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Lawrence Livermore National Laboratory (LLNL) Experimental Test Site (Site 300) Compliance Monitoring Report for Waste Discharge Requirements (WDR) Order No. R5-2008-0148

Annual/Second Semester Report 2009

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This work performed under the auspices of the U.S. Department of Energy by Lawrence Livermore National Laboratory under Contract DE-AC52-07NA27344.

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Certification

I certify that the work presented in this report was performed under my supervision. To the best of my knowledge, the data contained herein are true and accurate, and the work was performed in accordance with professional standards.

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List of Abbreviations and Acronyms

3CMP	samples collected at Site 300 for Compliance Monitoring Program
3EMG	samples collected at Site 300 for the Permits and Regulatory Affairs Division
3GIV	samples collected at Site 300 for site investigations
3VES	three casing volumes purged using an electric submersible pump
BCLABS-BAK	BC Laboratories, Inc. in Bakersfield, CA
BOD	Biochemical oxygen demand
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CMP	Compliance Monitoring Program (conducted under CERCLA)
CMR	Compliance Monitoring Report (prepared under CERCLA)
CoC	(or COC) chain-of-custody form
CVRWQCB	Central Valley Regional Water Quality Control Board
DO	dissolved oxygen
DSWP	sewage percolation pond influent sampling location
DTW	depth to (ground) water
EC	electrical conductivity, or specific conductance (SC)
ESWP	sampling location within sewage evaporation pond
GF	Grundfos pump
FRUITGROWL	FGL Environmental Laboratories in Stockton, CA
ft	feet
gal	gallons
gpm	gallons per minute (measurement of flow)
GWE	Ground water elevation (above mean sea level)
HSU	hydrostratigraphic unit
ID	identification number
ISWP	sewage evaporation pond influent sampling location
LLNL	Lawrence Livermore National Laboratory
MCL	maximum contaminant level (for drinking water)
mL	milliliters

List of Abbreviations and Acronyms (Continued)

MPN	most probable number
MRP	monitoring and reporting program
mV	millivolts (measure of oxidation-reduction potential)
NA	not applicable
ND	none detected, or not detected
NO_3	nitrate
NR	analysis not required by Permit at this sampling location
pH	measure of the acidity or alkalinity of a solution
OG	off gassing measured by scale of 1-5, 5 being high amounts of off gassing
OU	Operable Unit under CERCLA
Q	flow rate, or number of well volumes purged (according to context)
Qal	Quaternary Age alluvial deposits
QC	quality control
Qt	Quaternary Age terrace deposits
SC	specific conductance, or electrical conductivity (same as EC)
SHO	short analytical holding time (such as samples for coliform bacteria analyses)
VOA	samples collected for analysis of volatile organic compounds
WDR	waste discharge requirements (Permit)

Executive Summary

Under authority of the State of California, and required by the Porter-Cologne Water Quality Control Act, the Central Valley Regional Water Quality Control Board (CVRWQCB) issued Order No. R5-2008-0148 for the Experimental Test Site (Site 300), to Lawrence Livermore National Laboratory (LLNL). Monitoring and Reporting Program (MRP) Number R5-2008-0148 was adopted in September 2008, replacing MRP 96-248. Under the terms of this MRP, LLNL submits semiannual and annual monitoring reports detailing its Site 300 discharges of domestic and wastewater effluent to sewage evaporation and percolation ponds in the General Services Area, septic systems located throughout the Site, cooling tower blow down to percolation pits and septic systems, and mechanical equipment discharges to percolation pits.

This report contains the elements required by Waste Discharge Requirement (WDR) Order R5-2008-0148 for the 2009 annual report and updates the status of equipment and facilities since the adoption of R5-2008-0148. This is the third report prepared under this WDR since Order R5-2008-0148 replaced WDR Order 96-248 in September 2008. All permit conditions were met, except for missing third and fourth quarter percolation pit inspections at Building 806. This occurred due to a scheduling error, which as been corrected. Compliance certification accompanies this report, as required by Federal and State regulations.

1. Introduction

Required monitoring for specific Lawrence Livermore National Laboratory (LLNL) Site 300 monitoring networks is defined in the Monitoring and Reporting Program (MRP) Order Number R5-2008-0148, which was adopted in September 2008, replacing MRP 96-248. LLNL implemented the elements of MRP R5-2008-0148 beginning with the fourth quarter of 2008. Applicable reporting requirements are found in the Standard Provisions and Reporting Requirements specified in the Waste Discharge Requirements (WDR) Order R5-2008-0148 (CVRWQCB, 2008) permit and in the MRP R5-2008-0148.

MRP R5-2008-0148 was revised by letter issued November 23, 2009 (Timm, 2009). The revised MRP will be implemented in the first semester 2010.

This report provides an annual summary of monitoring conducted during the first and second semesters of 2009 under the originally issued MRP R5-2008-0148.

This report satisfies the 2009 first and second semester monitoring and reporting requirements of WDR R5-2008-0148 (CVRWQCB, 2008). It details the monitoring results of the five compliance networks and inspection logs of the percolation pit systems associated with the mechanical equipment and cooling tower discharges.

Compliance monitoring networks discussed in the report include:

- Sewage evaporation and percolation ponds
  Wastewater and ground water monitoring (Sections 2.1 through 2.5)
- Septic system ground water monitoring
  (Sections 3.1 through 3.3)
- Percolation pit inspections
  (Section 4.1)
- Cooling tower blow down discharge monitoring
  (Sections 5.1 through 5.3)
- Mechanical equipment effluent discharge monitoring
  (Sections 6.1 through 6.3)
- Status of special studies

BC Laboratories, Inc. and FGL Environmental Laboratory provided off-site analytical support for the monitoring networks.

Site 300, operated by Lawrence Livermore National Security, LLC, is located in the Altamont Hills approximately 10.5 kilometers (6.5 miles) southwest of downtown Tracy, California. **Figure 1** shows the locations of the wastewater systems permitted under WDR R5-2008-0148, including mechanical equipment percolation pits, septic systems, and the sewage oxidation and percolation ponds (sewage ponds) located in the General Services Area. None of the permitted mechanical equipment percolation pits overflowed during this monitoring period, nor were there any detected impacts to ground water around the sewage ponds. Discharges from cooling towers and mechanical equipment were consistent with historic information provided in the Report of Waste Discharge submitted for the renewal of WDR 96-248.

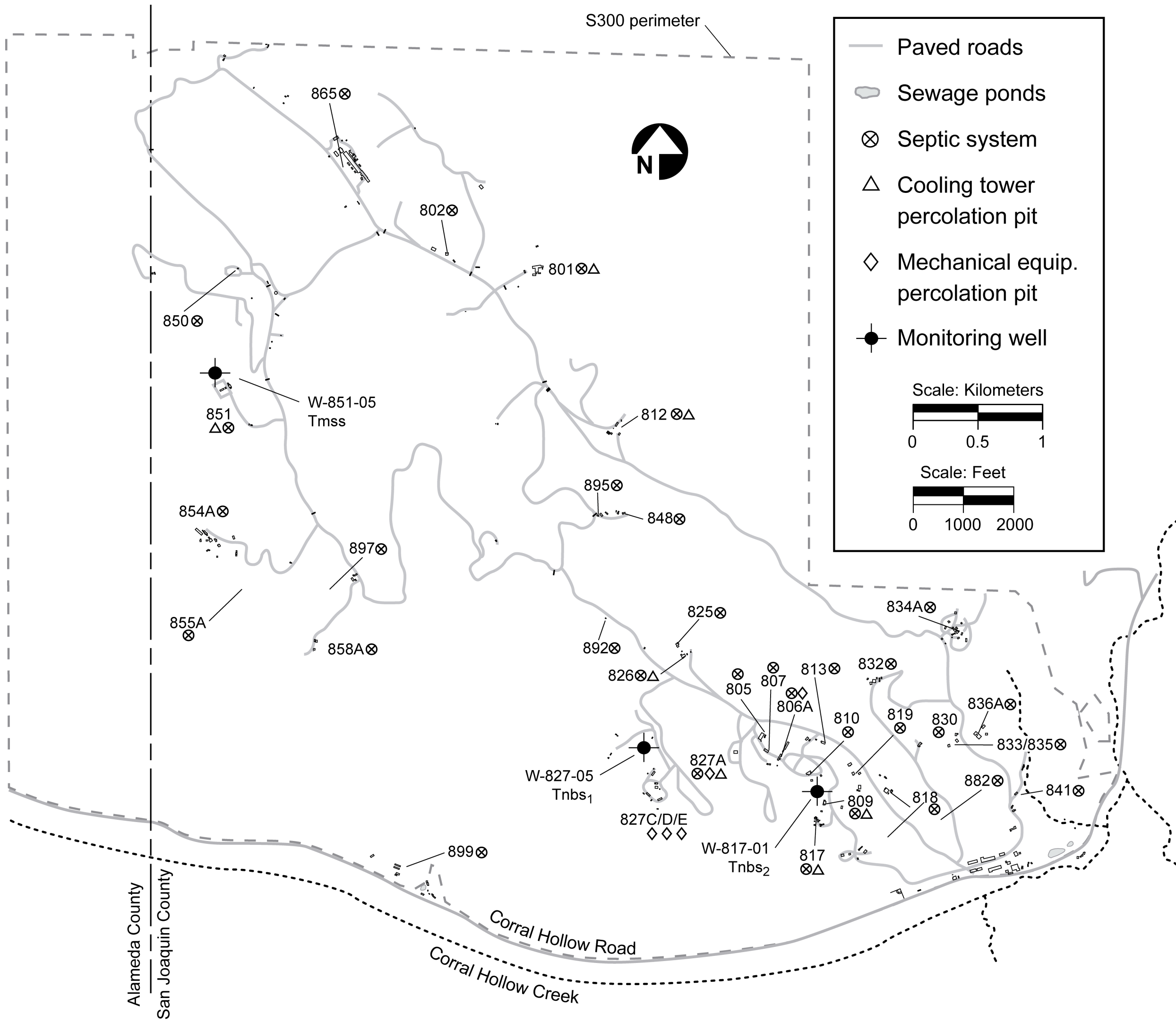

Figure 1. Locations of Site 300 facilities with septic systems and percolation pits.

2. Sewage Evaporation and Percolation Ponds

2.1. Effluent and Pond Compliance Monitoring Program

MRP R5-2008-0148 requires semi-annual samples be collected of wastewater flowing into the sewage evaporation pond (sewage pond) for analysis. Sample collection is by grab sampling from a location west of the sewage pond (see sampling location ISWP in **Appendix A, Figure A.1** showing the Site 300 sewage evaporation and percolation ponds and ground water and wastewater compliance monitoring locations.) Location ISWP is a manhole that captures all waste streams before they flow into the sewage pond. The samples are analyzed for specific conductance (SC, also commonly known as electrical conductivity), pH, and biochemical oxygen demand (BOD).

MRP R5-2008-0148 also requires samples be collected of wastewater within the sewage pond and wastewater discharging into the sewage percolation pond. Semiannual wastewater samples are collected by grab sampling from a dock at the eastern end of the sewage pond (sampling location ESWP) and analyzed for SC, pH, metals, dissolved oxygen (DO), BOD, and total and fecal coliform. Any discharge from the sewage pond to the sewage percolation pond (sampling location DSWP) is grab sampled and analyzed for the same constituents. Permit WDR R5-2008-0148 requires LLNL to operate the sewage pond with adequate freeboard to minimize the frequency of discharges to the sewage percolation pond. No discharges occurred to the sewage percolation pond during 2009.

Observations of the sewage pond are made and recorded at least monthly for freeboard, color, odor, and levee condition. **Appendix A** contains the 2009 second semester field observation logs for the sewage pond. Some animal burrows were observed in the levee from time to time. These burrows continue to be monitored by operations personnel to ensure that the integrity of the levee is not compromised.

Leak detection and monitoring compliance at the sewage evaporation and percolation ponds is accomplished by monitoring the shallow ground water beneath and adjacent to the ponds. Ground water monitoring includes semiannual sampling during the first and second semesters when ground water levels are the highest and lowest and analysis of the collected samples for SC, pH, total and fecal coliform, chloride, nitrate, sulfate, total dissolved solids, sodium, and metals. In addition, ground water elevations are routinely recorded and contoured (**Appendix A, Figure A.2**). A map showing the locations of the monitor wells (**Appendix A, Figure A.1**) with respect to the ponds, and tables of ground water specifications and elevations for each well (**Appendix A, Tables A.1 and A.2**) are provided.

2.2. Sewage Pond Wastewater Sampling and Analysis

For the sewage pond wastewater sampling and analysis, calibration is performed on DO, SC, and pH meters less than 12 hours before sampling. DO, SC, pH, and temperatures of the samples are measured and written on the field tracking forms (field logs) when the grab samples from ISWP, ESWP, and DSWP are collected. Chain-of-custody (CoC) forms are filled out appropriately and signed by the sampler for each analytical laboratory to which the samples are transferred; CoC numbers are also written on the field logs. Analytical methods used are appropriate

EPA-approved Methods (U.S. Environmental Protection Agency, 2005) or Standard Methods (Clesceri et al., 1998).

The samples required under MRP R5-2008-0148 for locations ISWP and ESWP were collected during the first semester on May 13, 2009 and during the second semester, on October 8, 2009. Wastewater samples are collected, analyzed, and results entered into the Environmental Protection Department's database according to a complete set of written protocols documented in the LLNL Environmental Protection Department's Environmental Monitoring Plan (Woods, 2005).

2.3. Sewage Pond Wastewater Monitoring Results

Results are summarized here for samples collected during the monitoring period as required under MRP R5-2008-0148. Monitoring data are found in **Appendix A**. Coliform, anions, and physical characteristic data summaries are presented in **Table A.3**. A metal data summary for the location ESWP is found in **Table A.4. Table A.5** provides a duplicate (QA) sampling data summary for the sewage pond's wastewater monitoring network. All results and observations were in compliance with the Permit's discharge specifications. Adequate free board was provided to prevent any over-topping or erosion of the pond embankment. Field tracking forms are in **Appendix A**, which also contains the field logs, including field measurements. The CoCs and laboratory analytical results are stored at LLNL and are available upon request. Five-year historical plots for monitoring data and tabular summaries are included in Appendix A.

2.4. Ground Water Sampling and Analysis

Semiannual sampling of ground water from wells at the sewage evaporation and percolation ponds was performed during the second semester of 2009. Ground water samples were collected and analyzed, and results entered into the Environmental Protection Department's database according to written protocol (Goodrich and Lorega, 2009). The monitor wells were purged and sampled on two occasions, from August 10 to August 13, and from November 4 to November 12, 2009, according to prescribed methods assigned to each monitor well. In addition, well W-35A-04 was sampled December 16 and 17, 2009, later than other wells due to pump repair. Information regarding the conditions during sampling, as well as field measurements taken at the time of sampling, is found in the ground water sampling data sheets located in **Appendix A**. The collected samples were transferred to an offsite analytical laboratory for physical parameters and analyses listed in Section 2.1. Following the initial sampling event, each well was treated with a pre-calculated dose of chlorine and pumped to circulate the chlorine throughout the water column. On the following day, wells were tested for residual chlorine and samples collected to be analyzed for total and fecal coliform bacteria at an offsite analytical laboratory. Wells that tested positive for chlorine were pumped until chlorine was not detected prior to sampling, according to the aforementioned written protocols.

As reported in the last semiannual report (September 2009), LLNL removed the ground water monitoring well W-26R-03 from this network during the first semester because the well serves as an idle extraction well for the Eastern General Services Area ground water remediation network. Though this well is currently not in use, if monitoring indicates a need to reinitiate treatment in this area, the well would again be used as an extraction well and, therefore, is not appropriate to be used as part of the sewage pond ground water compliance monitoring network. Well

W-25N-22 was added to this network as an appropriate replacement well and was sampled during this reporting period.

2.5. Ground Water Monitoring Results

All monitored parameters were in compliance with the Permit limits; ground water data are presented in Tables found in **Appendix A**. Anion data are listed in **Table A.6**. Coliform data are found in **Table A.7**. **Table A.8** provides a summary of physical chemistry data and **Table A.9** lists metals data. QA data summaries for the monitoring network are located in **Table A.10**. During the second semester, coliform bacteria (**Table A.7**) were detected over the reporting limit in three monitoring wells: W-25N-20, a down-gradient well (4.0 MPN/100mL), W-26R-11, a well down-gradient from the sewage pond but up-gradient from the percolation pond (4.0 MPN/100mL), and W-35A-04, a cross-gradient well (23 MPN/100mL). However, the absence of fecal coliform indicates the septic system is probably not the source of the detected coliform.

Appendix A, Figure A.2 contains the ground water elevation contour map for the most shallow ground water zones (Hydrostratigraphic Units [HSUs]) in the sewage evaporation and percolation ponds area. These maps were produced for the LLNL activities conducted under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) for the Compliance Monitoring Program (CMP) and reflect ground water elevation levels from May 5-14, 2009. The sewer pond ground water network map showing concentrations of nitrates is presented in **Appendix A, Figure A.3**. **Figure A.3** also provides data tables for nitrates and other monitored constituents to assist the reader in evaluating the data presented in this report. Historical plots for 5-year ground water monitoring data are provided in Appendix A. The CoCs and laboratory analytical results are archived at LLNL and are available upon request.

3. Septic System Ground Water Monitoring

3.1. Septic System Ground Water Compliance Monitoring Program

Monitoring required for the septic systems is specified in the MRP R5-2008-0148. LLNL implemented the elements of MRP R5-2008-0148 for four septic systems beginning in the fourth quarter 2008. Applicable reporting requirements are found in the MRP and Standard Provisions and Reporting Requirements for WDR R5-2008-0148 (CVRWQCB, 2008).

Since the adoption of the revised permit, LLNL has ceased operations at Buildings 850 and 812. LLNL is in the process of formally closing the septic system at Building 850 following a plan submitted to the CVRWQCB on May 15, 2009, and approved August 11, 2009. Though operations at Building 812 have ceased, the septic system has not been closed pending final determination of the future use of the facility. In addition, several other buildings with septic systems identified in the permit are currently inactive. They were identified in the permit since the septic systems have not be closed pending determinations of whether the facilities will be reactivated in the future or ultimately identified for demolition. Facilities that currently have no active operations include Buildings 802, 812, 830, 848, 850, 854, and 865.

MRP R5-2008-0148 requires semiannual samples be collected from ground water monitoring wells up and down gradient from septic systems located at Buildings 812, 834, 850, and 899.

The locations of each of these Buildings are shown in **Appendix B. Figures B.1**, **B.2**, **B.3**, and **B.4** present the monitoring networks for Buildings 812, 834, 850, and 899, respectively.

Well specifications for all the septic system ground water monitoring wells are found in **Appendix B, Table B.1**.

At Building 812, the ground water travels in a southwest direction to the west of the 812 Canyon Fault line and in a southeast direction to the east of the fault line (**Appendix B, Figure B.1**). Well W-812-1929 is identified as an up-gradient well while W-812-07 and W-812-09 are down gradient wells.

At Building 834, ground water travels in a southward direction (**Appendix B, Figure B.2**). Well W-834-D17 is identified as the up-gradient well, and wells W-834-S1 and W-834-S4 are identified as down-gradient wells.

At Building 850, ground water travels in an eastern direction (**Appendix B, Figure B.3**). Well W-850-2416 is up-gradient of the septic system, and wells NC7-61 and NC7-10 are down-gradient.

At Building 899, ground water travels in a southeastern direction (**Appendix B, Figure B.4)**. Well K6-17 is identified as an up-gradient monitoring well. Well K6-23 is the closest well to the septic system. Currently, there is no well located down-gradient of the septic system and leach field at Building 899.

3.2. Septic System Ground Water Sampling and Analysis

Second semester 2009 samples of ground water from wells within the septic system monitoring network were collected during the third quarter of 2009. Ground water samples were collected and analyzed, and results entered into the Environmental Protection Department's database according to a complete set of written protocols (Goodrich and Lorega, 2009). The monitoring wells were purged and sampled in the first semester (January 21 through February 11, 2009) and also in the second semester (August 4 and 5, 2009). First semester data was provided in the first semester report. Sampling was according to prescribed methods assigned to each monitor well except for samples collected for total and fecal coliform.

Sampling procedures require that the well be treated with a pre-calculated dose of chlorine 24 hours prior to collecting coliform samples. However, since many of the monitoring wells in this network are wells that are used as CERCLA extraction or injection wells, chlorinating the wells was not appropriate. Adding chlorine to the well has the potential of negatively impacting ongoing CERCLA remediation activities. Therefore, no wells within the septic system ground water monitoring network were treated with chlorine prior to collecting samples for coliform analysis. Not chlorinating the wells before the samples were collected could result in coliform detections characteristic of what was in the standing water column within the well but not associated with the ground water quality. To remedy this situation in the future, LLNL recommended an alternate set of wells be used during future semiannual sample events. The alternate wells were discussed in the last semester report.

The collected samples were transferred to an offsite analytical laboratory for physical parameters and analyses of the constituents listed in **Appendix B**, **Figures B.1**, **B.2**, **B.3**, and **B.4**.

3.3. Septic System Ground Water Monitoring Results

Second semester data for each well within this monitoring network is presented in **Appendix B**. **Figures B.1**, **B.2**, **B.3**, and **B.4** present second semester sampling results for total and fecal coliform, nitrate, ground water elevations, and ground water elevation contour maps for the most shallow ground water zones HSUs.

First semester 2009 monitoring data showed nitrate results (originally provided in Figures B.5, B.6, B.7, and B.8 in the First Semester 2009 Report, dated September 1, 2009). Nitrate concentrations in the Building 834, 850, and 899 ground water monitoring networks were detected above the drinking water maximum contaminant limit (MCL; 45 mg/L). Both down-gradient wells at Building 834 were above the MCL (W-834-S1 at 94 mg/L and W-834-S4 at 160 mg/L). The up-gradient well location W-834-D17 was reported dry. Nitrate exceeded the drinking water MCL in down-gradient wells from the Building 850 septic system (W-NC7-10 at 48 mg/L; W-NC7-61 at 66 mg/L). The well up-gradient from the Building 850 septic system had a nitrate concentration below the detection limit (W-850-2416 at <0.5 mg/L). Nitrate concentrations also exceeded the drinking water MCL in the down-gradient well of the Building 899 septic system (K6-23 at 170 mg/L). The well up-gradient from the Building 899 septic system had a nitrate concentration below the detection limit (K6-17 at <0.5 mg/L). Total coliform from was detected at the reporting limit of 2.0 MPN/100mL in well locations W-850-2416 (up-gradient well) and NC7-10 (down-gradient well) of the Building 850 septic system monitoring network (Appendix B, Figure B.6 of the First Semester 2009 Report).

Second semester 2009 monitoring data showed nitrate results (provided in Figures B.1, B.2, B.3, and B.4) for all four septic-system monitoring networks. Nitrate concentrations in the Building 834, 850, and 899 ground water monitoring networks were detected above the drinking water maximum contaminant limit (MCL; 45 mg/L). Both down-gradient wells at Building 834 were above the MCL (W-834-S1 at 110 mg/L and W-834-S4 at 170 mg/L). The up-gradient well location, W-834-D17, was reported dry. Nitrate exceeded the drinking water MCL in down-gradient wells from the Building 850 septic system (W-NC7-10 at 59 mg/L; W-NC7-61 at 65 mg/L). The well up-gradient from the Building 850 septic system was not sampled due to construction related to CERCLA removal action. Nitrate concentrations also exceeded the drinking water MCL in the closest well to the Building 899 septic system (K6-23 at 180 mg/L). The well up-gradient from the Building 899 septic system had a nitrate concentration below the detection limit (K6-17 at <0.5 mg/L). Total coliform was detected at 4.0 MPN/100mL in well location K6-17 (up-gradient well) of the Building 899 septic system monitoring network (Appendix B, Figure B.4). This well was not chlorinated during sampling. Without chlorinating the well prior to collecting samples, it is not possible to determine if the coliform identified in these samples was a result of contamination within the well or from coliform detected in the ground water. However, the absence of fecal coliform indicates the septic system is probably not the source of the detected coliform.

Figure B.1 is the ground water elevation contour map for Building 812 ground water in the $Tnsc_0$ and $Tnbs_1$/$Tnbs_0$ HSU ground water elevation contours. **Figure B.3** presents the ground water elevation contour map for the Building 850 Qal/WBR HSU. **Figure B.2** presents the ground water elevation contours around Building 834 in the Tpsg perched water-bearing zone. **Figure B.4** presents the ground water elevation contours around Building 899 for the Qt-$Tnsb_1$

HSU. These figures are based on maps produced for the LLNL activities conducted under the CERCLA for the First Semester 2008 Compliance Monitoring Report (CMR, September 30, 2008), and the Building 812 Feasibility Study.

In addition, copies of the second semester ground water sampling data logs, which note well conditions and the sample data, as well as field measurements, are also included in **Appendix B**. The CoCs and laboratory analytical results are archived at LLNL and are available upon request. Data from duplicate sampling is not available for this monitoring period.

4. Percolation Pit Inspections

4.1. Percolation Pit Compliance Inspection Program

LLNL implemented first semester 2009 visual inspections of the mechanical equipment and cooling tower percolation pits for the identified locations, which collect effluent from the mechanical equipment facilities and cooling towers as specified in MRP R5-2008-0148.

4.1.1. Quarterly Inspections of Mechanical Equipment Percolation Pits

MRP R5-2008-0148 requires quarterly inspections of the five mechanical equipment percolation pits located at Buildings 806A, 827A, 827C, 827D, and 827E (**Appendix E, Figure E.1**). If standing water is visible during the inspection, the inspection frequency for the percolation pit with the standing water is increased to monthly until no standing water is visible. During the first semester, one inspection of each of the five mechanical equipment percolation pits was completed. The Building 806 and 827 percolation pit inspections were performed during the first semester (January 12 through May 27), and the second semester (August 12 through December 16). **Appendix C** contains the second semester 2009 mechanical equipment and percolation pit inspection checklists.

Inspections are also a component of the mechanical equipment discharge monitoring program, and are discussed in Section 4 of this report. Inspection forms for the first two quarterly inspections at Building 806 and all four quarterly inspections at Buildings 827A, 827C, 827D, and 827E are presented in **Appendix C**, with a description of the inspection process under Section 4.1.1, Quarterly Inspections of Mechanical Equipment Percolation Pits. During the third and fourth quarters of 2009, inspections at the Building 806 mechanical equipment percolation pits were inadvertently not performed. Due to a communication error, these inspections were not scheduled and LLNL has taken steps to ensure future inspections are performed as specified in the MRP.

4.1.2. Quarterly Inspections of Cooling Tower Percolation Pits

MRP R5-2008-0148 requires quarterly visual inspections of the cooling towers discharging to percolation pits located at Buildings 801, 809, 812, 817A, 826, 827A, and 851 (**Appendix D, Figure D.1**). If standing water is present, the MRP requires the inspection frequency to be increased to monthly until standing water is no longer visible. Visual inspections are conducted to verify the percolation pits are working properly and do not have the potential to overflow. During the first semester of 2009, inspections were conducted on January 28 and April 21 and 22. Third quarter inspections occurred July 27. Seven fourth quarter inspections occurred October through December. The inspection forms are provided in **Appendix C**. All inspections demonstrate there was no standing water in the percolation pits. Copies of the inspection forms are found in **Appendix C**.

Inspections were not conducted for the cooling towers located at Building 812 and 850 during the second semester, as these facilities are no longer operational and the cooling towers have been taken out of service

5. Cooling Tower Blow Down

5.1. Effluent and Pond Compliance Monitoring Program

Monitoring required for the cooling tower blow down is specified in MRP R5-2008-0148. LLNL implemented the cooling tower blow down monitoring starting the fourth quarter of 2008. Applicable reporting requirements are found in the Standard Provisions and Reporting Requirements of WDR R5-2008-0148 and the MRP.

Cooling towers located at Site 300 discharge either into percolation pits or into septic systems. Currently, there are eight operating cooling towers. The cooling tower located at Building 812 wad taken out of service and had no discharges during the second semester of 2009. The cooling tower locations are identified in **Appendix D, Figure D.1**. The cooling tower located at Building 825 discharges to a septic system. The remaining cooling towers located at Buildings 801, 809, 817, 826, 827, and 851 all discharge to percolation pits. The two cooling towers located at Building 851 were replaced in the second semester with a single new cooling tower. The two cooling towers located at Building 827 have blended cooling water and a combined discharge line and therefore only one sample was collected to characterize the discharge of these cooling towers.

MRP R5-2008-0148 requires semi-annual sampling of the cooling tower blow down. Grab samples are collected from the water circulating in the cooling tower, either at a valve or a drainpipe. The grab samples are collected directly into the containers specified by the laboratory. Samples are analyzed for metals, pH, sodium, SC, sulfate, total alkalinity, total dissolved solids, total hardness, and total phosphorus.

5.2. Cooling Tower Blow Down Effluent Sampling and Analysis

For the cooling tower blow down sampling and analysis, calibration is performed on SC and pH meters less than 12 hours before sampling. SC and pH data measured in the field are written down on field tracking forms. CoC forms are filled out appropriately and signed by the sampler for each analytical laboratory to which the samples are transferred; CoC numbers are also written on the field logs. Analytical methods used are appropriate EPA-approved Methods (U.S. Environmental Protection Agency, 2005) or Standard Methods (Clesceri et al., 1998).

First semester cooling tower blow down samples were collected on April 29. Second semester samples were collected on October 27 and November 11. Samples were collected, analyzed, and results entered into the Environmental Protection Department’s database according to a complete set of written protocols, which are documented in the LLNL Environmental Protection Department’s Environmental Monitoring Plan (Woods, N. [Ed.], 2009).

5.3. Cooling Tower Blow Down Monitoring Results

Second semester analytical results for cooling tower blow down samples collected during October and November were generally consistent with data found in WDR Order No. R5-2008-0148, Attachments 19 and 20, with the following exceptions:

- Copper concentrations in samples collected ranged from 0.0043 mg/L to 0.850 mg/L, which is greater than the concentrations of data summarized in the WDR attachments (0.0056 mg/L to 0.0083 mg/L). Cooling towers at Building 809 (0.580 mg/L) and Building 826 (0.850 mg/L) had elevated copper values. **Table D.2**, metals results, presents the data in units of µg/L. Eighteen months ago, plastic tubing that was used to direct cooling tower blow down to percolation pits was replaced with copper pipe. It is possible the elevated copper values are an early sign of corrosion. LLNL maintenance staff will evaluate the copper piping and, if warranted, the copper pipe will be replaced with plastic tubing.
- Zinc concentrations in samples collected ranged from 0.025 mg/L to 0.320 mg/L, which is greater than the concentrations of data summarized in the WDR attachments (<0.02 mg/L to 0.044 mg/L). The cooling tower at Building 825 was the only cooling tower showing elevated zinc in the second semester results. **Table D.2**, metals results, presents the data in units of µg/L. The QA data for the second semester zinc cooling tower discharge analyses is suspicious (see **Table D.4**). The Building 825 data for this semester may be a laboratory anomaly. LLNL will continue to closely evaluate future zinc data.

Sample results are listed in **Appendix D** along with the Quality Assurance results, field tracking forms, and CoC's. **Table D.1** lists anion data, **Table D.2** lists metals results, and **Table D.3** provides data on the required physical characteristics. QC data from duplicate sampling is provided in **Table D.4**.

6. Mechanical Equipment Effluent Monitoring

6.1. Mechanical Equipment Discharge Monitoring Program

Monitoring required for mechanical equipment discharge effluent to percolation pits is specified in the MRP R5-2008-0148. During the first semester of 2009, LLNL implemented the monitoring elements for the identified mechanical equipment systems located at Buildings 806, 827A, 827C, 827D, and 827E. **Appendix E, Figure E.1** provides the locations of those systems.

6.2. Mechanical Equipment Effluent Sampling and Analysis

The initial mechanical equipment effluent monitoring was completed during the second semester of 2009 with results reported in **Appendix E**. Mechanical equipment room monitoring was completed using a grab sample technique until the mechanical equipment percolation pits can be retrofitted to allow composite sampling. LLNL completed the retrofit of the percolation pits with Christi Boxes that will allow an automatic sampler to be placed within the new boxes, which will allow composite samples to be collected during operations. Composite samples will begin to be collected starting in the first semester of 2010.

