	NA	31	NA	1,868
	August	NA	23	NA	1,036
	September	NA	23	NA	1,152
	October	NA	28	NA	1,331
	November	NA	21	NA	997
	December	NA	14	NA	645
Total		NA	140	NA	7,029

Table 2.6-4. Building 854 Operable Unit volatile organic compounds (VOCs) in ground water extraction and treatment system influent and effluent.

Location	Date	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetra-chloride (µg/L)	Chloro-form (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
Building 854-Distal															
854-DIS-I	7/3/12	19	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-DIS-I	10/2/12	27	<0.5	0.64	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-DIS-E	7/3/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-DIS-E	8/7/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-DIS-E	9/4/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-DIS-E	10/2/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-DIS-E	11/5/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-DIS-E	12/4/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Building 854-Proximal [a]															
854-PRX-I	7/2/12	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-PRX-I	12/17/12	15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-PRX-E	7/2/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-PRX-E	8/7/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-PRX-E	9/4/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-PRX-E	12/4/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Building 854-Source [b]															
854-SRC-I	7/2/12	36	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-SRC-I	10/2/12	40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table 2.6-4 (Cont.). Building 854 Operable Unit volatile organic compounds (VOCs) in ground water extraction and treatment system influent and effluent.

Location	Date	TCE (μg/L)	PCE (μg/L)	cis-1,2-DCE (μg/L)	trans-1,2-DCE (μg/L)	Carbon tetra-chloride (μg/L)	Chloro-form (μg/L)	1,1-DCA (μg/L)	1,2-DCA (μg/L)	1,1-DCE (μg/L)	1,1,1-TCA (μg/L)	1,1,2-TCA (μg/L)	Freon 11 (μg/L)	Freon 113 (μg/L)	Vinyl chloride (μg/L)
Building 854-Source (continued)[b]															
854-SRC-E	7/2/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-SRC-E	8/7/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-SRC-E	9/4/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-SRC-E	10/2/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
854-SRC-E	12/5/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

[a] No effluent samples collected in October or November due to GWTS shut down for replacement of treatment media vessels.

[b] No effluent samples collected in November due to GWTS shut down for replacement of treatment media vessels.

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.6-4 (Cont.). Analyte detected but not reported in main table.

Location	Date	Detection frequency
Building 854-Distal		
854-DIS-I	7/3/12	0 of 18
854-DIS-I	10/2/12	0 of 18
854-DIS-E	7/3/12	0 of 18
854-DIS-E	8/7/12	0 of 18
854-DIS-E	9/4/12	0 of 18
854-DIS-E	10/2/12	0 of 18
854-DIS-E	11/5/12	0 of 18
854-DIS-E	12/4/12	0 of 18
Building 854-Proximal[a]		
854-PRX-I	7/2/12	0 of 18
854-PRX-I	12/17/12	0 of 18
854-PRX-E	7/2/12	0 of 18
854-PRX-E	8/7/12	0 of 18
854-PRX-E	9/4/12	0 of 18
854-PRX-E	12/4/12	0 of 18
Building 854-Source[b]		
854-SRC-I	7/2/12	0 of 18
854-SRC-I	10/2/12	0 of 18
854-SRC-E	7/2/12	0 of 18
854-SRC-E	8/7/12	0 of 18
854-SRC-E	9/4/12	0 of 18
854-SRC-E	10/2/12	0 of 18
854-SRC-E	12/5/12	0 of 18

Notes:

[a] No effluent samples collected in October or November due to GWTS shut down for replacement of treatment media vessels.

[b] No effluent samples collected in November due to GWTS shut down for replacement of treatment media vessels.

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.6-5. Building 854 Operable Unit nitrate and perchlorate in ground water extraction and treatment system influent and effluent.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
Building 854-Distal			
854-DIS-I	7/3/12	22	4.2
854-DIS-I	10/2/12	23 O	<4
854-DIS-E	7/3/12	6	<4 L
854-DIS-E	8/7/12	7.5	<4
854-DIS-E	9/4/12	24	<4
854-DIS-E	10/2/12	7.8 O	<4
854-DIS-E	11/5/12	6.9	<4
854-DIS-E	12/4/12	7.2	<4
Building 854-Proximal[a,b]			
854-PRX-I	7/2/12	41	5.8
854-PRX-I	8/7/12	39	-
854-PRX-I	9/4/12	39	-
854-PRX-I	12/4/12	35 DO	-
854-PRX-I	12/17/12	-	7.5
854-PRX-E	7/2/12	35	<4 L
854-PRX-E	8/7/12	33	<4
854-PRX-E	9/4/12	38	<4
854-PRX-E	12/4/12	5.4	<4
Building 854-Source[c]			
854-SRC-I	7/2/12	–	<4 L
854-SRC-I	10/2/12	–	<4
854-SRC-E	7/2/12	–	<4 L
854-SRC-E	8/7/12	–	<4
854-SRC-E	9/4/12	–	<4
854-SRC-E	10/2/12	–	<4
854-SRC-E	12/5/12	–	<4

Notes:

[a] **No effluent samples collected in October or November due to GWTS shut down for replacement of treatment media vessels.**

[b] **Monthly influent nitrate samples collected for internal purposes.**

[c] **No effluent samples collected in November due to GWTS shut down for replacement of treatment media vessels.**

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.6-6. Building 854 Operable Unit treatment facility sampling and analysis plan.

Sample location	Sample identification	Parameter	Frequency
854-SRC GWTS			
Influent Port	**854-SRC-I**	**VOCs**	**Quarterly**
		Perchlorate	**Quarterly**
		pH	**Quarterly**
Effluent Port	**854-SRC-E**	**VOCs**	**Monthly**
		Perchlorate	**Monthly**
		pH	**Monthly**
854-SRC SVTS			
Influent Port	**W-854-1834-854-SRC-VI**	**No Monitoring Requirements**	
Effluent Port	**854-SRC-E**	**VOCs**	**Weekly**[a]
Intermediate GAC	**854-SRC-VCF3I**	**VOCs**	**Weekly**[a]
854-PRX GWTS			
Influent Port	**W-854-03-854-PRX-I**	**VOCs**	**Quarterly**
		Perchlorate	**Quarterly**
		Nitrate	**Quarterly**
		pH	**Quarterly**
Effluent Port	**854-PRX-BTU-I**	**VOCs**	**Monthly**
Effluent Port	**854-PRX-E**	**Perchlorate**	**Monthly**
		Nitrate	**Monthly**
		pH	**Monthly**
854-DIS GWTS			
Influent Port	**W-854-2139-854-DIS-I**	**VOCs**	**Quarterly**
		Perchlorate	**Quarterly**
		Nitrate	**Quarterly**
		pH	**Quarterly**
Effluent Port	**854-DIS-E**	**VOCs**	**Monthly**
		Perchlorate	**Monthly**
		Nitrate	**Monthly**
		pH	**Monthly**

Notes:

[a] Weekly monitoring for VOCs will consist of the use of a flame-ionization detector, photo-ionization detector, or other District-approved VOC detection device.

One duplicate and one blank (given fictitious labels) shall be taken for every 12 samples.

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.6-7. Building 854 Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
SPRING10	SPR	Tnbs1-Tnsc0	A	CMP	E300.0:NO3	2	N	Dry.
SPRING10	SPR	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	2	N	Dry.
SPRING10	SPR	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	4	N	Dry.
SPRING10	SPR	Tnbs1-Tnsc0	S	CMP	E601:ALL	2	N	Dry.
SPRING10	SPR	Tnbs1-Tnsc0	S	CMP	E601:ALL	4	N	Dry.
SPRING11	SPR	Tnbs1-Tnsc0	A	CMP	E300.0:NO3	2	Y	
SPRING11	SPR	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	2	Y	
SPRING11	SPR	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	4	Y	
SPRING11	SPR	Tnbs1-Tnsc0	S	CMP	E601:ALL	2	Y	
SPRING11	SPR	Tnbs1-Tnsc0	S	CMP	E601:ALL	4	Y	
W-854-01	PTWM	Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-854-01	PTWM	Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-854-01	PTWM	Tnsc0	S	CMP	E300.0:PERC	4	Y	
W-854-01	PTWM	Tnsc0	S	CMP	E601:ALL	2	Y	
W-854-01	PTWM	Tnsc0	S	CMP	E601:ALL	4	Y	
W-854-02	EW	Tnbs1-Tnsc0	A	CMP-TF	E300.0:NO3	2	Y	
W-854-02	EW	Tnbs1-Tnsc0	S	DIS-TF	E300.0:PERC	1	Y	
W-854-02	EW	Tnbs1-Tnsc0	S	CMP-TF	E300.0:PERC	2	Y	
W-854-02	EW	Tnbs1-Tnsc0	S	DIS-TF	E300.0:PERC	3	Y	
W-854-02	EW	Tnbs1-Tnsc0	S	CMP-TF	E300.0:PERC	4	Y	
W-854-02	EW	Tnbs1-Tnsc0	S	DIS-TF	E601:ALL	1	Y	
W-854-02	EW	Tnbs1-Tnsc0	S	CMP-TF	E601:ALL	2	Y	
W-854-02	EW	Tnbs1-Tnsc0	S	DIS-TF	E601:ALL	3	Y	
W-854-02	EW	Tnbs1-Tnsc0	S	CMP-TF	E601:ALL	4	Y	
W-854-03	EW	Tnbs1-Tnsc0	M	DIS-TF	E300.0:NO3	1	Y	
W-854-03	EW	Tnbs1-Tnsc0	M	DIS-TF	E300.0:NO3	1	Y	
W-854-03	EW	Tnbs1-Tnsc0	M	DIS-TF	E300.0:NO3	1	Y	
W-854-03	EW	Tnbs1-Tnsc0	M	DIS-TF	E300.0:NO3	2	Y	
W-854-03	EW	Tnbs1-Tnsc0	M	DIS-TF	E300.0:NO3	2	Y	
W-854-03	EW	Tnbs1-Tnsc0	M	DIS-TF	E300.0:NO3	2	Y	
W-854-03	EW	Tnbs1-Tnsc0	M	DIS-TF	E300.0:NO3	3	Y	
W-854-03	EW	Tnbs1-Tnsc0	M	DIS-TF	E300.0:NO3	3	Y	
W-854-03	EW	Tnbs1-Tnsc0	M	DIS-TF	E300.0:NO3	3	Y	
W-854-03	EW	Tnbs1-Tnsc0	M	DIS-TF	E300.0:NO3	4	Y	
W-854-03	EW	Tnbs1-Tnsc0	Q	DIS-TF	E300.0:PERC	1	Y	
W-854-03	EW	Tnbs1-Tnsc0	Q	DIS-TF	E300.0:PERC	2	Y	
W-854-03	EW	Tnbs1-Tnsc0	Q	DIS-TF	E300.0:PERC	3	Y	
W-854-03	EW	Tnbs1-Tnsc0	Q	DIS-TF	E601:ALL	1	Y	
W-854-03	EW	Tnbs1-Tnsc0	Q	DIS-TF	E601:ALL	2	Y	
W-854-03	EW	Tnbs1-Tnsc0	Q	DIS-TF	E601:ALL	3	Y	
W-854-04	PTWM	Tmss	A	CMP	E300.0:NO3	2	Y	
W-854-04	PTWM	Tmss	S	CMP	E300.0:PERC	2	Y	
W-854-04	PTWM	Tmss	S	CMP	E300.0:PERC	4	Y	
W-854-04	PTWM	Tmss	S	CMP	E601:ALL	2	Y	
W-854-04	PTWM	Tmss	S	CMP	E601:ALL	4	Y	
W-854-05	PTWM	Qls-Tnbs1	A	CMP	E300.0:NO3	2	Y	
W-854-05	PTWM	Qls-Tnbs1	S	CMP	E300.0:PERC	2	Y	
W-854-05	PTWM	Qls-Tnbs1	S	CMP	E300.0:PERC	4	Y	
W-854-05	PTWM	Qls-Tnbs1	S	CMP	E601:ALL	2	Y	
W-854-05	PTWM	Qls-Tnbs1	S	CMP	E601:ALL	4	Y	
W-854-06	PTWM	Tnbs1-Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-854-06	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-854-06	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	4	Y	
W-854-06	PTWM	Tnbs1-Tnsc0	S	CMP	E601:ALL	2	Y	
W-854-06	PTWM	Tnbs1-Tnsc0	S	CMP	E601:ALL	4	Y	
W-854-07	PTWM	Tnbs1-Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-854-07	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-854-07	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	4	Y	
W-854-07	PTWM	Tnbs1-Tnsc0	S	CMP	E601:ALL	2	Y	
W-854-07	PTWM	Tnbs1-Tnsc0	S	CMP	E601:ALL	4	Y	

Table 2.6-7. Building 854 Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-854-08	PTWM	Tnbs1-Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-854-08	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-854-08	PTWM	Tnbs1-Tnsc0	S	CMP	E601:ALL	2	Y	
W-854-08	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	4	N	Insufficient water.
W-854-08	PTWM	Tnbs1-Tnsc0	S	CMP	E601:ALL	4	N	Insufficient water.
W-854-09	PTWM	Tnbs1-Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-854-09	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-854-09	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	4	Y	
W-854-09	PTWM	Tnbs1-Tnsc0	S	CMP	E601:ALL	2	Y	
W-854-09	PTWM	Tnbs1-Tnsc0	S	CMP	E601:ALL	4	Y	
W-854-10	PTWM	Qls-Tnbs1	A	CMP	E300.0:NO3	2	Y	
W-854-10	PTWM	Qls-Tnbs1	S	CMP	E300.0:PERC	2	Y	
W-854-10	PTWM	Qls-Tnbs1	S	CMP	E300.0:PERC	4	Y	
W-854-10	PTWM	Qls-Tnbs1	S	CMP	E601:ALL	2	Y	
W-854-10	PTWM	Qls-Tnbs1	S	CMP	E601:ALL	4	Y	
W-854-11	PTWM	Tnbs1-Tnsc0	A	CMP	E300.0:NO3	2	N	Dry.
W-854-11	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	2	N	Dry.
W-854-11	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	4	N	Dry.
W-854-11	PTWM	Tnbs1-Tnsc0	S	CMP	E601:ALL	2	N	Dry.
W-854-11	PTWM	Tnbs1-Tnsc0	S	CMP	E601:ALL	4	N	Dry.
W-854-12	PTWM	Tmss	S	CMP	E300.0:PERC	4	N	Dry.
W-854-12	PTWM	Tmss	S	CMP	E601:ALL	4	N	Dry.
W-854-12	PTWM	Tmss	A	CMP	E300.0:NO3	2	N	Insufficient water.
W-854-12	PTWM	Tmss	S	CMP	E300.0:PERC	2	N	Insufficient water.
W-854-12	PTWM	Tmss	S	CMP	E601:ALL	2	N	Insufficient water.
W-854-13	PTWM	Tnbs1-Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-854-13	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-854-13	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	4	Y	
W-854-13	PTWM	Tnbs1-Tnsc0	S	CMP	E601:ALL	2	Y	
W-854-13	PTWM	Tnbs1-Tnsc0	S	CMP	E601:ALL	4	Y	
W-854-14	PTWM	Qls-Tnbs1	A	CMP	E300.0:NO3	2	Y	
W-854-14	PTWM	Qls-Tnbs1	S	CMP	E300.0:PERC	2	Y	
W-854-14	PTWM	Qls-Tnbs1	S	CMP	E300.0:PERC	4	Y	
W-854-14	PTWM	Qls-Tnbs1	S	CMP	E601:ALL	2	Y	
W-854-14	PTWM	Qls-Tnbs1	S	CMP	E601:ALL	4	Y	
W-854-15	PTWM	Qls-Tnbs1	A	CMP	E300.0:NO3	2	Y	
W-854-15	PTWM	Qls-Tnbs1	S	CMP	E300.0:PERC	2	Y	
W-854-15	PTWM	Qls-Tnbs1	S	CMP	E300.0:PERC	4	Y	
W-854-15	PTWM	Qls-Tnbs1	S	CMP	E601:ALL	2	Y	
W-854-15	PTWM	Qls-Tnbs1	S	CMP	E601:ALL	4	Y	
W-854-17	PTWM	Tnbs1-Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-854-17	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-854-17	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	4	Y	
W-854-17	PTWM	Tnbs1-Tnsc0	S	CMP	E601:ALL	2	Y	
W-854-17	PTWM	Tnbs1-Tnsc0	S	CMP	E601:ALL	4	Y	
W-854-1701	PTWM	Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-854-1701	PTWM	Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-854-1701	PTWM	Tnsc0	S	CMP	E300.0:PERC	4	Y	
W-854-1701	PTWM	Tnsc0	S	CMP	E601:ALL	2	Y	
W-854-1701	PTWM	Tnsc0	S	CMP	E601:ALL	4	Y	
W-854-1706	PTWM	Qls-Tnbs1	A	CMP	E300.0:NO3	2	N	Dry.
W-854-1706	PTWM	Qls-Tnbs1	S	CMP	E300.0:PERC	2	N	Dry.
W-854-1706	PTWM	Qls-Tnbs1	S	CMP	E601:ALL	2	N	Dry.
W-854-1706	PTWM	Qls-Tnbs1	S	CMP	E300.0:PERC	4	N	Insufficient water.
W-854-1706	PTWM	Qls-Tnbs1	S	CMP	E601:ALL	4	N	Insufficient water.
W-854-1707	PTWM	Tnbs1-Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-854-1707	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-854-1707	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	4	Y	
W-854-1707	PTWM	Tnbs1-Tnsc0	S	CMP	E601:ALL	2	Y	
W-854-1707	PTWM	Tnbs1-Tnsc0	S	CMP	E601:ALL	4	Y	

Table 2.6-7. Building 854 Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-854-1731	PTWM	Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-854-1731	PTWM	Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-854-1731	PTWM	Tnsc0	S	CMP	E300.0:PERC	4	Y	
W-854-1731	PTWM	Tnsc0	S	CMP	E601:ALL	2	Y	
W-854-1731	PTWM	Tnsc0	S	CMP	E601:ALL	4	Y	
W-854-1822	PTWM	Tnbs1-Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-854-1822	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-854-1822	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	4	Y	
W-854-1822	PTWM	Tnbs1-Tnsc0	S	CMP	E601:ALL	2	Y	
W-854-1822	PTWM	Tnbs1-Tnsc0	S	CMP	E601:ALL	4	Y	
W-854-1823	PTWM	Tnbs1-Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-854-1823	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-854-1823	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	4	Y	
W-854-1823	PTWM	Tnbs1-Tnsc0	S	CMP	E601:ALL	2	Y	
W-854-1823	PTWM	Tnbs1-Tnsc0	S	CMP	E601:ALL	4	Y	
W-854-18A	EW	Tnbs1-Tnsc0	A	CMP-TF	E300.0:NO3	2	Y	
W-854-18A	EW	Tnbs1-Tnsc0	S	DIS-TF	E300.0:PERC	1	Y	
W-854-18A	EW	Tnbs1-Tnsc0	S	CMP-TF	E300.0:PERC	2	Y	
W-854-18A	EW	Tnbs1-Tnsc0	S	DIS-TF	E300.0:PERC	3	Y	
W-854-18A	EW	Tnbs1-Tnsc0	S	CMP-TF	E300.0:PERC	4	Y	
W-854-18A	EW	Tnbs1-Tnsc0	S	DIS-TF	E601:ALL	1	Y	
W-854-18A	EW	Tnbs1-Tnsc0	S	CMP-TF	E601:ALL	2	Y	
W-854-18A	EW	Tnbs1-Tnsc0	S	DIS-TF	E601:ALL	3	Y	
W-854-18A	EW	Tnbs1-Tnsc0	S	CMP-TF	E601:ALL	4	Y	
W-854-19	PTWM	Qls-Tnbs1	O	CMP	E300.0:NO3	2	N	To be sampled in 2013.
W-854-19	PTWM	Qls-Tnbs1	O	CMP	E300.0:PERC	2	N	To be sampled in 2013.
W-854-19	PTWM	Qls-Tnbs1	O	CMP	E601:ALL	2	N	To be sampled in 2013.
W-854-1902	PTWM	Tnbs1-Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-854-1902	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-854-1902	PTWM	Tnbs1-Tnsc0	S	CMP	E601:ALL	2	Y	
W-854-1902	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	4	N	Insufficient water.
W-854-1902	PTWM	Tnbs1-Tnsc0	S	CMP	E601:ALL	4	N	Insufficient water.
W-854-2115	PTWM	Tnbs1-Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-854-2115	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-854-2115	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	4	Y	
W-854-2115	PTWM	Tnbs1-Tnsc0	S	CMP	E601:ALL	2	Y	
W-854-2115	PTWM	Tnbs1-Tnsc0	S	CMP	E601:ALL	4	Y	
W-854-2139	EW	Tnbs1-Tnsc0	Q	DIS-TF	E300.0:NO3	1	Y	
W-854-2139	EW	Tnbs1-Tnsc0	Q	DIS-TF	E300.0:NO3	2	Y	
W-854-2139	EW	Tnbs1-Tnsc0	Q	DIS-TF	E300.0:NO3	3	Y	
W-854-2139	EW	Tnbs1-Tnsc0	Q	DIS-TF	E300.0:NO3	4	Y	
W-854-2139	EW	Tnbs1-Tnsc0	Q	DIS-TF	E300.0:PERC	1	Y	
W-854-2139	EW	Tnbs1-Tnsc0	Q	DIS-TF	E300.0:PERC	2	Y	
W-854-2139	EW	Tnbs1-Tnsc0	Q	DIS-TF	E300.0:PERC	3	Y	
W-854-2139	EW	Tnbs1-Tnsc0	Q	DIS-TF	E300.0:PERC	4	Y	
W-854-2139	EW	Tnbs1-Tnsc0	Q	DIS-TF	E601:ALL	1	Y	
W-854-2139	EW	Tnbs1-Tnsc0	Q	DIS-TF	E601:ALL	2	Y	
W-854-2139	EW	Tnbs1-Tnsc0	Q	DIS-TF	E601:ALL	3	Y	
W-854-2139	EW	Tnbs1-Tnsc0	Q	DIS-TF	E601:ALL	4	Y	
W-854-2218	EW	Tnbs1-Tnsc0	A	CMP-TF	E300.0:NO3	2	Y	
W-854-2218	EW	Tnbs1-Tnsc0	S	DIS-TF	E300.0:PERC	1	Y	
W-854-2218	EW	Tnbs1-Tnsc0	S	CMP-TF	E300.0:PERC	2	Y	
W-854-2218	EW	Tnbs1-Tnsc0	S	DIS-TF	E300.0:PERC	3	Y	
W-854-2218	EW	Tnbs1-Tnsc0	S	CMP-TF	E300.0:PERC	4	Y	
W-854-2218	EW	Tnbs1-Tnsc0	S	DIS-TF	E601:ALL	1	Y	
W-854-2218	EW	Tnbs1-Tnsc0	S	CMP-TF	E601:ALL	2	Y	
W-854-2218	EW	Tnbs1-Tnsc0	S	DIS-TF	E601:ALL	3	Y	
W-854-2218	EW	Tnbs1-Tnsc0	S	CMP-TF	E601:ALL	4	Y	
W-854-2611	PTMW	Tnbs1/Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-854-2611	PTMW	Tnbs1/Tnsc0	S	CMP	E300.0:PERC	2	Y	

Table 2.6-7. Building 854 Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-854-2611	PTMW	Tnbs1/Tnsc0	S	CMP	E300.0:PERC	4	Y	
W-854-2611	PTMW	Tnbs1/Tnsc0	S	CMP	E601:ALL	2	Y	
W-854-2611	PTMW	Tnbs1/Tnsc0	S	CMP	E601:ALL	4	Y	
W-854-45	PTWM	Tnbs1-Tnsc0	A	CMP	E300.0:NO3	2	Y	
W-854-45	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	2	Y	
W-854-45	PTWM	Tnbs1-Tnsc0	S	CMP	E300.0:PERC	4	Y	
W-854-45	PTWM	Tnbs1-Tnsc0	S	CMP	E601:ALL	2	Y	
W-854-45	PTWM	Tnbs1-Tnsc0	S	CMP	E601:ALL	4	Y	
W-854-F2	PTWM	Qls-Tnbs1	O	CMP	E300.0:NO3	2	N	To be sampled in 2013.
W-854-F2	PTWM	Qls-Tnbs1	O	CMP	E300.0:PERC	2	N	To be sampled in 2013.
W-854-F2	PTWM	Qls-Tnbs1	O	CMP	E601:ALL	2	N	To be sampled in 2013.

Table 2.6-8. Building 854-Source (854-SRC) mass removed, July 1, 2012 through December 31, 2012.

Treatment facility	Month	SVTS VOC mass removed (g)	GWTS VOC mass removed (g)	Perchlorate mass removed (g)	Nitrate mass removed (kg)	RDX mass removed (g)	TBOS/TKEBS mass removed (g)
854-SRC	July	71	20	0.63	26	NA	NA
	August	63	18	0.57	22	NA	NA
	September	60	17	0.57	21	NA	NA
	October	110	19	0.73	24	NA	NA
	November	89	0.85	0.034	1.0	NA	NA
	December	95	6.8	0.27	8.3	NA	NA
Total		480	81	2.8	100	NA	NA

Table 2.6-9. Building 854-Proximal (854-PRX) mass removed, July 1, 2012 through December 31, 2012.

Treatment facility	Month	SVTS VOC mass removed (g)	GWTS VOC mass removed (g)	Perchlorate mass removed (g)	Nitrate mass removed (kg)	RDX mass removed (g)	TBOS/TKEBS mass removed (g)
854-PRX	July	NA	3.1	1.0	7.1	NA	NA
	August	NA	1.7	0.55	3.7	NA	NA
	September	NA	0.49	0.16	1.1	NA	NA
	October	NA	0	0	0	NA	NA
	November	NA	0.057	0.018	0.12	NA	NA
	December	NA	1.2	0.59	2.8	NA	NA
Total		NA	6.6	2.3	15	NA	NA

Table 2.6-10. Building 854-Distal (854-DIS) mass removed, July 1, 2012 through December 31, 2012.

Treatment facility	Month	SVTS VOC mass removed (g)	GWTS VOC mass removed (g)	Perchlorate mass removed (g)	Nitrate mass removed (kg)	RDX mass removed (g)	TBOS/TKEBS mass removed (g)
854-DIS	**July**	**NA**	**0.13**	**0.030**	**0.16**	**NA**	**NA**
	August	**NA**	**0.074**	**0.017**	**0.086**	**NA**	**NA**
	September	**NA**	**0.083**	**0.018**	**0.096**	**NA**	**NA**
	October	**NA**	**0.14**	**0**	**0.12**	**NA**	**NA**
	November	**NA**	**0.10**	**0**	**0.087**	**NA**	**NA**
	December	**NA**	**0.068**	**0**	**0.056**	**NA**	**NA**
Total		**NA**	**0.60**	**0.065**	**0.60**	**NA**	**NA**

Table 2.7-1. Building 832-Source (832-SRC) volumes of ground water and soil vapor extracted and discharged, July 1, 2012 through December 31, 2012.

Treatment facility	Month	SVTS Operational hours	GWTS Operational hours	Volume of vapor extracted (thousands of cf)	Volume of ground water discharged (gal)
832-SRC	July	816	816	150	8,717
	August	672	672	130	6,355
	September	696	696	139	5,000
	October	792	792	164	4,702
	November	672	672	92	4,597
	December	504	504	76	4,048
Total		4,152	4,152	751	33,419

Table 2.7-2. Building 830-Source (830-SRC) volumes of ground water and soil vapor extracted and discharged, July 1, 2012 through December 31, 2012.

Treatment facility	Month	SVTS Operational hours	GWTS Operational hours	Volume of vapor extracted (thousands of cf)	Volume of ground water discharged (gal)
830-SRC	July	840	832	1,303	240,179
	August	643	422	882	181,506
	September	696	472	1,258	223,142
	October	585	553	1,096	198,152
	November	0	366	0	172,615
	December	0	383	0	180,572
Total		2,764	3,028	4,539	1,196,166

Table 2.7-3. Building 830-Distal South (830-DISS) volumes of ground water and soil vapor extracted and discharged, July 1, 2012 through December 31, 2012.

Treatment facility	Month	SVTS Operational hours	GWTS Operational hours	Volume of vapor extracted (thousands of cf)	Volume of ground water discharged (gal)
830-DISS	July	NA	384	NA	64,974
	August	NA	408	NA	45,552
	September	NA	336	NA	52,032
	October	NA	432	NA	70,820
	November	NA	336	NA	42,072
	December	NA	288	NA	28,768
Total		NA	2,184	NA	304,218

Table 2.7-4. Building 832 Canyon Operable Unit volatile organic compounds (VOCs) in ground water extraction and treatment system influent and effluent.

Location	Date	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetra-chloride (µg/L)	Chloro-form (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
Building 830-Distal South[a]															
Building 830-Source															
830-SRC-I	7/2/12	210 D	0.61	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
830-SRC-I	10/1/12	400 D	0.65	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
830-SRC-I2	7/2/12	17	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
830-SRC-I2	10/1/12	16	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
830-SRC-E	7/2/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
830-SRC-E	8/1/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
830-SRC-E	9/4/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
830-SRC-E	10/1/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
830-SRC-E	11/5/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
830-SRC-E	12/3/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Building 832-Source															
832-SRC-I	7/9/12	120 D	<0.5	1.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
832-SRC-I	10/1/12	50	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
832-SRC-E	7/9/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
832-SRC-E	8/1/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
832-SRC-E	9/4/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
832-SRC-E	10/1/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
832-SRC-E	11/5/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
832-SRC-E	12/3/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

[a] No influent or effluent monitoring conducted due to VOC treatment at CGSA GWTS.

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.7-4 (Cont.). Analyte detected but not reported in main table.

Location	Date	Detection frequency	1,2-DCE (Total) (μg/l)
***Building 830-Distal South*[a]**			
Building 830-Source			
830-SRC-I	7/2/12	0 of 18	–
830-SRC-I	10/1/12	1 of 18	1.1
830-SRC-I2	7/2/12	0 of 18	–
830-SRC-I2	10/1/12	0 of 18	–
830-SRC-E	7/2/12	0 of 18	–
830-SRC-E	8/1/12	0 of 18	–
830-SRC-E	9/4/12	0 of 18	–
830-SRC-E	10/1/12	0 of 18	–
830-SRC-E	11/5/12	0 of 18	–
830-SRC-E	12/3/12	0 of 18	–
Building 832-Source			
832-SRC-I	7/9/12	1 of 18	1.9
832-SRC-I	10/1/12	1 of 18	1.2
832-SRC-E	7/9/12	0 of 18	–
832-SRC-E	8/1/12	0 of 18	–
832-SRC-E	9/4/12	0 of 18	–
832-SRC-E	10/1/12	0 of 18	–
832-SRC-E	11/5/12	0 of 18	–
832-SRC-E	12/3/12	0 of 18	–

Notes:

[a] No influent or effluent monitoring conducted due to VOC treatment at CGSA GWTS.

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.7-5. Building 832 Canyon Operable Unit perchlorate in ground water extraction and treatment system influent and effluent.

Location	Date	Perchlorate (μg/L)
Building 830-Distal South		
830-DISS-I	7/10/12	<4
830-DISS-I	10/1/12	<4
830-DISS-E	7/10/12	<4
830-DISS-E	8/7/12	<4
830-DISS-E	9/4/12	<4
830-DISS-E	10/1/12	<4
830-DISS-E	11/5/12	<4
830-DISS-E	12/4/12	<4
Building 830-Source		
830-SRC-I	7/2/12	<4
830-SRC-I	10/1/12	4.7
830-SRC-E	7/2/12	<4
830-SRC-E	8/1/12	<4
830-SRC-E	9/4/12	<4
830-SRC-E	10/1/12	<4
830-SRC-E	11/5/12	<4
830-SRC-E	12/3/12	<4
Building 832-Source		
832-SRC-I	7/9/12	4.8
832-SRC-I	10/1/12	<4
832-SRC-E	7/9/12	<4 L
832-SRC-E	8/1/12	<4
832-SRC-E	9/4/12	<4
832-SRC-E	10/1/12	<4
832-SRC-E	11/5/12	<4
832-SRC-E	12/3/12	<4

Notes:

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.7-6. Building 832 Canyon Operable Unit treatment facility sampling and analysis plan.

Sample location	Sample identification	Parameter	Frequency
832-SRC GWTS			
Influent Port	832-SRC-I	VOCs	Quarterly
		Perchlorate	Quarterly
		pH	Quarterly
Effluent Port	832-SRC-E	VOCs	Monthly
		Perchlorate	Monthly
		PH	Monthly
832-SRC SVTS			
Influent Port	832-SRC-VI	No Monitoring Requirements	
Effluent Port	832-SRC-VE	VOCs	Weekly[a]
Intermediate GAC	832-SRC-VCF3I	VOCs	Weekly[a]
830-SRC GWTS			
Influent Port	830-SRC-I	VOCs	Quarterly
		Perchlorate	Quarterly
		PH	Quarterly
Effluent Port	830-SRC-E	VOCs	Monthly
		Perchlorate	Monthly
		PH	Monthly
830-SRC SVTS			
Influent Port	830-SRC-VI	No Monitoring Requirements	
Effluent Port	830-SRC-VE	VOCs	Weekly[a]
Intermediate GAC	830-SRC-VCF3I	VOCs	Weekly[a]
830-DISS GWTS			
Influent Port	830-DISS-I	Perchlorate	Quarterly
		pH	Quarterly
Effluent Port	830-DISS-E	Perchlorate	Monthly
		pH	Monthly

Notes:

[a] **Weekly monitoring for VOCs will consist of the use of a flame-ionization detector, photo-ionization detector, or other District-approved VOC detection device.**

One duplicate and one blank (given fictitious labels) shall be taken for every 12 samples.

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Table 2.7-7. Building 832 Canyon Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
SPRING3	SPR	Qal/WBR	A	CMP	E300.0:NO3	1	Y	
SPRING3	SPR	Qal/WBR	A	CMP	E300.0:PERC	1	Y	
SPRING3	SPR	Qal/WBR	S	CMP	E601:ALL	1	Y	
SPRING3	SPR	Qal/WBR	S	CMP	E601:ALL	3	N	Dry.
SPRING4	SPR	Tpsg-Tps	O	CMP	E300.0:NO3	1	N	To be sampled in 2013.
SPRING4	SPR	Tpsg-Tps	O	CMP	E300.0:PERC	1	N	To be sampled in 2013.
SPRING4	SPR	Tpsg-Tps	O	CMP	E601:ALL	1	N	To be sampled in 2013.
SVI-830-031	PTMW	Qal/WBR	A	CMP	E300.0:NO3	1	Y	
SVI-830-031	PTMW	Qal/WBR	A	CMP	E300.0:PERC	1	Y	
SVI-830-031	PTMW	Qal/WBR	S	CMP	E601:ALL	1	Y	
SVI-830-031	PTMW	Qal/WBR	S	CMP	E601:ALL	3	N	Insufficient water.
SVI-830-032	PTMW	Qal/WBR	A	CMP	E300.0:NO3	1	Y	
SVI-830-032	PTMW	Qal/WBR	A	CMP	E300.0:PERC	1	Y	
SVI-830-032	PTMW	Qal/WBR	S	CMP	E601:ALL	1	Y	
SVI-830-032	PTMW	Qal/WBR	S	CMP	E601:ALL	3	N	Insufficient water.
SVI-830-033	PTMW	Qal/WBR	A	CMP	E300.0:NO3	1	Y	
SVI-830-033	PTMW	Qal/WBR	A	CMP	E300.0:PERC	1	Y	
SVI-830-033	PTMW	Qal/WBR	S	CMP	E601:ALL	1	Y	
SVI-830-033	PTMW	Qal/WBR	S	CMP	E601:ALL	3	Y	
SVI-830-035	PTMW	Qal/WBR	A	CMP	E300.0:NO3	1	Y	
SVI-830-035	PTMW	Qal/WBR	A	CMP	E300.0:PERC	1	Y	
SVI-830-035	PTMW	Qal/WBR	S	CMP	E601:ALL	1	Y	
SVI-830-035	PTMW	Qal/WBR	S	CMP	E601:ALL	3	Y	
W-830-04A	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	Y	
W-830-04A	PTMW	Tnsc1b	A	CMP	E300.0:PERC	1	Y	
W-830-04A	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-830-04A	PTMW	Tnsc1b	S	CMP	E601:ALL	3	Y	
W-830-05	PTMW	Tnsc1c	A	CMP	E300.0:NO3	1	Y	
W-830-05	PTMW	Tnsc1c	A	CMP	E300.0:PERC	1	Y	
W-830-05	PTMW	Tnsc1c	S	CMP	E601:ALL	1	Y	
W-830-05	PTMW	Tnsc1c	S	CMP	E601:ALL	3	Y	
W-830-07	PTMW	Qal/WBR	A	CMP	E300.0:NO3	1	N	Dry.
W-830-07	PTMW	Qal/WBR	A	CMP	E300.0:PERC	1	N	Dry.
W-830-07	PTMW	Qal/WBR	S	CMP	E601:ALL	1	N	Dry.
W-830-07	PTMW	Qal/WBR	S	CMP	E601:ALL	3	N	Dry.
W-830-09	PTMW	UTnbs1	O	CMP	E300.0:NO3	1	N	To be sampled in 2013.
W-830-09	PTMW	UTnbs1	O	CMP	E300.0:PERC	1	N	To be sampled in 2013.
W-830-09	PTMW	UTnbs1	S	CMP	E601:ALL	1	Y	
W-830-09	PTMW	UTnbs1	S	CMP	E601:ALL	3	Y	
W-830-10	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	Y	
W-830-10	PTMW	Tnsc1b	A	CMP	E300.0:PERC	1	Y	
W-830-10	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-830-10	PTMW	Tnsc1b	S	CMP	E601:ALL	3	Y	
W-830-11	PTMW	Tnsc1c	A	CMP	E300.0:NO3	1	Y	
W-830-11	PTMW	Tnsc1c	A	CMP	E300.0:PERC	1	Y	
W-830-11	PTMW	Tnsc1c	S	CMP	E601:ALL	1	Y	
W-830-11	PTMW	Tnsc1c	S	CMP	E601:ALL	3	Y	
W-830-12	GW	LTnbs1	S	CMP	E300.0:NO3	1	N	Inoperable pump.
W-830-12	GW	LTnbs1	S	CMP	E300.0:NO3	3	N	Inoperable pump.
W-830-12	GW	LTnbs1	S	CMP	E300.0:PERC	1	N	Inoperable pump.
W-830-12	GW	LTnbs1	S	CMP	E300.0:PERC	3	N	Inoperable pump.
W-830-12	GW	LTnbs1	Q	CMP	E601:ALL	1	N	Inoperable pump.
W-830-12	GW	LTnbs1	Q	CMP	E601:ALL	2	N	Inoperable pump.
W-830-12	GW	LTnbs1	Q	CMP	E601:ALL	3	N	Inoperable pump.
W-830-12	GW	LTnbs1	Q	CMP	E601:ALL	4	N	Inoperable pump.
W-830-13	PTMW	Tnbs2	Q	DIS	AS:UISO	3	Y	
W-830-13	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	Y	
W-830-13	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	Y	
W-830-13	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-830-13	PTMW	Tnbs2	S	CMP	E601:ALL	3	Y	
W-830-13	PTMW	Tnbs2	E	CMP	E8330LOW:ALL	1	Y	
W-830-13	PTMW	Tnbs2	Q	DIS	GENMIN:ALL	3	Y	
W-830-14	PTMW	Tnsc1b	E	CMP	E300.0:NO3	1	Y	
W-830-14	PTMW	Tnsc1b	E	CMP	E300.0:PERC	1	Y	
W-830-14	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-830-14	PTMW	Tnsc1b	S	CMP	E601:ALL	3	Y	

Table 2.7-7. Building 832 Canyon Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-830-15	GW	UTnbs1	Q	DIS	AS:UISO	2	Y	
W-830-15	GW	UTnbs1	S	CMP	E300.0:NO3	1	Y	
W-830-15	GW	UTnbs1	S	CMP	E300.0:NO3	3	Y	
W-830-15	GW	UTnbs1	S	CMP	E300.0:PERC	1	Y	
W-830-15	GW	UTnbs1	S	CMP	E300.0:PERC	3	Y	
W-830-15	GW	UTnbs1	Q	CMP	E601:ALL	1	Y	
W-830-15	GW	UTnbs1	Q	CMP	E601:ALL	2	Y	
W-830-15	GW	UTnbs1	Q	CMP	E601:ALL	3	Y	
W-830-15	GW	UTnbs1	Q	CMP	E601:ALL	4	Y	
W-830-15	GW	UTnbs1	Q	DIS	GENMIN:ALL	2	Y	
W-830-16	PTMW	Tnsc1b	Q	DIS	AS:UISO	3	Y	
W-830-16	PTMW	Tnsc1b	O	CMP	E300.0:NO3	1	N	To be sampled in 2013.
W-830-16	PTMW	Tnsc1b	O	CMP	E300.0:PERC	1	N	To be sampled in 2013.
W-830-16	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-830-16	PTMW	Tnsc1b	S	CMP	E601:ALL	3	Y	
W-830-16	PTMW	Tnsc1b	Q	DIS	GENMIN:ALL	3	Y	
W-830-17	PTMW	Tnbs2	Q	DIS	AS:UISO	2	Y	
W-830-17	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	Y	
W-830-17	PTMW	Tnbs2	A	CMP	E300.0:PERC	1	Y	
W-830-17	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-830-17	PTMW	Tnbs2	S	CMP	E601:ALL	3	Y	
W-830-17	PTMW	Tnbs2	Q	DIS	GENMIN:ALL	2	Y	
W-830-18	PTMW	UTnbs1	E	CMP	E300.0:NO3	1	Y	
W-830-18	PTMW	UTnbs1	E	CMP	E300.0:PERC	1	Y	
W-830-18	PTMW	UTnbs1	S	CMP	E601:ALL	1	Y	
W-830-18	PTMW	UTnbs1	S	CMP	E601:ALL	3	Y	
W-830-19	EW	Tnsc1b	A	CMP-TF	E300.0:NO3	1	Y	
W-830-19	EW	Tnsc1b	A	CMP-TF	E300.0:PERC	1	Y	
W-830-19	EW	Tnsc1b	A	DIS-TF	E300.0:PERC	3	Y	
W-830-19	EW	Tnsc1b	S	CMP-TF	E601:ALL	1	Y	
W-830-19	EW	Tnsc1b	S	DIS-TF	E601:ALL	2	Y	
W-830-19	EW	Tnsc1b	S	CMP-TF	E601:ALL	3	Y	
W-830-19	EW	Tnsc1b	S	DIS-TF	E601:ALL	4	Y	
W-830-20	PTMW	UTnbs1	E	CMP	E300.0:NO3	1	Y	
W-830-20	PTMW	UTnbs1	E	CMP	E300.0:PERC	1	Y	
W-830-20	PTMW	UTnbs1	S	CMP	E601:ALL	1	Y	
W-830-20	PTMW	UTnbs1	S	CMP	E601:ALL	3	Y	
W-830-21	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	Y	
W-830-21	PTMW	Tnsc1b	A	CMP	E300.0:PERC	1	Y	
W-830-21	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-830-21	PTMW	Tnsc1b	S	CMP	E601:ALL	3	Y	
W-830-22	PTMW	Tnsc1a	A	CMP	E300.0:NO3	1	Y	
W-830-22	PTMW	Tnsc1a	A	CMP	E300.0:PERC	1	Y	
W-830-22	PTMW	Tnsc1a	S	CMP	E601:ALL	1	Y	
W-830-22	PTMW	Tnsc1a	S	CMP	E601:ALL	3	Y	
W-830-25	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	N	Insufficient water.
W-830-25	PTMW	Tnsc1b	A	CMP	E300.0:PERC	1	N	Insufficient water.
W-830-25	PTMW	Tnsc1b	S	CMP	E601:ALL	1	N	Insufficient water.
W-830-25	PTMW	Tnsc1b	S	CMP	E601:ALL	3	N	Dry.
W-830-26	PTMW	UTnbs1	E	CMP	E300.0:NO3	1	N	Dry.
W-830-26	PTMW	UTnbs1	E	CMP	E300.0:PERC	1	N	Dry.
W-830-26	PTMW	UTnbs1	S	CMP	E601:ALL	1	N	Dry.
W-830-26	PTMW	UTnbs1	S	CMP	E601:ALL	3	N	Dry.
W-830-27	PTMW	Tnsc1a	A	CMP	E300.0:NO3	1	Y	
W-830-27	PTMW	Tnsc1a	A	CMP	E300.0:PERC	1	Y	
W-830-27	PTMW	Tnsc1a	S	CMP	E601:ALL	1	Y	
W-830-27	PTMW	Tnsc1a	S	CMP	E601:ALL	3	Y	
W-830-28	PTMW	UTnbs1	Q	DIS	AS:UISO	3	Y	
W-830-28	PTMW	UTnbs1	O	CMP	E300.0:NO3	1	N	To be sampled in 2013.
W-830-28	PTMW	UTnbs1	O	CMP	E300.0:PERC	1	N	To be sampled in 2013.
W-830-28	PTMW	UTnbs1	S	CMP	E601:ALL	1	Y	
W-830-28	PTMW	UTnbs1	S	CMP	E601:ALL	3	Y	
W-830-28	PTMW	UTnbs1	Q	DIS	GENMIN:ALL	3	Y	
W-830-29	PTMW	LTnbs1	A	CMP	E300.0:NO3	1	Y	
W-830-29	PTMW	LTnbs1	A	CMP	E300.0:PERC	1	Y	
W-830-29	PTMW	LTnbs1	S	CMP	E601:ALL	1	Y	

Table 2.7-7. Building 832 Canyon Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-830-29	PTMW	LTnbs1	S	CMP	E601:ALL	3	N	Dry.
W-830-30	PTMW	Qal/WBR	A	CMP	E300.0:NO3	1	Y	
W-830-30	PTMW	Qal/WBR	A	CMP	E300.0:PERC	1	Y	
W-830-30	PTMW	Qal/WBR	S	CMP	E601:ALL	1	Y	
W-830-30	PTMW	Qal/WBR	S	CMP	E601:ALL	3	Y	
W-830-34	PTMW	Qal/WBR	A	CMP	E300.0:NO3	1	Y	
W-830-34	PTMW	Qal/WBR	A	CMP	E300.0:PERC	1	Y	
W-830-34	PTMW	Qal/WBR	S	CMP	E601:ALL	1	Y	
W-830-34	PTMW	Qal/WBR	S	CMP	E601:ALL	3	Y	
W-830-34	PTMW	Qal/WBR	E	CMP	E8330LOW:ALL	1	Y	
W-830-49	EW	Tnsc1b	A	CMP-TF	E300.0:NO3	1	Y	
W-830-49	EW	Tnsc1b	A	CMP-TF	E300.0:PERC	1	Y	
W-830-49	EW	Tnsc1b	A	DIS-TF	E300.0:PERC	3	Y	
W-830-49	EW	Tnsc1b	S	CMP-TF	E601:ALL	1	Y	
W-830-49	EW	Tnsc1b	S	DIS-TF	E601:ALL	2	Y	
W-830-49	EW	Tnsc1b	S	CMP-TF	E601:ALL	3	Y	
W-830-49	EW	Tnsc1b	S	DIS-TF	E601:ALL	4	Y	
W-830-50	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	Y	
W-830-50	PTMW	Tnsc1b	O	CMP	E300.0:PERC	1	N	To be sampled in 2013.
W-830-50	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-830-50	PTMW	Tnsc1b	S	CMP	E601:ALL	3	Y	
W-830-51	EW	Tnsc1b	A	CMP-TF	E300.0:NO3	1	Y	
W-830-51	EW	Tnsc1b	A	CMP-TF	E300.0:PERC	1	Y	
W-830-51	EW	Tnsc1b	A	DIS-TF	E300.0:PERC	3	Y	
W-830-51	EW	Tnsc1b	S	CMP-TF	E601:ALL	1	Y	
W-830-51	EW	Tnsc1b	S	DIS-TF	E601:ALL	2	Y	
W-830-51	EW	Tnsc1b	S	CMP-TF	E601:ALL	3	Y	
W-830-51	EW	Tnsc1b	S	DIS-TF	E601:ALL	4	Y	
W-830-52	EW	Tnsc1b	A	CMP-TF	E300.0:NO3	1	Y	
W-830-52	EW	Tnsc1b	A	CMP-TF	E300.0:PERC	1	Y	
W-830-52	EW	Tnsc1b	A	DIS-TF	E300.0:PERC	3	Y	
W-830-52	EW	Tnsc1b	S	CMP-TF	E601:ALL	1	Y	
W-830-52	EW	Tnsc1b	S	DIS-TF	E601:ALL	2	Y	
W-830-52	EW	Tnsc1b	S	CMP-TF	E601:ALL	3	Y	
W-830-53	EW	Tnsc1b	A	CMP-TF	E300.0:NO3	1	Y	
W-830-53	EW	Tnsc1b	A	CMP-TF	E300.0:PERC	1	Y	
W-830-53	EW	Tnsc1b	A	DIS-TF	E300.0:PERC	3	Y	
W-830-53	EW	Tnsc1b	S	CMP-TF	E601:ALL	1	Y	
W-830-53	EW	Tnsc1b	S	DIS-TF	E601:ALL	2	Y	
W-830-53	EW	Tnsc1b	S	CMP-TF	E601:ALL	3	Y	
W-830-53	EW	Tnsc1b	S	DIS-TF	E601:ALL	4	Y	
W-830-54	PTMW	Tnsc1c	O	CMP	E300.0:NO3	1	N	To be sampled in 2013.
W-830-54	PTMW	Tnsc1c	O	CMP	E300.0:PERC	1	N	To be sampled in 2013.
W-830-54	PTMW	Tnsc1c	S	CMP	E601:ALL	1	Y	
W-830-54	PTMW	Tnsc1c	S	CMP	E601:ALL	3	Y	
W-830-55	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	Y	
W-830-55	PTMW	Tnsc1b	E	CMP	E300.0:PERC	1	Y	
W-830-55	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-830-55	PTMW	Tnsc1b	S	CMP	E601:ALL	3	Y	
W-830-56	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	Y	
W-830-56	PTMW	Tnsc1b	O	CMP	E300.0:PERC	1	N	To be sampled in 2013.
W-830-56	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-830-56	PTMW	Tnsc1b	S	CMP	E601:ALL	3	Y	
W-830-57	EW	UTnbs1	A	CMP-TF	E300.0:NO3	1	Y	
W-830-57	EW	UTnbs1	A	CMP-TF	E300.0:PERC	1	Y	
W-830-57	EW	UTnbs1	S	CMP-TF	E601:ALL	1	Y	
W-830-57	EW	UTnbs1	S	DIS-TF	E601:ALL	2	Y	
W-830-57	EW	UTnbs1	S	CMP-TF	E601:ALL	3	Y	
W-830-57	EW	UTnbs1	S	DIS-TF	E601:ALL	4	Y	
W-830-58	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	Y	
W-830-58	PTMW	Tnsc1b	A	CMP	E300.0:PERC	1	Y	
W-830-58	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-830-58	PTMW	Tnsc1b	S	CMP	E601:ALL	3	Y	
W-830-59	EW	Tnsc1b	A	CMP-TF	E300.0:NO3	1	Y	
W-830-59	EW	Tnsc1b	A	CMP-TF	E300.0:PERC	1	Y	
W-830-59	EW	Tnsc1b	A	DIS-TF	E300.0:PERC	3	Y	

Table 2.7-7. Building 832 Canyon Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-830-59	EW	Tnsc1b	S	CMP-TF	E601:ALL	1	Y	
W-830-59	EW	Tnsc1b	S	DIS-TF	E601:ALL	2	Y	
W-830-59	EW	Tnsc1b	S	CMP-TF	E601:ALL	3	Y	
W-830-59	EW	Tnsc1b	S	DIS-TF	E601:ALL	4	Y	
W-830-60	EW	UTnbs1	A	CMP-TF	E300.0:NO3	1	Y	
W-830-60	EW	UTnbs1	A	CMP-TF	E300.0:PERC	1	Y	
W-830-60	EW	UTnbs1	S	CMP-TF	E601:ALL	1	Y	
W-830-60	EW	UTnbs1	S	DIS-TF	E601:ALL	2	Y	
W-830-60	EW	UTnbs1	S	CMP-TF	E601:ALL	3	Y	
W-830-60	EW	UTnbs1	S	DIS-TF	E601:ALL	4	Y	
W-830-1730	GW	Tnsc1b	S	CMP	E300.0:NO3	1	Y	
W-830-1730	GW	Tnsc1b	S	CMP	E300.0:NO3	3	Y	
W-830-1730	GW	Tnsc1b	S	CMP	E300.0:PERC	1	Y	
W-830-1730	GW	Tnsc1b	S	CMP	E300.0:PERC	3	Y	
W-830-1730	GW	Tnsc1b	Q	CMP	E601:ALL	1	Y	
W-830-1730	GW	Tnsc1b	Q	CMP	E601:ALL	2	Y	
W-830-1730	GW	Tnsc1b	Q	CMP	E601:ALL	3	Y	
W-830-1730	GW	Tnsc1b	Q	CMP	E601:ALL	4	Y	
W-830-1807	EW	Qal/WBR-Tnsc1b	A	CMP-TF	E300.0:NO3	1	Y	
W-830-1807	EW	Qal/WBR-Tnsc1b	A	CMP-TF	E300.0:PERC	1	Y	
W-830-1807	EW	Qal/WBR-Tnsc1b	A	DIS-TF	E300.0:PERC	3	Y	
W-830-1807	EW	Qal/WBR-Tnsc1b	S	CMP-TF	E601:ALL	1	Y	
W-830-1807	EW	Qal/WBR-Tnsc1b	S	DIS-TF	E601:ALL	2	Y	
W-830-1807	EW	Qal/WBR-Tnsc1b	S	CMP-TF	E601:ALL	3	Y	
W-830-1807	EW	Qal/WBR-Tnsc1b	S	DIS-TF	E601:ALL	4	Y	
W-830-1829	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	Y	
W-830-1829	PTMW	Tnsc1b	A	CMP	E300.0:PERC	1	Y	
W-830-1829	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-830-1829	PTMW	Tnsc1b	S	CMP	E601:ALL	3	Y	
W-830-1830	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	Y	
W-830-1830	PTMW	Tnsc1b	A	CMP	E300.0:PERC	1	Y	
W-830-1830	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-830-1830	PTMW	Tnsc1b	S	CMP	E601:ALL	3	Y	
W-830-1831	PTMW	Tnsc1b	O	CMP	E300.0:NO3	1	N	To be sampled in 2013.
W-830-1831	PTMW	Tnsc1b	O	CMP	E300.0:PERC	1	N	To be sampled in 2013.
W-830-1831	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-830-1831	PTMW	Tnsc1b	S	CMP	E601:ALL	3	Y	
W-830-1832	PTMW	UTnbs1	A	CMP	E300.0:NO3	1	Y	
W-830-1832	PTMW	UTnbs1	A	CMP	E300.0:PERC	1	Y	
W-830-1832	PTMW	UTnbs1	S	CMP	E601:ALL	1	Y	
W-830-1832	PTMW	UTnbs1	S	CMP	E601:ALL	3	Y	
W-830-2213	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	Y	
W-830-2213	PTMW	Tnsc1b	A	CMP	E300.0:PERC	1	Y	
W-830-2213	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-830-2213	PTMW	Tnsc1b	S	CMP	E601:ALL	3	N	Insufficient water.
W-830-2214	EW	Tnsc1a	A	CMP-TF	E300.0:NO3	1	Y	
W-830-2214	EW	Tnsc1a	A	CMP-TF	E300.0:PERC	1	Y	
W-830-2214	EW	Tnsc1a	A	DIS-TF	E300.0:PERC	3	Y	
W-830-2214	EW	Tnsc1a	S	CMP-TF	E601:ALL	1	Y	
W-830-2214	EW	Tnsc1a	S	DIS-TF	E601:ALL	2	Y	
W-830-2214	EW	Tnsc1a	S	CMP-TF	E601:ALL	3	Y	
W-830-2214	EW	Tnsc1a	S	DIS-TF	E601:ALL	4	Y	
W-830-2215	EW	UTnbs1	A	CMP-TF	E300.0:NO3	1	Y	
W-830-2215	EW	UTnbs1	A	CMP-TF	E300.0:PERC	1	Y	
W-830-2215	EW	UTnbs1	S	CMP-TF	E601:ALL	1	Y	
W-830-2215	EW	UTnbs1	S	DIS-TF	E601:ALL	2	Y	
W-830-2215	EW	UTnbs1	S	CMP-TF	E601:ALL	3	Y	
W-830-2215	EW	UTnbs1	S	DIS-TF	E601:ALL	4	Y	
W-830-2216	EW	Tnbs2	A	CMP-TF	E300.0:NO3	1	Y	
W-830-2216	EW	Tnbs2	A	CMP-TF	E300.0:PERC	1	Y	
W-830-2216	EW	Tnbs2	A	DIS-TF	E300.0:PERC	3	Y	
W-830-2216	EW	Tnbs2	S	CMP-TF	E601:ALL	1	Y	
W-830-2216	EW	Tnbs2	S	DIS-TF	E601:ALL	2	Y	
W-830-2216	EW	Tnbs2	S	CMP-TF	E601:ALL	3	Y	
W-830-2216	EW	Tnbs2	S	DIS-TF	E601:ALL	4	Y	
W-830-2216	EW	Tnbs2	O	CMP-TF	E8330LOW:ALL	3	N	To be sampled in 2013.

Table 2.7-7. Building 832 Canyon Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-830-2311	PTMW	Tnsc1a	A	CMP	E300.0:NO3	1	Y	
W-830-2311	PTMW	Tnsc1a	A	CMP	E300.0:PERC	1	Y	
W-830-2311	PTMW	Tnsc1a	S	CMP	E601:ALL	1	Y	
W-830-2311	PTMW	Tnsc1a	S	CMP	E601:ALL	3	Y	
W-830-2701	PTMW	Tnsc1a	S	CMP	E300.0:NO3	1	Y	
W-830-2701	PTMW	Tnsc1a	S	CMP	E300.0:NO3	3	Y	
W-830-2701	PTMW	Tnsc1a	S	CMP	E300.0:PERC	1	Y	
W-830-2701	PTMW	Tnsc1a	S	CMP	E300.0:PERC	3	Y	
W-830-2701	PTMW	Tnsc1a	Q	CMP	E601:ALL	1	Y	
W-830-2701	PTMW	Tnsc1a	Q	CMP	E601:ALL	2	Y	
W-830-2701	PTMW	Tnsc1a	Q	CMP	E601:ALL	3	Y	
W-830-2701	PTMW	Tnsc1a	Q	CMP	E601:ALL	4	Y	
W-830-2806	EW	Tnsc1a	Q	3GIV	E601:ALL	2	Y	
W-830-2806	EW	Tnsc1a	Q	CMP	E601:ALL	4	Y	
W-831-01	PTMW	LTnbs1	O	CMP	E300.0:NO3	1	N	To be sampled in 2013.
W-831-01	PTMW	LTnbs1	O	CMP	E300.0:PERC	1	N	To be sampled in 2013.
W-831-01	PTMW	LTnbs1	O	CMP	E601:ALL	1	N	To be sampled in 2013.
W-832-01	EW	Tnsc1b	Q	DIS-TF	AS:UISO	1	Y	
W-832-01	EW	Tnsc1b	A	CMP-TF	E300.0:NO3	1	Y	
W-832-01	EW	Tnsc1b	A	CMP-TF	E300.0:PERC	1	Y	
W-832-01	EW	Tnsc1b	A	DIS-TF	E300.0:PERC	3	Y	
W-832-01	EW	Tnsc1b	S	CMP-TF	E601:ALL	1	Y	
W-832-01	EW	Tnsc1b	S	DIS-TF	E601:ALL	2	Y	
W-832-01	EW	Tnsc1b	S	CMP-TF	E601:ALL	3	Y	
W-832-01	EW	Tnsc1b	S	DIS-TF	E601:ALL	4	Y	
W-832-01	EW	Tnsc1b	Q	DIS-TF	GENMIN:ALL	1	Y	
W-832-06	PTMW	Tnsc1a	A	CMP	E300.0:NO3	1	Y	
W-832-06	PTMW	Tnsc1a	A	CMP	E300.0:PERC	1	Y	
W-832-06	PTMW	Tnsc1a	S	CMP	E601:ALL	1	Y	
W-832-06	PTMW	Tnsc1a	S	CMP	E601:ALL	3	Y	
W-832-09	PTMW	LTnbs1	A	CMP	E300.0:NO3	1	Y	
W-832-09	PTMW	LTnbs1	A	CMP	E300.0:PERC	1	Y	
W-832-09	PTMW	LTnbs1	S	CMP	E601:ALL	1	Y	
W-832-09	PTMW	LTnbs1	S	CMP	E601:ALL	3	Y	
W-832-10	EW	Tnsc1b	A	CMP-TF	E300.0:NO3	1	Y	
W-832-10	EW	Tnsc1b	A	CMP-TF	E300.0:PERC	1	Y	
W-832-10	EW	Tnsc1b	A	DIS-TF	E300.0:PERC	3	Y	
W-832-10	EW	Tnsc1b	S	CMP-TF	E601:ALL	1	Y	
W-832-10	EW	Tnsc1b	S	DIS-TF	E601:ALL	2	Y	
W-832-10	EW	Tnsc1b	S	CMP-TF	E601:ALL	3	Y	
W-832-10	EW	Tnsc1b	S	DIS-TF	E601:ALL	4	Y	
W-832-11	EW	Tnsc1b	A	CMP-TF	E300.0:NO3	1	Y	
W-832-11	EW	Tnsc1b	A	CMP-TF	E300.0:PERC	1	Y	
W-832-11	EW	Tnsc1b	A	DIS-TF	E300.0:PERC	3	Y	
W-832-11	EW	Tnsc1b	S	CMP-TF	E601:ALL	1	Y	
W-832-11	EW	Tnsc1b	S	DIS-TF	E601:ALL	2	Y	
W-832-11	EW	Tnsc1b	S	CMP-TF	E601:ALL	3	Y	
W-832-11	EW	Tnsc1b	S	DIS-TF	E601:ALL	4	Y	
W-832-12	EW	Qal/WBR-Tnsc1b	A	CMP-TF	E300.0:NO3	1	Y	
W-832-12	EW	Qal/WBR-Tnsc1b	A	CMP-TF	E300.0:PERC	1	Y	
W-832-12	EW	Qal/WBR-Tnsc1b	A	DIS-TF	E300.0:PERC	3	Y	
W-832-12	EW	Qal/WBR-Tnsc1b	S	CMP-TF	E601:ALL	1	Y	
W-832-12	EW	Qal/WBR-Tnsc1b	S	DIS-TF	E601:ALL	2	Y	
W-832-12	EW	Qal/WBR-Tnsc1b	S	CMP-TF	E601:ALL	3	Y	
W-832-12	EW	Qal/WBR-Tnsc1b	S	DIS-TF	E601:ALL	4	Y	
W-832-13	PTMW	Qal/WBR-Tnsc1b	A	CMP-TF	E300.0:NO3	1	Y	
W-832-13	PTMW	Qal/WBR-Tnsc1b	A	CMP-TF	E300.0:PERC	1	Y	
W-832-13	PTMW	Qal/WBR-Tnsc1b	S	CMP-TF	E601:ALL	1	Y	
W-832-13	PTMW	Qal/WBR-Tnsc1b	S	CMP-TF	E601:ALL	3	Y	
W-832-14	PTMW	Tnsc1b	A	CMP-TF	E300.0:NO3	1	N	Insufficient water.
W-832-14	PTMW	Tnsc1b	A	CMP-TF	E300.0:PERC	1	N	Insufficient water.
W-832-14	PTMW	Tnsc1b	S	CMP-TF	E601:ALL	1	N	Insufficient water.
W-832-14	PTMW	Tnsc1b	S	CMP-TF	E601:ALL	3	N	Dry.
W-832-15	EW	Qal/WBR-Tnsc1b	A	CMP-TF	E300.0:NO3	1	Y	
W-832-15	EW	Qal/WBR-Tnsc1b	A	DIS-TF	E300.0:NO3	3	Y	
W-832-15	EW	Qal/WBR-Tnsc1b	A	CMP-TF	E300.0:PERC	1	Y	

Table 2.7-7. Building 832 Canyon Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-832-15	EW	Qal/WBR-Tnsc1b	A	DIS-TF	E300.0:PERC	3	Y	
W-832-15	EW	Qal/WBR-Tnsc1b	S	CMP-TF	E601:ALL	1	Y	
W-832-15	EW	Qal/WBR-Tnsc1b	S	DIS-TF	E601:ALL	2	Y	
W-832-15	EW	Qal/WBR-Tnsc1b	S	CMP-TF	E601:ALL	3	Y	
W-832-15	EW	Qal/WBR-Tnsc1b	S	DIS-TF	E601:ALL	4	Y	
W-832-15	EW	Qal/WBR-Tnsc1b	E	CMP-TF	E8330LOW:ALL	2	Y	
W-832-16	PTMW	Tnsc1b	A	CMP-TF	E300.0:NO3	1	N	Insufficient water.
W-832-16	PTMW	Tnsc1b	A	CMP-TF	E300.0:PERC	1	N	Insufficient water.
W-832-16	PTMW	Tnsc1b	S	CMP-TF	E601:ALL	1	N	Insufficient water.
W-832-16	PTMW	Tnsc1b	S	CMP-TF	E601:ALL	3	N	Dry.
W-832-17	PTMW	Tnsc1b	A	CMP-TF	E300.0:NO3	1	N	Insufficient water.
W-832-17	PTMW	Tnsc1b	A	CMP-TF	E300.0:PERC	1	N	Insufficient water.
W-832-17	PTMW	Tnsc1b	S	CMP-TF	E601:ALL	1	N	Insufficient water.
W-832-17	PTMW	Tnsc1b	S	CMP-TF	E601:ALL	3	N	Dry.
W-832-18	PTMW	Qal/WBR-Tnsc1b	A	CMP-TF	E300.0:NO3	1	N	Dry.
W-832-18	PTMW	Qal/WBR-Tnsc1b	A	CMP-TF	E300.0:PERC	1	N	Dry.
W-832-18	PTMW	Qal/WBR-Tnsc1b	S	CMP-TF	E601:ALL	1	N	Dry.
W-832-18	PTMW	Qal/WBR-Tnsc1b	S	CMP-TF	E601:ALL	3	N	Dry.
W-832-19	PTMW	Qal/WBR-Tnsc1b	A	CMP	E300.0:NO3	1	N	Dry.
W-832-19	PTMW	Qal/WBR-Tnsc1b	A	CMP	E300.0:PERC	1	N	Dry.
W-832-19	PTMW	Qal/WBR-Tnsc1b	S	CMP	E601:ALL	1	N	Dry.
W-832-19	PTMW	Qal/WBR-Tnsc1b	S	CMP	E601:ALL	3	N	Dry.
W-832-20	PTMW	Tnsc1b	A	CMP-TF	E300.0:NO3	1	N	Dry.
W-832-20	PTMW	Tnsc1b	A	CMP-TF	E300.0:PERC	1	N	Dry.
W-832-20	PTMW	Tnsc1b	S	CMP-TF	E601:ALL	1	N	Dry.
W-832-20	PTMW	Tnsc1b	S	CMP-TF	E601:ALL	3	N	Dry.
W-832-21	PTMW	Qal/WBR	A	CMP	E300.0:NO3	1	N	Dry.
W-832-21	PTMW	Qal/WBR	A	CMP	E300.0:PERC	1	N	Dry.
W-832-21	PTMW	Qal/WBR	S	CMP	E601:ALL	1	N	Dry.
W-832-21	PTMW	Qal/WBR	S	CMP	E601:ALL	3	N	Dry.
W-832-22	PTMW	UTnbs1	A	CMP	E300.0:NO3	1	N	Dry.
W-832-22	PTMW	UTnbs1	A	CMP	E300.0:PERC	1	N	Dry.
W-832-22	PTMW	UTnbs1	S	CMP	E601:ALL	1	N	Dry.
W-832-22	PTMW	UTnbs1	S	CMP	E601:ALL	3	N	Dry.
W-832-23	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	Y	
W-832-23	PTMW	Tnsc1b	A	CMP	E300.0:PERC	1	Y	
W-832-23	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-832-23	PTMW	Tnsc1b	S	CMP	E601:ALL	3	Y	
W-832-24	PTMW	Tnsc1a	A	CMP	E300.0:NO3	1	Y	
W-832-24	PTMW	Tnsc1a	A	CMP	E300.0:PERC	1	Y	
W-832-24	PTMW	Tnsc1a	S	CMP	E601:ALL	1	Y	
W-832-24	PTMW	Tnsc1a	S	CMP	E601:ALL	3	Y	
W-832-25	EW	Tnsc1a	A	CMP-TF	E300.0:NO3	1	Y	
W-832-25	EW	Tnsc1a	A	CMP-TF	E300.0:PERC	1	Y	
W-832-25	EW	Tnsc1a	A	DIS-TF	E300.0:PERC	3	Y	
W-832-25	EW	Tnsc1a	S	DIS-TF	E601:ALL	2	Y	
W-832-25	EW	Tnsc1a	S	DIS-TF	E601:ALL	4	Y	
W-832-25	EW	Tnsc1a	S	CMP-TF	E624:ALL	1	Y	
W-832-25	EW	Tnsc1a	S	CMP-TF	E624:ALL	3	Y	
W-832-1927	PTMW	Tnsc1b	A	CMP	E300.0:NO3	1	Y	
W-832-1927	PTMW	Tnsc1b	A	CMP	E300.0:PERC	1	Y	
W-832-1927	PTMW	Tnsc1b	S	CMP	E601:ALL	1	Y	
W-832-1927	PTMW	Tnsc1b	S	CMP	E601:ALL	3	Y	
W-832-2112	GW	UTnbs1	S	CMP	E300.0:NO3	1	Y	
W-832-2112	GW	UTnbs1	S	CMP	E300.0:NO3	3	Y	
W-832-2112	GW	UTnbs1	S	CMP	E300.0:PERC	1	Y	
W-832-2112	GW	UTnbs1	S	CMP	E300.0:PERC	3	Y	
W-832-2112	GW	UTnbs1	Q	CMP	E601:ALL	1	Y	
W-832-2112	GW	UTnbs1	Q	CMP	E601:ALL	2	Y	
W-832-2112	GW	UTnbs1	Q	CMP	E601:ALL	3	Y	
W-832-2112	GW	UTnbs1	Q	CMP	E601:ALL	4	Y	
W-832-SC1	PTMW	Qal/WBR	A	CMP	E300.0:NO3	1	N	Dry.
W-832-SC1	PTMW	Qal/WBR	A	CMP	E300.0:PERC	1	N	Dry.
W-832-SC1	PTMW	Qal/WBR	S	CMP	E601:ALL	1	N	Dry.
W-832-SC1	PTMW	Qal/WBR	S	CMP	E601:ALL	3	N	Dry.
W-832-SC2	PTMW	Qal/WBR	A	CMP	E300.0:NO3	1	N	Dry.