For the sampling and analysis of mechanical equipment effluent, CoC forms are filled out appropriately and signed by the sampler for each analytical laboratory to which the samples are transferred; CoC numbers are also written on the field logs, provided in **Appendix E**. Analytical methods used are appropriate EPA-approved Methods (U.S. Environmental Protection Agency, 2005) or Standard Methods (Clesceri et al., 1998).

Second semester mechanical equipment effluent samples were collected October 22, 2009. Samples were collected, analyzed, and results entered into the Environmental Protection Department's database according to a complete set of written protocols, which are documented in the LLNL Environmental Protection Department's Environmental Monitoring Plan (Woods, N. [Ed.], 2009).

6.3. Mechanical Equipment Effluent Monitoring Results

Sample analytical results for this monitoring network are presented in **Appendix E**. Second semester analytical results for mechanical equipment effluent samples were collected October 22, 2009, and results consistent with data found in Attachments 5 and 6 in the MRP R5-2008-0148. **Table E.1** lists anion data, **Table E.2** lists metals results and **Table E.3** provides data on the required physical characteristics. Data from duplicate sampling is provided in the data tables.

7. Status of Special Studies and Development of Salinity Evaluation and Minimization Plan

WDR R5-2008-0148 requires semiannual progress reports on the salinity evaluation and minimization plan. Required by March 1, 2010, is a salinity evaluation and minimization plan to address the sources of salinity in cooling tower and mechanical equipment effluent. LLNL has completed the preliminary evaluation of the existing systems and is in the process of developing engineering alternatives. In addition, in March 2009, LLNL submitted the work plan to evaluate the potential for mechanical equipment, cooling tower, and septic system discharges to impact ground water beneficial use to the CVRWQCB for their review as required by Provisions 5 and 8 of the Permit. The CVRWQCB approved the work plan in a letter dated October 1, 2009.

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Appendix A

Sewage Evaporation and Percolation Pond Network

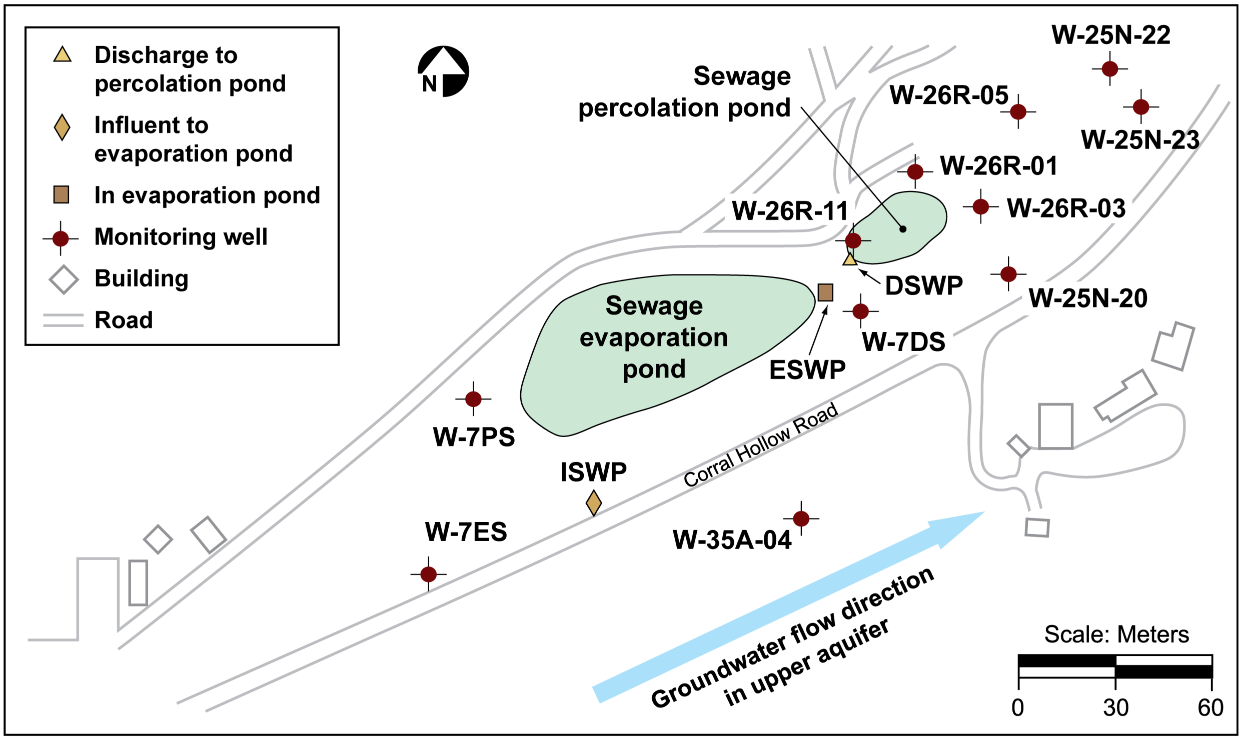

Figure A.1. Sewer pond wastewater and ground water monitoring network.

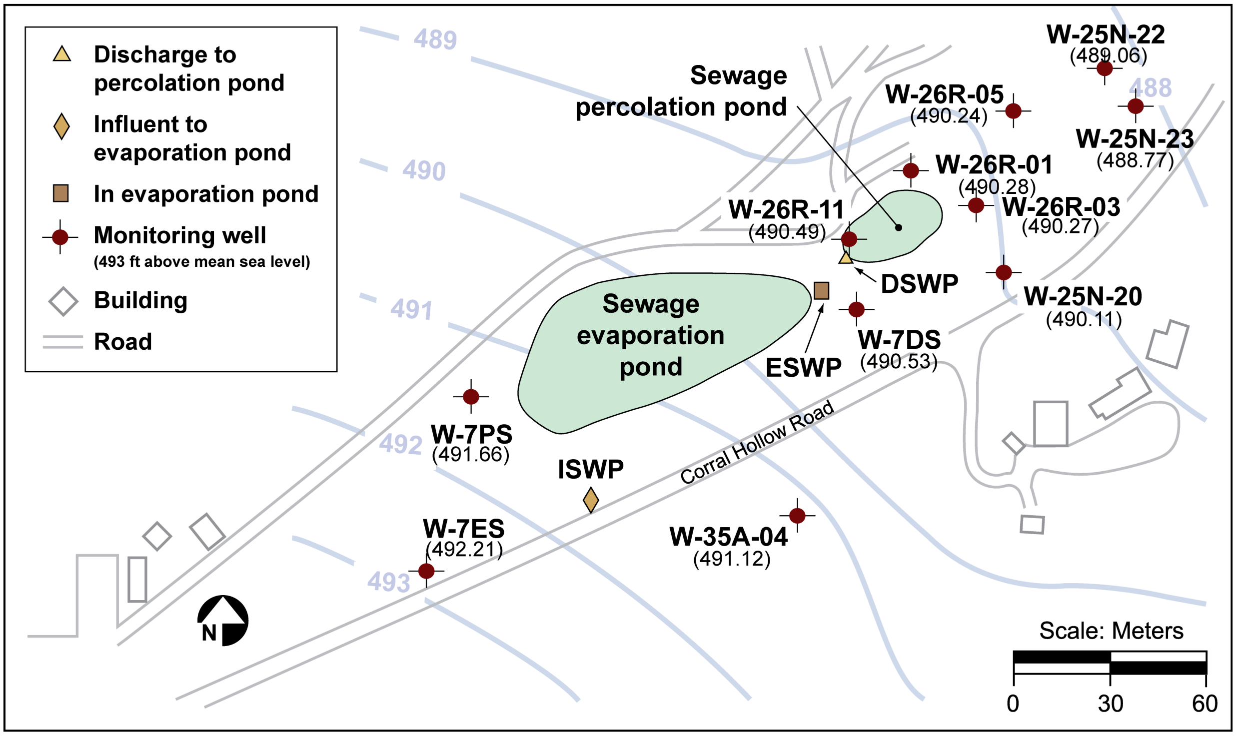

Figure A.2. Site 300 sewer pond wastewater and effluent monitoring network with ground water elevations (ft-above mean sea level).

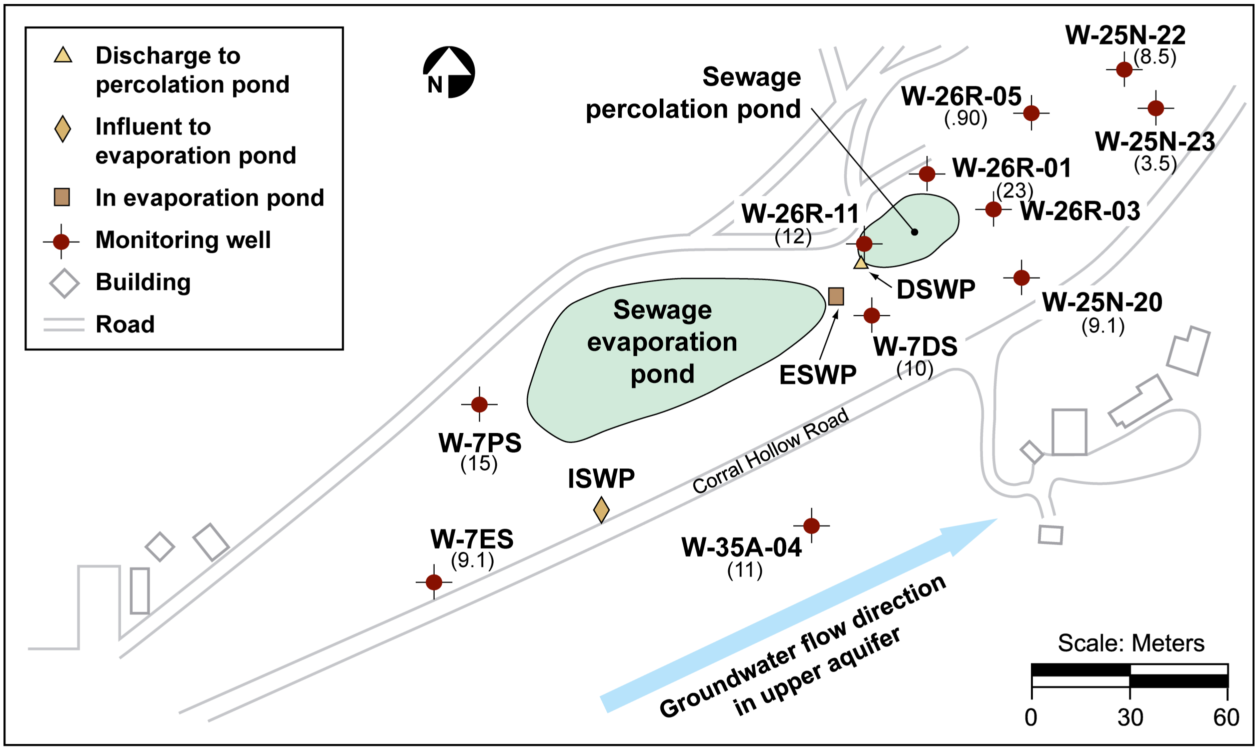

Figure A.3. Site 300 sewer pond wastewater and effluent monitoring network with nitrate concentrations (in mg/L).

Table of physical characteristics for Figure A.3.

Well	Month	Fecal Coliform (MPN/100mL)	Total Coliform (MPN/100mL)	Sodium (mg/L)	Chloride (mg/L)	Nitrate (as NO3) (mg/L)	Sulfate (mg/L)	Fluoride (mg/L)
W-7ES	Feb	<2	<2	180	150	11	400	0.37
W-7ES	May	<2	9.0	-	-	10	-	-
W-7ES	Aug	<2	<2	190	150	10	380	0.34
W-7ES	Nov	<2	<2	-	-	9.1	-	-
W-7PS	Feb	<2	<2	190	160	15	320	0.40
W-7PS	May	<2	<2	-	-	16	-	-
W-7PS	Aug	<2	<2	190	170	18	300	0.35
W-7PS	Nov	<2	<2	-	-	15	-	-
W-35A-04	Feb	<2	<2	180	150	13	400	0.46
W-35A-04	May	<2	2.0	-	-	12	-	-
W-35A-04	Dec	<2	23	-	-	11	-	-
W-25N-20	Feb	<2	<2	170	150	11	360	0.34
W-25N-20	May	<2	<2	-	-	11	-	-
W-25N-20	Aug	<2	<2	190	150	9.9	370	0.34
W-25N-20	Nov	<2	4.0	-	-	9.1	-	-
W-25N-23	Feb	<2	<2	160	110	5.4	470	0.47
W-25N-23	Aug	<2	<2	150	110	3.5	400	0.50
W-25N-22	Feb	<2	<2	160	130	25	460	0.50
W-25N-22	Aug	<2	<2	160	130	8.5	430	0.51
W-26R-01	Feb	<2	30	200	160	26	240	0.44
W-26R-01	May	<2	<2	-	-	26	-	-
W-26R-01	Aug	<2	<2	200	160	26	240	0.42
W-26R-01	Nov	<2	<2	-	-	23	-	-
W-26R-05	Feb	<2	<2	140	97	<0.44	220	0.45
W-26R-05	May	<2	2.0	-	-	0.70	-	-
W-26R-05	Aug	<2	<2	150	95	1.5	220	0.44
W-26R-05	Nov	<2	<2	-	-	0.90	-	-
W-26R-11	Feb	<2	<2	180	140	11	320	0.34
W-26R-11	May	<2	<2	-	-	13	-	-
W-26R-11	Aug	<2	<2	190	150	13	320	0.30
W-26R-11	Nov	<2	4.0	-	-	12	-	-
W-7DS	Feb	<2	<2	170	140	10	360	0.37
W-7DS	May	<2	<2	-	-	5.6	-	-
W-7DS	Aug	<2	<2	180	150	10	370	0.32
W-7DS	Nov	<2	<2	-	-	10	-	-

A dash (-) denotes analysis not required.

Table of physical characteristics for Figure A.3. (Continued)

Well	Date	pH	Specific Conductance (µmhos/cm)	Total Alkalinity (as CaCO3) (mg/L)	Total dissolved solids (TDS) (mg/L)	Total Hardness (as CaCO3) (mg/L)	Total Phosphorus (as PO4) (mg/L)
W-7ES	11-Feb	7.7	1590	290	1100	510	0.25
W-7ES	13-May	7.6	1560	-	-	-	-
W-7ES	10-Aug	7.7	1580	290	1100	520	<0.15
W-7ES	9-Nov	7.7	1580	-	-	-	-
W-7PS	3-Feb	7.7	1560	320	1100	440	0.24
W-7PS	6-May	7.7	1480	-	-	-	-
W-7PS	11-Aug	7.7	1550	340	1000	420	0.21
W-7PS	4-Nov	7.7	1600	-	-	-	-
W-35A-04	9-Feb	7.9	1440	280	1100	480	0.23
W-35A-04	13-May	7.7	1520	-	-	-	-
W-35A-04	16-Dec	7.7	1610	-	-	-	-
W-25N-20	4-Feb	7.6	1520	290	1100	460	0.19
W-25N-20	6-May	7.6	1540	-	-	-	-
W-25N-20	10-Aug	7.8	1610	300	1100	520	0.23
W-25N-20	4-Nov	7.7	1560	-	-	-	-
W-25N-23	9-Feb	7.7	1370	190	1100	440	<0.15
W-25N-23	11-Aug	7.4	1350	200	1000	410	<0.15
W-25N-22	9-Feb	7.8	1480	190	1100	420	<0.15
W-25N-22	11-Aug	7.9	1430	180	1200	400	0.18
W-26R-01	3-Feb	7.8	1300	240	960	260	0.15
W-26R-01	6-May	7.7	1360	-	-	-	-
W-26R-01	12-Aug	7.8	1320	250	940	270	<0.15
W-26R-01	4-Nov	7.9	1350	-	-	-	-
W-26R-05	3-Feb	7.9	1050	210	760	220	0.54
W-26R-05	11-May	7.9	1030	-	-	-	-
W-26R-05	10-Aug	8	1060	200	710	230	0.4
W-26R-05	9-Nov	8	1070	-	-	-	-
W-26R-11	3-Feb	7.7	1470	290	1000	410	0.25
W-26R-11	11-May	7.7	1440	-	-	-	-
W-26R-11	10-Aug	7.7	1540	310	1100	450	<0.15
W-26R-11	4-Nov	7.7	1500	-	-	-	-
W-7DS	4-Feb	7.7	1480	280	1100	470	0.24
W-7DS	11-May	7.7	1540	-	-	-	-
W-7DS	10-Aug	7.7	1580	290	1100	500	0.18
W-7DS	9-Nov	7.8	1570	-	-	-	-

A dash (-) denotes analysis not required.

Table of physical characteristics for Figure A.3. (Continued)

Analyte	Month	W-7ES	W-7PS	W-35A-04	W-25N-20	W-25N-23	W-25N-22	W-26R-01	W-26R-05	W-26R-11	W-7DS
Aluminum (µg/L)	Feb	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	Aug	<50	<50	-	<50	<50	<50	<50	<50	<50	<50
Arsenic (µg/L)	Feb	3.1	2.5	2	2.5	<2	7.5	7.9	5.6	2.3	2.8
	Aug	<2	4.9	-	3.8	2.7	7.7	13	11	3.6	3.3
	Dec	-	-	3.6	-	-	-	-	-	-	-
Barium (µg/L)	Feb	53	68	49	51	30	28	31	26	53	50
	Aug	52	70	-	50	27	26	33	26	56	50
	Dec	-	-	50	-	-	-	-	-	-	-
Boron (µg/L)	Feb	2900	2700	3100	2800	1200	1200	1600	1000	2600	2800
	Aug	3100	2400	-	3100	1100	1000	1600	1000	2600	3000
Cadmium (µg/L)	Feb	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	Aug	<50	<50	-	<50	<50	<50	<50	<50	<50	<50
	Dec	-	-	<0.5	-	-	-	-	-	-	-
Calcium (µg/L)	Feb	120000	100000	110000	110000	110000	100000	65000	54000	93000	110000
	Aug	120000	95000	-	120000	97000	97000	68000	58000	100000	110000
Chromium (µg/L)	Feb	<1	1.1	<1	<1	<1	<1	<1	<1	<1	<1
	Aug	<1	1.5	-	<1	<1	<1	<1	<1	1.1	<1
	Dec	-	-	<1	-	-	-	-	-	-	-
Chromium (VI) (µg/L)	Feb	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Aug	<1	<1	-	<1	<1	<1	<1	<1	<1	<1
Copper (µg/L)	Feb	<1	3.5	1.7	1.3	<1	<1	2.3	8.8	<1	1.1
	May	-	-	<10	-	-	-	-	-	-	-
	Aug	<1	<1	-	<1	<1	<1	1.2	1.2	<1	<1
	Dec	-	-	<10	-	-	-	-	-	-	-
Iron (µg/L)	Feb	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	Aug	<100	<100	-	<100	<100	<100	<50	<100	<100	<100
Lead (µg/L)	Feb	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	Aug	<5	<5	-	<5	<5	<5	<5	<5	<5	<5
	Dec	-	-	<2	-	-	-	-	-	-	-
Magnesium (µg/L)	Feb	52000	45000	51000	49000	43000	41000	24000	20000	43000	48000
	Aug	55000	44000	-	54000	40000	39000	25000	22000	47000	53000

A dash (-) denotes analysis not required.

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Table of physical characteristics for Figure A.3. (Continued)

Analyte	Month	W-7ES	W-7PS	W-35A-04	W-25N-20	W-25N-23	W-25N-22	W-26R-01	W-26R-05	W-26R-11	W-7DS
Manganese (µg/L)	Feb	<10	<10	<10	<10	17	<10	<10	<10	<10	<10
	Aug	<30	<30	-	<30	<30	70	<10	<30	<30	<30
Molybdenum (µg/L)	Feb	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	Aug	<25	<25	-	<25	<25	<25	<50	<25	<25	<25
	Dec	-	-	<25	-	-	-	-	-	-	-
Nickel (µg/L)	Feb	<2	10	<2	2.6	<2	9.5	<2	<2	<2	<2
	Aug	2.5	2.8	-	<2	<2	30	<2	<2	<2	<2
	Dec	-	-	<5	-	-	-	-	-	-	-
Potassium (µg/L)	Feb	5700	5800	5400	5500	11000	11000	10000	9300	5600	5500
	Aug	5800	5600	-	5800	10000	11000	11000	9800	6100	5800
	Dec	-	-	6000	-	-	-	-	-	-	-
Selenium (µg/L)	Feb	3.8	10	3	3.8	<2	2.7	11	<2	5.5	3.4
	Aug	6.5	19	-	6.7	3.6	3.9	12	2.2	9.2	5.4
	Dec	-	-	4	-	-	-	-	-	-	-
Vanadium (µg/L)	Feb	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	Aug	<20	<20	-	<20	<20	<20	<20	<20	<20	<20
	Dec	-	-	<25	-	-	-	-	-	-	-
Zinc (µg/L)	Feb	<5	5.8	<5	6.4	8.9	<5	6.7	<5	<5	5.3
	Aug	<5	42	-	<5	6.1	<5	8.5	<5	<5	<5
	Dec	-	-	<20	-	-	-	-	-	-	-

A dash (-) denotes analysis not required.

Table A.1. Summary of Site 300 sewer pond well specifications.

Well	HSU	Easting	Northing	Ground surface elevation	Measuring point elevation	Screen top elevation	Screen bottom elevation	Bentonite top elevation	Filter pack top elevation	Well bottom elevation
W-7E	$Tnbs_1$	1,711,708	414,581	506.70	509.28	447.90	428.70	453.70	451.70	428.70
W-7ES	Qal- $Tnbs_1$	1,711,719	414,586	506.41	509.71	491.41	481.41	496.41	495.41	479.61
W-7PS	Qal- $Tnbs_1$	1,711,773	414,782	506.10	508.78	489.60	486.60	494.10	492.10	486.60
W-35A-04	Qal- $Tnbs_1$	1,712,036	414,642	504.07	503.98	485.07	475.07	494.87	486.27	475.07
W-26R-01	Qal- $Tnbs_1$	1,712,267	415,036	506.74	509.71	486.94	481.94	494.24	490.74	476.94
W-26R-11	Qal- $Tnbs_1$	1,712,198	414,961	504.93	507.21	489.13	479.13	493.13	491.13	477.93
W-26R-05	Qal- $Tnbs_1$	1,712,339	415,070	511.31	513.11	491.11	486.11	500.81	498.81	485.81
W-25N-20	Qal- $Tnbs_1$	1,712,371	414,923	502.11	504.94	490.11	475.11	494.61	492.61	474.11
W-7DS	Qal- $Tnbs_1$	1,712,206	414,880	503.30	506.60	487.80	477.80	491.80	489.80	476.30
W-26R-03	Qal- $Tnbs_1$	1,712,341	414,998	505.95	506.22	482.15	472.15	489.65	487.65	471.85
W-25N-23	Qal- $Tnbs_1$	1,712,521	415,109	507.58	510.39	488.58	473.58	495.08	493.08	472.28

Note: All measurements are made in feet; elevations are in feet above mean sea level.

HSU = Hydrostratigraphic unit.

Table A.2. Site 300 sewer pond ground water monitoring network 2009 annual ground water elevation summary.

Well	Date sampled	Ground water depth (ft.)	Ground water elevation (ft. above MSL)
W-7ES	Feb 4	NM/RA CONSTRUCTION	NM/RA CONSTRUCTION
W-7ES	Feb 11	18.3	491.4
W-7ES	Feb 12	18.3	491.4
W-7ES	May 13	17.9	491.8
W-7ES	May 14	17.9	491.8
W-7ES	Aug 10	16.7	493.0
W-7ES	Aug 11	16.7	493.0
W-7ES	Nov 9	18.2	491.5
W-7ES	Nov 10	18.0	491.7
W-7PS	Feb 3	18.1	490.7
W-7PS	Feb 4	18.1	490.7
W-7PS	May 6	17.4	491.4
W-7PS	May 7	17.4	491.4
W-7PS	Aug 11	16.4	492.4
W-7PS	Aug 12	16.3	492.5
W-7PS	Nov 4	17.5	491.3
W-7PS	Nov 5	17.5	491.2
W-35A-04	Feb 9	13.5	490.5
W-35A-04	Feb 10	13.4	490.6
W-35A-04	May 13	13.1	490.9
W-35A-04	May 14	13.2	490.8
W-35A-04	Dec 16	13.8	490.3
W-25N-20	Feb 4	15.6	489.3
W-25N-20	Feb 5	15.7	489.3
W-25N-20	May 6	15.2	489.7
W-25N-20	May 7	15.2	489.7
W-25N-20	Aug 10	14.2	490.7
W-25N-20	Aug 11	14.2	490.7
W-25N-20	Nov 4	15.2	489.8
W-25N-20	Nov 5	15.2	489.7
W-25N-23	Feb 9	21.7	488.7
W-25N-23	Feb 10	21.8	488.6
W-25N-23	Aug 11	21.1	489.3
W-25N-23	Aug 12	21.1	489.3
W-25N-22	Feb 9	22.6	490.4
W-25N-22	Feb 10	22.7	490.4
W-25N-22	Aug 11	23.7	489.4
W-25N-22	Aug 12	23.7	489.4
W-26R-01	Feb 3	20.3	489.4
W-26R-01	Feb 4	20.2	489.5
W-26R-01	May 6	19.8	489.9
W-26R-01	May 7	19.8	489.9
W-26R-01	Aug 12	18.7	491.0

Table A.2. Site 300 sewer pond ground water monitoring network 2009 annual ground water elevation summary. (Continued)

Well	Date sampled	Ground water depth (ft.)	Ground water elevation (ft. above MSL)
W-26R-01	Aug 13	18.7	491.0
W-26R-01	Nov 4	19.8	489.9
W-26R-01	Nov 5	19.8	489.9
W-26R-05	Feb 3	23.5	489.6
W-26R-05	Feb 5	25.4	487.7
W-26R-05	May 11	23.3	489.8
W-26R-05	May 14	25.4	487.7
W-26R-05	Aug 10	22.5	490.6
W-26R-05	Aug 13	23.6	489.5
W-26R-05	Nov 9	23.3	489.8
W-26R-05	Nov 12	25.8	487.3
W-26R-11	Feb 3	17.6	489.6
W-26R-11	Feb 4	17.6	489.6
W-26R-11	May 11	17.1	490.1
W-26R-11	May 12	17.1	490.1
W-26R-11	Aug 10	16.0	491.2
W-26R-11	Aug 11	16.0	491.2
W-26R-11	Nov 4	17.1	490.2
W-26R-11	Nov 5	17.2	490.0
W-7DS	Feb 4	16.9	489.7
W-7DS	Feb 5	16.9	489.7
W-7DS	May 11	16.4	490.2
W-7DS	May 12	16.5	490.1
W-7DS	Aug 10	15.3	491.3
W-7DS	Aug 11	15.3	491.3
W-7DS	Nov 9	16.5	490.1
W-7DS	Nov 10	16.6	490.0

Table A.3. S-300 sewer pond wastewater monitoring network 2009 coliform, anion, and physical characteristic data summary

Well	Date	pH	Specific Conductance (μmhos/cm)	Biochemical Oxygen Demand (mg/L)	Dissolved Oxygen (mg/L)	Fecal Coliform (MPN/100mL)	Total Coliform (MPN/100mL)	Sodium (mg/L)
3-ISWP-OW	5/13/09	9.9	1,190	13	-	-	-	-
3-ESWP-OW	5/13/09	9.9	7,380	56	29	220	500	1,800
3-ISWP-OW	10/8/09	8.1	1,420	820	-	-	-	-
3-ESWP-OW	10/8/09	9.4	6,510	80	9.9	13,000	24,000	1,800

A dash (-) denotes analysis not required.

Table A.4. S-300 sewer pond wastewater monitoring network 2009 annual metals data summary.

Analyte	Date	3-ESWP-OW (µg/L)
Al	May 13	<250
Al	Oct 8	<100
As	May 13	7.1
As	Oct 8	<10
Ba	May 13	25
Ba	Oct 8	130
B	May 13	7000
B	Oct 8	7400
Cd	May 13	<50
Cd	Oct 8	<250
Ca	May 13	18000
Ca	Oct 8	32000
Cr	May 13	1.1
Cr	Oct 8	1.3
Cr6	May 13	<1
Cr6	Oct 15	<1
Cu	May 13	3.1
Cu	Oct 8	7.7
Fe	May 13	<500
Fe	Oct 8	260
Pb	May 13	<5
Pb	Oct 8	<25
Mg	May 13	10000
Mg	Oct 8	20000
Mn	May 13	<150
Mn	Oct 8	<60
Mo	May 13	<120
Mo	Oct 8	56
Ni	May 13	3.3
Ni	Oct 8	<10
K	May 13	93000
K	Oct 8	100000
Se	May 13	37
Se	Oct 8	<10
V	May 13	<20
V	Oct 8	<100
Zn	May 13	<20
Zn	Oct 8	<100

Table A.5. S-300 sewer pond wastewater monitoring network 2009 annual QA data.

Location	Date	Type	pH	Specific Conductance (µmhos/cm)	BOD (mg/L)	DO (mg/L)
3-ESWP-OW	5/13/09	Routine	9.9	7,380	56	29
3-ESWP-OW	5/13/09	Duplicate	a	a	a	26
3-ISWP-OW	10/8/09	Routine	8.1	1,420	820	a
3-ISWP-OW	10/8/09	Duplicate	a	a	790	a

[a] Duplicate analysis on selected analytes are performed on a rotating semester basis, one analyte per semester.

Table A.6. Site 300 sewer pond ground water monitoring network 2009 annual anions data summary.

Well	Date	Sodium (mg/L)	Chloride (mg/L)	Nitrate (as NO3) (mg/L)	Sulfate (mg/L)	Fluoride (mg/L)
W-7ES	Feb 11	180	150	11	400	0.37
W-7ES	May 13	-	-	10	-	-
W-7ES	Aug 10	190	150	10	380	0.34
W-7ES	Nov 9	-	-	9.1	-	-
W-7PS	Feb 3	190	160	15	320	0.40
W-7PS	May 6	-	-	16	-	-
W-7PS	Aug 11	190	170	18	300	0.35
W-7PS	Nov 4	-	-	15	-	-
W-35A-04	Feb 9	180	150	13	400	0.46
W-35A-04	May 13	-	-	12	-	-
W-35A-04	Dec 16	-	-	11	-	-
W-25N-20	Feb 4	170	150	11	360	0.34
W-25N-20	May 6	-	-	11	-	-
W-25N-20	Aug 10	190	150	9.9	370	0.34
W-25N-20	Nov 4	-	-	9.1	-	-
W-25N-23	Feb 9	160	110	5.4	470	0.47
W-25N-23	Aug 11	150	110	3.5	400	0.50
W-25N-22	Feb 9	160	130	25	460	0.50
W-25N-22	Aug 11	160	130	8.5	430	0.51
W-26R-01	Feb 3	200	160	26	240	0.44
W-26R-01	May 6	-	-	26	-	-
W-26R-01	Aug 12	200	160	26	240	0.42
W-26R-01	Nov 4	-	-	23	-	-
W-26R-05	Feb 3	140	97	<0.44	220	0.45
W-26R-05	May 11	-	-	0.70	-	-
W-26R-05	Aug 10	150	95	1.5	220	0.44
W-26R-05	Nov 9	-	-	0.90	-	-
W-26R-11	Feb 3	180	140	11	320	0.34
W-26R-11	May 11	-	-	13	-	-
W-26R-11	Aug 10	190	150	13	320	0.30
W-26R-11	Nov 4	-	-	12	-	-
W-7DS	Feb 4	170	140	10	360	0.37
W-7DS	May 11	-	-	5.6	-	-
W-7DS	Aug 10	180	150	10	370	0.32
W-7DS	Nov 9	-	-	10	-	-

A dash (-) denotes analysis not required.

Table A.7. Site 300 sewer pond ground water monitoring network 2009 annual coliform data summary.

Well	Date	Fecal Coliform (MPN/100 mL)	Total Coliform (MPN/100 mL)
W-7ES	Feb 12	<2	<2
W-7ES	May 14	<2	9.0
W-7ES	Aug 11	<2	<2
W-7ES	Nov 10	<2	<2
W-7PS	Feb 4	<2	<2
W-7PS	May 7	<2	<2
W-7PS	Aug 12	<2	<2
W-7PS	Nov 5	<2	<2
W-35A-04	Feb 10	<2	<2
W-35A-04	May 14	<2	2.0
W-35A-04	Dec 17	<2	23
W-25N-20	Feb 5	<2	<2
W-25N-20	May 7	<2	<2
W-25N-20	Aug 11	<2	<2
W-25N-20	Nov 5	<2	4.0
W-25N-23	Feb 10	<2	<2
W-25N-23	Aug 12	<2	<2
W-25N-22	Feb 10	<2	<2
W-25N-22	Aug 12	<2	<2
W-26R-01	Feb 4	<2	30
W-26R-01	May 7	<2	<2
W-26R-01	Aug 13	<2	<2
W-26R-01	Nov 5	<2	<2
W-26R-05	Feb 5	<2	<2
W-26R-05	May 14	<2	2.0
W-26R-05	Aug 13	<2	<2
W-26R-05	Nov 12	<2	<2
W-26R-11	Feb 4	<2	<2
W-26R-11	May 12	<2	<2
W-26R-11	Aug 11	<2	<2
W-26R-11	Nov 5	<2	4.0
W-7DS	Feb 5	<2	<2
W-7DS	May 12	<2	<2
W-7DS	Aug 11	<2	<2
W-7DS	Nov 10	<2	<2

Table A.8. Site 300 sewer pond ground water monitoring network 2009 annual physical chemistry data.

Well	Date	pH	Specific Conductance (µmhos/cm)	Total Alkalinity (as CaCO3) (mg/L)	Total dissolved solids (TDS) (mg/L)	Total Hardness (as CaCO3) (mg/L)	Total Phosphorus (as PO4) (mg/L)
W-7ES	Feb 11	7.7	1590	290	1100	510	0.25
W-7ES	May 13	7.6	1560	-	-	-	-
W-7ES	Aug 10	7.7	1580	290	1100	520	<0.15
W-7ES	Nov 9	7.7	1580	-	-	-	-
W-7PS	Feb 3	7.7	1560	320	1100	440	0.24
W-7PS	May 6	7.7	1480	-	-	-	-
W-7PS	Aug 11	7.7	1550	340	1000	420	0.21
W-7PS	Nov 4	7.7	1600	-	-	-	-
W-35A-04	Feb 9	7.9	1440	280	1100	480	0.23
W-35A-04	May 13	7.7	1520	-	-	-	-
W-35A-04	Dec 16	7.7	1610	-	-	-	-
W-25N-20	Feb 4	7.6	1520	290	1100	460	0.19
W-25N-20	May 6	7.6	1540	-	-	-	-
W-25N-20	Aug 10	7.8	1610	300	1100	520	0.23
W-25N-20	Nov 4	7.7	1560	-	-	-	-
W-25N-23	Feb 9	7.7	1370	190	1100	440	<0.15
W-25N-23	Aug 11	7.4	1350	200	1000	410	<0.15
W-25N-22	Feb 9	7.8	1480	190	1100	420	<0.15
W-25N-22	Aug 11	7.9	1430	180	1200	400	0.18
W-26R-01	Feb 3	7.8	1300	240	960	260	0.15
W-26R-01	May 6	7.7	1360	-	-	-	-
W-26R-01	Aug 12	7.8	1320	250	940	270	<0.15
W-26R-01	Nov 4	7.9	1350	-	-	-	-
W-26R-05	Feb 3	7.9	1050	210	760	220	0.54
W-26R-05	May 11	7.9	1030	-	-	-	-
W-26R-05	Aug 10	8.0	1060	200	710	230	0.40
W-26R-05	Nov 9	8.0	1070	-	-	-	-
W-26R-11	Feb 3	7.7	1470	290	1000	410	0.25
W-26R-11	May 11	7.7	1440	-	-	-	-
W-26R-11	Aug 10	7.7	1540	310	1100	450	<0.15
W-26R-11	Nov 4	7.7	1500	-	-	-	-
W-7DS	Feb 4	7.7	1480	280	1100	470	0.24
W-7DS	May 11	7.7	1540	-	-	-	-
W-7DS	Aug 10	7.7	1580	290	1100	500	0.18
W-7DS	Nov 9	7.8	1570	-	-	-	-

A dash (-) denotes analysis not required.

Table A.9. Site 300 sewer pond ground water monitoring network 2009 annual metals analysis data summary.

Analyte	Month	W-7ES	W-7PS	W-35A-04	W-25N-20	W-25N-23	W-25N-22	W-26R-01	W-26R-05	W-26R-11	W-7DS
Aluminum (µg/L)	Feb	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	Aug	<50	<50	-	<50	<50	<50	<50	<50	<50	<50
Arsenic (µg/L)	Feb	3.1	2.5	2.0	2.5	<2	7.5	7.9	5.6	2.3	2.8
	Aug	<2	4.9	-	3.8	2.7	7.7	13	11	3.6	3.3
	Dec	-	-	3.6	-	-	-	-	-	-	-
Barium (µg/L)	Feb	53	68	49	51	30	28	31	26	53	50
	Aug	52	70	-	50	27	26	33	26	56	50
	Dec	-	-	50	-	-	-	-	-	-	-
Boron (µg/L)	Feb	2900	2700	3100	2800	1200	1200	1600	1000	2600	2800
	Aug	3100	2400	-	3100	1100	1000	1600	1000	2600	3000
Cadmium (µg/L)	Feb	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	Aug	<50	<50	-	<50	<50	<50	<50	<50	<50	<50
	Dec	-	-	<0.5	-	-	-	-	-	-	-
Calcium (µg/L)	Feb	120000	100000	110000	110000	110000	100000	65000	54000	93000	110000
	Aug	120000	95000	-	120000	97000	97000	68000	58000	100000	110000
Chromium (µg/L)	Feb	<1	1.1	<1	<1	<1	<1	<1	<1	<1	<1
	Aug	<1	1.5	-	<1	<1	<1	<1	<1	1.1	<1
	Dec	-	-	<1	-	-	-	-	-	-	-
Chromium (VI) (µg/L)	Feb	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Aug	<1	<1	-	<1	<1	<1	<1	<1	<1	<1

A dash (-) denotes analysis not required.

Table A.9. Site 300 sewer pond ground water monitoring network 2009 annual metals analysis data summary. (Continued)

Analyte	Month	W-7ES	W-7PS	W-35A-04	W-25N-20	W-25N-23	W-25N-22	W-26R-01	W-26R-05	W-26R-11	W-7DS
Copper (µg/L)	Feb	<1	3.5	1.7	1.3	<1	<1	2.3	8.8	<1	1.1
	May	-	-	<10	-	-	-	-	-	-	-
	Aug	<1	<1	-	<1	<1	<1	1.2	1.2	<1	<1
	Dec	-	-	<10	-	-	-	-	-	-	-
Iron (µg/L)	Feb	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	Aug	<100	<100	-	<100	<100	<100	<50	<100	<100	<100
Lead (µg/L)	Feb	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	Aug	<5	<5	-	<5	<5	<5	<5	<5	<5	<5
	Dec	-	-	<2	-	-	-	-	-	-	-
Magnesium (µg/L)	Feb	52000	45000	51000	49000	43000	41000	24000	20000	43000	48000
	Aug	55000	44000	-	54000	40000	39000	25000	22000	47000	53000
Manganese (µg/L)	Feb	<10	<10	<10	<10	17	<10	<10	<10	<10	<10
	Aug	<30	<30	-	<30	<30	70	<10	<30	<30	<30
Molybdenum (µg/L)	Feb	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	Aug	<25	<25	-	<25	<25	<25	<50	<25	<25	<25
	Dec	-	-	<25	-	-	-	-	-	-	-
Nickel (µg/L)	Feb	<2	10	<2	2.6	<2	9.5	<2	<2	<2	<2
	Aug	2.5	2.8	-	<2	<2	30	<2	<2	<2	<2
	Dec	-	-	<5	-	-	-	-	-	-	-
Potassium (µg/L)	Feb	5700	5800	5400	5500	11000	11000	10000	9300	5600	5500
	Aug	5800	5600	-	5800	10000	11000	11000	9800	6100	5800
	Dec	-	-	6000	-	-	-	-	-	-	-

A dash (-) denotes analysis not required.

Table A.9. Site 300 sewer pond ground water monitoring network 2009 annual metals analysis data summary. (Continued)

Selenium (µg/L)	Feb	3.8	10	3.0	3.8	<2	2.7	11	<2	5.5	3.4
	Aug	6.5	19	-	6.7	3.6	3.9	12	2.2	9.2	5.4
	Dec	-	-	4.0	-	-	-	-	-	-	-
Vanadium (µg/L)	Feb	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	Aug	<20	<20	-	<20	<20	<20	<20	<20	<20	<20
	Dec	-	-	<25	-	-	-	-	-	-	-
Zinc (µg/L)	Feb	<5	5.8	<5	6.4	8.9	<5	6.7	<5	<5	5.3
	Aug	<5	42	-	<5	6.1	<5	8.5	<5	<5	<5
	Dec	-	-	<20	-	-	-	-	-	-	-

A dash (-) denotes analysis not required.

Table A.10. Site 300 sewer pond ground water monitoring network 2009 annual QA data.

		Well Identifier							
		W-35A-04	**W-35A-04**	**W-35A-04**	**W-35A-04**	**W-26R-01**	**W-26R-01**	**W-26R-01**	**W-26R-01**
		Dec 16	**Dec 16**	**Dec 17**	**Dec 17**	**Nov 4**	**Nov 4**	**Nov 5**	**Nov 5**
Analyte	**Units**	**Routine**	**Duplicate**	**Routine**	**Duplicate**	**Routine**	**Duplicate**	**Routine**	**Duplicate**
pH	Units	7.7	7.7	-	-	7.9	7.9	-	-
Specific Conductance	µmhos/cm	1610	1600	-	-	1350	1340	-	-
Fecal Coliform	MPN/100mL	-	-	<2	<2	-	-	<2	<2
Total Coliform	MPN/100mL	-	-	23	8.0	-	-	<2	<2
Arsenic	µg/L	3.6	3.6	-	-	-	-	-	-
Barium	µg/L	50	49	-	-	-	-	-	-
Cadmium	µg/L	<0.5	<0.5	-	-	-	-	-	-
Chromium	µg/L	<1	<1	-	-	-	-	-	-
Copper	µg/L	<10	<10	-	-	-	-	-	-
Lead	µg/L	<2	<2	-	-	-	-	-	-
Molybdenum	µg/L	<25	<25	-	-	-	-	-	-
Nickel	µg/L	<5	<5	-	-	-	-	-	-
Potassium	µg/L	6000	6000	-	-	-	-	-	-
Selenium	µg/L	4.0	4.0	-	-	-	-	-	-
Vanadium	µg/L	<25	<25	-	-	-	-	-	-
Zinc	µg/L	<20	<20	-	-	-	-	-	-
Nitrate (as NO3)	mg/L	11	11	-	-	23	24	-	-

A dash (-) denotes analysis not required.

FIELD TRACKING FORM
EAST END OF SITE 300 SEWAGE POND

Lab	FGL	BC
CoC #	47109	47108
Ship It #	HAND CARRY	129151

DATE: 10/8/09 **TIME:** 14:40

Special Instructions:	**Semi-Annual Sampling in 1st and 4th Quarters (Feb & Oct)**	pH meter calibrated	✓
Samples must be taken after 1 p.m.		Conductivity meter calibrated	✓
Print collection time on sample bottles.		DO meter calibrated	✓
DO/conductivity/pH hold time 24 hr.			

Location	Field Measurements					Comments	Initials	Samples for Lab Analysis
	pH	COND	Depth	DO (PPM)	Temp (˚C)			Analytical Codes:
3-ESWP-01-OW (East end of Sewage Pond)	8.9	6.86 mS	12"	9.2 PPM	18.1°C		KB CF [illegible]	**FGLAB** **E360.1** *DO (1x500-mL glass, NO head space)* **E120.1A & E150.1A** *Conductivity/pH (2x250-mL poly)*
3-WSWP-01-OW *duplicate of* ______								**SM9221** *Total, Fecal Coliform (1x250mL) 6hr hold* **SM5210B-A** *BOD (1x500mL poly)* **BC Labs** **S3METALS** *(1X500mL Poly)* Acidify w/ HNO_3

4Q2009 Duplicate ~~**E120.1A & E150.1A**~~

☑ Copy to Analyst, Allen Grayson

☑ Copy of CoC given to TRR

Revised 9/21/09

FIELD TRACKING FORM

INFLUENT TO SITE 300 SEWAGE POND

Lab	COC #
Lab	FGL
CoC #	47109
Ship It #	HAND CARRY

DATE: 10/8/09 TIME: 1415

Special Instructions: Semi-Annual Sampling in 1st and 4th Quarters (Feb & Oct)	pH meter calibrated	✓
Samples should be taken after 1 p.m. during higher flow.	Conductivity meter calibrated	✓
Print collection time on sample bottles.	DO meter calibrated	✓
BOD Hold Time 48hr. Conductivity/pH Hold Time 24hr.		

Location	Field Measurements						Samples for Lab Analysis
	pH	COND	DO (PPM)	Temp (˚C)	Comments	Initials	Analytical Codes:
3-ISWP-01-OW (Influent to Sewage Pond)	7.8	1450 ums	2.11 ppm	31.7°C	CLEAR + COMFORTABLE	K.B. C.F.	**E120.1A & E150.1A** (Conductivity/pH) (2 X 250-mL poly)
3-WSWP-01-OW *duplicate of* 3-ISWP-01-OW							**SM5210B-A** (BOD) (1 X 500-mL poly)

4Q2009 Duplicate **SM5210B-A**

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Revised 9/21/09

Chain of Custody

EPD: EMAD/PRAD/ESPD
Lawrence Livermore National Laboratory
P.O. Box 808 L-629
Livermore, CA 94551

Work Authorized By: EPD
TRR Approver:
Project Info:

Access/COC #: 47108
Document Control #: 47108
Requester/LLNL Analyst: A. Grayson
Organization / Sampler: EPD / brunckhorst2
PCI Project #: 32424
PCI Task #: 1.3.2.2.5.6
Fax/Email #1: swanson15@llnl.gov
DMT Additional Copies:

Analytical Lab : BCLABS-BAK
TAT: 20d
Analytical Lab Log #:
Project/Network: WDRPOND
LLNL Acct #: 3297-41
Release #: UNICARD
Fax/Email #2:

Additional Instructions:

Sample ID	Sampled Date/Time	Matrix	Cont. Type	Cont. Count	Study Area	Req. Analysis	Analysis Detail	Lab Instructions
3-ESWP-01-OW	10/08/2009 14:40	SW	P	1	WDR	S3METALS	ALL	

Relinquished Signature	Company	Date	Time	Received Signature	Company	Date	Time
1	LLNL/EPD			2			
2				3			
3				4			
4				5			

Revision Printed: 03/18/2009/14/12/21

Signature Order - 1: Sampler, 2: Courier, 3: Lab, 4: Analyst, 5: DMT

Chain of Costody

EPD: EMAD/PRAD/ESPD
Lawrence Livermore National Laboratory
P.O. Box 808 L-629
Livermore, CA 94551

Work Authorized By: EPD
TRR Approver:
Project Info:

Access/COC #: 47109
Document Control #: 47109
Requester/LLNL Analyst: A. Grayson
Organization / Sampler: EPD / brunckhorst2
PCI Project #: 32424
PCI Task #: 1.3.2.2.5.6
Fax/Email #1: swanson15@llnl.gov
DMT Additional Copies:

Analytical Lab : FRUITGROWL
TAT: 20d
Analytical Lab Log #:
Project/Network: WDRPOND
LLNL Acct #: 3297-41
Release #: UNICARD
Fax/Email #2:

Additional Instructions:

Sample ID	Sampled Date/Time	Matrix	Cont. Type	Cont. Count	Study Area	Req. Analysis	Analysis Detail	Lab Instructions
3-ESWP-01-OW	10/08/2009 14:40	SW	P	1	WDR	E120.1A	ALL	
3-ESWP-01-OW	10/08/2009 14:40	SW	P	1	WDR	E150.1A	ALL	
3-ESWP-01-OW	10/08/2009 14:40	SW	G	1	WDR	E360.1	ALL	
3-ESWP-01-OW	10/08/2009 14:40	SW	PO	1	WDR	SM5210B-A	ALL	
3-ESWP-01-OW	10/08/2009 14:40	SW	P	1	WDR	SM9221	ALL	Use 20 or more tubes: OK if bubbles are present
3-ISWP-01-OW	10/08/2009 14:15	SW	P	1	WDR	E120.1A	ALL	
3-ISWP-01-OW	10/08/2009 14:15	SW	P	1	WDR	E150.1A	ALL	
3-ISWP-01-OW	10/08/2009 14:15	SW	PO	1	WDR	SM5210B-A	ALL	
3-WSWP-01-OW	10/08/2009 14:15	SW	PO	1	WDR	SM5210B-A	ALL	

Relinquished Signature	Company	Date	Time	Received Signature	Company	Date	Time
1	LLNL/EPD			2			
2				3			
3				4			
4				5			

Revision Printed: 03/18/2009/14/12/21

Signature Order - 1: Sampler, 2: Courier, 3: Lab, 4: Analyst, 5: DMT

FIELD TRACKING FORM
EAST END OF SITE 300 SEWAGE POND

Lab	FGL	BC
CoC #		47244
Ship It #		129427

DATE: 10/15/09 **TIME:** 13:45

Special Instructions:	**Semi-Annual Sampling in 1st and 4th Quarters (Feb & Oct)**	pH meter calibrated	N/A
Samples must be taken after 1 p.m.		Conductivity meter calibrated	N/A
Print collection time on sample bottles.		DO meter calibrated	N/A
DO/conductivity/pH hold time 24 hr.			

Location	Field Measurements					Comments	Initials	Samples for Lab Analysis
	pH	COND	Depth	DO (PPM)	Temp (˚C)			Analytical Codes:
3-ESWP-01-OW (East end of Sewage Pond)						Re-Sample for HEx chrome only	KB	**FGLAB** **E360.1** *DO (1x500-mL glass, NO head space)* **E120.1A & E150.1A** *Conductivity/pH (2x250-mL poly)*
3-WSWP-01-OW *duplicate of* ________								**SM9221** *Total, Fecal Coliform (1x250mL) 6hr hold* **SM5210B-A** *BOD (1x500mL poly)* **BC Labs** **S3METALS** *(1X500mL Poly)* 1

Re-Sample for HEx chrome only

4Q2009 Duplicate **E120.1A & E150.1A**

☑ Copy to Analyst, Allen Grayson

☑ Copy of CoC given to TRR

Revised 9/21/09

Chain of Costody

EPD: EMAD/PRAD/ESPD
Lawrence Livermore National Laboratory
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Work Authorized By: EPD
TRR Approver:
Project Info:

Access/COC #: 47244
Document Control #: 47244
Requester/LLNL Analyst: A. Grayson
Organization / Sampler: EPD / brunckhorst2
PCI Project #: 32424
PCI Task #: 1.3.2.2.5.6
Fax/Email #1: swanson15@llnl.gov
DMT Additional Copies:

Analytical Lab : BCLABS-BAK
TAT: 20d
Analytical Lab Log #:
Project/Network: WDRPOND
LLNL Acct #: 3297-41
Release #: UNICARD
Fax/Email #2:

Additional Instructions:

Sample ID	Sampled Date/Time	Matrix	Cont. Type	Cont. Count	Study Area	Req. Analysis	Analysis Detail	Lab Instructions
3-ESWP-01-OW	10/15/2009 13:45	SW	P	1	WDR	S3METALS	ALL	for Hex chrome only

Relinquished Signature	Company	Date	Time	Received Signature	Company	Date	Time
1 [signature]	LLNL/EPD	10/15/2009	1600	2			
2				3			
3				4			
4				5			

Chain of Custody

EPD: EMAD/PRAD/ESPD
Lawrence Livermore National Laboratory
P.O. Box 808 L-629
Livermore, CA 94551

Work Authorized By: EPD
TRR Approver:
Project Info:

Access/COC #: 47108
Document Control #: 47108
Requester/LLNL Analyst: A. Grayson
Organization / Sampler: EPD / brunckhorst2
PCI Project #: 32424
PCI Task #: 1.3.2.2.5.6
Fax/Email #1: swanson15@llnl.gov
DMT Additional Copies:

Analytical Lab : BCLABS-BAK
TAT: 20d
Analytical Lab Log #: 0913427
Project/Network: WDRPOND
LLNL Acct #: 3297-41
Release #: UNICARD
Fax/Email #2:

RECEIVED
Additional Instructions:
OCT 27 2009
ENVIRONMENTAL PROTECTION DEPARTMENT
DATA MANAGEMENT

Sample ID	Sampled Date/Time	Matrix	Cont. Type	Cont. Count	Study Area	Req. Analysis	Analysis Detail	Lab Instructions
3-ESWP-01-OW -1	10/08/2009 14:40	SW	P	1	WDR	S3METALS	ALL	

Relinquished Signature	Company	Date	Time	Received Signature	Company	Date	Time
1 [signature]	LLNL/EPD	10/8/09	1545	2 [signature]	BCLAB	10/8/09	1630
2 [signature]	BCLAB	10/8/09	1810	3 [signature]	BCL	10-8-09	1810
3 [signature]	BCL	10-8-09	2105	4 [signature]	BClab	10/8/09	2105
4				5			

Revision Printed: 03/18/2009/14/12/21 Signature Order - 1: Sampler, 2: Courier, 3: Lab, 4: Analyst, 5: DMT

COC 47108

Date: 10/26/09

Laboratory Number: 09-13427

BC Laboratory Number	Sampling Date	LLNL Sample Identification
09-13427-01	10/08/2009@14:40	3-ESWP-01-OW

I. HOLDING TIMES

Sample was prepared and analyzed within regulatory holding times.

II. CALIBRATION

Initial calibrations met established criteria.

Initial calibration verifications (ICV) met established criteria.

The Continuing Calibration Verification (CCV) met established criteria

III. BLANKS

Initial and continuing calibration blanks were performed at required frequencies. No contaminants were detected in the calibration blanks.

Method blanks were prepared and analyzed at required frequencies.

IV. LABORATORY CONTROL SAMPLES

Laboratory Control Sample (LCS) analyses were performedat required frequencies. All LCS parameters were within quality control (QC) limits.

V. MATRIX SPIKES

Matrix spike analyses were performed at required frequencies. Accuracy and precision requirements were met. The sample concentrations for Total Recoverable Calcium and Total Recoverable Zinc are more than 4 times the spike level. The QC – Precision & Accuracy report has been flagged accordingly.

VI. DISCUSSION

Sincerely,

Christina Herndon
Project Manager

Date of Report: 10/23/2009

TSG DMT, L-629

Lawrence Livermore National Laboratory
P.O. Box 808, L629
Livermore, CA 94551

RE: SPECIAL-S3
BC Work Order: 0913427
Invoice ID: B070028

Enclosed are the results of analyses for samples received by the laboratory on 10/8/2009. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Christina Herndon
Client Service Rep

Authorized Signature

BC LABORATORIES INC. **SAMPLE RECEIPT FORM** Rev. No. 12 06/24/08 Page 1 Of 1

Submission #: 0913927

SHIPPING INFORMATION

Federal Express ☐ UPS ☐ Hand Delivery ☐
BC Lab Field Service ☑ Other ☐ (Specify)________

SHIPPING CONTAINER

Ice Chest ☑ None ☐
Box ☐ Other ☐ (Specify)________

Refrigerant: Ice ☐ Blue Ice ☑ None ☐ Other ☐ **Comments:**

Custody Seals Ice Chest ☐ Intact? Yes ☐ No ☐ | Containers ☐ Intact? Yes ☐ No ☐ | None ☑ **Comments:**

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Emissivity: 0.98 Container: ptpe Thermometer ID: TN080
Temperature: A 2.8 °C / C 3.0 °C

Date/Time 10/8/09 2105
Analyst Init JJW

SAMPLE CONTAINERS	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS	A									
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

SHORT HOLDING TIME
Cr^{+6} NO_2 NO_3 OP SS
DO Cl_2 BOD MBAS COT

CHK BY JJW
DISTRIBUTION
SUB-OUT ☐

Comments: No unpreserved to test hex chrome.
Sample Numbering Completed By: JJD Date/Time: 10-08-09 2202
A = Actual / C = Corrected

[H:\DOCS\WP80\LAB_DOCS\FORMS\SAMREC2.WPD]

Lawrence Livermore National Laboratory P.O. Box 808, L629 Livermore, CA 94551	Project: SPECIAL-S3 Project Number: WDRPOND Project Manager: TSG DMT, L-629	**Reported:** 10/23/2009 13:26 **COC Number:** 47108

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information				
0913427-01	**COC Number:**	47108	**Receive Date:**	10/08/2009 21:05	Document Control Number: 47108
	Project Number:	WDRPOND	**Sampling Date:**	10/08/2009 14:40	Sample Matrix: SW
	Sampling Location:	3-ESWP-01-OW	**Sample Depth:**	---	Requestor: A. Grayson
	Sampling Point:	3-ESWP-01-OW	**Sample Matrix:**	Water	Sample Filtered in Field: N
	Sampled By:	brunkhorst2 of LLNL			

Lawrence Livermore National Laboratory P.O. Box 808, L629 Livermore, CA 94551	Project: SPECIAL-S3 Project Number: WDRPOND Project Manager: TSG DMT, L-629	**Reported:** 10/23/2009 13:26 **COC Number:** 47108

Water Analysis (General Chemistry)

BCL Sample ID: 0913427-01 | **Client Sample Name:** WDRPOND, 3-ESWP-01-OW, 3-ESWP-01-OW, 10/8/2009 2:40:00PM, brunkhorst2

Constituent	Result	Units	PQL	Prep Method	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	CCV Ref ID	LLNL Method	LLNL Code	Lab Quals
Total Recoverable Calcium	32	mg/L	1.0	EPA 200.2	EPA-200.7	10/12/09	10/15/09 10:00	JRG	PE-OP2	2	BSJ0618	0912142-2	S3METALS	1700	A01
Total Recoverable Magnesium	20	mg/L	1.0	EPA 200.2	EPA-200.7	10/12/09	10/15/09 10:00	JRG	PE-OP2	2	BSJ0618	0912142-2	S3METALS	5500	A01
Total Recoverable Sodium	1800	mg/L	22	EPA 200.2	EPA-200.7	10/12/09	10/15/09 10:00	JRG	PE-OP2	2	BSJ0618	0912142-2	S3METALS	7850	A01
Total Recoverable Potassium	100	mg/L	2.0	EPA 200.2	EPA-200.7	10/12/09	10/15/09 10:00	JRG	PE-OP2	2	BSJ0618	0912142-2	S3METALS	7050	A01

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Lawrence Livermore National Laboratory P.O. Box 808, L629 Livermore, CA 94551	Project: SPECIAL-S3 Project Number: WDRPOND Project Manager: TSG DMT, L-629	**Reported:** 10/23/2009 13:26 **COC Number:** 47108

Water Analysis (Metals)

BCL Sample ID: 0913427-01 | **Client Sample Name:** WDRPOND, 3-ESWP-01-OW, 3-ESWP-01-OW, 10/8/2009 2:40:00PM, brunkhorst2

Constituent	Result	Units	PQL	Prep Method	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	CCV Ref ID	LLNL Method	LLNL Code	Lab Quals
Total Recoverable Aluminum	ND	mg/L	0.10	EPA 200.2	EPA-200.7	10/12/09	10/15/09 10:00	JRG	PE-OP2	2	BSJ0618	0912142-2	S3METALS	0313	A01
Total Recoverable Arsenic	ND	mg/L	0.010	EPA 200.2	EPA-200.8	10/14/09	10/22/09 16:59	JDC	PE-EL1	5	BSJ0770	0912364-1	S3METALS	0450	A10
Total Recoverable Barium	**0.13**	**mg/L**	**0.12**	**EPA 200.2**	**EPA-200.8**	**10/14/09**	**10/22/09 16:59**	**JDC**	**PE-EL1**	**5**	**BSJ0770**	**0912364-1**	**S3METALS**	**0475**	**A10**
Total Recoverable Boron	**7.4**	**mg/L**	**0.20**	**EPA 200.2**	**EPA-200.7**	**10/12/09**	**10/15/09 10:00**	**JRG**	**PE-OP2**	**2**	**BSJ0618**	**0912142-2**	**S3METALS**	**1400**	**A01**
Total Recoverable Cadmium	ND	mg/L	0.25	EPA 200.2	EPA-200.8	10/14/09	10/22/09 16:59	JDC	PE-EL1	5	BSJ0770	0912364-1	S3METALS	1650	A10
Total Recoverable Chromium	**0.0013**	**mg/L**	**0.0010**	**EPA 200.2**	**EPA-218.2**	**10/14/09**	**10/14/09 14:30**	**DIW**	**V802**	**1**	**BSJ0785**	**0911922-1**	**S3METALS**	**2450**	
Total Recoverable Copper	**0.0077**	**mg/L**	**0.0050**	**EPA 200.2**	**EPA-200.8**	**10/14/09**	**10/22/09 16:59**	**JDC**	**PE-EL1**	**5**	**BSJ0770**	**0912364-1**	**S3METALS**	**2800**	**A10**
Total Recoverable Iron	**0.26**	**mg/L**	**0.20**	**EPA 200.2**	**EPA-200.7**	**10/12/09**	**10/15/09 10:00**	**JRG**	**PE-OP2**	**2**	**BSJ0618**	**0912142-2**	**S3METALS**	**5350**	**A01**
Total Recoverable Lead	ND	mg/L	0.025	EPA 200.2	EPA-200.8	10/14/09	10/22/09 16:59	JDC	PE-EL1	5	BSJ0770	0912364-2	S3METALS	5450	A10
Total Recoverable Manganese	ND	mg/L	0.060	EPA 200.2	EPA-200.7	10/12/09	10/15/09 10:00	JRG	PE-OP2	2	BSJ0618	0912142-2	S3METALS	5550	A01
Total Recoverable Molybdenum	**0.056**	**mg/L**	**0.050**	**EPA 200.2**	**EPA-200.7**	**10/12/09**	**10/15/09 10:00**	**JRG**	**PE-OP2**	**2**	**BSJ0618**	**0912142-1**	**S3METALS**	**5775**	**A01**
Total Recoverable Nickel	ND	mg/L	0.010	EPA 200.2	EPA-200.8	10/14/09	10/22/09 16:59	JDC	PE-EL1	5	BSJ0770	0912364-1	S3METALS	5850	A10
Total Recoverable Selenium	ND	mg/L	0.010	EPA 200.2	EPA-200.8	10/14/09	10/22/09 16:59	JDC	PE-EL1	5	BSJ0770	0912364-1	S3METALS	7600	A10
Total Recoverable Vanadium	ND	mg/L	0.10	EPA 200.2	EPA-200.8	10/14/09	10/22/09 16:59	JDC	PE-EL1	5	BSJ0770	0912364-1	S3METALS	8875	A10
Total Recoverable Zinc	ND	mg/L	0.10	EPA 200.2	EPA-200.8	10/14/09	10/22/09 16:59	JDC	PE-EL1	5	BSJ0770	0912364-1	S3METALS	9050	A10

Lawrence Livermore National Laboratory P.O. Box 808, L629 Livermore, CA 94551	Project: SPECIAL-S3 Project Number: WDRPOND Project Manager: TSG DMT, L-629	**Reported:** 10/23/2009 13:26 **COC Number:** 47108