Table 2.7-7. Building 832 Canyon Operable Unit ground and surface water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-832-SC2	PTMW	Qal/WBR	E	CMP	E300.0:PERC	1	N	Dry.
W-832-SC2	PTMW	Qal/WBR	S	CMP	E601:ALL	1	N	Dry.
W-832-SC2	PTMW	Qal/WBR	S	CMP	E601:ALL	3	N	Dry.
W-832-SC3	PTMW	Qal/WBR	A	CMP	E300.0:NO3	1	Y	
W-832-SC3	PTMW	Qal/WBR	O	CMP	E300.0:PERC	1	N	To be sampled in 2013.
W-832-SC3	PTMW	Qal/WBR	S	CMP	E601:ALL	1	Y	
W-832-SC3	PTMW	Qal/WBR	S	CMP	E601:ALL	3	N	Insufficient water.
W-832-SC4	PTMW	Qal/WBR	A	CMP	E300.0:NO3	1	N	Dry.
W-832-SC4	PTMW	Qal/WBR	E	CMP	E300.0:PERC	1	N	Dry.
W-832-SC4	PTMW	Qal/WBR	S	CMP	E601:ALL	1	N	Dry.
W-832-SC4	PTMW	Qal/WBR	S	CMP	E601:ALL	3	N	Dry.
W-870-01	PTMW	Qal/WBR	A	CMP	E300.0:NO3	1	N	Dry.
W-870-01	PTMW	Qal/WBR	O	CMP	E300.0:PERC	1	N	To be sampled in 2013.
W-870-01	PTMW	Qal/WBR	S	CMP	E601:ALL	1	N	Dry.
W-870-01	PTMW	Qal/WBR	S	CMP	E601:ALL	3	N	Dry.
W-870-02	PTMW	Tnbs2	A	CMP	E300.0:NO3	1	Y	
W-870-02	PTMW	Tnbs2	E	CMP	E300.0:PERC	1	Y	
W-870-02	PTMW	Tnbs2	S	CMP	E601:ALL	1	Y	
W-870-02	PTMW	Tnbs2	S	CMP	E601:ALL	3	Y	
W-880-01	GW	Tnbs2	S	CMP	E300.0:NO3	1	Y	
W-880-01	GW	Tnbs2	S	CMP	E300.0:NO3	3	Y	
W-880-01	GW	Tnbs2	S	CMP	E300.0:PERC	1	Y	
W-880-01	GW	Tnbs2	S	CMP	E300.0:PERC	3	Y	
W-880-01	GW	Tnbs2	Q	CMP	E601:ALL	1	Y	
W-880-01	GW	Tnbs2	Q	CMP	E601:ALL	2	Y	
W-880-01	GW	Tnbs2	Q	CMP	E601:ALL	3	Y	
W-880-01	GW	Tnbs2	Q	CMP	E601:ALL	4	Y	
W-880-01	GW	Tnbs2	S	CMP	E8330LOW:ALL	1	Y	
W-880-01	GW	Tnbs2	S	CMP	E8330LOW:ALL	3	Y	
W-880-02	GW	Qal/WBR	S	CMP	E300.0:NO3	1	Y	
W-880-02	GW	Qal/WBR	S	CMP	E300.0:NO3	3	N	Insufficient water.
W-880-02	GW	Qal/WBR	S	CMP	E300.0:PERC	1	Y	
W-880-02	GW	Qal/WBR	S	CMP	E300.0:PERC	3	N	Insufficient water.
W-880-02	GW	Qal/WBR	Q	CMP	E601:ALL	1	Y	
W-880-02	GW	Qal/WBR	Q	CMP	E601:ALL	2	Y	
W-880-02	GW	Qal/WBR	Q	CMP	E601:ALL	3	N	Insufficient water.
W-880-02	GW	Qal/WBR	Q	CMP	E601:ALL	4	N	Insufficient water.
W-880-02	GW	Qal/WBR	S	CMP	E8330LOW:ALL	1	Y	
W-880-02	GW	Qal/WBR	S	CMP	E8330LOW:ALL	3	N	Insufficient water.
W-880-03	GW	Tnsc1b	S	CMP	E300.0:NO3	1	N	Inoperable pump.
W-880-03	GW	Tnsc1b	S	CMP	E300.0:NO3	3	Y	
W-880-03	GW	Tnsc1b	S	CMP	E300.0:PERC	1	N	Inoperable pump.
W-880-03	GW	Tnsc1b	S	CMP	E300.0:PERC	3	Y	
W-880-03	GW	Tnsc1b	Q	CMP	E601:ALL	1	N	Inoperable pump.
W-880-03	GW	Tnsc1b	Q	CMP	E601:ALL	2	N	Inoperable pump.
W-880-03	GW	Tnsc1b	Q	CMP	E601:ALL	3	Y	
W-880-03	GW	Tnsc1b	Q	CMP	E601:ALL	4	Y	
W-880-03	GW	Tnsc1b	S	CMP	E8330LOW:ALL	1	N	Inoperable pump.
W-880-03	GW	Tnsc1b	S	CMP	E8330LOW:ALL	3	Y	

Table 2.7-8. Building 832-Source (832-SRC) mass removed, July 1, 2012 through December 31, 2012.

Treatment facility	Month	SVTS VOC mass removed (g)	GWTS VOC mass removed (g)	Perchlorate mass removed (g)	Nitrate mass removed (kg)	RDX mass removed (g)	TBOS/TKEBS mass removed (g)
832-SRC	July	2.1	1.7	0.19	3.2	NA	NA
	August	1.9	1.2	0.14	2.4	NA	NA
	September	5.3	0.86	0.11	1.8	NA	NA
	October	6.2	1.5	0.10	1.7	NA	NA
	November	2.6	1.2	0.10	1.7	NA	NA
	December	2.2	0.93	0.090	1.5	NA	NA
Total		20	7.4	0.74	12	NA	NA

Table 2.7-9. Building 830-Source (830-SRC) mass removed, July 1, 2012 through December 31, 2012.

Treatment facility	Month	SVTS VOC mass removed (g)	GWTS VOC mass removed (g)	Perchlorate mass removed (g)	Nitrate mass removed (kg)	RDX mass removed (g)	TBOS/TKEBS mass removed (g)
830-SRC	July	130	160	0.35	20	NA	NA
	August	99	110	0.23	14	NA	NA
	September	130	110	0.30	16	NA	NA
	October	110	110	0.28	15	NA	NA
	November	0	76	0.18	10	NA	NA
	December	0	59	0.14	9.3	NA	NA
Total		470	620	1.5	85	NA	NA

Table 2.7-10. Building 830-Distal South (830-DISS) mass removed, July 1, 2012 through December 31, 2012.

Treatment facility	Month	SVTS VOC mass removed (g)	GWTS VOC mass removed (g)	Perchlorate mass removed (g)	Nitrate mass removed (kg)	RDX mass removed (g)	TBOS/TKEBS mass removed (g)
830-DISS	July	NA	3.5	0.096	17	NA	NA
	August	NA	2.4	0.0016	12	NA	NA
	September	NA	2.8	0	14	NA	NA
	October	NA	4.7	0	19	NA	NA
	November	NA	2.6	0	11	NA	NA
	December	NA	2.2	0.0049	8.2	NA	NA
Total		NA	18	0.10	81	NA	NA

Table 2.8-1. Building 801 and Pit 8 Landfill area ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
K8-01	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
K8-01	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
K8-01	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
K8-01	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
K8-01	PTMW	Tnbs1-Tnbs0	S	CMP	E601:ALL	2	Y	
K8-01	PTMW	Tnbs1-Tnbs0	S	CMP	E601:ALL	4	Y	
K8-01	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
K8-01	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
K8-02B	DMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	4	N	Inoperable pump.
K8-02B	DMW	Tnbs1-Tnbs0	A	CMP	E200.7:LI	2	N	Inoperable pump.
K8-02B	DMW	Tnbs1-Tnbs0	S	CMP	E300.0:NO3	2	N	Inoperable pump.
K8-02B	DMW	Tnbs1-Tnbs0	S	CMP	E300.0:NO3	4	N	Inoperable pump.
K8-02B	DMW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	1	N	Inoperable pump.
K8-02B	DMW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	2	N	Inoperable pump.
K8-02B	DMW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	3	N	Inoperable pump.
K8-02B	DMW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	4	N	Inoperable pump.
K8-02B	DMW	Tnbs1-Tnbs0	A	CMP	E340.2:ALL	2	N	Inoperable pump.
K8-02B	DMW	Tnbs1-Tnbs0	A	CMP	E601:ALL	2	N	Inoperable pump.
K8-02B	DMW	Tnbs1-Tnbs0	A	CMP	E8330LOW:ALL	2	N	Inoperable pump.
K8-02B	DMW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	1	N	Inoperable pump.
K8-02B	DMW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	2	N	Inoperable pump.
K8-02B	DMW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	3	N	Inoperable pump.
K8-02B	DMW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	4	N	Inoperable pump.
K8-02B	DMW	Tnbs1-Tnbs0	A	CMP	MS:UISO	2	N	Inoperable pump.
K8-02B	DMW	Tnbs1-Tnbs0	A	CMP	T26METALS:ALL	2	N	Inoperable pump.
K8-03B	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
K8-03B	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
K8-03B	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
K8-03B	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
K8-03B	PTMW	Tnbs1-Tnbs0	S	CMP	E601:ALL	2	Y	
K8-03B	PTMW	Tnbs1-Tnbs0	S	CMP	E601:ALL	4	Y	
K8-03B	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
K8-03B	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
K8-04	DMW	Tnbs1-Tnbs0	A	CMP	E200.7:LI	2	Y	
K8-04	DMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
K8-04	DMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
K8-04	DMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
K8-04	DMW	Tnbs1-Tnbs0	A	CMP	E340.2:ALL	2	Y	
K8-04	DMW	Tnbs1-Tnbs0	A	CMP	E601:ALL	2	Y	
K8-04	DMW	Tnbs1-Tnbs0	A	CMP	E8330LOW:ALL	2	Y	
K8-04	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
K8-04	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
K8-04	DMW	Tnbs1-Tnbs0	A	CMP	MS:UISO	2	Y	
K8-04	DMW	Tnbs1-Tnbs0	A	CMP	T26METALS:ALL	2	Y	
K8-05	DMW	Tnbs1-Tnbs0	O	CMP	AS:UISO	2	N	To be sampled in 2013.
K8-05	DMW	Tnbs1-Tnbs0	O	CMP	E200.7:LI	2	N	To be sampled in 2013.
K8-05	DMW	Tnbs1-Tnbs0	O	CMP	E300.0:NO3	2	N	To be sampled in 2013.
K8-05	DMW	Tnbs1-Tnbs0	O	CMP	E300.0:PERC	2	N	To be sampled in 2013.
K8-05	DMW	Tnbs1-Tnbs0	O	CMP	E340.2:ALL	2	N	To be sampled in 2013.
K8-05	DMW	Tnbs1-Tnbs0	O	CMP	E601:ALL	2	N	To be sampled in 2013.
K8-05	DMW	Tnbs1-Tnbs0	O	CMP	E8330LOW:ALL	2	N	To be sampled in 2013.
K8-05	DMW	Tnbs1-Tnbs0	O	CMP	E906:ALL	2	N	To be sampled in 2013.
K8-05	DMW	Tnbs1-Tnbs0	O	DIS	MS:UISO	2	N	To be sampled in 2013.
K8-05	DMW	Tnbs1-Tnbs0	O	CMP	T26METALS:ALL	2	N	To be sampled in 2013.

Table 2.8-2. Building 833 area ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-833-03	PTMW	Tpsg	A	CMP	E601:ALL	1	N	Dry.
W-833-12	PTMW	Tpsg	A	CMP	E601:ALL	1	N	Dry.
W-833-18	PTMW	Tpsg	A	CMP	E601:ALL	1	N	Dry.
W-833-22	PTMW	Tpsg	A	CMP	E601:ALL	1	N	Dry.
W-833-28	PTMW	Tpsg	A	CMP	E601:ALL	1	N	Insufficient water.
W-833-30	PTMW	Tpsg	S	CMP	E601:ALL	1	Y	
W-833-30	PTMW	Tpsg	S	CMP	E601:ALL	3	Y	
W-833-33	PTMW	Tpsg	A	CMP	E601:ALL	1	Y	
W-833-34	PTMW	Tpsg	A	CMP	E601:ALL	1	N	Dry.
W-833-43	PTMW	Tpsg	A	CMP	E601:ALL	1	N	Dry.
W-840-01	PTMW	LTnbs1	A	CMP	E300.0:NO3	1	Y	
W-840-01	PTMW	LTnbs1	A	CMP	E300.0:PERC	1	Y	
W-840-01	PTMW	LTnbs1	A	CMP	E601:ALL	1	Y	
W-841-01	PTMW	UTnbs1	O	CMP	E300.0:NO3	1	N	To be sampled in 2013.
W-841-01	PTMW	UTnbs1	O	CMP	E300.0:PERC	1	N	To be sampled in 2013.
W-841-01	PTMW	UTnbs1	A	CMP	E601:ALL	1	N	Dry.

Table 2.8-3. Building 845 Firing Table and Pit 9 Landfill area ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
K9-01	DMW	Tnsc0	A	CMP	E200.7:LI	2	Y	
K9-01	DMW	Tnsc0	A	CMP	E300.0:NO3	2	Y	
K9-01	DMW	Tnsc0	A	CMP	E300.0:PERC	2	Y	
K9-01	DMW	Tnsc0	A	CMP	E340.2:ALL	2	Y	
K9-01	DMW	Tnsc0	A	CMP	E601:ALL	2	Y	
K9-01	DMW	Tnsc0	A	CMP	E8330LOW:ALL	2	Y	
K9-01	DMW	Tnsc0	A	CMP	E906:ALL	2	Y	
K9-01	DMW	Tnsc0	A	CMP	MS:UISO	2	Y	
K9-01	DMW	Tnsc0	A	CMP	T26METALS:ALL	2	Y	
K9-02	DMW	Tnsc0	A	CMP	E200.7:LI	2	Y	
K9-02	DMW	Tnsc0	A	CMP	E300.0:NO3	2	Y	
K9-02	DMW	Tnsc0	A	CMP	E300.0:PERC	2	Y	
K9-02	DMW	Tnsc0	A	CMP	E340.2:ALL	2	Y	
K9-02	DMW	Tnsc0	A	CMP	E601:ALL	2	Y	
K9-02	DMW	Tnsc0	A	CMP	E8330LOW:ALL	2	Y	
K9-02	DMW	Tnsc0	A	CMP	E906:ALL	2	Y	
K9-02	DMW	Tnsc0	A	CMP	MS:UISO	2	Y	
K9-02	DMW	Tnsc0	A	DIS	MS:UISO	2	Y	
K9-02	DMW	Tnsc0	A	CMP	T26METALS:ALL	2	Y	
K9-03	DMW	Tnsc0	A	CMP	E200.7:LI	2	Y	
K9-03	DMW	Tnsc0	A	CMP	E300.0:NO3	2	Y	
K9-03	DMW	Tnsc0	A	CMP	E300.0:PERC	2	Y	
K9-03	DMW	Tnsc0	A	CMP	E340.2:ALL	2	Y	
K9-03	DMW	Tnsc0	A	CMP	E601:ALL	2	Y	
K9-03	DMW	Tnsc0	A	CMP	E8330LOW:ALL	2	Y	
K9-03	DMW	Tnsc0	A	CMP	E906:ALL	2	Y	
K9-03	DMW	Tnsc0	A	CMP	MS:UISO	2	Y	
K9-03	DMW	Tnsc0	A	CMP	T26METALS:ALL	2	Y	
K9-04	DMW	Tnsc0	A	CMP	E300.0:NO3	2	N	Inoperable pump.
K9-04	DMW	Tnsc0	A	CMP	E300.0:PERC	2	N	Inoperable pump.
K9-04	DMW	Tnsc0	A	CMP	E340.2:ALL	2	N	Inoperable pump.
K9-04	DMW	Tnsc0	A	CMP	E601:ALL	2	N	Inoperable pump.
K9-04	DMW	Tnsc0	A	CMP	E8330LOW:ALL	2	N	Inoperable pump.
K9-04	DMW	Tnsc0	A	CMP	E906:ALL	2	N	Inoperable pump.
K9-04	DMW	Tnsc0	A	CMP	MS:UISO	2	N	Inoperable pump.
K9-04	DMW	Tnsc0	A	CMP	T26METALS:ALL	2	N	Inoperable pump.

Table 2.8-4. Building 851 area ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-851-05	PTMW	Tmss	A	CMP	AS:UISO	4	Y	
W-851-05	PTMW	Tmss	O	CMP	E601:ALL	2	N	To be sampled in 2013.
W-851-05	PTMW	Tmss	A	CMP	MS:UISO	2	Y	
W-851-06	PTMW	Tmss	A	CMP	AS:UISO	4	Y	
W-851-06	PTMW	Tmss	A	CMP	MS:UISO	2	Y	
W-851-07	PTMW	Tmss	A	CMP	AS:UISO	4	Y	
W-851-07	PTMW	Tmss	A	CMP	MS:UISO	2	Y	
W-851-08	PTMW	Tmss	A	CMP	AS:UISO	4	N	Insufficient water.
W-851-08	PTMW	Tmss	A	CMP	MS:UISO	2	Y	

Table 3.1-1. Pit 2 Landfill area ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
K2-01C	DMW	Tnbs1-Tnbs0	A	CMP	E200.7:LI	2	N	Inoperable pump.
K2-01C	DMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	N	Inoperable pump.
K2-01C	DMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	N	Inoperable pump.
K2-01C	DMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	N	Inoperable pump.
K2-01C	DMW	Tnbs1-Tnbs0	A	CMP	E340.2:ALL	2	N	Inoperable pump.
K2-01C	DMW	Tnbs1-Tnbs0	A	CMP	E601:ALL	2	N	Inoperable pump.
K2-01C	DMW	Tnbs1-Tnbs0	A	CMP	E8330LOW:ALL	2	N	Inoperable pump.
K2-01C	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	N	Inoperable pump.
K2-01C	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	N	Inoperable pump.
K2-01C	DMW	Tnbs1-Tnbs0	A	CMP	MS:UISO	2	N	Inoperable pump.
K2-01C	DMW	Tnbs1-Tnbs0	A	CMP	T26METALS:ALL	2	N	Inoperable pump.
NC2-08	DMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	Y	
NC2-08	DMW	Tnbs1-Tnbs0	A	CMP	E200.7:LI	2	Y	
NC2-08	DMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
NC2-08	DMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
NC2-08	DMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
NC2-08	DMW	Tnbs1-Tnbs0	A	CMP	E340.2:ALL	2	Y	
NC2-08	DMW	Tnbs1-Tnbs0	A	CMP	E601:ALL	2	Y	
NC2-08	DMW	Tnbs1-Tnbs0	A	CMP	E8330LOW:ALL	2	Y	
NC2-08	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
NC2-08	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
NC2-08	DMW	Tnbs1-Tnbs0	A	DIS	MS:UISO	2	Y	
NC2-08	DMW	Tnbs1-Tnbs0	A	CMP	T26METALS:ALL	2	Y	
W-PIT2-1934	DMW	Tnbs1-Tnbs0	A	CMP	E200.7:LI	2	Y	
W-PIT2-1934	DMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
W-PIT2-1934	DMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
W-PIT2-1934	DMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
W-PIT2-1934	DMW	Tnbs1-Tnbs0	A	CMP	E340.2:ALL	2	Y	
W-PIT2-1934	DMW	Tnbs1-Tnbs0	A	CMP	E601:ALL	2	Y	
W-PIT2-1934	DMW	Tnbs1-Tnbs0	A	CMP	E8330LOW:ALL	2	Y	
W-PIT2-1934	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
W-PIT2-1934	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
W-PIT2-1934	DMW	Tnbs1-Tnbs0	A	CMP	MS:UISO	2	Y	
W-PIT2-1934	DMW	Tnbs1-Tnbs0	A	CMP	T26METALS:ALL	2	Y	
W-PIT2-1935	DMW	Tnbs1-Tnbs0	A	CMP	E200.7:LI	2	Y	
W-PIT2-1935	DMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	Y	
W-PIT2-1935	DMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	Y	
W-PIT2-1935	DMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	Y	
W-PIT2-1935	DMW	Tnbs1-Tnbs0	A	CMP	E340.2:ALL	2	Y	
W-PIT2-1935	DMW	Tnbs1-Tnbs0	A	CMP	E601:ALL	2	Y	
W-PIT2-1935	DMW	Tnbs1-Tnbs0	A	CMP	E8330LOW:ALL	2	Y	
W-PIT2-1935	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	Y	
W-PIT2-1935	DMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	Y	
W-PIT2-1935	DMW	Tnbs1-Tnbs0	A	CMP	MS:UISO	2	Y	
W-PIT2-1935	DMW	Tnbs1-Tnbs0	A	CMP	T26METALS:ALL	2	Y	
W-PIT2-2226	GW	Tnbs1-Tnbs0	S	CMP	AS:UISO	2	Y	
W-PIT2-2226	GW	Tnbs1-Tnbs0	S	CMP	AS:UISO	4	Y	
W-PIT2-2226	GW	Tnbs1-Tnbs0	S	CMP	E300.0:NO3	2	Y	
W-PIT2-2226	GW	Tnbs1-Tnbs0	S	CMP	E300.0:NO3	4	Y	
W-PIT2-2226	GW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	1	Y	
W-PIT2-2226	GW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	2	Y	
W-PIT2-2226	GW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	3	Y	
W-PIT2-2226	GW	Tnbs1-Tnbs0	Q	CMP	E300.0:PERC	4	Y	
W-PIT2-2226	GW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	1	Y	
W-PIT2-2226	GW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	2	Y	
W-PIT2-2226	GW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	3	Y	
W-PIT2-2226	GW	Tnbs1-Tnbs0	Q	CMP	E906:ALL	4	Y	
W-PIT2-2301	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	

Table 3.1-1. Pit 2 Landfill area ground water sampling and analysis plan.

Sample Location	Location Type	Hydro Unit	Sampling Frequency	Sample Driver	Requested Analysis	Sampling Quarter	Sampled Y/N	Comment
W-PIT2-2301	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	Y	
W-PIT2-2301	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	N	Insufficient water.
W-PIT2-2301	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
W-PIT2-2301	PTMW	Qal/WBR	S	CMP	E906:ALL	4	N	Insufficient water.
W-PIT2-2301	PTMW	Qal/WBR	A	CMP	MS:UISO	2	Y	
W-PIT2-2302	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	Y	
W-PIT2-2302	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	Y	
W-PIT2-2302	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	Y	
W-PIT2-2302	PTMW	Qal/WBR	S	CMP	E906:ALL	2	Y	
W-PIT2-2302	PTMW	Qal/WBR	S	CMP	E906:ALL	4	Y	
W-PIT2-2302	PTMW	Qal/WBR	A	CMP	MS:UISO	2	Y	
W-PIT2-2303	PTMW	Qal/WBR	A	CMP	E300.0:NO3	2	N	Dry.
W-PIT2-2303	PTMW	Qal/WBR	S	CMP	E300.0:PERC	2	N	Dry.
W-PIT2-2303	PTMW	Qal/WBR	S	CMP	E300.0:PERC	4	N	Dry.
W-PIT2-2303	PTMW	Qal/WBR	S	CMP	E906:ALL	2	N	Dry.
W-PIT2-2303	PTMW	Qal/WBR	S	CMP	E906:ALL	4	N	Dry.
W-PIT2-2303	PTMW	Qal/WBR	A	CMP	MS:UISO	2	N	Dry.
W-PIT2-2304	PTMW	Tnbs1-Tnbs0	A	CMP	AS:UISO	2	N	Dry.
W-PIT2-2304	PTMW	Tnbs1-Tnbs0	A	CMP	E300.0:NO3	2	N	Dry.
W-PIT2-2304	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	2	N	Dry.
W-PIT2-2304	PTMW	Tnbs1-Tnbs0	S	CMP	E300.0:PERC	4	N	Dry.
W-PIT2-2304	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	2	N	Dry.
W-PIT2-2304	PTMW	Tnbs1-Tnbs0	S	CMP	E906:ALL	4	N	Dry.

Table 4.1-1. Summary of inhalation risks and hazards resulting from transport of contaminant vapors to indoor and outdoor ambient air.

Area	Pathway and Model	Contaminant	Incremental Risk	Hazard Quotient	Comment
Building 834D	Indoor – JEM	TCE	9.8×10^{-5}	2.8×10^{1}	Based on a TCE concentration of 19,000 µg/L (05-Aug-2012) in well W-834-D13
	Indoor – JEM	PCE	1.5×10^{-6}	1.7×10^{-2}	Based on a PCE concentration of 140 µg/L (05-Mar-2012) in well W-834-D13
Cumulative risk and hazard index			**2.5×10^{-4}**	**2.8×10^{1}**	**Institutional controls in place, building only used for storage.**
Building 830	Indoor – JEM	Vinyl Chloride	1.2×10^{-5}	3.5×10^{-3}	Based on the Vinyl Chloride detection limit of 25 µg/L (23-Feb-2012 and 13-Aug-2012) in well SVI-830-035.
	Indoor – JEM	TCE	1.3×10^{-5}	3.6×10^{0}	Based on a TCE concentration of 1,580 µg/L (23-Feb-2012) in well SVI-830-035.
Cumulative risk and hazard index			**2.5×10^{-5}**	**3.6×10^{-0}**	**Institutional controls in place.**

Notes:

JEM – Johnson-Ettinger Model for indoor air pathway (U.S. EPA, 2002), incorporates the updated risk values in DTSC (2011) Final Vapor Intrusion Guidance.

See Acronyms and Abbreviations in the Tables section of this report for acronym and abbreviation definitions.

Appendix A

Results of Influent and Effluent pH Monitoring

Appendix A

Results of Influent and Effluent pH Monitoring

Table A-1. Results of influent and effluent pH, July through December 2012.

A-1. Results of infuent and effluent pH, July through December 2012.

Sample Location	Sample Date	Effluent pH Result
GSA OU		
CGSA GWTS	**07/02/2012**	**7.2**
CGSA GWTS	**08/07/2012**	**7.0**
CGSA GWTS	**09/04/2012**	**7.0**
CGSA GWTS	**10/01/2012**	**7.2**
CGSA GWTS	**11/05/2012**	**7.2**
CGSA GWTS	**12/04/2012**	**7.0**
Building 834 OU		
834 GWTS	**07/02/2012**	**7.7**
834 GWTS	**08/01/2012**	**8.0**
834 GWTS	**09/04/2012**	**7.8**
834 GWTS	**10/01/2012**	**7.8**
834 GWTS	**11/05/2012**	**7.8**
834 GWTS	**12/03/2012**	**7.5**
HEPA OU		
815-SRC GWTS	**07/03/2012**	**7.7**
815-SRC GWTS	**08/07/2012**	**7.4**
815-SRC GWTS	**09/05/2012**	**7.1**
815-SRC GWTS	**10/02/2012**	**7.1**
815-SRC GWTS	**11/12/2012**	**7.4**
815-SRC GWTS	**12/10/2012**	**7.3**
815-PRX GWTS	**07/16/2012**	**8.4**
815-PRX GWTS	**08/07/2012**	**7.5**
815-PRX GWTS	**09/05/2012**	**7.9**
815-PRX GWTS	**10/01/2012**	**7.8**
815-PRX GWTS	**11/12/2012**	**7.8**
815-PRX GWTS	**12/10/2012**	**7.7**
815-DSB GWTS	**07/18/2012**	**7.0**
815-DSB GWTS	**08/07/2012**	**7.0**

A-1. Results of infuent and effluent pH, July through December 2012.

Sample Location	Sample Date	Effluent pH Result
815-DSB GWTS	09/04/2012	7.0
815-DSB GWTS	10/01/2012	7.0
815-DSB GWTS	11/05/2012	7.0
815-DSB GWTS	12/04/2012	7.0
817-SRC GWTS	07/03/2012	7.9
817-SRC GWTS	08/07/2012	8.0
817-SRC GWTS	09/05/2012	8.0
817-SRC GWTS	10/01/2012	7.9
817-SRC GWTS	11/12/2012	8.1
817-SRC GWTS	12/10/2012	8.2
817-PRX GWTS	07/11/2012	7.4
817-PRX GWTS	08/07/2012	8.4
817-PRX GWTS	09/05/2012	8.5
817-PRX GWTS	10/02/2012	8.3
817-PRX GWTS	11/12/2012	8.2
817-PRX GWTS	12/10/2012	7.8
829-SRC GWTS	07/09/2012	8.0
829-SRC GWTS	08/01/2012	7.7
829-SRC GWTS	09/10/2012	7.3
829-SRC GWTS	10/31/2012	NM
829-SRC GWTS	11/30/2012	NM
829-SRC GWTS	12/31/2012	NM
Building 850/Pit 7 Complex OU		
PIT7-SRC GWTS	07/10/2012	7.0
PIT7-SRC GWTS	08/07/2012	7.0
PIT7-SRC GWTS	09/30/2012	NM
PIT7-SRC GWTS	10/31/2012	NM
PIT7-SRC GWTS	11/30/2012	NM
PIT7-SRC GWTS	12/10/2012	7.0

A-1. Results of infuent and effluent pH, July through December 2012.

Sample Location	Sample Date	Effluent pH Result
Building 854 OU		
854-SRC GWTS	07/02/2012	7.0
854-SRC GWTS	08/07/2012	7.0
854-SRC GWTS	09/06/2012	7.0
854-SRC GWTS	10/02/2012	7.0
854-SRC GWTS	11/30/2012	NM
854-SRC GWTS	12/05/2012	7.0
854-PRX GWTS	07/02/2012	7.0
854-PRX GWTS	08/07/2012	7.0
854-PRX GWTS	09/04/2012	7.0
854-PRX GWTS	10/31/2012	NM
854-PRX GWTS	11/30/2012	NM
854-PRX GWTS	12/04/2012	7.0
854-DIS GWTS	07/03/2012	7.0
854-DIS GWTS	08/07/2012	7.0
854-DIS GWTS	09/04/2012	7.0
854-DIS GWTS	10/02/2012	7.0
854-DIS GWTS	11/05/2012	7.0
854-DIS GWTS	12/04/2012	7.0
832 Canyon OU		
832-SRC GWTS	07/09/2012	7.3
832-SRC GWTS	08/01/2012	7.5
832-SRC GWTS	09/04/2012	7.4
832-SRC GWTS	10/01/2012	7.3
832-SRC GWTS	11/05/2012	7.3
832-SRC GWTS	12/03/2012	7.5
830-SRC GWTS	07/02/2012	7.1
830-SRC GWTS	08/01/2012	7.8
830-SRC GWTS	09/04/2012	7.2

A-1. Results of infuent and effluent pH, July through December 2012.

Sample Location	Sample Date	Effluent pH Result
830-SRC GWTS	10/01/2012	7.0
830-SRC GWTS	11/05/2012	7.1
830-SRC GWTS	12/03/2012	7.1
830-DISS GWTS	07/10/2012	7.0
830-DISS GWTS	08/07/2012	7.0
830-DISS GWTS	09/04/2012	7.0
830-DISS GWTS	10/01/2012	7.0
830-DISS GWTS	11/05/2012	7.0
830-DISS GWTS	12/04/2012	7.0

Notes:

834 = Building 834.
815 = Building 815.
817 = Building 817.
829 = Building 829.
854 = Building 854.
832 = Building 832.
830 = Building 830.
CGSA = Central General Services Area.
EGSA = Eastern General Services Area.
DISS = Distal south.
DSB = Distal site boundary.
GWTS = Ground water treatment system.
PRX = Proximal.
PRXN = Proximal North.
SRC = Source.
NA = Not applicable.
NM = Not measured due to facility not operating during this period.
NR = Not required.
OU = Operable unit.
pH = A measure of the acidity or alkalinity of an aqueous solution.
mg/L = Milligrams per liter.

Appendix B

Analytical Results for Routine Monitoring During 2012

Appendix B

Analytical Results for Routine Monitoring During 2012

Table B-1.01. Central General Services Area Operable Unit volatile organic compounds (VOCs) in ground water.

Table B-1.02. Eastern General Services Area Operable Unit volatile organic compounds (VOCs) in ground water.

Table B-1.03. General Services Area Operable Unit metals in ground water.

Table B-1.04. General Services Area Operable Unit general minerals in ground water.

Table B-1.05. General Services Area Operable Unit uranium isotopes in ground water.

Table B-2.01. Building 834 Operable Unit volatile organic compounds (VOCs) in ground water.

Table B-2.02. Building 834 Operable Unit nitrate and perchlorate in ground water.

Table B-2.03. Building 834 Operable Unit tetrabutyl orthosilicate/tetrakis (2-ethylbutyl) silane (TBOS/TKEBS) in ground water.

Table B-2.04. Building 834 Operable Unit diesel range organic compounds in ground water.

Table B-2.05. Building 834 Operable Unit metals in ground water.

Table B-3.01. Pit 6 Landfill Operable Unit volatile organic compounds (VOCs) in ground water.

Table B-3.02. Pit 6 Landfill Operable Unit nitrate and perchlorate in ground water.

Table B-3.03. Pit 6 Landfill Operable Unit tritium in ground water.

Table B-3.04. Pit 6 Landfill Operable Unit total uranium and uranium isotopes in ground water.

Table B-3.05. Pit 6 Landfill Post-closure Monitoring Plan constituents of concern, detection monitoring wells, Statistical Limits, MCLs, and analytical results for 2012.

Table B-3.06. Pit 6 Landfill detection monitoring physical parameters for third quarter 2012.

Table B-4.01. High Explosives Process Area Operable Unit volatile organic compounds (VOCs) in ground and surface water.

Table B-4.02. High Explosives Process Area Operable Unit nitrate and perchlorate in ground and surface water.

Table B-4.03. High Explosives Process Area Operable Unit high explosive compounds in ground and surface water.

Table B-4.04. High Explosives Process Area Operable Unit diesel range organic compounds in ground water.

Table B-4.05. High Explosives Process Area Operable Unit total uranium and uranium isotopes in ground water.

Table B-4.06. High Explosives Process Area Operable Unit general minerals in ground water.

Table B-4.07. High Explosives Process Area Operable Unit metals and silica in ground water.

Table B-4.08. High Explosives Process Area Operable Unit gross alpha and beta in ground water.
Table B-5.01. Building 850 area in Operable Unit 5 volatile organic compounds (VOCs) in ground water.
Table B-5.02. Building 850 area in Operable Unit 5 nitrate and perchlorate in ground water.
Table B-5.03. Building 850 area in Operable Unit 5 metals in ground water.
Table B-5.04. Building 850 area in Operable Unit 5 polychlorinated biphenyl (PCB) compounds in ground water.
Table B-5.05. Building 850 area in Operable Unit 5 total uranium and uranium isotopes in ground water.
Table B-5.06. Building 850 area in Operable Unit 5 tritium in ground and surface water.
Table B-5.07. Building 850 area in Operable Unit 5 high explosive compounds in ground water.
Table B-5.08. Building 850 area in Operable Unit 5 general minerals in ground water.
Table B-5.09. Pit 2 Landfill volatile organic compounds (VOCs) in ground water.
Table B-5.10. Pit 2 Landfill total uranium and uranium isotopes in ground water.
Table B-5.11. Pit 2 Landfill nitrate and perchlorate in ground water.
Table B-5.12. Pit 2 Landfill high explosive compounds in ground water.
Table B-5.13. Pit 2 Landfill tritium in ground water.
Table B-5.14. Pit 2 Landfill fluoride in ground water.
Table B-5.15. Pit 2 Landfill metals in ground water.
Table B-5.16. Pit 7 Complex area in Operable Unit 5 volatile organic compounds (VOCs) in ground water.
Table B-5.17. Pit 7 Complex area in Operable Unit 5 nitrate, perchlorate, and orthophosphate in ground water.
Table B-5.18. Pit 7 Complex area in Operable Unit 5 metals and silica in ground water.
Table B-5.19. Pit 7 Complex area in Operable Unit 5 polychlorinated biphenyl (PCBs) compounds in ground water.
Table B-5.20. Pit 7 Complex area in Operable Unit 5 fluoride in ground water.
Table B-5.21. Pit 7 Complex area in Operable Unit 5 total uranium and uranium isotopes in ground water.
Table B-5.22. Pit 7 Complex area in Operable Unit 5 tritium in ground water.
Table B-5.23. Pit 7 Complex area in Operable Unit 5 high explosive compounds in ground water.
Table B-6.01. Building 854 Operable Unit volatile organic compounds (VOCs) in ground and surface water.
Table B-6.02. Building 854 Operable Unit nitrate and perchlorate in ground and surface water.
Table B-6.03. Building 854 Operable Unit total uranium and uranium isotopes in ground water.
Table B-7.01. Building 832 Canyon Operable Unit volatile organic compounds (VOCs) in ground and surface water.

Table B-7.02. Building 832 Canyon Operable Unit nitrate and perchlorate in ground and surface water.

Table B-7.03. Building 832 Canyon Operable Unit high explosive compounds in ground water.

Table B-7.04. Building 832 Canyon Operable Unit general minerals in ground water.

Table B-7.05. Building 832 Canyon Operable Unit uranium isotopes in ground water.

Table B-8.01. Building 851 Firing Table total uranium and uranium isotopes in ground water.

Table B-8.02. Building 845 Firing Table and Pit 9 Landfill tritium in ground water.

Table B-8.03. Building 845 Firing Table and Pit 9 Landfill metals in ground water.

Table B-8.04. Building 845 Firing Table and Pit 9 Landfill volatile organic compounds (VOCs) in ground water.

Table B-8.05. Building 845 Firing Table and Pit 9 Landfill high explosive compounds in ground water.

Table B-8.06. Building 845 Firing Table and Pit 9 Landfill nitrate and perchlorate in ground water.

Table B-8.07. Building 845 Firing Table and Pit 9 Landfill fluoride in ground water.

Table B-8.08. Building 845 Firing Table and Pit 9 Landfill total uranium and uranium isotopes in ground water.

Table B-8.09. Building 833 volatile organic compounds (VOCs) in ground water.

Table B-8.10. Building 833 nitrate and perchlorate in ground water.

Table B-8.11. Building 801 Firing Table and Pit 8 Landfill tritium in ground water.

Table B-8.12. Building 801 Firing Table and Pit 8 Landfill metals in ground water.

Table B-8.13. Building 801 Firing Table and Pit 8 Landfill volatile organic compounds (VOCs) in ground water.

Table B-8.14. Building 801 Firing Table and Pit 8 Landfill high explosive compounds in ground water.

Table B-8.15. Building 801 Firing Table and Pit 8 Landfill nitrate and perchlorate in ground water.

Table B-8.16. Building 801 Firing Table and Pit 8 Landfill fluoride in ground water.

Table B-8.17. Building 801 Firing Table and Pit 8 Landfill total uranium and uranium isotopes in ground water.

Table B-1.01. Central General Services Area Operable Unit volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-35A-01	6/20/12	E601	10	0.66	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-01	6/20/12 DUP	E601	12	0.76	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-01	9/4/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-01	9/5/12	E601	74	4.8	0.69	<0.5	<0.5	<0.5	<0.5	<0.5	1.4	<0.5	<0.5	0.6	<0.5	<0.5
W-35A-01	12/18/12	E601	19	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-02	6/19/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-02	12/18/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-03	6/19/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-03	12/13/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-04	5/8/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-04	11/12/12	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-04	11/12/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5
W-35A-05	6/19/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-05	12/18/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-06	6/19/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-06	12/18/12	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5
W-35A-07	6/19/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-07	12/18/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-08	2/21/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-08	6/19/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-08	9/24/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-08	12/13/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-09	12/13/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-10	12/18/12	E601	11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	6.5	<0.5	<0.5
W-35A-10	12/18/12 DUP	E601	11 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	7.5	<2	<0.5
W-35A-11	6/19/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-11	12/13/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-12	6/19/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-12	12/13/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-13	6/19/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-13	6/19/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-13	12/18/12	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5
W-35A-14	2/21/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-14	6/19/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-14	9/24/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35A-14	12/18/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7B	6/13/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7B	6/13/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7B	12/17/12	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5
W-7B	12/17/12 DUP	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5
W-7E	5/8/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7E	11/13/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7ES	5/8/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7ES	5/8/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7ES	11/13/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7ES	11/13/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7F	6/11/12	E601	0.85	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7F	12/19/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7G	6/11/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7G	12/17/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7G	12/17/12 DUP	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5
W-7H	6/11/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7H	12/10/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7I	4/2/12	E601	170 D	17	29	1.2	<0.5	<0.5	<0.5	<0.5	2.6	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-1.01. Central General Services Area Operable Unit volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-7I	7/2/12	E601	150 D	7.9	22	1.2	<0.5	<0.5	<0.5	<0.5	1.7	<0.5	<0.5	<0.5	<0.5	<0.5
W-7I	10/2/12	E601	200 D	5.8	40	2.1	<0.5	<0.5	<0.5	<0.5	2.1	<0.5	<0.5	<0.5	<0.5	<0.5
W-7J	6/11/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7K	6/12/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L
W-7K	12/17/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7K	12/17/12 DUP	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5
W-7L	6/13/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7L	12/17/12	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5
W-7M	6/12/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L
W-7M	12/17/12	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5
W-7N	6/12/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L
W-7N	11/29/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5
W-7N	11/29/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7O	2/13/12	E601	28	2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7O	4/2/12	E601	25	1.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7O	4/2/12 DUP	E601	25	1.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7O	7/2/12	E601	84	6.1	0.65	<0.5	<0.5	<0.5	<0.5	<0.5	1.5	<0.5	<0.5	0.63	<0.5	<0.5
W-7O	10/2/12	E601	57	4.4	0.52	<0.5	<0.5	<0.5	<0.5	<0.5	1	<0.5	<0.5	0.56	<0.5	<0.5
W-7P	3/7/12	E601	1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7P	4/2/12	E601	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7P	4/2/12 DUP	E601	1.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7P	7/2/12	E601	1.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7PS	5/7/12	E601	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7Q	6/12/12	E601	11	2.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L
W-7Q	12/19/12	E601	14	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7R	2/13/12	E601	1.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7R	4/2/12	E601	1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7R	4/2/12 DUP	E601	1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7R	7/2/12	E601	2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7R	10/2/12	E601	3.6	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7S	6/12/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L
W-7S	12/13/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7T	6/12/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L
W-7T	12/13/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-843-01	6/11/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-843-01	12/3/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-843-02	6/11/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-843-02	12/3/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-872-02	2/13/12	E601	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	3.2	<0.5	<0.5
W-872-02	4/2/12	E601	11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.9	<0.5	<0.5
W-872-02	7/2/12	E601	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	3.6	<0.5	<0.5
W-872-02	10/2/12	E601	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	3.6	<0.5	<0.5
W-873-01	6/14/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-873-01	12/6/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-873-02	6/18/12	E601	6.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	5	<0.5	<0.5
W-873-02	12/4/12	E601	7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	6.2	<0.5	<0.5
W-873-03	6/28/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-873-03	12/6/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-873-04	6/14/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-873-04	12/6/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-873-06	6/14/12	E601	3.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-873-06	12/6/12	E601	3.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-873-07	2/13/12	E601	6.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	10	<0.5	<0.5
W-873-07	4/2/12	E601	9.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	6.9	<0.5	<0.5

Table B-1.01. Central General Services Area Operable Unit volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-873-07	7/2/12	E601	5.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	6.8	<0.5	<0.5
W-873-07	10/2/12	E601	7.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	11	<0.5	<0.5
W-875-01	6/19/12	E601	0.99	<0.5	3.8	2.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-01	11/29/12	E601	1.5	<0.5	3.8	3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-02	6/19/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-02	12/10/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-03	6/19/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-04	6/19/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-04	12/10/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-05	6/19/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-05	11/29/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-06	6/19/12	E601	0.77	<0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-06	12/10/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-07	2/13/12	E601	340 D	8.1	30	2.3	<0.5	<0.5	<0.5	<0.5	5.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-07	4/2/12	E601	380 D	4.7	35	2.6	<0.5	<0.5	<0.5	<0.5	6.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-07	10/2/12	E601	220 D	3.3	28	2	<0.5	<0.5	<0.5	<0.5	3.7	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-08	2/13/12	E601	360 D	2.7	39	3.2	<0.5	<0.5	<0.5	<0.5	7.3	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-08	4/2/12	E601	460 D	3.5	42	3.3	<0.5	<0.5	<0.5	<0.5	9.2	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-08	7/2/12	E601	200 D	2.2	23	1.8	<0.5	<0.5	<0.5	<0.5	3.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-875-08	10/2/12	E601	280 D	2.1	36	2.8	<0.5	<0.5	<0.5	<0.5	5.7	<0.5	<0.5	<0.5	<0.5	<0.5
W-876-01	6/19/12	E601	6.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-876-01	11/29/12	E601	2.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-879-01	6/11/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-879-01	12/3/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-889-01	6/11/12	E601	9.9	<0.5	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-889-01	12/4/12	E601	8.6	<0.5	0.96	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-CGSA-1732	12/10/12	E601	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-CGSA-1736	6/7/12	E601	3.8	0.61	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-CGSA-1736	12/18/12	E601	4.5 L	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5
W-CGSA-1737	6/7/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-CGSA-1737	12/17/12	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5
W-CGSA-1739	6/7/12	E601	3.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-CGSA-1739	12/13/12	E601	2.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-CGSA-2708	12/13/12	E601	9.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-1.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro-ethene (total) (µg/L)
W-35A-01	6/20/12	E601	0 of 18	-
W-35A-01	6/20/12 DUP	E601	0 of 18	-
W-35A-01	9/4/12	E601	0 of 18	-
W-35A-01	9/5/12	E601	0 of 18	-
W-35A-01	12/18/12	E601	0 of 18	-
W-35A-02	6/19/12	E601	0 of 18	-
W-35A-02	12/18/12	E601	0 of 18	-
W-35A-03	6/19/12	E601	0 of 18	-
W-35A-03	12/13/12	E601	0 of 18	-
W-35A-04	5/8/12	E601	0 of 18	-
W-35A-04	11/12/12	E502.2	0 of 46	-
W-35A-04	11/12/12	E601	0 of 18	-
W-35A-05	6/19/12	E601	0 of 18	-
W-35A-05	12/18/12	E601	0 of 18	-
W-35A-06	6/19/12	E601	0 of 18	-
W-35A-06	12/18/12	E601	0 of 18	-
W-35A-07	6/19/12	E601	0 of 18	-
W-35A-07	12/18/12	E601	0 of 18	-
W-35A-08	2/21/12	E601	0 of 18	-
W-35A-08	6/19/12	E601	0 of 18	-
W-35A-08	9/24/12	E601	0 of 18	-
W-35A-08	12/13/12	E601	0 of 18	-
W-35A-09	12/13/12	E601	0 of 18	-
W-35A-10	12/18/12	E601	0 of 18	-
W-35A-10	12/18/12 DUP	E601	0 of 18	-
W-35A-11	6/19/12	E601	0 of 18	-
W-35A-11	12/13/12	E601	0 of 18	-
W-35A-12	6/19/12	E601	0 of 18	-
W-35A-12	12/13/12	E601	0 of 18	-
W-35A-13	6/19/12	E601	0 of 18	-
W-35A-13	6/19/12 DUP	E601	0 of 18	-
W-35A-13	12/18/12	E601	0 of 18	-
W-35A-14	2/21/12	E601	0 of 18	-
W-35A-14	6/19/12	E601	0 of 18	-
W-35A-14	9/24/12	E601	0 of 18	-
W-35A-14	12/18/12	E601	0 of 18	-
W-7B	6/13/12	E601	0 of 18	-
W-7B	6/13/12 DUP	E601	0 of 18	-
W-7B	12/17/12	E601	0 of 18	-
W-7B	12/17/12 DUP	E601	0 of 18	-
W-7E	5/8/12	E601	0 of 18	-
W-7E	11/13/12	E601	0 of 18	-
W-7ES	5/8/12	E601	0 of 18	-
W-7ES	5/8/12 DUP	E601	0 of 18	-
W-7ES	11/13/12	E601	0 of 18	-
W-7ES	11/13/12 DUP	E601	0 of 18	-
W-7F	6/11/12	E601	0 of 18	-
W-7F	12/19/12	E601	0 of 18	-
W-7G	6/11/12	E601	0 of 18	-
W-7G	12/17/12	E601	0 of 18	-
W-7G	12/17/12 DUP	E601	0 of 18	-
W-7H	6/11/12	E601	0 of 18	-
W-7H	12/10/12	E601	0 of 18	-
W-7I	4/2/12	E601	1 of 18	30

Table B-1.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro-ethene (total) (µg/L)
W-7I	7/2/12	E601	1 of 18	23
W-7I	10/2/12	E601	1 of 18	42
W-7J	6/11/12	E601	0 of 18	-
W-7K	6/12/12	E601	0 of 18	-
W-7K	12/17/12	E601	0 of 18	-
W-7K	12/17/12 DUP	E601	0 of 18	-
W-7L	6/13/12	E601	0 of 18	-
W-7L	12/17/12	E601	0 of 18	-
W-7M	6/12/12	E601	0 of 18	-
W-7M	12/17/12	E601	0 of 18	-
W-7N	6/12/12	E601	0 of 18	-
W-7N	11/29/12	E601	0 of 18	-
W-7N	11/29/12 DUP	E601	0 of 18	-
W-7O	2/13/12	E601	0 of 18	-
W-7O	4/2/12	E601	0 of 18	-
W-7O	4/2/12 DUP	E601	0 of 18	-
W-7O	7/2/12	E601	0 of 18	-
W-7O	10/2/12	E601	0 of 18	-
W-7P	3/7/12	E601	0 of 18	-
W-7P	4/2/12	E601	0 of 18	-
W-7P	4/2/12 DUP	E601	0 of 18	-
W-7P	7/2/12	E601	0 of 18	-
W-7PS	5/7/12	E601	0 of 18	-
W-7Q	6/12/12	E601	0 of 18	-
W-7Q	12/19/12	E601	0 of 18	-
W-7R	2/13/12	E601	0 of 18	-
W-7R	4/2/12	E601	0 of 18	-
W-7R	4/2/12 DUP	E601	0 of 18	-
W-7R	7/2/12	E601	0 of 18	-
W-7R	10/2/12	E601	0 of 18	-
W-7S	6/12/12	E601	0 of 18	-
W-7S	12/13/12	E601	0 of 18	-
W-7T	6/12/12	E601	0 of 18	-
W-7T	12/13/12	E601	0 of 18	-
W-843-01	6/11/12	E601	0 of 18	-
W-843-01	12/3/12	E601	0 of 18	-
W-843-02	6/11/12	E601	0 of 18	-
W-843-02	12/3/12	E601	0 of 18	-
W-872-02	2/13/12	E601	0 of 18	-
W-872-02	4/2/12	E601	0 of 18	-
W-872-02	7/2/12	E601	0 of 18	-
W-872-02	10/2/12	E601	0 of 18	-
W-873-01	6/14/12	E601	0 of 18	-
W-873-01	12/6/12	E601	0 of 18	-
W-873-02	6/18/12	E601	0 of 18	-
W-873-02	12/4/12	E601	0 of 18	-
W-873-03	6/28/12	E601	0 of 18	-
W-873-03	12/6/12	E601	0 of 18	-
W-873-04	6/14/12	E601	0 of 18	-
W-873-04	12/6/12	E601	0 of 18	-
W-873-06	6/14/12	E601	0 of 18	-
W-873-06	12/6/12	E601	0 of 18	-
W-873-07	2/13/12	E601	0 of 18	-
W-873-07	4/2/12	E601	0 of 18	-

Table B-1.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro-ethene (total) (µg/L)
W-873-07	7/2/12	E601	0 of 18	-
W-873-07	10/2/12	E601	0 of 18	-
W-875-01	6/19/12	E601	1 of 18	5.9
W-875-01	11/29/12	E601	1 of 18	6.8
W-875-02	6/19/12	E601	0 of 18	-
W-875-02	12/10/12	E601	0 of 18	-
W-875-03	6/19/12	E601	0 of 18	-
W-875-04	6/19/12	E601	0 of 18	-
W-875-04	12/10/12	E601	0 of 18	-
W-875-05	6/19/12	E601	0 of 18	-
W-875-05	11/29/12	E601	0 of 18	-
W-875-06	6/19/12	E601	1 of 18	1.1
W-875-06	12/10/12	E601	0 of 18	-
W-875-07	2/13/12	E601	1 of 18	32
W-875-07	4/2/12	E601	1 of 18	37
W-875-07	10/2/12	E601	1 of 18	30
W-875-08	2/13/12	E601	1 of 18	42
W-875-08	4/2/12	E601	1 of 18	45
W-875-08	7/2/12	E601	1 of 18	25
W-875-08	10/2/12	E601	1 of 18	39
W-876-01	6/19/12	E601	0 of 18	-
W-876-01	11/29/12	E601	0 of 18	-
W-879-01	6/11/12	E601	0 of 18	-
W-879-01	12/3/12	E601	0 of 18	-
W-889-01	6/11/12	E601	1 of 18	1.1
W-889-01	12/4/12	E601	0 of 18	-
W-CGSA-1732	12/10/12	E601	0 of 18	-
W-CGSA-1736	6/7/12	E601	0 of 18	-
W-CGSA-1736	12/18/12	E601	0 of 18	-
W-CGSA-1737	6/7/12	E601	0 of 18	-
W-CGSA-1737	12/17/12	E601	0 of 18	-
W-CGSA-1739	6/7/12	E601	0 of 18	-
W-CGSA-1739	12/13/12	E601	0 of 18	-
W-CGSA-2708	12/13/12	E601	0 of 18	-

Table B-1.02. Eastern General Services Area Operable Unit volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
CDF1	1/31/12	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	1/31/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	1/31/12 DUP	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
CDF1	1/31/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	2/16/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	2/16/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	3/12/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	3/12/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	4/25/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	4/25/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	5/22/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	5/22/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	6/18/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	6/18/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	7/25/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	7/25/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	8/20/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	8/20/12 DUP	E601	<0.5	<0.5	<0.5	<0.5 O	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	9/11/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	9/11/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	10/24/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	10/24/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	11/26/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	11/26/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	12/6/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CDF1	12/6/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	1/31/12	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	1/31/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	1/31/12 DUP	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
CON1	1/31/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	2/16/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	2/16/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	3/12/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	3/12/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	4/25/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	4/25/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	5/22/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	5/22/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	6/18/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	6/18/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	7/25/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	7/25/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	8/20/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	8/20/12 DUP	E601	<0.5	<0.5	<0.5	<0.5 O	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	9/11/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	9/11/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	10/24/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	10/24/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	11/26/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	11/26/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	12/6/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON1	12/6/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON2	1/31/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON2	2/16/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON2	3/12/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON2	4/25/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON2	5/22/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON2	6/18/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON2	7/31/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 J

Table B-1.02. Eastern General Services Area Operable Unit volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
CON2	8/20/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON2	9/11/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON2	10/24/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON2	11/26/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CON2	12/6/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-24P-03	3/22/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-25D-01	1/11/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-25D-02	1/11/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-25M-01	1/11/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-25M-02	1/11/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-25M-03	1/11/12	E601	0.75	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-25N-01	1/12/12	E601	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-25N-01	1/12/12 DUP	E601	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-25N-04	1/19/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-25N-05	1/11/12	E601	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-25N-05	1/11/12 DUP	E601	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-25N-06	1/11/12	E601	0.68	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-25N-06	1/11/12 DUP	E601	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-25N-07	2/21/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-25N-08	1/18/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-25N-09	1/18/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-25N-10	2/21/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-25N-11	2/21/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-25N-12	2/21/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-25N-13	2/21/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-25N-18	1/11/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-25N-21	1/19/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-25N-22	1/30/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-25N-23	1/30/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-25N-23	1/30/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-25N-24	1/12/12	E601	2.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-25N-25	1/26/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-25N-26	1/11/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-25N-28	1/11/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-26R-01	1/24/12	E601	2.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-26R-02	1/19/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-26R-03	1/12/12	E601	1.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-26R-04	1/19/12	E601	3.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-26R-05	1/23/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	1.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-26R-06	1/19/12	E601	2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-26R-06	9/25/12	E601	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-26R-06	12/19/12	E601	1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-26R-07	1/19/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-26R-08	1/19/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-26R-11	1/24/12	E601	0.72	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-26R-11	8/6/12	E601	0.84	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-26R-11	8/6/12 DUP	E601	0.77	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-26R-11	11/7/12	E601	0.79	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7D	1/19/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7DS	1/23/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7DS	8/8/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-7DS	11/7/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-1.02 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency
CDF1	1/31/12	E502.2	0 of 46
CDF1	1/31/12	E601	0 of 18
CDF1	1/31/12 DUP	E502.2	0 of 45
CDF1	1/31/12 DUP	E601	0 of 18
CDF1	2/16/12	E601	0 of 18
CDF1	2/16/12 DUP	E601	0 of 18
CDF1	3/12/12	E601	0 of 18
CDF1	3/12/12 DUP	E601	0 of 18
CDF1	4/25/12	E601	0 of 18
CDF1	4/25/12 DUP	E601	0 of 18
CDF1	5/22/12	E601	0 of 18
CDF1	5/22/12 DUP	E601	0 of 18
CDF1	6/18/12	E601	0 of 18
CDF1	6/18/12 DUP	E601	0 of 18
CDF1	7/25/12	E601	0 of 18
CDF1	7/25/12 DUP	E601	0 of 18
CDF1	8/20/12	E601	0 of 18
CDF1	8/20/12 DUP	E601	0 of 18
CDF1	9/11/12	E601	0 of 18
CDF1	9/11/12 DUP	E601	0 of 18
CDF1	10/24/12	E601	0 of 18
CDF1	10/24/12 DUP	E601	0 of 18
CDF1	11/26/12	E601	0 of 18
CDF1	11/26/12 DUP	E601	0 of 18
CDF1	12/6/12	E601	0 of 18
CDF1	12/6/12 DUP	E601	0 of 18
CON1	1/31/12	E502.2	0 of 46
CON1	1/31/12	E601	0 of 18
CON1	1/31/12 DUP	E502.2	0 of 45
CON1	1/31/12 DUP	E601	0 of 18
CON1	2/16/12	E601	0 of 18
CON1	2/16/12 DUP	E601	0 of 18
CON1	3/12/12	E601	0 of 18
CON1	3/12/12 DUP	E601	0 of 18
CON1	4/25/12	E601	0 of 18
CON1	4/25/12 DUP	E601	0 of 18
CON1	5/22/12	E601	0 of 18
CON1	5/22/12 DUP	E601	0 of 18
CON1	6/18/12	E601	0 of 18
CON1	6/18/12 DUP	E601	0 of 18
CON1	7/25/12	E601	0 of 18
CON1	7/25/12 DUP	E601	0 of 18
CON1	8/20/12	E601	0 of 18
CON1	8/20/12 DUP	E601	0 of 18
CON1	9/11/12	E601	0 of 18
CON1	9/11/12 DUP	E601	0 of 18
CON1	10/24/12	E601	0 of 18
CON1	10/24/12 DUP	E601	0 of 18
CON1	11/26/12	E601	0 of 18
CON1	11/26/12 DUP	E601	0 of 18
CON1	12/6/12	E601	0 of 18
CON1	12/6/12 DUP	E601	0 of 18
CON2	1/31/12	E601	0 of 18
CON2	2/16/12	E601	0 of 18
CON2	3/12/12	E601	0 of 18
CON2	4/25/12	E601	0 of 18
CON2	5/22/12	E601	0 of 18
CON2	6/18/12	E601	0 of 18
CON2	7/31/12	E601	0 of 18
CON2	8/20/12	E601	0 of 18

Table B-1.02 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency
CON2	9/11/12	E601	0 of 18
CON2	10/24/12	E601	0 of 18
CON2	11/26/12	E601	0 of 18
CON2	12/6/12	E601	0 of 18
W-24P-03	3/22/12	E601	0 of 18
W-25D-01	1/11/12	E601	0 of 18
W-25D-02	1/11/12	E601	0 of 18
W-25M-01	1/11/12	E601	0 of 18
W-25M-02	1/11/12	E601	0 of 18
W-25M-03	1/11/12	E601	0 of 18
W-25N-01	1/12/12	E601	0 of 18
W-25N-01	1/12/12 DUP	E601	0 of 18
W-25N-04	1/19/12	E601	0 of 18
W-25N-05	1/11/12	E601	0 of 18
W-25N-05	1/11/12 DUP	E601	0 of 18
W-25N-06	1/11/12	E601	0 of 18
W-25N-06	1/11/12 DUP	E601	0 of 18
W-25N-07	2/21/12	E601	0 of 18
W-25N-08	1/18/12	E601	0 of 18
W-25N-09	1/18/12	E601	0 of 18
W-25N-10	2/21/12	E601	0 of 18
W-25N-11	2/21/12	E601	0 of 18
W-25N-12	2/21/12	E601	0 of 18
W-25N-13	2/21/12	E601	0 of 18
W-25N-18	1/11/12	E601	0 of 18
W-25N-21	1/19/12	E601	0 of 18
W-25N-22	1/30/12	E601	0 of 18
W-25N-23	1/30/12	E601	0 of 18
W-25N-23	1/30/12 DUP	E601	0 of 18
W-25N-24	1/12/12	E601	0 of 18
W-25N-25	1/26/12	E601	0 of 18
W-25N-26	1/11/12	E601	0 of 18
W-25N-28	1/11/12	E601	0 of 18
W-26R-01	1/24/12	E601	0 of 18
W-26R-02	1/19/12	E601	0 of 18
W-26R-03	1/12/12	E601	0 of 18
W-26R-04	1/19/12	E601	0 of 18
W-26R-05	1/23/12	E601	0 of 18
W-26R-06	1/19/12	E601	0 of 18
W-26R-06	9/25/12	E601	0 of 18
W-26R-06	12/19/12	E601	0 of 18
W-26R-07	1/19/12	E601	0 of 18
W-26R-08	1/19/12	E601	0 of 18
W-26R-11	1/24/12	E601	0 of 18
W-26R-11	8/6/12	E601	0 of 18
W-26R-11	8/6/12 DUP	E601	0 of 18
W-26R-11	11/7/12	E601	0 of 18
W-7D	1/19/12	E601	0 of 18
W-7DS	1/23/12	E601	0 of 18
W-7DS	8/8/12	E601	0 of 18
W-7DS	11/7/12	E601	0 of 18

Table B-1.03. General Services Area Operable Unit metals in ground water.

Location	Date	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Mercury (mg/L)	Selenium (mg/L)	Silver (mg/L)
W-25N-01	1/12/12	<0.05	0.055	<0.01	<0.01	<0.05	<0.0002	<0.05	<0.01
W-25N-01	1/12/12 DUP	<0.05	0.053	<0.01	<0.01	<0.05	<0.0002	<0.05	<0.01
W-25N-04	1/19/12	<0.05	0.013	<0.01	<0.01	<0.05	<0.0002	<0.05	<0.01
W-25N-21	1/19/12	<0.05	0.021	<0.01	<0.01	<0.05	<0.0002	<0.05	<0.01
W-25N-24	1/12/12	<0.05	0.055	<0.01	<0.01	<0.05	<0.0002	<0.05	<0.01
W-26R-03	1/12/12	<0.05	0.058	<0.01	<0.01	<0.05	<0.0002	<0.05	<0.01

Table B-1.04. General Services Area Operable Unit general minerals in ground water.

Constituents of concern	W-24P-03	W-25N-01	W-25N-01	W-25N-04	W-25N-21	W-25N-24	W-26R-03	W-26R-04
	6/20/12	1/12/12	1/12/12 DUP	1/19/12	1/19/12	1/12/12	1/12/12	6/20/12
Total Alkalinity (as CaCO3) (mg/L)	310	290	290	260	170	290	280	230
Aluminum (mg/L)	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bicarbonate Alk (as CaCO3) (mg/L)	310 D	290 D	290 D	200 D	170 D	290 D	280 D	230 D
Calcium (mg/L)	110	90	91	9.9	130	88	90	66
Carbonate Alk (as CaCO3) (mg/L)	<8.2 D	<8.2 D	<8.2 D	57 D	<8.2 D	<8.2 D	<8.2 D	<8.2 D
Chloride (mg/L)	140	130 D	140	230 D	110 D	140	140	150
Copper (mg/L)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fluoride (mg/L)	0.55	0.31 D	0.3	1.8 D	0.39 D	0.37	0.38	0.37
Hydroxide Alk (as CaCO3) (mg/L)	<8.2 D	<8.2 D	<8.2 D	<8.2 D	<8.2 D	<8.2 D	<8.2 D	<8.2 D
Iron (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Magnesium (mg/L)	45	40	41	0.71	55	40	41	28
Manganese (mg/L)	0.74	<0.03	<0.03	<0.03	0.15	<0.03	<0.03	<0.01
Nickel (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrate (as N) (mg/L)	<0.5	2.3 D	2.4	<1 D	<1 D	2.5	2.6	2.9
Nitrate (as NO3) (mg/L)	<0.44 H	10 H	11 H	<0.5	0.61	11 H	12 H	13 H
Nitrite (as N) (mg/L)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
pH (Units)	7.84	7.74 H	7.71 H	8.64	7.78	7.76 H	7.74 H	7.93
Ortho-Phosphate (mg/L)	<1	0.27	0.22	0.48	0.09	0.26	0.21	<1
Total Phosphorus (as P) (mg/L)	3.9 DH	0.076 H	0.088 H	0.14 H	<0.05 H	0.092 H	0.067 H	0.084 H
Potassium (mg/L)	6.4	5.8	5.9	4.5	12	6.1	5.8	6
Sodium (mg/L)	210	170	170	480 L	140 L	180	170	190
Total dissolved solids (TDS) (mg/L)	1,100 D	960 DH	1,000 DH	1,600 DH	1,200 DH	960 DH	920 DH	1,100 D
Specific Conductance (µmhos/cm)	1,670	1,460 H	1,450 H	2,330	1,650	1,440 H	1,420 H	1,370
Sulfate (mg/L)	370	290 D	300	510 D	530 D	290	290	250
Surfactants (mg/L)	<0.5	<1 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Hardness (as CaCO3) (mg/L)	450	390	400	28	550	380	390	280
Zinc (mg/L)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Table B-1.05. General Services Area Operable Unit uranium isotopes in ground water.