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Batch ID	QC Sample Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
Total Recoverable Calcium	BSJ0618	Duplicate	0913391-01	53.947	58.933		mg/L	8.8		20		
		Matrix Spike	0913391-01	53.947	70.368	10.000	mg/L		164		75 - 125	A03
		Matrix Spike Duplicate	0913391-01	53.947	70.262	10.000	mg/L	0.6	163	20	75 - 125	A03
Total Recoverable Magnesium	BSJ0618	Duplicate	0913391-01	14.279	15.536		mg/L	8.4		20		
		Matrix Spike	0913391-01	14.279	26.742	10.000	mg/L		125		75 - 125	
		Matrix Spike Duplicate	0913391-01	14.279	26.663	10.000	mg/L	0.6	124	20	75 - 125	
Total Recoverable Sodium	BSJ0618	Duplicate	0913391-01	29.885	32.124		mg/L	7.2		20		
		Matrix Spike	0913391-01	29.885	42.175	10.000	mg/L		123		75 - 125	
		Matrix Spike Duplicate	0913391-01	29.885	41.730	10.000	mg/L	3.7	118	20	75 - 125	
Total Recoverable Potassium	BSJ0618	Duplicate	0913391-01	7.4252	7.9403		mg/L	6.7		20		
		Matrix Spike	0913391-01	7.4252	18.705	10.000	mg/L		113		75 - 125	
		Matrix Spike Duplicate	0913391-01	7.4252	18.514	10.000	mg/L	1.7	111	20	75 - 125	

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Lawrence Livermore National Laboratory P.O. Box 808, L629 Livermore, CA 94551	Project: SPECIAL-S3 Project Number: WDRPOND Project Manager: TSG DMT, L-629	**Reported:** 10/23/2009 13:26 **COC Number:** 47108

Water Analysis (Metals)

Quality Control Report - Precision & Accuracy

Constituent	Batch ID	QC Sample Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
Total Recoverable Aluminum	BSJ0618	Duplicate	0913391-01	0.054947	0.057194		mg/L	4.0		20		
		Matrix Spike	0913391-01	0.054947	1.1724	1.0000	mg/L		112		75 - 125	
		Matrix Spike Duplicate	0913391-01	0.054947	1.1591	1.0000	mg/L	1.2	110	20	75 - 125	
Total Recoverable Boron	BSJ0618	Duplicate	0913391-01	0.035168	ND		mg/L			20		
		Matrix Spike	0913391-01	0.035168	1.1109	1.0000	mg/L		108		75 - 125	
		Matrix Spike Duplicate	0913391-01	0.035168	1.0971	1.0000	mg/L	1.3	106	20	75 - 125	
Total Recoverable Iron	BSJ0618	Duplicate	0913391-01	0.14304	0.14717		mg/L	2.8		20		
		Matrix Spike	0913391-01	0.14304	1.2934	1.0000	mg/L		115		75 - 125	
		Matrix Spike Duplicate	0913391-01	0.14304	1.2883	1.0000	mg/L	0.4	115	20	75 - 125	
Total Recoverable Manganese	BSJ0618	Duplicate	0913391-01	0.0040294	ND		mg/L			20		
		Matrix Spike	0913391-01	0.0040294	0.56437	0.50000	mg/L		112		75 - 125	
		Matrix Spike Duplicate	0913391-01	0.0040294	0.55886	0.50000	mg/L	1.0	111	20	75 - 125	
Total Recoverable Molybdenum	BSJ0618	Duplicate	0913391-01	0.034166	ND		mg/L			20		
		Matrix Spike	0913391-01	0.034166	0.25212	0.20000	mg/L		109		75 - 125	
		Matrix Spike Duplicate	0913391-01	0.034166	0.24548	0.20000	mg/L	3.1	106	20	75 - 125	
Total Recoverable Arsenic	BSJ0770	Duplicate	0913472-03	0.0042570	0.0037860		mg/L	11.7		20		
		Matrix Spike	0913472-03	0.0042570	0.11192	0.10000	mg/L		108		70 - 130	
		Matrix Spike Duplicate	0913472-03	0.0042570	0.11181	0.10000	mg/L	0.1	108	20	70 - 130	
Total Recoverable Barium	BSJ0770	Duplicate	0913472-03	0.026026	0.025758		mg/L	1.0		20		
		Matrix Spike	0913472-03	0.026026	0.067547	0.040000	mg/L		104		70 - 130	
		Matrix Spike Duplicate	0913472-03	0.026026	0.068486	0.040000	mg/L	2.2	106	20	70 - 130	
Total Recoverable Cadmium	BSJ0770	Duplicate	0913472-03	0.000050000	ND		mg/L			20		
		Matrix Spike	0913472-03	0.000050000	0.042684	0.040000	mg/L		107		70 - 130	
		Matrix Spike Duplicate	0913472-03	0.000050000	0.042240	0.040000	mg/L	1.0	105	20	70 - 130	
Total Recoverable Copper	BSJ0770	Duplicate	0913472-03	0.092085	0.090728		mg/L	1.5		20		
		Matrix Spike	0913472-03	0.092085	0.18638	0.10000	mg/L		94.3		70 - 130	
		Matrix Spike Duplicate	0913472-03	0.092085	0.18904	0.10000	mg/L	2.8	97.0	20	70 - 130	

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Lawrence Livermore National Laboratory
P.O. Box 808, L629
Livermore, CA 94551

Project: SPECIAL-S3
Project Number: WDRPOND
Project Manager: TSG DMT, L-629

Reported: 10/23/2009 13:26
COC Number: 47108

Water Analysis (Metals)

Quality Control Report - Precision & Accuracy

Constituent	Batch ID	QC Sample Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
Total Recoverable Lead	BSJ0770	Duplicate	0913472-03	0.062816	0.054746		mg/L	13.7		20		
		Matrix Spike	0913472-03	0.062816	0.15927	0.10000	mg/L		96.5		70 - 130	
		Matrix Spike Duplicate	0913472-03	0.062816	0.15974	0.10000	mg/L	0.5	96.9	20	70 - 130	
Total Recoverable Nickel	BSJ0770	Duplicate	0913472-03	0.023793	0.023809		mg/L	0.1		20		
		Matrix Spike	0913472-03	0.023793	0.12074	0.10000	mg/L		96.9		70 - 130	
		Matrix Spike Duplicate	0913472-03	0.023793	0.12166	0.10000	mg/L	0.9	97.9	20	70 - 130	
Total Recoverable Selenium	BSJ0770	Duplicate	0913472-03	0.0013500	ND		mg/L			20		
		Matrix Spike	0913472-03	0.0013500	0.10378	0.10000	mg/L		102		70 - 130	
		Matrix Spike Duplicate	0913472-03	0.0013500	0.10521	0.10000	mg/L	1.4	104	20	70 - 130	
Total Recoverable Vanadium	BSJ0770	Duplicate	0913472-03	0.0091280	0.0092680		mg/L	1.5		20		
		Matrix Spike	0913472-03	0.0091280	0.048255	0.040000	mg/L		97.8		70 - 130	
		Matrix Spike Duplicate	0913472-03	0.0091280	0.049208	0.040000	mg/L	2.4	100	20	70 - 130	
Total Recoverable Zinc	BSJ0770	Duplicate	0913472-03	1.0132	0.87353		mg/L	14.8		20		
		Matrix Spike	0913472-03	1.0132	0.97723	0.10000	mg/L		-36.0		70 - 130	A03
		Matrix Spike Duplicate	0913472-03	1.0132	1.0186	0.10000	mg/L	271	5.4	20	70 - 130	A03
Total Recoverable Chromium	BSJ0785	Duplicate	0913427-01	0.0013200	0.0015100		mg/L	13.4		20		
		Matrix Spike	0913427-01	0.0013200	0.024440	0.020000	mg/L		116		80 - 120	
		Matrix Spike Duplicate	0913427-01	0.0013200	0.021160	0.020000	mg/L	15.3	99.2	20	80 - 120	

Lawrence Livermore National Laboratory P.O. Box 808, L629 Livermore, CA 94551	Project: SPECIAL-S3 Project Number: WDRPOND Project Manager: TSG DMT, L-629	**Reported:** 10/23/2009 13:26 **COC Number:** 47108

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

										Control Limits		
Constituent	**Batch ID**	**QC Sample ID**	**QC Type**	**Result**	**Spike Level**	**PQL**	**Units**	**Percent Recovery**	**RPD**	**Percent Recovery**	**RPD**	**Lab Quals**
Total Recoverable Calcium	BSJ0618	BSJ0618-BS1	LCS	10.789	10.000	0.10	mg/L	108		85 - 115		
Total Recoverable Magnesium	BSJ0618	BSJ0618-BS1	LCS	11.306	10.000	0.050	mg/L	113		85 - 115		
Total Recoverable Sodium	BSJ0618	BSJ0618-BS1	LCS	10.982	10.000	0.50	mg/L	110		85 - 115		
Total Recoverable Potassium	BSJ0618	BSJ0618-BS1	LCS	10.641	10.000	1.0	mg/L	106		85 - 115		

Lawrence Livermore National Laboratory P.O. Box 808, L629 Livermore, CA 94551	Project: SPECIAL-S3 Project Number: WDRPOND Project Manager: TSG DMT, L-629	**Reported:** 10/23/2009 13:26 **COC Number:** 47108

Water Analysis (Metals)

Quality Control Report - Laboratory Control Sample

										Control Limits		
Constituent	**Batch ID**	**QC Sample ID**	**QC Type**	**Result**	**Spike Level**	**PQL**	**Units**	**Percent Recovery**	**RPD**	**Percent Recovery**	**RPD**	**Lab Quals**
Total Recoverable Aluminum	BSJ0618	BSJ0618-BS1	LCS	1.0696	1.0000	0.050	mg/L	107		85 - 115		
Total Recoverable Boron	BSJ0618	BSJ0618-BS1	LCS	1.0689	1.0000	0.10	mg/L	107		85 - 115		
Total Recoverable Iron	BSJ0618	BSJ0618-BS1	LCS	1.1179	1.0000	0.050	mg/L	112		85 - 115		
Total Recoverable Manganese	BSJ0618	BSJ0618-BS1	LCS	0.56246	0.50000	0.010	mg/L	112		85 - 115		
Total Recoverable Molybdenum	BSJ0618	BSJ0618-BS1	LCS	0.21610	0.20000	0.050	mg/L	108		85 - 115		
Total Recoverable Arsenic	BSJ0770	BSJ0770-BS1	LCS	0.10244	0.10000	0.0020	mg/L	102		85 - 115		
Total Recoverable Barium	BSJ0770	BSJ0770-BS1	LCS	0.042650	0.040000	0.0010	mg/L	107		85 - 115		
Total Recoverable Cadmium	BSJ0770	BSJ0770-BS1	LCS	0.041964	0.040000	0.0010	mg/L	105		85 - 115		
Total Recoverable Copper	BSJ0770	BSJ0770-BS1	LCS	0.10488	0.10000	0.0020	mg/L	105		85 - 115		
Total Recoverable Lead	BSJ0770	BSJ0770-BS2	LCS	0.10763	0.10000	0.0010	mg/L	108		85 - 115		
Total Recoverable Nickel	BSJ0770	BSJ0770-BS1	LCS	0.10459	0.10000	0.0020	mg/L	105		85 - 115		
Total Recoverable Selenium	BSJ0770	BSJ0770-BS1	LCS	0.098627	0.10000	0.0020	mg/L	98.6		85 - 115		
Total Recoverable Vanadium	BSJ0770	BSJ0770-BS1	LCS	0.041496	0.040000	0.0030	mg/L	104		85 - 115		
Total Recoverable Zinc	BSJ0770	BSJ0770-BS2	LCS	0.11451	0.10000	0.0050	mg/L	115		85 - 115		
Total Recoverable Chromium	BSJ0785	BSJ0785-BS1	LCS	0.020120	0.020000	0.0020	mg/L	101		85 - 115		

Lawrence Livermore National Laboratory P.O. Box 808, L629 Livermore, CA 94551	Project: SPECIAL-S3 Project Number: WDRPOND Project Manager: TSG DMT, L-629	**Reported:** 10/23/2009 13:26 **COC Number:** 47108

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Total Recoverable Calcium	BSJ0618	BSJ0618-BLK1	ND	mg/L	0.10		
Total Recoverable Magnesium	BSJ0618	BSJ0618-BLK1	ND	mg/L	0.050		
Total Recoverable Sodium	BSJ0618	BSJ0618-BLK1	ND	mg/L	0.50		
Total Recoverable Potassium	BSJ0618	BSJ0618-BLK1	ND	mg/L	1.0		

BC Laboratories, Inc.

Environmental Testing Laboratory Since 1949

Lawrence Livermore National Laboratory
P.O. Box 808, L629
Livermore, CA 94551

Project: SPECIAL-S3
Project Number: WDRPOND
Project Manager: TSG DMT, L-629

Reported: 10/23/2009 13:26

COC Number: 47108

Water Analysis (Metals)

Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Total Recoverable Aluminum	BSJ0618	BSJ0618-BLK1	ND	mg/L	0.050		
Total Recoverable Boron	BSJ0618	BSJ0618-BLK1	ND	mg/L	0.10		
Total Recoverable Iron	BSJ0618	BSJ0618-BLK1	ND	mg/L	0.050		
Total Recoverable Manganese	BSJ0618	BSJ0618-BLK1	ND	mg/L	0.010		
Total Recoverable Molybdenum	BSJ0618	BSJ0618-BLK1	ND	mg/L	0.025		
Total Recoverable Arsenic	BSJ0770	BSJ0770-BLK1	ND	mg/L	0.0020		
Total Recoverable Barium	BSJ0770	BSJ0770-BLK1	ND	mg/L	0.0010		
Total Recoverable Cadmium	BSJ0770	BSJ0770-BLK1	ND	mg/L	0.0010		
Total Recoverable Copper	BSJ0770	BSJ0770-BLK1	ND	mg/L	0.0020		
Total Recoverable Lead	BSJ0770	BSJ0770-BLK2	ND	mg/L	0.0010		
Total Recoverable Nickel	BSJ0770	BSJ0770-BLK1	ND	mg/L	0.0020		
Total Recoverable Selenium	BSJ0770	BSJ0770-BLK1	ND	mg/L	0.0020		
Total Recoverable Vanadium	BSJ0770	BSJ0770-BLK1	ND	mg/L	0.0030		
Total Recoverable Zinc	BSJ0770	BSJ0770-BLK2	ND	mg/L	0.0050		
Total Recoverable Chromium	BSJ0785	BSJ0785-BLK1	ND	mg/L	0.0010		

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Lawrence Livermore National Laboratory P.O. Box 808, L629 Livermore, CA 94551	Project: SPECIAL-S3 Project Number: WDRPOND Project Manager: TSG DMT, L-629	**Reported:** 10/23/2009 13:26 **COC Number:** 47108

Water Analysis (General Chemistry)

Quality Control Report - Instrumental Parameters

Constituent	CCV Ref ID	QC Sample ID	Sample Type	Run Date	Result	True Value	Units	%Found	Control Limits	Lab Quals
Total Recoverable Calcium	0912142-2	0912142-ICV1	ICV	10/15/2009 07:46	48.473	50.000	mg/L	96.9	95 - 105	
		0912142-CCV2	CCV, Beginning	10/15/2009 09:36	51.345	50.000	mg/L	103	90 - 110	
		0912142-CCV3	CCV, Ending	10/15/2009 10:24	50.406	50.000	mg/L	101	90 - 110	
Total Recoverable Magnesium	0912142-2	0912142-ICV1	ICV	10/15/2009 07:46	48.845	50.000	mg/L	97.7	95 - 105	
		0912142-CCV2	CCV, Beginning	10/15/2009 09:36	51.915	50.000	mg/L	104	90 - 110	
		0912142-CCV3	CCV, Ending	10/15/2009 10:24	51.160	50.000	mg/L	102	90 - 110	
Total Recoverable Sodium	0912142-2	0912142-ICV1	ICV	10/15/2009 07:46	48.461	50.000	mg/L	96.9	95 - 105	
		0912142-CCV2	CCV, Beginning	10/15/2009 09:36	49.732	50.000	mg/L	99.5	90 - 110	
		0912142-CCV3	CCV, Ending	10/15/2009 10:24	51.368	50.000	mg/L	103	90 - 110	
Total Recoverable Potassium	0912142-2	0912142-ICV1	ICV	10/15/2009 07:46	48.295	50.000	mg/L	96.6	95 - 105	
		0912142-CCV2	CCV, Beginning	10/15/2009 09:36	50.135	50.000	mg/L	100	90 - 110	
		0912142-CCV3	CCV, Ending	10/15/2009 10:24	49.442	50.000	mg/L	98.9	90 - 110	

BC Laboratories, Inc.
Environmental Testing Laboratory Since 1949

Lawrence Livermore National Laboratory P.O. Box 808, L629 Livermore, CA 94551	Project: SPECIAL-S3 Project Number: WDRPOND Project Manager: TSG DMT, L-629	**Reported:** 10/23/2009 13:26 **COC Number:** 47108

Water Analysis (Metals)

Quality Control Report - Instrumental Parameters

Constituent	CCV Ref ID	QC Sample ID	Sample Type	Run Date	Result	True Value	Units	%Found	Control Limits	Lab Quals
Total Recoverable Chromium	0911922-1	0911922-ICV1	ICV	10/14/2009 14:30	9.9600	10.000	ug/L	99.6	95 - 105	
		0911922-ICV1	CCV, Beginning	10/14/2009 14:30	9.9600	10.000	ug/L	99.6	95 - 105	
		0911922-CCV1	CCV, Ending	10/14/2009 14:30	9.3200	10.000	ug/L	93.2	90 - 110	
Total Recoverable Molybdenum	0912142-1	0912142-ICV1	ICV	10/15/2009 07:46	2.4763	2.5000	mg/L	99.1	95 - 105	
		0912142-CCV2	CCV, Beginning	10/15/2009 09:36	2.5664	2.5000	mg/L	103	90 - 110	
		0912142-CCV3	CCV, Ending	10/15/2009 10:24	2.6389	2.5000	mg/L	106	90 - 110	
Total Recoverable Aluminum	0912142-2	0912142-ICV1	ICV	10/15/2009 07:46	48.387	50.000	mg/L	96.8	95 - 105	
		0912142-CCV2	CCV, Beginning	10/15/2009 09:36	50.571	50.000	mg/L	101	90 - 110	
		0912142-CCV3	CCV, Ending	10/15/2009 10:24	49.893	50.000	mg/L	99.8	90 - 110	
Total Recoverable Boron	0912142-2	0912142-ICV1	ICV	10/15/2009 07:46	2.4944	2.5000	mg/L	99.8	95 - 105	
		0912142-CCV2	CCV, Beginning	10/15/2009 09:36	2.5394	2.5000	mg/L	102	90 - 110	
		0912142-CCV3	CCV, Ending	10/15/2009 10:24	2.6114	2.5000	mg/L	104	90 - 110	
Total Recoverable Iron	0912142-2	0912142-ICV1	ICV	10/15/2009 07:46	49.363	50.000	mg/L	98.7	95 - 105	
		0912142-CCV2	CCV, Beginning	10/15/2009 09:36	51.546	50.000	mg/L	103	90 - 110	
		0912142-CCV3	CCV, Ending	10/15/2009 10:24	50.758	50.000	mg/L	102	90 - 110	
Total Recoverable Manganese	0912142-2	0912142-ICV1	ICV	10/15/2009 07:46	2.4649	2.5000	mg/L	98.6	95 - 105	
		0912142-CCV2	CCV, Beginning	10/15/2009 09:36	2.5728	2.5000	mg/L	103	90 - 110	
		0912142-CCV3	CCV, Ending	10/15/2009 10:24	2.5383	2.5000	mg/L	102	90 - 110	
Total Recoverable Arsenic	0912364-1	0912364-ICV1	ICV	10/22/2009 09:39	124.64	125.00	ug/L	99.7	90 - 110	
		0912364-CCVE	CCV, Beginning	10/22/2009 16:44	93.690	100.00	ug/L	93.7	90 - 110	
		0912364-CCVF	CCV, Ending	10/22/2009 17:02	96.188	100.00	ug/L	96.2	90 - 110	
Total Recoverable Barium	0912364-1	0912364-ICV1	ICV	10/22/2009 09:39	50.720	50.000	ug/L	101	90 - 110	
		0912364-CCVE	CCV, Beginning	10/22/2009 16:44	38.186	40.000	ug/L	95.5	90 - 110	
		0912364-CCVF	CCV, Ending	10/22/2009 17:02	38.022	40.000	ug/L	95.1	90 - 110	
Total Recoverable Cadmium	0912364-1	0912364-ICV1	ICV	10/22/2009 09:39	51.018	50.000	ug/L	102	90 - 110	
		0912364-CCVE	CCV, Beginning	10/22/2009 16:44	37.322	40.000	ug/L	93.3	90 - 110	
		0912364-CCVF	CCV, Ending	10/22/2009 17:02	38.690	40.000	ug/L	96.7	90 - 110	

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Lawrence Livermore National Laboratory P.O. Box 808, L629 Livermore, CA 94551	Project: SPECIAL-S3 Project Number: WDRPOND Project Manager: TSG DMT, L-629	**Reported:** 10/23/2009 13:26 **COC Number:** 47108

Water Analysis (Metals)

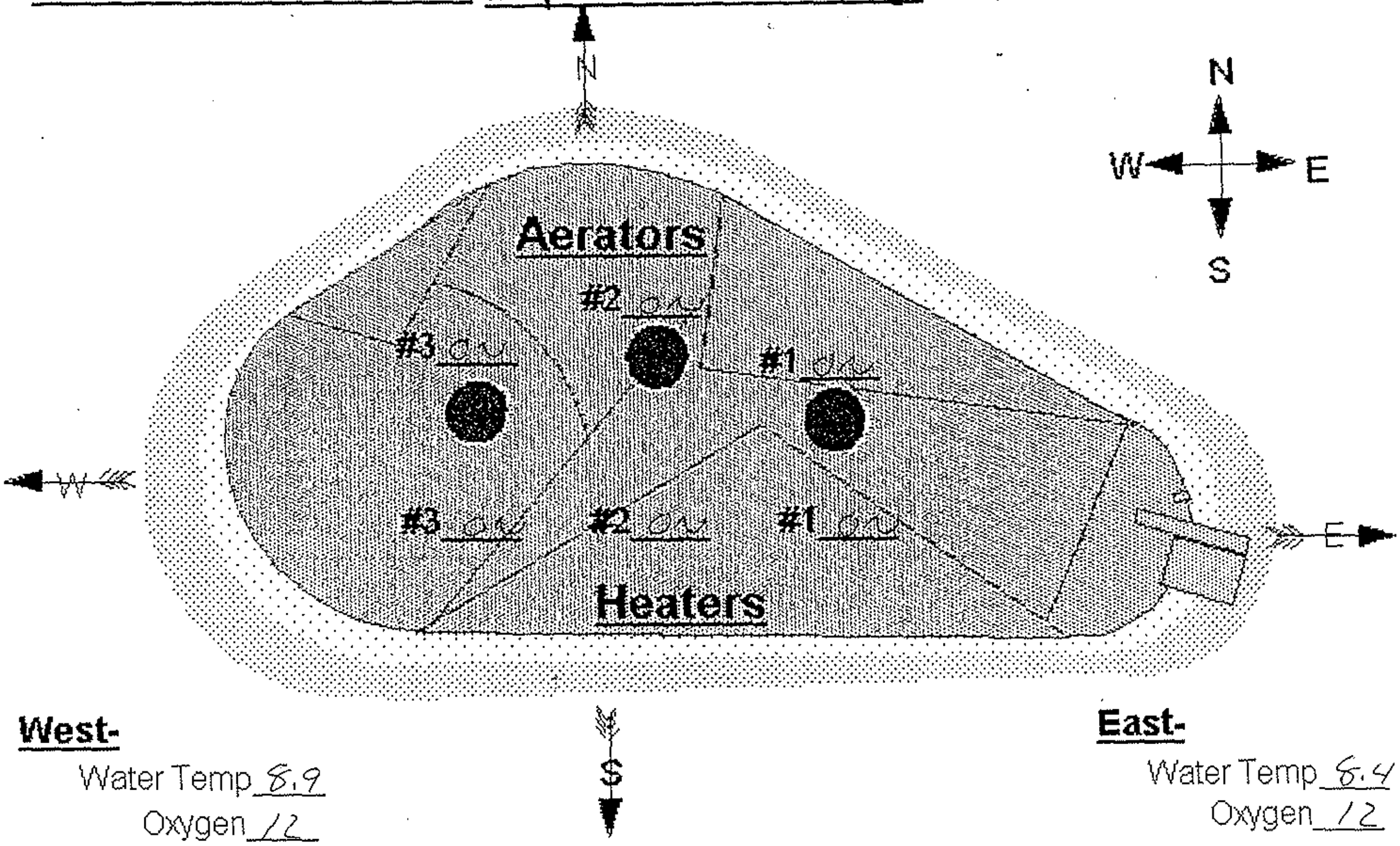
Quality Control Report - Instrumental Parameters

Constituent	CCV Ref ID	QC Sample ID	Sample Type	Run Date	Result	True Value	Units	%Found	Control Limits	Lab Quals
Total Recoverable Copper	0912364-1	0912364-ICV1	ICV	10/22/2009 09:39	127.70	125.00	ug/L	102	90 - 110	
		0912364-CCVE	CCV, Beginning	10/22/2009 16:44	96.485	100.00	ug/L	96.5	90 - 110	
		0912364-CCVF	CCV, Ending	10/22/2009 17:02	98.607	100.00	ug/L	98.6	90 - 110	
Total Recoverable Nickel	0912364-1	0912364-ICV1	ICV	10/22/2009 09:39	126.72	125.00	ug/L	101	90 - 110	
		0912364-CCVE	CCV, Beginning	10/22/2009 16:44	95.545	100.00	ug/L	95.5	90 - 110	
		0912364-CCVF	CCV, Ending	10/22/2009 17:02	96.927	100.00	ug/L	96.9	90 - 110	
Total Recoverable Selenium	0912364-1	0912364-ICV1	ICV	10/22/2009 09:39	124.46	125.00	ug/L	99.6	90 - 110	
		0912364-CCVE	CCV, Beginning	10/22/2009 16:44	95.408	100.00	ug/L	95.4	90 - 110	
		0912364-CCVF	CCV, Ending	10/22/2009 17:02	98.272	100.00	ug/L	98.3	90 - 110	
Total Recoverable Vanadium	0912364-1	0912364-ICV1	ICV	10/22/2009 09:39	49.831	50.000	ug/L	99.7	90 - 110	
		0912364-CCVE	CCV, Beginning	10/22/2009 16:44	37.804	40.000	ug/L	94.5	90 - 110	
		0912364-CCVF	CCV, Ending	10/22/2009 17:02	37.069	40.000	ug/L	92.7	90 - 110	
Total Recoverable Zinc	0912364-1	0912364-ICV1	ICV	10/22/2009 09:39	125.91	125.00	ug/L	101	90 - 110	
		0912364-CCVE	CCV, Beginning	10/22/2009 16:44	94.174	100.00	ug/L	94.2	90 - 110	
		0912364-CCVF	CCV, Ending	10/22/2009 17:02	96.487	100.00	ug/L	96.5	90 - 110	
Total Recoverable Lead	0912364-2	0912364-ICV1	ICV	10/22/2009 09:39	127.29	125.00	ug/L	102	90 - 110	
		0912364-CCVE	CCV, Beginning	10/22/2009 16:44	94.004	100.00	ug/L	94.0	90 - 110	
		0912364-CCVF	CCV, Ending	10/22/2009 17:02	99.569	100.00	ug/L	99.6	90 - 110	

Notes And Definitions

CCV	Continuing Calibration Verification
ICV	Initial Calibration Verification
MDL	Method Detection Limit
ND	Analyte Not Detected at or above the reporting limit
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
A01	PQL's and MDL's are raised due to sample dilution.
A03	The sample concentration is more than 4 times the spike level.
A10	PQL's and MDL's were raised due to matrix interference.

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 8.9
Oxygen 12
pH 9.14
Time 1100

East-

Water Temp 8.4
Oxygen 12
pH 9.04
Time 1130

Water Level +6"
Water Meter-Stop 65075305
Water Meter-Start 65075305

Water Added Ø
Air Temp. 10.0
Wind Direction NONE

COLOR---

Green ✓
Green Brown ____
Brown Green ____
Brown ____

ODOR--- SLIGHT

Common Bacterium-Per Drop ____
Activated Sludge ____
Glass Tube Test ✓

Erosion SOME
Animal Burrows SOME
Weed Control SOME

Percolation Pond

Water Level- NOT FLOWING
Erosion SOME
Animal Burrows SOME
Weed Control SOME

[signature]
Inspected by

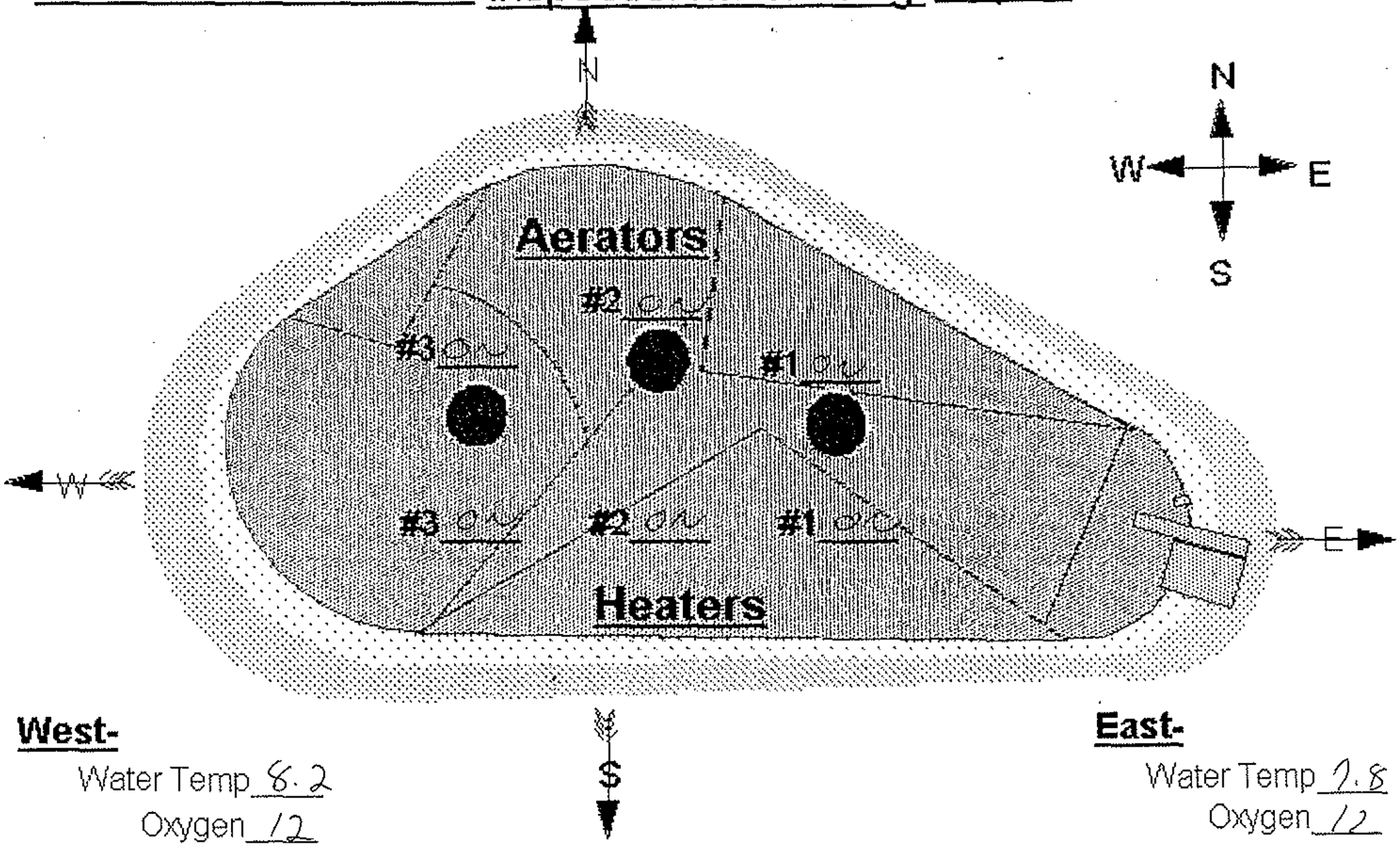
12-31-09
Date

[signature]
Supervisor Review

12-31-09
Date

Comments ____

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 8.2
Oxygen 12
pH 8.95
Time 1300

East-

Water Temp 7.8
Oxygen 12
pH 9.11
Time 1330

Water Level +6"
Water Meter-Stop 65075305
Water Meter-Start 65075305

Water Added 0
Air Temp 6.7
Wind Direction N/S

COLOR---

Green ✓
Green Brown ____
Brown Green ____
Brown ____

ODOR--- SLIGHT

Common Bacterium-Per Drop ____
Activated Sludge ____
Glass Tube Test ✓

Erosion some
Animal Burrows some
Weed Control some

Percolation Pond

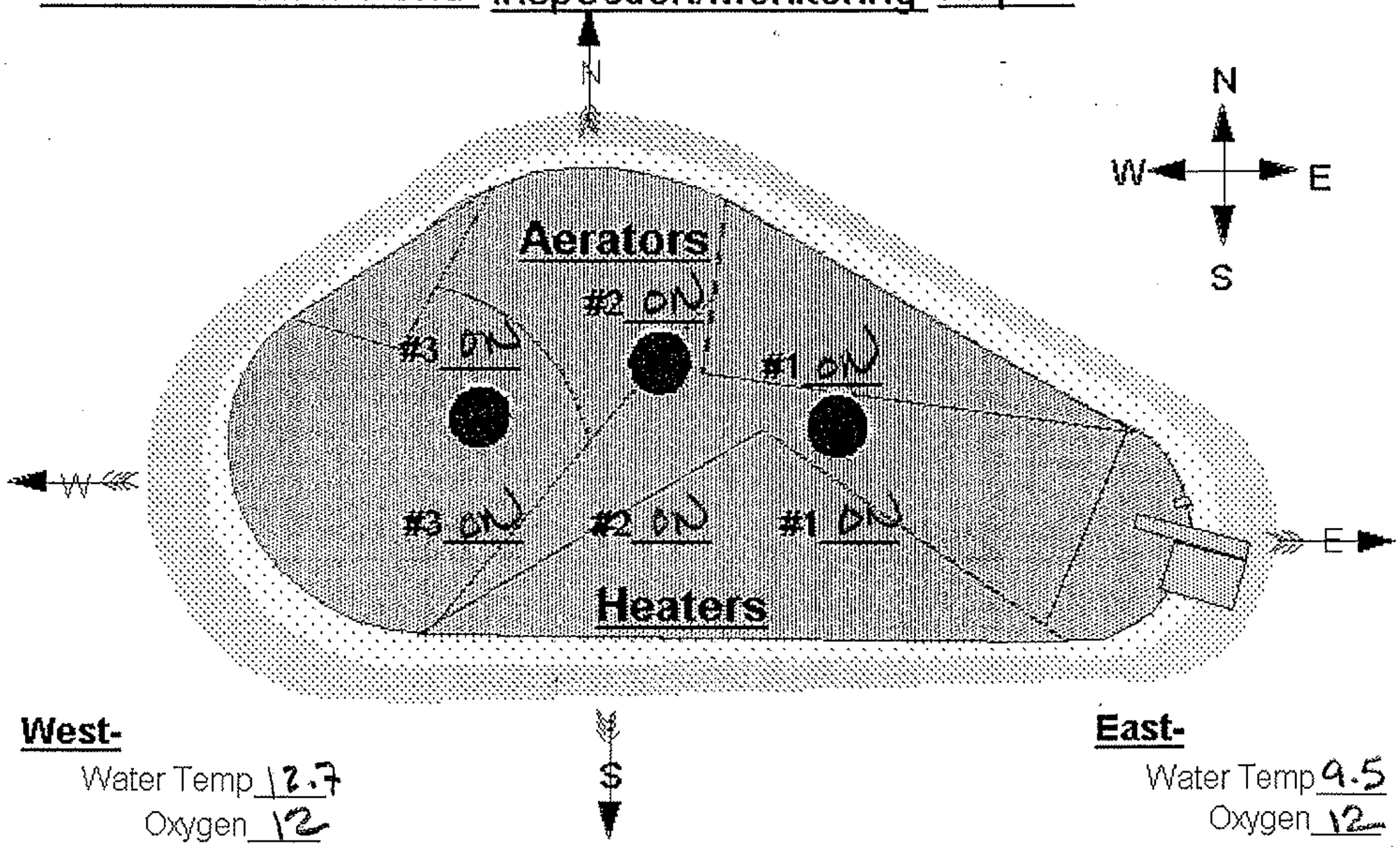
Water Level- NOT FLOWING
Erosion some
Animal Burrows some
Weed Control some

[signature]
Inspected by
12-28-09
Date

[signature]
Supervisor Review
12-28-09
Date

Comments ____________________

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 12.7
Oxygen 12
pH 9.17
Time 1360

Water Level +6
Water Meter-Stop 65075305
Water Meter-Start 65075305

Water Added 0
Air Temp. 14.3
Wind Direction E-W

COLOR----

Green ✓
Green Brown____
Brown Green____
Brown____

ODOR----/_____

East-

Water Temp 9.5
Oxygen 12
pH 9.21
Time 1350

Common Bacterium-Per Drop____
Activated Sludge____
Glass Tube Test ✓

Erosion Same
Animal Burrows Same
Weed Control Same

Percolation Pond

Water Level- Not flowing
Erosion Same
Animal Burrows Same
Weed Control Same

Dave Annero
Inspected by

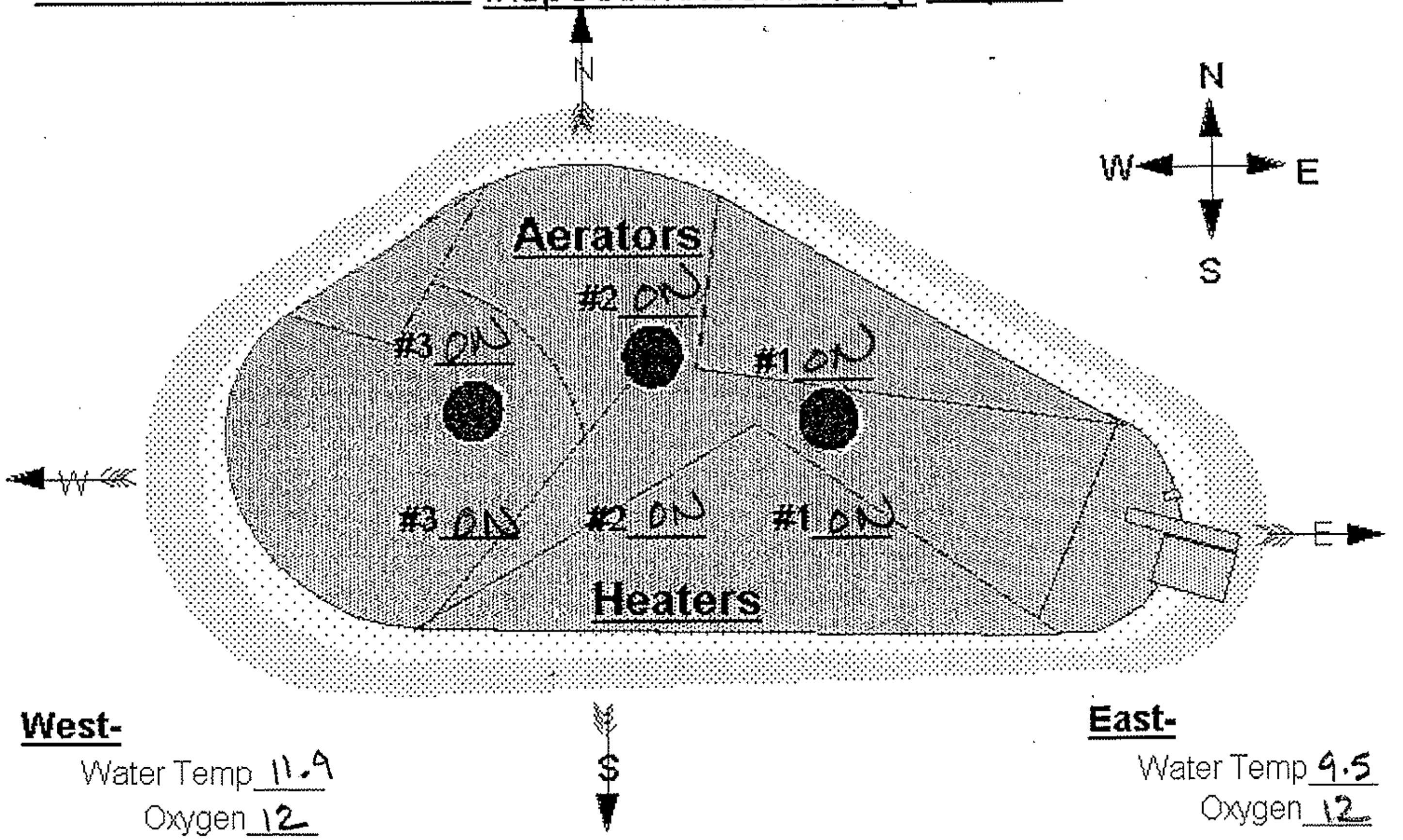
12-24-09
Date

[signature]
Supervisor Review

12-28-09
Date

Comments____________________

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 11.9
Oxygen 12
pH 9.20
Time 1300

Water Level +6
Water Meter-Stop 65075305
Water Meter-Start 65076305

Water Added 0
Air Temp. 15.7
Wind Direction E.W

COLOR---

Green ✓
Green Brown ____
Brown Green ____
Brown ____

ODOR--- ____

East-

Water Temp 9.5
Oxygen 12
pH 9.29
Time 1330

Common Bacterium-Per Drop ____
Activated Sludge ____
Glass Tube Test ✓

Erosion Some
Animal Burrows Some
Weed Control Some

Percolation Pond

Water Level- Not Flowing
Erosion Some
Animal Burrows Some
Weed Control Some

Dave Annaro
Inspected by

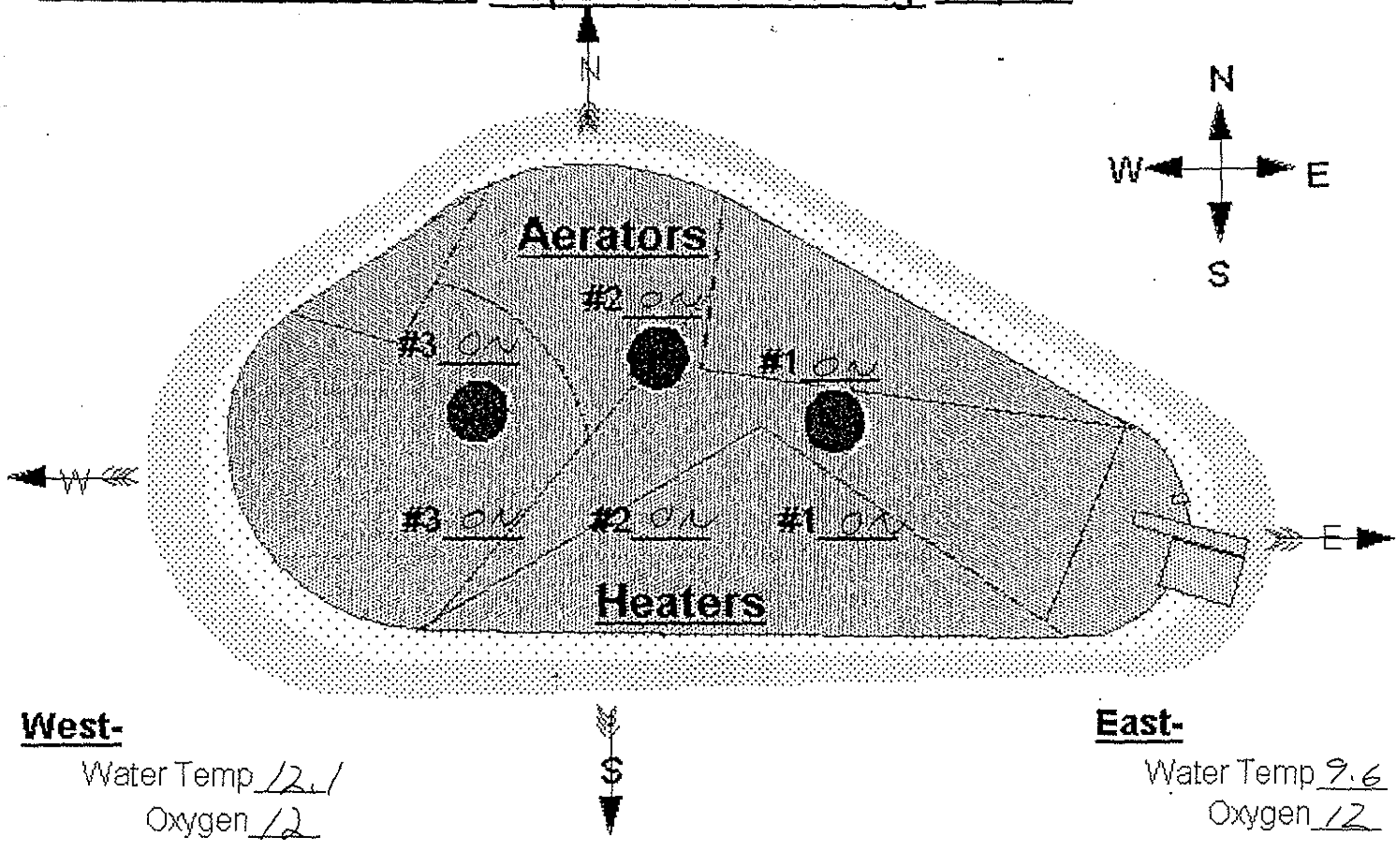
12-21-09
Date

[signature]
Supervisor Review

12-28-09
Date

Comments ____

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 12.1
Oxygen 12
pH 9.16
Time 1300

Water Level +6"
Water Meter-Stop 65075305
Water Meter-Start 65075305

Water Added 0
Air Temp. 16.1
Wind Direction E-W

COLOR---

Green ✓
Green Brown ____
Brown Green ____
Brown ____

ODOR--- SLIGHT

East-

Water Temp 9.6
Oxygen 12
pH 9.29
Time 1330

Common Bacterium-Per Drop ____
Activated Sludge ____
Glass Tube Test ✓

Erosion SOME
Animal Burrows SOME
Weed Control SOME

Percolation Pond

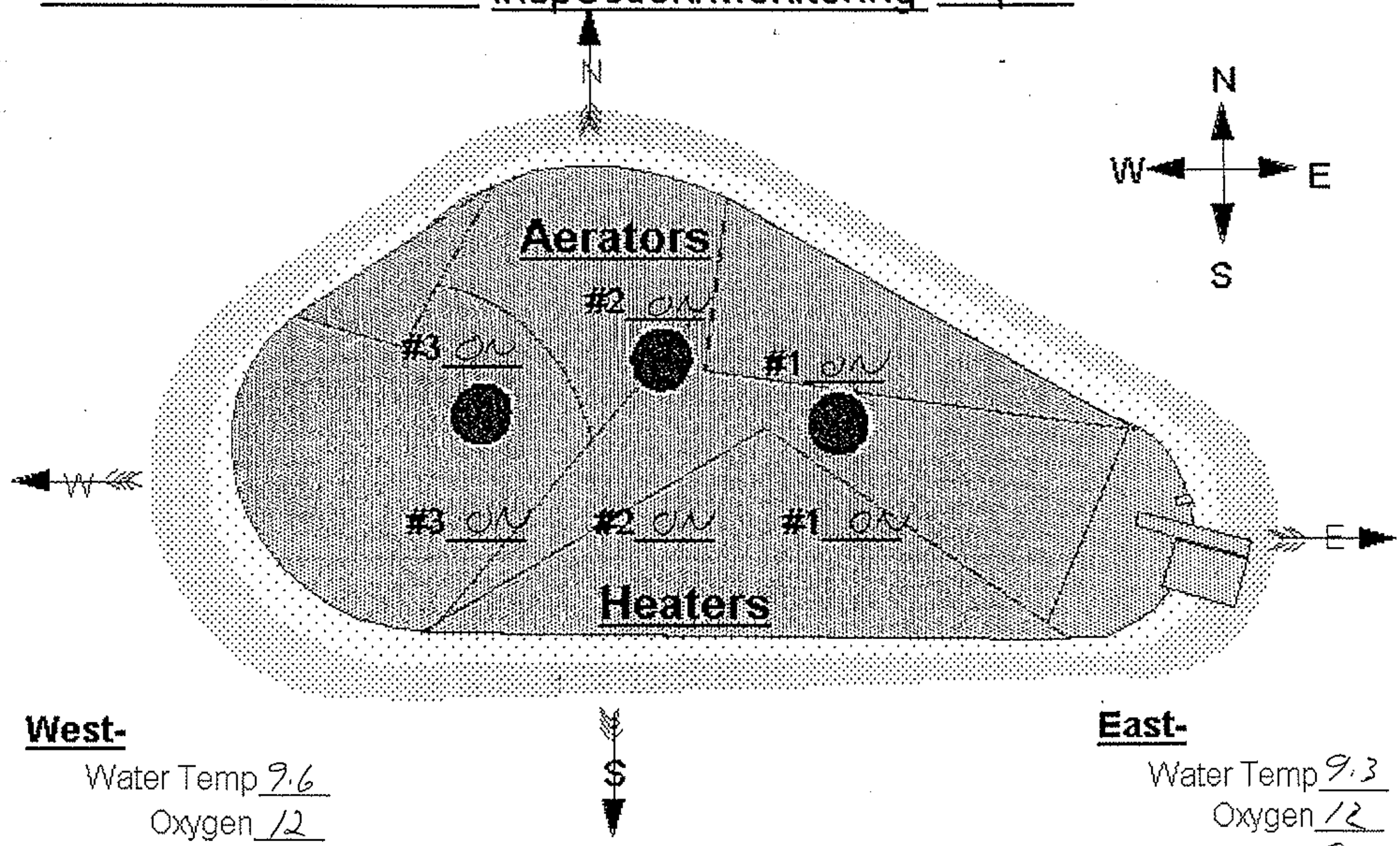
Water Level- NOT FLOWING
Erosion SOME
Animal Burrows SOME
Weed Control SOME

[signature]
Inspected by — **Date** 12-17-09

[signature]
Supervisor Review — **Date** 12-17-09

Comments ____

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 9.6
Oxygen 12
pH 9.22
Time 1300

East-

Water Temp 9.3
Oxygen 12
pH 9.38
Time 1336

Water Level +6"
Water Meter-Stop 65025305
Water Meter-Start 65025305

Water Added Ø
Air Temp. 5.6
Wind Direction E-W

COLOR----

Green ✓
Green Brown____
Brown Green____
Brown____

ODOR---- SLIGHT

Common Bacterium-Per Drop____
Activated Sludge____
Glass Tube Test ✓

Erosion SOME
Animal Burrows SOME
Weed Control SOME

Percolation Pond

Water Level- NOT FLOWING
Erosion SOME
Animal Burrows SOME
Weed Control SOME

[signature]
Inspected by

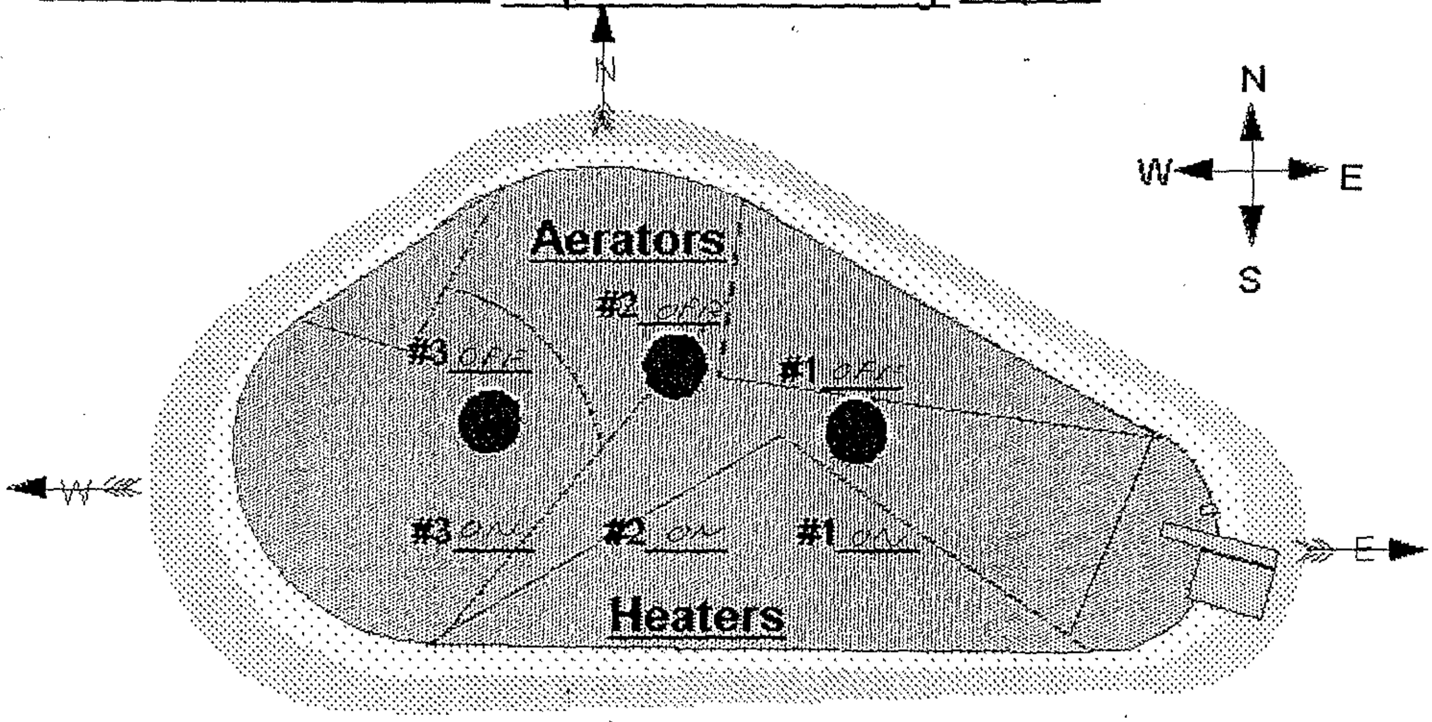
12-14-09
Date

[signature]
Supervisor Review

12-14-09
Date

Comments____________________

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 6.7
Oxygen 12
pH 8.52
Time 130

East-

Water Temp 6.9
Oxygen 12
pH 8.64
Time 330

Water Level -53¼"
Water Meter-Stop 65075305
Water Meter-Start 65075305
Water Added Ø
Air Temp. 4.4
Wind Direction NONE

COLOR---

Green ✓
Green Brown ____
Brown Green ____
Brown ____

ODOR--- SLIGHT

Common Bacterium-Per Drop ____
Activated Sludge ____
Glass Tube Test ✓

Erosion SOME
Animal Burrows SOME
Weed Control SOME

Percolation Pond

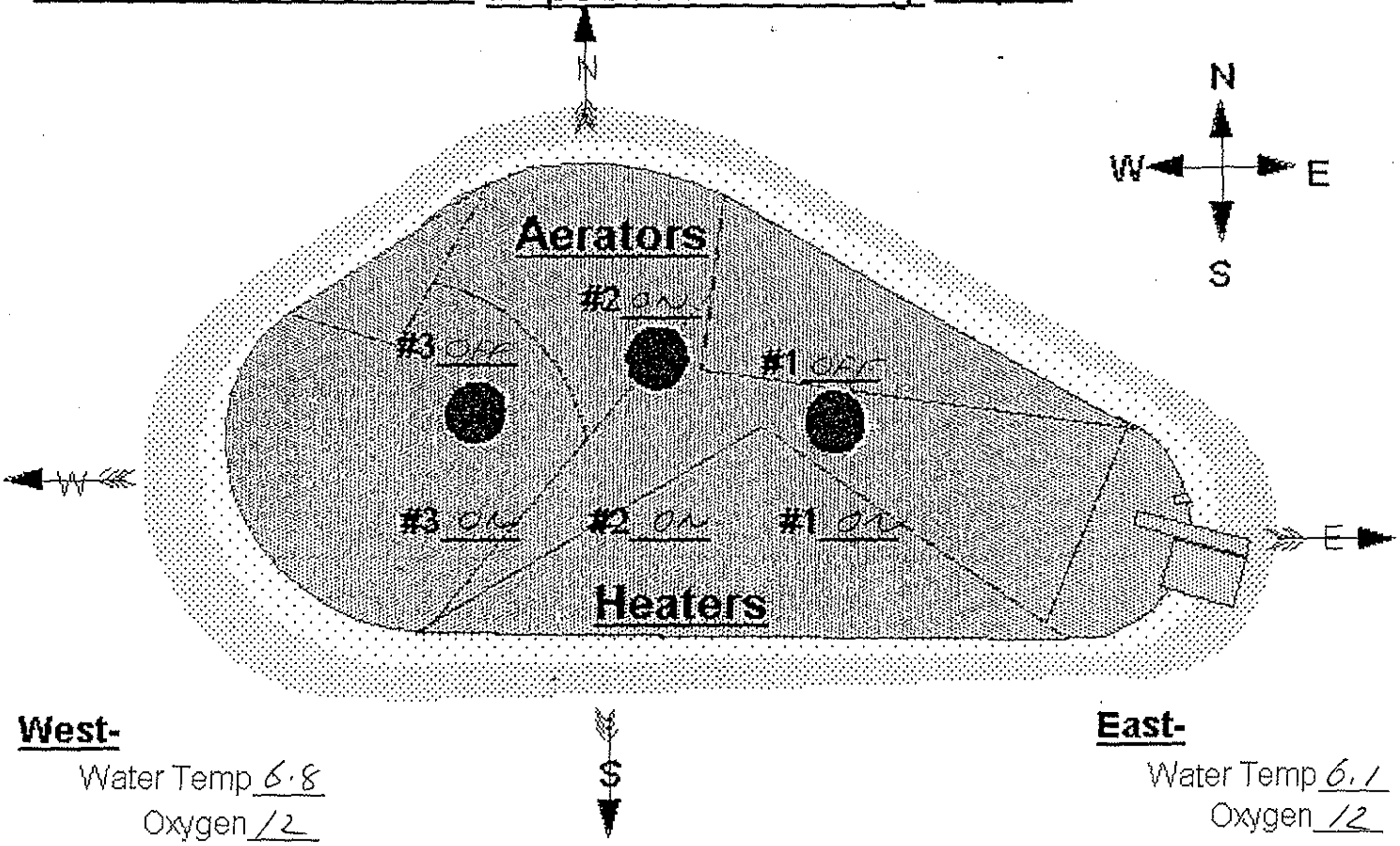
Water Level- NOT FLOWING
Erosion SOME
Animal Burrows SOME
Weed Control SOME

[signature] 12-10-09
Inspected by **Date**

[signature] 12-10-09
Supervisor Review **Date**

Comments ____

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 6.8
Oxygen 12
pH 8.48
Time 1300

East-

Water Temp 6.1
Oxygen 12
pH 8.68
Time 1330

Water Level +5 3/4"
Water Meter-Stop 65075305
Water Meter-Start 65075305

Water Added 0
Air Temp. 2.2
Wind Direction N-S

COLOR---

Green ✓
Green Brown____
Brown Green____
Brown____

ODOR--- slight

Common Bacterium-Per Drop____
Activated Sludge____
Glass Tube Test ✓

Erosion some
Animal Burrows some
Weed Control some

Percolation Pond

Water Level- NOT FLOWING
Erosion some
Animal Burrows some
Weed Control some

[signature]
Inspected by

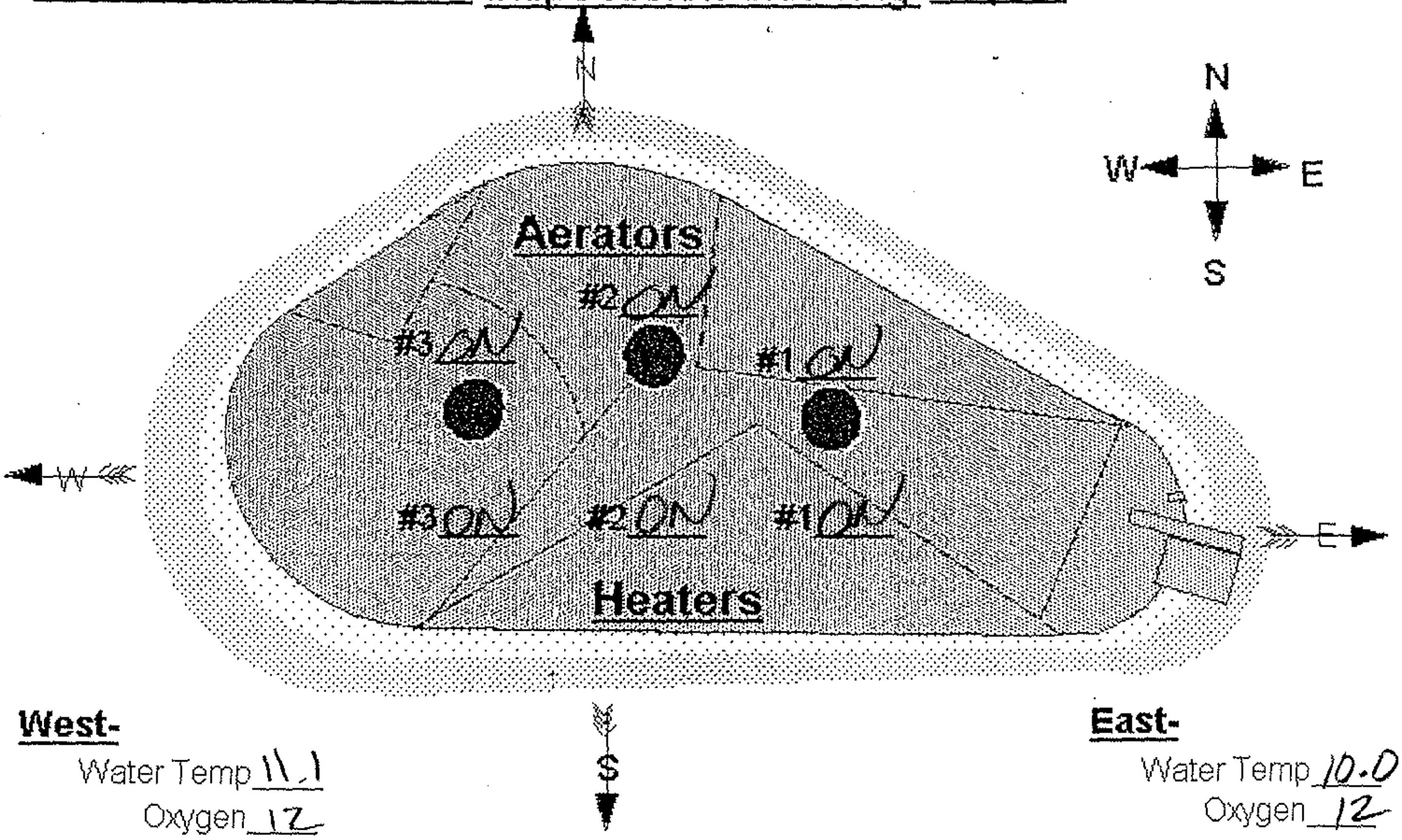
12-7-09
Date

[signature]
Supervisor Review

12-7-09
Date

Comments____________________

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 11.1
Oxygen 12
pH 8.64
Time 1300