Location	Date	Uranium 234 and Uranium 233 (pCi/L)	Uranium 235 and Uranium 236 (pCi/L)	Uranium 238 (pCi/L)
W-24P-03	6/20/12	2.03 ± 0.573	<0.1	1.81 ± 0.524
W-26R-04	6/20/12	2.39 ± 0.456	0.160 ± 0.0875	2.36 ± 0.449
W-35A-04	11/12/12	2.41 ± 0.337	<0.1	1.78 ± 0.257

Table B-2.01. Building 834 Operable Unit volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-834-1709	2/1/12	E601	3,600 D	22 D	220 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-1709	7/26/12	E601	5,600 D	19 D	470 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 DJ
W-834-1711	2/1/12	E601	1,500 D	<2.5 D	2.6 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-834-1711	7/26/12	E601	1,400 D	<2.5 D	2.6 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 DJ
W-834-1824	2/9/12	E601	54	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	10
W-834-1824	8/1/12	E601	170 D	0.5	61	0.56	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	13
W-834-1824	8/1/12 DUP	E601	230 D	0.51	64	0.56	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	16
W-834-1824	10/2/12	E601	6.9	<0.5	1.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	3.7
W-834-1825	2/14/12	E601	9.2	<0.5	3.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	4.3
W-834-1825	8/2/12	E601	8.4	<0.5	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	8.6
W-834-1825	10/2/12	E601	2.8	<0.5	1.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.4
W-834-1833	2/14/12	E601	5,200 D	10 D	40 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D
W-834-1833	8/2/12	E601	4,700 D	<10 D	34 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D
W-834-1833	10/2/12	E601	4,200 D	8.4 D	40 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-2001	3/5/12	E601	1,500 D	34 D	680 D	<25 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-834-2001	4/4/12	E624	1,300 D	28 D	1,500 D	<50 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D
W-834-2001	9/5/12	E601	370 D	10	300 D	<25 D	<0.5	<0.5	<0.5	<0.5	0.71	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-2001	10/3/12	E624	920 D	26 D	1,200 D	<50 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-2113	2/8/12	E601	10,400 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D
W-834-2113	8/1/12	E601	24,300 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D
W-834-2117	2/9/12	E601	7,300 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D
W-834-2117	8/1/12	E601	7,330 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D
W-834-2118	2/6/12	E601	297 DL	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-2118	8/6/12	E601	196 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D
W-834-2119	2/9/12	E601	16,500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D
W-834-2119	8/2/12	E601	16,700 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D
W-834-A1	2/1/12	E601	200,000 D	960 D	1,400 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D
W-834-A1	7/25/12	E601	190,000 D	1,000 D	9,200 D	<250 D	<250 D	<250 D	<250 D	<250 D	<250 D	<250 D	<250 D	<250 D	<250 D	<250 D
W-834-A1	7/25/12 DUP	E601	298,000 DLO	<5,000 D	<5,000 D	<5,000 D	<5,000 D	<5,000 D	<5,000 D	<5,000 D	<5,000 D	<5,000 D	<5,000 D	<5,000 D	<5,000 D	<5,000 D
W-834-B2	3/5/12	E601	3,400 D	27 D	2,000 D	<25 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-B2	4/4/12	E601	1,700 D	17 D	940 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-B2	9/5/12	E601	120 D	1.2	54 D	<2.5 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-B2	10/3/12	E601	1,000 D	8.2	710 D	<25 D	<0.5	0.5	<0.5	<0.5	0.54	<0.5	0.75	<0.5	<0.5	<0.5
W-834-B3	2/14/12	E601	110 D	<2.5 D	1,000 D	<25 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-834-B3	3/5/12	E601	410 D	<10 D	4,300 D	<25 D	<10 D	<10 D	<10 D	<10 D	12 D	<10 D	<10 D	<10 D	<10 D	<10 D
W-834-B3	4/4/12	E601	150 D	<5 D	1,700 D	<50 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-B3	9/5/12	E601	580 D	<2.5 D	3,400 D	<25 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	10 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	4.7 D
W-834-B3	10/3/12	E601	400 D	0.86	1,600 D	<25 D	<0.5	<0.5	<0.5	<0.5	5.2	<0.5	<0.5	<0.5	<0.5	0.96
W-834-C4	2/1/12	E601	34	<0.5	19	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-C4	7/25/12	E601	150 D	<0.5	200 D	<5 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-C4	7/25/12 DUP	E601	167 DLO	<0.5	91 D	0.6	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-C5	7/25/12	E601	42,000 D	140 D	23,000 D	<500 D	<50 D	<50 D	<50 D	<50 D	76 D	<50 D	<50 D	<50 D	<50 D	<50 D
W-834-D3	2/7/12	E601	10 D	<5 D	3,700 D	<25 D	<5 D	<5 D	<5 D	<5 D	5.3 D	<5 D	<5 D	<5 D	<5 D	180 D
W-834-D3	2/7/12 DUP	E601	<50 DLO	<50 D	4,680 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	251 D
W-834-D3	7/26/12	E601	18 D	<5 D	1,300 D	<50 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	58 DJ
W-834-D4	2/14/12	E601	1,300 D	16 D	11,000 D	<100 D	<12 D	<12 D	<12 D	<12 D	13 D	<12 D	<12 D	<12 D	<12 D	19 D
W-834-D4	3/5/12	E601	7,400 D	<25 D	7,500 D	<100 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D
W-834-D4	4/4/12	E601	4,700 D	23 D	8,300 D	<50 D	<5 D	<5 D	<5 D	<5 D	9.3 D	<5 D	<5 D	<5 D	<5 D	7.6 D
W-834-D4	4/4/12 DUP	E601	5,740 D	32 D	10,100 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D
W-834-D4	9/5/12	E601	3,000 D	17 D	7,800 D	<100 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D
W-834-D4	10/3/12	E601	3,100 D	19 D	7,100 D	<50 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D
W-834-D5	3/5/12	E601	2,300 D	<10 D	4,300 D	39 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D
W-834-D5	9/5/12	E601	500 D	<0.5	1,200 D	<50 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-D6	3/5/12	E601	3,500 D	8.4 D	780 D	<25 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-D6	4/4/12	E601	2,500 D	5.7 D	470 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-D6	9/5/12	E601	900 D	2.9	360 D	<50 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1	<0.5	2.5	<0.5
W-834-D6	10/3/12	E601	730 D	<2.5 D	230 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	7.6 D	<2.5 D
W-834-D7	3/5/12	E601	3,400 D	14 D	190 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-D7	4/4/12	E601	6,600 D	26 D	150 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D

Table B-2.01. Building 834 Operable Unit volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-834-D7	9/5/12	E601	4,800 D	16 D	86 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-D7	10/3/12	E601	3,300 D	20 D	98 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-D12	3/5/12	E601	300 D	3.2	77	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-D12	4/4/12	E601	270 D	1.6	48	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-D12	4/4/12 DUP	E601	201 D	<5 D	41 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-D12	9/5/12	E601	170 D	0.81	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-D12	10/3/12	E601	230 D	1.9	28	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-D13	3/5/12	E601	19,000 D	140 D	1,700 D	<50 D	<0.5	2.6	<0.5	0.53	5.5	0.74	4.9	<0.5	<0.5	0.86
W-834-D13	4/4/12	E601	17,000 D	120 D	1,200 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D
W-834-D13	9/5/12	E601	16,000 D	88 D	870 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D
W-834-D13	11/5/12	E601	15,000 D	93 D	580 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D
W-834-D14	2/7/12	E601	16,000 D	30 D	2,600 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D
W-834-D18	2/7/12	E601	240 D	<0.5	300 D	<5 D	<0.5	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	<0.5	0.62
W-834-D18	7/26/12	E601	120 D	<0.5	220 D	<5 D	<0.5	<0.5	<0.5	<0.5	0.64	<0.5	<0.5	<0.5	<0.5	<0.5 J
W-834-D18	7/26/12 DUP	E601	100 D	<0.5	160 D	<5 D	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	<0.5 J
W-834-J1	3/5/12	E601	29	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-J1	4/4/12	E601	80	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-J1	4/4/12 DUP	E601	67 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-J1	9/5/12	E601	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-J1	10/3/12	E601	49	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-J2	2/2/12	E601	170 D	<0.5	7.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.52
W-834-J2	7/31/12	E601	160 D	<0.5	31	0.73	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.89
W-834-J3	2/2/12	E601	1,100 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	2.6 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-834-M1	2/2/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-M1	7/31/12	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	0.85	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-S1	3/6/12	E601	210 D	6.4	13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-S1	4/4/12	E601	3,100 D	71	160 D	<5 D	<0.5	0.64	<0.5	<0.5	0.64	<0.5	0.91	<0.5	<0.5	<0.5
W-834-S1	9/5/12	E601	4,800 D	45 D	200 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-S1	10/3/12	E601	3,700 D	47 D	190 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-S12A	3/6/12	E601	1,400 D	<2.5 D	2.8 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-834-S12A	4/4/12	E601	2,900 D	2.8 D	7.1 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-834-S12A	4/4/12 DUP	E601	2,840 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D
W-834-S12A	9/5/12	E601	1,800 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-S12A	10/3/12	E601	1,300 D	<2.5 D	4.1 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-834-S13	3/6/12	E601	120 D	<0.5	5.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-S13	4/4/12	E601	300 D	0.95	15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.57	<0.5	<0.5	<0.5
W-834-S13	9/5/12	E601	100	0.51	5.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-S13	11/5/12	E601	210 D	1	11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-S4	2/2/12	E601	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-S4	2/2/12 DUP	E601	13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	<0.5
W-834-S4	7/31/12	E601	13 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-S8	2/15/12	E601	3,600 D	52 D	73 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-S8	8/1/12	E601	4,800 D	56 D	66 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-S8	8/1/12 DUP	E601	4,690 D	65 D	75 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D
W-834-S9	2/15/12	E601	3,600 D	6.4 D	6.8 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-834-S9	2/15/12 DUP	E601	3,600 D	6.5 D	6.6 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-834-S9	8/1/12	E601	2,200 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-834-T1	2/14/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-T1	4/11/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-T1	8/2/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-T1	11/28/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-T1	11/28/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5
W-834-T2	2/14/12	E601	87 D	<5 D	2,900 D	<50 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	560 D
W-834-T2	8/2/12	E601	1.2	<0.5	260 D	<50 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	410 D
W-834-T2	10/2/12	E601	1	<0.5	52	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	53 D
W-834-T2A	2/14/12	E601	7,000 D	15 D	59 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D
W-834-T2A	8/2/12	E601	5,800 D	13 D	14 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D
W-834-T2A	10/2/12	E601	5,400 D	15 D	18 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D
W-834-T2D	2/6/12	E601	7,700 D	16 D	11 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D

Table B-2.01. Building 834 Operable Unit volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-834-T2D	2/6/12 DUP	E601	7,600 D	17 D	11 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D
W-834-T2D	8/6/12	E601	7,900 D	17 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D
W-834-T2D	10/2/12	E601	6,100 D	15 D	10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D	<10 D
W-834-T3	2/14/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-T3	4/30/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-T3	8/2/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-T3	11/27/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-T5	2/14/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-T5	8/6/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-834-U1	2/8/12	E624	121,000 D	<500 D	5,030 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<500 D	<1,000 D	<500 D
W-834-U1	2/15/12	E624	58,000 D	290 D	3,500 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D	<100 D
W-834-U1	7/26/12	E624	58,000 D	320 D	3,900 D	<200 D	<200 D	<200 D	<200 D	<200 D	<200 D	<200 D	<200 D	<200 D	<200 D	<200 D

Table B-2.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro-ethene (total) (µg/L)	Chloroethane (µg/L)
W-834-1709	2/1/12	E601	1 of 18	220 D	-
W-834-1709	7/26/12	E601	1 of 18	470 D	-
W-834-1711	2/1/12	E601	0 of 18	-	-
W-834-1711	7/26/12	E601	0 of 18	-	-
W-834-1824	2/9/12	E601	1 of 18	1.5	-
W-834-1824	8/1/12	E601	1 of 18	62	-
W-834-1824	8/1/12 DUP	E601	1 of 18	65	-
W-834-1824	10/2/12	E601	1 of 18	2.2	-
W-834-1825	2/14/12	E601	1 of 18	3.4	-
W-834-1825	8/2/12	E601	1 of 18	13	-
W-834-1825	10/2/12	E601	1 of 18	1.6	-
W-834-1833	2/14/12	E601	1 of 18	40 D	-
W-834-1833	8/2/12	E601	1 of 18	34 D	-
W-834-1833	10/2/12	E601	1 of 18	40 D	-
W-834-2001	3/5/12	E601	1 of 18	680 D	-
W-834-2001	4/4/12	E624	1 of 30	1,500 D	-
W-834-2001	9/5/12	E601	1 of 18	300 D	-
W-834-2001	10/3/12	E624	1 of 30	1,200 D	-
W-834-2113	2/8/12	E601	0 of 18	-	-
W-834-2113	8/1/12	E601	0 of 18	-	-
W-834-2117	2/9/12	E601	0 of 18	-	-
W-834-2117	8/1/12	E601	0 of 18	-	-
W-834-2118	2/6/12	E601	0 of 18	-	-
W-834-2118	8/6/12	E601	0 of 18	-	-
W-834-2119	2/9/12	E601	0 of 18	-	-
W-834-2119	8/2/12	E601	0 of 18	-	-
W-834-A1	2/1/12	E601	1 of 18	1,400 D	-
W-834-A1	7/25/12	E601	1 of 18	9,200 D	-
W-834-A1	7/25/12 DUP	E601	0 of 18	-	-
W-834-B2	3/5/12	E601	1 of 18	2,000 D	-
W-834-B2	4/4/12	E601	1 of 18	950 D	-
W-834-B2	9/5/12	E601	1 of 18	54 D	-
W-834-B2	10/3/12	E601	1 of 18	710 D	-
W-834-B3	2/14/12	E601	1 of 18	1,000 D	-
W-834-B3	3/5/12	E601	1 of 18	4,300 D	-
W-834-B3	4/4/12	E601	1 of 18	1,700 D	-
W-834-B3	9/5/12	E601	1 of 18	3,400 D	-
W-834-B3	10/3/12	E601	1 of 18	1,600 D	-
W-834-C4	2/1/12	E601	1 of 18	19	-
W-834-C4	7/25/12	E601	1 of 18	200 D	-
W-834-C4	7/25/12 DUP	E601	1 of 18	91 DLO	-
W-834-C5	7/25/12	E601	1 of 18	23,000 D	-
W-834-D3	2/7/12	E601	1 of 18	3,700 D	-
W-834-D3	2/7/12 DUP	E601	1 of 18	4,680 D	-
W-834-D3	7/26/12	E601	1 of 18	1,300 D	-
W-834-D4	2/14/12	E601	1 of 18	11,000 D	-
W-834-D4	3/5/12	E601	1 of 18	7,500 D	-
W-834-D4	4/4/12	E601	1 of 18	8,300 D	-
W-834-D4	4/4/12 DUP	E601	1 of 18	10,100 D	-
W-834-D4	9/5/12	E601	1 of 18	7,800 D	-
W-834-D4	10/3/12	E601	1 of 18	7,100 D	-
W-834-D5	3/5/12	E601	1 of 18	4,300 D	-
W-834-D5	9/5/12	E601	1 of 18	1,200 D	-
W-834-D6	3/5/12	E601	1 of 18	780 D	-
W-834-D6	4/4/12	E601	1 of 18	470 D	-
W-834-D6	9/5/12	E601	1 of 18	360 D	-
W-834-D6	10/3/12	E601	1 of 18	230 D	-
W-834-D7	3/5/12	E601	1 of 18	190 D	-

Table B-2.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro-ethene (total) (µg/L)	Chloroethane (µg/L)
W-834-D7	4/4/12	E601	1 of 18	150 D	-
W-834-D7	9/5/12	E601	1 of 18	86 D	-
W-834-D7	10/3/12	E601	1 of 18	98 D	-
W-834-D12	3/5/12	E601	1 of 18	78	-
W-834-D12	4/4/12	E601	1 of 18	48	-
W-834-D12	4/4/12 DUP	E601	1 of 18	41 D	-
W-834-D12	9/5/12	E601	1 of 18	18	-
W-834-D12	10/3/12	E601	1 of 18	28	-
W-834-D13	3/5/12	E601	1 of 18	1,700 D	-
W-834-D13	4/4/12	E601	1 of 18	1,200 D	-
W-834-D13	9/5/12	E601	1 of 18	870 D	-
W-834-D13	11/5/12	E601	1 of 18	580 D	-
W-834-D14	2/7/12	E601	1 of 18	2,600 D	-
W-834-D18	2/7/12	E601	1 of 18	300 D	-
W-834-D18	7/26/12	E601	1 of 18	220 D	-
W-834-D18	7/26/12 DUP	E601	1 of 18	160 D	-
W-834-J1	3/5/12	E601	0 of 18	-	-
W-834-J1	4/4/12	E601	0 of 18	-	-
W-834-J1	4/4/12 DUP	E601	0 of 18	-	-
W-834-J1	9/5/12	E601	0 of 18	-	-
W-834-J1	10/3/12	E601	0 of 18	-	-
W-834-J2	2/2/12	E601	1 of 18	7.4	-
W-834-J2	7/31/12	E601	1 of 18	32	-
W-834-J3	2/2/12	E601	0 of 18	-	-
W-834-M1	2/2/12	E601	0 of 18	-	-
W-834-M1	7/31/12	E601	0 of 18	-	-
W-834-S1	3/6/12	E601	1 of 18	13	-
W-834-S1	4/4/12	E601	1 of 18	160 D	-
W-834-S1	9/5/12	E601	1 of 18	200 D	-
W-834-S1	10/3/12	E601	1 of 18	190 D	-
W-834-S12A	3/6/12	E601	0 of 18	-	-
W-834-S12A	4/4/12	E601	1 of 18	7.1 D	-
W-834-S12A	4/4/12 DUP	E601	0 of 18	-	-
W-834-S12A	9/5/12	E601	0 of 18	-	-
W-834-S12A	10/3/12	E601	0 of 18	-	-
W-834-S13	3/6/12	E601	1 of 18	5.8	-
W-834-S13	4/4/12	E601	1 of 18	15	-
W-834-S13	9/5/12	E601	1 of 18	5.8	-
W-834-S13	11/5/12	E601	1 of 18	11	-
W-834-S4	2/2/12	E601	0 of 18	-	-
W-834-S4	2/2/12 DUP	E601	0 of 18	-	-
W-834-S4	7/31/12	E601	0 of 18	-	-
W-834-S8	2/15/12	E601	1 of 18	73 D	-
W-834-S8	8/1/12	E601	1 of 18	66 D	-
W-834-S8	8/1/12 DUP	E601	0 of 18	-	-
W-834-S9	2/15/12	E601	1 of 18	7.6 D	-
W-834-S9	2/15/12 DUP	E601	1 of 18	7.4 D	-
W-834-S9	8/1/12	E601	0 of 18	-	-
W-834-T1	2/14/12	E601	0 of 18	-	-
W-834-T1	4/11/12	E601	0 of 18	-	-
W-834-T1	8/2/12	E601	0 of 18	-	-
W-834-T1	11/28/12	E601	0 of 18	-	-
W-834-T1	11/28/12 DUP	E601	0 of 18	-	-
W-834-T2	2/14/12	E601	1 of 18	2,900 D	-
W-834-T2	8/2/12	E601	2 of 18	270 D	2.7
W-834-T2	10/2/12	E601	2 of 18	54	5.9
W-834-T2A	2/14/12	E601	1 of 18	59 D	-
W-834-T2A	8/2/12	E601	0 of 18	-	-

Table B-2.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro-ethene (total) (µg/L)	Chloroethane (µg/L)
W-834-T2A	10/2/12	E601	0 of 18	-	-
W-834-T2D	2/6/12	E601	0 of 18	-	-
W-834-T2D	2/6/12 DUP	E601	0 of 18	-	-
W-834-T2D	8/6/12	E601	0 of 18	-	-
W-834-T2D	10/2/12	E601	0 of 18	-	-
W-834-T3	2/14/12	E601	0 of 18	-	-
W-834-T3	4/30/12	E601	0 of 18	-	-
W-834-T3	8/2/12	E601	0 of 18	-	-
W-834-T3	11/27/12	E601	0 of 18	-	-
W-834-T5	2/14/12	E601	0 of 18	-	-
W-834-T5	8/6/12	E601	0 of 18	-	-
W-834-U1	2/8/12	E624	1 of 30	5,030 D	-
W-834-U1	2/15/12	E624	1 of 30	3,600 D	-
W-834-U1	7/26/12	E624	1 of 30	3,900 D	-

Table B-2.02. Building 834 Operable Unit nitrate and perchlorate in ground water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
W-834-1709	2/1/12	4.9	-
W-834-1711	2/1/12	85	-
W-834-1824	2/9/12	<50 D	-
W-834-1825	2/14/12	<1 D	-
W-834-1833	2/14/12	47	-
W-834-2001	3/5/12	<0.5	-
W-834-2113	2/8/12	74 D	-
W-834-2117	2/9/12	51 DL	-
W-834-2118	2/6/12	120 D	5.1
W-834-2118	8/6/12	-	4.9
W-834-2119	2/9/12	80 DL	-
W-834-A1	2/1/12	1.7	-
W-834-B2	3/5/12	51	-
W-834-B3	3/5/12	8	-
W-834-C4	2/1/12	42	-
W-834-D3	2/7/12	<0.5	-
W-834-D3	2/7/12 DUP	<0.5	-
W-834-D4	3/5/12	<0.5	-
W-834-D5	3/5/12	1.4	-
W-834-D6	3/5/12	23	-
W-834-D7	3/5/12	60	-
W-834-D12	3/5/12	51	-
W-834-D13	3/5/12	16	-
W-834-D14	2/7/12	19	-
W-834-D18	2/7/12	71	-
W-834-J1	3/5/12	140 D	-
W-834-J2	2/2/12	260 D	-
W-834-J3	2/2/12	93 D	-
W-834-M1	2/2/12	300 D	-
W-834-S1	3/6/12	150 D	-
W-834-S12A	3/6/12	120 D	-
W-834-S13	3/6/12	130 D	-
W-834-S4	2/2/12	150 D	-
W-834-S4	2/2/12 DUP	140 D	-
W-834-S8	2/15/12	120 D	-
W-834-S9	2/15/12	88	-
W-834-S9	2/15/12 DUP	88	-
W-834-T1	2/14/12	<0.5	-
W-834-T1	8/2/12	<0.5	-
W-834-T2	2/14/12	<0.5	-
W-834-T2A	2/14/12	51	-
W-834-T2D	2/6/12	100 D	-
W-834-T2D	2/6/12 DUP	100 D	-
W-834-T3	2/14/12	<0.5	-
W-834-T3	8/2/12	<0.5	-
W-834-T5	2/14/12	87	-
W-834-U1	2/8/12	<0.5	-
W-834-U1	2/15/12	<0.5	-

Table B-2.03. Building 834 Operable Unit tetrabutyl orthosilicate/tetrakis (2-ethylbutyl) silane (TBOS/TKEBS) in ground water.

Location	Date	C24H52O4Si (µg/L)
W-834-1709	2/1/12	<12 D
W-834-1711	2/1/12	<10 D
W-834-1824	2/9/12	<10 D
W-834-1833	2/14/12	<12 D
W-834-2001	3/5/12	<10
W-834-2001	9/5/12	<50 D
W-834-2113	2/8/12	<10
W-834-2119	2/9/12	<10
W-834-A1	2/1/12	<10 D
W-834-B2	3/5/12	<10
W-834-B2	9/5/12	63
W-834-B3	3/5/12	<10
W-834-B3	9/5/12	59
W-834-C4	2/1/12	<10
W-834-D3	2/7/12	3,100 D
W-834-D3	2/7/12 DUP	35,600 D
W-834-D4	3/5/12	<10
W-834-D4	9/5/12	120
W-834-D5	3/5/12	<10
W-834-D6	3/5/12	<10
W-834-D6	9/5/12	<10
W-834-D7	3/5/12	<10
W-834-D7	9/5/12	<10
W-834-D12	3/5/12	<10
W-834-D12	9/5/12	<10
W-834-D13	3/5/12	<10
W-834-D13	9/5/12	<10
W-834-D14	2/7/12	36 D
W-834-D18	2/7/12	<10 D
W-834-J1	3/5/12	<10
W-834-J1	9/5/12	<10
W-834-J2	2/2/12	<11 D
W-834-M1	2/2/12	<10 D
W-834-S1	3/6/12	<10
W-834-S1	9/5/12	<10
W-834-S12A	3/6/12	<10
W-834-S12A	9/5/12	<10
W-834-S13	3/6/12	<10
W-834-S13	9/5/12	<10
W-834-S9	2/15/12	<10 D
W-834-S9	2/15/12 DUP	<10 D
W-834-T1	2/14/12	<10 D
W-834-T1	8/2/12	<10
W-834-T2A	2/14/12	<10 D
W-834-T2D	2/6/12	<10 D
W-834-T2D	2/6/12 DUP	<10 D
W-834-T3	2/14/12	<10 D
W-834-T3	8/2/12	<10
W-834-T5	2/14/12	<10 D
W-834-U1	2/8/12	<10
W-834-U1	2/15/12	<10 IJ

Table B-2.04. Building 834 Operable Unit diesel range organic compounds in ground water.

Location	Date	Diesel Fuel (µg/L)	Diesel Range Organics (C12-C24) (µg/L)	Oil (µg/L)
W-834-2001	3/5/12	<200	-	-
W-834-2001	9/5/12	4,800 D	-	-
W-834-A1	2/1/12	-	<200 D	-
W-834-S9	2/15/12	-	<200 D	-
W-834-S9	2/15/12 DUP	-	<200 D	-
W-834-U1	2/8/12	331	-	<200
W-834-U1	2/15/12	-	230 D	-

Table B-2.05. Building 834 Operable Unit metals in ground water.

Location	Date	Iron (mg/L)	Manganese (mg/L)
W-834-1824	2/9/12	95 D	8 D
W-834-1825	2/14/12	0.11	0.45 D
W-834-1833	2/14/12	<0.05	0.002
W-834-T2	2/14/12	<0.05	0.52 D

Table B-3.01. Pit 6 Landfill Operable Unit volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
BC6-10	1/3/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BC6-10	7/3/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	1/4/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	1/4/12	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CARNRW1	1/4/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	1/4/12 DUP	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CARNRW1	2/1/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	2/1/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	3/1/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	3/1/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	4/3/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	4/3/12	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CARNRW1	4/3/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	4/3/12 DUP	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CARNRW1	5/1/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	5/1/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	6/5/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	6/5/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	7/2/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	7/2/12	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CARNRW1	7/2/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	7/2/12 DUP	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CARNRW1	8/1/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	8/1/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	9/10/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	9/10/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	10/2/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	10/2/12	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CARNRW1	10/2/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	10/2/12 DUP	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CARNRW1	11/5/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	11/5/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	12/3/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW1	12/3/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	1/4/12	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	1/4/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	1/4/12 DUP	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
CARNRW2	1/4/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	2/1/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	2/1/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	3/1/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	3/1/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	4/3/12	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	4/3/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	4/3/12 DUP	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
CARNRW2	4/3/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	5/1/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	5/1/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	6/5/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	6/5/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	7/2/12	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	0.79	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	7/2/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	0.74	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	7/2/12 DUP	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
CARNRW2	7/2/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-3.01. Pit 6 Landfill Operable Unit volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
CARNRW2	8/1/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	8/1/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	9/10/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	9/10/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	10/2/12	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	10/2/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	10/2/12 DUP	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
CARNRW2	10/2/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	11/5/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	11/5/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	12/3/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW2	12/3/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	1/4/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	1/4/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	2/2/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	2/2/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	3/1/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	3/1/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	4/3/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	4/3/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	5/1/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	5/1/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	6/5/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	6/5/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	7/2/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	7/2/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	8/1/12	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	8/1/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	9/10/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	9/10/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	10/2/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	10/2/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	11/5/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	11/5/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	12/3/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW3	12/3/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	1/4/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	1/4/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	2/2/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	2/2/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	3/1/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	3/1/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	4/2/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	4/2/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	5/1/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	5/1/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	6/5/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	6/5/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	7/2/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	7/2/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	8/1/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	8/1/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	9/10/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	9/10/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-3.01. Pit 6 Landfill Operable Unit volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
CARNRW4	10/1/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	10/1/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	11/5/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	11/5/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	12/3/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CARNRW4	12/3/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-06	1/9/12	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-06	4/11/12	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-06	4/11/12 DUP	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-06	7/9/12	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-07	1/3/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-07	7/3/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-09	1/5/12	E8260	7.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-09	1/5/12 DUP	E8260	8.7 L	<0.5	<0.5	<0.5	<0.5 L	<0.5 L	<0.5 L	<0.5	<0.5 L	<0.5 L	<0.5	<0.5	<0.5	<0.5
EP6-09	4/11/12	E8260	6.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-09	4/11/12 DUP	E8260	7.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-09	7/9/12	E8260	5.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EP6-09	7/9/12 DUP	E8260	5.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-01	1/3/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-01	7/3/12	E601	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-01S	1/5/12	E8260	<0.5	<0.5	2.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-01S	4/11/12	E8260	<0.5	<0.5	2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-01S	7/5/12	E8260	<0.5	<0.5	1.8 IJ	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-14	1/4/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-14	7/3/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-16	1/5/12	E601	1.7	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-16	1/5/12 DUP	E601	1.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-16	7/5/12	E601	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-16	7/5/12 DUP	E601	0.64	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-17	1/25/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-17	1/25/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-17	4/2/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-17	4/2/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-17	7/5/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-17	10/1/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-18	1/4/12	E601	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-18	1/4/12 DUP	E601	0.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-18	7/5/12	E601	1	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-18	7/5/12 DUP	E601	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-19	1/9/12	E8260	2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-19	1/9/12 DUP	E8260	2.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-19	4/11/12	E8260	2.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-19	7/5/12	E8260	2.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-22	1/3/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-22	4/2/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-22	7/5/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-22	10/1/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-23	1/25/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-23	7/2/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-25	1/5/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-25	7/5/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-26	1/4/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-26	7/5/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-27	1/4/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-3.01. Pit 6 Landfill Operable Unit volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
K6-27	7/5/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-34	1/2/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-34	4/2/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-34	7/2/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-34	10/1/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-35	1/3/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K6-35	7/3/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-33C-01	1/5/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-33C-01	9/20/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-34-01	1/5/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-34-02	1/5/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT6-1819	1/2/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT6-1819	4/2/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT6-1819	7/2/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT6-1819	10/1/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT6-2816	6/25/12	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
W-PIT6-2817	6/21/12	E624	<0.5	<1	<1	<1	<1 L	<1	<1	<1	<1	<1	<1	<1	<1	<1

Table B-3.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro-ethene (total) (µg/L)	Bromodi-chloro-methane (µg/L)	Bromoform (µg/L)	Dibromo-chloro-methane (µg/L)
BC6-10	1/3/12	E601	0 of 18	-	-	-	-
BC6-10	7/3/12	E601	0 of 18	-	-	-	-
CARNRW1	1/4/12	E601	0 of 18	-	-	-	-
CARNRW1	1/4/12	E624	0 of 30	-	-	-	-
CARNRW1	1/4/12 DUP	E601	0 of 18	-	-	-	-
CARNRW1	1/4/12 DUP	E624	0 of 30	-	-	-	-
CARNRW1	2/1/12	E601	0 of 18	-	-	-	-
CARNRW1	2/1/12 DUP	E601	0 of 18	-	-	-	-
CARNRW1	3/1/12	E601	0 of 18	-	-	-	-
CARNRW1	3/1/12 DUP	E601	0 of 18	-	-	-	-
CARNRW1	4/3/12	E601	0 of 18	-	-	-	-
CARNRW1	4/3/12	E624	0 of 30	-	-	-	-
CARNRW1	4/3/12 DUP	E601	0 of 18	-	-	-	-
CARNRW1	4/3/12 DUP	E624	0 of 30	-	-	-	-
CARNRW1	5/1/12	E601	0 of 18	-	-	-	-
CARNRW1	5/1/12 DUP	E601	0 of 18	-	-	-	-
CARNRW1	6/5/12	E601	0 of 18	-	-	-	-
CARNRW1	6/5/12 DUP	E601	0 of 18	-	-	-	-
CARNRW1	7/2/12	E601	0 of 18	-	-	-	-
CARNRW1	7/2/12	E624	0 of 30	-	-	-	-
CARNRW1	7/2/12 DUP	E601	0 of 18	-	-	-	-
CARNRW1	7/2/12 DUP	E624	0 of 30	-	-	-	-
CARNRW1	8/1/12	E601	0 of 18	-	-	-	-
CARNRW1	8/1/12 DUP	E601	0 of 18	-	-	-	-
CARNRW1	9/10/12	E601	0 of 18	-	-	-	-
CARNRW1	9/10/12 DUP	E601	0 of 18	-	-	-	-
CARNRW1	10/2/12	E601	0 of 18	-	-	-	-
CARNRW1	10/2/12	E624	0 of 30	-	-	-	-
CARNRW1	10/2/12 DUP	E601	0 of 18	-	-	-	-
CARNRW1	10/2/12 DUP	E624	0 of 30	-	-	-	-
CARNRW1	11/5/12	E601	0 of 18	-	-	-	-
CARNRW1	11/5/12 DUP	E601	0 of 18	-	-	-	-
CARNRW1	12/3/12	E601	0 of 18	-	-	-	-
CARNRW1	12/3/12 DUP	E601	0 of 18	-	-	-	-
CARNRW2	1/4/12	E502.2	0 of 46	-	-	-	-
CARNRW2	1/4/12	E601	0 of 18	-	-	-	-
CARNRW2	1/4/12 DUP	E502.2	0 of 45	-	-	-	-
CARNRW2	1/4/12 DUP	E601	0 of 18	-	-	-	-
CARNRW2	2/1/12	E601	0 of 18	-	-	-	-
CARNRW2	2/1/12 DUP	E601	0 of 18	-	-	-	-
CARNRW2	3/1/12	E601	0 of 18	-	-	-	-
CARNRW2	3/1/12 DUP	E601	0 of 18	-	-	-	-
CARNRW2	4/3/12	E502.2	0 of 46	-	-	-	-
CARNRW2	4/3/12	E601	0 of 18	-	-	-	-
CARNRW2	4/3/12 DUP	E502.2	0 of 45	-	-	-	-
CARNRW2	4/3/12 DUP	E601	0 of 18	-	-	-	-
CARNRW2	5/1/12	E601	0 of 18	-	-	-	-
CARNRW2	5/1/12 DUP	E601	0 of 18	-	-	-	-
CARNRW2	6/5/12	E601	0 of 18	-	-	-	-
CARNRW2	6/5/12 DUP	E601	0 of 18	-	-	-	-
CARNRW2	7/2/12	E502.2	3 of 46	-	1.9	25	8.1
CARNRW2	7/2/12	E601	3 of 18	-	1.9	36	9
CARNRW2	7/2/12 DUP	E502.2	3 of 45	-	2.2	36 L	10

Table B-3.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro-ethene (total) (µg/L)	Bromodi-chloro-methane (µg/L)	Bromoform (µg/L)	Dibromo-chloro-methane (µg/L)
CARNRW2	7/2/12 DUP	E601	3 of 18	-	2	36 L	9.9
CARNRW2	8/1/12	E601	0 of 18	-	-	-	-
CARNRW2	8/1/12 DUP	E601	0 of 18	-	-	-	-
CARNRW2	9/10/12	E601	0 of 18	-	-	-	-
CARNRW2	9/10/12 DUP	E601	0 of 18	-	-	-	-
CARNRW2	10/2/12	E502.2	0 of 46	-	-	-	-
CARNRW2	10/2/12	E601	0 of 18	-	-	-	-
CARNRW2	10/2/12 DUP	E502.2	0 of 45	-	-	-	-
CARNRW2	10/2/12 DUP	E601	0 of 18	-	-	-	-
CARNRW2	11/5/12	E601	0 of 18	-	-	-	-
CARNRW2	11/5/12 DUP	E601	0 of 18	-	-	-	-
CARNRW2	12/3/12	E601	0 of 18	-	-	-	-
CARNRW2	12/3/12 DUP	E601	0 of 18	-	-	-	-
CARNRW3	1/4/12	E601	0 of 18	-	-	-	-
CARNRW3	1/4/12 DUP	E601	0 of 18	-	-	-	-
CARNRW3	2/2/12	E601	0 of 18	-	-	-	-
CARNRW3	2/2/12 DUP	E601	0 of 18	-	-	-	-
CARNRW3	3/1/12	E601	0 of 18	-	-	-	-
CARNRW3	3/1/12 DUP	E601	0 of 18	-	-	-	-
CARNRW3	4/3/12	E601	0 of 18	-	-	-	-
CARNRW3	4/3/12 DUP	E601	0 of 18	-	-	-	-
CARNRW3	5/1/12	E601	0 of 18	-	-	-	-
CARNRW3	5/1/12 DUP	E601	0 of 18	-	-	-	-
CARNRW3	6/5/12	E601	0 of 18	-	-	-	-
CARNRW3	6/5/12 DUP	E601	0 of 18	-	-	-	-
CARNRW3	7/2/12	E601	0 of 18	-	-	-	-
CARNRW3	7/2/12 DUP	E601	0 of 18	-	-	-	-
CARNRW3	8/1/12	E601	0 of 18	-	-	-	-
CARNRW3	8/1/12 DUP	E601	0 of 18	-	-	-	-
CARNRW3	9/10/12	E601	0 of 18	-	-	-	-
CARNRW3	9/10/12 DUP	E601	0 of 18	-	-	-	-
CARNRW3	10/2/12	E601	0 of 18	-	-	-	-
CARNRW3	10/2/12 DUP	E601	0 of 18	-	-	-	-
CARNRW3	11/5/12	E601	0 of 18	-	-	-	-
CARNRW3	11/5/12 DUP	E601	0 of 18	-	-	-	-
CARNRW3	12/3/12	E601	0 of 18	-	-	-	-
CARNRW3	12/3/12 DUP	E601	0 of 18	-	-	-	-
CARNRW4	1/4/12	E601	0 of 18	-	-	-	-
CARNRW4	1/4/12 DUP	E601	0 of 18	-	-	-	-
CARNRW4	2/2/12	E601	0 of 18	-	-	-	-
CARNRW4	2/2/12 DUP	E601	0 of 18	-	-	-	-
CARNRW4	3/1/12	E601	0 of 18	-	-	-	-
CARNRW4	3/1/12 DUP	E601	0 of 18	-	-	-	-
CARNRW4	4/2/12	E601	0 of 18	-	-	-	-
CARNRW4	4/2/12 DUP	E601	0 of 18	-	-	-	-
CARNRW4	5/1/12	E601	0 of 18	-	-	-	-
CARNRW4	5/1/12 DUP	E601	0 of 18	-	-	-	-
CARNRW4	6/5/12	E601	0 of 18	-	-	-	-
CARNRW4	6/5/12 DUP	E601	0 of 18	-	-	-	-
CARNRW4	7/2/12	E601	0 of 18	-	-	-	-
CARNRW4	7/2/12 DUP	E601	0 of 18	-	-	-	-
CARNRW4	8/1/12	E601	0 of 18	-	-	-	-
CARNRW4	8/1/12 DUP	E601	0 of 18	-	-	-	-

Table B-3.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro-ethene (total) (µg/L)	Bromodi-chloro-methane (µg/L)	Bromoform (µg/L)	Dibromo-chloro-methane (µg/L)
CARNRW4	9/10/12	E601	0 of 18	-	-	-	-
CARNRW4	9/10/12 DUP	E601	0 of 18	-	-	-	-
CARNRW4	10/1/12	E601	0 of 18	-	-	-	-
CARNRW4	10/1/12 DUP	E601	0 of 18	-	-	-	-
CARNRW4	11/5/12	E601	0 of 18	-	-	-	-
CARNRW4	11/5/12 DUP	E601	0 of 18	-	-	-	-
CARNRW4	12/3/12	E601	0 of 18	-	-	-	-
CARNRW4	12/3/12 DUP	E601	0 of 18	-	-	-	-
EP6-06	1/9/12	E8260	0 of 36	-	-	-	-
EP6-06	4/11/12	E8260	0 of 36	-	-	-	-
EP6-06	4/11/12 DUP	E8260	0 of 36	-	-	-	-
EP6-06	7/9/12	E8260	0 of 36	-	-	-	-
EP6-07	1/3/12	E601	0 of 18	-	-	-	-
EP6-07	7/3/12	E601	0 of 18	-	-	-	-
EP6-09	1/5/12	E8260	0 of 36	-	-	-	-
EP6-09	1/5/12 DUP	E8260	0 of 37	-	-	-	-
EP6-09	4/11/12	E8260	0 of 36	-	-	-	-
EP6-09	4/11/12 DUP	E8260	0 of 37	-	-	-	-
EP6-09	7/9/12	E8260	0 of 36	-	-	-	-
EP6-09	7/9/12 DUP	E8260	0 of 36	-	-	-	-
K6-01	1/3/12	E601	0 of 18	-	-	-	-
K6-01	7/3/12	E601	0 of 18	-	-	-	-
K6-01S	1/5/12	E8260	1 of 36	2.1	-	-	-
K6-01S	4/11/12	E8260	1 of 36	2	-	-	-
K6-01S	7/5/12	E8260	1 of 36	1.8 IJ	-	-	-
K6-14	1/4/12	E601	0 of 18	-	-	-	-
K6-14	7/3/12	E601	0 of 18	-	-	-	-
K6-16	1/5/12	E601	0 of 18	-	-	-	-
K6-16	1/5/12 DUP	E601	0 of 18	-	-	-	-
K6-16	7/5/12	E601	0 of 18	-	-	-	-
K6-16	7/5/12 DUP	E601	0 of 18	-	-	-	-
K6-17	1/25/12	E601	0 of 18	-	-	-	-
K6-17	1/25/12 DUP	E601	0 of 18	-	-	-	-
K6-17	4/2/12	E601	0 of 18	-	-	-	-
K6-17	4/2/12 DUP	E601	0 of 18	-	-	-	-
K6-17	7/5/12	E601	0 of 18	-	-	-	-
K6-17	10/1/12	E601	0 of 18	-	-	-	-
K6-18	1/4/12	E601	0 of 18	-	-	-	-
K6-18	1/4/12 DUP	E601	0 of 18	-	-	-	-
K6-18	7/5/12	E601	0 of 18	-	-	-	-
K6-18	7/5/12 DUP	E601	0 of 18	-	-	-	-
K6-19	1/9/12	E8260	0 of 36	-	-	-	-
K6-19	1/9/12 DUP	E8260	0 of 36	-	-	-	-
K6-19	4/11/12	E8260	0 of 36	-	-	-	-
K6-19	7/5/12	E8260	0 of 36	-	-	-	-
K6-22	1/3/12	E601	0 of 18	-	-	-	-
K6-22	4/2/12	E601	0 of 18	-	-	-	-
K6-22	7/5/12	E601	0 of 18	-	-	-	-
K6-22	10/1/12	E601	0 of 18	-	-	-	-
K6-23	1/25/12	E601	0 of 18	-	-	-	-
K6-23	7/2/12	E601	0 of 18	-	-	-	-
K6-25	1/5/12	E601	0 of 18	-	-	-	-
K6-25	7/5/12	E601	0 of 18	-	-	-	-

Table B-3.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro-ethene (total) (µg/L)	Bromodi-chloro-methane (µg/L)	Bromoform (µg/L)	Dibromo-chloro-methane (µg/L)
K6-26	1/4/12	E601	0 of 18	-	-	-	-
K6-26	7/5/12	E601	0 of 18	-	-	-	-
K6-27	1/4/12	E601	0 of 18	-	-	-	-
K6-27	7/5/12	E601	0 of 18	-	-	-	-
K6-34	1/2/12	E601	0 of 18	-	-	-	-
K6-34	4/2/12	E601	0 of 18	-	-	-	-
K6-34	7/2/12	E601	0 of 18	-	-	-	-
K6-34	10/1/12	E601	0 of 18	-	-	-	-
K6-35	1/3/12	E601	0 of 18	-	-	-	-
K6-35	7/3/12	E601	0 of 18	-	-	-	-
W-33C-01	1/5/12	E601	0 of 18	-	-	-	-
W-33C-01	9/20/12	E601	0 of 18	-	-	-	-
W-34-01	1/5/12	E601	0 of 18	-	-	-	-
W-34-02	1/5/12	E601	0 of 18	-	-	-	-
W-PIT6-1819	1/2/12	E601	0 of 18	-	-	-	-
W-PIT6-1819	4/2/12	E601	0 of 18	-	-	-	-
W-PIT6-1819	7/2/12	E601	0 of 18	-	-	-	-
W-PIT6-1819	10/1/12	E601	0 of 18	-	-	-	-
W-PIT6-2816	6/25/12	E624	0 of 30	-	-	-	-
W-PIT6-2817	6/21/12	E624	0 of 30	-	-	-	-

Table B-3.02. Pit 6 Landfill Operable Unit nitrate and perchlorate in ground water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
BC6-10	1/3/12	0.83 L	<4
CARNRW1	1/4/12	<0.5	<4
CARNRW1	1/4/12 DUP	<0.5	<4
CARNRW1	2/1/12	<0.5	<4
CARNRW1	2/1/12 DUP	<0.5	<4
CARNRW1	3/1/12	<0.5	<4 L
CARNRW1	3/1/12 DUP	<0.5 O	<4
CARNRW1	4/3/12	<0.5	<4
CARNRW1	4/3/12 DUP	<0.5	<4
CARNRW1	5/1/12	<0.5	<4
CARNRW1	5/1/12 DUP	<0.5	<4
CARNRW1	6/5/12	<0.5	<4
CARNRW1	6/5/12 DUP	<0.5	<4
CARNRW1	7/2/12	<0.5	<4
CARNRW1	7/2/12 DUP	<0.5	<4
CARNRW1	8/1/12	<0.5	<4
CARNRW1	8/1/12 DUP	<0.5	<4
CARNRW1	9/10/12	<0.5	<4
CARNRW1	9/10/12 DUP	<0.5	<4
CARNRW1	10/2/12	<0.5	<4
CARNRW1	10/2/12 DUP	<0.5	<4
CARNRW1	11/5/12	<0.5	<4
CARNRW1	11/5/12 DUP	<0.5	<4
CARNRW1	12/3/12	<0.5	<4
CARNRW1	12/3/12 DUP	<0.5	<4
CARNRW2	1/4/12	0.68	<4
CARNRW2	1/4/12 DUP	<0.5	<4
CARNRW2	2/1/12	1.9	<4
CARNRW2	2/1/12 DUP	1.3	<4
CARNRW2	3/1/12	2.8	<4 L
CARNRW2	3/1/12 DUP	1.5 O	<4
CARNRW2	4/3/12	0.87	<4
CARNRW2	4/3/12 DUP	0.57	<4
CARNRW2	5/1/12	2.9	<4
CARNRW2	5/1/12 DUP	1.7	<4
CARNRW2	6/5/12	2.1	<4
CARNRW2	6/5/12 DUP	1.7	<4
CARNRW2	7/2/12	2	<4
CARNRW2	7/2/12 DUP	1.7	<4
CARNRW2	8/1/12	2.2	<4
CARNRW2	8/1/12 DUP	1.7	<4
CARNRW2	9/10/12	2.6	<4
CARNRW2	9/10/12 DUP	2.2	<4
CARNRW2	10/2/12	2.2	<4
CARNRW2	10/2/12 DUP	1.7	<4
CARNRW2	11/5/12	<0.5	<4
CARNRW2	11/5/12 DUP	<0.5	<4

Table B-3.02. Pit 6 Landfill Operable Unit nitrate and perchlorate in ground water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
CARNRW2	12/3/12	2.1	<4
CARNRW2	12/3/12 DUP	1.5	<4
CARNRW3	1/4/12	<0.5	<4
CARNRW3	1/4/12 DUP	<0.5	<4
CARNRW3	2/2/12	<0.5	<4
CARNRW3	2/2/12 DUP	<0.5	<4
CARNRW3	3/1/12	<0.5	<4 L
CARNRW3	3/1/12 DUP	<0.5 O	<4
CARNRW3	4/3/12	<0.5	<4
CARNRW3	4/3/12 DUP	<0.5	<4
CARNRW3	5/1/12	<0.5	<4
CARNRW3	5/1/12 DUP	<0.5	<4
CARNRW3	6/5/12	<0.5	<4
CARNRW3	6/5/12 DUP	<0.5	<4
CARNRW3	7/2/12	<0.5	<4
CARNRW3	7/2/12 DUP	<0.5	<4
CARNRW3	8/1/12	<0.5	<4
CARNRW3	8/1/12 DUP	<0.5	<4
CARNRW3	9/10/12	<0.5	<4
CARNRW3	9/10/12 DUP	<0.5	<4
CARNRW3	10/2/12	<0.5	<4
CARNRW3	10/2/12 DUP	<0.5	<4
CARNRW3	11/5/12	<1 D	<4
CARNRW3	11/5/12 DUP	<0.5	<4
CARNRW3	12/3/12	<0.5	<4
CARNRW3	12/3/12 DUP	<0.5	<4
CARNRW4	1/4/12	<0.5	<4
CARNRW4	1/4/12 DUP	<0.5	<4
CARNRW4	2/2/12	<0.5	<4
CARNRW4	2/2/12 DUP	<0.5	<4
CARNRW4	3/1/12	<0.5	<4 L
CARNRW4	3/1/12 DUP	<0.5 O	<4
CARNRW4	4/2/12	0.66	<4
CARNRW4	4/2/12 DUP	<0.5	<4
CARNRW4	5/1/12	<0.5	<4
CARNRW4	5/1/12 DUP	<0.5	<4
CARNRW4	6/5/12	<1 D	<4
CARNRW4	6/5/12 DUP	<0.5	<4
CARNRW4	7/2/12	<1 D	<4
CARNRW4	7/2/12 DUP	<0.5	<4
CARNRW4	8/1/12	<1 D	<4
CARNRW4	8/1/12 DUP	<0.5	<4
CARNRW4	9/10/12	<1 D	<4
CARNRW4	9/10/12 DUP	<0.5	<4
CARNRW4	10/1/12	<0.5	<4
CARNRW4	10/1/12 DUP	<0.5	<4

Table B-3.02. Pit 6 Landfill Operable Unit nitrate and perchlorate in ground water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
CARNRW4	11/5/12	<1 D	<4
CARNRW4	11/5/12 DUP	<0.5	<4
CARNRW4	12/3/12	1.2	<4
CARNRW4	12/3/12 DUP	0.7	<4
EP6-06	1/9/12	<0.5	<4
EP6-06	4/11/12	<0.5	<4
EP6-06	4/11/12 DUP	<0.5	<4
EP6-06	7/9/12	<0.5	<4
EP6-07	1/3/12	<0.5	<4
EP6-09	1/5/12	9.7 D	<4
EP6-09	4/11/12	9.3 D	<4
EP6-09	7/9/12	2.7	<4
EP6-09	7/9/12 DUP	2.4	<4
K6-01	1/3/12	<0.5 L	<4
K6-01S	1/5/12	<2.5 D	<4
K6-01S	4/11/12	<2.5 D	<4
K6-01S	7/5/12	<2.5 D	<4
K6-14	1/4/12	<1 D	<4
K6-16	1/5/12	12	<4
K6-16	1/5/12 DUP	18 D	<20 D
K6-17	1/25/12	15 DS	<4
K6-17	1/25/12 DUP	<0.5	<4
K6-17	7/5/12	<1 D	<4
K6-18	1/4/12	2.1	<4
K6-18	1/4/12 DUP	<0.5	<4
K6-19	1/9/12	<0.5	<4
K6-19	1/9/12 DUP	<0.5	<4
K6-19	4/11/12	<2.5 D	<4
K6-19	7/5/12	<0.5	<4
K6-22	1/3/12	<1 D	<4
K6-22	7/5/12	<1 D	<4
K6-23	1/25/12	150 D	<20 D
K6-23	7/2/12	170 D	-
K6-25	1/5/12	<0.5	<4
K6-26	1/4/12	<0.5	<4
K6-27	1/4/12	<0.5	<4
K6-34	1/2/12	<0.5	<4
K6-34	7/2/12	<0.5	<4
K6-35	1/3/12	<0.5 L	<4
W-33C-01	1/5/12	5.1 D	<4
W-34-01	1/5/12	<0.44	<4
W-34-02	1/5/12	<0.44	<4
W-PIT6-1819	1/2/12	8.1	<4
W-PIT6-1819	7/2/12	0.53	<4
W-PIT6-2816	6/25/12	-	<4
W-PIT6-2817	6/21/12	-	<4

Table B-3.03. Pit 6 Landfill Operable Unit tritium in ground water.

Location	Date	Tritium (pCi/L)
BC6-10	1/3/12	<100
BC6-10	7/3/12	<100
CARNRW1	1/4/12	<100
CARNRW1	1/4/12 DUP	<100
CARNRW1	2/1/12	<100
CARNRW1	2/1/12 DUP	<100
CARNRW1	3/1/12	<100
CARNRW1	3/1/12 DUP	<100
CARNRW1	4/3/12	<100
CARNRW1	4/3/12 DUP	<100
CARNRW1	5/1/12	<100
CARNRW1	5/1/12 DUP	<100
CARNRW1	6/5/12	<100
CARNRW1	6/5/12 DUP	<100
CARNRW1	7/2/12	<100
CARNRW1	7/2/12 DUP	<100
CARNRW1	8/1/12	<100
CARNRW1	8/1/12 DUP	<100
CARNRW1	9/10/12	<100
CARNRW1	9/10/12 DUP	<100
CARNRW1	10/2/12	<100
CARNRW1	10/2/12 DUP	<100
CARNRW1	11/5/12	<100
CARNRW1	11/5/12 DUP	<100
CARNRW1	12/3/12	<100
CARNRW1	12/3/12 DUP	<100
CARNRW2	1/4/12	<100
CARNRW2	1/4/12 DUP	<100
CARNRW2	2/1/12	<100
CARNRW2	2/1/12 DUP	<100
CARNRW2	3/1/12	<100
CARNRW2	3/1/12 DUP	<100
CARNRW2	4/3/12	<100
CARNRW2	4/3/12 DUP	<100
CARNRW2	5/1/12	<100
CARNRW2	5/1/12 DUP	<100
CARNRW2	6/5/12	<100
CARNRW2	6/5/12 DUP	<100
CARNRW2	7/2/12	<100
CARNRW2	7/2/12 DUP	<100
CARNRW2	8/1/12	<100
CARNRW2	8/1/12 DUP	<100
CARNRW2	9/10/12	<100
CARNRW2	9/10/12 DUP	<100
CARNRW2	10/2/12	<100
CARNRW2	10/2/12 DUP	<100
CARNRW2	11/5/12	<100

Table B-3.03. Pit 6 Landfill Operable Unit tritium in ground water.

Location	Date	Tritium (pCi/L)
CARNRW2	11/5/12 DUP	<100
CARNRW2	12/3/12	<100
CARNRW2	12/3/12 DUP	<100
CARNRW3	1/4/12	<100
CARNRW3	1/4/12 DUP	<100
CARNRW3	2/2/12	<100
CARNRW3	2/2/12 DUP	<100
CARNRW3	3/1/12	<100
CARNRW3	3/1/12 DUP	<100
CARNRW3	4/3/12	<100
CARNRW3	4/3/12 DUP	<100
CARNRW3	5/1/12	<100
CARNRW3	5/1/12 DUP	<100
CARNRW3	6/5/12	<100
CARNRW3	6/5/12 DUP	<100
CARNRW3	7/2/12	<100
CARNRW3	7/2/12 DUP	<100
CARNRW3	8/1/12	<100
CARNRW3	8/1/12 DUP	<100
CARNRW3	9/10/12	<100
CARNRW3	9/10/12 DUP	<100
CARNRW3	10/2/12	<100
CARNRW3	10/2/12 DUP	<100
CARNRW3	11/5/12	<100
CARNRW3	11/5/12 DUP	<100
CARNRW3	12/3/12	<100
CARNRW3	12/3/12 DUP	<100
CARNRW4	1/4/12	<100
CARNRW4	1/4/12 DUP	<100
CARNRW4	2/2/12	<100
CARNRW4	2/2/12 DUP	<100
CARNRW4	3/1/12	<100
CARNRW4	3/1/12 DUP	<100
CARNRW4	4/2/12	<100
CARNRW4	4/2/12 DUP	<100
CARNRW4	5/1/12	<100
CARNRW4	5/1/12 DUP	<100
CARNRW4	6/5/12	<100
CARNRW4	6/5/12 DUP	<100
CARNRW4	7/2/12	<100
CARNRW4	7/2/12 DUP	<100
CARNRW4	8/1/12	<100
CARNRW4	8/1/12 DUP	<100
CARNRW4	9/10/12	<100
CARNRW4	9/10/12 DUP	<100
CARNRW4	10/1/12	<100

Table B-3.03. Pit 6 Landfill Operable Unit tritium in ground water.

Location	Date	Tritium (pCi/L)
CARNRW4	11/5/12 DUP	<100
CARNRW4	12/3/12	<100
CARNRW4	12/3/12 DUP	<100
EP6-06	1/9/12	<100
EP6-06	4/11/12	<100
EP6-06	4/11/12 DUP	<100
EP6-06	7/9/12	<100
EP6-07	1/3/12	<100
EP6-07	7/3/12	<100
EP6-09	1/5/12	<100
EP6-09	4/11/12	<100
EP6-09	7/9/12	<100
EP6-09	7/9/12 DUP	<100
K6-01	1/3/12	<100
K6-01	7/3/12	<100
K6-01S	1/5/12	<100
K6-01S	4/11/12	112 ± 70.9
K6-01S	7/5/12	<100
K6-14	1/4/12	<100
K6-14	7/3/12	<100
K6-16	1/5/12	<100
K6-16	1/5/12 DUP	<100 L
K6-16	7/5/12	<100
K6-16	7/5/12 DUP	<100
K6-17	1/25/12	<100
K6-17	1/25/12 DUP	<100
K6-17	4/2/12	<100
K6-17	7/5/12	<100
K6-17	10/1/12	<100
K6-18	1/4/12	167 ± 74.8
K6-18	1/4/12 DUP	168 ± 78.1
K6-18	7/5/12	102 ± 68.1
K6-18	7/5/12 DUP	<100
K6-19	1/9/12	251 ± 103
K6-19	1/9/12 DUP	245 ± 102
K6-19	4/11/12	230 ± 85.5
K6-19	7/5/12	173 ± 76.8
K6-22	1/3/12	<100
K6-22	4/2/12	<100
K6-22	7/5/12	<100
K6-22	10/1/12	<100
K6-23	1/25/12	<100
K6-23	7/2/12	<100
K6-25	1/5/12	<100
K6-25	7/5/12	<100
K6-26	1/4/12	<100

Table B-3.03. Pit 6 Landfill Operable Unit tritium in ground water.

Location	Date	Tritium (pCi/L)
K6-26	7/5/12	<100
K6-27	1/4/12	<100
K6-27	7/5/12	<100
K6-34	1/2/12	<100
K6-34	4/2/12	<100
K6-34	7/2/12	<100
K6-34	10/1/12	<100
K6-35	1/3/12	<100
K6-35	7/3/12	<100
W-33C-01	1/5/12	<100
W-33C-01	9/20/12	<100
W-34-01	1/5/12	<100
W-34-02	1/5/12	<100
W-PIT6-1819	1/2/12	112 ± 64.6
W-PIT6-1819	4/2/12	156 ± 81.5
W-PIT6-1819	7/2/12	174 ± 82.5
W-PIT6-1819	10/1/12	125 ± 64.9
W-PIT6-2816	6/25/12	<100
W-PIT6-2817	6/21/12	122 ± 79.0

Table B-3.04. Pit 6 Landfill Operable Unit total uranium and uranium isotopes in ground water.

Location	Date	Uranium (µg/L)	Uranium (pCi/L)	Uranium 234 and Uranium 233 (pCi/L)	Uranium 234 by mass (pCi/L)	Uranium 235 and Uranium 236 (pCi/L)	Uranium 235 by mass (pCi/L)	Uranium 236 by mass (pCi/L)	Uranium 238 (pCi/L)	Uranium 238 by mass (pCi/L)	Uranium 235/238 (ratio)
CARNRW2	1/4/12	-	-	<0.1	-	<0.1	-	-	<0.1	-	-
CARNRW2	1/4/12 DUP	-	-	<0.1	-	<0.1	-	-	<0.1	-	-
CARNRW2	4/3/12	-	-	<0.1	-	<0.1	-	-	<0.1	-	-
CARNRW2	7/2/12	-	-	<0.1	-	<0.1	-	-	<0.1	-	-
CARNRW2	7/2/12 DUP	-	-	<0.1	-	<0.1	-	-	<0.1	-	-
CARNRW2	10/2/12	-	-	<0.1	-	<0.1	-	-	<0.1	-	-
CARNRW2	10/2/12 DUP	-	-	<0.1	-	<0.1	-	-	<0.1	-	-
EP6-06	1/9/12	-	-	0.448 ± 0.180	-	<0.1	-	-	0.202 ± 0.113	-	-
EP6-06	4/11/12	-	-	0.360 ± 0.101	-	<0.1	-	-	0.241 ± 0.0749	-	-
EP6-06	4/11/12 DUP	-	-	0.525 ± 0.132	-	<0.1	-	-	0.408 ± 0.109	-	-
EP6-06	7/9/12	-	-	0.467 ± 0.115	-	<0.1	-	-	0.253 ± 0.0778	-	-
EP6-09	1/5/12	-	-	1.52 ± 0.517	-	0.141 ± 0.141	-	-	1.14 ± 0.423	-	-
EP6-09	4/11/12	-	-	0.909 ± 0.154	-	0.100 ± 0.0263	-	-	0.715 ± 0.128	-	-
EP6-09	7/9/12	-	-	1.47 ± 0.239	-	<0.1	-	-	1.14 ± 0.193	-	-
EP6-09	7/9/12 DUP	-	-	1.25 ± 0.206	-	<0.1	-	-	1.13 ± 0.190	-	-
K6-01S	1/5/12	-	-	2.86 ± 0.781	-	0.161 ± 0.145	-	-	1.94 ± 0.586	-	-
K6-01S	4/11/12	-	-	2.38 ± 0.330	-	0.101 ± 0.0387	-	-	1.76 ± 0.253	-	-
K6-01S	7/5/12	-	-	1.96 ± 0.295	-	<0.1	-	-	1.29 ± 0.208	-	-
K6-19	1/9/12	-	-	2.13 ± 0.510	-	0.109 ± 0.0971	-	-	1.19 ± 0.336	-	-
K6-19	1/9/12 DUP	-	-	2.04 ± 0.480	-	<0.1	-	-	1.25 ± 0.337	-	-
K6-19	4/11/12	-	-	1.68 ± 0.273	-	0.100 ± 0.0465	-	-	0.988 ± 0.182	-	-
K6-19	7/5/12	-	-	1.57 ± 0.272	-	<0.1	-	-	1.06 ± 0.201	-	-
W-PIT6-2816	6/25/12	0.932 ± 0.0877	0.770 ± 0.0170	-	0.500 ± 0.0170	-	0.0120 ± 0.0000770	<0.000069	-	0.260 ± 0.000820	0.00736 ± 0.0000390
W-PIT6-2817	6/21/12	0.163 ± 0.0155 O	<0.0627	-	<0.085	-	0.00140 ± 0.0000770	<0.00012	-	0.0300 ± 0.00100	0.00726 ± 0.000313

Table B-3.05. Pit 6 Landfill Post-closure Monitoring Plan constituents of concern, detection monitoring wells, Statistical Limits, MCLs, and analytical results for 2012.

COC	Well	Statistical Limit	MCL	1/5/12 DUP	1/5/12	1/9/12 DUP	1/9/12	4/11/12 DUP	4/11/12	7/5/12	7/9/12 DUP	7/9/12
Beryllium (mg/L)	EP6-06	2e-04	0.004	-	-	-	<0.0002	<0.0002	<0.0002	-	-	<0.0002
	EP6-09	2e-04	0.004	-	<0.0002	-	-	-	<0.0002	-	<0.0002	<0.0002
	K6-01S	2e-04	0.004	-	<0.0002	-	-	-	<0.0004 D	<0.0004 D	-	-
	K6-19	2e-04	0.004	-	-	<0.0002	<0.0002	-	<0.0002	<0.0002	-	-
Mercury (mg/L)	EP6-06	2e-04	0.002	-	-	-	<0.0002	<0.0002	<0.0002	-	-	<0.0002
	EP6-09	2e-04	0.002	-	<0.0002	-	-	-	<0.0002	-	<0.0002	<0.0002
	K6-01S	2e-04	0.002	-	<0.0002	-	-	-	<0.0002	<0.0002	-	-
	K6-19	2e-04	0.002	-	-	<0.0002	<0.0002	-	<0.0002	<0.0002	-	-
Tritium (pCi/L)	EP6-06	100	20000	-	-	-	<100	<100	<100	-	-	<100
	EP6-09	100	20000	-	<100	-	-	-	<100	-	<100	<100
	K6-01S	100	20000	-	<100	-	-	-	112 ± 70.9	<100	-	-
	K6-19	100	20000	-	-	245 ± 102	251 ± 103	-	230 ± 85.5	173 ± 76.8	-	-
Total Uranium (calculated) (pCi/L)	EP6-06	3.6	20	-	-	-	0.65 ± 0.216	0.946 ± 0.174	0.572 ± 0.13	-	-	0.748 ± 0.141
	EP6-09	3.7	20	-	2.8 ± 0.683	-	-	-	1.67 ± 0.202	-	2.43 ± 0.283	2.66 ± 0.31
	K6-01S	27	20	-	4.96 ± 0.987	-	-	-	4.24 ± 0.418	3.33 ± 0.363	-	-
	K6-19	7.2	20	-	-	3.33 ± 0.589	3.43 ± 0.618	-	2.73 ± 0.331	2.7 ± 0.342	-	-
Gross alpha (pCi/L)	EP6-06	7.7	15	-	-	-	<2	<2	<2	-	-	2.34 ± 1.84
	EP6-09	4.9	15	-	3.79 ± 1.64 L	-	-	-	2.42 ± 1.51	-	2.49 ± 1.6	2.19 ± 1.52
	K6-01S	26	15	-	7.93 ± 4.08 L	-	-	-	9.98 ± 4.94	<2	-	-
	K6-19	9.2	15	-	-	3.91 ± 1.61	3.26 ± 1.55	-	4.76 ± 1.82	3.24 ± 1.32	-	-
Gross beta (pCi/L)	EP6-06	21.3	50	-	-	-	7 ± 2.06	9.42 ± 2.18	7.04 ± 1.86	-	-	6.81 ± 1.68
	EP6-09	21.3	50	-	11.3 ± 2.53	-	-	-	10.5 ± 2.48	-	7.73 ± 1.79	8.7 ± 1.81
	K6-01S	57.7	50	-	21.1 ± 5.69	-	-	-	16.8 ± 4.08	16.7 ± 5.22	-	-
	K6-19	21.3	50	-	-	8.25 ± 1.88	9.42 ± 2.03	-	8.1 ± 1.76	6.25 ± 1.37	-	-
Benzene (µg/L)	EP6-06	0.5	1	-	-	-	<0.5	<0.5	<0.5	-	-	<0.5
	EP6-09	0.5	1	<0.5 L	<0.5	-	-	<0.5	<0.5	-	<0.5	<0.5
	K6-01S	0.5	1	-	<0.5	-	-	-	<0.5	<0.5	-	-
	K6-19	0.5	1	-	-	<0.5	<0.5	-	<0.5	<0.5	-	-
Carbon disulfide (µg/L)	EP6-06	5	-	-	-	-	<5	<5	<5	-	-	<5
	EP6-09	5	-	<1	<5	-	-	<1	<5	-	<5	<5
	K6-01S	5	-	-	<5	-	-	-	<5	<5	-	-
	K6-19	5	-	-	-	<5	<5	-	<5	<5	-	-
Chloroform (µg/L)	EP6-06	0.5	80	-	-	-	<0.5	<0.5	<0.5	-	-	<0.5
	EP6-09	0.5	80	<0.5 L	<0.5	-	-	<0.5	<0.5	-	<0.5	<0.5
	K6-01S	0.5	80	-	<0.5	-	-	-	<0.5	<0.5	-	-
	K6-19	1.5	80	-	-	<0.5	<0.5	-	<0.5	<0.5	-	-
1,2-Dichloroethane (µg/L)	EP6-06	0.5	0.5	-	-	-	<0.5	<0.5	<0.5	-	-	<0.5
	EP6-09	0.5	0.5	<0.5	<0.5	-	-	<0.5	<0.5	-	<0.5	<0.5
	K6-01S	0.5	0.5	-	<0.5	-	-	-	<0.5	<0.5	-	-
	K6-19	0.5	0.5	-	-	<0.5	<0.5	-	<0.5	<0.5	-	-
cis-1,2-Dichloroethene (µg/L)	EP6-06	0.5	6	-	-	-	<0.5	<0.5	<0.5	-	-	<0.5
	EP6-09	0.5	6	<0.5	<0.5	-	-	<0.5	<0.5	-	<0.5	<0.5
	K6-01S	7	6	-	2.1	-	-	-	2	1.8 IJ	-	-
	K6-19	0.5	6	-	-	<0.5	<0.5	-	<0.5	<0.5	-	-
Ethylbenzene (µg/L)	EP6-06	0.5	700	-	-	-	<0.5	<0.5	<0.5	-	-	<0.5
	EP6-09	0.5	700	<0.5	<0.5	-	-	<0.5	<0.5	-	<0.5	<0.5
	K6-01S	0.5	700	-	<0.5	-	-	-	<0.5	<0.5	-	-
	K6-19	0.5	700	-	-	<0.5	<0.5	-	<0.5	<0.5	-	-

Table B-3.05. Pit 6 Landfill Post-closure Monitoring Plan constituents of concern, detection monitoring wells, Statistical Limits, MCLs, and analytical results for 2012.

COC	Well	Statistical Limit	MCL	1/5/12 DUP	1/5/12	1/9/12 DUP	1/9/12	4/11/12 DUP	4/11/12	7/5/12	7/9/12 DUP	7/9/12
Methylene chloride (µg/L)	EP6-06	1	5	-	-	-	<1	<1	<1	-	-	<1
	EP6-09	1	5	<0.5	<1	-	-	<0.5	<1	-	<1	<1
	K6-01S	1	5	-	<1	-	-	-	<1	<1	-	-
	K6-19	1	5	-	-	<1	<1	-	<1	<1	-	-
Tetrachloroethene (µg/L)	EP6-06	0.5	5	-	-	-	<0.5	<0.5	<0.5	-	-	<0.5
	EP6-09	0.5	5	<0.5	<0.5	-	-	<0.5	<0.5	-	<0.5	<0.5
	K6-01S	0.5	5	-	<0.5	-	-	-	<0.5	<0.5	-	-
	K6-19	0.5	5	-	-	<0.5	<0.5	-	<0.5	<0.5	-	-
Toluene (µg/L)	EP6-06	0.5	150	-	-	-	<0.5	<0.5	<0.5	-	-	<0.5
	EP6-09	0.5	150	<0.5	<0.5	-	-	<0.5	<0.5	-	<0.5	<0.5
	K6-01S	0.5	150	-	<0.5	-	-	-	<0.5	<0.5	-	-
	K6-19	0.5	150	-	-	<0.5	<0.5	-	<0.5	<0.5	-	-
1,1,1-Trichloroethane (µg/L)	EP6-06	0.5	200	-	-	-	<0.5	<0.5	<0.5	-	-	<0.5
	EP6-09	0.5	200	<0.5 L	<0.5	-	-	<0.5	<0.5	-	<0.5	<0.5
	K6-01S	0.5	200	-	<0.5	-	-	-	<0.5	<0.5	-	-
	K6-19	0.5	200	-	-	<0.5	<0.5	-	<0.5	<0.5	-	-
Trichloroethene (TCE) (µg/L)	EP6-06	0.5	5	-	-	-	<0.5	<0.5	<0.5	-	-	<0.5
	EP6-09	17	5	8.7 L	7.6	-	-	7.1	6.8	-	5.7	5.9
	K6-01S	1.5	5	-	<0.5	-	-	-	<0.5	<0.5	-	-
	K6-19	13	5	-	-	2.6	2.5	-	2.6	2.6	-	-
Total xylene isomers (µg/L)	EP6-06	1	1750	-	-	-	<1	<1	<1	-	-	<1
	EP6-09	1	1750	<0.5	<1	-	-	<0.5	<1	-	<1	<1
	K6-01S	1	1750	-	<1	-	-	-	<1	<1	-	-
	K6-19	1	1750	-	-	<1	<1	-	<1	<1	-	-

Table B-3.06. Pit 6 Landfill detection monitoring physical parameters for 2012.

Location	Date	Field Temperature (Degrees C)	Field pH (Units)	Field Specific Conductance (µmhos/cm)	Total dissolved solids (TDS) (mg/L)
EP6-06	1/9/12	20	7.11	1,306	860 D
EP6-06	4/11/12	18.1	7.69	1,229	880 D
EP6-06	4/11/12 DUP	-	-	-	880 D
EP6-06	7/9/12	22.8	7.85	1,275	860 D
EP6-09	1/5/12	21.2	8.13	5,432	1,400 D
EP6-09	4/11/12	20.9	7.76	1,687	1,200 D
EP6-09	7/9/12	22.9	7.83	1,659	1,200 D
EP6-09	7/9/12 DUP	-	-	-	1,200 D
K6-01S	1/5/12	21.8	7.19	3,863	2,400 D
K6-01S	4/11/12	21.5	7.12	3,718	3,000 D
K6-01S	7/5/12	21.6	7.32	3,473	3,400 D
K6-19	1/9/12	26.1	6.21	1,211	820 D
K6-19	1/9/12 DUP	-	-	-	790 D
K6-19	4/11/12	19.5	7.72	1,996	780 D
K6-19	7/5/12	21.8	8.3	1,190	760 D

Table B-4.01. High Explosives Process Area Operable Unit volatile organic compounds (VOCs) in ground and surface water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
GALLO1	1/31/12	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	1/31/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	1/31/12 DUP	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
GALLO1	1/31/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	2/16/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	2/16/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	3/14/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	3/14/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	4/25/12	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	4/25/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	4/25/12 DUP	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
GALLO1	4/25/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	5/23/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	5/23/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	6/18/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	6/18/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	7/26/12	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	7/26/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	7/26/12 DUP	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
GALLO1	7/26/12 DUP	E601	<0.5 LO	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	8/21/12	E601	0.54	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	8/21/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	9/12/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	9/12/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	10/24/12	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	10/24/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	10/24/12 DUP	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
GALLO1	10/24/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	11/28/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	11/28/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	12/19/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GALLO1	12/19/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-01	2/29/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-01	5/29/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-01	8/29/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-01	12/10/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-02	2/29/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-02	5/29/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-02	8/29/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-02	12/10/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-03	2/29/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-03	5/29/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-03	8/29/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-03	12/10/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-04	2/29/12	E601	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-04	5/31/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-04	8/29/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-04	12/10/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-05	2/29/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-05	5/31/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-05	8/29/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35B-05	12/10/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-01	3/6/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-01	9/20/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-02	3/20/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-02	9/24/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-04	1/11/12	E601	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-04	4/3/12	E601	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-04	8/7/12	E601	13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-4.01. High Explosives Process Area Operable Unit volatile organic compounds (VOCs) in ground and surface water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-35C-04	10/1/12	E601	11	<0.5	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-05	3/7/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-05	9/4/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-06	3/7/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-06	9/25/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-07	3/13/12	E601	2.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-07	9/25/12	E601	2.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-08	3/7/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-35C-08	9/4/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-4AS	3/19/12	E601	2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-4AS	9/13/12	E601	1.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-4AS	9/13/12 DUP	E601	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L
W-4B	3/19/12	E601	4.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-4C	3/19/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-4C	5/30/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-4C	9/12/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-4C	12/3/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6BD	3/14/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6BD	9/18/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6BS	3/14/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6BS	9/18/12	E601	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6BS	9/18/12 DUP	E601	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6CD	3/5/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6CD	9/24/12	E601	0.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6CI	3/5/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6CI	9/24/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6CS	3/5/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6CS	9/24/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6EI	3/13/12	E601	3.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6EI	9/25/12	E601	3.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6ER	1/11/12	E601	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6ER	4/3/12	E601	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6ER	4/3/12 DUP	E601	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6ER	8/7/12	E601	13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6ER	10/1/12	E601	12	<0.5	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6F	3/5/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6F	9/20/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6G	3/5/12	E601	5.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6G	9/20/12	E601	5.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6G	9/20/12 DUP	E601	5.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6H	3/6/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6H	5/30/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6H	9/11/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6H	12/11/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6I	3/6/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6I	9/11/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6J	3/6/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6J	5/30/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6J	9/11/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6J	12/11/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6K	2/13/12	E601	25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6K	2/13/12 DUP	E601	22	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6K	9/6/12	E601	23	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6L	2/13/12	E601	23	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-6L	9/6/12	E601	23	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-808-01	3/7/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-808-01	9/6/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-808-03	3/7/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-808-03	9/6/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-4.01. High Explosives Process Area Operable Unit volatile organic compounds (VOCs) in ground and surface water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-809-01	3/7/12	E601	3.6	<0.5	<0.5	<0.5	<0.5	1.8	<0.5	<0.5	2.7	<0.5	<0.5	<0.5	<0.5	<0.5
W-809-01	8/28/12	E601	7.4	<0.5	<0.5	<0.5	<0.5	2.1	<0.5	<0.5	5.3	<0.5	<0.5	<0.5	<0.5	<0.5
W-809-01	8/28/12 DUP	E601	6.4	<0.5	<0.5	<0.5	<0.5	1.9	<0.5	<0.5	4.9	<0.5	<0.5	<0.5	<0.5	<0.5
W-809-02	3/7/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-809-02	8/28/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-809-03	3/7/12	E601	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-809-03	8/28/12	E601	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-809-04	3/13/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-809-04	8/29/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-810-01	8/28/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-814-01	3/12/12	E601	1.8	<0.5	0.9	<0.5	<0.5	0.6	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-814-01	3/12/12 DUP	E601	2.2	<0.5	0.87	<0.5	0.51	0.62	<0.5	0.62	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-814-01	9/5/12	E601	2.1	<0.5	1.2	<0.5	0.6	0.7	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-814-02	9/6/12	E601	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-814-2138	3/12/12	E601	6.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-814-2138	9/5/12	E601	6.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-02	1/2/12	E601	8.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.8	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-02	5/2/12	E601	9.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.8	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-02	7/3/12	E601	10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.74	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-02	10/2/12	E601	11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.97	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-03	8/29/12	E601	5.4	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-04	1/2/12	E601	3.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.82	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-04	5/2/12	E601	2.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.64	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-04	5/2/12 DUP	E601	2.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.8	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-04	7/3/12	E601	2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.56	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-04	10/2/12	E601	2.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.68	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-06	3/19/12	E601	11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-06	3/19/12 DUP	E601	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-06	9/6/12	E601	16	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-07	3/12/12	E601	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-07	9/5/12	E601	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-08	3/8/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-08	8/29/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-1928	3/7/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-1928	8/28/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2110	3/20/12	E601	2.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2110	6/18/12	E601	1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2110	6/18/12 DUP	E601	1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2110	9/11/12	E601	1.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2110	12/11/12	E601	1.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2111	3/20/12	E601	1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2111	6/18/12	E601	0.91	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2111	9/11/12	E601	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2111	12/11/12	E601	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2217	3/5/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2217	9/24/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2608	3/20/12	E601	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2608	6/20/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2608	11/5/12	E601	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2621	3/20/12	E601	25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2621	6/13/12	E601	20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2621	9/10/12	E601	23	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-815-2803	7/2/12	E624	0.88	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
W-815-2803	12/10/12	E601	1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-01	2/13/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-01	4/3/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-01	4/3/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-01	7/3/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-01	10/1/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-4.01. High Explosives Process Area Operable Unit volatile organic compounds (VOCs) in ground and surface water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-817-03	1/2/12	E601	6.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-03	5/2/12	E601	6.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-03	7/11/12	E601	8.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-03A	3/8/12	E601	9.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-03A	8/29/12	E601	22	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-04	3/13/12	E601	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-04	3/13/12 DUP	E601	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-04	9/4/12	E601	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-04	9/4/12 DUP	E601	13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-05	3/13/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-05	9/4/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-07	3/8/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-07	8/29/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-2318	1/2/12	E601	37	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-2318	5/2/12	E601	31	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-2318	5/2/12 DUP	E601	6.2 S	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-2318	7/11/12	E601	40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-2318	10/2/12	E601	37	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-2609	3/14/12	E601	9.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-2609	6/13/12	E601	6.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-2609	9/4/12	E601	7.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-817-2609	11/29/12	E601	3.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-01	3/12/12	E601	13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-01	9/5/12	E601	16	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-03	1/30/12	E601	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-03	9/10/12	E601	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-04	3/14/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-04	9/12/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-06	3/14/12	E601	10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-06	3/14/12 DUP	E601	10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-06	9/6/12	E601	17	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-07	3/14/12	E601	11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-07	9/6/12	E601	10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-08	3/6/12	E601	42	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-08	5/2/12	E601	40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-08	7/16/12	E601	38	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-08	10/1/12	E601	36	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-09	3/6/12	E601	20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-09	5/2/12	E601	19	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-09	5/2/12 DUP	E601	40 S	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-09	7/16/12	E601	17	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-09	10/1/12	E601	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-11	3/12/12	E601	29	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-11	3/12/12 DUP	E601	41	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-11	9/5/12	E601	53	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5
W-818-11	9/5/12 DUP	E601	49	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-819-02	3/12/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-819-02	9/4/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-823-01	3/6/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-823-01	9/11/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-823-02	3/6/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-823-02	9/11/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-823-03	3/6/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-823-03	9/12/12	E601	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-823-13	3/20/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-823-13	9/11/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-827-05	3/21/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-827-05	3/21/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-827-05	9/12/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-4.01. High Explosives Process Area Operable Unit volatile organic compounds (VOCs) in ground and surface water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-829-06	3/15/12	E601	15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-06	4/3/12	E601	15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-06	4/3/12 DUP	E601	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-06	7/9/12	E601	16	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-06	9/10/12	E601	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-06	11/12/12	E601	5.8	<0.5	<0.5	<0.5	<0.5	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-15	4/4/12	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
W-829-15	4/4/12 DUP	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
W-829-1938	2/8/12	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
W-829-1938	2/8/12 DUP	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
W-829-1938	4/23/12	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
W-829-1938	7/31/12	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
W-829-1938	7/31/12 DUP	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
W-829-1938	10/31/12	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
W-829-1938	10/31/12 DUP	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
W-829-1940	3/21/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-1940	9/12/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-829-22	4/5/12	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
WELL18	1/24/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	1/24/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	2/22/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	2/22/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	3/20/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	3/20/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	4/24/12	E601	<0.5	<0.5 O	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	4/24/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	5/16/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	5/16/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	6/26/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	6/26/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 O	<0.5	<0.5
WELL18	7/26/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	7/26/12 DUP	E601	<0.5 LO	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	8/21/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	8/21/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	10/31/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	10/31/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	11/28/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	11/28/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	12/11/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL18	12/11/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL20	1/24/12	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL20	1/24/12 DUP	E502.2	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
WELL20	2/22/12	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL20	2/22/12 DUP	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
WELL20	3/20/12	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL20	3/20/12 DUP	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
WELL20	4/24/12	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL20	4/24/12 DUP	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
WELL20	5/16/12	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL20	5/16/12 DUP	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
WELL20	6/26/12	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL20	6/26/12 DUP	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
WELL20	7/26/12	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL20	7/26/12 DUP	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
WELL20	8/21/12	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL20	8/21/12 DUP	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
WELL20	9/20/12	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL20	9/20/12 DUP	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
WELL20	10/31/12	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-4.01. High Explosives Process Area Operable Unit volatile organic compounds (VOCs) in ground and surface water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
WELL20	10/31/12 DUP	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
WELL20	11/28/12	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL20	11/28/12 DUP	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
WELL20	12/11/12	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WELL20	12/11/12 DUP	E502.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5

Table B-4.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro-ethene (total) (µg/L)	Bromodi-chloro-methane (µg/L)	Bromoform (µg/L)	Bromo-methane (µg/L)	Chloroethane (µg/L)	Chloro-methane (µg/L)	Dibromo-chloro-methane (µg/L)	Methylene chloride (µg/L)
GALLO1	1/31/12	E502.2	0 of 46	-	-	-	-	-	-	-	-
GALLO1	1/31/12	E601	0 of 18	-	-	-	-	-	-	-	-
GALLO1	1/31/12 DUP	E502.2	0 of 45	-	-	-	-	-	-	-	-
GALLO1	1/31/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
GALLO1	2/16/12	E601	0 of 18	-	-	-	-	-	-	-	-
GALLO1	2/16/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
GALLO1	3/14/12	E601	0 of 18	-	-	-	-	-	-	-	-
GALLO1	3/14/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
GALLO1	4/25/12	E502.2	0 of 46	-	-	-	-	-	-	-	-
GALLO1	4/25/12	E601	0 of 18	-	-	-	-	-	-	-	-
GALLO1	4/25/12 DUP	E502.2	0 of 45	-	-	-	-	-	-	-	-
GALLO1	4/25/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
GALLO1	5/23/12	E601	0 of 18	-	-	-	-	-	-	-	-
GALLO1	5/23/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
GALLO1	6/18/12	E601	0 of 18	-	-	-	-	-	-	-	-
GALLO1	6/18/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
GALLO1	7/26/12	E502.2	0 of 46	-	-	-	-	-	-	-	-
GALLO1	7/26/12	E601	0 of 18	-	-	-	-	-	-	-	-
GALLO1	7/26/12 DUP	E502.2	0 of 45	-	-	-	-	-	-	-	-
GALLO1	7/26/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
GALLO1	8/21/12	E601	0 of 18	-	-	-	-	-	-	-	-
GALLO1	8/21/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
GALLO1	9/12/12	E601	0 of 18	-	-	-	-	-	-	-	-
GALLO1	9/12/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
GALLO1	10/24/12	E502.2	0 of 46	-	-	-	-	-	-	-	-
GALLO1	10/24/12	E601	0 of 18	-	-	-	-	-	-	-	-
GALLO1	10/24/12 DUP	E502.2	0 of 45	-	-	-	-	-	-	-	-
GALLO1	10/24/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
GALLO1	11/28/12	E601	0 of 18	-	-	-	-	-	-	-	-
GALLO1	11/28/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
GALLO1	12/19/12	E601	0 of 18	-	-	-	-	-	-	-	-
GALLO1	12/19/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
W-35B-01	2/29/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-35B-01	5/29/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-35B-01	8/29/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-35B-01	12/10/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-35B-02	2/29/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-35B-02	5/29/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-35B-02	8/29/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-35B-02	12/10/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-35B-03	2/29/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-35B-03	5/29/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-35B-03	8/29/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-35B-03	12/10/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-35B-04	2/29/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-35B-04	5/31/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-35B-04	8/29/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-35B-04	12/10/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-35B-05	2/29/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-35B-05	5/31/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-35B-05	8/29/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-35B-05	12/10/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-35C-01	3/6/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-35C-01	9/20/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-35C-02	3/20/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-35C-02	9/24/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-35C-04	1/11/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-35C-04	4/3/12	E601	0 of 18	-	-	-	-	-	-	-	-

Table B-4.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro-ethene (total) (µg/L)	Bromodi-chloro-methane (µg/L)	Bromoform (µg/L)	Bromo-methane (µg/L)	Chloroethane (µg/L)	Chloro-methane (µg/L)	Dibromo-chloro-methane (µg/L)	Methylene chloride (µg/L)
W-35C-04	8/7/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-35C-04	10/1/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-35C-05	3/7/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-35C-05	9/4/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-35C-06	3/7/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-35C-06	9/25/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-35C-07	3/13/12	E601	1 of 18	-	-	-	-	-	-	-	0.9
W-35C-07	9/25/12	E601	1 of 18	-	-	-	-	-	-	-	0.6
W-35C-08	3/7/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-35C-08	9/4/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-4AS	3/19/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-4AS	9/13/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-4AS	9/13/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
W-4B	3/19/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-4C	3/19/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-4C	5/30/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-4C	9/12/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-4C	12/3/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6BD	3/14/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6BD	9/18/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6BS	3/14/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6BS	9/18/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6BS	9/18/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
W-6CD	3/5/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6CD	9/24/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6CI	3/5/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6CI	9/24/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6CS	3/5/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6CS	9/24/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6EI	3/13/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6EI	9/25/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6ER	1/11/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6ER	4/3/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6ER	4/3/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
W-6ER	8/7/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6ER	10/1/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6F	3/5/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6F	9/20/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6G	3/5/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6G	9/20/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6G	9/20/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
W-6H	3/6/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6H	5/30/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6H	9/11/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6H	12/11/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6I	3/6/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6I	9/11/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6J	3/6/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6J	5/30/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6J	9/11/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6J	12/11/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6K	2/13/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6K	2/13/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
W-6K	9/6/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6L	2/13/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-6L	9/6/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-808-01	3/7/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-808-01	9/6/12	E601	0 of 18	-	-	-	-	-	-	-	-

Table B-4.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro-ethene (total) (µg/L)	Bromodi-chloro-methane (µg/L)	Bromoform (µg/L)	Bromo-methane (µg/L)	Chloroethane (µg/L)	Chloro-methane (µg/L)	Dibromo-chloro-methane (µg/L)	Methylene chloride (µg/L)
W-808-03	3/7/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-808-03	9/6/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-809-01	3/7/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-809-01	8/28/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-809-01	8/28/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
W-809-02	3/7/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-809-02	8/28/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-809-03	3/7/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-809-03	8/28/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-809-04	3/13/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-809-04	8/29/12	E601	1 of 18	-	-	0.7	-	-	-	-	-
W-810-01	8/28/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-814-01	3/12/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-814-01	3/12/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
W-814-01	9/5/12	E601	1 of 18	1.2	-	-	-	-	-	-	-
W-814-02	9/6/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-814-2138	3/12/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-814-2138	9/5/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-02	1/2/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-02	5/2/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-02	7/3/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-02	10/2/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-03	8/29/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-04	1/2/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-04	5/2/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-04	5/2/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-04	7/3/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-04	10/2/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-06	3/19/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-06	3/19/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-06	9/6/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-07	3/12/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-07	9/5/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-08	3/8/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-08	8/29/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-1928	3/7/12	E601	1 of 18	-	0.7	-	-	-	-	-	-
W-815-1928	8/28/12	E601	3 of 18	-	3.2	12	-	-	-	6.9	-
W-815-2110	3/20/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-2110	6/18/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-2110	6/18/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-2110	9/11/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-2110	12/11/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-2111	3/20/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-2111	6/18/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-2111	9/11/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-2111	12/11/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-2217	3/5/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-2217	9/24/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-2608	3/20/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-2608	6/20/12	E601	4 of 18	-	-	-	3.2	1.1	37	-	1.3
W-815-2608	11/5/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-2621	3/20/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-2621	6/13/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-2621	9/10/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-815-2803	7/2/12	E624	0 of 30	-	-	-	-	-	-	-	-
W-815-2803	12/10/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-817-01	2/13/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-817-01	4/3/12	E601	0 of 18	-	-	-	-	-	-	-	-

Table B-4.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro-ethene (total) (µg/L)	Bromodi-chloro-methane (µg/L)	Bromoform (µg/L)	Bromo-methane (µg/L)	Chloroethane (µg/L)	Chloro-methane (µg/L)	Dibromo-chloro-methane (µg/L)	Methylene chloride (µg/L)
W-817-01	4/3/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
W-817-01	7/3/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-817-01	10/1/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-817-03	1/2/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-817-03	5/2/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-817-03	7/11/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-817-03A	3/8/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-817-03A	8/29/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-817-04	3/13/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-817-04	3/13/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
W-817-04	9/4/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-817-04	9/4/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
W-817-05	3/13/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-817-05	9/4/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-817-07	3/8/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-817-07	8/29/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-817-2318	1/2/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-817-2318	5/2/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-817-2318	5/2/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
W-817-2318	7/11/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-817-2318	10/2/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-817-2609	3/14/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-817-2609	6/13/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-817-2609	9/4/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-817-2609	11/29/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-818-01	3/12/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-818-01	9/5/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-818-03	1/30/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-818-03	9/10/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-818-04	3/14/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-818-04	9/12/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-818-06	3/14/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-818-06	3/14/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
W-818-06	9/6/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-818-07	3/14/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-818-07	9/6/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-818-08	3/6/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-818-08	5/2/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-818-08	7/16/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-818-08	10/1/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-818-09	3/6/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-818-09	5/2/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-818-09	5/2/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
W-818-09	7/16/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-818-09	10/1/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-818-11	3/12/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-818-11	3/12/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
W-818-11	9/5/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-818-11	9/5/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
W-819-02	3/12/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-819-02	9/4/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-823-01	3/6/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-823-01	9/11/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-823-02	3/6/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-823-02	9/11/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-823-03	3/6/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-823-03	9/12/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-823-13	3/20/12	E601	0 of 18	-	-	-	-	-	-	-	-

Table B-4.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro-ethene (total) (µg/L)	Bromodi-chloro-methane (µg/L)	Bromoform (µg/L)	Bromo-methane (µg/L)	Chloroethane (µg/L)	Chloro-methane (µg/L)	Dibromo-chloro-methane (µg/L)	Methylene chloride (µg/L)
W-823-13	9/11/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-827-05	3/21/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-827-05	3/21/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
W-827-05	9/12/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-829-06	3/15/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-829-06	4/3/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-829-06	4/3/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
W-829-06	7/9/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-829-06	9/10/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-829-06	11/12/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-829-15	4/4/12	E624	0 of 30	-	-	-	-	-	-	-	-
W-829-15	4/4/12 DUP	E624	0 of 30	-	-	-	-	-	-	-	-
W-829-1938	2/8/12	E624	0 of 30	-	-	-	-	-	-	-	-
W-829-1938	2/8/12 DUP	E624	0 of 30	-	-	-	-	-	-	-	-
W-829-1938	4/23/12	E624	0 of 30	-	-	-	-	-	-	-	-
W-829-1938	7/31/12	E624	0 of 30	-	-	-	-	-	-	-	-
W-829-1938	7/31/12 DUP	E624	0 of 30	-	-	-	-	-	-	-	-
W-829-1938	10/31/12	E624	0 of 30	-	-	-	-	-	-	-	-
W-829-1938	10/31/12 DUP	E624	0 of 30	-	-	-	-	-	-	-	-
W-829-1940	3/21/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-829-1940	9/12/12	E601	0 of 18	-	-	-	-	-	-	-	-
W-829-22	4/5/12	E624	0 of 30	-	-	-	-	-	-	-	-
WELL18	1/24/12	E601	0 of 18	-	-	-	-	-	-	-	-
WELL18	1/24/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
WELL18	2/22/12	E601	0 of 18	-	-	-	-	-	-	-	-
WELL18	2/22/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
WELL18	3/20/12	E601	0 of 18	-	-	-	-	-	-	-	-
WELL18	3/20/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
WELL18	4/24/12	E601	0 of 18	-	-	-	-	-	-	-	-
WELL18	4/24/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
WELL18	5/16/12	E601	0 of 18	-	-	-	-	-	-	-	-
WELL18	5/16/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
WELL18	6/26/12	E601	0 of 18	-	-	-	-	-	-	-	-
WELL18	6/26/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
WELL18	7/26/12	E601	0 of 18	-	-	-	-	-	-	-	-
WELL18	7/26/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
WELL18	8/21/12	E601	0 of 18	-	-	-	-	-	-	-	-
WELL18	8/21/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
WELL18	10/31/12	E601	0 of 18	-	-	-	-	-	-	-	-
WELL18	10/31/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
WELL18	11/28/12	E601	0 of 18	-	-	-	-	-	-	-	-
WELL18	11/28/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
WELL18	12/11/12	E601	0 of 18	-	-	-	-	-	-	-	-
WELL18	12/11/12 DUP	E601	0 of 18	-	-	-	-	-	-	-	-
WELL20	1/24/12	E502.2	0 of 46	-	-	-	-	-	-	-	-
WELL20	1/24/12 DUP	E502.2	0 of 45	-	-	-	-	-	-	-	-
WELL20	2/22/12	E502.2	0 of 46	-	-	-	-	-	-	-	-
WELL20	2/22/12 DUP	E502.2	0 of 45	-	-	-	-	-	-	-	-
WELL20	3/20/12	E502.2	0 of 46	-	-	-	-	-	-	-	-
WELL20	3/20/12 DUP	E502.2	0 of 45	-	-	-	-	-	-	-	-
WELL20	4/24/12	E502.2	0 of 46	-	-	-	-	-	-	-	-
WELL20	4/24/12 DUP	E502.2	0 of 45	-	-	-	-	-	-	-	-
WELL20	5/16/12	E502.2	0 of 46	-	-	-	-	-	-	-	-
WELL20	5/16/12 DUP	E502.2	0 of 45	-	-	-	-	-	-	-	-
WELL20	6/26/12	E502.2	0 of 46	-	-	-	-	-	-	-	-
WELL20	6/26/12 DUP	E502.2	0 of 45	-	-	-	-	-	-	-	-
WELL20	7/26/12	E502.2	0 of 46	-	-	-	-	-	-	-	-
WELL20	7/26/12 DUP	E502.2	0 of 45	-	-	-	-	-	-	-	-

Table B-4.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro-ethene (total) (µg/L)	Bromodi-chloro-methane (µg/L)	Bromoform (µg/L)	Bromo-methane (µg/L)	Chloroethane (µg/L)	Chloro-methane (µg/L)	Dibromo-chloro-methane (µg/L)	Methylene chloride (µg/L)
WELL20	8/21/12	E502.2	0 of 46	-	-	-	-	-	-	-	-
WELL20	8/21/12 DUP	E502.2	0 of 45	-	-	-	-	-	-	-	-
WELL20	9/20/12	E502.2	0 of 46	-	-	-	-	-	-	-	-
WELL20	9/20/12 DUP	E502.2	0 of 45	-	-	-	-	-	-	-	-
WELL20	10/31/12	E502.2	0 of 46	-	-	-	-	-	-	-	-
WELL20	10/31/12 DUP	E502.2	0 of 45	-	-	-	-	-	-	-	-
WELL20	11/28/12	E502.2	0 of 46	-	-	-	-	-	-	-	-
WELL20	11/28/12 DUP	E502.2	0 of 45	-	-	-	-	-	-	-	-
WELL20	12/11/12	E502.2	0 of 46	-	-	-	-	-	-	-	-
WELL20	12/11/12 DUP	E502.2	0 of 45	-	-	-	-	-	-	-	-

Table B-4.02. High Explosives Process Area Operable Unit nitrate and perchlorate in ground and surface water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
GALLO1	1/31/12	<0.5	<4
GALLO1	1/31/12 DUP	<0.5	<4
GALLO1	2/16/12	8.6 D	<4 O
GALLO1	2/16/12 DUP	<0.5	<4
GALLO1	3/14/12	<0.5	<4
GALLO1	3/14/12 DUP	<0.5	<4
GALLO1	4/25/12	<0.5	<4
GALLO1	4/25/12 DUP	<0.5 L	<4
GALLO1	5/23/12	<0.5	<4
GALLO1	5/23/12 DUP	<0.5	<4
GALLO1	6/18/12	<0.5	<4
GALLO1	6/18/12 DUP	<0.5	<4
GALLO1	7/26/12	<0.5	<4
GALLO1	7/26/12 DUP	<0.5	<4
GALLO1	8/21/12	<0.5	<4
GALLO1	8/21/12 DUP	<0.5	<4
GALLO1	9/12/12	<0.5	<4
GALLO1	9/12/12 DUP	<0.5	<4
GALLO1	10/24/12	<1 D	<4 J
GALLO1	10/24/12 DUP	<0.5	<4
GALLO1	11/28/12	<0.5	<4
GALLO1	11/28/12 DUP	<0.5	<4
GALLO1	12/19/12	<0.5	<4
GALLO1	12/19/12 DUP	<0.5	<4
W-35B-01	2/29/12	<0.5	<4
W-35B-01	8/29/12	<0.5	<4
W-35B-02	2/29/12	13 D	<4
W-35B-02	8/29/12	12 D	<4
W-35B-03	2/29/12	5	<4
W-35B-03	8/29/12	5	<4
W-35B-04	2/29/12	1	<4
W-35B-04	8/29/12	1	<4
W-35B-05	2/29/12	1.1	<4
W-35B-05	8/29/12	1.1	<4
W-35C-01	3/6/12	1.1	-
W-35C-05	3/7/12	3.4 L	-
W-35C-06	3/7/12	4.2 L	<4
W-35C-07	3/13/12	<0.5	<4
W-35C-08	3/7/12	1.1 L	<4
W-4AS	3/19/12	0.53	<4
W-4C	3/19/12	<0.5	<4
W-4C	9/12/12	<0.5	<4
W-6BD	3/14/12	0.62	<4
W-6BS	3/14/12	12 D	<4
W-6CD	3/5/12	<0.5	<4
W-6CI	3/5/12	<0.5	<4
W-6CS	3/5/12	590 DJ	6.3
W-6EI	3/13/12	<0.5	<4

Table B-4.02. High Explosives Process Area Operable Unit nitrate and perchlorate in ground and surface water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
W-6F	3/5/12	1.4	<4
W-6G	3/5/12	11	<4
W-6H	3/6/12	<0.5	<4
W-6H	9/11/12	<0.5	<4
W-6J	3/6/12	<0.5	<4
W-6J	9/11/12	<0.5	<4
W-6K	2/13/12	7.8	<4
W-6K	2/13/12 DUP	9.5 D	<4
W-808-01	3/7/12	16 L	<4
W-808-03	3/7/12	<0.5 L	<4
W-809-01	3/7/12	16 L	4.9
W-809-02	3/7/12	16 L	10.3
W-809-02	8/28/12	-	10.4
W-809-03	3/7/12	18 L	12.6
W-809-03	8/28/12	-	9.2
W-809-04	3/13/12	3	<4
W-814-01	3/12/12	53 D	6.1
W-814-01	3/12/12 DUP	64	5.6
W-814-2138	3/12/12	67 D	6
W-815-02	1/2/12	93 D	4.5
W-815-02	7/3/12	-	<4
W-815-04	1/2/12	97 D	<4
W-815-04	7/3/12	-	<4
W-815-06	3/19/12	79 D	7.8
W-815-06	3/19/12 DUP	85 D	6.2
W-815-07	3/12/12	72 D	7.5
W-815-08	3/8/12	<0.5	<4
W-815-1928	3/7/12	55 L	<4
W-815-2110	3/20/12	<1 D	<4
W-815-2110	9/11/12	1.7 D	<4
W-815-2111	3/20/12	<1 D	<4
W-815-2111	9/11/12	<1 D	<4
W-815-2608	3/20/12	<1 D	<4
W-815-2621	3/20/12	18 D	<4
W-815-2621	9/10/12	20 D	<4
W-815-2803	7/2/12	-	10
W-817-01	2/13/12	87	27 D
W-817-01	4/3/12	-	28 D
W-817-01	4/3/12 DUP	-	28 D
W-817-01	7/3/12	-	22 D
W-817-01	10/1/12	-	28 D
W-817-03	1/2/12	90 D	15
W-817-03	7/11/12	-	20 O
W-817-03A	3/8/12	49 D	8.2
W-817-04	3/13/12	94 D	18
W-817-04	3/13/12 DUP	98 D	17
W-817-05	3/13/12	1.1	<4

Table B-4.02. High Explosives Process Area Operable Unit nitrate and perchlorate in ground and surface water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
W-817-07	3/8/12	81 D	16.3
W-817-2318	1/2/12	100 D	8.6
W-817-2318	7/11/12	-	11 O
W-817-2609	3/14/12	130 D	19
W-817-2609	9/4/12	150 D	19
W-818-01	3/12/12	72 D	7
W-818-03	1/30/12	39 D	<4
W-818-04	3/14/12	<0.5	<4
W-818-06	3/14/12	15 D	<4
W-818-06	3/14/12 DUP	14 D	<4
W-818-07	3/14/12	<0.5	<4
W-818-08	3/6/12	85 D	8
W-818-08	7/16/12	-	5.8
W-818-09	3/6/12	85 D	5.4
W-818-09	7/16/12	-	5.2
W-818-11	3/12/12	71 D	7.5
W-818-11	3/12/12 DUP	82	9.9
W-819-02	3/12/12	<0.5	<4
W-823-01	3/6/12	19	<4
W-823-03	3/6/12	19 D	<4
W-823-13	3/20/12	40 DL	<4
W-827-05	3/21/12	<0.5	<4
W-827-05	3/21/12 DUP	<0.5	<4
W-829-06	3/15/12	75 D	7.5
W-829-06	4/3/12	70 D	8
W-829-06	4/3/12 DUP	56 D	8.5
W-829-06	7/9/12	75 D	7.7
W-829-06	11/12/12	38 D	5.1
W-829-15	4/4/12	-	<4
W-829-15	4/4/12 DUP	-	<4
W-829-1938	2/8/12	-	<4
W-829-1938	2/8/12 DUP	-	<4
W-829-1938	4/23/12	-	<4
W-829-1938	7/31/12	-	<4
W-829-1938	7/31/12 DUP	-	<4
W-829-1938	10/31/12	-	<4
W-829-1938	10/31/12 DUP	-	<4
W-829-1940	3/21/12	23 D	<4 O
W-829-22	4/5/12	-	<4
WELL18	1/24/12	<0.5	<4
WELL18	1/24/12 DUP	<0.5	<4
WELL18	2/22/12	<1 D	<4
WELL18	2/22/12 DUP	<0.5	<4
WELL18	3/20/12	<0.5	<4
WELL18	3/20/12 DUP	<0.5 L	<4
WELL18	4/24/12	<0.5	<4
WELL18	4/24/12 DUP	<0.5	<4

Table B-4.02. High Explosives Process Area Operable Unit nitrate and perchlorate in ground and surface water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
WELL18	5/16/12	<0.5	<4
WELL18	5/16/12 DUP	<0.5	<4
WELL18	6/26/12	<0.5	<4
WELL18	6/26/12 DUP	<0.5	<4
WELL18	7/26/12	<0.5	<4
WELL18	7/26/12 DUP	<0.5	<4
WELL18	8/21/12	<0.5	<4
WELL18	8/21/12 DUP	<0.5	<4
WELL18	10/31/12	<0.5	<4
WELL18	10/31/12 DUP	<0.5	<4
WELL18	11/28/12	<0.5	<4
WELL18	11/28/12 DUP	<0.5	<4
WELL18	12/11/12	<0.5	<4
WELL18	12/11/12 DUP	<0.5	<4
WELL20	1/24/12	<0.5	<4
WELL20	1/24/12 DUP	<0.5	<4
WELL20	2/22/12	<1 D	<4
WELL20	2/22/12 DUP	<0.5	<4
WELL20	3/20/12	<0.5	<4
WELL20	3/20/12 DUP	<0.5 L	<4
WELL20	4/24/12	<0.5	<4
WELL20	4/24/12 DUP	<0.5	<4
WELL20	5/16/12	<0.5	<4
WELL20	5/16/12 DUP	<0.5	<4
WELL20	6/26/12	<0.5	<4
WELL20	6/26/12 DUP	<0.5	<4
WELL20	7/26/12	<0.5	<4
WELL20	7/26/12 DUP	<0.5	<4
WELL20	8/21/12	<0.5	<4
WELL20	8/21/12 DUP	<0.5	<4
WELL20	9/20/12	<0.5	<4
WELL20	9/20/12 DUP	<0.5	<4
WELL20	10/31/12	<0.5	<4
WELL20	10/31/12 DUP	<0.5	<4
WELL20	11/28/12	<0.5	<4
WELL20	11/28/12 DUP	<0.5	<4
WELL20	12/11/12	<0.5	<4
WELL20	12/11/12 DUP	<0.5	<4

Table B-4.03. High Explosives Process Area Operable Unit high explosive compounds in ground and surface water.

Location	Date	1,3,5-Trinitro-benzene (µg/L)	1,3-Dinitro-benzene (µg/L)	2,4-Dinitro-toluene (µg/L)	2,6-Dinitro-toluene (µg/L)	2-Amino-4,6-Dinitro-toluene (µg/L)	2-Nitro-toluene (µg/L)	3-Nitro-toluene (µg/L)	4-Amino-2,6-Dinitro-toluene (µg/L)	4-Nitro-toluene (µg/L)	HMX (µg/L)	Nitro-benzene (µg/L)	RDX (µg/L)	TNT (µg/L)
GALLO1	1/31/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1 O	<2
GALLO1	1/31/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
GALLO1	2/16/12	<2.3 D	<2.3 DL	<2.3 DL	<2.3 D	<2.3 D	<2.3 D	<2.3 D	<2.3 DL	<2.3 D	<1.2 DO	<2.3 DL	<1.2 D	<2.3 DL
GALLO1	2/16/12 DUP	<2	LR	<2	<2	<2	<2	<2	<2	<2	LR	<2	LR	<2
GALLO1	3/14/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1 O	<2
GALLO1	3/14/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
GALLO1	4/25/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
GALLO1	4/25/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
GALLO1	5/23/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
GALLO1	5/23/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
GALLO1	6/18/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
GALLO1	6/18/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
GALLO1	7/26/12	<2 D	<2 D	<2 D	<2 D	<2 D	<2 D	<2 D	<2 D	<2 D	<1 D	<2 D	<1 D	<2 D
GALLO1	7/26/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
GALLO1	8/21/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
GALLO1	8/21/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
GALLO1	9/12/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
GALLO1	9/12/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
GALLO1	10/24/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
GALLO1	10/24/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
GALLO1	11/28/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
GALLO1	11/28/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
GALLO1	12/19/12	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<1.2 D	<2.5 D	<1.2 D	<2.5 D
GALLO1	12/19/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-35B-01	2/29/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-35B-01	8/29/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-35B-02	2/29/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-35B-02	8/29/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1.1	<2
W-35B-03	2/29/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-35B-03	8/29/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-35B-04	2/29/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-35B-04	8/29/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-35B-05	2/29/12	<2 IJ	<2 IJ	<2 IJ	<2 IJ	<2 IJ	<2 IJ	<2 IJ	<2 IJ	<2 IJ	<1 IJ	<2 IJ	<1 IJ	<2 IJ
W-35B-05	8/29/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-35C-02	3/20/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-35C-06	3/7/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-35C-07	3/13/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2

Table B-4.03. High Explosives Process Area Operable Unit high explosive compounds in ground and surface water.

Location	Date	1,3,5-Trinitro-benzene (µg/L)	1,3-Dinitro-benzene (µg/L)	2,4-Dinitro-toluene (µg/L)	2,6-Dinitro-toluene (µg/L)	2-Amino-4,6-Dinitro-toluene (µg/L)	2-Nitro-toluene (µg/L)	3-Nitro-toluene (µg/L)	4-Amino-2,6-Dinitro-toluene (µg/L)	4-Nitro-toluene (µg/L)	HMX (µg/L)	Nitro-benzene (µg/L)	RDX (µg/L)	TNT (µg/L)
W-4AS	3/19/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-6BD	3/14/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-6BS	3/14/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-6CD	3/5/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	1.3	<2	<1	<2
W-6CI	3/5/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-6CS	3/5/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-6EI	3/13/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-6F	3/5/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-6G	3/5/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-6H	3/6/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-6H	9/11/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-6J	3/6/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-6J	9/11/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-6K	2/13/12	<2	LR	<2	<2	<2	<2	<2	<2	<2	LR	<2	LR	<2
W-6K	2/13/12 DUP	<2.6 D	<2.6 DL	<2.6 DL	<2.6 D	<2.6 D	<2.6 D	<2.6 D	<2.6 DL	<2.6 D	<1.3 DO	<2.6 DL	<1.3 D	<2.6 DL
W-809-01	3/7/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-809-02	3/7/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-809-03	3/7/12	<2	<2	<2	<2	<2	<2	<2	14	<2	25	<2	168 D	<2
W-809-03	8/28/12	<2	<2	<2	<2	<2	<2	<2	10	<2	9.9	<2	23	<2
W-809-04	3/13/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-814-01	3/12/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-814-01	3/12/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1 O	<2
W-814-2138	3/12/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-815-02	1/2/12	<2.7 D	<2.7 D	<2.7 D	<2.7 D	<2.7 D	<2.7 D	<2.7 D	<2.7 D	<2.7 D	10 DO	<2.7 D	71 D	<2.7 D
W-815-02	7/3/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	6.6	<2	62	<2
W-815-04	1/2/12	<2.8 D	<2.8 D	<2.8 D	<2.8 D	<2.8 D	<2.8 D	<2.8 D	<2.8 D	<2.8 D	<1.4 DO	<2.8 D	48 D	<2.8 D
W-815-04	7/3/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	6.4	<2	45	<2
W-815-06	3/19/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	1.4	<2	1.3	<2
W-815-06	3/19/12 DUP	<2	<2 O	<2	<2	<2	<2	<2	<2	<2	<1 O	<2 O	<1	<2
W-815-07	3/12/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-815-08	3/8/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-815-1928	3/7/12	<2	<2	<2	<2	2.8	<2	<2	6.2	<2	20	<2	98 D	<2
W-815-2110	3/20/12	<2 IJ	<2 O	<2 O	<2 O	<2 O	<2 O	<2 O	<2 O	<2 O	<1 O	<2 O	<1 O	<2 O
W-815-2110	9/11/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-815-2111	3/20/12	<2 IJ	<2 O	<2 O	<2 O	<2 O	<2 O	<2 O	<2 O	<2 O	<1 O	<2 O	<1 O	<2 O
W-815-2111	9/11/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-815-2608	3/20/12	<2 IJ	<2 O	<2 O	<2 O	<2 O	<2 O	<2 O	<2 O	<2 O	<1 O	<2 O	<1 O	<2 O

Table B-4.03. High Explosives Process Area Operable Unit high explosive compounds in ground and surface water.

Location	Date	1,3,5-Trinitro-benzene (µg/L)	1,3-Dinitro-benzene (µg/L)	2,4-Dinitro-toluene (µg/L)	2,6-Dinitro-toluene (µg/L)	2-Amino-4,6-Dinitro-toluene (µg/L)	2-Nitro-toluene (µg/L)	3-Nitro-toluene (µg/L)	4-Amino-2,6-Dinitro-toluene (µg/L)	4-Nitro-toluene (µg/L)	HMX (µg/L)	Nitro-benzene (µg/L)	RDX (µg/L)	TNT (µg/L)
W-815-2621	3/20/12	<2 IJ	<2 O	<2 O	<2 O	<2 O	<2 O	<2 O	<2 O	<2 O	<1 O	<2 O	<1 O	<2 O
W-815-2621	9/10/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-815-2803	7/2/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	R	<2 J
W-817-01	2/13/12	<2.7 D	<2.7 D	<2.7 D	<2.7 D	<2.7 D	<2.7 D	<2.7 D	<2.7 D	<2.7 D	<1.3 D	<2.7 D	<1.3 DS	<2.7 D
W-817-01	4/3/12	<2	<2 O	<2	<2	<2	<2	<2	<2	<2	47	<2	50	<2
W-817-01	4/3/12 DUP	<2 IJ	<2 IJO	<2 IJ	<2 IJ	<2 IJ	<2 IJ	<2 IJ	<2 IJ	<2 IJ	35 IJ	<2 IJ	38 IJ	<2 IJ
W-817-01	7/3/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	20	<2	49	<2
W-817-01	10/1/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	17	<2	38	<2
W-817-03	1/2/12	<2.3 D	<2.3 D	<2.3 D	<2.3 D	<2.3 D	<2.3 D	<2.3 D	<2.3 D	<2.3 D	<1.2 DO	<2.3 D	<1.2 D	<2.3 D
W-817-03	2/14/12	<2.7 D	<2.7 DLO	<2.7 DLO	<2.7 D	<2.7 D	<2.7 D	<2.7 D	<2.7 DLO	<2.7 D	<1.3 DO	<2.7 DLO	4.7 DIJ	<2.7 DLO
W-817-03	7/11/12	<2	<2	<2 O	<2	<2	<2	<2	<2	<2	<1 L	<2	10 O	<2 O
W-817-03A	3/8/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-817-04	3/13/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1 O	<2
W-817-04	3/13/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	16 O	<2
W-817-05	3/13/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-817-07	3/8/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-817-2318	1/2/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1 O	<2	<1	<2
W-817-2318	7/11/12	<1.7	<1.7	<1.7 O	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<0.87 L	<1.7	<0.87 O	<1.7 O
W-817-2609	3/14/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1 O	<2
W-817-2609	9/4/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-818-01	3/12/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-818-04	3/14/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-818-07	3/14/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-818-08	3/6/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1 O	<2	<1	<2
W-818-09	3/6/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1 O	<2	<1	<2
W-818-11	3/12/12	<2	<2	<2	<2	<2	<2	<2	2.1	<2	<1	<2	17	<2
W-818-11	3/12/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1 O	<2
W-819-02	3/12/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-823-01	3/6/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-823-03	3/6/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-823-13	3/20/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-827-05	3/21/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1 O	<2	<1	<2
W-827-05	3/21/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1 O	<2	<1	<2
W-829-06	3/15/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1 O	<2
W-829-15	4/4/12	-	-	<5	<5	-	-	-	-	-	<1 IJ	<5	<1 J	<3.8 IJ
W-829-15	4/4/12 DUP	-	-	<5	<5	-	-	-	-	-	<1 IJ	<5	<1 J	<3.5 IJ
W-829-1938	2/8/12	-	-	<5 D	<5 D	-	-	-	-	-	<0.7	<5 D	<0.7 O	<3.5

Table B-4.03. High Explosives Process Area Operable Unit high explosive compounds in ground and surface water.

Location	Date	1,3,5-Trinitro-benzene (µg/L)	1,3-Dinitro-benzene (µg/L)	2,4-Dinitro-toluene (µg/L)	2,6-Dinitro-toluene (µg/L)	2-Amino-4,6-Dinitro-toluene (µg/L)	2-Nitro-toluene (µg/L)	3-Nitro-toluene (µg/L)	4-Amino-2,6-Dinitro-toluene (µg/L)	4-Nitro-toluene (µg/L)	HMX (µg/L)	Nitro-benzene (µg/L)	RDX (µg/L)	TNT (µg/L)
W-829-1938	2/8/12 DUP	-	-	<5	<5	-	-	-	-	-	<0.77	<5	<0.77 O	<3.8
W-829-1938	4/23/12	-	-	<5 O	<5	-	-	-	-	-	<1	<5	<1	<5
W-829-1938	7/31/12	-	-	<5	<5	-	-	-	-	-	<1	<5	<1	<5
W-829-1938	7/31/12 DUP	-	-	<5	<5	-	-	-	-	-	<1	<5	<1	<5
W-829-1938	10/31/12	-	-	<5	<5	-	-	-	-	-	<1	<5	<1	<5
W-829-1938	10/31/12 DUP	-	-	<5	<5	-	-	-	-	-	<0.77	<5	<0.77	<3.8
W-829-1940	3/21/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1 O	<2	<1	<2
W-829-22	4/5/12	-	-	<5	<5	-	-	-	-	-	<0.73	<5	<0.73	<3.7
WELL18	1/24/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL18	1/24/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL18	2/22/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1 LO	<2	<1	<2
WELL18	2/22/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL18	3/20/12	<2 O	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL18	3/20/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL18	4/24/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL18	4/24/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL18	5/16/12	<2 O	<2 O	<2 O	<2 O	<2 O	<2 O	<2 O	<2 O	<2 O	RO	<2 O	<1 O	<2 O
WELL18	5/16/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL18	6/26/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL18	6/26/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL18	7/26/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL18	7/26/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL18	8/21/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL18	8/21/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL18	10/31/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL18	10/31/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL18	11/28/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL18	11/28/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL18	12/11/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL18	12/11/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL20	1/24/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL20	1/24/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL20	2/22/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1 LO	<2	<1	<2
WELL20	2/22/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL20	3/20/12	<2 O	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL20	3/20/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL20	4/24/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2

Table B-4.03. High Explosives Process Area Operable Unit high explosive compounds in ground and surface water.

Location	Date	1,3,5-Trinitro-benzene (µg/L)	1,3-Dinitro-benzene (µg/L)	2,4-Dinitro-toluene (µg/L)	2,6-Dinitro-toluene (µg/L)	2-Amino-4,6-Dinitro-toluene (µg/L)	2-Nitro-toluene (µg/L)	3-Nitro-toluene (µg/L)	4-Amino-2,6-Dinitro-toluene (µg/L)	4-Nitro-toluene (µg/L)	HMX (µg/L)	Nitro-benzene (µg/L)	RDX (µg/L)	TNT (µg/L)
WELL20	4/24/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL20	5/16/12	<2 O	<2 O	<2 O	<2 O	<2 O	<2 O	<2 O	<2 O	<2 O	RO	<2 O	<1 O	<2 O
WELL20	5/16/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL20	6/26/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL20	6/26/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL20	7/26/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL20	7/26/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL20	8/21/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL20	8/21/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL20	9/20/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL20	9/20/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL20	10/31/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL20	10/31/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL20	11/28/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL20	11/28/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL20	12/11/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
WELL20	12/11/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2

Table B-4.04. High Explosives Process Area Operable Unit diesel range organic compounds in ground water.

Location	Date	Diesel Fuel (µg/L)
W-823-01	3/6/12	<50 O
W-823-02	3/6/12	<50 O
W-823-03	3/6/12	<50 O

Table B-4.05. High Explosives Process Area Operable Unit total uranium and uranium isotopes in ground water.

Location	Date	Uranium (µg/L)	Uranium (pCi/L)	Uranium 234 and Uranium 233 (pCi/L)	Uranium 234 by mass (pCi/L)	Uranium 235 and Uranium 236 (pCi/L)	Uranium 235 by mass (pCi/L)	Uranium 236 by mass (pCi/L)	Uranium 238 (pCi/L)	Uranium 238 by mass (pCi/L)	Uranium 235/238 (ratio)
W-4AS	3/19/12	-	-	<0.1	-	<0.1	-	-	<0.1	-	-
W-6BS	3/14/12	-	-	8.81 ± 1.94	-	0.578 ± 0.280	-	-	7.45 ± 1.67	-	-
W-6G	9/20/12	-	-	56.7 ± 7.37	-	2.77 ± 0.428	-	-	50.6 ± 6.58	-	-
W-6G	9/20/12 DUP	-	-	65.0 ± 11.0 IJ	-	2.62 ± 0.520 IJ	-	-	58.0 ± 10.0 IJ	-	-
W-6K	2/13/12	-	-	41.3 ± 6.18	-	2.23 ± 0.452	-	-	37.3 ± 5.59	-	-
W-6L	2/13/12	-	-	43.8 ± 6.56	-	1.74 ± 0.377	-	-	38.6 ± 5.80	-	-
W-809-02	8/28/12	-	-	14.3 ± 1.93	-	0.709 ± 0.154	-	-	11.8 ± 1.61	-	-
W-815-2803	7/2/12	62.5 ± 5.85	42.0 ± 0.810	-	23.0 ± 0.800	-	0.880 ± 0.00950	<0.0036	-	18.0 ± 0.160	0.00736 ± 0.0000510
W-817-01	4/3/12	-	-	9.85 ± 1.44	-	0.441 ± 0.132	-	-	8.39 ± 1.24	-	-
W-818-03	1/25/12	-	-	106 ± 13.8	-	5.54 ± 1.51	-	-	102 ± 13.4	-	-
W-818-06	9/6/12	-	-	79.5 ± 12.5	-	3.10 ± 0.622	-	-	69.9 ± 11.0	-	-
W-818-07	9/6/12	-	-	43.5 ± 6.08	-	2.20 ± 0.398	-	-	37.8 ± 5.30	-	-

Table B-4.06. High Explosives Process Area Operable Unit general minerals in ground water.

Constituents of concern	W-4AS	W-6BS	W-6G	W-6G	W-6K	W-6K	W-6L	W-809-02	W-815-2803	W-817-01	W-818-06	W-818-07
	3/19/12	3/14/12	9/20/12	9/20/12 DUP	2/13/12	2/13/12 DUP	2/13/12	8/28/12	7/2/12	4/3/12	9/6/12	9/6/12
Total Alkalinity (as CaCO3) (mg/L)	215	337	198	200	204	200	200	229	230	230	191	192
Aluminum (mg/L)	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bicarbonate Alk (as CaCO3) (mg/L)	209	337	198	200 D	196	180 D	180 D	229	230 D	230 D	191	192
Calcium (mg/L)	15	93	23	23	8.2	8.2	8	22	25	15	21	14
Carbonate Alk (as CaCO3) (mg/L)	<10	<10	<10	<8.2 D	<10	15 D	18 D	<10	<8.2 D	<8.2 D	<10	<10
Chloride (mg/L)	170 DL	170 DL	230 DL	290 D	180 D	210 D	210 D	290 D	200 D	160 D	220 D	220 D
Copper (mg/L)	<0.01	<0.01	<0.01	<0.05	<0.01	<0.05	<0.05	<0.01	<0.05	<0.05	<0.01	<0.01
Fluoride (mg/L)	0.82	0.34	0.68	0.98 D	0.49	0.73 D	0.58 D	0.68	0.95 D	0.81 D	0.64	0.66
Hydroxide Alk (as CaCO3) (mg/L)	<10	<10	<10	<8.2 D	<10	<8.2 D	<8.2 D	<10	<8.2 D	<8.2 D	<10	<10
Iron (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1
Magnesium (mg/L)	3.7	40	5.7	6.3	1.4	1.6	1.7	7.6	16	6.3	6.5	3.2
Manganese (mg/L)	<0.03	<0.03	<0.03	0.026	<0.03	0.01	<0.01	<0.03	<0.01	<0.03	<0.03	<0.03
Nickel (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.16	<0.1	<0.1	<0.1	<0.1
Nitrate (as N) (mg/L)	0.12	3	3.1 D	4.3 D	1.7	2.2 D	2.7 D	21 DLO	23 D	19 D	4.6	<0.1
Nitrate (as NO3) (mg/L)	0.55	13	14 D	19 H	7.4	9.6 H	12 H	95 DLO	100 H	83	20	<0.5
Nitrite (as N) (mg/L)	<0.1	<0.1	<0.1	<0.5	<0.1	<0.5	<0.5	<0.1	<0.5 H	<0.5	<0.1	<0.1
pH (Units)	8.2 H	8 H	7.8	8.1 H	8.6 H	8.54	8.59 H	8 H	8.04 H	8.2	8.1 H	8.1 H
Ortho-Phosphate (mg/L)	<0.1	<0.1	<0.1	<1	<0.1	0.11	0.086	<0.1	<1 H	0.071	<0.1	<0.1
Total Phosphorus (as P) (mg/L)	-	-	-	<0.05 H	-	<0.05 H	<0.05 H	-	<0.05 H	<0.15 H	-	-
Total Phosphorus (as PO4) (mg/L)	1 H	0.44 H	<0.1 H	-	<0.1 H	-	-	<0.1 H	-	-	<0.1 H	<0.1 H
Potassium (mg/L)	12	8.7	18	10	10	5.5	5.5	22	12	9.9	16 L	15 L
Sodium (mg/L)	262 D	195 D	331 D	370	293 D	280	290	363 D	280 L	260	292 D	289 D
Total dissolved solids (TDS) (mg/L)	810 H	520 H	1,200 H	1,200 D	900 H	940 DH	950 DH	1,200 H	1,100 DH	900 D	1,000 H	950 H
Specific Conductance (µmhos/cm)	1,300 H	1,600 H	1,800 H	1,790 H	1,500	1,500	1,490 H	2,000 H	1,560 H	1,270	1,700 H	1,500 H
Sulfate (mg/L)	130 D	270 D	300 DL	330 D	180 D	190 D	190 DHO	180 D	140 D	100 D	220 D	210 D
Surfactants (mg/L)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1 D	<0.5	<0.5	<0.5
Total Hardness (as CaCO3) (mg/L)	53	400	81	84	26	27	27	85	130	62	79	49
Zinc (mg/L)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.59	<0.05	<0.05	<0.05	<0.05

Table B-4.07. High Explosives Process Area Operable Unit metals and silica in ground water.

Location	Date	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Mercury (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Silica (as SiO2) (mg/L)	Silver (mg/L)	Sodium (mg/L)
W-815-2803	7/2/12	0.049	<0.025	<0.001	<0.003	-	<0.001	-	<0.0002	-	0.041	70	<0.001	-
W-829-15	4/4/12	-	-	-	-	<0.05	-	<0.01	-	23	-	-	-	170 L
W-829-15	4/4/12 DUP	-	-	-	-	<0.05	-	<0.01	-	22	-	-	-	170 L
W-829-1938	2/8/12	-	-	-	-	<0.05	-	0.081	-	12	-	-	-	150
W-829-1938	2/8/12 DUP	-	-	-	-	<0.05	-	0.083	-	12	-	-	-	150
W-829-1938	4/23/12	-	-	-	-	<0.05	-	0.021	-	12	-	-	-	150 B
W-829-1938	7/31/12	-	-	-	-	<0.05	-	0.031	-	12	-	-	-	150 F
W-829-1938	7/31/12 DUP	-	-	-	-	<0.05 B	-	0.031	-	12	-	-	-	150
W-829-1938	10/31/12	-	-	-	-	<0.05	-	0.049	-	13	-	-	-	160 FBO
W-829-1938	10/31/12 DUP	-	-	-	-	<0.05	-	0.044	-	13	-	-	-	160
W-829-22	4/5/12	-	-	-	-	0.05	-	<0.01 O	-	8 F	-	-	-	180 FBL

Table B-4.08. High Explosives Process Area Operable Unit gross alpha and beta in ground water.

Location	Date	Gross alpha (pCi/L)	Gross beta (pCi/L)
GALLO1	1/31/12	<2	<3
GALLO1	1/31/12 DUP	<2	<3
GALLO1	4/25/12	<2	3.58 ± 1.67
GALLO1	4/25/12 DUP	<2	3.5 ± 2.3
GALLO1	7/26/12	<2	<3
GALLO1	7/26/12 DUP	<2	5 ± 2.5
GALLO1	10/24/12	<2	<3
GALLO1	10/24/12 DUP	<2	6.5 ± 2.6
W-815-2803	7/2/12	44.6 ± 8.71	22.1 ± 4.24
W-829-15	4/4/12	<2	18.8 ± 3.39
W-829-15	4/4/12 DUP	<2	19.9 ± 3.45
W-829-1938	2/8/12	<2	9.98 ± 2.16
W-829-1938	2/8/12 DUP	<2	10.2 ± 2.4
W-829-1938	4/23/12	<2	6.27 ± 1.52
W-829-1938	7/31/12	<2	9.22 ± 2 F
W-829-1938	7/31/12 DUP	<2	13.5 ± 2.67 F
W-829-1938	10/31/12	2.54 ± 2.03	10.2 ± 2.02
W-829-1938	10/31/12 DUP	<2	11.7 ± 2.4
W-829-22	4/5/12	<2	5.1 ± 1.29
WELL20	1/24/12	<2	5.64 ± 1.67
WELL20	1/24/12	<2	8 ± 2.3
WELL20	4/24/12	<2	3.89 ± 1.3
WELL20	4/24/12 DUP	<2	7.4 ± 2.3
WELL20	7/26/12	<2	4.39 ± 1.36
WELL20	7/26/12 DUP	<2	6.7 ± 2.1
WELL20	10/31/12	<2	<3
WELL20	10/31/12 DUP	<2	7.5 ± 1.7

Table B-5.01. Building 850 area in Operable Unit 5 volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
K1-01C	2/14/12	E8260	<0.5	<0.5	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-01C	5/14/12	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-01C	5/14/12 DUP	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-01C	7/18/12	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-02B	2/14/12	E8260	<0.5	<0.5	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-02B	2/14/12 DUP	E8260	<0.5	<0.5	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-02B	7/23/12	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-02B	7/23/12 DUP	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-02B	10/10/12	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-04	2/7/12	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-04	5/10/12	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-04	7/17/12	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-04	10/9/12	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-05	2/14/12	E8260	<0.5	<0.5	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	18	<0.5
K1-05	4/17/12	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	21	<0.5
K1-05	7/16/12	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	18	<0.5
K1-05	10/8/12	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	24	<0.5
K1-07	2/7/12	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-07	4/17/12	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-07	8/2/12	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-07	10/10/12	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K1-08	2/7/12	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	25	<0.5
K1-08	4/17/12	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	17	<0.5
K1-08	7/17/12	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	13	<0.5
K1-08	10/29/12	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	24	<0.5
K1-09	2/6/12	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	46	<0.5
K1-09	4/19/12	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	48	<0.5
K1-09	7/17/12	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	37	<0.5
K1-09	10/9/12	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	41	<0.5
W-850-2805	8/23/12	E624	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
W-865-02	1/18/12	E601	<0.5	1.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.8	60	<0.5
W-865-02	7/11/12	E601	<0.5	1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.9	72 D	<0.5
W-865-1802	1/11/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-865-1802	7/10/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-865-2005	2/8/12	E601	<0.5 LO	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	8.6	<0.5
W-865-2005	2/8/12 DUP	E601	<0.5 LO	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	8.9	<0.5
W-865-2005	7/10/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	5.3	<0.5
W-865-2005	7/10/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	5	<0.5
W-865-2121	1/12/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	13	<0.5
W-865-2121	7/12/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	17	<0.5
W-865-2133	1/12/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-865-2133	7/11/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-865-2224	4/19/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-865-2224	11/6/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT1-2209	5/15/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT1-2209	10/4/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT1-2326	2/15/12	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT1-2326	5/10/12	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT1-2326	7/23/12	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT1-2326	10/29/12	E8260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT1-2620	4/18/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT1-2620	11/29/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-5.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency
K1-01C	2/14/12	E8260	0 of 36
K1-01C	5/14/12	E8260	0 of 36
K1-01C	5/14/12 DUP	E8260	0 of 36
K1-01C	7/18/12	E8260	0 of 36
K1-02B	2/14/12	E8260	0 of 36
K1-02B	2/14/12 DUP	E8260	0 of 36
K1-02B	7/23/12	E8260	0 of 36
K1-02B	7/23/12 DUP	E8260	0 of 36
K1-02B	10/10/12	E8260	0 of 36
K1-04	2/7/12	E8260	0 of 36
K1-04	5/10/12	E8260	0 of 36
K1-04	7/17/12	E8260	0 of 36
K1-04	10/9/12	E8260	0 of 36
K1-05	2/14/12	E8260	0 of 36
K1-05	4/17/12	E8260	0 of 36
K1-05	7/16/12	E8260	0 of 36
K1-05	10/8/12	E8260	0 of 36
K1-07	2/7/12	E8260	0 of 36
K1-07	4/17/12	E8260	0 of 36
K1-07	8/2/12	E8260	0 of 36
K1-07	10/10/12	E8260	0 of 36
K1-08	2/7/12	E8260	0 of 36
K1-08	4/17/12	E8260	0 of 36
K1-08	7/17/12	E8260	0 of 36
K1-08	10/29/12	E8260	0 of 36
K1-09	2/6/12	E8260	0 of 36
K1-09	4/19/12	E8260	0 of 36
K1-09	7/17/12	E8260	0 of 36
K1-09	10/9/12	E8260	0 of 36
W-850-2805	8/23/12	E624	0 of 30
W-865-02	1/18/12	E601	0 of 18
W-865-02	7/11/12	E601	0 of 18
W-865-1802	1/11/12	E601	0 of 18
W-865-1802	7/10/12	E601	0 of 18
W-865-2005	2/8/12	E601	0 of 18
W-865-2005	2/8/12 DUP	E601	0 of 18
W-865-2005	7/10/12	E601	0 of 18
W-865-2005	7/10/12 DUP	E601	0 of 18
W-865-2121	1/12/12	E601	0 of 18
W-865-2121	7/12/12	E601	0 of 18
W-865-2133	1/12/12	E601	0 of 18
W-865-2133	7/11/12	E601	0 of 18
W-865-2224	4/19/12	E601	0 of 18
W-865-2224	11/6/12	E601	0 of 18
W-PIT1-2209	5/15/12	E601	0 of 18
W-PIT1-2209	10/4/12	E601	0 of 18
W-PIT1-2326	2/15/12	E8260	0 of 36
W-PIT1-2326	5/10/12	E8260	0 of 36
W-PIT1-2326	7/23/12	E8260	0 of 36
W-PIT1-2326	10/29/12	E8260	0 of 36
W-PIT1-2620	4/18/12	E601	0 of 18
W-PIT1-2620	11/29/12	E601	0 of 18

Table B-5.02. Building 850 area in Operable Unit 5 nitrate and perchlorate in ground water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
K1-01C	2/14/12	35	<4 O
K1-01C	5/14/12	35	<4
K1-01C	5/14/12 DUP	34	<4
K1-01C	7/18/12	34	<4
K1-02B	2/14/12	32	4.3 O
K1-02B	2/14/12 DUP	32	5.7 O
K1-02B	7/23/12	31	<4
K1-02B	7/23/12 DUP	31	4.2
K1-02B	10/10/12	31	4.6
K1-04	2/7/12	30	<4
K1-04	5/10/12	31	<4
K1-04	7/17/12	31	<4
K1-04	10/9/12	29	<4 LO
K1-05	2/14/12	33	<4 O
K1-05	4/17/12	35	<4
K1-05	7/16/12	35	<4
K1-05	10/8/12	34	<4
K1-06	1/10/12	-	6.7
K1-06	4/18/12	34 D	5.8
K1-06	7/11/12	-	5.6
K1-07	2/7/12	30	<4
K1-07	4/17/12	29	<4
K1-07	8/2/12	33	<4
K1-07	10/10/12	32	<4
K1-08	2/7/12	34	<4
K1-08	4/17/12	34	<4
K1-08	7/17/12	35	<4
K1-08	10/29/12	34	<4 L
K1-09	2/6/12	33	<4
K1-09	4/19/12	34	<4
K1-09	7/17/12	35	<4
K1-09	10/9/12	35	<4 LO
K2-03	4/18/12	9.1 D	<4
K2-03	11/6/12	-	<4
K2-04D	5/2/12	36	<4
K2-04D	11/7/12	-	<4
K2-04S	5/2/12	-	<4
K2-04S	5/2/12 DUP	-	4.3
K2-04S	11/7/12	-	<4
K2-04S	11/7/12 DUP	-	<4
NC2-05	5/30/12	30 D	<4
NC2-05	11/1/12	-	<4
NC2-05A	5/30/12	34 D	6.4
NC2-05A	11/1/12	-	6
NC2-06	5/14/12	34 D	6.7
NC2-06	11/13/12	-	6.1
NC2-06A	5/14/12	<0.5	<4

Table B-5.02. Building 850 area in Operable Unit 5 nitrate and perchlorate in ground water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
NC2-06A	11/13/12	-	<4
NC2-09	5/14/12	<0.5	<4
NC2-10	5/31/12	41 D	<4
NC2-11D	4/30/12	30	<4
NC2-11D	10/29/12	-	<4 L
NC2-11I	6/28/12	34	4.8
NC2-11I	11/15/12	-	4.4
NC2-11S	5/31/12	30 D	5
NC2-11S	11/15/12	-	4.7
NC2-12D	4/30/12	36	6.2
NC2-12D	11/15/12	-	<4
NC2-12I	5/31/12	30 D	6
NC2-12I	11/15/12	-	6.2
NC2-12S	5/31/12	110 D	<4
NC2-12S	11/15/12	-	<4
NC2-13	5/30/12	30 D	<4
NC2-13	11/12/12	-	<4
NC2-14S	1/10/12	-	<4
NC2-14S	1/10/12 DUP	-	<4
NC2-14S	7/10/12	-	<4
NC2-14S	7/10/12 DUP	-	4.4
NC2-15	5/8/12	30 D	4.2
NC2-15	11/13/12	-	<4
NC2-16	1/10/12	-	<4
NC2-16	7/10/12	-	<4
NC2-18	5/8/12	-	7.8
NC2-18	5/8/12 DUP	-	7.3
NC2-18	11/12/12	-	8.5
NC2-18	11/12/12 DUP	-	7.8
NC2-19	5/30/12	-	<4
NC2-19	11/12/12	-	<4
NC2-20	5/30/12	30 D	<4
NC2-21	5/30/12	-	<4
NC7-10	1/10/12	-	18.6
NC7-10	5/7/12	41 DL	-
NC7-10	7/9/12	-	17.4
NC7-11	5/7/12	43 DL	12.7
NC7-11	10/18/12	-	15
NC7-15	5/2/12	27 D	<4
NC7-19	5/3/12	21 D	<4
NC7-19	10/17/12	-	<4
NC7-27	5/3/12	42 D	10.6
NC7-27	10/18/12	-	10
NC7-28	1/30/12	<1 D	<4
NC7-28	2/28/12	-	<4
NC7-28	3/15/12	-	<4

Table B-5.02. Building 850 area in Operable Unit 5 nitrate and perchlorate in ground water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
NC7-28	5/17/12	<0.5	<4
NC7-28	5/17/12 DUP	-	<4
NC7-28	6/14/12	-	<4
NC7-28	7/19/12	<0.5	<4
NC7-28	8/16/12	-	<4
NC7-28	9/13/12	-	<4
NC7-28	10/30/12	<0.5	<4
NC7-28	10/30/12 DUP	-	<4
NC7-28	11/27/12	-	<4
NC7-28	12/26/12	-	<4
NC7-29	5/9/12	180 D	9.8
NC7-29	10/23/12	-	11
NC7-43	5/9/12	2.9	<4
NC7-43	10/23/12	-	<4
NC7-44	5/9/12	66	<4
NC7-44	10/23/12	-	<4
NC7-46	5/23/12	-	<4
NC7-56	5/10/12	37	8.5
NC7-56	10/24/12	-	8.8
NC7-58	5/10/12	-	7.1
NC7-58	10/24/12	-	6.7
NC7-59	5/10/12	26 D	7.9
NC7-59	10/24/12	-	6.6
NC7-60	1/10/12	-	<4
NC7-60	5/3/12	0.92	-
NC7-60	7/9/12	-	<4
NC7-61	2/13/12	-	32 D
NC7-61	2/13/12 DUP	-	34 D
NC7-61	2/28/12	-	31 D
NC7-61	2/28/12 DUP	-	<4 S
NC7-61	3/15/12	-	38 D
NC7-61	3/15/12 DUP	-	38 D
NC7-61	5/21/12	53	37 D
NC7-61	6/14/12	-	42 D
NC7-61	7/19/12	-	33 D
NC7-61	7/19/12 DUP	-	29 D
NC7-61	8/16/12	-	37 D
NC7-61	8/16/12 DUP	-	62 D
NC7-61	9/13/12	-	37 D
NC7-61	9/13/12 DUP	-	37 D
NC7-61	10/30/12	-	29 DL
NC7-61	10/30/12 DUP	-	31 DL
NC7-61	11/27/12	-	30 D
NC7-61	11/27/12 DUP	-	30 D
NC7-61	12/26/12	-	44 D
NC7-61	12/26/12 DUP	-	39 D

Table B-5.02. Building 850 area in Operable Unit 5 nitrate and perchlorate in ground water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
NC7-62	5/10/12	-	9
NC7-62	10/24/12	-	8.4
NC7-69	5/2/12	<0.5	<4
NC7-69	5/2/12 DUP	<0.5	<4
NC7-69	10/22/12	-	<4
NC7-70	5/9/12	35 D	40.8
NC7-70	11/27/12	-	<4
NC7-71	1/10/12	-	<4
NC7-71	2/28/12	-	33.9
NC7-71	3/15/12	-	<4
NC7-71	5/21/12	0.57	<4
NC7-71	6/14/12	-	<4
NC7-71	7/19/12	-	<4
NC7-71	8/16/12	-	<4
NC7-71	9/13/12	-	<4
NC7-71	10/30/12	<0.5	<4
NC7-71	11/27/12	-	<4
NC7-71	12/26/12	-	<4
NC7-72	5/10/12	-	8.4
NC7-72	10/24/12	-	7
NC7-73	5/10/12	36 D	8.9
NC7-73	10/24/12	-	6.9
W-850-05	5/9/12	<2 D	<4
W-850-05	10/23/12	-	<4
W-850-2145	5/8/12	-	7.2
W-850-2145	11/7/12	-	8
W-850-2312	5/8/12	1.5	<4
W-850-2312	11/7/12	-	<4
W-850-2313	5/7/12	41	17
W-850-2313	10/18/12	-	14
W-850-2314	5/3/12	<0.5	<4
W-850-2314	10/3/12	-	<4
W-850-2315	5/9/12	85	11
W-850-2315	10/23/12	-	8.1 L
W-850-2316	5/8/12	1	<4
W-850-2316	11/7/12	-	<4
W-850-2416	1/30/12	<0.5	<4
W-850-2416	2/28/12	-	<4
W-850-2416	3/15/12	-	<4
W-850-2416	5/17/12	<0.5	<4
W-850-2416	6/14/12	-	<4
W-850-2416	7/19/12	<0.5	<4
W-850-2416	8/16/12	-	<4
W-850-2416	9/13/12	-	<4
W-850-2416	10/30/12	-	<4 L
W-850-2416	11/27/12	-	<4

Table B-5.02. Building 850 area in Operable Unit 5 nitrate and perchlorate in ground water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
W-850-2416	12/26/12	-	<4
W-850-2417	1/30/12	<0.5	11
W-850-2417	2/28/12	-	8.2
W-850-2417	3/15/12	-	<4
W-850-2417	5/17/12	<1 D	<4
W-850-2417	6/14/12	-	<4
W-850-2417	7/19/12	<1 D	<4
W-850-2417	8/16/12	-	<4
W-850-2417	9/13/12	-	<4
W-850-2417	10/30/12	-	<4 L
W-850-2417	11/27/12	-	<4
W-850-2417	12/26/12	-	<4
W-850-2805	8/23/12	-	<4
W-865-02	1/18/12	34 D	<4
W-865-02	7/11/12	40	-
W-865-1802	4/18/12	26 D	<4
W-865-1803	4/17/12	35	<4
W-865-1803	11/7/12	-	<4
W-865-2005	2/8/12	30 D	<4
W-865-2005	2/8/12 DUP	29 D	<4
W-865-2005	5/15/12	-	<4
W-865-2005	5/15/12 DUP	-	<4
W-865-2005	7/10/12	29 D	<4
W-865-2005	7/10/12 DUP	30 D	<4
W-865-2005	10/4/12	-	<4
W-865-2005	10/4/12 DUP	-	<4
W-865-2121	1/12/12	45 D	<4
W-865-2121	7/12/12	46 D	-
W-865-2133	1/12/12	2.5	<4
W-865-2133	4/19/12	-	<4
W-865-2133	7/11/12	2.4	<4
W-865-2133	11/6/12	-	<4
W-865-2224	1/12/12	-	<4
W-865-2224	4/19/12	0.99	<4
W-865-2224	7/11/12	-	<4 O
W-865-2224	11/6/12	1.2	<4
W-PIT1-2209	1/10/12	-	<4
W-PIT1-2209	5/15/12	47	<4
W-PIT1-2209	7/11/12	-	<4 O
W-PIT1-2209	10/4/12	48	<4
W-PIT1-2225	1/17/12	-	<4
W-PIT1-2225	6/4/12	<0.5	<4
W-PIT1-2225	7/16/12	-	<4
W-PIT1-2225	11/14/12	<0.5	<4
W-PIT1-2326	2/15/12	34	5 O
W-PIT1-2326	5/10/12	34	6.1

Table B-5.02. Building 850 area in Operable Unit 5 nitrate and perchlorate in ground water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
W-PIT1-2326	7/23/12	33	<4
W-PIT1-2326	10/29/12	31	<4 L
W-PIT1-2620	2/15/12	-	4.5
W-PIT1-2620	4/18/12	<5 D	4.2
W-PIT1-2620	11/29/12	-	5.5
W-PIT7-16	5/3/12	<0.5	<4
W-PIT7-16	10/17/12	-	<4

Table B-5.03. Building 850 area in Operable Unit 5 metals in ground water.