Water Level +5½
Water Meter-Stop 650755305
Water Meter-Start 650755305

Water Added Ø
Air Temp. 15.6
Wind Direction N-S

COLOR---

Green ✓
Green Brown ____
Brown Green ____
Brown ____

ODOR--- ____

East-

Water Temp 10.0
Oxygen 12
pH 8.77
Time 1330

Common Bacterium-Per Drop ____
Activated Sludge ____
Glass Tube Test ✓

Erosion Some
Animal Burrows Some
Weed Control Some

Percolation Pond

Water Level- Ø
Erosion Some
Animal Burrows Some
Weed Control Some

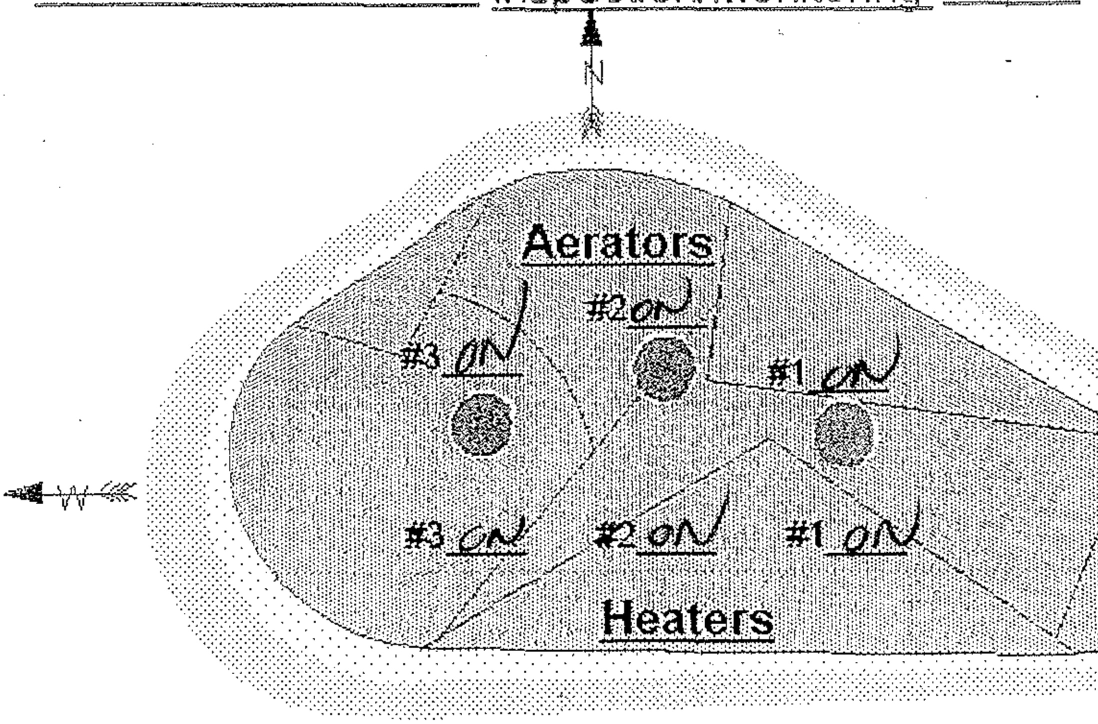
Dave Armour
Inspected by

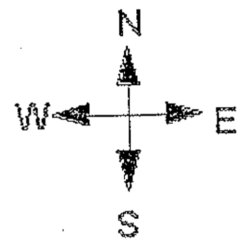
12-3-09
Date

Supervisor Review ____ **Date** ____

Comments ____

Site 300 Sewer Pond- Inspection/Monitoring Report





West-

Water Temp 11.3
Oxygen 12
pH 8.71
Time 1300

East-

Water Temp 10.1
Oxygen 12
pH 8.75
Time 1330

Water Level +5 1/2
Water Meter-Stop 65075305
Water Meter-Start 65075305

Water Added Ø
Air Temp 15.6
Wind Direction E.W

COLOR----
Green ✓
Green Brown ____
Brown Green ____
Brown ____

ODOR---- None

Common Bacterium-Per Drop ____
Activated Sludge ____
Glass Tube Test ✓

Erosion Same
Animal Burrows Same
Weed Control Same

Percolation Pond

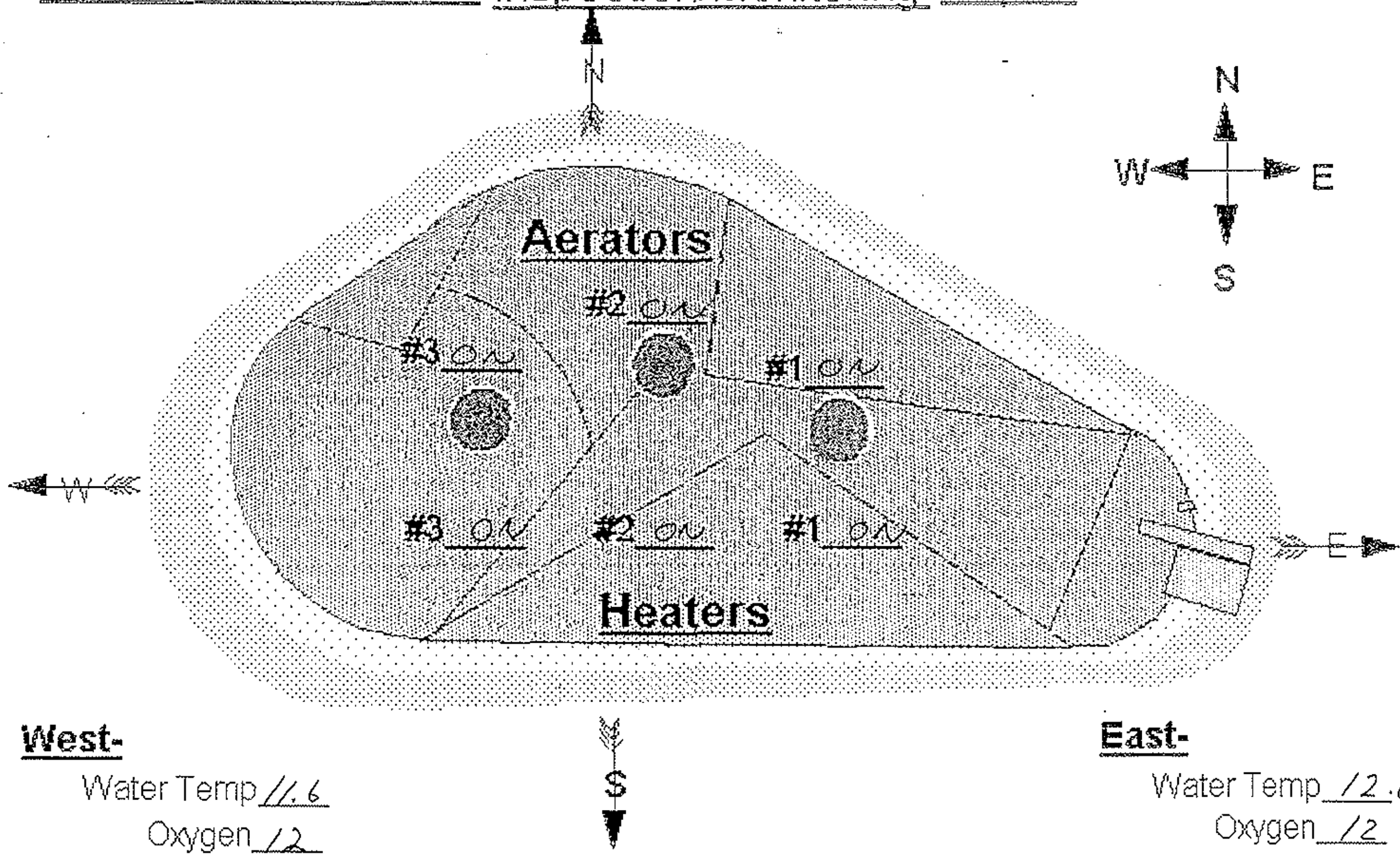
Water Level- Ø
Erosion Same
Animal Burrows Same
Weed Control Same

Inspected by ____ Date 11-30-09

Supervisor Review ____ Date ____

Comments ____

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 11.6
Oxygen 12
pH 9.06
Time 1300

Water Level + 5½"
Water Meter-Stop 65075305
Water Meter-Start 65075305

Water Added Ø
Air Temp. 15.6
Wind Direction W-E

COLOR----

Green ✓
Green Brown ____
Brown Green ____
Brown ____

ODOR---- SLIGHT

East-

Water Temp 12.6
Oxygen 12
pH 9.10
Time 1330

Common Bacterium-Per Drop ____
Activated Sludge ____
Glass Tube Test ✓

Erosion SOME
Animal Burrows SOME
Weed Control SOME

Percolation Pond

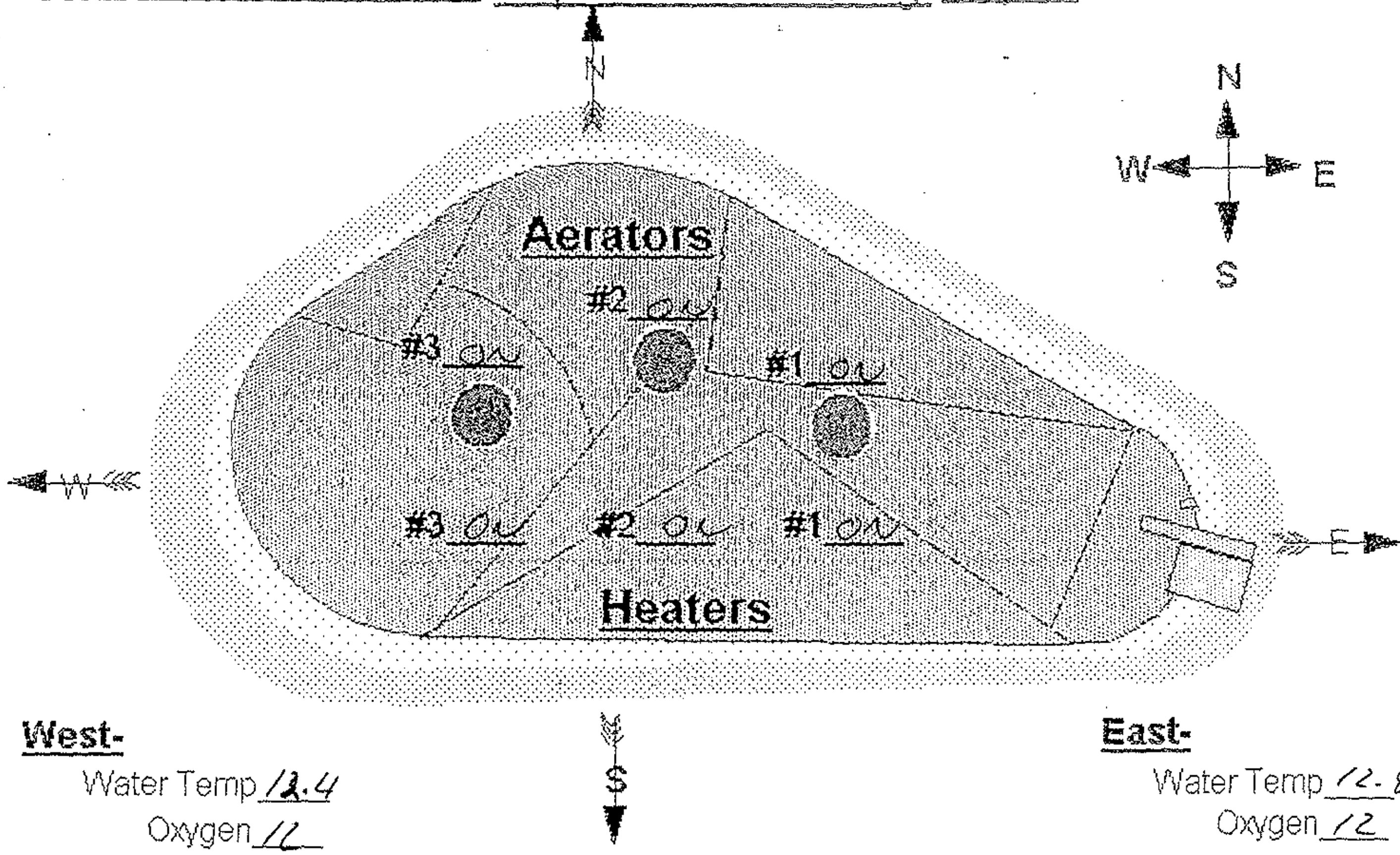
Water Level- NOT FLOWING
Erosion SOME
Animal Burrows SOME
Weed Control SOME

[signature] 11-23-09
Inspected by **Date**

[signature] 11-23-09
Supervisor Review **Date**

Comments ____

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 12.4
Oxygen 12
pH 9.17
Time 1000

East-

Water Temp 12.8
Oxygen 12
pH 9.19
Time 1030

Water Level +53/4"
Water Meter-Stop 65075305
Water Meter-Start 65075305

Water Added Ø
Air Temp. 12.8
Wind Direction E-W

COLOR---

Green ✓
Green Brown____
Brown Green____
Brown____

ODOR--- SLIGHT

Common Bacterium-Per Drop____
Activated Sludge____
Glass Tube Test ✓

Erosion some
Animal Burrows some
Weed Control some

Percolation Pond

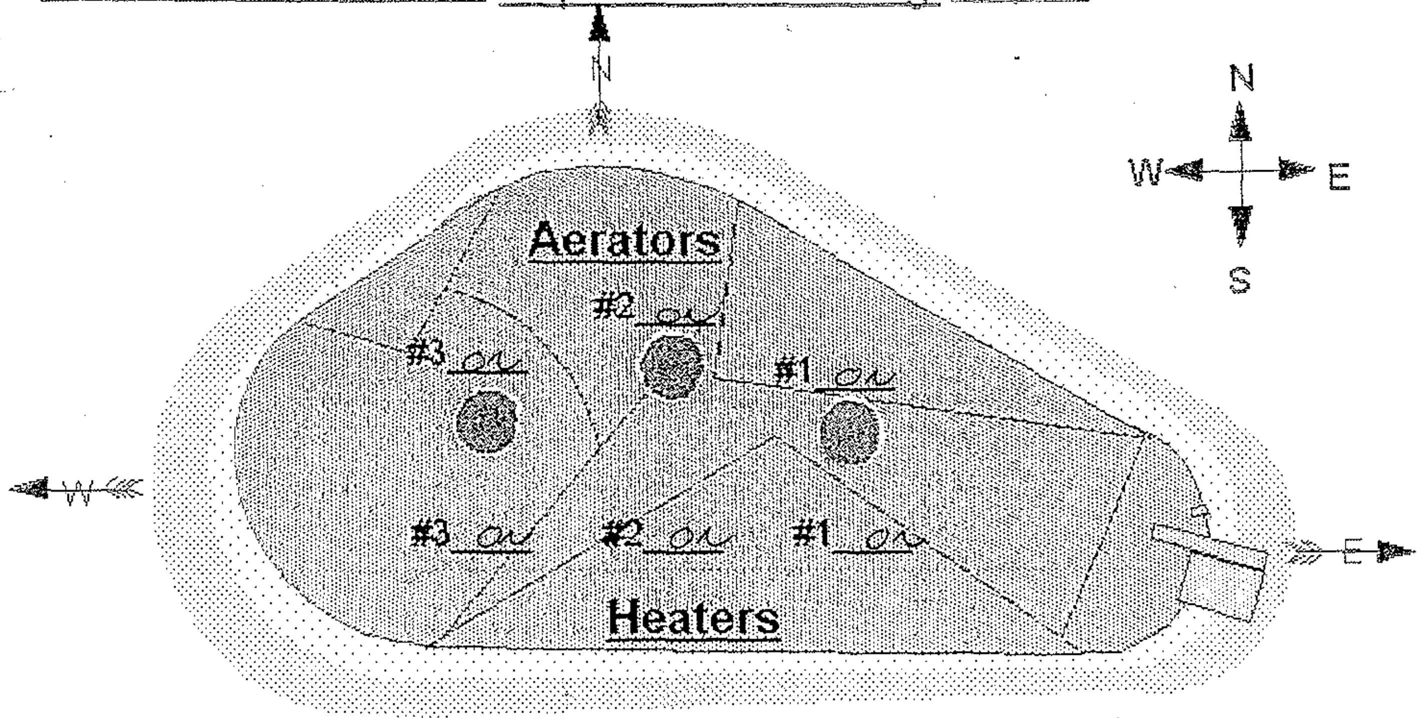
Water Level- NOT FLOWING
Erosion some
Animal Burrows some
Weed Control some

Inspected by [signature] Date 11-19-09

Supervisor Review [signature] Date 11-19-09

Comments

Site 300 Sewer Pond- Inspection/Monitoring Report



S

West-

Water Temp 13.1
Oxygen 12
pH 9.17
Time 1000

East-

Water Temp 11.6
Oxygen 12
pH 9.17
Time 1030

Water Level +5¾"
Water Meter-Stop 65075305
Water Meter-Start 65075305

Water Added 0
Air Temp. 14.4
Wind Direction W.E

COLOR----

Green ✓
Green Brown ____
Brown Green ____
Brown ____

ODOR---1 SLIGHT

Common Bacterium-Per Drop ____
Activated Sludge ____
Glass Tube Test ✓

Erosion some
Animal Burrows some
Weed Control some

Percolation Pond

Water Level- NOT FLOWING
Erosion some
Animal Burrows some
Weed Control some

[signature]
Inspected by

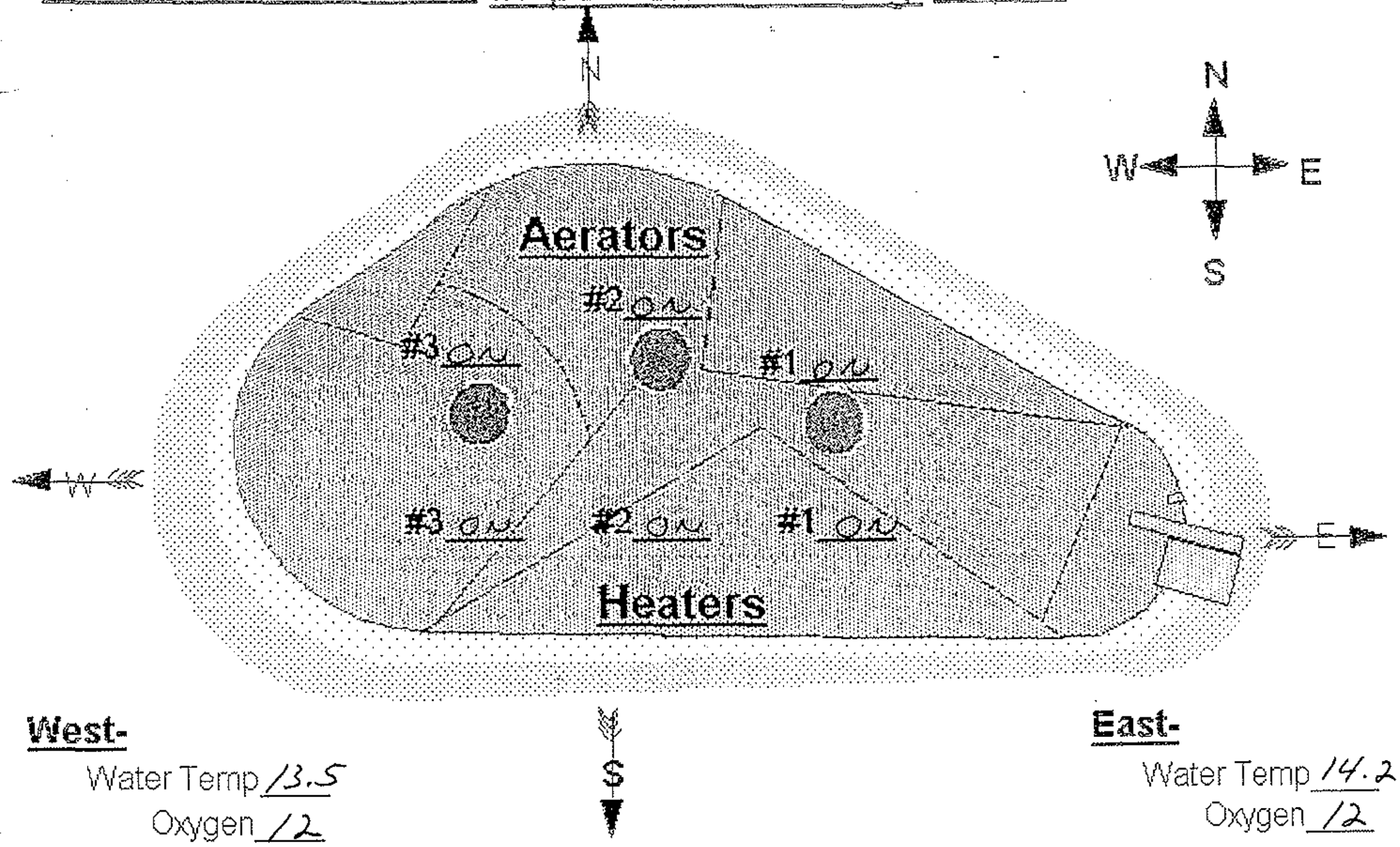
11-16-09
Date

[signature]
Supervisor Review

11-16-09
Date

Comments ____________________

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 13.5

Oxygen 12

pH 9.24

Time 1300

Water Level +6"

Water Meter-Stop 65075305

Water Meter-Start 65075305

Water Added Ø

Air Temp. 15.0

Wind Direction N-S

COLOR----

Green ✓

Green Brown ____

Brown Green ____

Brown ____

ODOR--- SLIGHT

East-

Water Temp 14.2

Oxygen 12

pH 9.23

Time 1330

Common Bacterium-Per Drop ____

Activated Sludge ____

Glass Tube Test ✓

Erosion some

Animal Burrows some

Weed Control some

Percolation Pond

Water Level- NOT FLOWING

Erosion some

Animal Burrows some

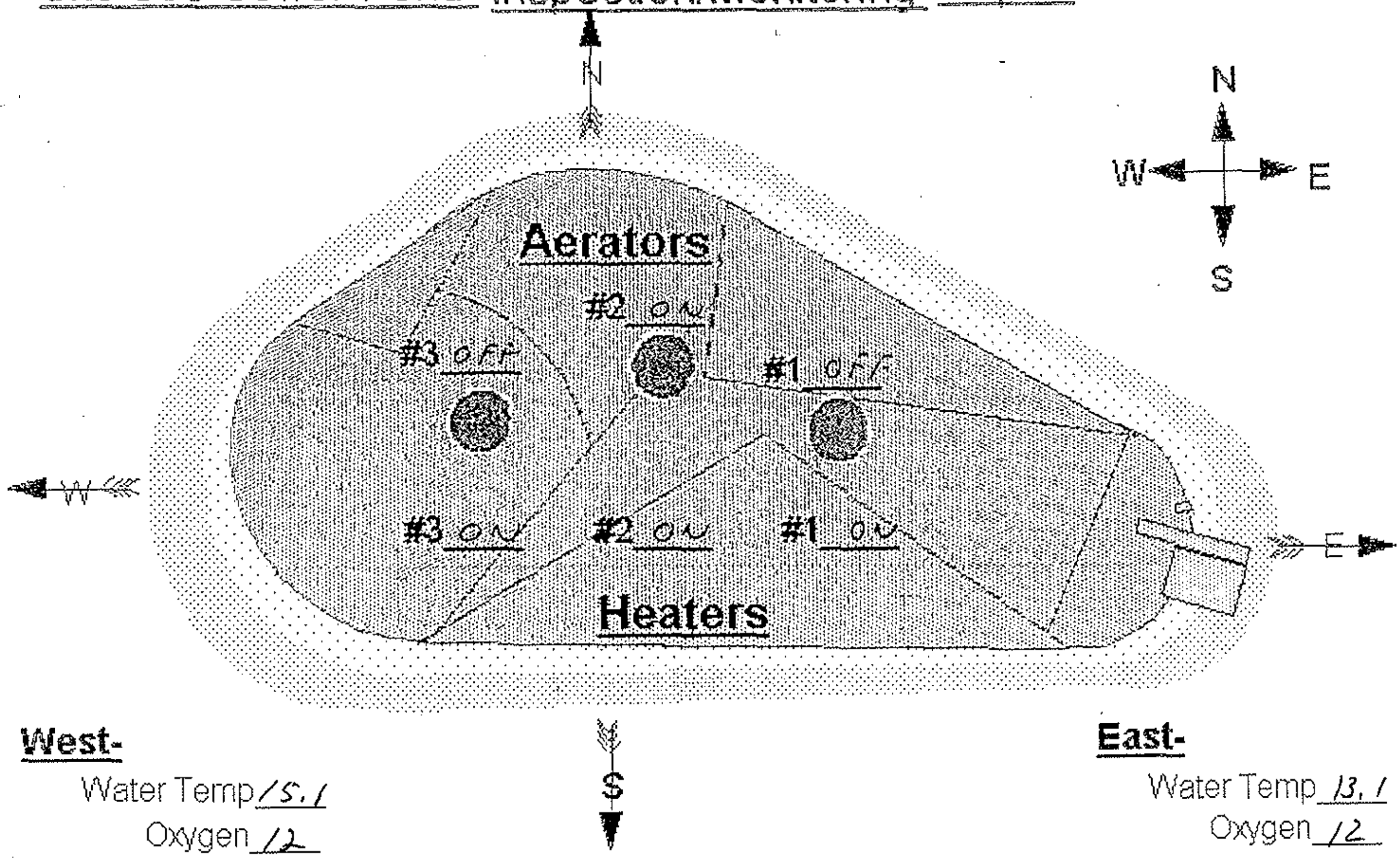
Weed Control some

Inspected by **Date** 11-12-09

Supervisor Review **Date** 11-12-09

Comments ____________________

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 15.1
Oxygen 12
pH 9.22
Time 1300

Water Level +6"
Water Meter-Stop 65075305
Water Meter-Start 65075305

Water Added 0
Air Temp. 12.8
Wind Direction E-W

COLOR---

Green ✓
Green Brown ____
Brown Green ____
Brown ____

ODOR--- SLIGHT

East-

Water Temp 13.1
Oxygen 12
pH 9.25
Time 1330

Common Bacterium-Per Drop ____
Activated Sludge ____
Glass Tube Test ✓

Erosion SOME
Animal Burrows SOME
Weed Control SOME

Percolation Pond

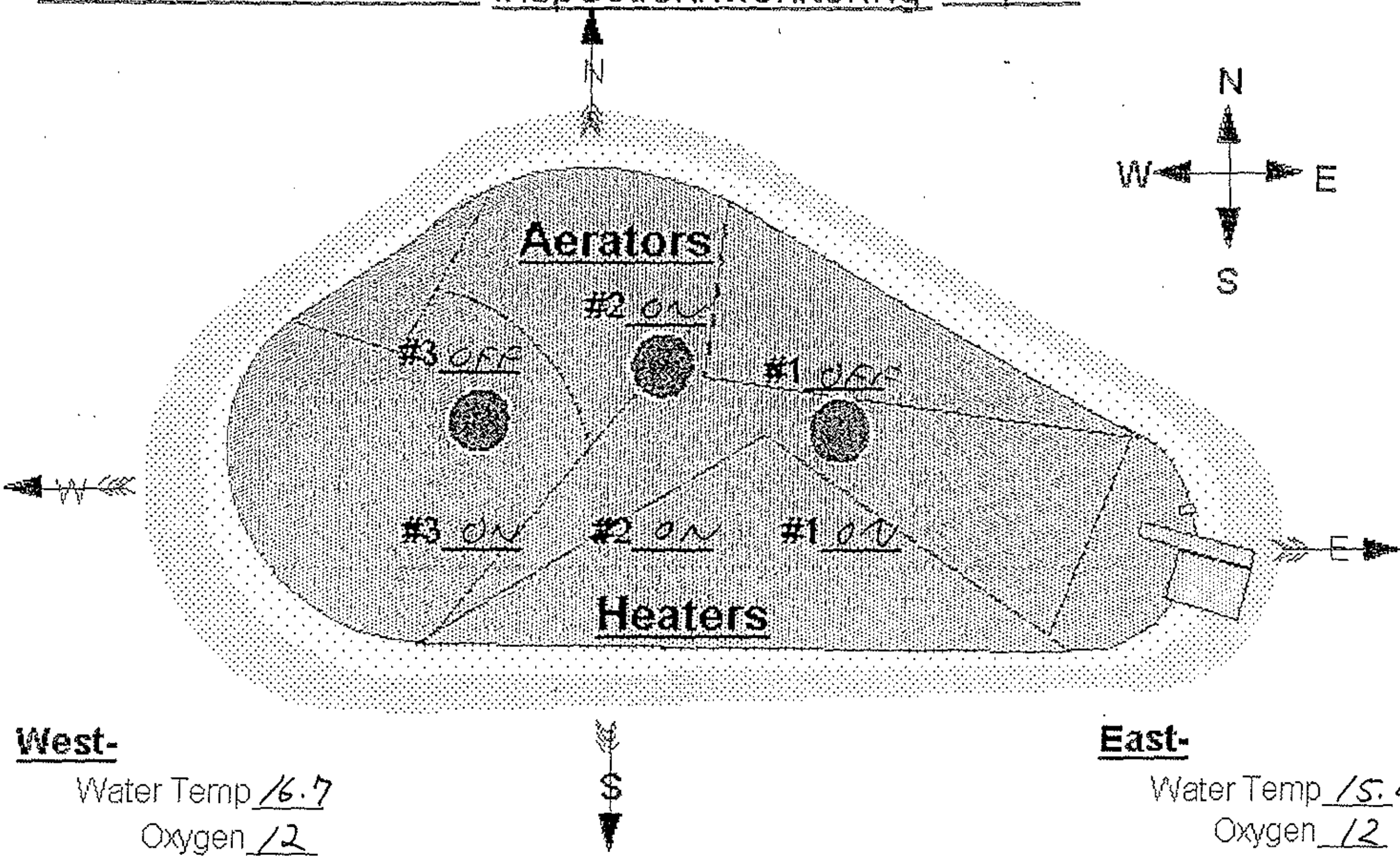
Water Level- NOT FLOWING
Erosion SOME
Animal Burrows SOME
Weed Control SOME

Inspected by ____ **Date** 11-9-09

Supervisor Review ____ **Date** 11-9-09

Comments ____________________

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 16.7
Oxygen 12
pH 9.20
Time 1000

Water Level +6"
Water Meter-Stop 65075305
Water Meter-Start 65075305

Water Added ⌀
Air Temp. 18.3
Wind Direction E-W

East-

Water Temp 15.4
Oxygen 12
pH 9.21
Time 1100

COLOR----

Green ✓
Green Brown ____
Brown Green ____
Brown ____

ODOR---- SLIGHT

Common Bacterium-Per Drop ____
Activated Sludge ____
Glass Tube Test ✓

Erosion SOME
Animal Burrows SOME
Weed Control SOME

Percolation Pond

Water Level- NOT FLOWING
Erosion SOME
Animal Burrows SOME
Weed Control SOME

[signature]
Inspected by

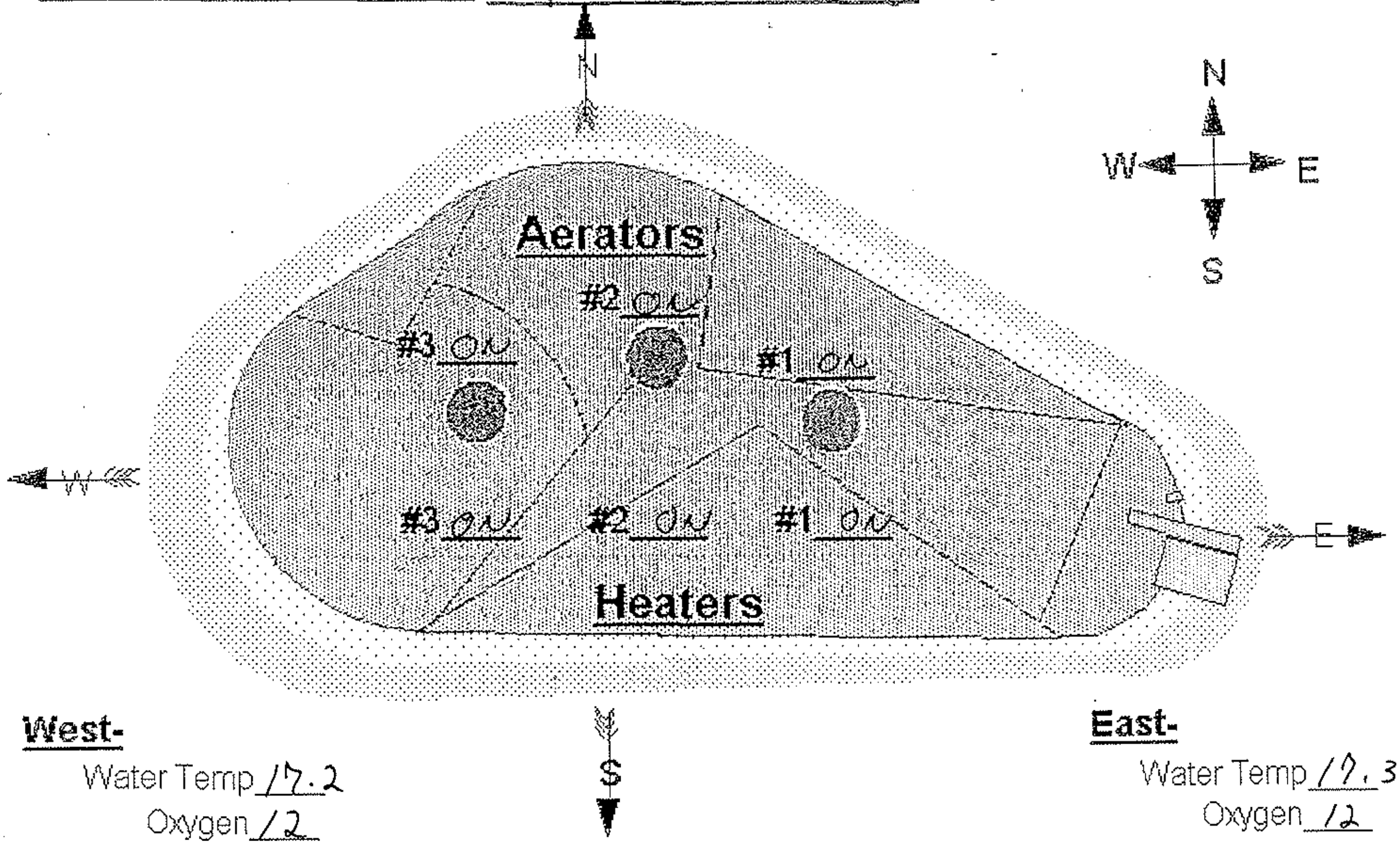
11-5-09
Date

[signature]
Supervisor Review

11-5-09
Date

Comments ____________________

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 17.2
Oxygen 12
pH 9.18
Time 1400