Location	Date	Arsenic (mg/L)	Barium (mg/L)	Beryllium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Mercury (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Sodium (mg/L)	Vanadium (mg/L)	Zinc (mg/L)
K1-01C	2/14/12	0.013 F	<0.025	<0.0005	<0.0005	-	<0.025	<0.01	<0.05	<0.002	<0.01 O	<0.0002	<0.005	<0.002	<0.0005	37	0.066 F	<0.02
K1-01C	5/14/12	0.014	<0.025	<0.0005	<0.0005	-	<0.025	<0.01	-	<0.002	-	-	<0.005	-	-	-	0.068	<0.02
K1-01C	5/14/12 DUP	0.014	0.025	<0.0005	<0.0005	-	<0.025	<0.01	-	<0.002	-	-	<0.005	-	-	-	0.07	<0.02
K1-01C	7/18/12	0.012 LF	<0.025	<0.0005	<0.0005	<0.003	<0.025	<0.01	<0.05 B	<0.002	<0.01	<0.0002	<0.005	0.0028	<0.0005	35 OB	0.067	<0.02
K1-02B	2/14/12	0.013 F	0.025	<0.0005	<0.0005	-	<0.025	<0.01	<0.05	<0.002	<0.01 O	<0.0002	<0.005	<0.002	<0.0005	44	0.048 F	<0.02
K1-02B	2/14/12 DUP	0.013 F	0.025	<0.0005	<0.0005	-	<0.025	0.011	<0.05	<0.002	<0.01 O	<0.0002	<0.005	<0.002	<0.0005	44	0.047 F	<0.02
K1-02B	7/23/12	0.013	0.025	<0.0005	<0.0005	<0.003	<0.025	<0.01	<0.05	<0.002	<0.01	<0.0002	<0.005	0.0029	<0.0005	41 B	0.047	<0.02
K1-02B	7/23/12 DUP	0.013	0.025	<0.0005	<0.0005	<0.003	<0.025	<0.01	<0.05	<0.002	<0.01	<0.0002	<0.005	0.0029	<0.0005	41 B	0.046	<0.02
K1-02B	10/10/12	0.012	<0.025	<0.0005	<0.0005	-	<0.025	0.032	-	<0.002	-	-	<0.005	-	-	-	0.049	0.027
K1-04	2/7/12	0.011	0.028	<0.0005	<0.0005	-	<0.025	<0.01	<0.05	<0.002	<0.01	<0.0002	<0.005	0.0037	<0.0005	48	0.031	<0.02
K1-04	5/10/12	0.012 F	0.026	<0.0005	<0.0005	-	<0.025	<0.01	-	<0.002	-	-	<0.005	-	-	-	0.032	<0.02
K1-04	7/17/12	0.011	0.029	<0.0005	<0.0005	<0.003 O	<0.025	<0.01	<0.05	<0.002	<0.01	<0.0002 O	<0.005	0.003	<0.0005	39 B	0.037	<0.02
K1-04	10/9/12	0.01	0.027	<0.0005	<0.0005	-	<0.025	<0.01	-	<0.002	-	-	<0.005	-	-	-	0.033	0.028
K1-05	2/14/12	0.014 F	0.038	<0.0005	<0.0005	-	<0.025	<0.01	<0.05	<0.002	<0.01 O	<0.0002	<0.005	<0.002	<0.0005	46	0.064 F	<0.02
K1-05	4/17/12	0.016	0.041	<0.0005	<0.0005	-	<0.025	<0.01	-	<0.002	-	-	<0.005	-	-	-	0.065	<0.02
K1-05	7/16/12	0.014	0.04	<0.0005	<0.0005	<0.003	<0.025	<0.01	<0.05	<0.002	<0.01	<0.0002	<0.005	0.0022	<0.0005	45	0.06	<0.02
K1-05	10/8/12	0.013 B	0.039	<0.0005	<0.0005	-	<0.025	0.018	-	<0.002	-	-	<0.005	-	-	-	0.069	0.022
K1-07	2/7/12	0.013	0.029	<0.0005	<0.0005	-	<0.025	<0.01	<0.05	<0.002	<0.01	<0.0002	<0.005	<0.002	<0.0005	43	0.065	<0.02
K1-07	4/17/12	0.014	0.029	<0.0005	<0.0005	-	<0.025	<0.01	-	<0.002	-	-	<0.005	-	-	-	0.064	<0.02
K1-07	8/2/12	0.014 F	0.03 F	<0.0005	<0.0005	<0.003	<0.025	<0.01	<0.05	<0.002	<0.01	<0.0002 LB	<0.005	<0.002	<0.0005	39 FB	0.068	<0.02
K1-07	10/10/12	0.013	0.028	<0.0005	<0.0005	-	<0.025	<0.01	-	<0.002	-	-	<0.005	-	-	-	0.068	<0.02
K1-08	2/7/12	0.014	0.043	<0.0005	<0.0005	-	<0.025	<0.01	<0.05	<0.002	<0.01	<0.0002	<0.005	<0.002	<0.0005	44	0.061	<0.02
K1-08	4/17/12	0.015	0.047	<0.0005	<0.0005	-	<0.025	<0.01	-	<0.002	-	-	<0.005	-	-	-	0.063	<0.02
K1-08	7/17/12	0.014	0.044	<0.0005	<0.0005	<0.003 O	<0.025	<0.01	<0.05	<0.002	<0.01	<0.0002 O	<0.005	<0.002	<0.0005	45 B	0.062	<0.02
K1-08	10/29/12	0.015	0.039	<0.0005	<0.0005	-	<0.025	<0.01	-	<0.002	-	-	<0.005	-	-	-	0.066	<0.02
K1-09	2/6/12	0.013	0.042	<0.0005	<0.0005	-	<0.025	<0.01	<0.05	<0.002	<0.01	<0.0002	<0.005	<0.002	<0.0005	45 B	0.058	<0.02
K1-09	4/19/12	0.013	0.045	<0.0005	<0.0005	-	<0.025	<0.01	-	<0.002	-	-	<0.005	-	-	-	0.053	<0.02
K1-09	7/17/12	0.013	0.044	<0.0005	<0.0005	<0.003 O	<0.025	<0.01	<0.05	<0.002	<0.01	<0.0002 O	<0.005	<0.002	<0.0005	46 B	0.058	<0.02
K1-09	10/9/12	0.014	0.044	<0.0005	<0.0005	-	<0.025	<0.01	-	<0.002	-	-	<0.005	-	-	-	0.06	<0.02
NC7-28	1/30/12	0.032	0.62 D	-	<0.001	0.0041	-	-	-	<0.001	-	<0.0002	-	<0.002	<0.001	-	-	-
NC7-28	5/17/12 DUP	0.019	0.34	-	<0.001	0.0039	-	-	-	<0.005	-	<0.0002	-	<0.002	<0.001	-	-	-
NC7-28	7/19/12	0.013	0.35	-	<0.001	0.0012	-	-	-	<0.005 L	-	<0.0002	-	<0.002	<0.001	-	-	-
NC7-28	10/30/12	0.027	0.39	-	<0.001	<0.003	-	-	-	<0.001	-	<0.0002	-	<0.002	<0.001	-	-	-
NC7-61	2/13/12	0.019	0.093	-	<0.001	<0.003	-	-	-	<0.001	-	<0.0002	-	<0.002	<0.001	-	-	-
NC7-61	2/13/12 DUP	0.02	0.095	-	<0.001	<0.003	-	-	-	<0.001	-	<0.0002	-	<0.002	<0.001	-	-	-
NC7-61	5/21/12	0.018	0.088	-	<0.001	<0.001	-	-	-	<0.005	-	<0.0002	-	<0.002	<0.001	-	-	-
NC7-61	7/19/12	0.02	0.093	-	<0.001	0.0017	-	-	-	<0.005 L	-	<0.0002	-	0.0022	<0.001	-	-	-
NC7-61	7/19/12 DUP	0.019	0.091	-	<0.001	0.0013	-	-	-	<0.005 L	-	<0.0002	-	0.0021	<0.001	-	-	-
NC7-61	10/30/12	0.018	0.091	-	<0.001	<0.003	-	-	-	<0.001	-	<0.0002	-	<0.002	<0.001	-	-	-
NC7-61	10/30/12 DUP	0.019	0.092	-	<0.001	<0.003	-	-	-	<0.001	-	<0.0002	-	<0.002	<0.001	-	-	-
NC7-71	1/10/12	0.0068	0.05	-	<0.0005	0.001	-	-	-	<0.005	-	<0.0002	-	<0.002	<0.001	-	-	-
NC7-71	5/21/12	0.0062	0.03	-	<0.0005	<0.001	-	-	-	<0.005	-	<0.0002	-	<0.002	<0.001	-	-	-
NC7-71	7/19/12	0.0061	0.04	-	0.0005	<0.001	-	-	-	<0.005	-	<0.0002	-	<0.002	<0.001	-	-	-
NC7-71	10/30/12	<0.002	0.05	-	<0.0005	<0.001	-	-	-	<0.005	-	<0.0002	-	<0.002	<0.001	-	-	-
W-850-2416	1/30/12	<0.002	0.036 D	-	<0.001	<0.003	-	-	-	<0.001	-	<0.0002	-	<0.002	<0.001	-	-	-
W-850-2416	5/17/12	0.0024	0.032	-	<0.001	<0.001	-	-	-	<0.005	-	<0.0002	-	<0.002	<0.001	-	-	-
W-850-2416	7/19/12	0.0027	0.033	-	<0.001	<0.001	-	-	-	<0.005 L	-	<0.0002	-	<0.002	<0.001	-	-	-
W-850-2416	10/30/12	<0.002	0.034	-	<0.001	<0.003	-	-	-	<0.001	-	<0.0002	-	<0.002	<0.001	-	-	-
W-850-2417	1/30/12	0.018	0.17	-	<0.001	<0.003	-	-	-	<0.001	-	<0.0002	-	<0.002	<0.001	-	-	-
W-850-2417	5/17/12	0.061	0.67	-	<0.001	0.091	-	-	-	<0.005	-	<0.0002	-	0.003	<0.001	-	-	-
W-850-2417	7/19/12	0.035 D	0.67 D	-	<0.005 D	0.03 D	-	-	-	<0.025 DL	-	<0.0002	-	<0.01 D	<0.005 D	-	-	-
W-850-2417	10/30/12	0.029	0.32	-	<0.001	<0.003	-	-	-	<0.001	-	<0.0002	-	<0.002	<0.001	-	-	-

Table B-5.03. Building 850 area in Operable Unit 5 metals in ground water.

Location	Date	Arsenic (mg/L)	Barium (mg/L)	Beryllium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Mercury (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Sodium (mg/L)	Vanadium (mg/L)	Zinc (mg/L)
W-850-2805	8/23/12	0.0025	<0.025	-	<0.001	<0.001	-	-	-	<0.005	-	<0.0002	-	<0.002	<0.001	-	-	-
W-865-02	1/18/12	0.0086	<0.02	-	<0.0005	<0.001	-	-	-	<0.005	-	<0.0002	-	<0.002	<0.001	-	-	-
W-865-2005	2/8/12	0.012	<0.02	-	<0.0005	<0.001	-	-	-	<0.005	-	<0.0002	-	<0.002	<0.001	-	-	-
W-865-2005	2/8/12 DUP	0.012	<0.02	-	<0.0005	<0.001	-	-	-	<0.005	-	<0.0002	-	<0.002	<0.001	-	-	-
W-865-2121	1/12/12	0.0076	0.03	-	<0.0005	<0.001	-	-	-	<0.005	-	<0.0002	-	0.0021	<0.001	-	-	-
W-865-2133	1/12/12	0.016	<0.02	-	<0.0005	0.001	-	-	-	<0.005	-	<0.0002	-	<0.002	<0.001	-	-	-
W-PIT1-2326	2/15/12	0.013	0.036	<0.0005	<0.0005	-	<0.025	<0.01	-	<0.002	-	-	<0.005	-	-	-	0.048	<0.02
W-PIT1-2326	5/10/12	0.012	0.034	<0.0005	<0.0005	-	<0.025	<0.01	-	<0.002	-	-	<0.005	-	-	-	0.048	<0.02
W-PIT1-2326	7/23/12	0.013	0.035	<0.0005	<0.0005	-	<0.025	<0.01	-	<0.002	-	-	<0.005	-	-	-	0.049	<0.02
W-PIT1-2326	10/29/12	0.012	0.033	<0.0005	<0.0005	-	<0.025	<0.01	-	<0.002	-	-	<0.005	-	-	-	0.05	<0.02
W-PIT1-2620	4/18/12	0.015	0.03	-	<0.0005	<0.001	-	-	-	<0.005	-	<0.0002	-	0.01	<0.001	-	-	-

Table B-5.04. Building 850 area in Operable Unit 5 polychlorinated biphenyl (PCB) compounds in ground water.

Location	Date	PCB 1016 (µg/L)	PCB 1221 (µg/L)	PCB 1232 (µg/L)	PCB 1242 (µg/L)	PCB 1248 (µg/L)	PCB 1254 (µg/L)	PCB 1260 (µg/L)
NC7-28	5/17/12 DUP	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-44	5/9/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-5.05. Building 850 area in Operable Unit 5 total uranium and uranium isotopes in ground water.

Location	Date	Uranium (pCi/L)	Uranium (µg/L)	Uranium 234 and Uranium 233 (pCi/L)	Uranium 234 by mass (pCi/L)	Uranium 235 and Uranium 236 (pCi/L)	Uranium 235 by mass (pCi/L)	Uranium 236 by mass (pCi/L)	Uranium 238 (pCi/L)	Uranium 238 by mass (pCi/L)	Uranium 235/238 (ratio)
K1-01C	2/14/12	-	-	2.95 ± 0.750	-	<0.1	-	-	1.48 ± 0.452	-	-
K1-01C	5/14/12	-	-	2.35 ± 0.436	-	<0.1	-	-	0.868 ± 0.208	-	-
K1-01C	5/14/12 DUP	-	-	2.21 ± 0.432	-	<0.1	-	-	0.958 ± 0.232	-	-
K1-01C	7/18/12	-	-	2.33 ± 0.376	-	<0.1	-	-	1.16 ± 0.214	-	-
K1-02B	2/14/12	-	-	2.35 ± 0.490	-	0.121 ± 0.0884	-	-	1.17 ± 0.295	-	-
K1-02B	2/14/12 DUP	-	-	1.96 ± 0.498	-	<0.1	-	-	1.34 ± 0.380	-	-
K1-02B	7/23/12	-	-	2.35 ± 0.354	-	<0.1	-	-	1.27 ± 0.211	-	-
K1-02B	7/23/12 DUP	-	-	2.27 ± 0.330	-	<0.1	-	-	1.21 ± 0.193	-	-
K1-02B	10/10/12	-	-	2.48 ± 0.477	-	0.120 ± 0.0745	-	-	1.35 ± 0.295	-	-
K1-04	2/7/12	-	-	1.06 ± 0.277	-	<0.1	-	-	0.836 ± 0.235	-	-
K1-04	5/10/12	-	-	1.03 ± 0.285	-	<0.1	-	-	0.753 ± 0.229	-	-
K1-04	7/17/12	-	-	1.13 ± 0.213	-	<0.1	-	-	0.675 ± 0.145	-	-
K1-04	10/9/12	-	-	1.10 ± 0.252	-	<0.1	-	-	0.623 ± 0.168	-	-
K1-05	2/14/12	-	-	1.90 ± 0.501	-	0.154 ± 0.121	-	-	1.35 ± 0.391	-	-
K1-05	4/17/12	-	-	2.06 ± 0.328	-	<0.1	-	-	0.969 ± 0.181	-	-
K1-05	7/16/12	-	-	2.02 ± 0.333	-	<0.1	-	-	0.990 ± 0.188	-	-
K1-05	10/8/12	-	-	1.79 ± 0.383	-	<0.1	-	-	0.981 ± 0.244	-	-
K1-06	4/18/12	-	-	5.86 ± 0.835	-	0.135 ± 0.0761	-	-	2.94 ± 0.463	-	-
K1-07	2/7/12	-	-	1.92 ± 0.465	-	<0.1	-	-	0.810 ± 0.258	-	-
K1-07	4/17/12	2.90 ± 0.0900	-	1.78 ± 0.273	2.00 ± 0.0900	<0.1	0.0420 ± 0.000410	<0.00023	0.941 ± 0.164	0.880 ± 0.00350	0.00733 ± 0.0000650
K1-07	8/2/12	-	-	1.97 ± 0.325	-	<0.1	-	-	0.998 ± 0.190	-	-
K1-07	10/10/12	-	-	1.79 ± 0.359	-	<0.1	-	-	0.982 ± 0.227	-	-
K1-08	2/7/12	-	-	1.96 ± 0.404	-	<0.1	-	-	0.665 ± 0.189	-	-
K1-08	4/17/12	-	-	1.87 ± 0.290	-	<0.1	-	-	1.07 ± 0.185	-	-
K1-08	7/17/12	-	-	2.01 ± 0.323	-	<0.1	-	-	0.966 ± 0.179	-	-
K1-08	10/29/12	-	-	2.02 ± 0.356	-	<0.1	-	-	1.02 ± 0.209	-	-
K1-09	2/6/12	-	-	2.20 ± 0.455	-	<0.1	-	-	1.11 ± 0.278	-	-
K1-09	4/19/12	-	-	2.08 ± 0.309 L	-	<0.1 L	-	-	1.07 ± 0.178 L	-	-
K1-09	7/17/12	-	-	2.02 ± 0.329	-	<0.1	-	-	1.09 ± 0.201	-	-
K1-09	10/9/12	-	-	1.91 ± 0.394	-	<0.1	-	-	0.974 ± 0.236	-	-
K2-03	4/18/12	-	-	5.04 ± 0.691	-	0.166 ± 0.0601	-	-	3.26 ± 0.464	-	-
K2-04S	5/2/12	-	-	1.60 ± 0.287	-	0.118 ± 0.0581	-	-	0.924 ± 0.190	-	-
K2-04S	5/2/12 DUP	-	-	1.84 ± 0.323	-	<0.1	-	-	1.23 ± 0.236	-	-
NC2-05	5/30/12	-	-	6.80 ± 1.06	-	0.250 ± 0.101	-	-	5.06 ± 0.814	-	-
NC2-05A	5/30/12	-	-	1.93 ± 0.359	-	<0.1	-	-	1.41 ± 0.279	-	-
NC2-06	5/14/12	-	-	1.85 ± 0.349	-	<0.1	-	-	0.995 ± 0.219	-	-
NC2-06A	5/14/12	0.390 ± 0.00980	-	-	0.220 ± 0.00960	-	0.00680 ± 0.0000850	<0.00031	-	0.170 ± 0.00200	0.00632 ± 0.0000270
NC2-09	5/14/12	-	-	<0.1	-	<0.1	-	-	<0.1	-	-
NC2-10	5/31/12	-	-	2.71 ± 0.459	-	<0.1	-	-	1.44 ± 0.279	-	-
NC2-11D	4/30/12	4.70 ± 0.0950	-	-	2.90 ± 0.0930	-	0.0820 ± 0.000850	<0.00034	-	1.80 ± 0.0160	0.00725 ± 0.0000390
NC2-11I	6/28/12	-	-	2.43 ± 0.367	-	0.101 ± 0.0478	-	-	1.73 ± 0.274	-	-
NC2-11S	5/31/12	-	-	2.73 ± 0.465	-	<0.1	-	-	1.22 ± 0.246	-	-
NC2-12D	4/30/12	-	-	1.63 ± 0.308	-	<0.1	-	-	1.01 ± 0.216	-	-
NC2-12I	5/31/12	-	-	2.34 ± 0.432	-	0.100 ± 0.0638	-	-	1.39 ± 0.289	-	-
NC2-12S	5/31/12	-	-	3.45 ± 0.582	-	0.117 ± 0.0686	-	-	1.91 ± 0.359	-	-
NC2-13	5/30/12	-	-	4.01 ± 0.661	-	0.160 ± 0.0801	-	-	2.46 ± 0.437	-	-

Table B-5.05. Building 850 area in Operable Unit 5 total uranium and uranium isotopes in ground water.

Location	Date	Uranium (pCi/L)	Uranium (µg/L)	Uranium 234 and Uranium 233 (pCi/L)	Uranium 234 by mass (pCi/L)	Uranium 235 and Uranium 236 (pCi/L)	Uranium 235 by mass (pCi/L)	Uranium 236 by mass (pCi/L)	Uranium 238 (pCi/L)	Uranium 238 by mass (pCi/L)	Uranium 235/238 (ratio)
NC2-15	5/8/12	-	-	2.18 ± 0.419	-	<0.1	-	-	1.06 ± 0.239	-	-
NC2-16	4/17/12	-	-	0.668 ± 0.142	-	<0.1	-	-	0.363 ± 0.0943	-	-
NC2-18	5/8/12	-	-	2.04 ± 0.424	-	<0.1	-	-	1.70 ± 0.367	-	-
NC2-18	5/8/12 DUP	-	-	1.73 ± 0.321	-	<0.1	-	-	1.60 ± 0.300	-	-
NC2-18	11/12/12	-	-	1.93 ± 0.292	-	<0.1	-	-	1.53 ± 0.238	-	-
NC2-18	11/12/12 DUP	-	-	1.84 ± 0.350	-	<0.1	-	-	1.41 ± 0.280	-	-
NC2-19	5/30/12	-	-	4.26 ± 0.723	-	0.167 ± 0.0853	-	-	3.24 ± 0.572	-	-
NC2-21	5/30/12	-	-	2.64 ± 0.627	-	0.104 ± 0.0931	-	-	1.94 ± 0.492	-	-
NC7-10	5/7/12	2.80 ± 0.0560	-	-	1.70 ± 0.0560	-	0.0490 ± 0.000300	<0.001	-	1.10 ± 0.00410	0.00678 ± 0.0000330
NC7-11	5/7/12	-	-	1.53 ± 0.310	-	<0.1	-	-	1.16 ± 0.250	-	-
NC7-19	5/3/12	-	-	1.50 ± 0.296	-	<0.1	-	-	1.52 ± 0.297	-	-
NC7-27	5/3/12	-	-	1.74 ± 0.319	-	<0.1	-	-	1.38 ± 0.264	-	-
NC7-28	1/30/12	2.80 ± 0.0380	5.20 ± 0.566	-	0.660 ± 0.0380	-	0.0340 ± 0.000160	0.0120 ± 0.0000210	-	2.10 ± 0.00790	0.00257 ± 0.00000700
NC7-28	2/28/12	-	15.2 ± 1.43	-	-	-	-	-	-	-	-
NC7-28	3/15/12	-	10.9 ± 0.992	-	-	-	-	-	-	-	-
NC7-28	5/17/12	3.80 ± 0.0490	5.46 ± 0.520	-	0.960 ± 0.0470	-	0.0470 ± 0.000340	0.0150 ± 0.0000360	-	2.80 ± 0.0140	0.00260 ± 0.0000140
NC7-28	6/14/12	-	28.1 ± 2.48	-	-	-	-	-	-	-	-
NC7-28	7/19/12	11.0 ± 0.290	21.2 ± 2.13	-	3.00 ± 0.290	-	0.130 ± 0.000840	0.0410 ± 0.0000680	-	7.40 ± 0.0190	0.00271 ± 0.0000160
NC7-28	8/16/12	-	46.0 ± 4.27	-	-	-	-	-	-	-	-
NC7-28	9/13/12	-	42.6 ± 4.37	-	-	-	-	-	-	-	-
NC7-28	10/30/12	18.0 ± 0.340	47.9 ± 4.61	-	5.10 ± 0.330	-	0.220 ± 0.00350	0.0670 ± 0.0000960	-	13.0 ± 0.0770	0.00275 ± 0.0000400
NC7-28	11/27/12	-	93.3 ± 8.76	-	-	-	-	-	-	-	-
NC7-28	12/26/12	-	68.8 ± 7.06	-	-	-	-	-	-	-	-
NC7-29	5/9/12	-	-	10.1 ± 1.54	-	0.380 ± 0.119	-	-	8.68 ± 1.33	-	-
NC7-43	5/9/12	-	-	0.112 ± 0.0592	-	<0.1	-	-	0.154 ± 0.0717	-	-
NC7-44	5/9/12	-	-	1.14 ± 0.240	-	<0.1	-	-	0.621 ± 0.156	-	-
NC7-58	5/10/12	-	-	1.74 ± 0.336	-	0.113 ± 0.0695	-	-	1.57 ± 0.310	-	-
NC7-60	5/3/12	-	-	0.407 ± 0.125	-	<0.1	-	-	0.288 ± 0.103	-	-
NC7-61	2/13/12	5.20 ± 0.0910	9.09 ± 0.868	-	2.40 ± 0.0900	-	0.0730 ± 0.000650	0.00940 ± 0.0000180	-	2.70 ± 0.0140	0.00420 ± 0.0000310
NC7-61	2/13/12 DUP	5.00 ± 0.0730	7.70 ± 0.721	-	2.20 ± 0.0710	-	0.0730 ± 0.000700	0.00960 ± 0.0000360	-	2.70 ± 0.0140	0.00420 ± 0.0000330
NC7-61	2/28/12	-	7.78 ± 0.729	-	-	-	-	-	-	-	-
NC7-61	2/28/12 DUP	-	7.59 ± 0.710	-	-	-	-	-	-	-	-
NC7-61	3/15/12	-	8.02 ± 0.729	-	-	-	-	-	-	-	-
NC7-61	3/15/12 DUP	-	7.55 ± 0.685	-	-	-	-	-	-	-	-
NC7-61	5/21/12	4.80 ± 0.0950	8.01 ± 0.745	-	2.10 ± 0.0940	-	0.0700 ± 0.000500	0.00960 ± 0.0000130	-	2.60 ± 0.00980	0.00417 ± 0.0000250
NC7-61	6/14/12	-	8.34 ± 0.735	-	-	-	-	-	-	-	-
NC7-61	7/19/12	-	7.69 ± 0.694	-	-	-	-	-	-	-	-
NC7-61	7/19/12 DUP	-	7.78 ± 0.704	-	-	-	-	-	-	-	-
NC7-61	8/16/12	-	8.50 ± 0.872 F	-	-	-	-	-	-	-	-
NC7-61	8/16/12 DUP	-	7.87 ± 0.774	-	-	-	-	-	-	-	-
NC7-61	9/13/12	-	7.75 ± 0.790	-	-	-	-	-	-	-	-
NC7-61	9/13/12 DUP	-	7.47 ± 0.762	-	-	-	-	-	-	-	-
NC7-61	10/30/12	-	7.74 ± 0.748	-	-	-	-	-	-	-	-
NC7-61	10/30/12 DUP	-	7.66 ± 0.737	-	-	-	-	-	-	-	-
NC7-61	11/27/12	-	7.40 ± 0.697	-	-	-	-	-	-	-	-
NC7-61	11/27/12 DUP	-	7.29 ± 0.686	-	-	-	-	-	-	-	-

Table B-5.05. Building 850 area in Operable Unit 5 total uranium and uranium isotopes in ground water.

Location	Date	Uranium (pCi/L)	Uranium (µg/L)	Uranium 234 and Uranium 233 (pCi/L)	Uranium 234 by mass (pCi/L)	Uranium 235 and Uranium 236 (pCi/L)	Uranium 235 by mass (pCi/L)	Uranium 236 by mass (pCi/L)	Uranium 238 (pCi/L)	Uranium 238 by mass (pCi/L)	Uranium 235/238 (ratio)
NC7-61	12/26/12	-	7.72 ± 0.791	-	-	-	-	-	-	-	-
NC7-61	12/26/12 DUP	-	7.80 ± 0.800	-	-	-	-	-	-	-	-
NC7-62	5/10/12	-	-	1.89 ± 0.387	-	0.158 ± 0.0899	-	-	1.74 ± 0.364	-	-
NC7-69	5/2/12	-	-	<0.1	-	<0.1	-	-	<0.1	-	-
NC7-69	5/2/12 DUP	-	-	<0.1	-	<0.1	-	-	<0.1	-	-
NC7-70	5/9/12	2.10 ± 0.0310	-	-	1.30 ± 0.0310	-	0.0310 ± 0.000270	<0.007	-	0.730 ± 0.00410	0.00672 ± 0.0000440
NC7-70	11/27/12	-	1.71 ± 0.161	-	-	-	-	-	-	-	-
NC7-71	1/10/12	<0.0627	<0.1 O	-	<0.039	-	0.000860 ± 0.0000230	<0.00011	-	0.0230 ± 0.000220	0.00585 ± 0.000148
NC7-71	2/28/12	-	2.20 ± 0.208	-	-	-	-	-	-	-	-
NC7-71	3/15/12	-	<0.1	-	-	-	-	-	-	-	-
NC7-71	5/21/12	<0.0627	<0.1	-	<0.062	-	<0.00074	<0.000053	-	0.0170 ± 0.000360	<0.006631
NC7-71	6/14/12	-	<0.1	-	-	-	-	-	-	-	-
NC7-71	7/19/12	<0.0627	<0.1	-	<0.041	-	0.000670 ± 0.0000160	<0.00011	-	0.0160 ± 0.000210	0.00641 ± 0.000128
NC7-71	8/16/12	-	<0.1	-	-	-	-	-	-	-	-
NC7-71	9/13/12	-	<0.1	-	-	-	-	-	-	-	-
NC7-71	10/30/12	<0.0627	<0.1	-	<0.044	-	0.000590 ± 0.0000330	<0.000087	-	0.0140 ± 0.000370	0.00659 ± 0.000325
NC7-71	11/27/12	-	<0.1	-	-	-	-	-	-	-	-
NC7-71	12/26/12	-	<0.1	-	-	-	-	-	-	-	-
NC7-72	5/10/12	-	-	1.93 ± 0.383	-	<0.1	-	-	1.58 ± 0.327	-	-
NC7-73	5/10/12	-	-	2.23 ± 0.426	-	<0.1	-	-	2.05 ± 0.396	-	-
W-850-05	5/9/12	-	-	<0.1	-	<0.1	-	-	<0.1	-	-
W-850-05	10/23/12	0.0900 ± 0.00550	-	-	<0.062	-	0.00130 ± 0.0000230	<0.000066	-	0.0280 ± 0.000400	0.00729 ± 0.0000680
W-850-2145	5/8/12	-	-	2.73 ± 0.518	-	0.135 ± 0.0765	-	-	2.27 ± 0.443	-	-
W-850-2312	5/8/12	-	-	1.08 ± 0.241	-	<0.1	-	-	0.470 ± 0.137	-	-
W-850-2313	5/7/12	5.20 ± 0.0990	-	2.83 ± 0.516	2.90 ± 0.0970	<0.1	0.110 ± 0.00110	<0.00044	2.31 ± 0.435	2.30 ± 0.0190	0.00723 ± 0.0000510
W-850-2315	5/9/12	-	-	11.3 ± 1.85	-	0.424 ± 0.146	-	-	9.05 ± 1.50	-	-
W-850-2416	1/30/12	<0.0627	0.129 ± 0.0143	-	<0.06	-	0.00140 ± 0.0000490	<0.000092	-	0.0370 ± 0.00100	0.00583 ± 0.000124
W-850-2416	2/28/12	-	0.151 ± 0.0148	-	-	-	-	-	-	-	-
W-850-2416	3/15/12	-	0.173 ± 0.0160	-	-	-	-	-	-	-	-
W-850-2416	5/17/12	0.0850 ± 0.00300	0.107 ± 0.0110	-	<0.062	-	0.00130 ± 0.0000210	<0.00012	-	0.0350 ± 0.000330	0.00579 ± 0.0000730
W-850-2416	6/14/12	-	0.107 ± 0.00990	-	-	-	-	-	-	-	-
W-850-2416	7/19/12	<0.0627	0.120 ± 0.0116	-	<0.048	-	0.00110 ± 0.0000360	<0.000064	-	0.0290 ± 0.000730	0.00612 ± 0.000115
W-850-2416	8/16/12	-	0.111 ± 0.0111	-	-	-	-	-	-	-	-
W-850-2416	9/13/12	-	0.100 ± 0.0111	-	-	-	-	-	-	-	-
W-850-2416	10/30/12	<0.0627	0.112 ± 0.0120	-	<0.045	-	0.00110 ± 0.0000270	<0.000059	-	0.0270 ± 0.000430	0.00607 ± 0.000121
W-850-2416	11/27/12	-	<0.1	-	-	-	-	-	-	-	-
W-850-2416	12/26/12	-	<0.1	-	-	-	-	-	-	-	-
W-850-2417	1/30/12	1.70 ± 0.0230	1.37 ± 0.152	-	0.400 ± 0.0220	-	0.0210 ± 0.000160	0.00700 ± 0.0000230	-	1.20 ± 0.00760	0.00257 ± 0.0000130
W-850-2417	2/28/12	-	2.35 ± 0.227	-	-	-	-	-	-	-	-
W-850-2417	3/15/12	-	2.45 ± 0.224	-	-	-	-	-	-	-	-
W-850-2417	5/17/12	4.00 ± 0.0670	6.22 ± 0.690	-	1.10 ± 0.0660	-	0.0490 ± 0.000390	0.0160 ± 0.0000260	-	2.80 ± 0.0110	0.00268 ± 0.0000190
W-850-2417	6/14/12	-	2.62 ± 0.317	-	-	-	-	-	-	-	-
W-850-2417	7/19/12	1.30 ± 0.0260	1.42 ± 0.840	-	0.370 ± 0.0250	-	0.0160 ± 0.000140	<0.007	-	0.900 ± 0.00260	0.00285 ± 0.0000240
W-850-2417	8/16/12	-	1.33 ± 0.257	-	-	-	-	-	-	-	-
W-850-2417	9/13/12	-	0.394 ± 0.0493	-	-	-	-	-	-	-	-
W-850-2417	10/30/12	0.340 ± 0.00760	0.833 ± 0.100	-	0.0980 ± 0.00730	-	0.00420 ± 0.0000750	<0.007	-	0.240 ± 0.00220	0.00276 ± 0.0000420

Table B-5.05. Building 850 area in Operable Unit 5 total uranium and uranium isotopes in ground water.

Location	Date	Uranium (pCi/L)	Uranium (µg/L)	Uranium 234 and Uranium 233 (pCi/L)	Uranium 234 by mass (pCi/L)	Uranium 235 and Uranium 236 (pCi/L)	Uranium 235 by mass (pCi/L)	Uranium 236 by mass (pCi/L)	Uranium 238 (pCi/L)	Uranium 238 by mass (pCi/L)	Uranium 235/238 (ratio)
W-850-2417	11/27/12	-	1.56 ± 0.153	-	-	-	-	-	-	-	-
W-850-2417	12/26/12	-	1.22 ± 0.127	-	-	-	-	-	-	-	-
W-850-2805	8/23/12	<0.0627	<0.1 O	-	<0.045	-	0.000770 ± 0.0000250	<0.000085	-	0.0160 ± 0.000260	0.00766 ± 0.000213
W-865-1802	4/18/12	-	-	1.29 ± 0.218	-	<0.1	-	-	0.647 ± 0.128	-	-
W-865-1803	4/17/12	-	-	1.87 ± 0.287	-	<0.1	-	-	1.02 ± 0.175	-	-
W-865-2133	1/12/12	-	-	2.23 ± 0.474	-	0.126 ± 0.0896	-	-	1.93 ± 0.424	-	-
W-865-2133	7/11/12	-	-	2.32 ± 0.351	-	0.129 ± 0.0532	-	-	1.59 ± 0.255	-	-
W-865-2224	4/19/12	-	-	0.424 ± 0.0896 L	-	<0.1 L	-	-	0.260 ± 0.0642 L	-	-
W-865-2224	11/6/12	-	-	0.344 ± 0.101	-	<0.1	-	-	0.242 ± 0.0764	-	-
W-PIT1-2209	5/15/12	-	-	1.70 ± 0.334	-	<0.1	-	-	1.14 ± 0.248	-	-
W-PIT1-2209	10/4/12	-	-	1.81 ± 0.369	-	<0.1	-	-	0.920 ± 0.222	-	-
W-PIT1-2225	6/4/12	-	-	<0.1	-	<0.1	-	-	<0.1	-	-
W-PIT1-2225	11/14/12	-	-	<0.1	-	<0.1	-	-	<0.1	-	-
W-PIT1-2326	2/15/12	-	-	1.72 ± 0.463	-	<0.1	-	-	1.42 ± 0.403	-	-
W-PIT1-2326	5/10/12	-	-	2.32 ± 0.401	-	<0.1	-	-	1.13 ± 0.230	-	-
W-PIT1-2326	7/23/12	-	-	2.08 ± 0.319	-	<0.1	-	-	1.20 ± 0.203	-	-
W-PIT1-2326	10/29/12	-	-	2.25 ± 0.409	-	<0.1	-	-	1.22 ± 0.254	-	-
W-PIT1-2620	4/18/12	-	-	2.89 ± 0.419	-	<0.1	-	-	1.50 ± 0.240	-	-
W-PIT7-16	5/3/12	-	-	0.145 ± 0.0774	-	<0.1	-	-	<0.1	-	-

Table B-5.06. Building 850 area in Operable Unit 5 tritium in ground and surface water.

Location	Date	Tritium (pCi/L)
K1-01C	2/14/12	897 ± 209
K1-01C	5/14/12	947 ± 220
K1-01C	5/14/12 DUP	861 ± 203
K1-01C	7/18/12	907 ± 208
K1-02B	2/14/12	3800 ± 767
K1-02B	2/14/12 DUP	3910 ± 788
K1-02B	7/23/12	3580 ± 725
K1-02B	7/23/12 DUP	3770 ± 763
K1-02B	10/10/12	3240 ± 654
K1-04	2/7/12	367 ± 125
K1-04	5/10/12	484 ± 132 F
K1-04	7/17/12	512 ± 134
K1-04	10/9/12	469 ± 127
K1-05	2/14/12	216 ± 86.7
K1-05	4/17/12	169 ± 80.1
K1-05	7/16/12	151 ± 71.8
K1-05	10/8/12	256 ± 92.0
K1-06	1/10/12	2880 ± 605
K1-06	4/18/12	2790 ± 572
K1-06	8/27/12	2670 ± 551
K1-07	2/7/12	<100
K1-07	4/17/12	<100
K1-07	8/2/12	105 ± 72.7
K1-07	10/10/12	<100
K1-08	2/7/12	<100
K1-08	4/17/12	250 ± 92.8
K1-08	7/17/12	262 ± 91.1
K1-08	10/29/12	211 ± 84.3
K1-09	2/6/12	<100
K1-09	4/19/12	145 ± 83.7
K1-09	7/17/12	231 ± 86.6
K1-09	10/9/12	201 ± 80.1
K2-03	4/18/12	<100
K2-03	11/6/12	<100
K2-04D	5/2/12	3440 ± 697
K2-04D	11/7/12	3200 ± 650
K2-04S	5/2/12	4370 ± 877
K2-04S	5/2/12 DUP	4720 ± 946
K2-04S	11/7/12	4110 ± 823
K2-04S	11/7/12 DUP	4340 ± 868
NC2-05	5/30/12	<100
NC2-05	11/1/12	<100
NC2-05A	5/30/12	2930 ± 601
NC2-05A	11/1/12	3450 ± 697
NC2-06	5/14/12	4700 ± 940
NC2-06	11/13/12	4870 ± 970
NC2-06A	5/14/12	<100

Table B-5.06. Building 850 area in Operable Unit 5 tritium in ground and surface water.

Location	Date	Tritium (pCi/L)
NC2-06A	11/13/12	<100
NC2-09	5/14/12	<100
NC2-09	11/1/12	<100
NC2-10	5/31/12	442 ± 112
NC2-10	11/14/12	323 ± 110
NC2-11D	4/30/12	2850 ± 585
NC2-11D	10/29/12	2860 ± 583
NC2-11I	6/28/12	3760 ± 759
NC2-11I	11/15/12	3840 ± 771
NC2-11S	5/31/12	3450 ± 704
NC2-11S	11/15/12	4060 ± 814
NC2-12D	4/30/12	5180 ± 1040
NC2-12D	11/15/12	4740 ± 946
NC2-12I	5/31/12	4380 ± 880
NC2-12I	11/15/12	5020 ± 1000
NC2-12S	5/31/12	1930 ± 413
NC2-12S	11/15/12	2570 ± 525
NC2-13	5/30/12	1370 ± 301
NC2-13	11/12/12	1330 ± 289
NC2-14S	4/17/12	1750 ± 373
NC2-14S	4/17/12 DUP	1570 ± 337
NC2-14S	10/23/12	3300 ± 672
NC2-14S	10/23/12 DUP	3250 ± 500
NC2-15	5/8/12	3230 ± 658
NC2-15	11/13/12	3700 ± 746
NC2-16	4/17/12	548 ± 147
NC2-16	10/23/12	691 ± 177
NC2-18	5/8/12	8780 ± 1730
NC2-18	5/8/12 DUP	8510 ± 1680
NC2-18	11/12/12	8270 ± 1630
NC2-18	11/12/12 DUP	8500 ± 1300
NC2-19	5/30/12	<100
NC2-19	11/12/12	<100
NC2-20	5/30/12	<100
NC2-21	5/30/12	<100
NC7-10	5/7/12	12300 ± 2410
NC7-10	10/18/12	12400 ± 2420
NC7-11	5/7/12	8430 ± 1660
NC7-11	10/18/12	9530 ± 1870
NC7-15	5/2/12	514 ± 140
NC7-15	10/22/12	667 ± 165
NC7-19	5/3/12	2050 ± 429
NC7-19	10/17/12	2140 ± 445
NC7-27	5/3/12	8210 ± 1620
NC7-27	10/18/12	8770 ± 1720
NC7-28	1/30/12	22000 ± 4290

Table B-5.06. Building 850 area in Operable Unit 5 tritium in ground and surface water.

Location	Date	Tritium (pCi/L)
NC7-28	2/28/12	20500 ± 3990
NC7-28	3/15/12	21900 ± 4290 L
NC7-28	5/17/12	21400 ± 4160 L
NC7-28	6/14/12	22100 ± 4330
NC7-28	7/19/12	22500 ± 4380
NC7-28	8/16/12	21300 ± 4150
NC7-28	9/13/12	21100 ± 4110
NC7-28	10/30/12	21600 ± 4210
NC7-29	5/9/12	<100
NC7-29	10/23/12	<100
NC7-43	5/9/12	6730 ± 1330
NC7-43	10/23/12	6270 ± 1250
NC7-44	5/9/12	<100
NC7-44	10/23/12	<100
NC7-46	5/23/12	<100
NC7-56	5/10/12	7680 ± 1520
NC7-56	10/24/12	8210 ± 1620
NC7-58	5/10/12	6160 ± 1220
NC7-58	10/24/12	6700 ± 1330
NC7-59	5/10/12	7380 ± 1460
NC7-59	10/24/12	7950 ± 1570
NC7-60	5/3/12	1070 ± 245
NC7-60	10/3/12	1030 ± 239
NC7-61	2/13/12	20500 ± 3990
NC7-61	2/13/12 DUP	21800 ± 4250
NC7-61	2/28/12	21200 ± 4120 L
NC7-61	2/28/12 DUP	20200 ± 3940 L
NC7-61	3/15/12	20400 ± 3980 L
NC7-61	3/15/12 DUP	20100 ± 3930 L
NC7-61	5/21/12	21000 ± 4090 FL
NC7-61	6/14/12	19300 ± 3780
NC7-61	7/19/12	21400 ± 4170
NC7-61	7/19/12 DUP	20400 ± 3980
NC7-61	8/16/12	19800 ± 3850
NC7-61	8/16/12 DUP	20600 ± 4020
NC7-61	9/13/12	20500 ± 4000
NC7-61	9/13/12 DUP	20100 ± 3930
NC7-61	10/30/12	20100 ± 3920
NC7-61	10/30/12 DUP	19400 ± 3770
NC7-62	5/10/12	7800 ± 1540
NC7-62	10/24/12	7430 ± 1470
NC7-69	5/2/12	<100
NC7-69	5/2/12 DUP	<100
NC7-69	10/22/12	<100
NC7-70	5/9/12	38300 ± 7440
NC7-71	1/10/12	2790 ± 587

Table B-5.06. Building 850 area in Operable Unit 5 tritium in ground and surface water.

Location	Date	Tritium (pCi/L)
NC7-71	2/28/12	37500 ± 7300 L
NC7-71	3/15/12	3140 ± 656 L
NC7-71	5/21/12	3070 ± 628 L
NC7-71	6/14/12	3200 ± 668
NC7-71	7/19/12	3860 ± 780
NC7-71	8/16/12	3590 ± 724
NC7-71	9/13/12	2810 ± 581
NC7-71	10/30/12	3500 ± 707
NC7-72	5/10/12	6580 ± 1300
NC7-72	10/24/12	7090 ± 1400
NC7-73	5/10/12	6930 ± 1370
NC7-73	10/24/12	7170 ± 1420
W-850-05	5/9/12	18600 ± 3630
W-850-05	10/23/12	20300 ± 3950
W-850-2145	5/8/12	8200 ± 1620
W-850-2145	11/7/12	8350 ± 1640
W-850-2312	5/8/12	1110 ± 250
W-850-2312	11/7/12	913 ± 211
W-850-2313	5/7/12	14800 ± 2890
W-850-2313	10/18/12	15200 ± 2960
W-850-2314	5/3/12	1360 ± 298
W-850-2314	10/3/12	1220 ± 276
W-850-2315	5/9/12	<100
W-850-2315	10/23/12	<100
W-850-2316	5/8/12	9130 ± 1800
W-850-2316	11/7/12	8830 ± 1740
W-850-2416	1/30/12	<100
W-850-2416	2/28/12	<100
W-850-2416	3/15/12	<100 L
W-850-2416	5/17/12	<100 L
W-850-2416	6/14/12	<100
W-850-2416	7/19/12	<100
W-850-2416	8/16/12	<100
W-850-2416	9/13/12	<100
W-850-2416	10/30/12	<100
W-850-2417	1/30/12	23200 ± 4530
W-850-2417	2/28/12	22300 ± 4350
W-850-2417	3/15/12	22200 ± 4350 L
W-850-2417	5/17/12	21000 ± 4090 L
W-850-2417	6/14/12	21700 ± 4250
W-850-2417	7/19/12	22700 ± 4430
W-850-2417	8/16/12	20900 ± 4070
W-850-2417	9/13/12	22300 ± 4350
W-850-2417	10/30/12	21100 ± 4100
W-850-2805	8/23/12	446 ± 125
W-865-02	1/18/12	<100

Table B-5.06. Building 850 area in Operable Unit 5 tritium in ground and surface water.

Location	Date	Tritium (pCi/L)
W-865-02	7/11/12	<100
W-865-1802	4/18/12	361 ± 112
W-865-1802	11/6/12	405 ± 118
W-865-1803	4/17/12	2330 ± 483
W-865-1803	11/7/12	2270 ± 469
W-865-2005	2/8/12	<100
W-865-2005	2/8/12 DUP	<100
W-865-2005	5/15/12	<100
W-865-2005	5/15/12 DUP	<100
W-865-2005	7/10/12	<100
W-865-2005	7/10/12 DUP	<100
W-865-2005	10/4/12	<100
W-865-2005	10/4/12 DUP	<100
W-865-2121	6/5/12	<100
W-865-2121	11/6/12	<100
W-865-2133	1/12/12	<100
W-865-2133	4/19/12	<100
W-865-2133	7/11/12	<100
W-865-2133	11/6/12	<100
W-865-2224	1/12/12	<100
W-865-2224	4/19/12	<100
W-865-2224	7/11/12	<100
W-865-2224	11/6/12	<100
W-PIT1-2209	1/10/12	<100
W-PIT1-2209	5/15/12	<100
W-PIT1-2209	7/11/12	<100
W-PIT1-2209	10/4/12	<100
W-PIT1-2225	1/17/12	<100
W-PIT1-2225	6/4/12	<100
W-PIT1-2225	7/16/12	<100
W-PIT1-2225	11/14/12	<100
W-PIT1-2326	2/15/12	2790 ± 571
W-PIT1-2326	5/10/12	2690 ± 553
W-PIT1-2326	7/23/12	2660 ± 549
W-PIT1-2326	10/29/12	2670 ± 546
W-PIT1-2620	2/15/12	927 ± 214
W-PIT1-2620	4/18/12	880 ± 207
W-PIT1-2620	11/29/12	1940 ± 407
W-PIT7-16	5/3/12	<100
W-PIT7-16	10/17/12	<100

Table B-5.07. Building 850 area in Operable Unit 5 high explosive compounds in ground water water.

Location	Date	1,3,5-Trinitro-benzene (µg/L)	1,3-Dinitro-benzene (µg/L)	2,4-Dinitro-toluene (µg/L)	2,6-Dinitro-toluene (µg/L)	2-Amino-4,6-Dinitro-toluene (µg/L)	2-Nitro-toluene (µg/L)	3-Nitro-toluene (µg/L)	4-Amino-2,6-Dinitro-toluene (µg/L)	4-Nitro-toluene (µg/L)	HMX (µg/L)	Nitro-benzene (µg/L)	RDX (µg/L)	TNT (µg/L)
NC7-10	5/7/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
NC7-10	10/18/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	2.3	<2	<1	<2
NC7-11	10/18/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	1.9	<2	<1	<2
NC7-15	5/2/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
NC7-15	10/22/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
NC7-19	5/3/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
NC7-19	10/17/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
NC7-27	5/3/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
NC7-27	10/18/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
NC7-28	1/30/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
NC7-28	5/17/12 DUP	<2 O	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
NC7-28	7/19/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	2	<2	<1	<2
NC7-28	10/30/12	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<0.85	<1.7	<0.85	<1.7
NC7-43	5/9/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
NC7-43	10/23/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
NC7-44	5/9/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
NC7-44	10/23/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
NC7-56	5/10/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
NC7-56	10/24/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
NC7-60	5/3/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
NC7-60	10/3/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
NC7-61	2/13/12	<2.7 D	<2.7 DL	<2.7 DL	<2.7 D	<2.7 D	<2.7 D	<2.7 D	<2.7 DL	<2.7 D	<1.3 DL	<2.7 DL	<1.3 D	<2.7 DL
NC7-61	2/13/12 DUP	<2 D	<2 DL	<2 DL	<2 D	<2 D	<2 D	<2 D	<2 DL	<2 D	<1 DL	<2 DL	<1 D	<2 DL
NC7-61	5/21/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	3.9	<2	3.8	<2
NC7-61	7/19/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	6.8	<2	5.1	<2
NC7-61	7/19/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
NC7-61	10/30/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
NC7-61	10/30/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
NC7-69	5/2/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
NC7-69	5/2/12 DUP	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
NC7-69	10/22/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
NC7-70	5/9/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
NC7-71	1/10/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
NC7-71	5/21/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
NC7-71	7/19/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
NC7-71	10/30/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
NC7-72	5/10/12	<2 IJ	<2 IJ	<2 IJ	<2 IJ	<2 IJ	<2 IJ	<2 IJ	<2 IJ	<2 IJ	<1 IJ	<2 IJ	<1 IJ	<2 IJ
NC7-72	10/24/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2

Table B-5.07. Building 850 area in Operable Unit 5 high explosive compounds in ground water water.

Location	Date	1,3,5-Trinitro-benzene (µg/L)	1,3-Dinitro-benzene (µg/L)	2,4-Dinitro-toluene (µg/L)	2,6-Dinitro-toluene (µg/L)	2-Amino-4,6-Dinitro-toluene (µg/L)	2-Nitro-toluene (µg/L)	3-Nitro-toluene (µg/L)	4-Amino-2,6-Dinitro-toluene (µg/L)	4-Nitro-toluene (µg/L)	HMX (µg/L)	Nitro-benzene (µg/L)	RDX (µg/L)	TNT (µg/L)
NC7-73	5/10/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
NC7-73	10/24/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-850-05	5/9/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-850-05	10/23/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-850-2313	5/7/12	<1.5 J	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<0.73	<1.5	<0.73	<1.5
W-850-2313	10/18/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-850-2314	5/3/12	<2.6 DJ	<2.6 D	<2.6 D	<2.6 D	<2.6 D	<2.6 D	<2.6 D	<2.6 D	<2.6 D	<1.3 D	<2.6 D	<1.3 D	<2.6 D
W-850-2314	10/3/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-850-2416	1/30/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-850-2416	5/17/12	<2 O	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-850-2416	7/19/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-850-2416	10/30/12	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<0.88	<1.8	<0.88	<1.8
W-850-2417	1/30/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	3.1	<2	<1	<2
W-850-2417	5/17/12	<2 O	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-850-2417	7/19/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	5.5	<2	5.3	<2
W-850-2417	10/30/12	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<0.87	<1.7	<0.87	<1.7
W-850-2805	8/23/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-PIT7-16	5/3/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-PIT7-16	10/17/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2

Table B-5.08. Building 850 area in Operable Unit 5 general minerals in ground water.

Constituents of concern	K1-01C	K1-02B	K1-02B	K1-04	K1-05	K1-07	K1-08	K1-09	NC7-28	NC7-28	NC7-28	NC7-28
	2/14/12	2/14/12	2/14/12 DUP	2/7/12	2/14/12	2/7/12	2/7/12	2/6/12	1/30/12	5/17/12 DUP	7/19/12	10/30/12
Total Alkalinity (as CaCO3) (mg/L)	-	-	-	-	-	-	-	-	580	560	590	540
Aluminum (mg/L)	-	-	-	-	-	-	-	-	<0.2	<0.2	<0.2	<0.2
Bicarbonate Alk (as CaCO3) (mg/L)	-	-	-	-	-	-	-	-	580 D	560 D	590 D	540 D
Calcium (mg/L)	-	-	-	-	-	-	-	-	130	100	110 L	110
Carbonate Alk (as CaCO3) (mg/L)	-	-	-	-	-	-	-	-	<8.2 D	<8.2 D	<8.2 D	<8.2 D
Chloride (mg/L)	-	-	-	-	-	-	-	-	53 D	46	47	49
Copper (mg/L)	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05
Fluoride (mg/L)	-	-	-	-	-	-	-	-	36 DH	0.71	0.56 H	0.63
Hydroxide Alk (as CaCO3) (mg/L)	-	-	-	-	-	-	-	-	<8.2 D	<8.2 D	<8.2 D	<8.2 D
Iron (mg/L)	-	-	-	-	-	-	-	-	13	1.8	1.9	0.23
Magnesium (mg/L)	-	-	-	-	-	-	-	-	63	54	56	54
Manganese (mg/L)	-	-	-	-	-	-	-	-	10	6	5.7	5.2
Nickel (mg/L)	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Nitrate (as N) (mg/L)	-	-	-	-	-	-	-	-	<1 D	<0.5	<0.5	<0.5
Nitrate (as NO3) (mg/L)	-	-	-	-	-	-	-	-	<0.44	<0.44	<0.44 H	-
Nitrite (as N) (mg/L)	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5
pH (Units)	-	-	-	-	-	-	-	-	6.88	7.01 H	7.12 H	6.97
Ortho-Phosphate (mg/L)	-	-	-	-	-	-	-	-	<0.05	<1	<1 H	0.056
Total Phosphorus (as P) (mg/L)	-	-	-	-	-	-	-	-	0.27 H	0.28 H	0.39 H	0.22 H
Total Phosphorus (as PO4) (mg/L)	-	-	-	-	-	-	-	-	-	-	-	-
Potassium (mg/L)	-	-	-	-	-	-	-	-	5.3	4.5	4.5	4.7
Sodium (mg/L)	-	-	-	-	-	-	-	-	77	76	78	82
Total dissolved solids (TDS) (mg/L)	-	-	-	-	-	-	-	-	820 D	750 D	730 D	730 D
Specific Conductance (µmhos/cm)	-	-	-	-	-	-	-	-	1,400	1,120 H	1,150 H	1,120 O
Sulfate (mg/L)	-	-	-	-	-	-	-	-	<2 D	<1	1.4	9.7
Surfactants (mg/L)	-	-	-	-	-	-	-	-	<1 DL	<0.5	<0.5	<1 DL
Total Hardness (as CaCO3) (mg/L)	-	-	-	-	-	-	-	-	580	480	500	490
Total Organic Carbon (TOC) (mg/L)	0.9 F	0.58 F	0.55 F	0.97	0.48 F	1.2	1.1	<1	280 D	6.2	3.5	3.6
Zinc (mg/L)	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05

Constituents of concern	NC7-61	NC7-61	NC7-61	NC7-61	NC7-61	NC7-61	NC7-61	NC7-71	NC7-71	NC7-71	NC7-71
	2/13/12	2/13/12 DUP	5/21/12	7/19/12	7/19/12 DUP	10/30/12	10/30/12 DUP	1/10/12	5/21/12	7/19/12	10/30/12
Total Alkalinity (as CaCO3) (mg/L)	210	210	200	210	210	200	200	174	164	161	161
Aluminum (mg/L)	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2
Bicarbonate Alk (as CaCO3) (mg/L)	210	210	200	210	210	200	200	174	164	161	161
Calcium (mg/L)	53	52	52	51 L	51 L	53	52	36	46	50	68
Carbonate Alk (as CaCO3) (mg/L)	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<10	<10	<10	<10
Chloride (mg/L)	48	49	48	48	48	50	50	39 D	43 D	45 D	44 D
Copper (mg/L)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fluoride (mg/L)	0.46	0.47	0.47	0.44	0.44	0.44	0.46	0.25	0.33	0.29	0.23
Hydroxide Alk (as CaCO3) (mg/L)	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<10	<10	<10	<10
Iron (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Magnesium (mg/L)	25	25	26	25	25	25	25	18	20	21	26
Manganese (mg/L)	<0.03	<0.03	<0.01	<0.01	<0.01	<0.03	<0.03	<0.03	<0.03	<0.03 L	0.21
Nickel (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrate (as N) (mg/L)	12	12	12	12	12	12	12	0.17	0.13	0.19	<0.1
Nitrate (as NO3) (mg/L)	52 H	52 H	52	52 H	52 H	52	51	-	0.57	0.82	<0.5
Nitrite (as N) (mg/L)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1
pH (Units)	7.59 H	7.54 H	7.58	7.74 H	7.75 H	7.65	7.69	8	8 H	7.9	7.6 H
Ortho-Phosphate (mg/L)	0.21	0.21	<1	<1 H	<1 H	0.21	0.22 H	<0.1	0.12	<0.1 L	<0.1
Total Phosphorus (as P) (mg/L)	<0.15 H	<0.15 H	<0.05 H	0.059 H	0.058 H	<0.15 H	<0.15 H	-	-	-	-
Total Phosphorus (as PO4) (mg/L)	-	-	-	-	-	-	-	<0.1 H	0.12 H	<0.1 HL	<0.1 H
Potassium (mg/L)	3.6	3.5	3.8	3.5	3.4	3.5	3.6	18	7.9	7.5	6.1
Sodium (mg/L)	61	58	69	62	61	66	67	57	47	48	56
Total dissolved solids (TDS) (mg/L)	450 DH	510 DH	500 D	490 D	470 D	480 D	480 D	410 H	480 H	430 H	550 DH
Specific Conductance (µmhos/cm)	731 H	734 H	721	707 H	712 H	691 O	693 O	670 H	630	630 H	640
Sulfate (mg/L)	45	46	44	43	42	43	43	73 DH	76 D	76 D	83 DH
Surfactants (mg/L)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5 L	<0.5	<0.5	<0.5 H	<0.5
Total Hardness (as CaCO3) (mg/L)	240	230	240	230	230	240	230	170	200	210	280
Total Organic Carbon (TOC) (mg/L)	1.5 F	1.6	1.2	1.2	1.2	1.2	1.5	<1	1.3	1.1	1.5
Zinc (mg/L)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Constituents of concern	W-850-2416	W-850-2416	W-850-2416	W-850-2416	W-850-2417	W-850-2417	W-850-2417	W-850-2417	W-850-2805
	1/30/12	5/17/12	7/19/12	10/30/12	1/30/12	5/17/12	7/19/12	10/30/12	8/23/12
Total Alkalinity (as CaCO3) (mg/L)	160	160	160	160	250	230	31	300	160
Aluminum (mg/L)	<0.2	<0.2	<0.2	<0.2	<0.2	0.57	0.32	<0.2	<0.2
Bicarbonate Alk (as CaCO3) (mg/L)	160	160	160	160	250	230 D	31 D	300	160
Calcium (mg/L)	44	46	46 L	50	53	210	150 L	73	63
Carbonate Alk (as CaCO3) (mg/L)	<4.1	<4.1	<4.1	<4.1	<4.1	<8.2 D	<8.2 D	<4.1	<4.1
Chloride (mg/L)	63	64	65	66	48	77 D	75 D	49 D	48
Copper (mg/L)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fluoride (mg/L)	0.29	0.26	0.27	0.3	8 DH	110 D	58 DH	8.1 D	0.6
Hydroxide Alk (as CaCO3) (mg/L)	<4.1	<4.1	<4.1	<4.1	<4.1	<8.2 D	<8.2 D	<4.1	<4.1
Iron (mg/L)	<0.1	<0.1	<0.1	<0.1	4	33	31	12	<0.1
Magnesium (mg/L)	19	21	20	21	23	67	54	31	22
Manganese (mg/L)	0.037	0.039	0.024	<0.03	2.6	10	9.1	4.2	0.04
Nickel (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrate (as N) (mg/L)	<0.5	<0.5	<0.5	<0.5	<0.5	<1 D	<1 D	<0.5	<0.5
Nitrate (as NO3) (mg/L)	<0.44	<0.44	<0.44 H	<0.5	<0.44	<0.44	<0.44 H	<0.5	<0.44 H
Nitrite (as N) (mg/L)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
pH (Units)	7.88	7.81 H	7.99 H	7.9	6.56	4.8 H	4.53 H	6.25	7.91 H
Ortho-Phosphate (mg/L)	0.091	<1	<1 H	0.14	0.31	<1	<1 H	0.99	<1
Total Phosphorus (as P) (mg/L)	<0.15 H	0.081 H	0.063 H	<0.15 H	0.21 H	0.53 H	6.9 DH	0.69 H	<0.05 H
Total Phosphorus (as PO4) (mg/L)	-	-	-	-	-	-	-	-	-
Potassium (mg/L)	7.3	6.9	6.1	6.7	3.8	6.4	5.3	4.3	5.4
Sodium (mg/L)	59	61	59	66	52	70	58	59	84
Total dissolved solids (TDS) (mg/L)	440 D	430 D	410 D	420 D	580 D	1,600 D	1,200 D	690 D	560 D
Specific Conductance (µmhos/cm)	679	672 H	679 H	661 O	702	1,370 H	1,220 H	783 O	838 H
Sulfate (mg/L)	83	82	85	86	3	32 D	16 D	<1	210
Surfactants (mg/L)	<0.5 L	<0.5	<1 D	<0.5 L	<0.5 L	<0.5	<0.5	<0.5 L	<0.5
Total Hardness (as CaCO3) (mg/L)	190	200	200	210	230	790	600	310	250
Total Organic Carbon (TOC) (mg/L)	1.3	1.4	1.4	1.3	72 D	9,100 D	1,900 D	170 D	-
Zinc (mg/L)	<0.05	<0.05	<0.05	<0.05	<0.05	0.072	<0.05	<0.05	<0.05

Table B-5.09. Pit 2 Landfill volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2 - DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
NC2-08	5/8/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT2-1934	4/19/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT2-1935	4/19/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-5.09 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency
NC2-08	5/8/12	E601	0 of 18
W-PIT2-1934	4/19/12	E601	0 of 18
W-PIT2-1935	4/19/12	E601	0 of 18

Table B-5.10. Pit 2 Landfill total uranium and uranium isotopes in ground water.

Location	Date	Uranium (pCi/L)	Uranium 234 and Uranium 233 (pCi/L)	Uranium 234 by mass (pCi/L)	Uranium 235 and Uranium 236 (pCi/L)	Uranium 235 by mass (pCi/L)	Uranium 236 by mass (pCi/L)	Uranium 238 (pCi/L)	Uranium 238 by mass (pCi/L)	Uranium 235/238 (ratio)
NC2-08	5/8/12	2.90 ± 0.0410	1.54 ± 0.325	1.80 ± 0.0400	0.104 ± 0.0715	0.0490 ± 0.000390	<0.0002	1.05 ± 0.243	1.10 ± 0.00640	0.00720 ± 0.0000370
W-PIT2-1934	4/19/12	4.20 ± 0.0960	-	2.50 ± 0.0960	-	0.0670 ± 0.000900	<0.007	-	1.60 ± 0.00940	0.00636 ± 0.0000780
W-PIT2-1935	4/19/12	2.70 ± 0.0470	-	1.70 ± 0.0470	-	0.0430 ± 0.000260	<0.00018	-	0.920 ± 0.00490	0.00727 ± 0.0000200
W-PIT2-2226	5/29/12	-	<0.1	-	<0.1	-	-	<0.1	-	-
W-PIT2-2226	11/8/12	-	<0.1	-	<0.1	-	-	<0.1	-	-
W-PIT2-2301	5/14/12	0.690 ± 0.0210	-	0.360 ± 0.0210	-	0.0140 ± 0.000110	<0.00025	-	0.320 ± 0.00170	0.00683 ± 0.0000380
W-PIT2-2302	5/14/12	0.140 ± 0.00310	-	0.0680 ± 0.00310	-	0.00320 ± 0.0000470	<0.000046	-	0.0740 ± 0.000470	0.00676 ± 0.0000890

Table B-5.11. Pit 2 Landfill nitrate and perchlorate in ground water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
NC2-08	5/8/12	34	5.2
NC2-08	11/1/12	-	<4
W-PIT2-1934	4/19/12	39 D	<4
W-PIT2-1934	11/8/12	-	<4
W-PIT2-1935	4/19/12	34 D	<4
W-PIT2-1935	11/8/12	-	<4
W-PIT2-2226	1/17/12	-	<4
W-PIT2-2226	5/29/12	<0.5	<4
W-PIT2-2226	7/12/12	-	<4
W-PIT2-2226	11/8/12	<0.5	<4
W-PIT2-2301	5/14/12	33	<4
W-PIT2-2302	5/14/12	32	<4
W-PIT2-2302	11/1/12	-	<4 O

Table B-5.12. Pit 2 Landfill high explosive compounds in ground water.

Location	Date	1,3,5-Trinitro-benzene (µg/L)	1,3-Dinitro-benzene (µg/L)	2,4-Dinitro-toluene (µg/L)	2,6-Dinitro-toluene (µg/L)	2-Amino-4,6-Dinitro-toluene (µg/L)	2-Nitro-toluene (µg/L)	3-Nitro-toluene (µg/L)	4-Amino-2,6-Dinitro-toluene (µg/L)	4-Nitro-toluene (µg/L)	HMX (µg/L)	Nitro-benzene (µg/L)	RDX (µg/L)	TNT (µg/L)
NC2-08	5/8/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	2.5	<2	<1	<2
W-PIT2-1934	4/19/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-PIT2-1935	4/19/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2

Table B-5.13. Pit 2 Landfill tritium in ground water.

Location	Date	Tritium (pCi/L)
NC2-08	5/8/12	3520 ± 714
NC2-08	11/1/12	3380 ± 684
W-PIT2-1934	4/19/12	1050 ± 242
W-PIT2-1934	11/8/12	1250 ± 274
W-PIT2-1935	4/19/12	2010 ± 424
W-PIT2-1935	11/8/12	1980 ± 413
W-PIT2-2226	1/17/12	<100
W-PIT2-2226	5/29/12	<100
W-PIT2-2226	7/12/12	<100
W-PIT2-2226	11/8/12	<100
W-PIT2-2301	5/14/12	<100
W-PIT2-2302	5/14/12	<100
W-PIT2-2302	11/1/12	<100

Table B-5.14. Pit 2 Landfill fluoride in ground water.

Location	Date	Fluoride (mg/L)
NC2-08	5/8/12	0.3
W-PIT2-1934	4/19/12	0.2
W-PIT2-1935	4/19/12	0.17

Table B-5.15. Pit 2 Landfill metals in ground water.

Constituents of concern	NC2-08	W-PIT2-1934	W-PIT2-1935
	5/8/12	4/19/12	4/19/12
Antimony (mg/L)	<0.0005	<0.0005	<0.0005
Arsenic (mg/L)	0.01	0.01	0.01
Barium (mg/L)	0.03	0.02	0.03
Beryllium (mg/L)	<0.0001	<0.0001	<0.0001
Cadmium (mg/L)	<0.0001	<0.0001	<0.0001
Chromium (mg/L)	<0.0005	<0.0005	<0.0005
Cobalt (mg/L)	<0.0005	<0.0005	<0.0005
Copper (mg/L)	<0.0005	<0.0005	0.0007
Lead (mg/L)	<0.0002	<0.0002	<0.0002
Lithium (mg/L)	0.025	-	0.025
Lithium (µg/L)	-	19	-
Mercury (mg/L)	<0.0002	<0.0005	<0.0005
Molybdenum (mg/L)	0.004	0.003	0.002
Nickel (mg/L)	<0.0005	<0.0005	<0.0005
Selenium (mg/L)	0.002	0.002	0.002
Silver (mg/L)	<0.0001	<0.0001	<0.0001
Thallium (mg/L)	<0.0001	<0.0001	<0.0001
Vanadium (mg/L)	0.04	0.06	0.06
Zinc (mg/L)	<0.01	<0.01	<0.01

Table B-5.16. Pit 7 Complex area in Operable Unit 5 volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
K7-01	6/5/12	E601	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K7-03	4/23/12	E601	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K7-06	4/16/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K7-10	4/24/12	E601	<0.5	<0.5 O	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-12	4/26/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-16	4/24/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-17	4/16/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-18	4/24/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-20	5/2/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-21	4/24/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-25	4/4/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-25	12/10/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-26	5/2/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-34	4/16/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-36	4/16/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-36	4/16/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-40	4/26/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-47	4/17/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-48	4/10/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-51	5/2/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-51	5/2/12 DUP	E601	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-52	4/23/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-64	4/4/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-64	12/10/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-65	4/3/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-67	5/23/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-67	5/23/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-75	4/12/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-865-01	1/11/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-865-01	7/10/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-865-1804	1/11/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-865-1804	7/10/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-03	4/23/12	E601	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-03	4/23/12 DUP	E601	0.54	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-03	11/12/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-03	11/12/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5
W-PIT7-10	5/2/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-12	4/3/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-13	4/3/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-13	4/3/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-1918	4/25/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-1918	10/16/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-2305	4/4/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-2305	12/10/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-2306	5/7/12	E601	4.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.7	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-2306	5/7/12 DUP	E601	4.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.7	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-2307	4/4/12	E601	1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-2307	12/10/12	E601	2.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.85	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-2309	4/23/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-2703	6/5/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-2703	12/10/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-2704	6/5/12	E601	0.53	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-2705	6/5/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-PIT7-2705	12/10/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-5.16 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	Chloro- ethane (µg/L)
K7-01	6/5/12	E601	0 of 18	-
K7-03	4/23/12	E601	0 of 18	-
K7-06	4/16/12	E601	0 of 18	-
K7-10	4/24/12	E601	0 of 18	-
NC7-12	4/26/12	E601	0 of 18	-
NC7-16	4/24/12	E601	0 of 18	-
NC7-17	4/16/12	E601	0 of 18	-
NC7-18	4/24/12	E601	0 of 18	-
NC7-20	5/2/12	E601	0 of 18	-
NC7-21	4/24/12	E601	0 of 18	-
NC7-25	4/4/12	E601	0 of 18	-
NC7-25	12/10/12	E601	0 of 18	-
NC7-26	5/2/12	E601	0 of 18	-
NC7-34	4/16/12	E601	0 of 18	-
NC7-36	4/16/12	E601	0 of 18	-
NC7-36	4/16/12 DUP	E601	0 of 18	-
NC7-40	4/26/12	E601	0 of 18	-
NC7-47	4/17/12	E601	0 of 18	-
NC7-48	4/10/12	E601	0 of 18	-
NC7-51	5/2/12	E601	0 of 18	-
NC7-51	5/2/12 DUP	E601	0 of 18	-
NC7-52	4/23/12	E601	0 of 18	-
NC7-64	4/4/12	E601	0 of 18	-
NC7-64	12/10/12	E601	0 of 18	-
NC7-65	4/3/12	E601	0 of 18	-
NC7-67	5/23/12	E601	0 of 18	-
NC7-67	5/23/12 DUP	E601	0 of 18	-
NC7-75	4/12/12	E601	0 of 18	-
W-865-01	1/11/12	E601	0 of 18	-
W-865-01	7/10/12	E601	0 of 18	-
W-865-1804	1/11/12	E601	0 of 18	-
W-865-1804	7/10/12	E601	0 of 18	-
W-PIT7-03	4/23/12	E601	0 of 18	-
W-PIT7-03	4/23/12 DUP	E601	0 of 18	-
W-PIT7-03	11/12/12	E601	0 of 18	-
W-PIT7-03	11/12/12 DUP	E601	0 of 18	-
W-PIT7-10	5/2/12	E601	0 of 18	-
W-PIT7-12	4/3/12	E601	0 of 18	-
W-PIT7-13	4/3/12	E601	0 of 18	-
W-PIT7-13	4/3/12 DUP	E601	0 of 18	-
W-PIT7-1918	4/25/12	E601	0 of 18	-
W-PIT7-1918	10/16/12	E601	0 of 18	-
W-PIT7-2305	4/4/12	E601	0 of 18	-
W-PIT7-2305	12/10/12	E601	0 of 18	-
W-PIT7-2306	5/7/12	E601	0 of 18	-
W-PIT7-2306	5/7/12 DUP	E601	0 of 18	-
W-PIT7-2307	4/4/12	E601	0 of 18	-
W-PIT7-2307	12/10/12	E601	0 of 18	-
W-PIT7-2309	4/23/12	E601	0 of 18	-
W-PIT7-2703	6/5/12	E601	0 of 18	-
W-PIT7-2703	12/10/12	E601	1 of 18	0.53
W-PIT7-2704	6/5/12	E601	0 of 18	-
W-PIT7-2705	6/5/12	E601	0 of 18	-
W-PIT7-2705	12/10/12	E601	0 of 18	-

Table B-5.17. Pit 7 Complex area in Operable Unit 5 nitrate, perchlorate, and orthophosphate in ground water.

Location	Date	Nitrate as NO3 (mg/L)	Perchlorate (mg/L)	Orthophosphate (mg/L)
K7-01	6/5/12	41	10	-
K7-03	4/23/12	27	6.7	-
K7-06	4/16/12	15	<4	-
K7-06	10/4/12	-	<4	-
K7-09	10/16/12	-	<4	-
K7-10	4/24/12	1.3	<4	-
NC7-12	4/26/12	20 DL	<4	-
NC7-16	4/24/12	22 D	<4	-
NC7-17	4/16/12	5.8	<4	-
NC7-18	4/24/12	21 D	<4	-
NC7-20	5/2/12	-	<4	-
NC7-21	4/24/12	36 D	4.8	-
NC7-25	4/4/12	39	9.4	-
NC7-25	12/10/12	-	11	-
NC7-26	5/2/12	<0.5	<4	-
NC7-26	10/10/12	-	<4	-
NC7-34	4/16/12	22 D	8.1	-
NC7-36	4/16/12	22 D	<4	-
NC7-36	4/16/12 DUP	23	<4	-
NC7-40	4/26/12	30 DL	9.7	-
NC7-47	4/17/12	65	<4	-
NC7-48	4/10/12	16	<4	-
NC7-49A	4/4/12	21 D	<4	-
NC7-51	5/2/12	35 D	9.8	-
NC7-51	5/2/12 DUP	43	11	-
NC7-52	4/23/12	23 D	5.2	-
NC7-64	4/4/12	44	7.5	-
NC7-64	12/10/12	-	8.6	-
NC7-65	4/3/12	<0.5	<4	-
NC7-67	5/23/12	1.2	<4	-
NC7-67	5/23/12 DUP	1.4	<4	-
NC7-68	4/26/12	17 DL	11.8	-
NC7-75	4/12/12	<0.5	<4	-
NC7-75	10/8/12	-	<4	-
NC7-76	4/26/12	-	<4	-
W-865-01	1/11/12	0.73	<4	-
W-865-03	1/11/12	37 D	<4	-
W-865-1804	1/11/12	30 D	<4	-
W-865-1804	7/10/12	-	<4	-
W-PIT7-02	4/23/12	<0.5	<4	-
W-PIT7-03	4/23/12	30 D	6.8	-
W-PIT7-03	4/23/12 DUP	35	7.6	-
W-PIT7-10	5/2/12	25	<4	-
W-PIT7-12	4/3/12	40	<4	-
W-PIT7-12	10/3/12	-	<4	-
W-PIT7-12	10/3/12 DUP	-	<4	-

Table B-5.17. Pit 7 Complex area in Operable Unit 5 nitrate, perchlorate, and orthophosphate in ground water.

Location	Date	Nitrate as NO3 (mg/L)	Perchlorate (mg/L)	Orthophosphate (mg/L)
W-PIT7-13	4/3/12	46 D	4	-
W-PIT7-13	4/3/12 DUP	60	<4	-
W-PIT7-14	4/3/12	-	<4	-
W-PIT7-15	4/17/12	<0.5	<4	-
W-PIT7-1860	4/16/12	-	<4	-
W-PIT7-1903	4/25/12	-	-	0.23
W-PIT7-1904	4/25/12	-	-	0.24
W-PIT7-1905	4/25/12	-	-	0.27
W-PIT7-1907	4/25/12	-	-	1.5 D
W-PIT7-1915	4/25/12	-	-	2.4 D
W-PIT7-1916	4/25/12	-	-	0.23
W-PIT7-1917	4/25/12	-	-	0.25
W-PIT7-1918	4/25/12	31	8.1	<1
W-PIT7-1918	10/16/12	-	5.8	-
W-PIT7-1919	4/25/12	-	-	0.22
W-PIT7-2141	4/3/12	38	6.1	-
W-PIT7-2141	10/3/12	-	5.6	-
W-PIT7-2305	4/4/12	42	17	-
W-PIT7-2305	12/10/12	-	12	-
W-PIT7-2306	5/7/12	26	13	-
W-PIT7-2306	5/7/12 DUP	27	13	-
W-PIT7-2307	4/4/12	33	7.7	-
W-PIT7-2307	12/10/12	-	10	-
W-PIT7-2309	4/23/12	20	6.4	-
W-PIT7-2703	6/5/12	29	8.3	-
W-PIT7-2703	12/10/12	-	11	-
W-PIT7-2704	6/5/12	19	<4	-
W-PIT7-2705	6/5/12	27	6.7	-
W-PIT7-2705	12/10/12	-	8.7	-

Table B-5.18. Pit 7 Complex area in Operable Unit 5 metals and silica in ground water.

Constituents of concern	K7-01	K7-03	K7-06	K7-10	NC7-17	NC7-26	NC7-47	NC7-48	W-865-01
	6/5/12	4/23/12	4/16/12	4/24/12	4/16/12	5/2/12	4/17/12	4/10/12	1/11/12
Antimony (mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	-	0.002	<0.06	<0.06	-
Arsenic (mg/L)	0.008	0.002	0.02	0.0008	-	0.002	0.014	0.0062	0.0033
Barium (mg/L)	0.18	0.06	0.08	0.07	-	0.02	0.063	0.12	0.05
Beryllium (mg/L)	<0.0001	<0.0001	<0.0001	<0.0001	-	<0.0001	<0.002	<0.002	-
Cadmium (mg/L)	<0.0001	<0.0001	0.0002	<0.0001	-	<0.0001	<0.005	<0.005	<0.0005
Chromium (mg/L)	<0.0005	<0.0005	<0.0005	0.002	-	<0.0005	<0.01	<0.01	<0.001
Cobalt (mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	-	<0.0005	<0.02	<0.02	-
Copper (mg/L)	0.007	0.03	<0.0005	<0.0005	-	<0.0005	<0.01	<0.01	-
Lead (mg/L)	0.0006	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.003	<0.003	<0.005
Lithium (mg/L)	0.029	0.031	0.027	0.066	-	0.025	0.029	0.07	-
Mercury (mg/L)	<0.0002	<0.0002	<0.0005	<0.0005 L	-	<0.0005 L	<0.0002	<0.0002	<0.0002
Molybdenum (mg/L)	0.003	0.004	0.003	0.003	-	0.006	<0.02	<0.02	-
Nickel (mg/L)	0.001	0.006	<0.0005	<0.0005	-	0.0005	<0.02	<0.02	-
Selenium (mg/L)	0.001	<0.001	<0.001	<0.001	-	<0.001	<0.005	<0.005	<0.002
Silica (as SiO2) (mg/L)	-	-	-	-	79.3	-	-	-	-
Silver (mg/L)	<0.0001	<0.0001	<0.0001	<0.0001	-	<0.0001	<0.005	<0.005	<0.001
Thallium (mg/L)	<0.0001	<0.0001	<0.0001	<0.0001	-	<0.0001	<0.005	<0.005	-
Vanadium (mg/L)	0.01	<0.002	0.04	<0.002	-	<0.002	0.064	0.018	-
Zinc (mg/L)	<0.01	0.01	<0.01	<0.01	-	<0.01	<0.05	<0.05	-

Table B-5.19. Pit 7 Complex area in Operable Unit 5 polychlorinated biphenyl (PCBs) compounds in ground water.

Location	Date	PCB 1016 (µg/L)	PCB 1221 (µg/L)	PCB 1232 (µg/L)	PCB 1242 (µg/L)	PCB 1248 (µg/L)	PCB 1254 (µg/L)	PCB 1260 (µg/L)
K7-01	6/5/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K7-03	4/23/12	<0.56 D	<0.56 D	<0.56 D	<0.56 D	<0.56 D	<0.56 D	<0.56 D
K7-06	4/16/12	<0.5 D	<0.5 D	<0.5 D	<0.5 D	<0.5 D	<0.5 D	<0.5 D
K7-10	4/24/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-26	5/2/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NC7-47	4/17/12	<0.56 D	<0.56 D	<0.56 D	<0.56 D	<0.56 D	<0.56 D	<0.56 D
NC7-48	4/10/12	<0.56 D	<0.56 D	<0.56 D	<0.56 D	<0.56 D	<0.56 D	<0.56 D

Table B-5.20. Pit 7 Complex area in Operable Unit 5 fluoride in ground water.

Location	Date	Fluoride (mg/L)
K7-01	6/5/12	0.45
K7-03	4/23/12	0.24
K7-06	4/16/12	0.31
K7-10	4/24/12	0.12
NC7-26	5/2/12	0.16
NC7-47	4/17/12	0.58
NC7-48	4/10/12	0.18

Table B-5.21. Pit 7 Complex area in Operable Unit 5 total uranium and uranium isotopes in ground water.

Location	Date	Uranium (pCi/L)	Uranium (µg/L)	Uranium 234 and Uranium 233 (pCi/L)	Uranium 234 by mass (pCi/L)	Uranium 235 and Uranium 236 (pCi/L)	Uranium 235 by mass (pCi/L)	Uranium 236 by mass (pCi/L)	Uranium 238 (pCi/L)	Uranium 238 by mass (pCi/L)	Uranium 235/238 (ratio)
K7-01	6/5/12	16.0 ± 0.190	-	-	7.90 ± 0.180	-	0.340 ± 0.00220	<0.0014	-	7.30 ± 0.0340	0.00717 ± 0.0000330
K7-03	4/23/12	5.60 ± 0.190	-	-	2.90 ± 0.190	-	0.120 ± 0.00110	<0.00092	-	2.60 ± 0.00890	0.00743 ± 0.0000600
K7-06	4/16/12	-	-	0.416 ± 0.101	-	<0.1	-	-	0.423 ± 0.0963	-	-
K7-10	4/24/12	-	-	<0.1 L	-	<0.1 L	-	-	<0.1 L	-	-
NC7-12	4/26/12	3.00 ± 0.0990	-	1.45 ± 0.270	1.60 ± 0.0990	<0.1	0.0630 ± 0.000880	<0.00042	1.35 ± 0.256	1.40 ± 0.00440	0.00714 ± 0.0000980
NC7-16	1/9/12	12.0 ± 0.170	-	-	4.80 ± 0.170	-	0.210 ± 0.000660	0.0180 ± 0.0000400	-	6.60 ± 0.0130	0.00502 ± 0.0000120
NC7-16	4/24/12	11.0 ± 0.120	-	-	4.50 ± 0.110	-	0.210 ± 0.00210	0.0170 ± 0.000140	-	6.70 ± 0.0500	0.00482 ± 0.0000340
NC7-16	7/9/12	11.0 ± 0.350	-	-	4.40 ± 0.350	-	0.200 ± 0.00180	0.0160 ± 0.0000400	-	6.10 ± 0.0400	0.00507 ± 0.0000310
NC7-16	10/10/12	14.0 ± 0.270	-	-	5.50 ± 0.270	-	0.250 ± 0.00140	0.0250 ± 0.0000550	-	7.90 ± 0.0210	0.00492 ± 0.0000240
NC7-17	4/16/12	-	-	0.739 ± 0.160	-	<0.1	-	-	0.510 ± 0.122	-	-
NC7-18	4/24/12	-	-	1.22 ± 0.199 L	-	<0.1 L	-	-	1.21 ± 0.198 L	-	-
NC7-20	5/2/12	-	-	2.45 ± 0.406	-	0.107 ± 0.0562	-	-	2.47 ± 0.408	-	-
NC7-21	4/24/12	-	-	6.29 ± 0.846 L	-	0.397 ± 0.0965 L	-	-	6.75 ± 0.903 L	-	-
NC7-25	4/4/12	-	39.4 ± 3.50	17.5 ± 2.76	-	0.835 ± 0.235	-	-	15.3 ± 2.43	-	-
NC7-25	8/21/12	-	49.2 ± 4.61	-	-	-	-	-	-	-	-
NC7-25	12/10/12	38.0 ± 1.10	-	-	21.0 ± 1.10	-	0.770 ± 0.00660	<0.0031	-	16.0 ± 0.0680	0.00735 ± 0.0000560
NC7-26	5/2/12	0.340 ± 0.00940	-	-	0.200 ± 0.00930	-	0.00650 ± 0.0000840	<0.000062	-	0.140 ± 0.00110	0.00736 ± 0.0000760
NC7-34	4/16/12	-	-	3.42 ± 0.493	-	0.155 ± 0.0586	-	-	4.45 ± 0.624	-	-
NC7-36	4/16/12	-	-	1.76 ± 0.282	-	<0.1	-	-	1.33 ± 0.223	-	-
NC7-36	4/16/12 DUP	-	-	1.68 ± 0.340	-	<0.1	-	-	1.21 ± 0.260	-	-
NC7-40	1/9/12	69.0 ± 0.690	-	-	19.0 ± 0.670	-	1.10 ± 0.0160	0.230 ± 0.000670	-	49.0 ± 0.150	0.00338 ± 0.0000490
NC7-40	4/26/12	72.0 ± 0.800	-	-	21.0 ± 0.760	-	1.00 ± 0.0110	0.230 ± 0.000590	-	49.0 ± 0.250	0.00328 ± 0.0000310
NC7-40	7/9/12	71.0 ± 1.40	-	-	19.0 ± 1.40	-	1.10 ± 0.0120	0.230 ± 0.000570	-	51.0 ± 0.370	0.00326 ± 0.0000290
NC7-40	10/16/12	75.0 ± 0.590	-	-	21.0 ± 0.480	-	1.10 ± 0.0160	0.250 ± 0.00180	-	54.0 ± 0.340	0.00319 ± 0.0000430
NC7-47	4/17/12	-	-	1.40 ± 0.243	-	<0.1	-	-	0.618 ± 0.133	-	-
NC7-48	4/10/12	5.90 ± 0.140	-	-	1.70 ± 0.130	-	0.0790 ± 0.000880	0.0190 ± 0.0000530	-	4.10 ± 0.0210	0.00297 ± 0.0000290
NC7-49A	4/4/12	-	-	0.886 ± 0.170	-	<0.1	-	-	0.541 ± 0.116	-	-
NC7-50	4/17/12	-	-	0.606 ± 0.124	-	<0.1	-	-	0.417 ± 0.0931	-	-
NC7-51	1/9/12	72.0 ± 1.30	-	-	30.0 ± 1.30	-	1.30 ± 0.0120	0.120 ± 0.00100	-	41.0 ± 0.310	0.00485 ± 0.0000270
NC7-51	5/2/12	74.0 ± 1.50	-	-	33.0 ± 1.50	-	1.30 ± 0.00950	0.100 ± 0.000580	-	40.0 ± 0.220	0.00522 ± 0.0000230
NC7-51	7/9/12	77.0 ± 1.30	-	-	34.0 ± 1.30	-	1.40 ± 0.0130	0.100 ± 0.000810	-	42.0 ± 0.170	0.00532 ± 0.0000450
NC7-51	10/15/12	82.0 ± 1.90	-	-	36.0 ± 1.90	-	1.50 ± 0.0220	0.120 ± 0.00150	-	44.0 ± 0.370	0.00523 ± 0.0000640
NC7-52	4/23/12	-	-	0.480 ± 0.102 L	-	<0.1 L	-	-	0.435 ± 0.0910 L	-	-
NC7-53	4/4/12	-	-	0.492 ± 0.111	-	<0.1	-	-	0.497 ± 0.110	-	-
NC7-64	2/13/12	-	184 ± 16.4	-	-	-	-	-	-	-	-
NC7-64	4/4/12	-	126 ± 11.2	42.3 ± 5.80	-	2.50 ± 0.428	-	-	48.9 ± 6.69	-	-
NC7-64	8/15/12	-	137 ± 14.2	-	-	-	-	-	-	-	-
NC7-64	12/10/12	98.0 ± 1.50	149 ± 13.9 L	-	47.0 ± 1.40	-	1.90 ± 0.0250	0.0700 ± 0.00110	-	49.0 ± 0.550	0.00615 ± 0.0000350
NC7-65	4/3/12	1.20 ± 0.0380	-	0.701 ± 0.147	0.640 ± 0.0380	<0.1	0.0230 ± 0.000330	<0.00016	0.491 ± 0.114	0.500 ± 0.00130	0.00722 ± 0.000101
NC7-67	5/23/12	-	-	<0.1	-	<0.1	-	-	<0.1	-	-
NC7-67	5/23/12 DUP	-	-	<0.1	-	<0.1	-	-	<0.1	-	-
NC7-68	4/26/12	-	-	1.08 ± 0.215	-	<0.1	-	-	1.09 ± 0.214	-	-
NC7-75	4/12/12	-	-	0.105 ± 0.0569	-	<0.1	-	-	<0.1	-	-
NC7-76	4/26/12	-	-	1.48 ± 0.276	-	<0.1	-	-	1.33 ± 0.253	-	-
W-PIT7-02	4/23/12	-	-	0.244 ± 0.0636 L	-	<0.1 L	-	-	0.147 ± 0.0449 L	-	-
W-PIT7-03	4/23/12	-	-	12.6 ± 1.78 L	-	0.517 ± 0.139 L	-	-	11.0 ± 1.56 L	-	-
W-PIT7-03	4/23/12 DUP	-	-	11.9 ± 2.10	-	0.710 ± 0.200	-	-	10.9 ± 2.00	-	-
W-PIT7-10	5/2/12	-	-	1.26 ± 0.248	-	<0.1	-	-	0.897 ± 0.194	-	-
W-PIT7-13	4/3/12	-	-	3.96 ± 0.549	-	0.183 ± 0.0611	-	-	2.54 ± 0.368	-	-

Table B-5.21. Pit 7 Complex area in Operable Unit 5 total uranium and uranium isotopes in ground water.

Location	Date	Uranium (pCi/L)	Uranium (µg/L)	Uranium 234 and Uranium 233 (pCi/L)	Uranium 234 by mass (pCi/L)	Uranium 235 and Uranium 236 (pCi/L)	Uranium 235 by mass (pCi/L)	Uranium 236 by mass (pCi/L)	Uranium 238 (pCi/L)	Uranium 238 by mass (pCi/L)	Uranium 235/238 (ratio)
W-PIT7-14	4/3/12	<0.06273	-	-	<0.021	-	<0.000049	<0.00022	-	0.000500 ± 0.00002	<0.01516
W-PIT7-15	4/17/12	<0.06273	-	-	<0.068	-	0.00100 ± 0.0000210	<0.000071	-	0.0220 ± 0.000180	0.00746 ± 0.000140
W-PIT7-1860	4/16/12	-	-	<0.1	-	<0.1	-	-	<0.1	-	-
W-PIT7-1903	4/25/12	-	-	17.5 ± 2.66 L	-	1.28 ± 0.293 L	-	-	58.3 ± 8.59 L	-	-
W-PIT7-1904	4/25/12	-	-	17.0 ± 2.59 L	-	0.810 ± 0.221 L	-	-	37.0 ± 5.51 L	-	-
W-PIT7-1905	4/25/12	-	-	10.0 ± 1.42 L	-	0.741 ± 0.171 L	-	-	30.0 ± 4.10 L	-	-
W-PIT7-1907	4/25/12	-	-	<0.1 L	-	<0.1 L	-	-	0.100 ± 0.0670 L	-	-
W-PIT7-1915	4/25/12	-	-	<0.134 L	-	<0.1 L	-	-	<0.1 L	-	-
W-PIT7-1916	4/25/12	-	-	19.2 ± 2.77 L	-	1.31 ± 0.276 L	-	-	48.3 ± 6.81 L	-	-
W-PIT7-1917	4/25/12	-	-	17.9 ± 2.59 L	-	1.05 ± 0.237 L	-	-	41.1 ± 5.83 L	-	-
W-PIT7-1918	4/25/12	48.0 ± 0.510	-	-	15.0 ± 0.210	-	0.750 ± 0.0110	0.140 ± 0.000150	-	32.0 ± 0.460	0.00358 ± 0.00000800
W-PIT7-1919	4/25/12	-	-	19.9 ± 3.03 L	-	1.49 ± 0.331 L	-	-	51.0 ± 7.57 L	-	-
W-PIT7-2141	4/3/12	6.00 ± 0.180	-	-	3.60 ± 0.180	-	0.110 ± 0.00170	<0.00051	-	2.30 ± 0.0250	0.00735 ± 0.0000860
W-PIT7-2305	1/11/12	-	18.6 ± 1.83 O	-	-	-	-	-	-	-	-
W-PIT7-2305	4/4/12	-	20.8 ± 1.85	7.38 ± 1.11	-	0.316 ± 0.111	-	-	7.27 ± 1.10	-	-
W-PIT7-2305	7/10/12	-	20.0 ± 1.93	-	-	-	-	-	-	-	-
W-PIT7-2305	12/10/12	19.0 ± 0.270	27.8 ± 2.58 L	-	9.50 ± 0.260	-	0.420 ± 0.00660	<0.0017	-	8.90 ± 0.0700	0.00723 ± 0.000100
W-PIT7-2306	1/11/12	-	5.14 ± 0.512 O	-	-	-	-	-	-	-	-
W-PIT7-2306	5/7/12	-	5.63 ± 0.519	2.29 ± 0.408	-	<0.1	-	-	1.57 ± 0.301	-	-
W-PIT7-2306	5/7/12 DUP	-	-	2.06 ± 0.388	-	<0.1	-	-	1.65 ± 0.325	-	-
W-PIT7-2307	1/11/12	-	35.2 ± 3.46 O	-	-	-	-	-	-	-	-
W-PIT7-2307	4/4/12	-	39.2 ± 3.47	8.34 ± 1.26	-	0.435 ± 0.138	-	-	14.1 ± 2.06	-	-
W-PIT7-2307	7/10/12	-	39.3 ± 3.78	-	-	-	-	-	-	-	-
W-PIT7-2307	12/10/12	19.0 ± 0.390	35.7 ± 3.33 L	-	8.60 ± 0.390	-	0.350 ± 0.00490	0.0260 ± 0.000240	-	10.0 ± 0.0520	0.00523 ± 0.0000690
W-PIT7-2309	4/23/12	1.30 ± 0.00750	-	-	<1.7	-	0.0590 ± 0.000640	<0.0005	-	1.30 ± 0.00740	0.00735 ± 0.0000670
W-PIT7-2703	6/5/12	-	-	38.4 ± 5.73	-	1.68 ± 0.362	-	-	35.8 ± 5.36	-	-
W-PIT7-2703	8/21/12	-	79.1 ± 7.30	-	-	-	-	-	-	-	-
W-PIT7-2703	12/10/12	83.0 ± 1.10	-	-	44.0 ± 1.10	-	1.60 ± 0.0180	0.0250 ± 0.000940	-	38.0 ± 0.340	0.00681 ± 0.0000380
W-PIT7-2704	6/5/12	-	-	0.918 ± 0.203	-	<0.1	-	-	1.40 ± 0.275	-	-
W-PIT7-2704	8/21/12	-	3.70 ± 0.344	-	-	-	-	-	-	-	-
W-PIT7-2705	6/5/12	-	-	16.7 ± 2.73	-	1.24 ± 0.324	-	-	48.5 ± 7.67	-	-
W-PIT7-2705	8/21/12	-	113 ± 10.4	-	-	-	-	-	-	-	-
W-PIT7-2705	12/10/12	35.0 ± 0.580	-	-	11.0 ± 0.570	-	0.580 ± 0.00460	0.0850 ± 0.000470	-	22.0 ± 0.120	0.00401 ± 0.0000230

Table B-5.22. Pit 7 Complex area in Operable Unit 5 tritium in ground water.

Location	Date	Tritium (pCi/L)
K7-01	6/5/12	29500 ± 5730
K7-01	10/22/12	32100 ± 6240
K7-03	4/23/12	70200 ± 13600
K7-03	10/10/12	77700 ± 15100
K7-06	4/16/12	<100
K7-06	10/4/12	<100
K7-09	10/16/12	<100
K7-10	4/24/12	<100
K7-10	10/16/12	<100
NC7-12	4/26/12	2430 ± 504
NC7-12	10/17/12	2090 ± 434
NC7-16	1/9/12	35600 ± 6920
NC7-16	4/24/12	33400 ± 6480
NC7-16	7/9/12	31300 ± 6080
NC7-16	10/10/12	31300 ± 6080
NC7-17	4/16/12	<100
NC7-17	10/4/12	<100
NC7-18	4/24/12	<100
NC7-18	10/16/12	<100
NC7-20	5/2/12	8650 ± 1710
NC7-20	10/17/12	8160 ± 1610
NC7-21	4/24/12	41500 ± 8070
NC7-21	10/10/12	39100 ± 7600
NC7-25	4/4/12	203000 ± 39400
NC7-25	12/10/12	204000 ± 39600
NC7-26	5/2/12	1620 ± 349
NC7-26	10/10/12	1740 ± 367
NC7-34	4/16/12	454 ± 129
NC7-34	10/4/12	823 ± 192
NC7-36	4/16/12	<100
NC7-36	4/16/12 DUP	<100
NC7-36	10/4/12	<100
NC7-40	1/9/12	58400 ± 11300
NC7-40	4/26/12	54200 ± 10500
NC7-40	7/9/12	51600 ± 10000
NC7-40	10/16/12	53500 ± 10400
NC7-47	4/17/12	<100
NC7-48	4/10/12	<100
NC7-48	10/4/12	<100
NC7-49A	4/4/12	<100
NC7-49A	10/4/12	<100
NC7-51	1/9/12	226000 ± 43900
NC7-51	1/9/12 DUP	233000 ± 35000 L
NC7-51	5/2/12	152000 ± 29600
NC7-51	5/2/12 DUP	159000 ± 24000
NC7-51	7/9/12	162000 ± 31500
NC7-51	7/9/12 DUP	188000 ± 29000

Table B-5.22. Pit 7 Complex area in Operable Unit 5 tritium in ground water.

Location	Date	Tritium (pCi/L)
NC7-51	10/15/12	160000 ± 31100
NC7-52	1/9/12	33500 ± 6530
NC7-52	7/9/12	31400 ± 6100
NC7-64	4/4/12	109000 ± 21200
NC7-64	12/10/12	100000 ± 19500
NC7-65	4/3/12	323 ± 108
NC7-65	10/3/12	253 ± 97.0
NC7-67	5/23/12	1800 ± 385
NC7-67	5/23/12 DUP	1930 ± 300
NC7-67	10/16/12	1860 ± 391
NC7-68	4/26/12	1500 ± 325
NC7-68	10/16/12	1670 ± 354
NC7-75	4/12/12	<100
NC7-75	10/8/12	<100
NC7-76	4/26/12	1690 ± 361
NC7-76	10/17/12	2220 ± 460
W-865-01	1/11/12	<100
W-865-01	7/10/12	<100
W-865-03	1/11/12	<100
W-865-1804	1/11/12	1330 ± 293
W-865-1804	7/10/12	1330 ± 292
W-PIT7-02	1/9/12	<100
W-PIT7-02	7/9/12	<100
W-PIT7-03	1/9/12	85600 ± 16600 F
W-PIT7-03	1/9/12 DUP	88800 ± 17300
W-PIT7-10	5/2/12	<100
W-PIT7-10	10/17/12	<100
W-PIT7-12	4/3/12	2380 ± 494
W-PIT7-12	10/3/12	2240 ± 467
W-PIT7-12	10/3/12	2220 ± 340
W-PIT7-13	4/3/12	33300 ± 6470
W-PIT7-13	10/3/12	34900 ± 6780
W-PIT7-13	10/3/12 DUP	34600 ± 5300
W-PIT7-14	4/3/12	<100
W-PIT7-15	4/17/12	<100
W-PIT7-15	11/7/12	<100
W-PIT7-1860	4/16/12	<100
W-PIT7-1918	4/25/12	46200 ± 8980
W-PIT7-1918	10/16/12	45100 ± 8770
W-PIT7-2141	4/3/12	14600 ± 2860
W-PIT7-2141	10/3/12	15100 ± 2960
W-PIT7-2305	4/4/12	37000 ± 7190
W-PIT7-2305	12/10/12	47400 ± 9220
W-PIT7-2306	5/7/12	2140 ± 448
W-PIT7-2306	5/7/12 DUP	2270 ± 473
W-PIT7-2307	4/4/12	52900 ± 10300

Table B-5.22. Pit 7 Complex area in Operable Unit 5 tritium in ground water.

Location	Date	Tritium (pCi/L)
W-PIT7-2307	12/10/12	40100 ± 7790
W-PIT7-2309	4/23/12	58100 ± 11300
W-PIT7-2309	10/10/12	59800 ± 11600
W-PIT7-2703	6/5/12	70800 ± 13800
W-PIT7-2703	12/10/12	71800 ± 14000
W-PIT7-2704	6/5/12	389 ± 102
W-PIT7-2705	6/5/12	38100 ± 7410
W-PIT7-2705	12/10/12	34600 ± 6730

Table B-5.23. Pit 7 Complex area in Operable Unit 5 high explosive compounds in ground water.

Location	Date	1,3,5-Trinitro-benzene (µg/L)	1,3-Dinitro-benzene (µg/L)	2,4-Dinitro-toluene (µg/L)	2,6-Dinitro-toluene (µg/L)	2-Amino-4,6-Dinitro-toluene (µg/L)	2-Nitro-toluene (µg/L)	3-Nitro-toluene (µg/L)	4-Amino-2,6-Dinitro-toluene (µg/L)	4-Nitro-toluene (µg/L)	HMX (µg/L)	Nitro-benzene (µg/L)	RDX (µg/L)	TNT (µg/L)
K7-01	6/5/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
K7-03	4/23/12	<2 IJ	<2 IJ	<2 IJ	<2 IJ	<2 IJ	<2 IJ	<2 IJ	<2 IJ	<2 IJ	<1 IJ	<2 IJ	<1 IJ	<2 IJ
K7-06	4/16/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
K7-10	4/24/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
NC7-26	5/2/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
NC7-47	4/17/12	<2 IJ	<2 IJ	<2 IJ	<2 IJ	<2 IJ	<2 IJ	<2 IJ	<2 IJ	<2 IJ	<1 IJ	<2 IJ	<1 IJ	<2 IJ
NC7-48	4/10/12	<2	<2 O	<2 O	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2 O

Table B-6.01. Building 854 Operable Unit volatile organic compounds (VOCs) in ground and surface water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-854-01	5/15/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-01	10/29/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-02	2/13/12	E601	100 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-02	4/2/12	E601	9.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-02	4/2/12 DUP	E601	96 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-02	7/2/12	E601	100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-02	10/2/12	E601	93	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-03	1/9/12	E601	22	<0.5	<0.5	<0.5	<0.5	0.62	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-03	4/2/12	E601	21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-03	4/2/12 DUP	E601	21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-03	7/2/12	E601	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-03	12/17/12	E601	15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-04	5/22/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-04	10/30/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-05	5/15/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-05	10/29/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-06	5/22/12	E601	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-06	5/22/12 DUP	E601	0.79	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-06	10/30/12	E601	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-07	5/22/12	E601	32	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-07	5/22/12 DUP	E601	32	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-07	10/30/12	E601	32	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-08	5/21/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 O	<0.5	<0.5
W-854-08	10/25/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-09	5/15/12	E601	8.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-09	5/15/12 DUP	E601	8.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-09	10/29/12	E601	8.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-10	5/15/12	E601	10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-10	10/25/12	E601	13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-10	10/25/12 DUP	E601	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-13	5/21/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 O	<0.5	<0.5
W-854-13	10/31/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-14	5/23/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-14	10/31/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5
W-854-14	10/31/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5
W-854-15	5/22/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-15	10/29/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-17	5/15/12	E601	5.6	<0.5	0.64	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-17	10/31/12	E601	3.1	<0.5	3.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-17	10/31/12 DUP	E601	2.6	<0.5	3.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5
W-854-18A	2/13/12	E601	28	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-18A	4/2/12	E601	26	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-18A	4/2/12 DUP	E601	27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-18A	7/2/12	E601	25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-18A	10/2/12	E601	24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-45	5/23/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-45	10/31/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5
W-854-1701	5/21/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 O	<0.5	<0.5
W-854-1701	10/30/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-1707	5/24/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-1707	11/5/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5
W-854-1731	5/23/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-1731	10/31/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5
W-854-1822	5/21/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 O	<0.5	<0.5

Table B-6.01. Building 854 Operable Unit volatile organic compounds (VOCs) in ground and surface water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-854-1822	10/30/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-1823	5/22/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-1823	10/31/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-1902	5/21/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 O	<0.5	<0.5
W-854-2115	5/22/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-2115	10/30/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-2139	2/13/12	E601	31	<0.5	0.61	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-2139	4/2/12	E601	26	<0.5	0.54	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-2139	4/2/12 DUP	E601	26	<0.5	0.54	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-2139	7/3/12	E601	19	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-2139	10/2/12	E601	27	<0.5	0.64	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-2218	2/13/12	E601	33	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-2218	4/2/12	E601	23	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-2218	7/2/12	E601	16	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-2218	10/2/12	E601	15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-2611	5/15/12	E601	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-854-2611	10/29/12	E601	1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SPRING11	5/24/12	E601	1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SPRING11	11/5/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5

Table B-6.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro-ethene (total) (µg/L)
W-854-01	5/15/12	E601	0 of 18	-
W-854-01	10/29/12	E601	0 of 18	-
W-854-02	2/13/12	E601	0 of 18	-
W-854-02	4/2/12	E601	0 of 18	-
W-854-02	4/2/12 DUP	E601	0 of 18	-
W-854-02	7/2/12	E601	0 of 18	-
W-854-02	10/2/12	E601	0 of 18	-
W-854-03	1/9/12	E601	0 of 18	-
W-854-03	4/2/12	E601	0 of 18	-
W-854-03	4/2/12 DUP	E601	0 of 18	-
W-854-03	7/2/12	E601	0 of 18	-
W-854-03	12/17/12	E601	0 of 18	-
W-854-04	5/22/12	E601	0 of 18	-
W-854-04	10/30/12	E601	0 of 18	-
W-854-05	5/15/12	E601	0 of 18	-
W-854-05	10/29/12	E601	0 of 18	-
W-854-06	5/22/12	E601	0 of 18	-
W-854-06	5/22/12 DUP	E601	0 of 18	-
W-854-06	10/30/12	E601	0 of 18	-
W-854-07	5/22/12	E601	0 of 18	-
W-854-07	5/22/12 DUP	E601	0 of 18	-
W-854-07	10/30/12	E601	0 of 18	-
W-854-08	5/21/12	E601	0 of 18	-
W-854-08	10/25/12	E601	0 of 18	-
W-854-09	5/15/12	E601	0 of 18	-
W-854-09	5/15/12 DUP	E601	0 of 18	-
W-854-09	10/29/12	E601	0 of 18	-
W-854-10	5/15/12	E601	0 of 18	-
W-854-10	10/25/12	E601	0 of 18	-
W-854-10	10/25/12 DUP	E601	0 of 18	-
W-854-13	5/21/12	E601	0 of 18	-
W-854-13	10/31/12	E601	0 of 18	-
W-854-14	5/23/12	E601	0 of 18	-
W-854-14	10/31/12	E601	0 of 18	-
W-854-14	10/31/12 DUP	E601	0 of 18	-
W-854-15	5/22/12	E601	0 of 18	-
W-854-15	10/29/12	E601	0 of 18	-
W-854-17	5/15/12	E601	0 of 18	-
W-854-17	10/31/12	E601	1 of 18	3.4
W-854-17	10/31/12 DUP	E601	1 of 18	3.2
W-854-18A	2/13/12	E601	0 of 18	-
W-854-18A	4/2/12	E601	0 of 18	-
W-854-18A	4/2/12 DUP	E601	0 of 18	-
W-854-18A	7/2/12	E601	0 of 18	-
W-854-18A	10/2/12	E601	0 of 18	-
W-854-45	5/23/12	E601	0 of 18	-
W-854-45	10/31/12	E601	0 of 18	-
W-854-1701	5/21/12	E601	0 of 18	-
W-854-1701	10/30/12	E601	0 of 18	-
W-854-1707	5/24/12	E601	0 of 18	-
W-854-1707	11/5/12	E601	0 of 18	-
W-854-1731	5/23/12	E601	0 of 18	-
W-854-1731	10/31/12	E601	0 of 18	-

Table B-6.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro-ethene (total) (µg/L)
W-854-1822	5/21/12	E601	0 of 18	-
W-854-1822	10/30/12	E601	0 of 18	-
W-854-1823	5/22/12	E601	0 of 18	-
W-854-1823	10/31/12	E601	0 of 18	-
W-854-1902	5/21/12	E601	0 of 18	-
W-854-2115	5/22/12	E601	0 of 18	-
W-854-2115	10/30/12	E601	0 of 18	-
W-854-2139	2/13/12	E601	0 of 18	-
W-854-2139	4/2/12	E601	0 of 18	-
W-854-2139	4/2/12 DUP	E601	0 of 18	-
W-854-2139	7/3/12	E601	0 of 18	-
W-854-2139	10/2/12	E601	0 of 18	-
W-854-2218	2/13/12	E601	0 of 18	-
W-854-2218	4/2/12	E601	0 of 18	-
W-854-2218	7/2/12	E601	0 of 18	-
W-854-2218	10/2/12	E601	0 of 18	-
W-854-2611	5/15/12	E601	0 of 18	-
W-854-2611	10/29/12	E601	0 of 18	-
SPRING11	5/24/12	E601	0 of 18	-
SPRING11	11/5/12	E601	0 of 18	-

Table B-6.02. Building 854 Operable Unit nitrate and perchlorate in ground and surface water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
W-854-01	5/15/12	<0.5	<4
W-854-01	10/29/12	-	<4
W-854-02	2/13/12	-	5.5 O
W-854-02	4/2/12	54	6.3
W-854-02	4/2/12 DUP	46 D	6.2
W-854-02	7/2/12	-	4.9 L
W-854-02	10/2/12	-	5.1
W-854-03	1/9/12	41	8.3
W-854-03	2/13/12	43	-
W-854-03	3/12/12	40	-
W-854-03	4/2/12	42	7.7
W-854-03	4/2/12 DUP	36 D	7.7
W-854-03	5/2/12	42	-
W-854-03	6/5/12	42	-
W-854-03	7/2/12	41	5.8
W-854-03	8/7/12	39	-
W-854-03	9/4/12	39	-
W-854-03	12/4/12	35 DO	-
W-854-03	12/17/12	-	7.5
W-854-04	5/22/12	<0.5	<4
W-854-04	10/30/12	-	<4
W-854-05	5/15/12	59 D	<4
W-854-05	10/29/12	-	<4
W-854-06	5/22/12	<0.5	<4
W-854-06	5/22/12 DUP	<0.5	<4
W-854-06	10/30/12	-	<4
W-854-07	5/22/12	27 D	6
W-854-07	5/22/12 DUP	27 D	6.9
W-854-07	10/30/12	-	6
W-854-08	5/21/12	35 D	4.9
W-854-09	5/15/12	37 D	<4
W-854-09	5/15/12 DUP	37 D	4.6
W-854-09	10/29/12	-	<4
W-854-10	5/15/12	13 D	<4
W-854-10	10/25/12	-	<4
W-854-10	10/25/12 DUP	-	<4
W-854-13	5/21/12	0.6	<4
W-854-13	10/31/12	-	<4
W-854-14	5/23/12	230 D	<4
W-854-14	10/31/12	-	<4
W-854-14	10/31/12 DUP	-	<4
W-854-15	5/22/12	7.4	<4
W-854-15	10/29/12	-	<4
W-854-17	5/15/12	2.3	<4
W-854-17	10/31/12	-	<4 O
W-854-17	10/31/12 DUP	-	<4
W-854-18A	2/13/12	-	<4 O

Table B-6.02. Building 854 Operable Unit nitrate and perchlorate in ground and surface water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
W-854-18A	4/2/12	31	<4
W-854-18A	4/2/12 DUP	27 D	<4
W-854-18A	7/2/12	-	<4 L
W-854-18A	10/2/12	-	<4
W-854-45	5/23/12	48 D	13.2
W-854-45	10/31/12	-	10
W-854-1701	5/21/12	<0.5	<4
W-854-1701	10/30/12	-	<4
W-854-1707	5/24/12	5.9	<4
W-854-1707	11/5/12	-	<4
W-854-1731	5/23/12	0.74	<4
W-854-1731	10/31/12	-	<4
W-854-1822	5/21/12	1.6	<4
W-854-1822	10/30/12	-	<4
W-854-1823	5/22/12	24 D	13.4
W-854-1823	10/31/12	-	13
W-854-1902	5/21/12	4.8	<4
W-854-2115	5/22/12	1.8	<4
W-854-2115	10/30/12	-	<4
W-854-2139	2/13/12	22	5.4
W-854-2139	4/2/12	22	5
W-854-2139	4/2/12 DUP	23	5.3
W-854-2139	7/3/12	22	4.2
W-854-2139	10/2/12	23 O	<4
W-854-2218	2/13/12	-	<4 O
W-854-2218	4/2/12	44	<4
W-854-2218	7/2/12	-	<4 L
W-854-2218	10/2/12	-	<4
W-854-2611	5/15/12	46 D	5.8
W-854-2611	10/29/12	-	4.6
SPRING11	5/24/12	<0.5	<4
SPRING11	11/5/12	-	<4

Table B-6.03. Building 854 Operable Unit total uranium and uranium isotopes in ground water.

Location	Date	Uranium (pCi/L)	Uranium 234 by mass (pCi/L)	Uranium 235 by mass (pCi/L)	Uranium 236 by mass (pCi/L)	Uranium 238 by mass (pCi/L)	Uranium 235/238 (ratio)
SPRING11	8/21/12	56.0 ± 1.20	30.0 ± 1.20	1.20 ± 0.0120	<0.0048	25.0 ± 0.170	0.00724 ± 0.0000570

Table B-7.01. Building 832 Canyon Operable Unit volatile organic compounds (VOCs) in ground and surface water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
SPRING3	3/5/12	E601	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SVI-830-031	2/23/12	E601	60 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
SVI-830-032	2/23/12	E601	191 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D
SVI-830-033	2/23/12	E601	58 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
SVI-830-033	8/13/12	E601	10 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
SVI-830-035	2/23/12	E601	1,580 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D
SVI-830-035	8/13/12	E601	219 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D
W-830-04A	2/29/12	E601	7.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-04A	2/29/12 DUP	E601	7.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-04A	8/15/12	E601	7.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-04A	8/15/12 DUP	E601	7.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-05	2/29/12	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5 L	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-05	8/16/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-09	2/22/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-09	8/23/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-10	3/1/12	E601	40	<0.5	<0.5	<0.5	<0.5 L	<0.5 L	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-830-10	8/27/12	E601	39	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-10	8/27/12 DUP	E601	36	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-11	2/29/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-11	8/15/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-13	3/1/12	E601	8.6	<0.5	<0.5	<0.5	<0.5 L	<0.5 L	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-830-13	8/16/12	E601	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-14	3/6/12	E601	0.8	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-14	8/16/12	E601	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-15	2/29/12	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5 L	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-15	6/7/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-15	8/16/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-15	11/28/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5
W-830-16	2/28/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-16	8/23/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-17	2/28/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-17	8/23/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-18	3/6/12	E601	24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-18	8/15/12	E601	24	<0.5	0.8	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-19	2/13/12	E601	2,900 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-830-19	4/12/12	E601	2,900 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-830-19	7/30/12	E601	2,700 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 DJ
W-830-19	10/1/12	E601	2,900 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-830-20	2/27/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-20	8/15/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-21	2/27/12	E601	25	<0.5	8.8	22	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-21	2/27/12 DUP	E601	24	<0.5	8.6	23	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-21	8/14/12	E601	11	<0.5	4.7	16	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-22	2/22/12	E601	22	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-22	8/9/12	E601	18	<0.5	1.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-27	2/28/12	E601	622 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D
W-830-27	2/28/12 DUP	E601	470 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-27	8/14/12	E601	800 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D
W-830-28	2/28/12	E601	21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-28	8/14/12	E601	17	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-29	2/22/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-30	3/1/12	E601	14	<0.5	<0.5	<0.5	<0.5 L	<0.5 L	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-830-30	3/1/12 DUP	E601	15	<0.5	<0.5	<0.5	<0.5 L	<0.5 L	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-830-30	8/9/12	E601	11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-7.01. Building 832 Canyon Operable Unit volatile organic compounds (VOCs) in ground and surface water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-830-34	2/22/12	E601	1,090 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-830-34	8/13/12	E601	154 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D	<12 D
W-830-49	2/13/12	E601	1,200 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-830-49	4/12/12	E601	1,300 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-830-49	7/30/12	E601	15 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S	<0.5 S
W-830-49	10/1/12	E601	1,400 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-830-50	2/27/12	E601	17	<0.5	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-50	8/15/12	E601	16	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-51	2/13/12	E601	28	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-51	4/2/12	E601	23	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-51	4/2/12 DUP	E601	23	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-51	7/10/12	E601	21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-51	10/1/12	E601	24	<0.5	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-52	2/13/12	E601	27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-52	4/2/12	E601	24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-52	7/10/12	E601	23	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-53	2/13/12	E601	21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-53	4/2/12	E601	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-53	7/10/12	E601	28	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-53	10/1/12	E601	25	<0.5	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-54	3/1/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5 L	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-830-54	8/23/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-55	3/1/12	E601	2.8	<0.5	<0.5	<0.5	<0.5 L	<0.5 L	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-830-55	8/23/12	E601	3.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-55	8/23/12 DUP	E601	3.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-56	2/29/12	E601	3.8 L	<0.5	<0.5	<0.5	<0.5 L	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-56	8/16/12	E601	2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-57	2/13/12	E601	16	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-57	4/12/12	E601	15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-57	8/1/12	E601	15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-57	10/1/12	E601	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-58	2/28/12	E601	1,130 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D
W-830-58	8/14/12	E601	742 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D
W-830-59	2/13/12	E601	1,800 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-830-59	4/12/12	E601	1,600 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-830-59	7/30/12	E601	1,500 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 DJ
W-830-59	10/1/12	E601	1,700 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-830-60	2/13/12	E601	26	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-60	4/12/12	E601	22	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-60	4/12/12 DUP	E601	24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-60	7/30/12	E601	23	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-60	10/1/12	E601	21	<0.5	0.55	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-1730	2/29/12	E601	<0.5 L	<0.5	<0.5	<0.5	<0.5 L	<0.5 L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-1730	6/7/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-1730	8/16/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-1730	11/27/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-1807	2/13/12	E601	83	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-1807	4/12/12	E601	84	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-1807	7/30/12	E601	110 D	0.72	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-1807	10/1/12	E601	160 D	1.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-1829	2/27/12	E601	2,200 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-830-1829	8/9/12	E601	1,500 D	2.4	0.93	<0.5	<0.5	0.76	<0.5	0.91	<0.5	<0.5	0.63	<0.5	<0.5	<0.5
W-830-1830	2/22/12	E601	1,820 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D
W-830-1830	8/9/12	E601	1,740 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D	<50 D

Table B-7.01. Building 832 Canyon Operable Unit volatile organic compounds (VOCs) in ground and surface water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-830-1831	2/23/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-1831	8/23/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-1832	2/23/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-1832	8/23/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2213	2/27/12	E601	300 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2214	2/13/12	E601	1,200 D	1.2	0.64	<0.5	<0.5	0.63	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2214	6/6/12	E601	1,100 D	2.3	0.67	<0.5	<0.5	0.61	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2214	6/6/12 DUP	E601	972 DIJ	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D	<25 D
W-830-2214	7/30/12	E601	1,100 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 DJ
W-830-2214	10/1/12	E601	1,100 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-830-2215	2/13/12	E601	22	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2215	6/6/12	E601	24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2215	6/6/12 DUP	E601	21 IJ	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2 IJ	<0.5	<0.5
W-830-2215	7/30/12	E601	21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2215	10/1/12	E601	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2216	2/13/12	E601	5.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2216	4/2/12	E601	5.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2216	7/10/12	E601	4.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2216	10/1/12	E601	4.6	<0.5	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2311	3/22/12	E601	27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2311	8/27/12	E601	32	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2701	2/29/12	E601	2.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2701	6/7/12	E601	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2701	6/7/12 DUP	E601	1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2701	8/16/12	E601	1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2701	11/29/12	E601	0.76	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-830-2806	11/28/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5
W-832-01	2/13/12	E601	270 D	<0.5	4.6	<0.5	<0.5	0.77	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-01	4/5/12	E601	170 D	<0.5	3.6	<0.5	<0.5	0.72	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-01	4/5/12 DUP	E601	170 D	<0.5	3.7	<0.5	<0.5	0.71	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-01	7/30/12	E601	250 D	<0.5	4.1	<0.5	<0.5	0.68	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 J
W-832-01	10/1/12	E601	240 D	<0.5	4.7	<0.5	<0.5	0.79	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-06	2/21/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-06	8/7/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-06	8/7/12 DUP	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-09	2/21/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-09	8/8/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-10	4/5/12	E601	90	<0.5	2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	<0.5	<0.5
W-832-10	9/4/12	E601	65	<0.5	2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.8	<0.5	<0.5
W-832-10	10/1/12	E601	80	<0.5	2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.4	<0.5	<0.5
W-832-11	4/5/12	E601	96	<0.5	2.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.55	<0.5	<0.5
W-832-11	4/5/12 DUP	E601	97	<0.5	2.2	<0.5	<0.5	0.56	<0.5	<0.5	<0.5	<0.5	<0.5	0.55	<0.5	<0.5
W-832-11	7/30/12	E601	110 D	<0.5	3.2	<0.5	<0.5	0.79	<0.5	<0.5	<0.5	<0.5	<0.5	1	<0.5	<0.5 J
W-832-11	10/1/12	E601	100	<0.5	3.5	<0.5	<0.5	0.75	<0.5	<0.5	<0.5	<0.5	<0.5	0.97	<0.5	<0.5
W-832-12	2/13/12	E601	54	<0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-12	4/5/12	E601	31	<0.5	0.69	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-12	7/30/12	E601	23	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 J
W-832-12	10/1/12	E601	48	<0.5	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-13	3/12/12	E601	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-13	8/8/12	E601	5.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-15	2/13/12	E601	59	<0.5	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-15	4/5/12	E601	50	<0.5	0.92	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-15	4/5/12 DUP	E601	50	<0.5	0.91	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-15	7/30/12	E601	22	<0.5	<0.5	<0.5	<0.5	0.77	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 J

Table B-7.01. Building 832 Canyon Operable Unit volatile organic compounds (VOCs) in ground and surface water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-832-15	10/1/12	E601	35	<0.5	0.76	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-23	2/21/12	E601	215 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-832-23	8/7/12	E601	299 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D	<5 D
W-832-24	2/21/12	E601	43	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-24	2/21/12 DUP	E601	50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-24	8/7/12	E601	34 D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-25	4/5/12	E601	55	<0.5	1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-25	7/30/12	E624	19	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
W-832-25	10/1/12	E601	18	<0.5	0.77	<0.5	<0.5	0.72	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-1927	2/23/12	E601	49	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-1927	8/20/12	E601	36	<0.5	<0.5	<0.5 O	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-2112	3/1/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5 L	<0.5 L	<0.5	<0.5	<0.5	<0.5 L	<0.5	<0.5	<0.5	<0.5
W-832-2112	6/7/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-2112	8/20/12	E601	<0.5	<0.5	<0.5	<0.5 O	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-2112	11/27/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-832-SC3	3/5/12	E601	9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-870-02	3/5/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-870-02	8/27/12	E601	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-870-02	8/27/12 DUP	E601	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-880-01	3/6/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-880-01	6/11/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-880-01	9/18/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-880-01	11/29/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-880-02	3/6/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-880-02	6/11/12	E601	<0.5	0.51	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-880-03	9/18/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-880-03	11/29/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-7.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro-ethene (total) (µg/L)	Chloro-ethane (µg/L)	Chloro-methane (µg/L)
SPRING3	3/5/12	E601	0 of 18	-	-	-
SVI-830-031	2/23/12	E601	0 of 18	-	-	-
SVI-830-032	2/23/12	E601	0 of 18	-	-	-
SVI-830-033	2/23/12	E601	0 of 18	-	-	-
SVI-830-033	8/13/12	E601	0 of 18	-	-	-
SVI-830-035	2/23/12	E601	0 of 18	-	-	-
SVI-830-035	8/13/12	E601	0 of 18	-	-	-
W-830-04A	2/29/12	E601	0 of 18	-	-	-
W-830-04A	2/29/12 DUP	E601	0 of 18	-	-	-
W-830-04A	8/15/12	E601	0 of 18	-	-	-
W-830-04A	8/15/12 DUP	E601	0 of 18	-	-	-
W-830-05	2/29/12	E601	0 of 18	-	-	-
W-830-05	8/16/12	E601	0 of 18	-	-	-
W-830-09	2/22/12	E601	0 of 18	-	-	-
W-830-09	8/23/12	E601	0 of 18	-	-	-
W-830-10	3/1/12	E601	0 of 18	-	-	-
W-830-10	8/27/12	E601	0 of 18	-	-	-
W-830-10	8/27/12 DUP	E601	0 of 18	-	-	-
W-830-11	2/29/12	E601	0 of 18	-	-	-
W-830-11	8/15/12	E601	0 of 18	-	-	-
W-830-13	3/1/12	E601	0 of 18	-	-	-
W-830-13	8/16/12	E601	0 of 18	-	-	-
W-830-14	3/6/12	E601	0 of 18	-	-	-
W-830-14	8/16/12	E601	0 of 18	-	-	-
W-830-15	2/29/12	E601	0 of 18	-	-	-
W-830-15	6/7/12	E601	0 of 18	-	-	-
W-830-15	8/16/12	E601	0 of 18	-	-	-
W-830-15	11/28/12	E601	0 of 18	-	-	-
W-830-16	2/28/12	E601	0 of 18	-	-	-
W-830-16	8/23/12	E601	0 of 18	-	-	-
W-830-17	2/28/12	E601	0 of 18	-	-	-
W-830-17	8/23/12	E601	0 of 18	-	-	-
W-830-18	3/6/12	E601	0 of 18	-	-	-
W-830-18	8/15/12	E601	1 of 18	1.3	-	-
W-830-19	2/13/12	E601	0 of 18	-	-	-
W-830-19	4/12/12	E601	0 of 18	-	-	-
W-830-19	7/30/12	E601	0 of 18	-	-	-
W-830-19	10/1/12	E601	0 of 18	-	-	-
W-830-20	2/27/12	E601	0 of 18	-	-	-
W-830-20	8/15/12	E601	0 of 18	-	-	-
W-830-21	2/27/12	E601	1 of 18	30	-	-
W-830-21	2/27/12 DUP	E601	1 of 18	31	-	-
W-830-21	8/14/12	E601	1 of 18	20	-	-
W-830-22	2/22/12	E601	1 of 18	1.2	-	-
W-830-22	8/9/12	E601	1 of 18	2	-	-
W-830-27	2/28/12	E601	0 of 18	-	-	-
W-830-27	2/28/12 DUP	E601	0 of 18	-	-	-
W-830-27	8/14/12	E601	0 of 18	-	-	-
W-830-28	2/28/12	E601	0 of 18	-	-	-
W-830-28	8/14/12	E601	0 of 18	-	-	-
W-830-29	2/22/12	E601	0 of 18	-	-	-
W-830-30	3/1/12	E601	0 of 18	-	-	-
W-830-30	3/1/12 DUP	E601	0 of 18	-	-	-

Table B-7.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro-ethene (total) (µg/L)	Chloro-ethane (µg/L)	Chloro-methane (µg/L)
W-830-30	8/9/12	E601	0 of 18	-	-	-
W-830-34	2/22/12	E601	0 of 18	-	-	-
W-830-34	8/13/12	E601	0 of 18	-	-	-
W-830-49	2/13/12	E601	0 of 18	-	-	-
W-830-49	4/12/12	E601	0 of 18	-	-	-
W-830-49	7/30/12	E601	0 of 18	-	-	-
W-830-49	10/1/12	E601	0 of 18	-	-	-
W-830-50	2/27/12	E601	0 of 18	-	-	-
W-830-50	8/15/12	E601	0 of 18	-	-	-
W-830-51	2/13/12	E601	0 of 18	-	-	-
W-830-51	4/2/12	E601	0 of 18	-	-	-
W-830-51	4/2/12 DUP	E601	0 of 18	-	-	-
W-830-51	7/10/12	E601	0 of 18	-	-	-
W-830-51	10/1/12	E601	0 of 18	-	-	-
W-830-52	2/13/12	E601	0 of 18	-	-	-
W-830-52	4/2/12	E601	0 of 18	-	-	-
W-830-52	7/10/12	E601	0 of 18	-	-	-
W-830-53	2/13/12	E601	0 of 18	-	-	-
W-830-53	4/2/12	E601	0 of 18	-	-	-
W-830-53	7/10/12	E601	0 of 18	-	-	-
W-830-53	10/1/12	E601	0 of 18	-	-	-
W-830-54	3/1/12	E601	0 of 18	-	-	-
W-830-54	8/23/12	E601	0 of 18	-	-	-
W-830-55	3/1/12	E601	0 of 18	-	-	-
W-830-55	8/23/12	E601	0 of 18	-	-	-
W-830-55	8/23/12 DUP	E601	0 of 18	-	-	-
W-830-56	2/29/12	E601	0 of 18	-	-	-
W-830-56	8/16/12	E601	0 of 18	-	-	-
W-830-57	2/13/12	E601	0 of 18	-	-	-
W-830-57	4/12/12	E601	0 of 18	-	-	-
W-830-57	8/1/12	E601	0 of 18	-	-	-
W-830-57	10/1/12	E601	0 of 18	-	-	-
W-830-58	2/28/12	E601	0 of 18	-	-	-
W-830-58	8/14/12	E601	0 of 18	-	-	-
W-830-59	2/13/12	E601	0 of 18	-	-	-
W-830-59	4/12/12	E601	0 of 18	-	-	-
W-830-59	7/30/12	E601	0 of 18	-	-	-
W-830-59	10/1/12	E601	0 of 18	-	-	-
W-830-60	2/13/12	E601	0 of 18	-	-	-
W-830-60	4/12/12	E601	0 of 18	-	-	-
W-830-60	4/12/12 DUP	E601	0 of 18	-	-	-
W-830-60	7/30/12	E601	0 of 18	-	-	-
W-830-60	10/1/12	E601	0 of 18	-	-	-
W-830-1730	2/29/12	E601	0 of 18	-	-	-
W-830-1730	6/7/12	E601	0 of 18	-	-	-
W-830-1730	8/16/12	E601	0 of 18	-	-	-
W-830-1730	11/27/12	E601	0 of 18	-	-	-
W-830-1807	2/13/12	E601	0 of 18	-	-	-
W-830-1807	4/12/12	E601	0 of 18	-	-	-
W-830-1807	7/30/12	E601	0 of 18	-	-	-
W-830-1807	10/1/12	E601	0 of 18	-	-	-
W-830-1829	2/27/12	E601	0 of 18	-	-	-
W-830-1829	8/9/12	E601	0 of 18	-	-	-

Table B-7.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro-ethene (total) (µg/L)	Chloro-ethane (µg/L)	Chloro-methane (µg/L)
W-830-1830	2/22/12	E601	0 of 18	-	-	-
W-830-1830	8/9/12	E601	0 of 18	-	-	-
W-830-1831	2/23/12	E601	0 of 18	-	-	-
W-830-1831	8/23/12	E601	0 of 18	-	-	-
W-830-1832	2/23/12	E601	0 of 18	-	-	-
W-830-1832	8/23/12	E601	0 of 18	-	-	-
W-830-2213	2/27/12	E601	0 of 18	-	-	-
W-830-2214	2/13/12	E601	0 of 18	-	-	-
W-830-2214	6/6/12	E601	0 of 18	-	-	-
W-830-2214	6/6/12 DUP	E601	0 of 18	-	-	-
W-830-2214	7/30/12	E601	0 of 18	-	-	-
W-830-2214	10/1/12	E601	0 of 18	-	-	-
W-830-2215	2/13/12	E601	0 of 18	-	-	-
W-830-2215	6/6/12	E601	0 of 18	-	-	-
W-830-2215	6/6/12 DUP	E601	0 of 18	-	-	-
W-830-2215	7/30/12	E601	0 of 18	-	-	-
W-830-2215	10/1/12	E601	0 of 18	-	-	-
W-830-2216	2/13/12	E601	0 of 18	-	-	-
W-830-2216	4/2/12	E601	0 of 18	-	-	-
W-830-2216	7/10/12	E601	0 of 18	-	-	-
W-830-2216	10/1/12	E601	0 of 18	-	-	-
W-830-2311	3/22/12	E601	0 of 18	-	-	-
W-830-2311	8/27/12	E601	0 of 18	-	-	-
W-830-2701	2/29/12	E601	0 of 18	-	-	-
W-830-2701	6/7/12	E601	0 of 18	-	-	-
W-830-2701	6/7/12 DUP	E601	0 of 18	-	-	-
W-830-2701	8/16/12	E601	0 of 18	-	-	-
W-830-2701	11/29/12	E601	0 of 18	-	-	-
W-830-2806	11/28/12	E601	0 of 18	-	-	-
W-832-01	2/13/12	E601	1 of 18	4.6	-	-
W-832-01	4/5/12	E601	1 of 18	3.6	-	-
W-832-01	4/5/12 DUP	E601	1 of 18	3.7	-	-
W-832-01	7/30/12	E601	1 of 18	4.1	-	-
W-832-01	10/1/12	E601	1 of 18	4.7	-	-
W-832-06	2/21/12	E601	0 of 18	-	-	-
W-832-06	8/7/12	E601	0 of 18	-	-	-
W-832-06	8/7/12 DUP	E601	0 of 18	-	-	-
W-832-09	2/21/12	E601	0 of 18	-	-	-
W-832-09	8/8/12	E601	0 of 18	-	-	-
W-832-10	4/5/12	E601	1 of 18	2.4	-	-
W-832-10	9/4/12	E601	1 of 18	2	-	-
W-832-10	10/1/12	E601	1 of 18	2.5	-	-
W-832-11	4/5/12	E601	1 of 18	2.2	-	-
W-832-11	4/5/12 DUP	E601	1 of 18	2.2	-	-
W-832-11	7/30/12	E601	1 of 18	3.2	-	-
W-832-11	10/1/12	E601	1 of 18	3.5	-	-
W-832-12	2/13/12	E601	1 of 18	1	-	-
W-832-12	4/5/12	E601	0 of 18	-	-	-
W-832-12	7/30/12	E601	0 of 18	-	-	-
W-832-12	10/1/12	E601	1 of 18	1.1	-	-
W-832-13	3/12/12	E601	0 of 18	-	-	-
W-832-13	8/8/12	E601	0 of 18	-	-	-
W-832-15	2/13/12	E601	1 of 18	1.1	-	-

Table B-7.01 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency	1,2-Dichloro-ethene (total) (µg/L)	Chloro-ethane (µg/L)	Chloro-methane (µg/L)
W-832-15	4/5/12	E601	0 of 18	-	-	-
W-832-15	4/5/12 DUP	E601	0 of 18	-	-	-
W-832-15	7/30/12	E601	0 of 18	-	-	-
W-832-15	10/1/12	E601	0 of 18	-	-	-
W-832-23	2/21/12	E601	0 of 18	-	-	-
W-832-23	8/7/12	E601	0 of 18	-	-	-
W-832-24	2/21/12	E601	0 of 18	-	-	-
W-832-24	2/21/12 DUP	E601	0 of 18	-	-	-
W-832-24	8/7/12	E601	0 of 18	-	-	-
W-832-25	4/5/12	E601	1 of 18	1.3	-	-
W-832-25	7/30/12	E624	0 of 30	-	-	-
W-832-25	10/1/12	E601	0 of 18	-	-	-
W-832-1927	2/23/12	E601	0 of 18	-	-	-
W-832-1927	8/20/12	E601	0 of 18	-	-	-
W-832-2112	3/1/12	E601	0 of 18	-	-	-
W-832-2112	6/7/12	E601	0 of 18	-	-	-
W-832-2112	8/20/12	E601	0 of 18	-	-	-
W-832-2112	11/27/12	E601	0 of 18	-	-	-
W-832-SC3	3/5/12	E601	0 of 18	-	-	-
W-870-02	3/5/12	E601	0 of 18	-	-	-
W-870-02	8/27/12	E601	0 of 18	-	-	-
W-870-02	8/27/12 DUP	E601	0 of 18	-	-	-
W-880-01	3/6/12	E601	0 of 18	-	-	-
W-880-01	6/11/12	E601	0 of 18	-	-	-
W-880-01	9/18/12	E601	1 of 18	-	0.63	-
W-880-01	11/29/12	E601	0 of 18	-	-	-
W-880-02	3/6/12	E601	0 of 18	-	-	-
W-880-02	6/11/12	E601	0 of 18	-	-	-
W-880-03	9/18/12	E601	2 of 18	-	0.66	0.5
W-880-03	11/29/12	E601	0 of 18	-	-	-

Table B-7.02. Building 832 Canyon Operable Unit nitrate and perchlorate in ground and surface water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
SPRING3	3/5/12	33 D	<4
SVI-830-031	2/23/12	120 D	4.8
SVI-830-032	2/23/12	100 D	4.1
SVI-830-033	2/23/12	180 D	<4
SVI-830-035	2/23/12	110 D	4.4
W-830-04A	2/29/12	74	<4
W-830-04A	2/29/12 DUP	74	<4
W-830-05	2/29/12	68 D	5.1
W-830-10	3/1/12	64 DL	4.8
W-830-11	2/29/12	12	<4
W-830-13	3/1/12	43 DL	<4
W-830-14	3/6/12	<0.5	<4
W-830-15	2/29/12	1.3	<4
W-830-15	8/16/12	1.3	<4
W-830-17	2/28/12	100 D	5.3
W-830-18	3/6/12	1.3	<4
W-830-19	2/13/12	170 D	<4 O
W-830-19	7/30/12	-	<4 L
W-830-20	2/27/12	<1 D	<4
W-830-21	2/27/12	5.1	<4
W-830-21	2/27/12 DUP	7.1	<4
W-830-22	2/22/12	3.9 D	<4
W-830-27	2/28/12	73 D	5.5
W-830-27	2/28/12 DUP	110 D	5.8
W-830-29	2/22/12	<0.5	<4
W-830-30	3/1/12	79 DL	<4
W-830-30	3/1/12 DUP	79 DL	<4
W-830-34	2/22/12	120 D	<4
W-830-49	2/13/12	190 D	<4 O
W-830-49	7/30/12	-	4 L
W-830-50	2/27/12	16	-
W-830-51	2/13/12	79 D	<4 O
W-830-51	7/10/12	-	<4
W-830-52	2/13/12	82 D	4.9 O
W-830-52	7/10/12	-	4.3
W-830-53	2/13/12	74 D	<4 O
W-830-53	7/10/12	-	<4
W-830-55	3/1/12	18 DL	<4
W-830-56	2/29/12	28 D	-
W-830-57	2/13/12	7.2 D	<4 O
W-830-58	2/28/12	120 D	7.7
W-830-59	2/13/12	130 D	<4 O
W-830-59	7/30/12	-	<4 L
W-830-60	2/13/12	3.7 D	<4 O
W-830-1730	2/29/12	2	<4
W-830-1730	8/16/12	2.4	<4
W-830-1807	2/13/12	100 D	<4 O

Table B-7.02. Building 832 Canyon Operable Unit nitrate and perchlorate in ground and surface water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
W-830-1807	7/30/12	-	<4 L
W-830-1829	2/27/12	130 D	4.1
W-830-1830	2/22/12	110 D	6.9
W-830-1832	2/23/12	2.5	<4
W-830-2213	2/27/12	37 D	<4
W-830-2214	2/13/12	100 D	5.2 O
W-830-2214	7/30/12	-	4.6 L
W-830-2215	2/13/12	7.9 D	<4 O
W-830-2216	2/13/12	55 D	<4 O
W-830-2216	7/10/12	-	<4
W-830-2311	3/22/12	75 D	4.1
W-830-2701	2/29/12	3.8 D	<4
W-830-2701	8/16/12	1.1	<4
W-832-01	2/13/12	97 D	5.8 DL
W-832-01	7/30/12	-	5.2
W-832-06	2/21/12	9.3	<4
W-832-09	2/21/12	<0.5	<4
W-832-10	9/4/12	-	9.6
W-832-11	7/30/12	-	5.3
W-832-12	2/13/12	93 D	<4 DL
W-832-12	7/30/12	-	5.9
W-832-13	3/12/12	140 D	13
W-832-15	2/13/12	120 D	5.9 DL
W-832-15	7/30/12	110 D	5.8
W-832-23	2/21/12	51 D	7.4
W-832-24	2/21/12	36 D	<4
W-832-24	2/21/12 DUP	47 D	<4
W-832-25	7/30/12	-	7
W-832-1927	2/23/12	41 D	5.3
W-832-2112	3/1/12	<0.5 L	<4
W-832-2112	8/20/12	<0.5	<4
W-832-SC3	3/5/12	37 D	-
W-870-02	3/5/12	4	<4
W-880-01	3/6/12	1.9 D	<4
W-880-01	9/18/12	<1 D	<4
W-880-02	3/6/12	<1 D	<4
W-880-03	9/18/12	<1 D	<4

Table B-7.03. Building 832 Canyon Operable Unit high explosive compounds in ground water.