Water Level +6"
Water Meter-Stop 65075305
Water Meter-Start 65075305

Water Added 0
Air Temp. 25.6
Wind Direction N-S

COLOR----

Green ✓
Green Brown ____
Brown Green ____
Brown ____

ODOR---- 1 SLIGHT

East-

Water Temp 17.3
Oxygen 12
pH 9.21
Time 1430

Common Bacterium-Per Drop ____
Activated Sludge ____
Glass Tube Test ✓

Erosion SOME
Animal Burrows SOME
Weed Control SOME

Percolation Pond

Water Level- NOT FLOWING
Erosion SOME
Animal Burrows SOME
Weed Control SOME

[signature]
Inspected by

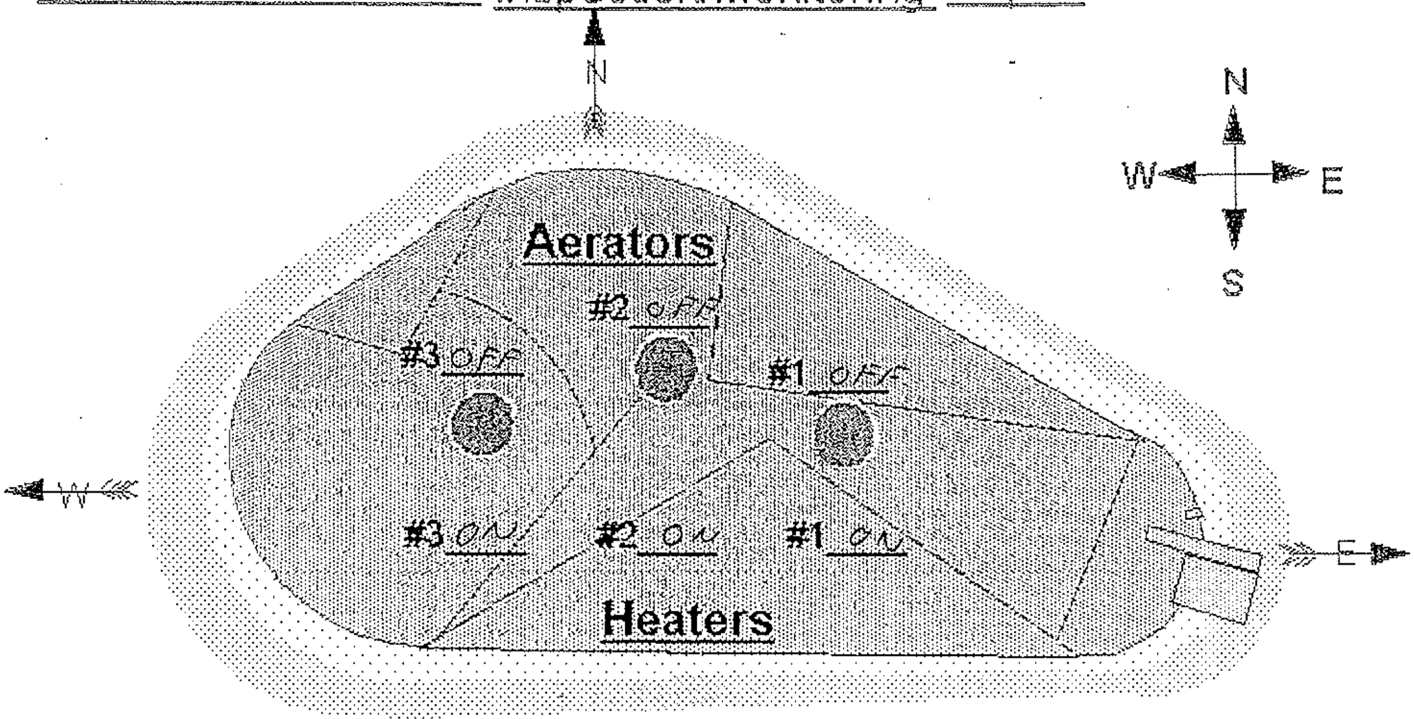
11-2-09
Date

[signature]
Supervisor Review

11-2-09
Date

Comments ____________________

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 12.5

Oxygen 12

pH 9.11

Time 1345

Water Level +5½"

Water Meter-Stop 65075305

Water Meter-Start 65075305

Water Added 0

Air Temp. 18.9

Wind Direction W-E

East-

Water Temp 13.8

Oxygen 12

pH 9.14

Time 1420

COLOR----

Green ✓

Green Brown____

Brown Green____

Brown____

ODOR---- SLIGHT

Common Bacterium-Per Drop____

Activated Sludge____

Glass Tube Test ✓

Erosion SOME

Animal Burrows SOME

Weed Control SOME

Percolation Pond

Water Level- NOT FLOWING

Erosion SOME

Animal Burrows SOME

Weed Control SOME

[signature] 10-29-09

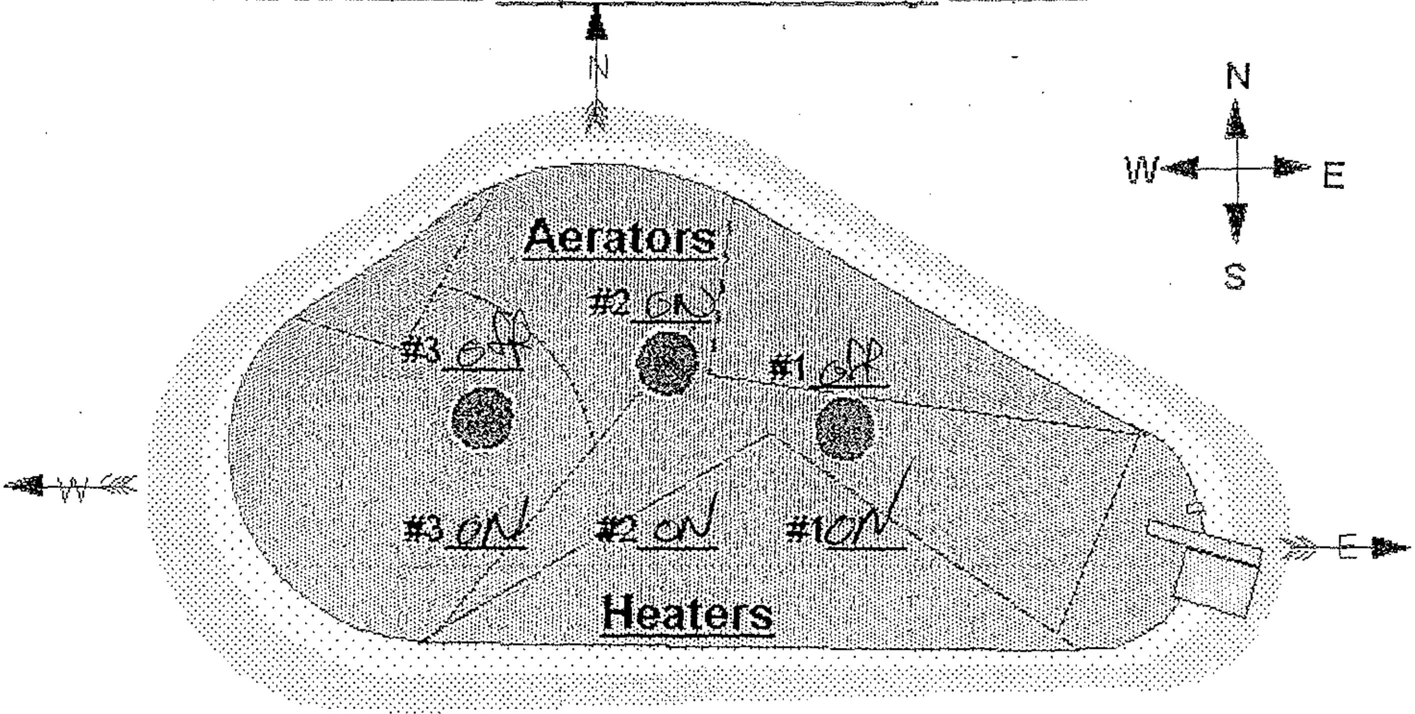
Inspected by **Date**

[signature] 10-29-09

Supervisor Review **Date**

Comments

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 20.1
Oxygen 12
pH 9.13
Time 10:30

Water Level +6 3/4
Water Meter-Stop 65075305
Water Meter-Start 65075305

Water Added Ø
Air Temp. 22.2
Wind Direction N-S

East-

Water Temp 20.2
Oxygen 12
pH 9.10
Time 1040

COLOR----

Green ✓
Green Brown ____
Brown Green ____
Brown ____

ODOR---- ____

Common Bacterium-Per Drop ____
Activated Sludge ____
Glass Tube Test ✓

Erosion Some
Animal Burrows Some
Weed Control Some

Percolation Pond

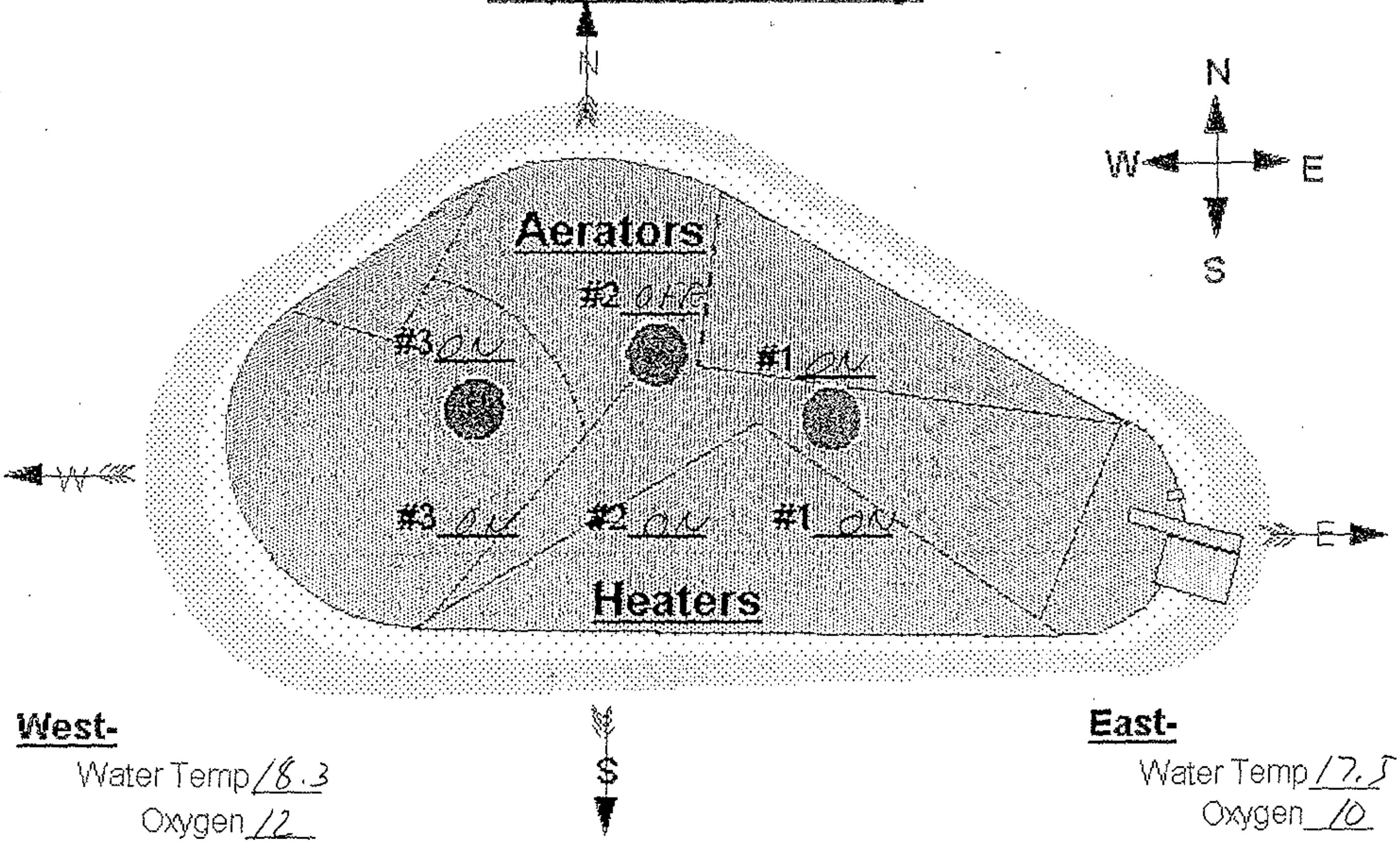
Water Level- Dry
Erosion Some
Animal Burrows Some
Weed Control Some

Inspected by [signature] Date 10-15-09

Supervisor Review [signature] Date 10-15-09

Comments ____

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 18.3
Oxygen 12
pH 9.23
Time 1300

East-

Water Temp 17.5
Oxygen 10
pH 9.24
Time 1330

Water Level +4¾"
Water Meter-Stop 65075305
Water Meter-Start 65075305

Water Added Ø
Air Temp. 12.8
Wind Direction E-W

COLOR---

Green ✓
Green Brown____
Brown Green____
Brown____

ODOR--- NONE

Common Bacterium-Per Drop____
Activated Sludge____
Glass Tube Test ✓

Erosion some
Animal Burrows some
Weed Control some

Percolation Pond

Water Level- DRY
Erosion some
Animal Burrows some
Weed Control some

[signature]
Inspected by

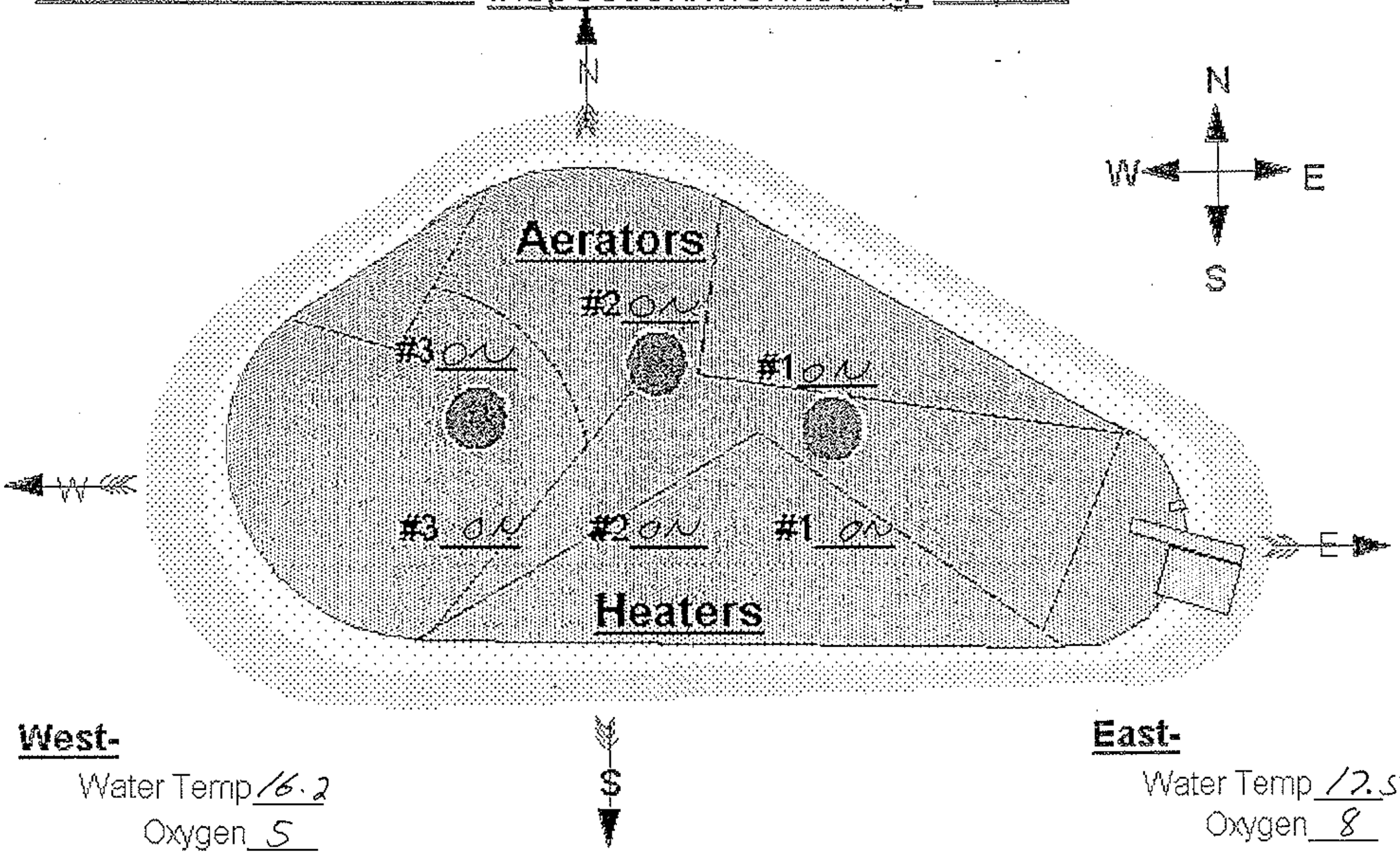
10-12-09
Date

[signature]
Supervisor Review

10-12-09
Date

Comments________________________________

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 16.2
Oxygen 5
pH 9.65
Time 1400

Water Level +4"
Water Meter-Stop 65075305
Water Meter-Start 65075305

Water Added 0
Air Temp. 21.1
Wind Direction E-W

COLOR----

Green ✓
Green Brown ____
Brown Green ____
Brown ____

ODOR--- SLIGHT

East-

Water Temp 12.5
Oxygen 8
pH 9.62
Time 1430

Common Bacterium-Per Drop ____
Activated Sludge ____
Glass Tube Test ✓

Erosion SOME
Animal Burrows SOME
Weed Control SOME

Percolation Pond

Water Level- DRY
Erosion SOME
Animal Burrows SOME
Weed Control SOME

[signature]
Inspected by

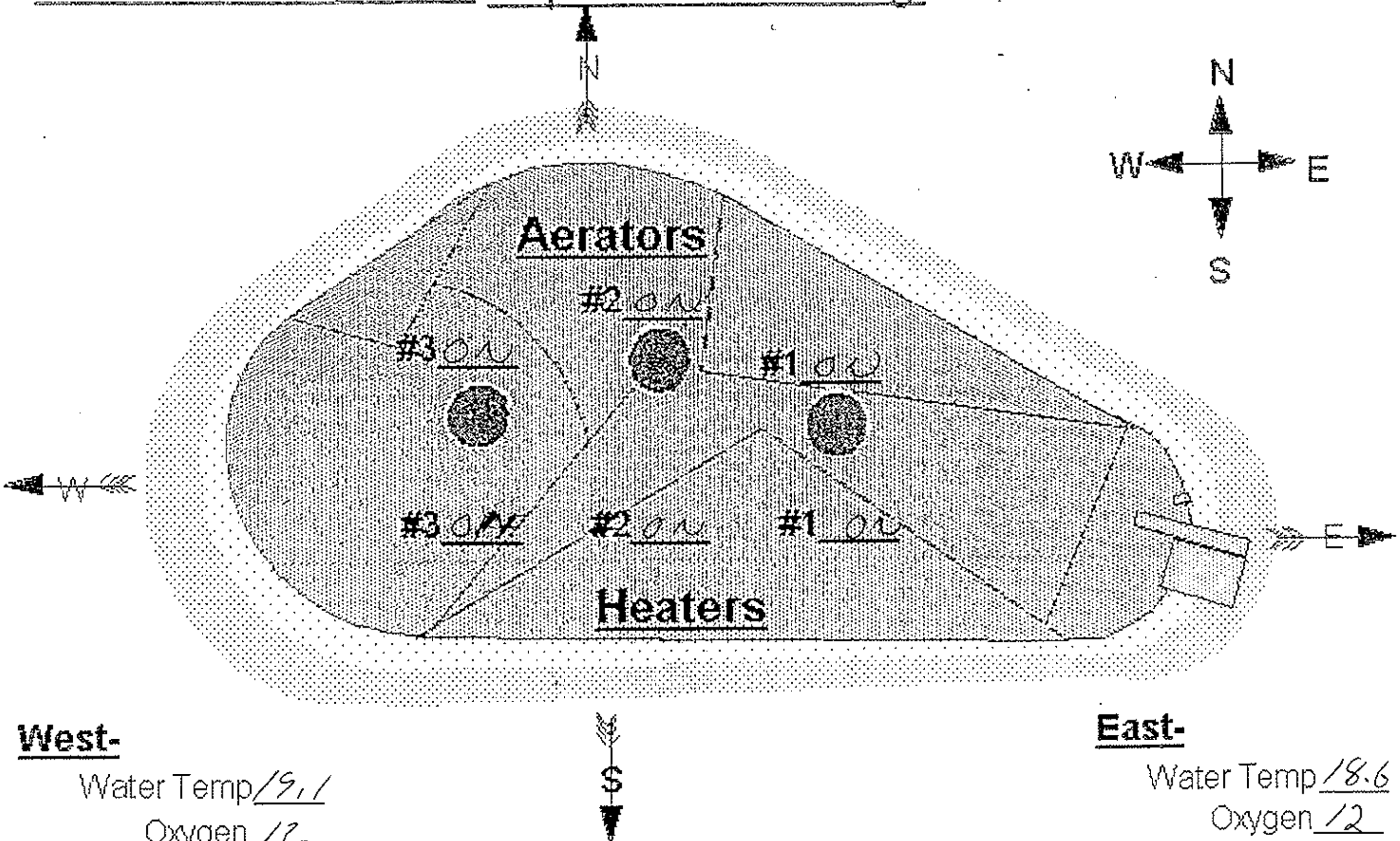
10-5-09
Date

[signature]
Supervisor Review

10-5-09
Date

Comments ____

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 19.1
Oxygen 12
pH 9.66
Time 1400

Water Level +3½"
Water Meter-Stop 65075305
Water Meter-Start 65075305

Water Added 0
Air Temp. 26.1
Wind Direction E-W

COLOR----

Green ✓
Green Brown ____
Brown Green ____
Brown ____

ODOR---- SLIGHT

East-

Water Temp 18.6
Oxygen 12
pH 9.90
Time 1430

Common Bacterium-Per Drop ____
Activated Sludge ____
Glass Tube Test ✓

Erosion Some
Animal Burrows Some
Weed Control Some

Percolation Pond

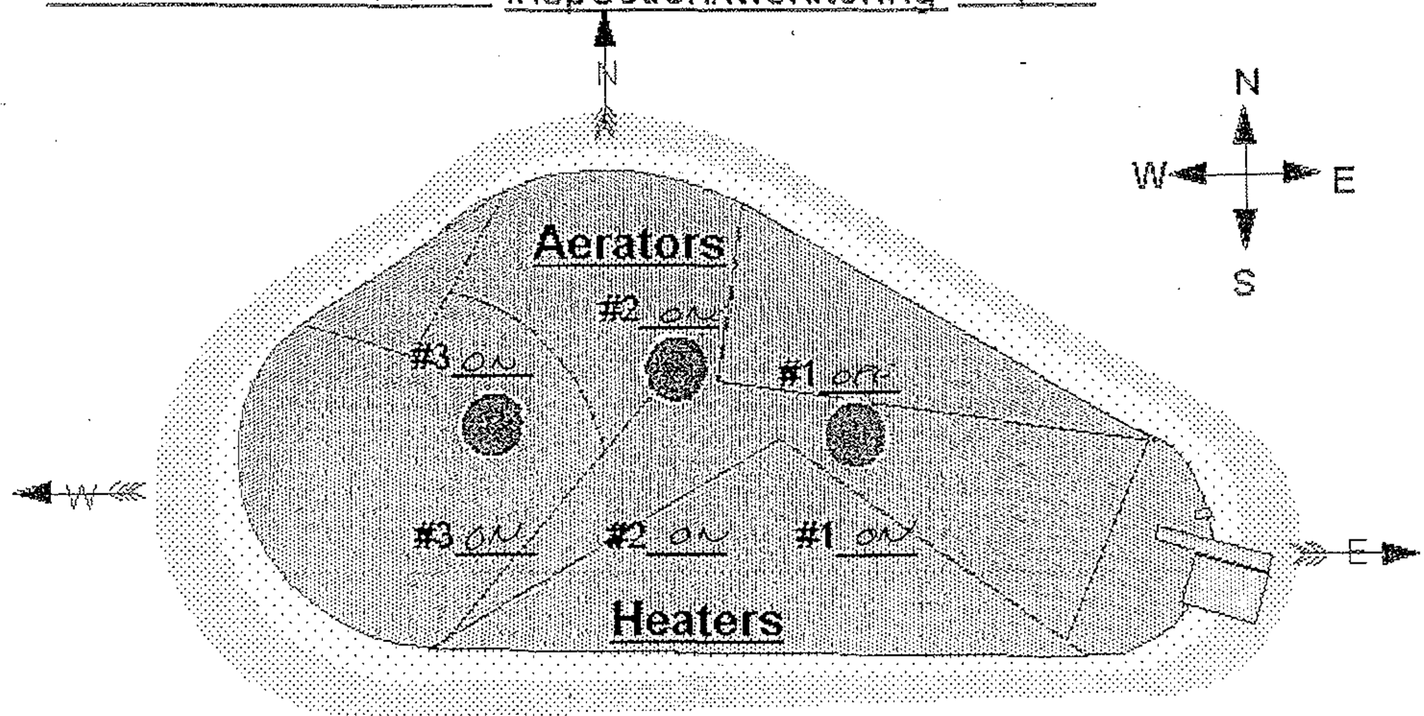
Water Level- DRY
Erosion Some
Animal Burrows Some
Weed Control Some

Inspected by — **Date** 10-1-09

Supervisor Review — **Date** 10-1-09

Comments ____________________

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 23.2
Oxygen 4
pH 9.80
Time 1306

Water Level + 4"
Water Meter-Stop 65025305
Water Meter-Start 65075305

Water Added Ø
Air Temp. 27.8
Wind Direction W-E

COLOR----

Green ✓
Green Brown ____
Brown Green ____
Brown ____

ODOR---- YES

East-

Water Temp 25.0
Oxygen 8
pH 9.79
Time 1330

Common Bacterium-Per Drop ____
Activated Sludge ____
Glass Tube Test ✓

Erosion SOME
Animal Burrows SOME
Weed Control SOME

Percolation Pond

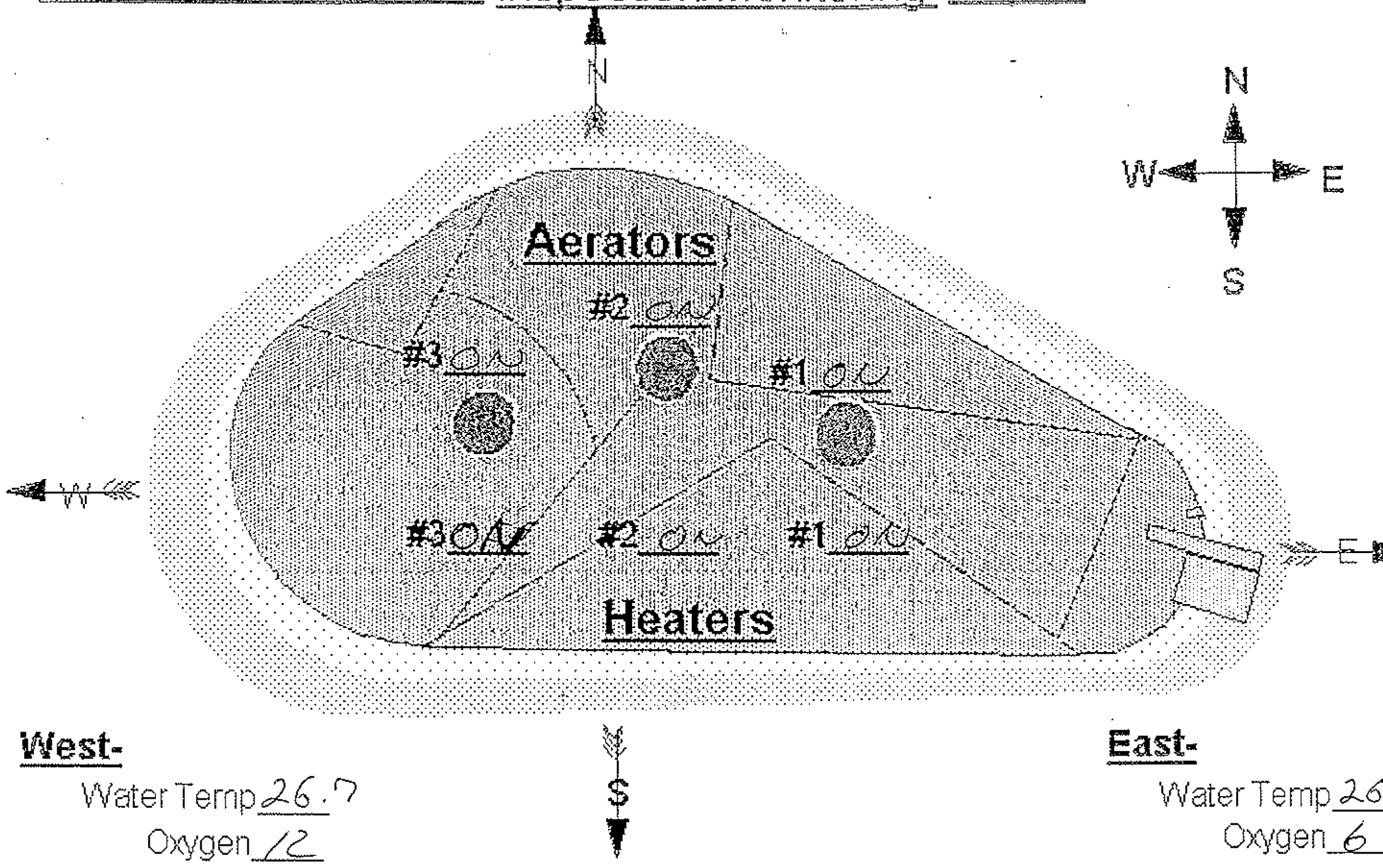
Water Level- DRY
Erosion SOME
Animal Burrows SOME
Weed Control SOME