Location	Date	1,3,5-Trinitro-benzene (µg/L)	1,3-Dinitro-benzene (µg/L)	2,4-Dinitro-toluene (µg/L)	2,6-Dinitro-toluene (µg/L)	2-Amino-4,6-Dinitro-toluene (µg/L)	2-Nitro-toluene (µg/L)	3-Nitro-toluene (µg/L)	4-Amino-2,6-Dinitro-toluene (µg/L)	4-Nitro-toluene (µg/L)	HMX (µg/L)	Nitro-benzene (µg/L)	RDX (µg/L)	TNT (µg/L)
W-830-13	3/1/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-830-34	2/22/12	R	R	R	R	R	R	R	R	R	R	R	R	R
W-830-34	3/26/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-832-15	4/5/12	<2	<2 O	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-880-01	3/6/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1 O	<2	<1	<2
W-880-01	9/18/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
W-880-02	3/6/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1 O	<2	<1	<2
W-880-03	9/18/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2

Table B-7.04. Building 832 Canyon Operable Unit general minerals in ground water.

Constituents of concern	W-830-13	W-830-15	W-830-16	W-830-17	W-830-28	W-832-01	W-870-02
	8/16/12	6/7/12	8/23/12	6/7/12	8/14/12	2/13/12	3/5/12
Total Alkalinity (as CaCO3) (mg/L)	260	63	108	267	53	260	121
Aluminum (mg/L)	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bicarbonate Alk (as CaCO3) (mg/L)	260	63	71	267	<10	260 D	121
Calcium (mg/L)	37	5.4	6.9	13	144 D	89	23
Carbonate Alk (as CaCO3) (mg/L)	<10	<10	37	<10	39	<8.2 D	<10
Chloride (mg/L)	230 DL	40 DL	250 DLO	180 DL	330 DL	350 D	38 D
Copper (mg/L)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01
Fluoride (mg/L)	0.63	<0.05	0.23	0.71	<0.05	0.68 D	0.12
Hydroxide Alk (as CaCO3) (mg/L)	<10	<10	<10	<10	14	<8.2 D	<10
Iron (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1
Magnesium (mg/L)	15	0.66	1.4	4.2	<0.5	49	2.8
Manganese (mg/L)	<0.03 O	<0.03	<0.03	<0.03	<0.03	<0.01	<0.03
Nickel (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrate (as N) (mg/L)	8.9 DL	0.28 L	<0.1	18 DL	1.5	21 D	0.93
Nitrate (as NO3) (mg/L)	39 DL	1.2 L	<0.5	82 DL	6.5	94 H	4.1
Nitrite (as N) (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1
pH (Units)	8 H	7.9 H	9.2 H	8.3 H	11.1 H	7.9	7.5
Ortho-Phosphate (mg/L)	<0.1	0.13	<0.1	0.1	<0.1	0.12	0.25
Total Phosphorus (as P) (mg/L)	-	-	-	-	-	<0.05 H	-
Total Phosphorus (as PO4) (mg/L)	<0.1 H	0.14 H	<0.1 H	0.2 H	<0.1 H	-	0.28
Potassium (mg/L)	19	4.3	17	17	35	20	13
Sodium (mg/L)	286 D	82	343 D	278 D	279 D	350	60
Total dissolved solids (TDS) (mg/L)	1,100 H	300 H	1,100 H	920 H	1,400 H	1,600 DH	290 DH
Specific Conductance (µmhos/cm)	1,700 H	470 H	1,800 H	1,500 H	2,200 H	2,500	430
Sulfate (mg/L)	140 D	75 D	300 D	79 D	410 DL	420 D	25
Surfactants (mg/L)	<0.5	<0.5	<0.5 LO	<0.5	<0.5	<0.5	<0.5
Total Hardness (as CaCO3) (mg/L)	150	16	23	51	360	420	69
Zinc (mg/L)	<0.05	0.12	<0.05	<0.05	<0.05	<0.05	<0.05

Table B-7.05. Building 832 Canyon Operable Unit uranium isotopes in ground water.

Location	Date	Uranium 234 and Uranium 233 (pCi/L)	Uranium 235 and Uranium 236 (pCi/L)	Uranium 238 (pCi/L)
W-830-13	8/16/12	14.7 ± 2.37	0.533 ± 0.185	12.8 ± 2.09
W-830-15	6/7/12	<0.1	<0.1	<0.1
W-830-16	8/23/12	<0.1	<0.1	<0.1
W-830-17	6/7/12	11.7 ± 1.80	0.460 ± 0.150	8.69 ± 1.36
W-830-28	8/14/12	<0.1	<0.1	<0.1
W-832-01	2/13/12	11.2 ± 2.67	0.449 ± 0.282	9.66 ± 2.34
W-870-02	3/5/12	1.05 ± 0.290	<0.1	0.932 ± 0.266

Table B-8.01. Building 851 Firing Table total uranium and uranium isotopes in ground water.

Location	Date	Uranium (pCi/L)	Uranium 234 by mass (pCi/L)	Uranium 235 by mass (pCi/L)	Uranium 236 by mass (pCi/L)	Uranium 238 by mass (pCi/L)	Uranium 235/238 (ratio)
W-851-05	4/10/12	<0.0627	<0.094	<0.00042	<0.00035	0.00800 ± 0.000280	<0.008149
W-851-06	4/10/12	<0.0627	<0.12	0.00150 ± 0.0000550	<0.00034	0.0410 ± 0.000950	0.00557 ± 0.000163
W-851-07	4/10/12	<0.0627	<0.17	0.00170 ± 0.0000830	<0.00033	0.0360 ± 0.000980	0.00751 ± 0.000291
W-851-08	4/10/12	1.30 ± 0.0370	0.720 ± 0.0370	0.0260 ± 0.000220	<0.00063	0.570 ± 0.00360	0.00718 ± 0.0000380

Table B-8.02. Building 845 Firing Table and Pit 9 Landfill tritium in ground water.

Location	Date	Tritium (pCi/L)
K9-01	5/31/12	<100
K9-02	6/12/12	<100
K9-03	6/12/12	<100

Table B-8.03. Building 845 Firing Table and Pit 9 Landfill metals in ground water.

Constituents of concern	K9-01	K9-02	K9-03
	5/31/12	6/12/12	6/12/12
Antimony (mg/L)	<0.0005	<0.0005	<0.0005
Arsenic (mg/L)	0.002	0.01	0.003
Barium (mg/L)	0.01	0.02	0.01
Beryllium (mg/L)	<0.0001	<0.0001	<0.0001
Cadmium (mg/L)	<0.0001	<0.0001	<0.0001
Chromium (mg/L)	<0.0005	<0.0005	<0.0005
Cobalt (mg/L)	<0.0005	<0.0005	<0.0005
Copper (mg/L)	<0.0005	<0.0005	<0.0005
Lead (mg/L)	<0.0002	<0.0002	<0.0002
Lithium (mg/L)	0.08	0.08	0.09
Mercury (mg/L)	<0.0002	<0.0005	<0.0005
Molybdenum (mg/L)	0.03	0.05	0.03
Nickel (mg/L)	<0.0005	0.0005	<0.0005
Selenium (mg/L)	<0.001	<0.001	<0.001
Silver (mg/L)	<0.0001	<0.0001	<0.0001
Thallium (mg/L)	<0.0001	<0.0001	<0.0001
Vanadium (mg/L)	<0.002	<0.002	<0.002
Zinc (mg/L)	<0.01	<0.01	<0.01

Table B-8.04. Building 845 Firing Table and Pit 9 Landfill volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2 - DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
K9-01	5/31/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K9-02	6/12/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K9-03	6/12/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-8.04 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency
K9-01	5/31/12	E601	0 of 18
K9-02	6/12/12	E601	0 of 18
K9-03	6/12/12	E601	0 of 18

Table B-8.05. Building 845 Firing Table and Pit 9 Landfill high explosive compounds in ground water.

Location	Date	1,3,5-Trinitro-benzene (µg/L)	1,3-Dinitro-benzene (µg/L)	2,4-Dinitro-toluene (µg/L)	2,6-Dinitro-toluene (µg/L)	2-Amino-4,6-Dinitro-toluene (µg/L)	2-Nitro-toluene (µg/L)	3-Nitro-toluene (µg/L)	4-Amino-2,6-Dinitro-toluene (µg/L)	4-Nitro-toluene (µg/L)	HMX (µg/L)	Nitro-benzene (µg/L)	RDX (µg/L)	TNT (µg/L)
K9-01	5/31/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
K9-02	6/12/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2
K9-03	6/12/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2

Table B-8.06. Building 845 Firing Table and Pit 9 Landfill nitrate and perchlorate in ground water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
K9-01	5/31/12	<2 D	<4
K9-02	6/12/12	<0.5	<4
K9-03	6/12/12	<0.5	<4

Table B-8.07. Building 845 Firing Table and Pit 9 Landfill fluoride in ground water.

Location	Date	Fluoride (mg/L)
K9-01	5/31/12	1.2 D
K9-02	6/12/12	0.26
K9-03	6/12/12	0.23

Table B-8.08. Building 845 Firing Table and Pit 9 Landfill total uranium and uranium isotopes in ground water.

Location	Date	Uranium (pCi/L)	Uranium 234 by mass (pCi/L)	Uranium 235 by mass (pCi/L)	Uranium 236 by mass (pCi/L)	Uranium 238 by mass (pCi/L)	Uranium 235/238 (ratio)
K9-01	5/31/12	<0.06273	<0.071	0.00100 ± 0.0000300	<0.0001	0.0210 ± 0.000370	0.00740 ± 0.000179
K9-02	6/12/12	0.220 ± 0.0180	0.170 ± 0.0180	0.00220 ± 0.0000670	<0.0001	0.0450 ± 0.00120	0.00744 ± 0.000132
K9-02	6/12/12 DUP	<0.06273	<0.21	0.00230 ± 0.0000800	<0.00013	0.0470 ± 0.000760	0.00753 ± 0.000233
K9-03	6/12/12	0.390 ± 0.0110	0.290 ± 0.0110	0.00430 ± 0.0000440	<0.00016	0.0910 ± 0.000510	0.00737 ± 0.0000640

Table B-8.09. Building 833 volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
W-833-30	3/15/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-833-30	9/17/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
W-833-33	3/15/12	E601	121 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D	<2.5 D
W-840-01	3/19/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-8.09 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency
W-833-30	3/15/12	E601	0 of 18
W-833-30	9/17/12	E601	0 of 18
W-833-33	3/15/12	E601	0 of 18
W-840-01	3/19/12	E601	0 of 18

Table B-8.10. Building 833 nitrate and perchlorate in ground water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (μg/L)
W-840-01	3/19/12	<0.5	<4

Table B-8.11. Building 801 Firing Table and Pit 8 Landfill tritium in ground water.

Location	Date	Tritium (pCi/L)
K8-01	5/29/12	110 ± 76.7
K8-01	5/29/12 DUP	141 ± 66.0
K8-01	11/12/12	<100
K8-01	11/12/12 DUP	<100
K8-03B	5/29/12	<100
K8-03B	11/8/12	<100
K8-04	5/29/12	<100
K8-04	11/8/12	<100

Table B-8.12. Building 801 Firing Table and Pit 8 Landfill metals in ground water.

Constituents of concern	K8-04
	5/29/12
Antimony (mg/L)	<0.0005
Arsenic (mg/L)	0.02
Barium (mg/L)	0.006
Beryllium (mg/L)	<0.0001
Cadmium (mg/L)	0.002
Chromium (mg/L)	0.009
Cobalt (mg/L)	<0.0005
Copper (mg/L)	0.0007
Lead (mg/L)	<0.0002
Lithium (mg/L)	0.04
Mercury (mg/L)	<0.0005
Molybdenum (mg/L)	0.007
Nickel (mg/L)	<0.0005
Selenium (mg/L)	0.01
Silver (mg/L)	<0.0001
Thallium (mg/L)	<0.0001
Vanadium (mg/L)	0.1
Zinc (mg/L)	<0.01

Table B-8.13. Building 801 Firing Table and Pit 8 Landfill volatile organic compounds (VOCs) in ground water.

Location	Date	Method	TCE (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Carbon tetrachloride (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,1-DCE (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	Freon 11 (µg/L)	Freon 113 (µg/L)	Vinyl chloride (µg/L)
K8-01	5/29/12	E601	3.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K8-01	5/29/12 DUP	E601	3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.85	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K8-01	11/12/12	E601	3.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K8-01	11/12/12 DUP	E601	2.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.7	<0.5	<0.5	<0.5	<1	<2	<0.5
K8-03B	5/29/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K8-03B	11/8/12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
K8-04	5/29/12	E601	1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table B-8.13 (Con't). Analyte detected but not reported in main table.

Location	Date	Method	Detection frequency
K8-01	5/29/12	E601	0 of 18
K8-01	5/29/12 DUP	E601	0 of 18
K8-01	11/12/12	E601	0 of 18
K8-01	11/12/12 DUP	E601	0 of 18
K8-03B	5/29/12	E601	0 of 18
K8-03B	11/8/12	E601	0 of 18
K8-04	5/29/12	E601	0 of 18

Table B-8.14. Building 801 Firing Table and Pit 8 Landfill high explosive compounds in ground water.

Location	Date	1,3,5-Trinitro-benzene (µg/L)	1,3-Dinitro-benzene (µg/L)	2,4-Dinitro-toluene (µg/L)	2,6-Dinitro-toluene (µg/L)	2-Amino-4,6-Dinitro-toluene (µg/L)	2-Nitro-toluene (µg/L)	3-Nitro-toluene (µg/L)	4-Amino-2,6-Dinitro-toluene (µg/L)	4-Nitro-toluene (µg/L)	HMX (µg/L)	Nitro-benzene (µg/L)	RDX (µg/L)	TNT (µg/L)
K8-04	5/29/12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<1	<2

Table B-8.15. Building 801 Firing Table and Pit 8 Landfill nitrate and perchlorate in ground water.

Location	Date	Nitrate (as NO3) (mg/L)	Perchlorate (µg/L)
K8-01	5/29/12	38 D	<4
K8-01	5/29/12 DUP	49	<4
K8-01	11/12/12	-	<4
K8-01	11/12/12 DUP	-	<4
K8-03B	5/29/12	7.8	<4
K8-03B	11/8/12	-	<4
K8-04	5/29/12	52 D	<4
K8-04	11/8/12	-	<4

Table B-8.16. Building 801 Firing Table and Pit 8 Landfill fluoride in ground water.

Location	Date	Fluoride (mg/L)
K8-04	5/29/12	0.31

Table B-8.17. Building 801 Firing Table and Pit 8 Landfill total uranium and uranium isotopes in ground water.

Location	Date	Uranium (pCi/L)	Uranium 234 and Uranium 233 (pCi/L)	Uranium 234 by mass (pCi/L)	Uranium 235 and Uranium 236 (pCi/L)	Uranium 235 by mass (pCi/L)	Uranium 236 by mass (pCi/L)	Uranium 238 (pCi/L)	Uranium 238 by mass (pCi/L)	Uranium 235/238 (ratio)
K8-01	5/29/12	-	5.59 ± 0.895	-	0.128 ± 0.0762	-	-	4.00 ± 0.666	-	-
K8-01	5/29/12 DUP	-	5.39 ± 0.950	-	0.303 ± 0.0970	-	-	3.34 ± 0.610	-	-
K8-03B	5/29/12	-	3.01 ± 0.576	-	<0.1	-	-	2.28 ± 0.461	-	-
K8-04	5/29/12	12.0 ± 0.140	-	7.60 ± 0.140	-	0.220 ± 0.00130	<0.00091	-	4.70 ± 0.00820	0.00729 ± 0.0000420

Appendix C

Ground Water Elevations Measured During 2012

Appendix C

Ground Water Elevations Measured During 2012

Table C-1. General Services Area Operable Unit ground water elevations.

Table C-2. Building 834 Operable Unit ground water elevations.

Table C-3. Pit 6 Landfill Operable Unit ground water elevations.

Table C-4. High Explosives Process Area Operable Unit ground water elevations.

Table C-5. Building 850 area in Operable Unit 5 ground water elevations.

Table C-6. Pit 2 Landfill ground water elevations.

Table C-7. Pit 7 Complex area in Operable Unit 5 ground water elevations.

Table C-8. Building 854 Operable Unit ground water elevations.

Table C-9. Building 832 Canyon Operable Unit ground water elevations.

Table C-10. Building 851 Firing Table ground water elevations.

Table C-11. Building 845 Firing Table and Pit 9 Landfill ground water elevations.

Table C-12. Building 833 ground water elevations.

Table C-13. Building 801 Firing Table and Pit 8 Landfill ground water elevations.

Table C-1. General Services Area Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
CDF1	02/29/12	13.59	489.03	
CDF1	05/21/12	15.98	486.64	
CDF1	07/23/12	30.06	472.56	
CDF1	12/06/12	13.45	489.17	
CON1	02/29/12	13.52	487.56	
CON1	05/21/12	10.64	490.44	
CON1	07/23/12	11.37	489.71	
CON1	12/06/12	11.85	489.23	
CON2	02/29/12	14.87	490.42	
CON2	05/21/12	16.21	489.08	
CON2	07/23/12	17.92	487.37	
CON2	12/06/12	15.80	489.49	
W-24P-03	02/29/12	-	NA	NM/UC
W-24P-03	05/31/12	-	NA	NM/UC
W-24P-03	08/21/12	-	NA	NM/UC
W-24P-03	12/06/12	-	NA	NM/UC
W-25D-01	02/29/12	17.58	447.91	
W-25D-01	05/31/12	19.39	446.10	
W-25D-01	08/21/12	18.97	446.52	
W-25D-01	12/06/12	19.20	446.29	
W-25D-02	02/29/12	10.12	448.07	
W-25D-02	05/31/12	12.57	445.62	
W-25D-02	08/21/12	12.68	445.51	
W-25D-02	12/06/12	12.69	445.50	
W-25M-01	02/29/12	20.51	459.05	
W-25M-01	05/31/12	23.02	456.54	
W-25M-01	08/21/12	23.32	456.24	
W-25M-01	12/06/12	23.46	456.10	
W-25M-02	02/29/12	9.51	475.73	
W-25M-02	05/31/12	11.78	473.46	
W-25M-02	08/21/12	12.15	473.09	
W-25M-02	12/06/12	12.42	472.82	
W-25M-03	02/29/12	10.15	477.28	
W-25M-03	05/31/12	12.44	474.99	
W-25M-03	09/21/12	12.75	474.68	
W-25M-03	12/06/12	12.92	474.51	
W-25N-01	02/29/12	17.78	489.34	
W-25N-01	05/15/12	18.29	488.83	
W-25N-01	08/22/12	19.06	488.06	
W-25N-01	11/07/12	19.58	487.54	
W-25N-04	02/29/12	40.50	487.39	
W-25N-04	05/15/12	41.90	485.99	
W-25N-04	08/22/12	41.20	486.69	
W-25N-04	11/07/12	41.41	486.48	
W-25N-05	02/29/12	12.02	485.15	

Table C-1. General Services Area Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
CDF1	02/29/12	13.59	489.03	
W-25N-05	05/31/12	13.56	483.61	
W-25N-05	08/21/12	13.76	483.41	
W-25N-05	12/06/12	14.01	483.16	
W-25N-06	02/29/12	14.63	482.19	
W-25N-06	05/15/12	16.48	480.34	
W-25N-06	08/21/12	18.53	478.29	
W-25N-06	12/06/12	18.67	478.15	
W-25N-07	02/29/12	15.96	489.44	
W-25N-07	05/15/12	17.20	488.20	
W-25N-07	07/23/12	17.13	488.27	
W-25N-07	12/06/12	17.00	488.40	
W-25N-08	02/29/12	23.11	487.71	
W-25N-08	05/15/12	23.74	487.08	
W-25N-08	08/22/12	24.50	486.32	
W-25N-08	11/07/12	24.90	485.92	
W-25N-09	02/29/12	18.63	491.83	
W-25N-09	05/15/12	10.75	499.71	
W-25N-09	08/22/12	11.23	499.23	
W-25N-09	12/06/12	11.42	499.04	
W-25N-10	02/21/12	14.20	491.36	
W-25N-10	05/31/12	15.83	489.73	
W-25N-10	08/22/12	16.74	488.82	
W-25N-10	12/06/12	16.13	489.43	
W-25N-11	02/29/12	13.96	491.18	
W-25N-11	05/31/12	14.65	490.49	
W-25N-11	07/23/12	17.45	487.69	
W-25N-11	12/06/12	16.12	489.02	
W-25N-12	02/21/12	14.73	490.79	
W-25N-12	05/31/12	15.25	490.27	
W-25N-12	07/23/12	16.75	488.77	
W-25N-12	12/06/12	16.55	488.97	
W-25N-13	02/21/12	14.39	490.99	
W-25N-13	05/31/12	16.73	488.65	
W-25N-13	07/23/12	17.92	487.46	
W-25N-13	12/06/12	17.70	487.68	
W-25N-15	02/29/12	12.87	488.50	
W-25N-15	05/31/12	14.44	486.64	
W-25N-15	07/23/12	16.59	484.49	
W-25N-15	12/06/12	16.73	484.35	
W-25N-18	02/29/12	13.87	487.95	
W-25N-18	05/31/12	15.87	485.95	
W-25N-18	08/21/12	16.36	485.46	
W-25N-18	12/06/12	16.47	485.35	
W-25N-20	02/29/12	15.43	489.51	

Table C-1. General Services Area Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
CDF1	02/29/12	13.59	489.03	
W-25N-20	05/15/12	16.45	485.66	
W-25N-20	08/22/12	16.77	485.34	
W-25N-20	11/07/12	17.24	484.87	
W-25N-21	02/29/12	21.45	491.73	
W-25N-21	05/15/12	23.44	489.74	
W-25N-21	08/22/12	23.75	489.43	
W-25N-21	11/07/12	22.80	490.38	
W-25N-22	02/29/12	24.04	488.71	
W-25N-22	05/15/12	24.62	488.13	
W-25N-22	08/22/12	25.21	487.54	
W-25N-22	11/07/12	25.60	487.15	
W-25N-23	02/29/12	21.94	488.14	
W-25N-23	05/15/12	22.58	487.50	
W-25N-23	08/22/12	23.30	486.78	
W-25N-23	11/07/12	23.70	486.38	
W-25N-24	02/29/12	17.51	489.11	
W-25N-24	05/15/12	18.07	488.55	
W-25N-24	08/22/12	18.83	487.79	
W-25N-24	11/07/12	19.30	487.32	
W-25N-25	02/21/12	12.19	488.88	
W-25N-25	05/21/12	13.24	487.83	
W-25N-25	07/23/12	16.41	484.66	
W-25N-25	11/07/12	16.57	484.50	
W-25N-26	02/29/12	11.30	488.07	
W-25N-26	05/15/12	13.13	486.24	
W-25N-26	08/21/12	14.76	484.61	
W-25N-26	11/07/12	15.10	484.27	
W-25N-28	02/29/12	11.89	485.26	
W-25N-28	05/31/12	13.70	483.45	
W-25N-28	08/21/12	14.34	482.81	
W-25N-28	11/07/12	14.73	482.42	
W-26R-01	02/29/12	20.01	489.70	
W-26R-01	05/15/12	20.48	489.23	
W-26R-01	08/22/12	21.12	488.59	
W-26R-01	11/07/12	21.93	487.78	
W-26R-02	02/29/12	36.08	492.12	
W-26R-02	05/15/12	36.19	492.01	
W-26R-02	08/22/12	36.45	491.75	
W-26R-02	11/07/12	37.50	490.70	
W-26R-03	02/29/12	16.50	489.72	
W-26R-03	05/15/12	17.05	489.17	
W-26R-03	08/22/12	17.85	488.37	
W-26R-03	11/07/12	18.32	487.90	
W-26R-04	02/29/12	19.13	489.83	

Table C-1. General Services Area Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
CDF1	02/29/12	13.59	489.03	
W-26R-04	05/15/12	19.74	489.22	
W-26R-04	08/22/12	20.07	488.89	
W-26R-04	11/07/12	21.00	487.96	
W-26R-05	02/29/12	23.28	489.83	
W-26R-05	05/15/12	24.39	488.72	
W-26R-05	08/22/12	23.91	489.20	
W-26R-05	11/07/12	24.63	488.48	
W-26R-06	02/29/12	25.35	489.49	
W-26R-06	05/15/12	26.04	488.80	
W-26R-06	08/22/12	26.14	488.70	
W-26R-06	11/07/12	27.22	487.62	
W-26R-07	02/29/12	28.71	491.88	
W-26R-07	05/15/12	29.57	491.02	
W-26R-07	08/22/12	29.83	490.76	
W-26R-07	11/07/12	30.05	490.54	
W-26R-08	02/29/12	30.76	492.35	
W-26R-08	05/15/12	31.64	491.47	
W-26R-08	08/22/12	31.63	491.48	
W-26R-08	11/07/12	32.27	490.84	
W-26R-11	02/29/12	17.30	489.91	
W-26R-11	05/15/12	17.93	489.28	
W-26R-11	08/22/12	17.41	489.80	
W-26R-11	11/07/12	19.21	488.00	
W-35A-01	03/01/12	15.05	493.36	
W-35A-01	05/16/12	15.73	492.48	
W-35A-01	08/23/12	17.30	490.91	
W-35A-01	12/11/12	17.37	490.84	
W-35A-02	03/01/12	14.11	495.59	
W-35A-02	05/16/12	15.21	494.49	
W-35A-02	08/23/12	16.33	493.37	
W-35A-02	12/11/12	16.35	493.35	
W-35A-03	02/29/12	11.57	495.27	
W-35A-03	05/16/12	12.32	494.52	
W-35A-03	08/23/12	16.35	490.49	
W-35A-03	12/11/12	16.35	490.49	
W-35A-04	02/29/12	11.57	492.50	
W-35A-04	05/16/12	11.93	492.14	
W-35A-04	08/23/12	14.94	489.13	
W-35A-04	12/11/12	15.02	489.05	
W-35A-05	02/29/12	15.21	492.76	
W-35A-05	05/16/12	15.76	492.21	
W-35A-05	08/23/12	17.42	490.55	
W-35A-05	12/11/12	17.56	490.41	
W-35A-06	02/29/12	13.08	491.24	

Table C-1. General Services Area Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
CDF1	02/29/12	13.59	489.03	
W-35A-06	05/16/12	13.85	490.47	
W-35A-06	08/23/12	13.03	491.29	
W-35A-06	12/11/12	12.98	491.34	
W-35A-07	02/29/12	10.15	503.17	
W-35A-07	05/16/12	11.23	502.09	
W-35A-07	08/23/12	10.11	503.21	
W-35A-07	12/11/12	10.23	503.09	
W-35A-08	02/21/12	18.88	499.08	
W-35A-08	05/16/12	18.72	499.24	
W-35A-08	08/23/12	18.38	499.58	
W-35A-08	12/11/12	17.91	500.05	
W-35A-09	02/29/12	18.21	497.44	
W-35A-09	05/16/12	18.64	497.01	
W-35A-09	08/23/12	19.76	495.89	
W-35A-09	12/11/12	19.59	496.06	
W-35A-10	02/29/12	14.97	497.19	
W-35A-10	05/16/12	15.35	496.81	
W-35A-10	08/23/12	17.16	495.00	
W-35A-10	12/11/12	17.10	495.06	
W-35A-11	02/29/12	3.20	502.15	
W-35A-11	05/16/12	4.05	501.29	
W-35A-11	08/23/12	3.63	501.71	
W-35A-11	12/11/12	3.41	501.93	
W-35A-12	02/29/12	3.07	502.75	
W-35A-12	05/16/12	3.46	502.36	
W-35A-12	08/23/12	11.48	494.34	
W-35A-12	12/11/12	11.58	494.24	
W-35A-13	02/29/12	10.45	492.89	
W-35A-13	05/16/12	10.67	492.67	
W-35A-13	08/23/12	12.15	491.19	
W-35A-13	12/11/12	12.35	490.99	
W-35A-14	02/29/12	15.93	496.60	
W-35A-14	05/16/12	16.14	496.39	
W-35A-14	08/23/12	16.87	495.66	
W-35A-14	12/11/12	16.69	495.84	
W-7A	02/29/12	22.30	502.58	
W-7A	05/15/12	21.71	503.17	
W-7A	09/05/12	21.80	503.08	
W-7A	12/03/12	21.90	502.98	
W-7B	02/29/12	20.08	491.36	
W-7B	05/15/12	20.65	490.79	
W-7B	08/22/12	20.73	490.71	
W-7B	11/07/12	22.10	489.34	
W-7C	02/29/12	18.89	498.98	

Table C-1. General Services Area Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
CDF1	02/29/12	13.59	489.03	
W-7C	05/15/12	18.92	498.95	
W-7C	08/22/12	18.89	498.98	
W-7C	11/07/12	19.51	498.36	
W-7D	02/29/12	14.78	492.34	
W-7D	05/15/12	15.64	491.48	
W-7D	08/22/12	16.11	491.01	
W-7D	11/07/12	16.31	490.81	
W-7DS	02/29/12	16.60	490.00	
W-7DS	05/15/12	17.70	488.90	
W-7DS	08/22/12	17.23	489.37	
W-7DS	11/07/12	18.56	488.04	
W-7E	02/29/12	18.20	491.08	
W-7E	05/15/12	18.71	490.57	
W-7E	08/22/12	18.82	490.46	
W-7E	11/07/12	20.10	489.18	
W-7ES	02/29/12	18.21	491.50	
W-7ES	05/15/12	18.82	490.89	
W-7ES	08/22/12	18.95	490.76	
W-7ES	11/07/12	20.33	489.38	
W-7F	02/29/12	43.20	483.88	
W-7F	05/15/12	42.70	484.38	
W-7F	09/05/12	42.90	484.18	
W-7F	12/03/12	41.48	485.60	
W-7G	02/29/12	12.05	500.87	
W-7G	05/15/12	12.10	500.82	
W-7G	09/05/12	13.10	499.82	
W-7G	11/07/12	13.55	499.37	
W-7H	02/29/12	18.26	493.18	
W-7H	05/15/12	19.84	491.60	
W-7H	09/05/12	16.79	494.65	
W-7H	12/03/12	17.32	494.12	
W-7I	03/29/12	49.59	479.71	
W-7I	05/15/12	49.50	479.80	
W-7I	09/05/12	49.56	479.74	
W-7I	12/03/12	49.01	480.29	
W-7J	02/29/12	46.50	481.39	
W-7J	05/15/12	44.38	483.51	
W-7J	09/05/12	43.14	484.75	
W-7J	12/03/12	40.05	487.84	
W-7K	02/29/12	9.96	499.97	
W-7K	05/15/12	8.86	501.07	
W-7K	08/22/12	9.15	500.78	
W-7K	11/07/12	10.30	499.63	
W-7L	02/29/12	11.75	501.01	

Table C-1. General Services Area Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
CDF1	02/29/12	13.59	489.03	
W-7L	05/15/12	11.66	501.10	
W-7L	08/22/12	11.73	501.03	
W-7L	11/07/12	13.15	499.61	
W-7M	02/29/12	12.36	495.39	
W-7M	05/15/12	17.81	489.94	
W-7M	08/22/12	17.46	490.29	
W-7M	11/07/12	13.75	494.00	
W-7N	02/29/12	16.80	491.38	
W-7N	05/15/12	17.36	490.82	
W-7N	08/22/12	17.55	490.63	
W-7N	11/07/12	18.80	489.38	
W-7O	02/29/12	25.34	490.45	
W-7O	05/15/12	26.00	489.79	
W-7O	09/05/12	26.12	489.67	
W-7O	11/07/12	27.14	488.65	
W-7P	02/29/12	-	NA	NM
W-7P	05/15/12	19.44	490.48	
W-7P	08/22/12	19.63	490.29	
W-7P	11/07/12	20.90	489.02	
W-7PS	02/29/12	-	NA	DRY
W-7PS	05/15/12	-	NA	DRY
W-7PS	08/22/12	-	NA	DRY
W-7PS	11/07/12	-	NA	DRY
W-7Q	02/29/12	26.04	491.58	
W-7Q	05/15/12	25.62	492.00	
W-7Q	09/05/12	26.71	490.91	
W-7Q	12/03/12	25.87	491.75	
W-7R	02/29/12	19.10	491.30	
W-7R	05/15/12	19.74	490.66	
W-7R	08/22/12	19.86	490.54	
W-7R	11/07/12	21.17	489.23	
W-7S	02/29/12	18.55	491.33	
W-7S	05/15/12	18.98	490.90	
W-7S	08/22/12	20.14	489.74	
W-7S	11/07/12	20.51	489.37	
W-7T	02/29/12	18.22	491.55	
W-7T	05/15/12	18.85	490.92	
W-7T	08/22/12	19.17	490.60	
W-7T	11/07/12	20.34	489.43	
W-843-01	03/08/12	111.80	511.96	
W-843-01	05/15/12	111.22	512.54	
W-843-01	09/17/12	112.45	511.31	
W-843-01	12/03/12	113.08	510.68	
W-843-02	03/08/12	108.14	514.45	

Table C-1. General Services Area Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
CDF1	02/29/12	13.59	489.03	
W-843-02	05/15/12	108.38	514.21	
W-843-02	09/17/12	108.54	514.05	
W-843-02	12/03/12	108.75	513.65	
W-872-01	03/08/12	-	NA	DRY
W-872-01	05/15/12	33.89	496.75	
W-872-01	09/17/12	34.12	496.52	
W-872-01	12/03/12	-	NA	DRY
W-872-02	03/08/12	44.54	488.45	
W-872-02	05/15/12	44.28	488.71	
W-872-02	09/17/12	44.31	488.68	
W-872-02	12/03/12	44.35	488.64	
W-873-01	03/15/12	18.19	515.74	
W-873-01	05/15/12	18.02	515.91	
W-873-01	09/05/12	19.10	514.83	
W-873-01	12/03/12	19.23	514.70	
W-873-02	03/15/12	34.10	498.75	
W-873-02	05/15/12	33.34	499.51	
W-873-02	09/05/12	34.86	497.99	
W-873-02	12/03/12	35.14	497.71	
W-873-03	03/15/12	30.30	503.49	
W-873-03	05/15/12	29.92	503.57	
W-873-03	09/05/12	31.36	502.13	
W-873-03	12/03/12	31.42	502.07	
W-873-04	03/15/12	20.00	511.41	
W-873-04	05/15/12	19.82	511.59	
W-873-04	09/05/12	20.42	510.99	
W-873-04	12/03/12	20.61	510.80	
W-873-06	03/15/12	33.46	499.60	
W-873-06	05/15/12	32.60	500.46	
W-873-06	09/05/12	34.40	498.66	
W-873-06	12/03/12	34.73	498.33	
W-873-07	03/15/12	45.33	487.57	
W-873-07	05/15/12	46.44	486.46	
W-873-07	09/05/12	40.33	492.57	
W-873-07	12/03/12	46.21	486.69	
W-875-01	03/08/12	21.11	511.29	
W-875-01	05/15/12	20.70	511.70	
W-875-01	09/05/12	21.25	511.15	
W-875-01	12/03/12	21.32	511.08	
W-875-02	03/08/12	22.04	509.32	
W-875-02	05/15/12	21.45	509.91	
W-875-02	09/05/12	22.27	509.09	
W-875-02	12/03/12	22.42	508.94	
W-875-03	03/08/12	-	NA	NM/UC

Table C-1. General Services Area Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
CDF1	02/29/12	13.59	489.03	
W-875-03	05/15/12	32.67	495.97	
W-875-03	09/05/12	33.15	495.49	
W-875-03	12/03/12	33.46	495.18	
W-875-04	03/08/12	21.22	511.01	
W-875-04	05/15/12	20.90	511.33	
W-875-04	09/05/12	21.51	510.72	
W-875-04	12/03/12	21.62	510.61	
W-875-05	03/08/12	23.24	513.46	
W-875-05	05/15/12	23.89	512.81	
W-875-05	09/05/12	23.32	513.08	
W-875-05	12/03/12	23.38	513.02	
W-875-06	03/08/12	25.01	504.41	
W-875-06	05/15/12	27.68	501.74	
W-875-06	09/05/12	24.96	504.46	
W-875-06	12/03/12	-	NA	DRY
W-875-07	03/29/12	33.85	494.59	
W-875-07	05/15/12	35.20	493.24	
W-875-07	09/05/12	35.29	493.15	
W-875-07	12/03/12	36.30	492.14	
W-875-08	03/29/12	-	NA	DRY
W-875-08	05/15/12	51.20	478.56	
W-875-08	09/05/12	51.32	478.44	
W-875-08	12/03/12	-	NA	DRY
W-875-09	03/08/12	-	NA	DRY
W-875-09	05/15/12	-	NA	DRY
W-875-09	09/05/12	-	NA	DRY
W-875-09	12/03/12	-	NA	DRY
W-875-10	03/29/12	-	NA	DRY
W-875-10	05/15/12	-	NA	DRY
W-875-10	09/05/12	-	NA	DRY
W-875-10	12/03/12	-	NA	DRY
W-875-11	03/29/12	41.89	487.84	
W-875-11	05/15/12	41.87	487.86	
W-875-11	09/05/12	41.90	487.83	
W-875-11	12/03/12	42.00	487.73	
W-875-15	03/29/12	-	NA	DRY
W-875-15	05/15/12	-	NA	DRY
W-875-15	09/05/12	-	NA	DRY
W-875-15	12/03/12	-	NA	DRY
W-876-01	03/08/12	23.52	514.46	
W-876-01	05/15/12	23.25	514.73	
W-876-01	09/05/12	24.53	513.45	
W-876-01	12/03/12	24.85	513.13	
W-879-01	03/08/12	47.58	504.28	

Table C-1. General Services Area Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
CDF1	02/29/12	13.59	489.03	
W-879-01	05/15/12	48.13	503.73	
W-879-01	09/05/12	48.57	503.29	
W-879-01	12/03/12	47.00	504.86	
W-889-01	03/08/12	39.17	514.46	
W-889-01	05/15/12	40.13	513.50	
W-889-01	09/05/12	42.21	511.42	
W-889-01	12/03/12	39.19	514.44	
W-CGSA-1732	02/29/12	19.13	503.72	
W-CGSA-1732	05/15/12	19.11	503.74	
W-CGSA-1732	09/05/12	19.10	503.75	
W-CGSA-1732	12/03/12	11.98	510.87	
W-CGSA-1733	02/29/12	20.29	491.70	
W-CGSA-1733	05/15/12	17.33	494.66	
W-CGSA-1733	08/22/12	17.56	494.43	
W-CGSA-1733	11/07/12	-	NA	DRY
W-CGSA-1735	02/29/12	-	NA	DRY
W-CGSA-1735	05/15/12	-	NA	DRY
W-CGSA-1735	08/22/12	-	NA	DRY
W-CGSA-1735	11/07/12	-	NA	DRY
W-CGSA-1736	02/29/12	20.25	489.12	
W-CGSA-1736	05/15/12	19.75	489.62	
W-CGSA-1736	08/22/12	19.82	489.55	
W-CGSA-1736	11/07/12	21.10	488.27	
W-CGSA-1737	02/29/12	17.50	490.11	
W-CGSA-1737	05/15/12	17.07	490.54	
W-CGSA-1737	08/22/12	17.15	490.46	
W-CGSA-1737	11/07/12	18.49	489.12	
W-CGSA-1739	02/29/12	19.40	493.07	
W-CGSA-1739	05/15/12	19.06	493.41	
W-CGSA-1739	08/22/12	19.36	493.11	
W-CGSA-1739	11/07/12	19.16	493.31	
W-CGSA-2708	03/08/12	39.40	NA	Well not surveyed. Data in review.
W-CGSA-2708	05/15/12	40.17	NA	Well not surveyed. Data in review.
W-CGSA-2708	09/05/12	40.39	NA	Well not surveyed. Data in review.
W-CGSA-2708	12/03/12	38.84	NA	Well not surveyed. Data in review.

Table C-2. Building 834 Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
W-834-1709	03/07/12	23.26	993.32	
W-834-1709	05/29/12	23.54	993.04	
W-834-1709	08/13/12	23.62	992.96	
W-834-1709	11/27/12	23.49	993.09	
W-834-1711	03/07/12	34.97	981.97	
W-834-1711	05/29/12	35.10	981.84	
W-834-1711	08/13/12	35.37	981.57	
W-834-1711	11/27/12	35.48	981.46	
W-834-1712	03/07/12	-	NA	DRY
W-834-1712	05/29/12	-	NA	DRY
W-834-1712	08/13/12	-	NA	DRY
W-834-1712	11/27/12	-	NA	DRY
W-834-1824	03/07/12	38.40	922.38	
W-834-1824	05/29/12	36.20	924.58	
W-834-1824	08/13/12	37.55	923.23	
W-834-1824	11/27/12	38.00	922.78	
W-834-1825	03/07/12	38.73	918.94	
W-834-1825	05/29/12	38.42	919.25	
W-834-1825	08/13/12	38.17	919.50	
W-834-1825	11/27/12	38.85	918.82	
W-834-1833	03/07/12	38.87	917.24	
W-834-1833	05/29/12	38.41	917.70	
W-834-1833	08/13/12	38.50	917.61	
W-834-1833	11/27/12	39.25	916.86	
W-834-2001	03/07/12	24.25	990.04	
W-834-2001	05/29/12	-	NA	NM
W-834-2001	08/13/12	-	NA	NM
W-834-2001	11/27/12	-	NA	NM
W-834-2113	03/07/12	36.71	962.30	
W-834-2113	05/29/12	37.73	961.28	
W-834-2113	08/13/12	37.91	961.10	
W-834-2113	11/27/12	39.20	959.81	
W-834-2117	03/07/12	38.62	935.27	
W-834-2117	05/29/12	38.61	935.28	
W-834-2117	08/13/12	38.84	935.05	
W-834-2117	11/27/12	39.34	934.55	
W-834-2118	03/07/12	29.10	910.19	
W-834-2118	05/29/12	28.74	910.55	
W-834-2118	08/13/12	28.60	910.69	
W-834-2118	11/27/12	29.05	910.24	
W-834-2119	03/07/12	54.70	900.51	
W-834-2119	05/29/12	54.42	900.79	
W-834-2119	08/13/12	54.35	900.86	
W-834-2119	11/27/12	54.75	900.46	

Table C-2. Building 834 Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
W-834-1709	03/07/12	23.26	993.32	
W-834-A1	03/07/12	30.82	984.27	
W-834-A1	05/29/12	30.79	984.30	
W-834-A1	08/13/12	29.95	985.14	
W-834-A1	11/27/12	30.85	984.24	
W-834-A2	03/07/12	-	NA	DRY
W-834-A2	05/29/12	18.23	997.25	
W-834-A2	08/13/12	-	NA	DRY
W-834-A2	11/27/12	-	NA	DRY
W-834-B2	03/07/12	16.46	1001.93	
W-834-B2	05/29/12	16.50	1001.89	
W-834-B2	08/13/12	16.34	1002.05	
W-834-B2	11/27/12	16.50	1001.89	
W-834-B3	03/07/12	10.97	1006.91	
W-834-B3	05/29/12	11.05	1006.83	
W-834-B3	08/13/12	11.84	1006.04	
W-834-B3	11/27/12	10.95	1006.93	
W-834-B4	03/07/12	-	NA	DRY
W-834-B4	05/29/12	14.25	1001.32	
W-834-B4	08/13/12	-	NA	DRY
W-834-B4	11/27/12	-	NA	DRY
W-834-C2	03/07/12	-	NA	DRY
W-834-C2	05/29/12	-	NA	DRY
W-834-C2	08/13/12	-	NA	DRY
W-834-C2	11/27/12	-	NA	DRY
W-834-C4	03/07/12	11.38	1007.88	
W-834-C4	05/29/12	9.56	1009.70	
W-834-C4	08/13/12	11.11	1008.15	
W-834-C4	11/27/12	11.15	1008.11	
W-834-C5	03/07/12	13.46	1002.21	
W-834-C5	05/29/12	11.78	1003.89	
W-834-C5	08/13/12	13.15	1002.52	
W-834-C5	11/27/12	14.10	1001.57	
W-834-D2	03/07/12	-	NA	DRY
W-834-D2	05/29/12	-	NA	DRY
W-834-D2	08/13/12	-	NA	DRY
W-834-D2	11/27/12	-	NA	DRY
W-834-D3	03/07/12	28.33	990.22	
W-834-D3	05/29/12	28.37	990.18	
W-834-D3	08/13/12	28.68	989.87	
W-834-D3	11/27/12	30.10	988.45	
W-834-D4	03/07/12	35.94	982.42	
W-834-D4	05/29/12	35.94	982.42	
W-834-D4	08/13/12	35.10	983.26	

Table C-2. Building 834 Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
W-834-1709	03/07/12	23.26	993.32	
W-834-D4	11/27/12	35.27	983.09	
W-834-D5	03/07/12	32.17	986.30	
W-834-D5	05/29/12	30.43	988.04	
W-834-D5	08/13/12	30.09	988.38	
W-834-D5	11/27/12	31.15	987.32	
W-834-D6	03/07/12	34.00	984.28	
W-834-D6	05/29/12	34.13	984.15	
W-834-D6	08/13/12	31.94	986.34	
W-834-D6	11/27/12	34.15	984.13	
W-834-D7	03/07/12	31.53	982.39	
W-834-D7	05/29/12	32.65	981.27	
W-834-D7	08/13/12	28.63	985.29	
W-834-D7	11/27/12	32.65	981.27	
W-834-D10	03/07/12	33.35	983.06	
W-834-D10	05/29/12	33.93	982.48	
W-834-D10	08/13/12	34.10	982.31	
W-834-D10	11/27/12	34.15	982.26	
W-834-D11	03/07/12	24.18	993.36	
W-834-D11	05/29/12	24.31	993.23	
W-834-D11	08/13/12	24.35	993.19	
W-834-D11	11/27/12	24.65	992.89	
W-834-D12	03/07/12	29.43	986.86	
W-834-D12	05/29/12	29.32	986.97	
W-834-D12	08/13/12	29.70	986.59	
W-834-D12	11/27/12	29.46	986.83	
W-834-D13	03/07/12	28.90	989.09	
W-834-D13	05/29/12	28.89	989.10	
W-834-D13	08/13/12	29.90	988.09	
W-834-D13	11/27/12	30.12	987.87	
W-834-D14	03/07/12	30.91	987.46	
W-834-D14	05/29/12	30.48	987.89	
W-834-D14	08/13/12	30.00	988.37	
W-834-D14	11/27/12	30.95	987.42	
W-834-D15	03/07/12	-	NA	DRY
W-834-D15	05/29/12	24.68	993.48	
W-834-D15	08/13/12	-	NA	DRY
W-834-D15	11/27/12	-	NA	DRY
W-834-D16	03/07/12	-	NA	DRY
W-834-D16	05/29/12	-	NA	DRY
W-834-D16	08/13/12	-	NA	DRY
W-834-D16	11/27/12	-	NA	DRY
W-834-D17	03/07/12	-	NA	DRY
W-834-D17	05/29/12	-	NA	DRY

Table C-2. Building 834 Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
W-834-1709	03/07/12	23.26	993.32	
W-834-D17	08/13/12	-	NA	DRY
W-834-D17	11/27/12	-	NA	DRY
W-834-D18	03/07/12	26.75	991.71	
W-834-D18	05/29/12	26.83	991.63	
W-834-D18	08/13/12	26.82	991.64	
W-834-D18	11/27/12	26.90	991.56	
W-834-G3	03/07/12	-	NA	DRY
W-834-G3	05/29/12	-	NA	DRY
W-834-G3	08/13/12	-	NA	DRY
W-834-G3	11/27/12	-	NA	DRY
W-834-H2	03/07/12	31.51	992.44	
W-834-H2	05/29/12	31.81	992.14	
W-834-H2	08/13/12	31.90	992.05	
W-834-H2	11/27/12	-	NA	DRY
W-834-J1	03/22/12	-	NA	NM/RA
W-834-J1	05/29/12	-	NA	NM/RA
W-834-J1	08/13/12	-	NA	NM/RA
W-834-J1	11/27/12	30.80	989.03	
W-834-J2	03/07/12	30.75	989.20	
W-834-J2	05/29/12	30.79	989.16	
W-834-J2	08/13/12	31.12	988.83	
W-834-J2	11/27/12	34.50	985.45	
W-834-J3	03/07/12	73.78	964.65	
W-834-J3	05/29/12	74.89	963.54	
W-834-J3	08/13/12	75.05	963.38	
W-834-J3	11/27/12	-	NA	DRY
W-834-K1A	03/07/12	-	NA	DRY
W-834-M1	03/07/12	60.10	964.41	
W-834-M1	05/29/12	60.46	964.05	
W-834-M1	08/13/12	60.52	963.99	
W-834-M1	11/27/12	61.12	963.39	
W-834-M2	03/07/12	-	NA	DRY
W-834-M2	05/29/12	-	NA	DRY
W-834-M2	08/13/12	-	NA	DRY
W-834-M2	11/27/12	-	NA	DRY
W-834-S1	03/07/12	32.92	969.16	
W-834-S1	05/29/12	35.31	966.77	
W-834-S1	08/13/12	35.37	966.71	
W-834-S1	11/27/12	34.60	967.48	
W-834-S10	03/07/12	-	NA	DRY
W-834-S10	05/29/12	-	NA	DRY
W-834-S10	08/13/12	-	NA	DRY
W-834-S10	11/27/12	-	NA	DRY

Table C-2. Building 834 Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
W-834-1709	03/07/12	23.26	993.32	
W-834-S12A	03/07/12	51.37	953.36	
W-834-S12A	05/29/12	-	NA	DRY
W-834-S12A	08/13/12	51.65	953.08	
W-834-S12A	11/27/12	-	NA	NM/RA
W-834-S13	03/07/12	46.68	957.06	
W-834-S13	05/29/12	-	NA	DRY
W-834-S13	08/13/12	46.75	956.99	
W-834-S13	11/27/12	46.50	957.24	
W-834-S4	03/07/12	77.20	949.47	
W-834-S4	05/29/12	77.44	949.23	
W-834-S4	08/13/12	77.60	949.07	
W-834-S4	11/27/12	78.20	948.47	
W-834-S5	03/07/12	-	NA	DRY
W-834-S5	05/29/12	-	NA	DRY
W-834-S5	08/13/12	-	NA	DRY
W-834-S5	11/27/12	-	NA	DRY
W-834-S6	03/07/12	-	NA	DRY
W-834-S6	05/29/12	38.61	890.81	
W-834-S6	08/13/12	38.60	890.82	
W-834-S6	11/27/12	38.65	890.77	
W-834-S7	03/07/12	-	NA	DRY
W-834-S7	05/29/12	-	NA	DRY
W-834-S7	08/13/12	-	NA	DRY
W-834-S7	11/27/12	-	NA	DRY
W-834-S8	03/07/12	57.09	945.63	
W-834-S8	05/29/12	58.96	943.76	
W-834-S8	08/13/12	60.30	942.42	
W-834-S8	11/27/12	61.20	941.52	
W-834-S9	03/07/12	55.78	944.23	
W-834-S9	05/29/12	56.20	943.81	
W-834-S9	08/13/12	56.68	943.33	
W-834-S9	11/27/12	57.25	942.76	
W-834-T1	03/07/12	316.12	642.80	
W-834-T1	05/29/12	315.92	643.00	
W-834-T1	08/13/12	315.98	642.94	
W-834-T1	11/27/12	315.80	643.12	
W-834-T11	03/07/12	-	NA	DRY
W-834-T11	05/29/12	35.50	896.06	
W-834-T11	08/13/12	-	NA	DRY
W-834-T11	11/27/12	-	NA	DRY
W-834-T2	03/07/12	39.76	920.00	
W-834-T2	05/29/12	39.01	920.75	
W-834-T2	08/13/12	39.32	920.44	

Table C-2. Building 834 Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
W-834-1709	03/07/12	23.26	993.32	
W-834-T2	11/27/12	40.10	919.66	
W-834-T2A	03/07/12	38.20	920.74	
W-834-T2A	05/29/12	38.13	920.81	
W-834-T2A	08/13/12	37.75	921.19	
W-834-T2A	11/27/12	37.86	921.08	
W-834-T2B	03/07/12	-	NA	DRY
W-834-T2B	05/29/12	-	NA	DRY
W-834-T2B	08/13/12	-	NA	DRY
W-834-T2B	11/27/12	-	NA	DRY
W-834-T2C	03/07/12	-	NA	DRY
W-834-T2C	05/29/12	-	NA	DRY
W-834-T2C	08/13/12	-	NA	DRY
W-834-T2C	11/27/12	-	NA	DRY
W-834-T2D	03/07/12	35.83	918.56	
W-834-T2D	05/29/12	35.41	918.98	
W-834-T2D	08/13/12	35.36	919.03	
W-834-T2D	11/27/12	35.48	918.91	
W-834-T3	03/07/12	324.35	608.19	
W-834-T3	05/29/12	324.20	608.34	
W-834-T3	08/13/12	324.44	608.10	
W-834-T3	11/27/12	323.80	608.74	
W-834-T5	03/07/12	76.96	854.01	
W-834-T5	05/29/12	77.00	853.97	
W-834-T5	08/13/12	77.05	853.92	
W-834-T5	11/27/12	77.20	853.77	
W-834-T7A	03/07/12	-	NA	DRY
W-834-T7A	05/29/12	-	NA	DRY
W-834-T7A	08/13/12	-	NA	DRY
W-834-T7A	11/27/12	-	NA	DRY
W-834-T8A	03/07/12	-	NA	DRY
W-834-T8A	05/29/12	-	NA	DRY
W-834-T8A	08/13/12	-	NA	DRY
W-834-T8A	11/27/12	-	NA	DRY
W-834-T9	03/07/12	-	NA	DRY
W-834-T9	05/29/12	-	NA	DRY
W-834-T9	08/13/12	-	NA	DRY
W-834-T9	11/27/12	-	NA	DRY
W-834-U1	03/07/12	28.90	983.36	
W-834-U1	05/29/12	-	NA	NM
W-834-U1	08/13/12	-	NA	NM/RA
W-834-U1	11/27/12	-	NA	NM

Table C-3. Pit 6 Landfill Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
BC6-10	03/01/12	30.29	657.26	
BC6-10	06/11/12	30.44	657.11	
BC6-10	09/04/12	31.12	656.43	
BC6-10	12/13/12	31.48	656.07	
BC6-13	03/01/12	-	NA	DRY
BC6-13	06/11/12	-	NA	DRY
BC6-13	09/04/12	-	NA	DRY
BC6-13	12/13/12	-	NA	DRY
CARNRW1	03/01/12	-	NA	NM
CARNRW1	05/31/12	91.58	586.85	
CARNRW1	07/23/12	65.24	613.19	
CARNRW1	12/13/12	65.29	613.14	
CARNRW3	03/01/12	57.34	645.66	
CARNRW3	05/31/12	52.20	650.80	
CARNRW3	07/23/12	56.04	646.96	
CARNRW3	12/13/12	55.96	647.04	
CARNRW4	03/01/12	14.69	637.06	
CARNRW4	05/31/12	12.35	639.40	
CARNRW4	07/23/12	15.14	636.61	
CARNRW4	12/13/12	16.92	634.83	
EP6-06	03/01/12	26.22	661.89	
EP6-06	06/11/12	26.85	661.26	
EP6-06	09/04/12	27.20	660.91	
EP6-06	12/13/12	26.80	661.31	
EP6-07	03/01/12	75.95	631.60	
EP6-07	06/11/12	76.68	630.87	
EP6-07	09/04/12	75.54	632.01	
EP6-07	12/13/12	76.68	630.87	
EP6-08	03/01/12	-	NA	DRY
EP6-08	06/11/12	-	NA	DRY
EP6-08	09/04/12	-	NA	DRY
EP6-08	12/13/12	-	NA	DRY
EP6-09	03/01/12	30.30	663.98	
EP6-09	06/11/12	30.32	663.96	
EP6-09	09/04/12	30.47	663.81	
EP6-09	12/13/12	30.51	663.77	
K6-01	03/01/12	27.40	664.06	
K6-01	06/11/12	27.66	663.80	
K6-01	09/04/12	27.81	663.65	
K6-01	12/13/12	27.76	663.70	
K6-01S	03/01/12	28.51	664.01	
K6-01S	06/11/12	28.61	663.91	
K6-01S	09/04/12	28.84	663.68	
K6-01S	12/13/12	28.82	663.70	
K6-03	03/01/12	25.06	701.49	ME

Table C-3. Pit 6 Landfill Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
BC6-10	03/01/12	30.29	657.26	
K6-03	06/11/12	96.45	630.10	
K6-03	09/04/12	-	NA	DRY
K6-03	12/13/12	-	NA	DRY
K6-04	03/01/12	-	NA	NM/RA
K6-04	06/11/12	65.70	642.47	
K6-04	09/04/12	-	NA	DRY
K6-04	12/13/12	-	NA	DRY
K6-14	03/01/12	21.85	659.02	
K6-14	06/11/12	20.95	659.92	
K6-14	09/04/12	22.39	658.48	
K6-14	12/13/12	20.90	659.97	
K6-15	03/01/12	-	NA	DRY
K6-15	06/11/12	-	NA	DRY
K6-15	09/04/12	-	NA	DRY
K6-15	12/13/12	-	NA	DRY
K6-16	03/01/12	18.57	660.88	
K6-16	06/11/12	18.17	661.28	
K6-16	09/04/12	19.57	659.88	
K6-16	12/13/12	17.80	661.65	
K6-17	03/01/12	22.06	656.65	
K6-17	06/11/12	21.00	657.71	
K6-17	09/04/12	23.51	655.20	
K6-17	12/13/12	23.00	655.71	
K6-18	03/01/12	25.81	659.48	
K6-18	06/11/12	25.51	659.78	
K6-18	09/04/12	25.86	659.43	
K6-18	12/13/12	25.04	660.25	
K6-19	03/01/12	29.50	663.57	
K6-19	06/11/12	29.55	663.52	
K6-19	09/04/12	29.66	663.41	
K6-19	12/13/12	29.75	663.32	
K6-21	03/01/12	-	NA	DRY
K6-21	06/11/12	-	NA	DRY
K6-21	09/04/12	-	NA	DRY
K6-21	12/13/12	-	NA	DRY
K6-22	03/01/12	-	NA	DRY
K6-22	06/11/12	36.60	644.93	
K6-22	09/04/12	36.70	644.83	
K6-22	12/13/12	36.80	644.73	
K6-23	03/01/12	24.59	656.39	
K6-23	06/11/12	23.74	657.24	
K6-23	09/04/12	24.26	656.72	
K6-23	12/13/12	24.72	656.26	
K6-24	03/01/12	-	NA	DRY

Table C-3. Pit 6 Landfill Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
BC6-10	03/01/12	30.29	657.26	
K6-24	06/11/12	-	NA	DRY
K6-24	09/04/12	-	NA	DRY
K6-24	12/13/12	-	NA	DRY
K6-25	03/01/12	18.88	660.87	
K6-25	06/11/12	18.06	661.69	
K6-25	09/04/12	19.08	660.67	
K6-25	12/13/12	18.46	661.29	
K6-26	03/01/12	55.84	631.49	
K6-26	06/11/12	56.35	630.98	
K6-26	09/04/12	55.24	632.09	
K6-26	12/13/12	56.48	630.85	
K6-27	03/01/12	58.77	628.42	
K6-27	06/11/12	59.27	627.92	
K6-27	09/04/12	57.51	629.68	
K6-27	12/13/12	59.00	628.19	
K6-32	03/01/12	-	NA	DRY
K6-32	06/11/12	-	NA	DRY
K6-32	09/04/12	-	NA	DRY
K6-32	12/13/12	-	NA	DRY
K6-33	03/01/12	-	NA	DRY
K6-33	06/11/12	51.95	630.29	
K6-33	09/04/12	52.16	630.08	
K6-33	12/13/12	-	NA	DRY
K6-34	03/01/12	91.59	611.69	
K6-34	06/11/12	83.78	619.50	
K6-34	09/04/12	80.79	622.49	
K6-34	12/13/12	83.65	619.63	
K6-35	03/01/12	61.79	631.17	
K6-35	06/11/12	62.50	630.46	
K6-35	09/04/12	61.26	631.70	
K6-35	12/13/12	62.47	630.49	
K6-36	03/01/12	-	NA	DRY
K6-36	06/11/12	38.70	651.68	
K6-36	09/04/12	-	NA	DRY
K6-36	12/13/12	38.69	651.69	
W-33C-01	03/01/12	17.58	634.93	
W-33C-01	06/11/12	17.64	634.87	
W-33C-01	07/23/12	21.45	631.06	
W-33C-01	12/13/12	-	NA	DRY
W-34-01	03/01/12	12.37	672.09	
W-34-01	06/11/12	13.02	671.44	
W-34-01	09/04/12	-	NA	NM/UC
W-34-01	12/13/12	-	NA	NM/UC
W-34-02	03/01/12	47.41	637.45	

Table C-3. Pit 6 Landfill Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
BC6-10	03/01/12	30.29	657.26	
W-34-02	06/11/12	49.98	634.88	
W-34-02	09/04/12	-	NA	NM/UC
W-34-02	12/13/12	-	NA	NM/UC
W-PIT6-1819	03/01/12	106.50	609.37	
W-PIT6-1819	06/11/12	98.70	617.17	
W-PIT6-1819	09/04/12	94.37	621.50	
W-PIT6-1819	12/13/12	98.53	617.34	
W-PIT6-2816	09/04/12	73.67	NA	Well not surveyed. Data in review.
W-PIT6-2816	12/13/12	74.86	NA	Well not surveyed. Data in review.
W-PIT6-2817	09/04/12	56.47	NA	Well not surveyed. Data in review.
W-PIT6-2817	12/13/12	57.86	NA	Well not surveyed. Data in review.

Table C-4. High Explosives Process Area Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
W-35B-01	02/29/12	19.25	503.77	
W-35B-01	06/04/12	18.90	504.12	
W-35B-01	08/23/12	19.47	503.55	
W-35B-01	12/11/12	19.24	503.78	
W-35B-02	02/29/12	18.92	504.11	
W-35B-02	06/04/12	18.18	504.85	
W-35B-02	08/23/12	19.39	503.64	
W-35B-02	12/11/12	18.58	504.45	
W-35B-03	02/29/12	17.81	505.29	
W-35B-03	06/04/12	18.95	504.15	
W-35B-03	08/23/12	19.41	503.69	
W-35B-03	12/11/12	17.41	505.69	
W-35B-04	02/29/12	7.62	521.34	
W-35B-04	06/04/12	7.57	521.39	
W-35B-04	08/23/12	9.70	519.26	
W-35B-04	12/11/12	9.72	519.24	
W-35B-05	02/29/12	7.55	521.18	
W-35B-05	06/04/12	7.55	521.18	
W-35B-05	08/23/12	9.57	519.16	
W-35B-05	12/11/12	9.40	519.33	
W-35C-01	03/06/12	1.40	540.32	
W-35C-01	06/14/12	1.80	539.92	
W-35C-01	09/05/12	-	NA	NM
W-35C-01	12/18/12	2.73	538.99	
W-35C-02	03/06/12	25.84	546.96	
W-35C-02	05/16/12	25.89	546.91	
W-35C-02	09/04/12	25.96	546.84	
W-35C-02	12/18/12	21.74	551.06	
W-35C-04	03/06/12	-	NA	NM/RA
W-35C-04	05/16/12	92.06	440.12	
W-35C-04	09/04/12	92.30	439.88	
W-35C-04	12/06/12	92.15	440.03	
W-35C-05	03/06/12	22.59	508.54	
W-35C-05	05/16/12	24.06	507.07	
W-35C-05	09/04/12	25.28	505.85	
W-35C-05	12/06/12	25.35	505.78	
W-35C-06	03/06/12	25.57	506.16	
W-35C-06	05/16/12	26.01	505.72	
W-35C-06	09/04/12	26.19	505.54	
W-35C-06	12/06/12	26.61	505.12	
W-35C-07	03/06/12	-	NA	NM/RA
W-35C-07	05/16/12	-	NA	NM
W-35C-07	09/04/12	-	NA	NM
W-35C-07	12/06/12	-	NA	NM/RA

Table C-4. High Explosives Process Area Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
W-35B-01	02/29/12	19.25	503.77	
W-35C-08	03/06/12	24.76	507.53	
W-35C-08	05/16/12	25.54	506.75	
W-35C-08	09/04/12	25.87	506.42	
W-35C-08	12/06/12	26.07	506.22	
W-4A	03/12/12	3.29	527.18	
W-4A	05/16/12	5.29	525.18	
W-4A	09/04/12	5.28	525.19	
W-4A	12/06/12	6.15	525.12	
W-4AS	03/12/12	7.80	523.85	
W-4AS	05/16/12	8.21	523.44	
W-4AS	09/04/12	8.56	523.09	
W-4AS	12/06/12	9.23	522.42	
W-4B	03/12/12	-	NA	NM/RA
W-4B	05/16/12	-	NA	NM/RA
W-4B	09/05/12	4.10	526.10	
W-4B	12/06/12	-	NA	NM/RA
W-4C	03/12/12	1.20	528.58	
W-4C	05/16/12	-	NA	NM/FA
W-4C	09/05/12	0.85	528.93	
W-4C	12/06/12	1.30	528.48	
W-6BD	03/06/12	24.56	508.71	
W-6BD	05/16/12	24.93	508.34	
W-6BD	09/05/12	25.15	508.12	
W-6BD	12/06/12	25.49	507.78	
W-6BS	03/06/12	-	NA	NM/RA
W-6BS	05/16/12	22.78	510.45	
W-6BS	09/05/12	24.97	508.26	
W-6BS	12/06/12	25.16	508.07	
W-6CD	03/05/12	29.78	550.26	
W-6CD	05/16/12	30.12	549.92	
W-6CD	09/04/12	30.43	549.61	
W-6CD	12/18/12	33.30	546.74	
W-6CI	03/05/12	28.24	552.27	
W-6CI	05/16/12	28.41	552.10	
W-6CI	09/04/12	29.15	551.36	
W-6CI	12/18/12	35.37	545.14	
W-6CS	03/05/12	27.71	551.97	
W-6CS	05/16/12	27.83	551.85	
W-6CS	09/04/12	27.89	551.79	
W-6CS	12/18/12	30.91	548.77	
W-6EI	03/05/12	2.36	528.96	
W-6EI	05/16/12	-	NA	NM/RA
W-6EI	09/04/12	-	NA	NM/RA

Table C-4. High Explosives Process Area Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
W-35B-01	02/29/12	19.25	503.77	
W-6EI	12/06/12	-	NA	NM/RA
W-6ER	03/05/12	-	NA	NM/RA
W-6ER	05/16/12	-	NA	NM/RA
W-6ER	09/04/12	-	NA	NM
W-6ER	12/06/12	82.26	449.65	
W-6ES	03/05/12	25.71	505.78	
W-6ES	05/16/12	25.95	505.54	
W-6ES	09/04/12	30.25	501.24	
W-6ES	12/06/12	26.59	504.90	
W-6F	03/05/12	57.81	561.05	
W-6F	05/16/12	57.94	560.92	
W-6F	09/04/12	58.43	560.43	
W-6F	12/18/12	62.46	556.40	
W-6G	03/05/12	58.21	561.71	
W-6G	05/16/12	58.65	561.27	
W-6G	09/04/12	61.27	558.65	
W-6G	12/18/12	62.77	557.15	
W-6H	03/05/12	5.35	555.99	
W-6H	05/16/12	6.14	555.20	
W-6H	09/04/12	6.78	554.56	
W-6H	12/18/12	13.00	548.34	
W-6I	03/06/12	23.91	537.38	
W-6I	05/16/12	24.21	537.08	
W-6I	09/04/12	24.37	536.92	
W-6I	12/18/12	28.63	532.66	
W-6J	03/06/12	5.92	555.44	
W-6J	05/16/12	6.21	555.15	
W-6J	09/04/12	6.40	554.96	
W-6J	12/18/12	13.47	547.89	
W-6K	03/06/12	-1.80	535.64	
W-6K	05/16/12	-1.61	535.45	
W-6K	09/05/12	-	NA	NM/RA
W-6K	12/06/12	-	NA	NM/RA
W-6L	03/06/12	-1.10	535.01	
W-6L	05/16/12	-2.74	536.65	
W-6L	09/05/12	0.75	533.16	
W-6L	12/06/12	-	NA	NM/RA
W-806-06A	03/05/12	-	NA	NM/RA
W-806-06A	05/29/12	-	NA	NM/RA
W-806-06A	08/14/12	126.45	694.86	
W-806-06A	11/27/12	126.21	695.10	
W-806-07	03/05/12	-	NA	NM/RA
W-806-07	05/29/12	-	NA	NM/RA

Table C-4. High Explosives Process Area Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
W-35B-01	02/29/12	19.25	503.77	
W-806-07	08/14/12	-	NA	DRY
W-806-07	11/27/12	-	NA	DRY
W-808-01	03/05/12	47.34	854.67	
W-808-01	05/30/12	48.07	853.94	
W-808-01	08/14/12	48.50	853.51	
W-808-01	11/27/12	49.07	852.94	
W-808-02	03/05/12	-	NA	DRY
W-808-02	05/30/12	-	NA	DRY
W-808-02	08/14/12	-	NA	DRY
W-808-02	11/27/12	-	NA	DRY
W-808-03	03/05/12	298.01	604.88	
W-808-03	05/30/12	298.11	604.78	
W-808-03	08/14/12	298.22	604.67	
W-808-03	11/27/12	298.89	604.00	
W-809-01	03/05/12	67.75	722.48	
W-809-01	05/30/12	68.10	722.13	
W-809-01	08/14/12	63.49	726.74	
W-809-01	11/27/12	68.30	721.93	
W-809-02	03/05/12	149.23	642.30	
W-809-02	05/30/12	141.37	650.16	
W-809-02	08/14/12	141.05	650.48	
W-809-02	11/27/12	141.15	650.38	
W-809-03	03/05/12	99.50	646.57	
W-809-03	05/30/12	99.43	646.64	
W-809-03	08/14/12	99.69	646.38	
W-809-03	11/27/12	101.23	644.84	
W-809-04	03/05/12	75.60	700.45	
W-809-04	05/30/12	73.60	702.45	
W-809-04	08/14/12	83.30	692.75	
W-809-04	11/27/12	83.38	693.37	
W-810-01	03/22/12	242.49	598.54	
W-810-01	05/10/12	242.50	598.53	
W-810-01	08/14/12	242.55	598.48	
W-810-01	12/18/12	-	NA	NM/UC
W-814-01	03/22/12	110.27	698.56	
W-814-01	05/10/12	111.26	697.57	
W-814-01	08/15/12	111.28	697.55	
W-814-01	12/17/12	110.34	698.49	
W-814-02	03/22/12	156.63	637.05	
W-814-02	05/10/12	155.34	638.04	
W-814-02	08/15/12	155.46	637.92	
W-814-02	12/17/12	155.14	638.24	
W-814-03	03/22/12	-	NA	DRY

Table C-4. High Explosives Process Area Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
W-35B-01	02/29/12	19.25	503.77	
W-814-03	05/10/12	-	NA	DRY
W-814-03	08/15/12	-	NA	DRY
W-814-03	12/17/12	-	NA	DRY
W-814-04	03/22/12	234.47	577.41	
W-814-04	05/10/12	234.98	576.90	
W-814-04	08/15/12	234.90	576.98	
W-814-04	12/17/12	235.91	575.97	
W-814-2134	03/22/12	-	NA	NM/RA
W-814-2134	05/10/12	-	NA	NM/RA
W-814-2134	08/15/12	-	NA	NM/RA
W-814-2134	12/17/12	-	NA	NM/RA
W-814-2138	03/22/12	96.96	697.95	
W-814-2138	05/10/12	97.84	697.07	
W-814-2138	08/15/12	98.22	696.69	
W-814-2138	12/06/12	97.16	697.75	
W-815-01	03/05/12	-	NA	DRY
W-815-01	05/30/12	-	NA	DRY
W-815-01	08/14/12	-	NA	DRY
W-815-01	11/27/12	-	NA	DRY
W-815-02	03/05/12	99.80	621.78	
W-815-02	05/30/12	100.52	621.06	
W-815-02	08/14/12	87.38	634.20	
W-815-02	12/06/12	98.90	622.68	
W-815-03	03/05/12	-	NA	DRY
W-815-03	05/30/12	-	NA	DRY
W-815-03	08/14/12	41.40	680.75	
W-815-03	11/07/12	-	NA	DRY
W-815-04	03/05/12	87.85	634.80	
W-815-04	05/30/12	98.68	623.67	
W-815-04	08/14/12	79.92	642.43	
W-815-04	11/27/12	93.52	628.83	
W-815-05	03/05/12	-	NA	NM/UC
W-815-05	05/30/12	-	NA	NM/UC
W-815-05	08/14/12	-	NA	NM/UC
W-815-05	11/27/12	-	NA	NM/UC
W-815-06	03/05/12	131.25	624.53	
W-815-06	05/10/12	127.78	628.00	
W-815-06	08/15/12	127.82	627.96	
W-815-06	12/17/12	127.11	628.67	
W-815-07	03/05/12	137.22	625.27	
W-815-07	05/10/12	136.20	626.29	
W-815-07	08/15/12	136.50	625.99	
W-815-07	12/17/12	135.51	626.98	

Table C-4. High Explosives Process Area Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
W-35B-01	02/29/12	19.25	503.77	
W-815-08	03/05/12	132.10	591.69	
W-815-08	05/30/12	131.28	592.51	
W-815-08	08/14/12	132.25	591.54	
W-815-08	11/27/12	133.40	590.39	
W-815-1918	03/05/12	90.30	655.31	
W-815-1918	05/30/12	89.00	656.61	
W-815-1918	08/14/12	89.75	655.86	
W-815-1918	11/27/12	90.12	655.49	
W-815-1928	03/05/12	25.08	720.97	
W-815-1928	05/30/12	25.82	720.23	
W-815-1928	08/14/12	25.91	720.14	
W-815-1928	11/27/12	26.07	719.98	
W-815-2110	03/22/12	-2.35	548.84	
W-815-2110	05/30/12	-	NA	NM /RA
W-815-2110	12/18/12	9.35	537.14	
W-815-2111	03/22/12	-2.91	548.90	
W-815-2111	05/30/12	-	NA	NM /RA
W-815-2111	12/18/12	7.42	538.57	
W-815-2217	03/05/12	28.60	551.32	
W-815-2217	06/14/12	29.75	550.17	
W-815-2217	08/14/12	30.06	549.86	
W-815-2217	12/18/12	33.14	546.78	
W-815-2608	06/14/12	-	NA	NM /RA
W-815-2608	08/14/12	-	NA	NM NEW WELL NO PORT
W-815-2608	12/18/12	49.90	488.33	
W-815-2621	05/16/12	-	NA	NM /RA
W-815-2621	09/05/12	-	NA	NM NEW WELL NO PORT
W-815-2621	12/18/12	-	NA	NM/UC
W-815-2803	08/14/12	95.36	NA	NO STOVEPIPE
W-815-2803	11/27/12	96.45	NA	Well not surveyed. Data in review.
W-817-01	03/05/12	138.41	635.40	
W-817-01	05/30/12	138.00	635.81	
W-817-01	08/14/12	138.55	635.26	
W-817-01	11/27/12	138.00	635.81	
W-817-02	03/05/12	-	NA	NM /RA
W-817-02	05/30/12	76.01	624.78	
W-817-02	08/14/12	102.35	598.44	
W-817-02	11/27/12	113.16	587.63	
W-817-03	03/05/12	101.73	571.90	
W-817-03	05/30/12	102.41	571.22	
W-817-03	08/14/12	101.10	572.53	
W-817-03	11/27/12	59.17	615.43	
W-817-03A	03/05/12	10.02	667.98	

Table C-4. High Explosives Process Area Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
W-35B-01	02/29/12	19.25	503.77	
W-817-03A	05/30/12	11.79	666.21	
W-817-03A	08/14/12	12.10	665.90	
W-817-03A	11/27/12	9.65	668.35	
W-817-04	03/05/12	74.60	608.44	
W-817-04	05/30/12	74.44	608.60	
W-817-04	08/14/12	121.05	561.99	
W-817-04	11/27/12	74.35	608.69	
W-817-05	03/05/12	129.55	634.78	
W-817-05	05/30/12	129.65	634.68	
W-817-05	08/14/12	129.35	634.98	
W-817-05	11/27/12	129.82	634.51	
W-817-06A	03/05/12	74.41	693.75	
W-817-06A	05/30/12	72.50	695.66	
W-817-06A	08/14/12	59.87	708.29	
W-817-06A	11/27/12	56.69	711.47	
W-817-07	03/05/12	95.25	572.70	
W-817-07	05/30/12	95.34	572.61	
W-817-07	08/14/12	95.29	572.66	
W-817-07	11/27/12	96.60	571.35	
W-817-2109	03/05/12	-	NA	NM/RA
W-817-2109	05/30/12	68.81	634.24	
W-817-2109	08/14/12	99.87	603.18	
W-817-2109	11/27/12	-	NA	NM/RA
W-817-2318	03/05/12	8.15	667.87	
W-817-2318	05/30/12	10.41	665.61	
W-817-2318	08/14/12	10.38	665.64	
W-817-2318	11/27/12	7.40	668.62	
W-817-2609	03/05/12	90.65	NA	Well not surveyed. Data in review.
W-817-2609	05/30/12	96.82	NA	Well not surveyed. Data in review.
W-817-2609	08/14/12	90.60	571.90	
W-817-2609	11/27/12	92.10	570.40	
W-818-01	03/05/12	95.75	584.82	
W-818-01	05/10/12	95.10	585.47	
W-818-01	08/16/12	96.75	583.82	
W-818-01	12/17/12	96.63	583.94	
W-818-03	03/05/12	55.54	543.33	
W-818-03	05/10/12	55.48	543.39	
W-818-03	08/16/12	55.81	543.06	
W-818-03	12/17/12	58.69	540.18	
W-818-04	03/05/12	64.39	549.67	
W-818-04	05/10/12	64.11	549.95	
W-818-04	08/16/12	66.55	547.51	
W-818-04	12/17/12	67.76	546.30	

Table C-4. High Explosives Process Area Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
W-35B-01	02/29/12	19.25	503.77	
W-818-06	03/06/12	68.53	544.99	
W-818-06	05/10/12	68.40	545.12	
W-818-06	08/16/12	69.98	543.54	
W-818-06	12/17/12	73.20	540.32	
W-818-07	03/06/12	68.79	545.42	
W-818-07	05/10/12	68.49	545.72	
W-818-07	08/16/12	-	NA	NM/UC
W-818-07	12/17/12	73.09	541.12	
W-818-08	03/06/12	114.56	534.50	
W-818-08	05/10/12	-	NA	DRY
W-818-08	08/16/12	113.98	535.08	
W-818-08	12/17/12	93.34	555.72	
W-818-09	03/06/12	118.42	523.48	
W-818-09	05/10/12	118.07	523.83	
W-818-09	08/16/12	117.96	523.94	
W-818-09	12/17/12	95.76	546.14	
W-818-11	03/06/12	150.40	599.27	
W-818-11	05/10/12	149.02	600.65	
W-818-11	08/16/12	150.32	599.35	
W-818-11	12/17/12	148.00	601.67	
W-819-02	03/06/12	234.37	587.45	
W-819-02	05/10/12	234.36	587.46	
W-819-02	08/16/12	234.41	587.41	
W-819-02	12/17/12	236.30	585.52	
W-823-01	03/06/12	16.42	574.83	
W-823-01	05/31/12	16.57	574.68	
W-823-01	09/05/12	17.12	574.13	
W-823-01	12/18/12	19.11	572.14	
W-823-02	03/06/12	15.58	574.80	
W-823-02	05/31/12	15.98	574.40	
W-823-02	09/05/12	16.24	574.14	
W-823-02	12/18/12	18.30	572.08	
W-823-03	03/06/12	15.06	574.96	
W-823-03	05/31/12	15.33	574.69	
W-823-03	09/05/12	15.68	574.34	
W-823-03	12/18/12	17.33	572.69	
W-823-13	03/06/12	50.40	571.84	
W-823-13	05/30/12	51.11	571.13	
W-823-13	09/05/12	51.71	570.53	
W-823-13	12/18/12	51.84	570.40	
W-827-01	03/22/12	-	NA	DRY
W-827-01	05/08/12	-	NA	DRY
W-827-01	09/13/12	-	NA	DRY

Table C-4. High Explosives Process Area Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
W-35B-01	02/29/12	19.25	503.77	
W-827-01	12/18/12	-	NA	DRY
W-827-02	03/22/12	59.25	863.60	
W-827-02	05/08/12	61.92	860.93	
W-827-02	09/13/12	61.97	860.88	
W-827-02	12/18/12	56.90	865.95	
W-827-03	03/22/12	198.40	726.00	
W-827-03	05/08/12	198.40	726.00	
W-827-03	09/13/12	199.07	725.33	
W-827-03	12/18/12	197.90	726.50	
W-827-04	03/22/12	309.58	724.05	
W-827-04	05/08/12	308.91	724.72	
W-827-04	09/13/12	308.92	724.71	
W-827-04	12/18/12	308.90	724.73	
W-827-05	03/22/12	382.54	651.04	
W-827-05	05/08/12	382.65	650.93	
W-827-05	09/13/12	382.82	650.76	
W-827-05	12/18/12	382.68	650.90	
W-829-06	03/22/12	97.39	974.60	
W-829-06	05/08/12	100.39	971.60	
W-829-06	09/13/12	-	NA	DRY
W-829-06	12/18/12	-	NA	BLOC
W-829-08	03/22/12	99.00	975.45	
W-829-08	05/08/12	99.27	975.18	
W-829-08	09/13/12	99.94	974.51	
W-829-08	12/18/12	99.72	974.73	
W-829-15	03/22/12	337.25	696.75	
W-829-15	05/08/12	337.00	697.00	
W-829-15	09/13/12	337.22	696.78	
W-829-15	12/18/12	337.20	696.80	
W-829-1938	03/01/12	373.98	706.02	
W-829-1938	05/08/12	373.36	706.64	
W-829-1938	09/13/12	373.86	706.14	
W-829-1938	12/18/12	373.91	706.09	
W-829-1940	03/22/12	108.59	975.58	
W-829-1940	05/08/12	108.76	975.41	
W-829-1940	09/13/12	108.71	975.46	
W-829-1940	12/18/12	108.72	975.45	
W-829-22	03/22/12	399.78	653.29	
W-829-22	05/08/12	399.57	653.50	
W-829-22	09/13/12	399.63	653.44	
W-829-22	12/18/12	399.67	653.40	
WELL20	03/01/12	-	NA	NM/RA
WELL20	05/31/12	-	NA	NM/RA

Table C-4. High Explosives Process Area Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
W-35B-01	02/29/12	19.25	503.77	
WELL20	09/13/12	-	NA	NM
WELL20	12/18/12	-	NA	NM

Table C-5. Building 850 area in Operable Unit 5 ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
K1-01C	02/21/12	108.17	973.77	
K1-01C	05/01/12	108.52	973.42	
K1-01C	08/08/12	108.72	973.22	
K1-01C	11/05/12	109.30	972.64	
K1-02B	02/21/12	136.34	970.89	
K1-02B	05/01/12	136.74	970.49	
K1-02B	07/13/12	137.15	970.08	
K1-02B	11/05/12	137.35	969.88	
K1-04	02/22/12	157.32	965.35	
K1-04	05/01/12	157.52	965.15	
K1-04	07/13/12	157.80	964.87	
K1-04	11/05/12	-	NA	DRY
K1-05	02/21/12	172.36	958.50	
K1-05	05/01/12	172.57	958.29	
K1-05	07/13/12	172.50	958.36	
K1-05	11/05/12	172.70	958.16	
K1-06	02/21/12	116.55	972.99	
K1-06	05/01/12	116.68	972.86	
K1-06	07/13/12	116.47	973.07	
K1-06	11/05/12	118.37	971.17	
K1-07	02/22/12	142.03	967.60	
K1-07	05/01/12	142.55	967.08	
K1-07	07/13/12	142.65	966.98	
K1-07	11/05/12	143.42	966.21	
K1-08	02/22/12	156.08	966.66	
K1-08	05/01/12	156.53	966.21	
K1-08	07/13/12	156.74	966.00	
K1-08	11/05/12	157.17	965.57	
K1-09	02/22/12	161.97	964.71	
K1-09	05/01/12	163.00	963.68	
K1-09	07/13/12	162.68	964.00	
K1-09	11/05/12	163.50	963.18	
K2-03	01/05/12	54.28	1012.36	
K2-03	02/22/12	53.09	1013.55	
K2-03	04/30/12	53.55	1013.09	
K2-03	07/16/12	53.95	1012.69	
K2-04D	02/22/12	28.10	1064.42	
K2-04D	04/30/12	28.00	1064.52	
K2-04D	07/30/12	28.85	1063.67	
K2-04D	10/30/12	29.87	1062.65	
K2-04S	02/22/12	27.21	1064.74	
K2-04S	04/30/12	27.07	1064.88	
K2-04S	07/30/12	27.94	1064.01	
K2-04S	10/30/12	29.05	1062.90	
NC2-05	02/22/12	54.12	980.79	

Table C-5. Building 850 area in Operable Unit 5 ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
K1-01C	02/21/12	108.17	973.77	
NC2-05	05/02/12	54.53	980.38	
NC2-05	08/07/12	55.00	979.91	
NC2-05	10/30/12	55.27	979.64	
NC2-05A	02/22/12	54.41	981.02	
NC2-05A	05/02/12	54.80	980.63	
NC2-05A	08/07/12	55.15	980.28	
NC2-05A	10/30/12	55.42	980.01	
NC2-06	02/21/12	51.75	981.79	
NC2-06	05/02/12	52.11	981.43	
NC2-06	08/07/12	52.51	981.03	
NC2-06	10/30/12	52.69	980.85	
NC2-06A	02/21/12	52.60	981.63	
NC2-06A	05/02/12	53.91	980.32	
NC2-06A	08/07/12	53.30	980.93	
NC2-06A	10/30/12	53.62	980.61	
NC2-09	02/22/12	53.91	981.56	
NC2-09	05/02/12	54.24	981.23	
NC2-09	08/07/12	54.65	980.82	
NC2-09	10/30/12	54.73	980.74	
NC2-10	02/22/12	66.21	973.88	
NC2-10	05/02/12	66.34	973.75	
NC2-10	08/07/12	66.61	973.48	
NC2-10	10/30/12	67.80	972.29	
NC2-11D	02/22/12	53.44	975.18	
NC2-11D	05/02/12	53.56	975.06	
NC2-11D	08/07/12	53.86	974.76	
NC2-11D	10/30/12	53.91	974.71	
NC2-11I	02/22/12	53.62	975.14	
NC2-11I	05/02/12	53.77	974.73	
NC2-11I	08/07/12	54.04	974.46	
NC2-11I	10/30/12	54.13	974.37	
NC2-11S	02/22/12	53.34	975.18	
NC2-11S	05/02/12	53.34	975.18	
NC2-11S	08/07/12	53.99	974.53	
NC2-11S	10/30/12	54.07	974.45	
NC2-12D	02/22/12	52.31	976.13	
NC2-12D	05/02/12	52.59	975.85	
NC2-12D	08/07/12	52.79	975.65	
NC2-12D	10/30/12	52.95	975.49	
NC2-12I	02/22/12	52.54	975.86	
NC2-12I	05/02/12	52.85	975.55	
NC2-12I	08/07/12	53.15	975.25	
NC2-12I	10/30/12	53.30	975.10	
NC2-12S	02/22/12	52.40	976.12	

Table C-5. Building 850 area in Operable Unit 5 ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
K1-01C	02/21/12	108.17	973.77	
NC2-12S	05/02/12	52.51	976.01	
NC2-12S	08/07/12	52.81	975.71	
NC2-12S	10/30/12	53.98	974.54	
NC2-13	02/22/12	45.68	975.82	
NC2-13	05/02/12	45.86	975.64	
NC2-13	08/07/12	46.21	975.29	
NC2-13	10/30/12	46.32	975.18	
NC2-14S	02/22/12	16.73	1057.17	
NC2-14S	04/30/12	16.88	1057.02	
NC2-14S	07/26/12	17.19	1056.71	
NC2-14S	10/30/12	17.79	1056.11	
NC2-15	02/21/12	81.23	992.23	
NC2-15	05/02/12	82.85	990.61	
NC2-15	08/07/12	83.04	990.42	
NC2-15	10/30/12	83.13	990.33	
NC2-16	02/21/12	24.93	1057.53	
NC2-16	04/30/12	25.09	1057.37	
NC2-16	07/26/12	25.34	1057.12	
NC2-16	10/30/12	25.91	1056.55	
NC2-17	02/21/12	107.28	982.21	
NC2-17	05/02/12	107.63	981.86	
NC2-17	08/07/12	107.90	981.59	
NC2-17	10/30/12	108.24	981.25	
NC2-18	02/22/12	74.74	1056.43	
NC2-18	04/30/12	75.00	1056.17	
NC2-18	07/26/12	75.46	1055.71	
NC2-18	10/16/12	76.32	1054.85	
NC2-19	02/22/12	112.60	979.79	
NC2-19	05/02/12	112.14	980.25	
NC2-19	08/07/12	113.01	979.08	
NC2-19	10/30/12	115.07	977.02	
NC2-20	02/21/12	36.34	965.93	
NC2-20	05/02/12	56.31	945.96	
NC2-20	08/07/12	36.73	965.54	
NC2-20	10/30/12	36.82	965.45	
NC2-21	02/21/12	37.20	964.94	
NC2-21	05/02/12	36.30	965.84	
NC2-21	08/07/12	36.46	965.68	
NC2-21	10/30/12	36.73	965.41	
NC7-10	02/21/12	10.94	1215.36	
NC7-10	04/26/12	10.20	1216.10	
NC7-10	09/20/12	11.35	1214.95	
NC7-10	10/22/12	11.57	1214.73	
NC7-11	02/21/12	20.49	1223.90	

Table C-5. Building 850 area in Operable Unit 5 ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
K1-01C	02/21/12	108.17	973.77	
NC7-11	04/26/12	20.43	1223.96	
NC7-11	09/20/12	20.56	1223.83	
NC7-11	10/22/12	20.62	1223.77	
NC7-14	02/21/12	-	NA	DRY
NC7-14	04/26/12	-	NA	DRY
NC7-14	09/20/12	-	NA	DRY
NC7-14	10/22/12	-	NA	DRY
NC7-15	02/21/12	21.98	1247.43	
NC7-15	04/26/12	20.90	1248.51	
NC7-15	09/20/12	21.05	1248.36	
NC7-15	10/22/12	22.07	1247.34	
NC7-19	02/21/12	21.56	1239.12	
NC7-19	04/26/12	21.72	1238.96	
NC7-19	09/20/12	22.33	1238.35	
NC7-19	10/22/12	21.77	1238.91	
NC7-27	02/21/12	86.50	1195.90	
NC7-27	04/26/12	86.28	1196.12	
NC7-27	09/20/12	86.34	1196.06	
NC7-27	10/15/12	86.40	1196.00	
NC7-28	02/21/12	53.10	1260.16	
NC7-28	04/26/12	54.98	1258.28	
NC7-28	09/20/12	55.10	1258.16	
NC7-28	10/17/12	55.01	1258.25	
NC7-29	02/21/12	52.35	1202.39	
NC7-29	04/26/12	52.57	1202.17	
NC7-29	07/30/12	52.88	1201.86	
NC7-29	10/22/12	53.01	1201.73	
NC7-43	02/28/12	46.76	1240.45	
NC7-43	04/26/12	46.15	1241.06	
NC7-43	09/20/12	46.75	1240.46	
NC7-43	10/22/12	46.81	1240.40	
NC7-44	02/21/12	32.50	1323.33	
NC7-44	04/24/12	32.50	1323.33	
NC7-44	08/19/12	32.76	1323.07	
NC7-44	10/22/12	32.86	1322.97	
NC7-45	02/21/12	37.50	1151.19	
NC7-45	04/26/12	34.36	1154.33	
NC7-45	09/20/12	34.75	1153.94	
NC7-45	10/22/12	-	NA	NM/UC
NC7-46	02/21/12	24.17	1107.26	
NC7-46	04/30/12	24.64	1106.79	
NC7-46	07/30/12	26.14	1105.29	
NC7-46	10/30/12	24.80	1106.63	
NC7-54	02/21/12	13.43	1193.82	

Table C-5. Building 850 area in Operable Unit 5 ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
K1-01C	02/21/12	108.17	973.77	
NC7-54	04/26/12	-	NA	NM/BLOC
NC7-54	09/20/12	-	NA	DRY
NC7-54	10/22/12	-	NA	DRY
NC7-55	02/21/12	-	NA	DRY
NC7-55	04/26/12	-	NA	DRY
NC7-55	09/20/12	-	NA	DRY
NC7-55	10/30/12	-	NA	DRY
NC7-56	02/21/12	-	NA	DRY
NC7-56	04/30/12	19.24	1112.93	
NC7-56	07/30/12	20.17	1112.00	
NC7-56	10/22/12	20.35	1111.82	
NC7-57	02/22/12	-	NA	DRY
NC7-57	04/30/12	-	NA	DRY
NC7-57	07/30/12	-	NA	DRY
NC7-57	10/30/12	-	NA	DRY
NC7-58	02/21/12	24.24	1082.49	
NC7-58	04/30/12	23.10	1083.63	
NC7-58	07/30/12	24.54	1082.19	
NC7-58	10/30/12	25.02	1081.71	
NC7-59	02/21/12	13.00	1102.31	
NC7-59	04/30/12	12.97	1102.34	
NC7-59	07/30/12	13.56	1101.75	
NC7-59	10/16/12	14.12	1101.19	
NC7-60	02/21/12	159.79	1167.83	
NC7-60	04/26/12	159.66	1167.96	
NC7-60	09/20/12	159.45	1168.17	
NC7-60	10/22/12	160.81	1166.51	
NC7-61	02/21/12	48.47	1230.90	
NC7-61	04/26/12	48.31	1231.06	
NC7-61	09/20/12	48.63	1230.74	
NC7-61	10/22/12	48.67	1230.70	
NC7-62	02/21/12	22.50	1102.61	
NC7-62	04/30/12	22.05	1103.06	
NC7-62	07/30/12	22.61	1102.50	
NC7-62	10/30/12	22.80	1102.31	
NC7-69	02/21/12	2.70	1249.76	
NC7-69	04/26/12	2.68	1249.78	
NC7-69	09/20/12	3.25	1249.21	
NC7-69	10/22/12	3.63	1248.83	
NC7-70	02/21/12	34.62	1272.80	
NC7-70	04/26/12	34.40	1273.02	
NC7-70	08/19/12	34.86	1272.56	
NC7-70	10/30/12	34.87	1272.55	
NC7-71	02/21/12	64.91	1235.34	

Table C-5. Building 850 area in Operable Unit 5 ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
K1-01C	02/21/12	108.17	973.77	
NC7-71	04/26/12	64.78	1235.47	
NC7-71	09/20/12	65.10	1235.15	
NC7-71	10/30/12	65.75	1234.50	
NC7-72	02/21/12	32.69	1123.66	
NC7-72	04/30/12	31.95	1124.40	
NC7-72	07/30/12	32.94	1123.41	
NC7-72	10/30/12	33.10	1123.25	
NC7-73	02/21/12	28.01	1138.26	
NC7-73	04/30/12	27.46	1138.81	
NC7-73	07/30/12	28.16	1138.11	
NC7-73	10/30/12	28.35	1137.92	
W-850-05	02/21/12	30.15	1273.24	
W-850-05	04/26/12	29.90	1273.49	
W-850-05	07/26/12	30.17	1273.22	
W-850-05	10/22/12	30.33	1273.06	
W-850-2145	02/22/12	176.69	1030.28	
W-850-2145	04/26/12	176.74	1030.23	
W-850-2145	07/26/12	176.85	1030.12	
W-850-2145	10/22/12	177.21	1029.76	
W-850-2312	02/22/12	70.58	1061.38	
W-850-2312	04/26/12	70.65	1061.31	
W-850-2312	07/26/12	71.20	1060.76	
W-850-2312	10/30/12	72.25	1059.71	
W-850-2313	02/21/12	24.44	1158.29	
W-850-2313	04/26/12	22.74	1159.99	
W-850-2313	09/20/12	25.00	1157.73	
W-850-2313	10/22/12	24.94	1157.79	
W-850-2314	02/21/12	156.52	1179.25	
W-850-2314	04/26/12	157.03	1178.74	
W-850-2314	09/20/12	156.42	1179.35	
W-850-2314	10/22/12	155.86	1179.91	
W-850-2315	02/21/12	52.73	1202.60	
W-850-2315	04/26/12	52.93	1202.40	
W-850-2315	07/30/12	53.19	1202.14	
W-850-2315	10/22/12	53.38	1201.95	
W-850-2316	02/22/12	176.86	1030.26	
W-850-2316	04/26/12	176.91	1030.21	
W-850-2316	07/26/12	177.00	1030.12	
W-850-2316	10/22/12	177.12	1030.00	
W-850-2416	02/22/12	61.37	1240.53	
W-850-2416	04/26/12	60.94	1240.96	
W-850-2416	09/20/12	61.20	1240.70	
W-850-2416	10/22/12	61.50	1240.40	
W-850-2417	02/22/12	53.04	1260.73	

Table C-5. Building 850 area in Operable Unit 5 ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
K1-01C	02/21/12	108.17	973.77	
W-850-2417	04/26/12	52.43	1261.34	
W-850-2417	09/20/12	52.73	1261.04	
W-850-2417	10/22/12	52.76	1261.01	
W-850-2805	08/23/12	22.30	NA	Well not surveyed. Data in review.
W-850-2805	10/30/12	22.55	NA	Well not surveyed. Data in review.
W-865-02	02/22/12	124.78	987.60	
W-865-02	04/30/12	124.87	987.51	
W-865-02	07/16/12	124.93	987.45	
W-865-02	10/22/12	125.02	987.36	
W-865-05	02/22/12	-	NA	DRY
W-865-05	04/24/12	-	NA	DRY
W-865-05	07/16/12	-	NA	DRY
W-865-05	10/30/12	-	NA	DRY
W-865-1802	02/22/12	50.55	1018.50	
W-865-1802	04/30/12	50.83	1018.22	
W-865-1802	07/16/12	51.32	1017.73	
W-865-1802	10/22/12	51.52	1017.53	
W-865-1803	02/22/12	104.43	1075.56	
W-865-1803	04/30/12	104.47	1075.52	
W-865-1803	07/30/12	105.53	1074.46	
W-865-1803	10/22/12	105.56	1074.43	
W-865-2005	02/22/12	327.16	947.71	
W-865-2005	04/24/12	327.14	947.73	
W-865-2005	07/16/12	327.34	947.53	
W-865-2005	10/22/12	327.64	947.23	
W-865-2121	02/22/12	344.73	943.88	
W-865-2121	04/24/12	345.58	943.03	
W-865-2121	07/16/12	345.55	943.06	
W-865-2121	10/30/12	345.80	942.81	
W-865-2133	02/22/12	80.70	927.80	
W-865-2133	04/24/12	80.26	928.24	
W-865-2133	07/16/12	80.24	928.26	
W-865-2133	10/30/12	80.26	928.24	
W-865-2224	02/22/12	80.49	928.06	
W-865-2224	04/24/12	80.50	928.05	
W-865-2224	07/16/12	80.45	928.10	
W-865-2224	10/30/12	80.45	928.10	
W-PIT1-01	02/22/12	-	NA	DRY
W-PIT1-01	05/01/12	-	NA	DRY
W-PIT1-01	07/30/12	-	NA	DRY
W-PIT1-01	10/30/12	-	NA	DRY
W-PIT1-02	02/22/12	233.16	948.14	
W-PIT1-02	05/01/12	233.22	948.08	
W-PIT1-02	07/30/12	233.38	947.92	

Table C-5. Building 850 area in Operable Unit 5 ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
K1-01C	02/21/12	108.17	973.77	
W-PIT1-02	10/30/12	233.35	947.95	
W-PIT1-2204	02/21/12	41.02	1032.14	
W-PIT1-2204	05/01/12	41.11	1032.05	
W-PIT1-2204	07/30/12	41.06	1032.10	
W-PIT1-2204	10/30/12	41.46	1031.70	
W-PIT1-2209	02/22/12	215.93	950.12	
W-PIT1-2209	05/01/12	215.98	950.07	
W-PIT1-2209	07/16/12	216.04	950.01	
W-PIT1-2209	10/30/12	216.02	950.03	
W-PIT1-2225	02/22/12	226.57	966.57	
W-PIT1-2225	05/01/12	226.61	966.53	
W-PIT1-2225	07/16/12	226.34	966.80	
W-PIT1-2225	10/30/12	226.37	966.77	
W-PIT1-2326	02/15/12	180.15	967.64	
W-PIT1-2326	05/01/12	180.51	967.28	
W-PIT1-2326	07/16/12	180.63	967.16	
W-PIT1-2326	10/30/12	180.85	966.94	
W-PIT1-2620	02/22/12	231.50	NA	Well not surveyed. Data in review.
W-PIT1-2620	05/01/12	231.59	NA	Well not surveyed. Data in review.
W-PIT1-2620	07/30/12	232.15	947.72	
W-PIT1-2620	10/30/12	231.80	948.07	
W-PIT7-16	02/22/12	21.82	1249.18	
W-PIT7-16	04/26/12	21.54	1249.46	
W-PIT7-16	09/19/12	21.73	1249.27	
W-PIT7-16	10/22/12	22.10	1248.90	

Table C-6. Pit 2 Landfill ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
K2-01C	02/22/12	65.62	985.28	
K2-01C	04/30/12	66.20	984.70	
K2-01C	07/30/12	66.66	984.24	
K2-01C	11/05/12	67.33	983.57	
NC2-08	02/21/12	61.08	988.29	
NC2-08	05/02/12	61.52	987.85	
NC2-08	08/07/12	62.09	987.28	
NC2-08	10/30/12	62.55	986.82	
W-PIT2-1934	02/22/12	55.56	1005.55	
W-PIT2-1934	05/02/12	55.63	1005.48	
W-PIT2-1934	07/30/12	56.30	1004.81	
W-PIT2-1934	10/30/12	56.70	1004.41	
W-PIT2-1935	02/22/12	73.62	982.24	
W-PIT2-1935	04/30/12	74.07	981.79	
W-PIT2-1935	07/30/12	74.58	981.28	
W-PIT2-1935	10/30/12	75.06	980.80	
W-PIT2-2226	02/22/12	328.15	965.97	
W-PIT2-2226	04/30/12	328.28	965.84	
W-PIT2-2226	07/30/12	328.29	965.83	
W-PIT2-2226	10/15/12	328.31	965.81	
W-PIT2-2301	02/21/12	30.80	1012.33	
W-PIT2-2301	05/02/12	31.07	1012.06	
W-PIT2-2301	08/07/12	30.82	1012.31	
W-PIT2-2301	10/15/12	31.20	1011.93	
W-PIT2-2302	02/21/12	16.61	1025.89	
W-PIT2-2302	05/02/12	16.73	1025.77	
W-PIT2-2302	08/07/12	16.49	1026.01	
W-PIT2-2302	10/15/12	16.61	1025.89	
W-PIT2-2303	02/21/12	-	NA	DRY
W-PIT2-2303	05/02/12	-	NA	DRY
W-PIT2-2303	08/07/12	-	NA	DRY
W-PIT2-2303	10/15/12	-	NA	DRY
W-PIT2-2304	02/21/12	-	NA	DRY
W-PIT2-2304	05/02/12	-	NA	DRY
W-PIT2-2304	08/07/12	-	NA	DRY
W-PIT2-2304	10/15/12	-	NA	DRY

Table C-7. Pit 7 Complex area in Operable Unit 5 ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
K7-01	02/28/12	27.31	1291.43	
K7-01	04/26/12	27.34	1291.40	
K7-01	07/16/12	27.65	1291.09	
K7-01	10/16/12	28.32	1290.41	
K7-03	02/25/12	27.30	1311.79	
K7-03	04/24/12	27.63	1311.46	
K7-03	07/16/12	27.73	1311.36	
K7-03	10/16/12	28.42	1310.67	
K7-06	01/25/12	27.56	1386.09	
K7-06	04/23/12	26.90	1386.75	
K7-06	07/16/12	27.40	1386.25	
K7-06	10/15/12	28.20	1385.45	
K7-07	03/22/12	-	NA	DRY
K7-07	04/24/12	23.00	1275.02	
K7-07	07/16/12	23.25	1274.77	
K7-07	10/16/12	23.98	1274.04	
K7-09	01/25/12	49.65	1295.65	
K7-09	04/24/12	49.92	1295.38	
K7-09	07/16/12	50.12	1295.18	
K7-09	10/15/12	50.61	1294.69	
K7-10	01/25/12	36.12	1307.19	
K7-10	04/24/12	37.47	1305.84	
K7-10	07/16/12	37.55	1305.76	
K7-10	10/15/12	37.20	1306.11	
NC7-12	02/21/12	22.15	1263.54	
NC7-12	04/26/12	21.80	1263.89	
NC7-12	09/20/12	22.21	1263.48	
NC7-12	10/22/12	22.25	1263.44	
NC7-16	02/21/12	27.39	1283.35	
NC7-16	04/26/12	27.76	1282.98	
NC7-16	09/20/12	27.80	1282.94	
NC7-16	10/22/12	27.85	1282.89	
NC7-17	02/21/12	30.05	1359.15	
NC7-17	04/24/12	29.87	1359.33	
NC7-17	09/20/12	30.04	1359.16	
NC7-17	10/15/12	30.31	1358.89	
NC7-18	02/21/12	22.15	1310.11	
NC7-18	04/24/12	25.35	1306.91	
NC7-18	09/20/12	25.38	1306.88	
NC7-18	10/16/12	24.76	1307.20	
NC7-20	02/21/12	37.98	1257.41	
NC7-20	04/26/12	37.67	1257.72	
NC7-20	09/20/12	37.75	1257.64	
NC7-20	10/22/12	37.84	1257.55	
NC7-21	02/21/12	28.43	1275.74	

Table C-7. Pit 7 Complex area in Operable Unit 5 ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
K7-01	02/28/12	27.31	1291.43	
NC7-21	04/26/12	27.99	1276.18	
NC7-21	09/20/12	28.01	1276.16	
NC7-21	10/22/12	29.82	1274.35	
NC7-22	02/21/12	-	NA	DRY
NC7-22	04/24/12	-	NA	DRY
NC7-22	09/20/12	-	NA	DRY
NC7-22	10/22/12	-	NA	DRY
NC7-24	01/25/12	-	NA	DRY
NC7-24	04/24/12	-	NA	DRY
NC7-24	07/30/12	-	NA	DRY
NC7-24	10/22/12	-	NA	DRY
NC7-25	01/25/12	-	NA	NM
NC7-25	04/24/12	67.40	1299.11	
NC7-25	09/20/12	67.56	1298.95	
NC7-25	10/16/12	67.80	1298.71	
NC7-26	02/21/12	72.14	1256.53	
NC7-26	04/24/12	71.90	1256.77	
NC7-26	09/20/12	72.23	1256.44	
NC7-26	10/17/12	72.15	1256.52	
NC7-34	02/21/12	26.16	1337.87	
NC7-34	04/24/12	29.02	1335.01	
NC7-34	09/20/12	28.97	1335.06	
NC7-34	11/15/12	34.10	1329.93	
NC7-36	02/21/12	22.15	1339.79	
NC7-36	04/24/12	23.85	1338.09	
NC7-36	09/20/12	24.25	1337.69	
NC7-36	11/15/12	26.57	1335.37	
NC7-37	01/25/12	-	NA	DRY
NC7-37	04/24/12	-	NA	DRY
NC7-37	09/20/12	-	NA	DRY
NC7-37	10/17/12	-	NA	DRY
NC7-40	02/28/12	22.40	1297.38	
NC7-40	04/26/12	22.48	1297.30	
NC7-40	07/30/12	25.02	1294.76	
NC7-40	10/17/12	23.50	1296.28	
NC7-47	02/22/12	63.22	1205.29	
NC7-47	04/30/12	63.25	1205.26	
NC7-47	07/16/12	63.17	1205.34	
NC7-47	10/22/12	63.23	1205.28	
NC7-48	02/21/12	45.31	1347.51	
NC7-48	04/24/12	45.26	1347.56	
NC7-48	09/20/12	45.98	1346.84	
NC7-48	11/15/12	49.34	1343.48	
NC7-49A	02/21/12	32.74	1360.99	

Table C-7. Pit 7 Complex area in Operable Unit 5 ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
K7-01	02/28/12	27.31	1291.43	
NC7-49A	04/24/12	32.54	1361.19	
NC7-49A	09/20/12	32.57	1361.16	
NC7-49A	11/15/12	35.80	1357.93	
NC7-50	02/22/12	76.33	1123.39	
NC7-50	04/30/12	75.86	1123.86	
NC7-50	07/30/12	76.12	1123.60	
NC7-50	10/22/12	75.78	1123.94	
NC7-51	01/25/12	32.15	1315.68	
NC7-51	04/24/12	32.07	1315.76	
NC7-51	09/20/12	35.19	1312.64	
NC7-51	10/16/12	35.50	1312.33	
NC7-52	01/25/12	74.36	1293.99	
NC7-52	04/23/12	74.58	1293.77	
NC7-52	09/20/12	75.26	1293.09	
NC7-52	10/16/12	74.78	1293.57	
NC7-53	01/25/12	33.18	1389.86	
NC7-53	04/24/12	33.20	1389.84	
NC7-53	09/20/12	33.76	1389.28	
NC7-53	11/15/12	33.67	1389.37	
NC7-63	02/21/12	31.79	1317.28	
NC7-63	04/24/12	33.05	1316.02	
NC7-63	07/30/12	32.90	1316.17	
NC7-63	10/16/12	33.18	1315.89	
NC7-64	02/21/12	43.95	1304.63	
NC7-64	04/24/12	43.95	1304.63	
NC7-64	07/30/12	34.00	1314.58	
NC7-64	10/16/12	34.40	1314.18	
NC7-65	02/21/12	189.79	1261.49	
NC7-65	04/24/12	190.35	1260.93	
NC7-65	09/20/12	190.76	1260.52	
NC7-65	10/15/12	190.28	1261.00	
NC7-67	02/28/12	31.36	1291.56	
NC7-67	04/26/12	31.94	1290.98	
NC7-67	09/20/12	32.51	1290.41	
NC7-67	10/17/12	32.81	1290.11	
NC7-68	02/28/12	31.39	1291.51	
NC7-68	04/26/12	31.49	1291.41	
NC7-68	09/20/12	31.94	1290.96	
NC7-68	10/17/12	32.59	1290.31	
NC7-75	01/25/12	49.12	1303.10	
NC7-75	04/24/12	49.09	1303.13	
NC7-75	07/30/12	49.61	1302.61	
NC7-75	10/16/12	49.98	1302.24	
NC7-76	02/22/12	22.73	1254.15	

Table C-7. Pit 7 Complex area in Operable Unit 5 ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
K7-01	02/28/12	27.31	1291.43	
NC7-76	04/26/12	22.43	1254.45	
NC7-76	09/10/12	23.15	1253.73	
NC7-76	10/22/12	23.52	1253.36	
W-865-01	02/22/12	34.20	1153.46	
W-865-01	04/30/12	34.25	1153.41	
W-865-01	07/30/12	34.57	1153.09	
W-865-01	10/22/12	34.60	1153.06	
W-865-03	02/22/12	54.80	1181.18	
W-865-03	04/30/12	54.89	1181.09	
W-865-03	07/16/12	54.90	1181.08	
W-865-03	10/22/12	55.01	1180.97	
W-865-1804	02/22/12	102.92	1109.19	
W-865-1804	04/30/12	102.98	1109.13	
W-865-1804	07/30/12	102.78	1109.33	
W-865-1804	10/22/12	102.97	1109.14	
W-PIT3-01	07/30/12	-	NA	DRY
W-PIT3-02	02/25/12	-	NA	DRY
W-PIT3-02	04/24/12	-	NA	DRY
W-PIT3-02	07/30/12	-	NA	DRY
W-PIT3-02	10/15/12	-	NA	DRY
W-PIT5-02	02/25/12	-	NA	DRY
W-PIT5-02	04/24/12	-	NA	DRY
W-PIT5-02	09/20/12	-	NA	DRY
W-PIT5-02	10/17/12	-	NA	DRY
W-PIT7-02	01/25/12	22.21	1295.76	
W-PIT7-02	04/24/12	23.43	1294.54	
W-PIT7-02	09/20/12	23.49	1294.48	
W-PIT7-02	10/17/12	23.57	1294.40	
W-PIT7-03	01/25/12	26.75	1302.77	
W-PIT7-03	04/24/12	27.03	1302.49	
W-PIT7-03	09/20/12	27.19	1302.33	
W-PIT7-03	10/17/12	29.27	1300.25	
W-PIT7-10	01/25/12	25.79	1292.64	
W-PIT7-10	04/24/12	26.07	1292.36	
W-PIT7-10	09/20/12	26.38	1292.05	
W-PIT7-10	10/17/12	26.43	1292.00	
W-PIT7-11	01/25/12	-	NA	DRY
W-PIT7-11	04/24/12	-	NA	DRY
W-PIT7-11	09/20/12	-	NA	DRY
W-PIT7-11	10/16/12	-	NA	DRY
W-PIT7-12	01/25/12	213.98	1202.57	
W-PIT7-12	04/24/12	214.08	1202.47	
W-PIT7-12	09/20/12	213.99	1202.56	
W-PIT7-12	10/16/12	214.10	1202.45	

Table C-7. Pit 7 Complex area in Operable Unit 5 ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
K7-01	02/28/12	27.31	1291.43	
W-PIT7-13	01/25/12	231.79	1250.75	
W-PIT7-13	04/26/12	231.84	1250.70	
W-PIT7-13	09/20/12	231.87	1250.67	
W-PIT7-13	10/16/12	231.50	1251.04	
W-PIT7-14	01/25/12	304.32	1158.92	
W-PIT7-14	04/26/12	304.79	1158.45	
W-PIT7-14	09/20/12	304.52	1158.72	
W-PIT7-14	10/22/12	304.30	1158.94	
W-PIT7-15	02/22/12	105.11	1200.69	
W-PIT7-15	04/30/12	105.09	1200.71	
W-PIT7-15	07/16/12	104.99	1200.81	
W-PIT7-15	10/22/12	105.07	1200.73	
W-PIT7-1715	01/25/12	48.57	1423.41	
W-PIT7-1715	04/23/12	48.34	1423.64	
W-PIT7-1715	09/19/12	48.50	1423.48	
W-PIT7-1715	10/15/12	48.84	1423.14	
W-PIT7-1716	01/25/12	-	NA	DRY
W-PIT7-1716	04/23/12	-	NA	DRY
W-PIT7-1716	09/19/12	-	NA	DRY
W-PIT7-1716	10/15/12	-	NA	DRY
W-PIT7-1719	01/25/12	21.06	1451.46	
W-PIT7-1719	04/23/12	21.10	1451.42	
W-PIT7-1719	09/19/12	21.25	1451.27	
W-PIT7-1719	10/15/12	21.36	1451.16	
W-PIT7-1721	01/25/12	25.81	1419.29	
W-PIT7-1721	04/23/12	25.90	1419.20	
W-PIT7-1721	09/19/12	25.87	1419.23	
W-PIT7-1721	10/15/12	25.98	1419.12	
W-PIT7-1722	01/25/12	-	NA	DRY
W-PIT7-1722	04/23/12	-	NA	DRY
W-PIT7-1722	09/19/12	-	NA	DRY
W-PIT7-1722	10/15/12	-	NA	DRY
W-PIT7-1725	01/25/12	120.39	1299.66	
W-PIT7-1725	04/23/12	120.46	1299.59	
W-PIT7-1725	09/19/12	120.43	1299.62	
W-PIT7-1725	10/15/12	120.41	1299.64	
W-PIT7-1726	01/25/12	-	NA	DRY
W-PIT7-1726	04/23/12	-	NA	DRY
W-PIT7-1726	09/19/12	-	NA	DRY
W-PIT7-1726	10/15/12	-	NA	DRY
W-PIT7-1727	01/25/12	-	NA	DRY
W-PIT7-1727	04/24/12	-	NA	DRY
W-PIT7-1727	09/19/12	-	NA	DRY
W-PIT7-1727	10/15/12	-	NA	DRY

Table C-7. Pit 7 Complex area in Operable Unit 5 ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
K7-01	02/28/12	27.31	1291.43	
W-PIT7-1728	01/25/12	-	NA	DRY
W-PIT7-1728	04/23/12	-	NA	DRY
W-PIT7-1728	09/19/12	-	NA	DRY
W-PIT7-1728	10/15/12	-	NA	DRY
W-PIT7-1729	01/25/12	-	NA	DRY
W-PIT7-1729	04/23/12	-	NA	DRY
W-PIT7-1729	09/19/12	-	NA	DRY
W-PIT7-1729	10/15/12	-	NA	DRY
W-PIT7-1860	01/25/12	12.92	1433.86	
W-PIT7-1860	04/24/12	13.12	1433.66	
W-PIT7-1860	09/19/12	13.17	1433.61	
W-PIT7-1860	10/17/12	13.23	1433.55	
W-PIT7-1861	01/25/12	13.04	1433.79	
W-PIT7-1861	04/24/12	13.24	1433.59	
W-PIT7-1861	09/19/12	13.45	1433.38	
W-PIT7-1861	10/17/12	13.51	1433.32	
W-PIT7-1903	02/28/12	21.37	1296.91	
W-PIT7-1903	04/26/12	21.39	1296.89	
W-PIT7-1903	09/20/12	22.35	1295.93	
W-PIT7-1903	10/17/12	22.47	1295.81	
W-PIT7-1904	02/28/12	22.00	1295.75	
W-PIT7-1904	04/26/12	22.08	1295.67	
W-PIT7-1904	09/20/12	22.83	1294.92	
W-PIT7-1904	10/17/12	22.90	1294.85	
W-PIT7-1905	02/28/12	21.38	1296.60	
W-PIT7-1905	04/26/12	21.41	1296.57	
W-PIT7-1905	09/20/12	22.31	1295.67	
W-PIT7-1905	10/17/12	22.40	1295.58	
W-PIT7-1907	02/28/12	21.10	1297.13	
W-PIT7-1907	04/26/12	22.15	1296.08	
W-PIT7-1907	09/20/12	22.19	1296.04	
W-PIT7-1907	10/17/12	22.12	1296.11	
W-PIT7-1915	02/28/12	21.04	1296.86	
W-PIT7-1915	04/26/12	21.31	1296.59	
W-PIT7-1915	09/20/12	22.08	1295.82	
W-PIT7-1915	10/17/12	22.08	1295.82	
W-PIT7-1916	02/28/12	21.42	1296.70	
W-PIT7-1916	04/26/12	21.90	1296.22	
W-PIT7-1916	09/20/12	22.44	1295.68	
W-PIT7-1916	10/17/12	22.50	1295.62	
W-PIT7-1917	02/28/12	19.83	1298.18	
W-PIT7-1917	04/26/12	22.83	1295.18	
W-PIT7-1917	09/20/12	22.87	1295.14	
W-PIT7-1917	10/17/12	22.85	1295.16	

Table C-7. Pit 7 Complex area in Operable Unit 5 ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
K7-01	02/28/12	27.31	1291.43	
W-PIT7-1918	02/28/12	21.50	1296.54	
W-PIT7-1918	04/26/12	21.66	1296.38	
W-PIT7-1918	09/20/12	22.39	1295.65	
W-PIT7-1918	10/17/12	22.48	1295.56	
W-PIT7-1919	02/28/12	21.49	1293.51	
W-PIT7-1919	04/26/12	22.15	1292.85	
W-PIT7-1919	09/20/12	22.51	1292.49	
W-PIT7-1919	10/17/12	22.60	1292.40	
W-PIT7-2141	02/28/12	300.67	1163.72	
W-PIT7-2141	04/26/12	300.36	1164.03	
W-PIT7-2141	09/20/12	300.33	1164.06	
W-PIT7-2141	10/22/12	300.41	1163.98	
W-PIT7-2305	02/28/12	36.21	1283.54	
W-PIT7-2305	04/24/12	37.15	1282.60	
W-PIT7-2305	09/20/12	37.26	1282.49	
W-PIT7-2305	10/17/12	37.42	1282.33	
W-PIT7-2306	02/28/12	44.94	1307.08	
W-PIT7-2306	04/24/12	41.72	1310.30	
W-PIT7-2306	09/20/12	45.28	1306.74	
W-PIT7-2306	10/16/12	45.51	1306.51	
W-PIT7-2307	02/28/12	25.51	1312.04	
W-PIT7-2307	04/24/12	28.00	1309.55	
W-PIT7-2307	09/20/12	27.95	1309.60	
W-PIT7-2307	10/17/12	30.00	1307.55	
W-PIT7-2309	02/28/12	27.89	1311.09	
W-PIT7-2309	04/24/12	29.70	1309.28	
W-PIT7-2309	09/20/12	29.81	1309.17	
W-PIT7-2309	10/16/12	31.22	1307.76	
W-PIT7-2703	04/24/12	33.70	NA	Well not surveyed. Data in review.
W-PIT7-2703	09/20/12	37.68	1312.44	
W-PIT7-2703	10/16/12	36.00	1314.12	
W-PIT7-2704	04/24/12	30.73	NA	Well not surveyed. Data in review.
W-PIT7-2704	09/20/12	37.57	1313.35	
W-PIT7-2704	10/16/12	38.18	1312.74	
W-PIT7-2705	02/28/12	22.45	NA	Well not surveyed. Data in review.
W-PIT7-2705	04/26/12	22.24	NA	Well not surveyed. Data in review.
W-PIT7-2705	09/20/12	23.80	1294.22	
W-PIT7-2705	10/17/12	23.87	1294.15	

Table C-8. Building 854 Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
W-854-01	03/08/12	197.25	1138.90	
W-854-01	05/09/12	197.23	1138.92	
W-854-01	08/08/12	197.41	1138.74	
W-854-01	12/10/12	197.62	1138.53	
W-854-02	03/08/12	149.12	1185.15	
W-854-02	05/09/12	147.60	1186.67	
W-854-02	08/08/12	147.74	1186.53	
W-854-02	12/10/12	144.63	1189.64	
W-854-03	03/08/12	118.60	1121.93	
W-854-03	05/09/12	118.84	1121.69	
W-854-03	08/08/12	119.42	1121.11	
W-854-03	12/10/12	-	NA	NM/RA
W-854-04	03/08/12	293.18	946.91	
W-854-04	05/09/12	293.00	947.09	
W-854-04	08/08/12	292.70	947.39	
W-854-04	12/10/12	292.76	947.33	
W-854-05	03/08/12	89.79	1242.25	
W-854-05	05/09/12	89.74	1242.30	
W-854-05	08/08/12	89.75	1242.29	
W-854-05	12/10/12	89.72	1242.32	
W-854-06	03/08/12	118.21	992.24	
W-854-06	05/09/12	118.34	992.11	
W-854-06	08/08/12	118.35	992.10	
W-854-06	12/10/12	118.64	991.81	
W-854-07	03/08/12	118.09	992.77	
W-854-07	05/09/12	117.73	993.13	
W-854-07	08/08/12	117.92	992.94	
W-854-07	12/10/12	117.99	992.87	
W-854-08	03/08/12	120.19	1156.01	
W-854-08	05/09/12	120.40	1155.80	
W-854-08	08/08/12	120.64	1155.56	
W-854-08	12/10/12	121.66	1154.54	
W-854-09	03/08/12	-	NA	NM/RA
W-854-09	05/09/12	189.95	1171.26	
W-854-09	08/08/12	189.91	1171.30	
W-854-09	12/10/12	190.37	1170.84	
W-854-10	03/08/12	116.41	1209.97	
W-854-10	05/09/12	116.69	1209.69	
W-854-10	08/08/12	116.98	1209.40	
W-854-10	12/10/12	117.23	1209.15	
W-854-11	03/08/12	-	NA	DRY
W-854-11	05/09/12	-	NA	DRY
W-854-11	08/08/12	-	NA	DRY
W-854-11	12/10/12	-	NA	DRY
W-854-12	03/08/12	227.09	1029.70	

Table C-8. Building 854 Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
W-854-01	03/08/12	197.25	1138.90	
W-854-12	05/21/12	-	NA	DRY
W-854-12	08/08/12	-	NA	NM/RA
W-854-12	12/10/12	-	NA	NM/RA
W-854-13	03/08/12	104.96	1152.21	
W-854-13	05/21/12	105.14	1152.03	
W-854-13	08/08/12	105.23	1151.94	
W-854-13	12/10/12	-	NA	NM/RA
W-854-14	03/08/12	59.66	944.04	
W-854-14	05/09/12	59.73	943.97	
W-854-14	08/08/12	60.13	943.57	
W-854-14	12/10/12	54.30	949.40	
W-854-15	03/08/12	76.23	1055.77	
W-854-15	05/09/12	76.34	1055.66	
W-854-15	08/08/12	76.32	1055.68	
W-854-15	12/10/12	76.70	1055.30	
W-854-17	03/08/12	143.42	1192.72	
W-854-17	05/09/12	144.00	1192.14	
W-854-17	08/08/12	144.20	1191.94	
W-854-17	12/10/12	143.66	1192.48	
W-854-18A	03/12/12	145.30	1190.60	
W-854-18A	05/09/12	145.11	1190.79	
W-854-18A	08/08/12	145.32	1190.58	
W-854-18A	12/10/12	142.47	1193.43	
W-854-19	03/12/12	-	NA	DRY
W-854-19	05/09/12	-	NA	DRY
W-854-19	08/08/12	-	NA	DRY
W-854-19	12/10/12	-	NA	DRY
W-854-1701	03/08/12	240.22	1010.10	
W-854-1701	05/09/12	240.28	1010.04	
W-854-1701	08/08/12	240.26	1010.06	
W-854-1701	12/10/12	239.54	1010.78	
W-854-1706	03/08/12	16.68	816.13	
W-854-1706	05/09/12	16.84	815.97	
W-854-1706	08/08/12	17.14	815.67	
W-854-1706	12/10/12	17.69	815.12	
W-854-1707	03/08/12	29.72	802.49	
W-854-1707	05/09/12	30.16	802.05	
W-854-1707	08/08/12	30.46	801.75	
W-854-1707	12/10/12	30.56	801.65	
W-854-1731	03/08/12	58.22	945.27	
W-854-1731	05/09/12	58.56	944.93	
W-854-1731	08/08/12	57.96	945.53	
W-854-1731	12/10/12	56.39	947.10	
W-854-1822	03/08/12	146.57	1040.89	

Table C-8. Building 854 Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
W-854-01	03/08/12	197.25	1138.90	
W-854-1822	05/09/12	146.24	1041.22	
W-854-1822	08/08/12	146.39	1041.07	
W-854-1822	12/10/12	146.72	1040.74	
W-854-1823	03/12/12	50.90	1103.36	
W-854-1823	05/09/12	50.97	1103.29	
W-854-1823	08/08/12	51.23	1103.03	
W-854-1823	12/10/12	53.31	1100.95	
W-854-1834	03/12/12	121.25	1212.14	
W-854-1834	05/09/12	121.24	1212.15	
W-854-1834	08/08/12	122.10	1211.29	
W-854-1834	12/10/12	-	NA	DRY
W-854-1835	03/12/12	122.70	1210.05	
W-854-1835	05/09/12	122.75	1210.00	
W-854-1835	08/08/12	122.81	1209.94	
W-854-1835	12/10/12	122.70	1210.05	
W-854-1902	03/12/12	148.26	1040.02	
W-854-1902	05/09/12	146.34	1041.94	
W-854-1902	08/08/12	146.75	1041.53	
W-854-1902	12/10/12	148.80	1039.48	
W-854-2115	03/12/12	118.16	993.54	
W-854-2115	05/09/12	118.21	993.49	
W-854-2115	08/08/12	118.76	992.94	
W-854-2115	12/10/12	118.59	993.11	
W-854-2139	03/12/12	119.83	991.85	
W-854-2139	05/09/12	118.80	992.88	
W-854-2139	08/08/12	119.31	992.37	
W-854-2139	12/10/12	121.40	990.28	
W-854-2218	03/12/12	146.32	1188.38	
W-854-2218	05/09/12	148.93	1185.77	
W-854-2218	08/08/12	148.71	1185.99	
W-854-2218	12/10/12	146.38	1188.32	
W-854-2611	03/08/12	158.90	NA	Well not surveyed. Data in review.
W-854-2611	05/09/12	159.75	NA	Well not surveyed. Data in review.
W-854-2611	08/08/12	160.68	NA	Well not surveyed. Data in review.
W-854-2611	12/10/12	160.50	NA	Well not surveyed. Data in review.
W-854-45	03/08/12	86.39	911.50	
W-854-45	05/09/12	86.41	911.48	
W-854-45	08/08/12	85.96	911.93	
W-854-45	12/10/12	85.87	912.02	

Table C-9. Building 832 Canyon Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
W-830-07	03/22/12	-	NA	NM/RA
W-830-07	05/29/12	-	NA	NM/RA
W-830-19	05/29/12	-	NA	DRY
W-830-25	03/15/12	-	NA	DRY
W-830-25	05/10/12	-	NA	DRY
W-830-25	08/20/12	-	NA	DRY
W-830-25	12/06/12	-	NA	DRY
W-830-26	03/05/12	-	NA	DRY
W-830-26	05/29/12	-	NA	DRY
W-830-26	08/14/12	-	NA	DRY
W-830-26	11/27/12	-	NA	DRY
W-830-28	11/27/12	-	NA	NM/RA
W-830-29	08/14/12	-	NA	DRY
W-830-51	03/15/12	-	NA	NM/FA
W-830-51	05/10/12	-	NA	NM/FA
W-830-53	03/16/12	-	NA	NM/FA
W-830-53	08/20/12	-	NA	NM/FA
W-830-59	08/14/12	-	NA	DRY
W-830-1730	03/22/12	-	NA	NM/RA
W-830-1730	05/10/12	-	NA	NM/RA
W-830-1807	03/22/12	-	NA	NM/RA
W-830-1807	05/29/12	-	NA	NM/RA
W-830-1807	08/14/12	-	NA	NM/RA
W-830-1807	12/06/12	-	NA	NM/RA
W-830-2610	05/15/12	17.66	NA	Well not surveyed. Data in review.
W-830-2610	09/05/12	27.66	NA	Well not surveyed. Data in review.
W-830-2610	12/06/12	11.85	NA	Well not surveyed. Data in review.
W-830-2701	03/15/12	58.45	NA	Well not surveyed. Data in review.
W-830-2701	05/10/12	58.30	NA	Well not surveyed. Data in review.
W-830-2806	12/17/12	176.55	NA	Well not surveyed. Data in review.
W-832-05	08/14/12	-	NA	DRY
W-832-05	11/27/12	-	NA	DRY
W-832-10	08/14/12	-	NA	NM/RA
W-832-11	08/14/12	-	NA	NM/RA
W-832-11	11/27/12	-	NA	NM/RA
W-832-12	08/14/12	-	NA	DRY
W-832-12	11/27/12	-	NA	DRY
W-832-14	08/14/12	-	NA	DRY
W-832-14	11/27/12	-	NA	DRY
W-832-16	03/05/12	-	NA	DRY
W-832-16	05/29/12	-	NA	DRY
W-832-16	08/14/12	-	NA	DRY
W-832-16	11/27/12	-	NA	DRY
W-832-17	03/05/12	-	NA	DRY

Table C-9. Building 832 Canyon Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
W-832-17	05/29/12	-	NA	DRY
W-832-17	08/14/12	-	NA	DRY
W-832-17	11/27/12	-	NA	DRY
W-832-18	03/05/12	-	NA	DRY
W-832-18	05/29/12	-	NA	DRY
W-832-18	08/14/12	-	NA	DRY
W-832-18	11/27/12	-	NA	DRY
W-832-19	03/05/12	-	NA	DRY
W-832-19	05/29/12	-	NA	DRY
W-832-19	08/14/12	-	NA	DRY
W-832-19	11/27/12	-	NA	DRY
W-832-20	03/05/12	-	NA	DRY
W-832-20	05/29/12	-	NA	DRY
W-832-20	08/14/12	-	NA	DRY
W-832-20	11/27/12	-	NA	DRY
W-832-21	03/05/12	-	NA	DRY
W-832-21	05/29/12	-	NA	DRY
W-832-21	08/14/12	-	NA	DRY
W-832-21	11/27/12	-	NA	DRY
W-832-22	08/14/12	-	NA	DRY
W-832-22	11/27/12	-	NA	DRY
W-832-25	03/05/12	-	NA	NM/RA
W-832-25	05/29/12	-	NA	NM/RA
W-832-25	08/20/12	-	NA	NM/RA
W-832-25	12/06/12	-	NA	NM/RA
W-832-1927	03/05/12	-	NA	NM/RA
W-832-SC1	05/10/12	-	NA	DRY
W-832-SC1	08/20/12	-	NA	DRY
W-832-SC1	12/06/12	-	NA	DRY
W-832-SC2	03/16/12	-	NA	DRY
W-832-SC2	05/10/12	-	NA	DRY
W-832-SC2	08/20/12	-	NA	DRY
W-832-SC2	12/06/12	-	NA	DRY
W-832-SC3	03/16/12	-	NA	NM/RA
W-832-SC3	05/10/12	-	NA	DRY
W-832-SC3	08/20/12	-	NA	DRY
W-832-SC3	12/06/12	-	NA	NM/RA
W-832-SC4	05/10/12	-	NA	DRY
W-832-SC4	08/20/12	-	NA	DRY
W-832-SC4	12/06/12	-	NA	DRY
W-870-01	03/05/12	-	NA	DRY
W-870-01	05/16/12	-	NA	DRY
W-870-01	08/20/12	-	NA	DRY
W-870-01	12/06/12	-	NA	DRY

Table C-9. Building 832 Canyon Operable Unit ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
W-880-03	03/06/12	-	NA	NM/RA
W-880-03	05/16/12	-	NA	NM/RA
W-880-03	12/06/12	-	NA	NM

Table C-10. Building 851 Firing Table ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
W-851-05	03/22/12	138.86	1132.93	
W-851-05	04/10/12	138.12	1133.67	
W-851-05	07/26/12	-	NA	NM/RA
W-851-05	12/10/12	-	NA	NM/RA
W-851-06	03/22/12	131.80	1133.70	
W-851-06	04/10/12	131.86	1133.64	
W-851-06	07/26/12	-	NA	NM/RA
W-851-06	12/10/12	-	NA	NM/RA
W-851-07	03/22/12	138.56	1133.03	
W-851-07	05/09/12	138.00	1133.59	
W-851-07	07/26/12	138.75	1132.84	
W-851-07	12/10/12	138.35	1133.24	
W-851-08	03/22/12	182.63	1089.69	
W-851-08	05/09/12	183.11	1089.21	
W-851-08	07/26/12	183.64	1088.68	
W-851-08	12/10/12	183.77	1088.25	

Table C-11. Building 845 Firing Table and Pit 9 Landfill ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
K9-01	02/28/12	78.75	996.76	
K9-01	05/03/12	78.95	996.56	
K9-01	08/08/12	79.27	996.24	
K9-01	10/15/12	79.32	996.19	
K9-02	02/28/12	129.04	1006.35	
K9-02	05/03/12	129.07	1006.32	
K9-02	08/08/12	129.34	1006.05	
K9-02	10/15/12	129.37	1006.02	
K9-03	02/28/12	119.88	997.20	
K9-03	05/03/12	120.05	997.03	
K9-03	08/08/12	120.57	996.51	
K9-03	10/15/12	120.56	996.52	
K9-04	02/28/12	89.58	994.74	
K9-04	05/03/12	89.60	994.72	
K9-04	08/08/12	89.66	994.66	
K9-04	10/15/12	89.75	994.57	

Table C-12. Building 833 ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
W-833-03	03/06/12	38.50	812.73	
W-833-03	05/15/12	-	NA	DRY
W-833-03	08/17/12	-	NA	DRY
W-833-03	11/27/12	-	NA	DRY
W-833-12	03/06/12	20.52	826.70	
W-833-12	05/15/12	20.58	826.64	
W-833-12	08/17/12	20.61	826.61	
W-833-12	11/27/12	20.68	826.54	
W-833-18	03/07/12	-	NA	DRY
W-833-18	05/29/12	-	NA	DRY
W-833-18	08/13/12	-	NA	DRY
W-833-18	11/27/12	-	NA	DRY
W-833-22	03/05/12	-	NA	NM/RA
W-833-22	05/15/12	-	NA	DRY
W-833-22	08/17/12	-	NA	DRY
W-833-22	11/27/12	-	NA	DRY
W-833-28	03/05/12	41.82	814.10	
W-833-28	05/15/12	41.79	814.13	
W-833-28	08/17/12	41.39	814.53	
W-833-28	11/27/12	41.43	814.49	
W-833-30	03/05/12	274.42	577.24	
W-833-30	05/15/12	273.83	577.83	
W-833-30	08/17/12	273.87	577.79	
W-833-30	11/27/12	273.10	578.56	
W-833-33	03/05/12	26.70	822.10	
W-833-33	05/15/12	26.75	822.05	
W-833-33	08/17/12	26.84	821.96	
W-833-33	11/27/12	23.50	825.30	
W-833-34	03/05/12	34.43	814.49	
W-833-34	05/15/12	33.60	815.32	
W-833-34	08/17/12	33.62	815.30	
W-833-34	11/27/12	33.70	815.22	
W-833-43	03/07/12	-	NA	DRY
W-833-43	05/29/12	-	NA	DRY
W-833-43	08/13/12	-	NA	DRY
W-833-43	11/27/12	-	NA	DRY
W-840-01	03/08/12	118.00	579.08	
W-840-01	05/15/12	118.63	578.45	
W-840-01	08/17/12	119.23	577.85	
W-840-01	11/28/12	120.10	576.98	
W-841-01	03/08/12	-	NA	DRY
W-841-01	05/15/12	-	NA	DRY
W-841-01	08/17/12	-	NA	DRY
W-841-01	11/28/12	-	NA	DRY

Table C-13. Building 801 Firing Table and Pit 8 Landfill ground water elevations.

Well	Date	Depth to water (ft)	Water elevation (ft MSL)	Notes
K8-01	01/25/12	132.87	967.57	
K8-01	04/25/12	132.90	967.54	
K8-01	08/08/12	133.14	967.30	
K8-01	11/14/12	133.19	967.25	
K8-02B	01/19/12	162.24	965.88	
K8-02B	04/25/12	162.35	965.77	
K8-02B	08/08/12	162.51	965.61	
K8-02B	11/14/12	162.59	965.53	
K8-04	01/19/12	166.92	965.93	
K8-04	04/25/12	166.93	965.92	
K8-04	08/08/12	166.98	965.87	
K8-04	11/14/12	167.03	965.82	
K8-05	01/19/12	-	NA	DRY
K8-05	04/25/12	-	NA	DRY
K8-05	08/08/12	-	NA	DRY
K8-05	11/14/12	-	NA	DRY

Appendix D

Institutional Controls Monitoring Checklist

Appendix D

Institutional Controls Monitoring Checklist

Table B-2. Completed 2012 Institutional Controls Monitoring Checklist.

Table B-2. Institutional Controls Monitoring Checklist

This checklist will be used to conduct monitoring of institutional and engineered controls that are used to prevent exposure to contamination. The checklist will be completed at least annually and the results will be reported in the annual Compliance Monitoring Reports. Corrective action implementation is discussed in Section 6.1.6.

Institutional Control	Status[a]	Explanation/Observation of Corrective Action
Verify that the occupancy warning signs are visible at Building 834D.	YES	
Verify that the Pit 6 Landfill was inspected within the last year and deficiencies were corrected.[b]	YES	REMOVED WEEDS AND RESEALED EXPANSION JOINTS. FILLED BURROWING HOLES 9/5/12 WORK COMPLETE
Verify that signage is in place at the Pit 6 Landfill prohibiting unauthorized access and excavation.	YES	
Verify that the fences and warning signs at the site boundary and control entry are in proper condition.[c]	YES	PER Capt. G. ABUNDIS
Verify that the Building 850 Soil Solidification Corrective Action Management Unit was inspected within the last year and deficiencies were corrected.[d]	YES	
Verify that the Pit 7 Complex Drainage Diversion System was inspected within the last year and deficiencies were corrected.[e]	YES	
Verify that the Pit 7 Complex landfills were inspected within the last year and deficiencies were corrected.[b]	YES	
Verify that signage is in place at the Pit 7 Complex Landfills prohibiting unauthorized access and excavation.	YES	
Verify that the occupancy warning signs are visible at Building 854A.	YES	ATTACHED TO MECH ROOM DOOR 102
Verify that the occupancy warning signs are visible at Building 830.	YES	
Verify that the occupancy warning signs are visible at Building 833.	YES	
Check that the engineered controls (heating, ventilating, and air-conditioning system for Building 833) are functioning properly.	YES	
Verify that the Pit 2 Landfill was inspected within the last year and deficiencies were corrected.[b]	YES	

Table B-2. Institutional Controls Monitoring Checklist (continued).

Institutional Control	Status[a]	Explanation/Observation of Corrective Action
Verify that the Pit 8 Landfill was inspected within the last year and deficiencies were corrected.[b]	YES	
Verify that the Pit 9 Landfill was inspected within the last year and deficiencies were corrected.[b]	YES	

Notes:

[a] Satisfactory status indicated by "Yes". Unsatisfactory status indicated by "No". Unsatisfactory status requires explanation. The Inspector shall immediately notify the Environmental Restoration Project Leader of any unsatisfactory status.

[b] The landfills are inspected and maintained by LLNL Maintenance and Utility Services. Inspections are documented and the results are provided to the Environmental Restoration Project and reported in the annual Compliance Monitoring Reports.

[c] Perimeter fences are inspected by LLNL Security annually.

[d] The Building 850 Soil Solidification mound is inspected and maintained by LLNL Maintenance and Utility Services. Inspections are documented and the results are provided to the Environmental Restoration Project and reported in the annual Compliance Monitoring Reports.

[e] The Pit 7 Drainage Diversion System is inspected and maintained by LLNL Maintenance and Utility Services. Inspections are documented and the results are provided to the Environmental Restoration Project and reported in the annual Compliance Monitoring Reports.

Inspected by:

STEPHEN P. ORLOFF [signature] 12/4/12 ALL OTHER INSPECTIONS

Shari Brigdon Shari Brigdon Date: 12/4/12 Pit Cap Inspections

(Print Name) (Signature)

Appendix E

Site 300 Surface Soil Samples Collected During 2012

Appendix E

Site 300 Surface Soil Samples Collected During 2012

Table E-1. Site 300 Surface Soil Samples Collected During 2012.

Table E-1. Site 300 Surface Soil Samples Collected During 2012.

Location	Date	Cadmium (mg/kg)
3SS-851-007	11/26/12	<0.5
3SS-851-008	11/26/12	<0.5
3SS-851-009	11/26/12	<0.5
3SS-851-010	11/26/12	<0.5
3SS-851-011	11/26/12	<0.5
3SS-851-012	11/26/12	<0.5
3SS-851-013	11/26/12	<0.5
3SS-851-014	11/26/12	<0.5

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