[signature]
Inspected by　　9-28-09 **Date**

[signature]
Supervisor Review　　9-28-09 **Date**

Comments ____________________

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 26.7
Oxygen 12
pH 10.01
Time 1300

Water Level +4½"
Water Meter-Stop 65025305
Water Meter-Start 65025305

Water Added Ø
Air Temp. 36.7
Wind Direction E-W

COLOR----

Green ✓
Green Brown ____
Brown Green ____
Brown ____

ODOR---- SLIGHT

East-

Water Temp 26.7
Oxygen 6
pH 9.94
Time 1330

Common Bacterium-Per Drop ____
Activated Sludge ____
Glass Tube Test ✓

Erosion Some
Animal Burrows Some
Weed Control Some

Percolation Pond

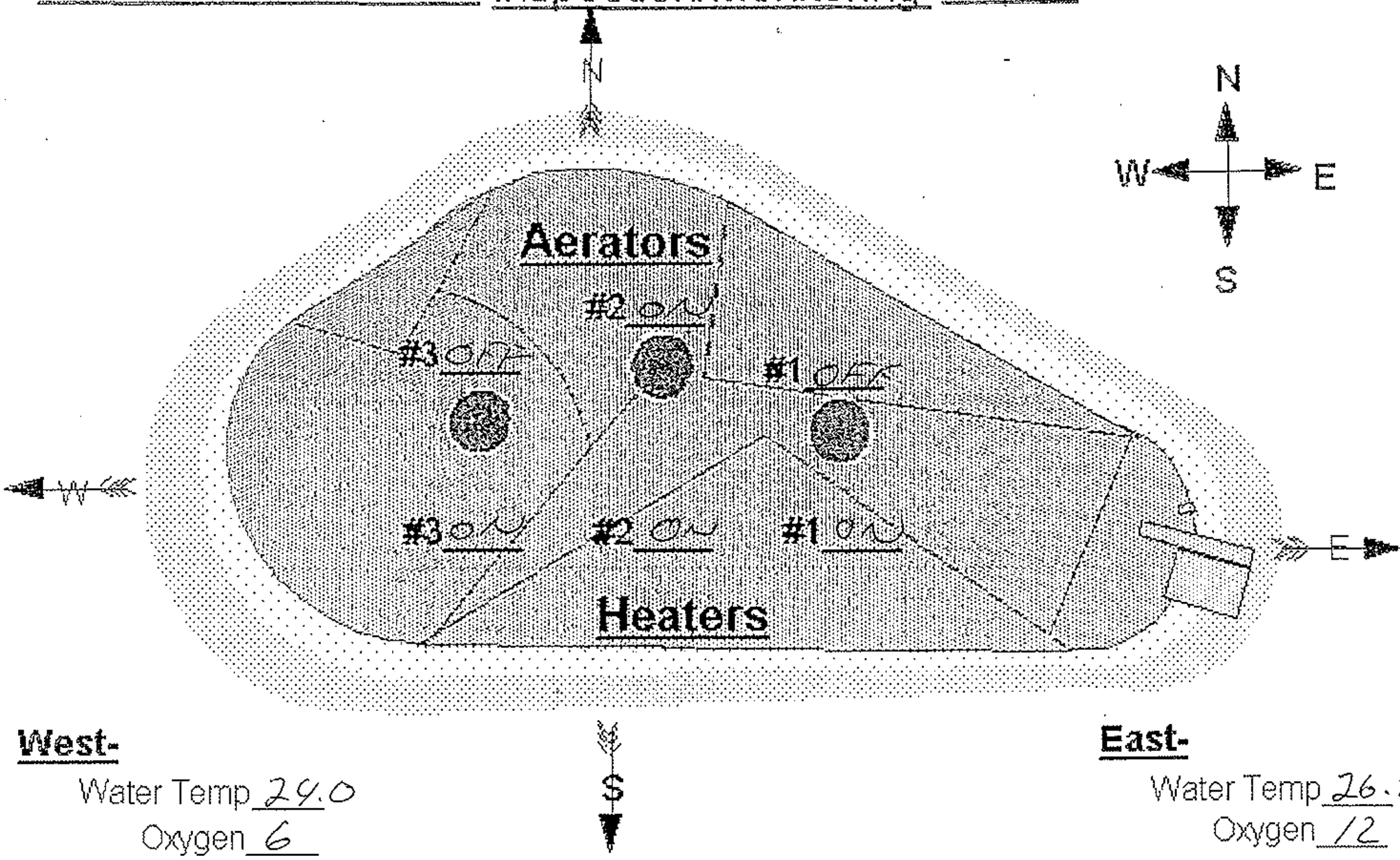
Water Level- DRY
Erosion Some
Animal Burrows Some
Weed Control Some

Inspected by [signature] Date 9-24-09

Supervisor Review [signature] Date 9-24-09

Comments ____________________

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 24.0
Oxygen 6
pH 10.12
Time 1300

East-

Water Temp 26.2
Oxygen 12
pH 10.13
Time 1330

Water Level + 5"
Water Meter-Stop 65075305
Water Meter-Start 65075305

Water Added 0
Air Temp. 34.4
Wind Direction N-S

COLOR----

Green ✓
Green Brown ____
Brown Green ____
Brown ____

ODOR---- SLIGHT

Common Bacterium-Per Drop ____
Activated Sludge ____
Glass Tube Test ✓

Erosion SOME
Animal Burrows SOME
Weed Control SOME

Percolation Pond

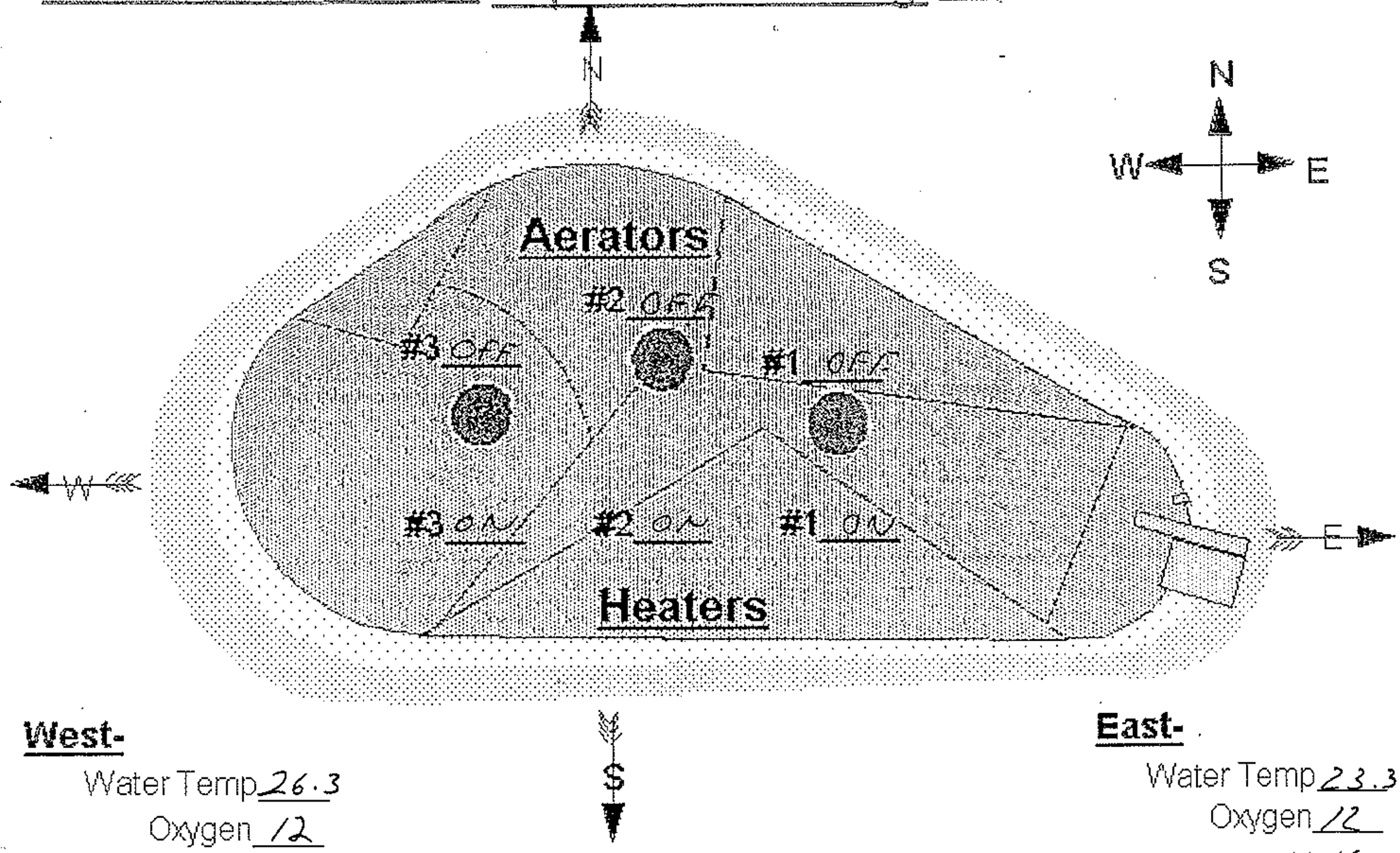
Water Level- DRY
Erosion SOME
Animal Burrows SOME
Weed Control SOME

[signature]
Inspected by 9-21-09 **Date**

[signature]
Supervisor Review 9-21-09 **Date**

Comments ____________________

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 26.3
Oxygen 12
pH 10.28
Time 1300

Water Level +4 3/4"
Water Meter-Stop 65075305
Water Meter-Start 65075305

Water Added 0
Air Temp. 28.9
Wind Direction E-W

COLOR----

Green ✓
Green Brown ____
Brown Green ____
Brown ____

ODOR---- 1 SLIGHT

East-

Water Temp 23.3
Oxygen 12
pH 10.23
Time 1330

Common Bacterium-Per Drop ____
Activated Sludge ____
Glass Tube Test ✓

Erosion SOME
Animal Burrows SOME
Weed Control SOME

Percolation Pond

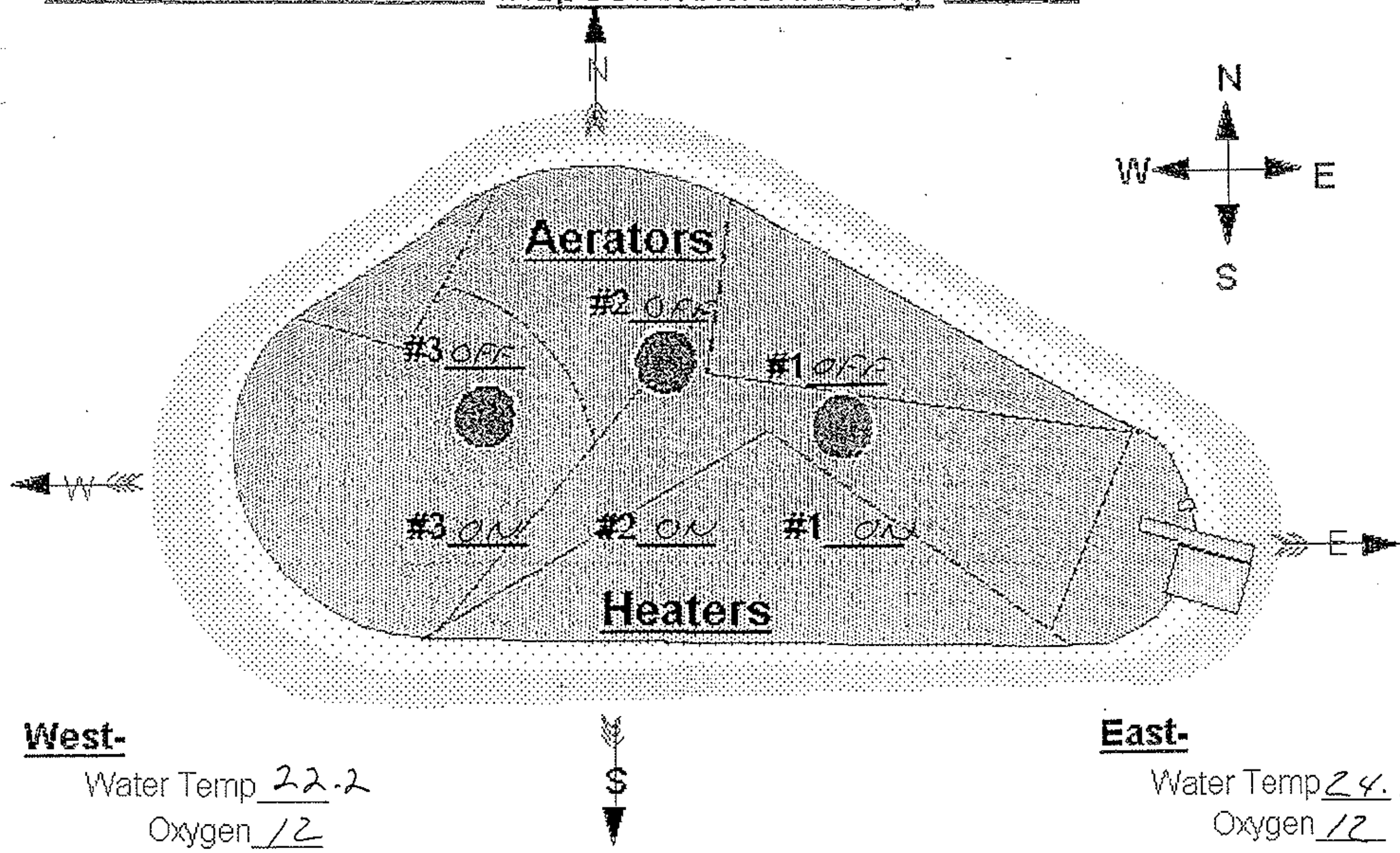
Water Level- ____
Erosion SOME
Animal Burrows SOME
Weed Control SOME

[signature]
Inspected by
9-17-09
Date

[signature]
Supervisor Review
9-17-09
Date

Comments ____________________

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 22.2
Oxygen 12
pH 10.15
Time 1300

Water Level +4"
Water Meter-Stop 65075305
Water Meter-Start 65075305

Water Added Ø
Air Temp. 24.4
Wind Direction W-E

East-

Water Temp 24.3
Oxygen 12
pH 10.16
Time 1330

COLOR----

Green ✓
Green Brown ____
Brown Green ____
Brown ____

ODOR---- VERY SLIGHT

Common Bacterium-Per Drop ____
Activated Sludge ____
Glass Tube Test ✓

Erosion SOME
Animal Burrows SOME
Weed Control SOME

Percolation Pond

Water Level- DRY
Erosion SOME
Animal Burrows SOME
Weed Control SOME

[signature]
Inspected by

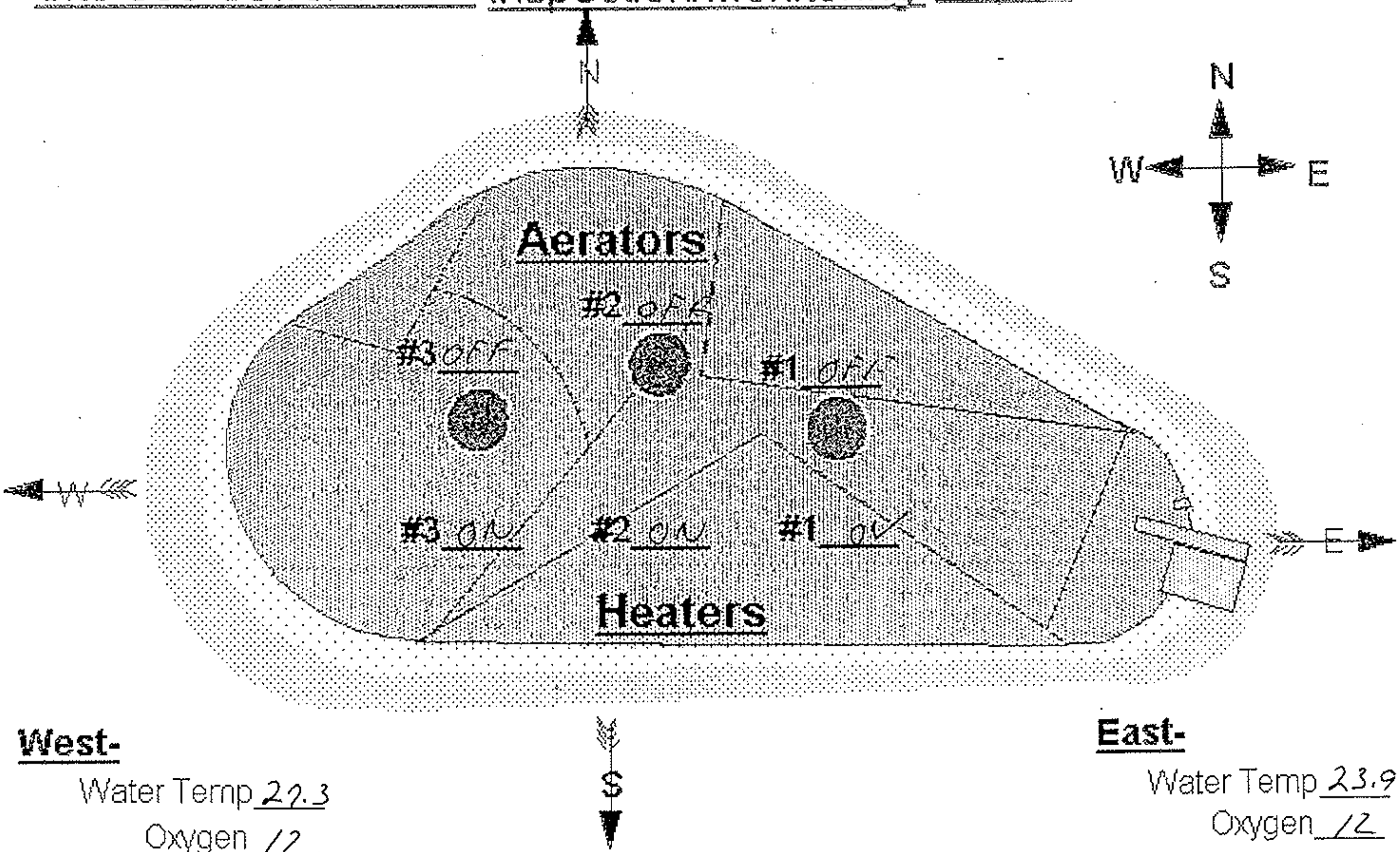
9-14-09
Date

[signature]
Supervisor Review

9-14-09
Date

Comments ____________________

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 22.3
Oxygen 12
pH 11.11
Time 1300

East-

Water Temp 23.9
Oxygen 12
pH 10.98
Time 1330

Water Level +4"
Water Meter-Stop 65075305
Water Meter-Start 65075305
Water Added 0
Air Temp. 35.0
Wind Direction E-W

COLOR---
Green ✓
Green Brown ____
Brown Green ____
Brown ____

ODOR--- SLIGHT

Common Bacterium-Per Drop ____
Activated Sludge ____
Glass Tube Test ✓

Erosion SOME
Animal Burrows SOME
Weed Control SOME

Percolation Pond

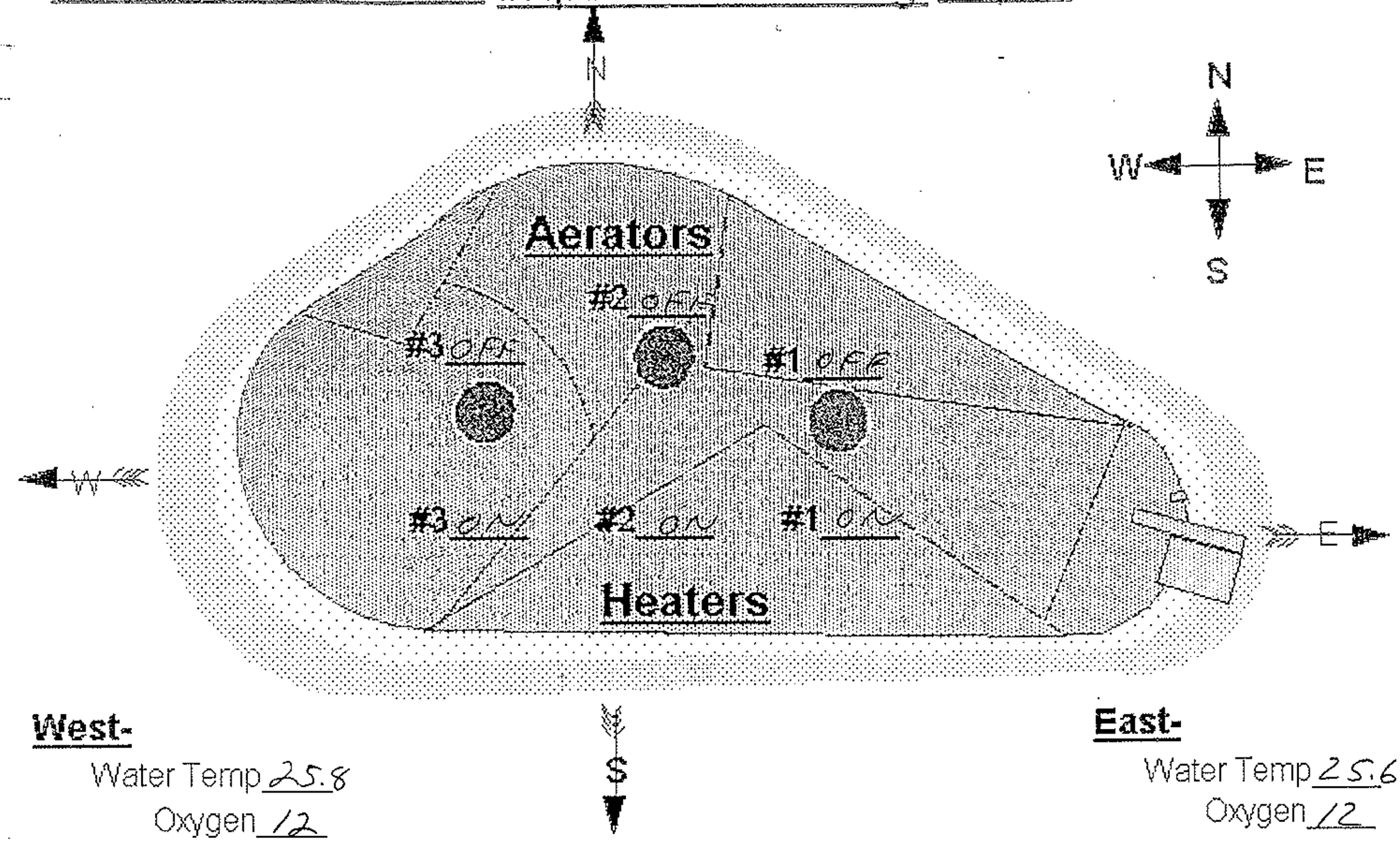
Water Level- DRY
Erosion SOME
Animal Burrows SOME
Weed Control SOME

[signature] Inspected by — Date 9-10-09

[signature] Supervisor Review — Date 9-10-09

Comments ____

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 25.8
Oxygen 12
pH 10.41
Time 1300

Water Level +4"
Water Meter-Stop 65075305
Water Meter-Start 65075305

Water Added 0
Air Temp. 30.6
Wind Direction E-W

East-

Water Temp 25.6
Oxygen 12
pH 10.49
Time 1330

COLOR---

Green ✓
Green Brown ____
Brown Green ____
Brown ____

ODOR--- SLIGHT

Common Bacterium-Per Drop ____
Activated Sludge ____
Glass Tube Test ✓

Erosion SOME
Animal Burrows SOME
Weed Control SOME

Percolation Pond

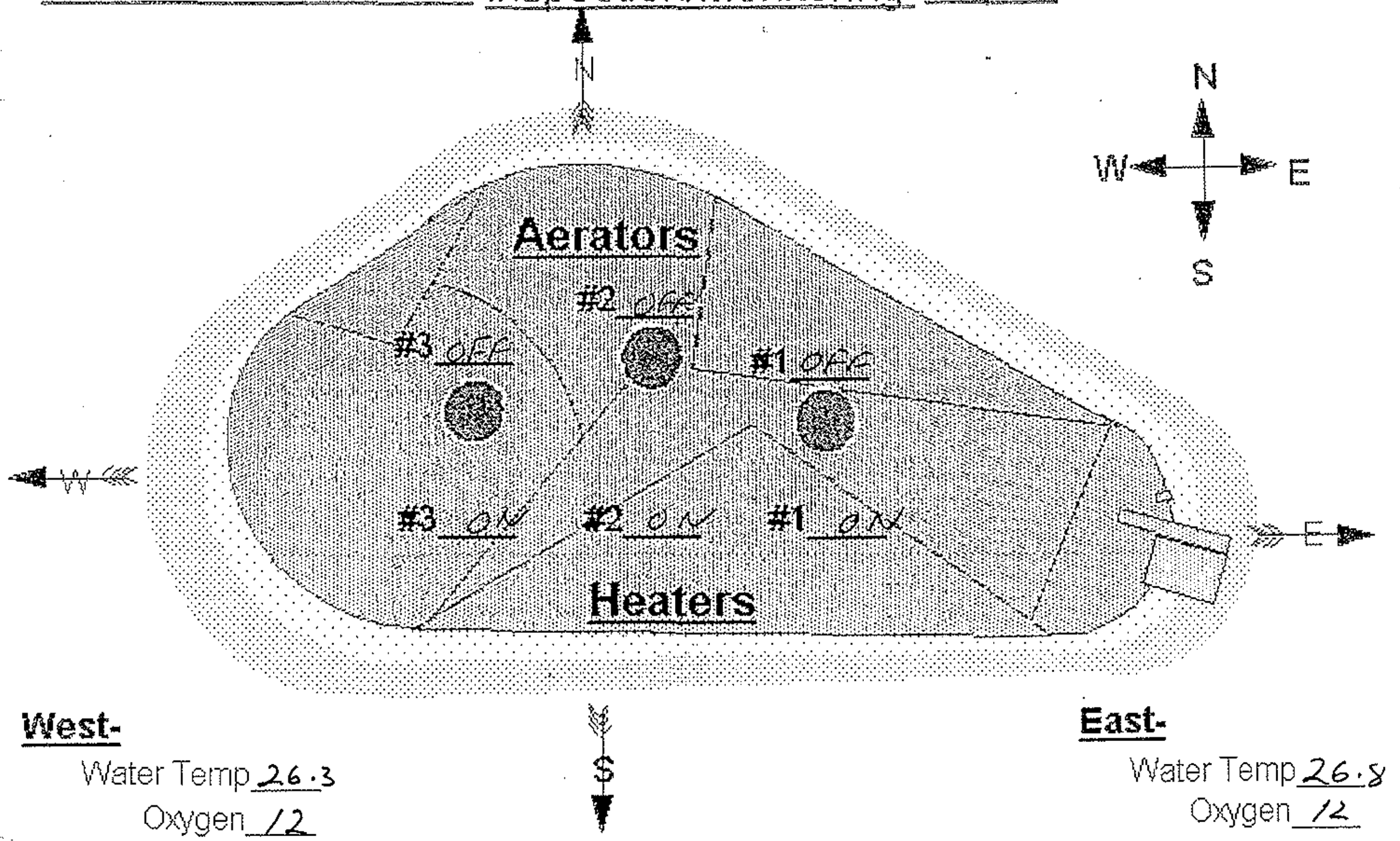
Water Level- DRY
Erosion SOME
Animal Burrows SOME
Weed Control SOME

[signature]
Inspected by — **Date** 9-8-09

[signature]
Supervisor Review — **Date** 9-8-09

Comments ____________

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 26.3
Oxygen 12
pH 10.38
Time 1300

Water Level +4½"
Water Meter-Stop 65075305
Water Meter-Start 65075305

Water Added 0
Air Temp. 37.8
Wind Direction W-E

COLOR---

Green ✓
Green Brown ____
Brown Green ____
Brown ____

ODOR--- SLIGHT

East-

Water Temp 26.8
Oxygen 12
pH 10.58
Time 1330

Common Bacterium-Per Drop ____
Activated Sludge ____
Glass Tube Test ✓

Erosion SOME
Animal Burrows SOME
Weed Control SOME

Percolation Pond

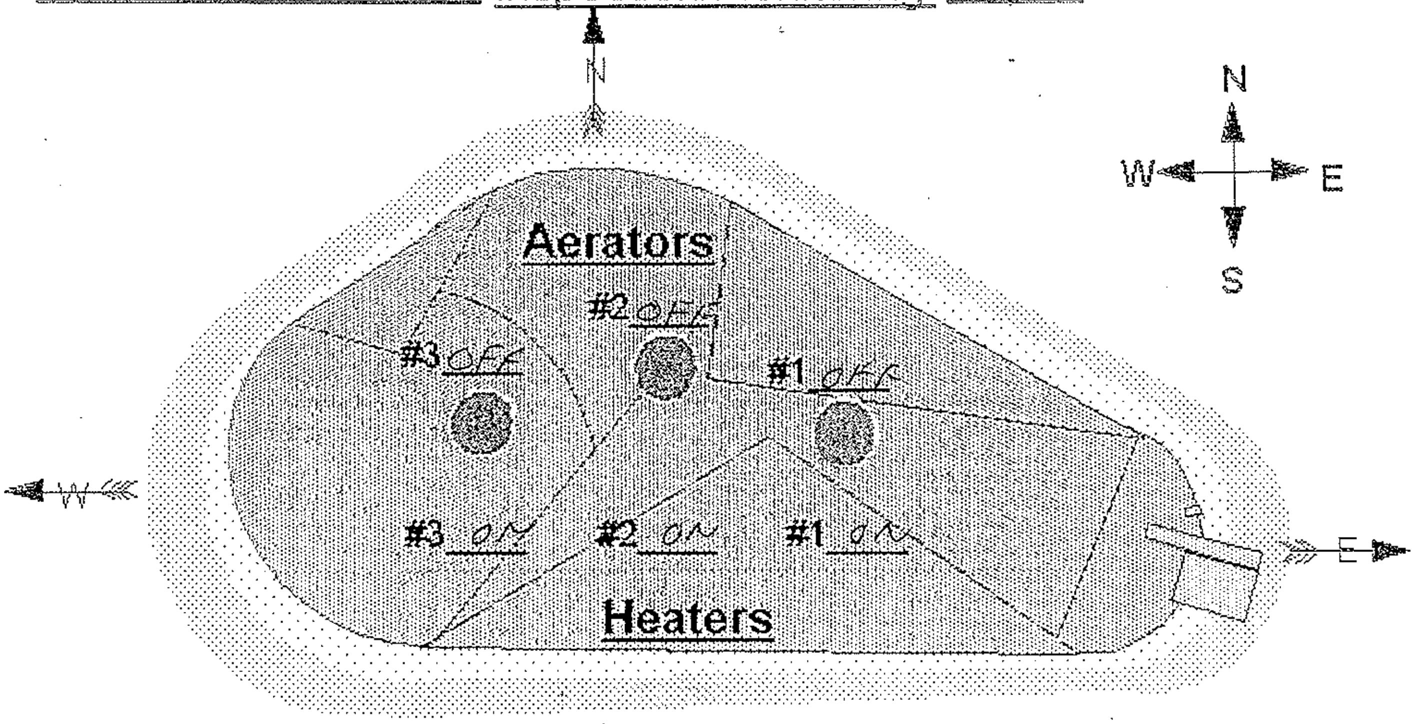
Water Level- DRY
Erosion SOME
Animal Burrows SOME
Weed Control SOME

Inspected by [signature] Date 9-3-09

Supervisor Review [signature] Date 9-3-09

Comments ____________________

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 29.9
Oxygen 12
pH 10.44
Time 1300

East-

Water Temp 25.9
Oxygen 12
pH 10.36
Time 1330

Water Level +4½"
Water Meter-Stop 65075305
Water Meter-Start 65075107

Water Added 198
Air Temp. 30.0
Wind Direction E-W

COLOR----

Green ✓
Green Brown____
Brown Green____
Brown____

ODOR---- SLIGHT

Common Bacterium-Per Drop____
Activated Sludge____
Glass Tube Test ✓

Erosion SOME
Animal Burrows SOME
Weed Control SOME

Percolation Pond

Water Level- DRY
Erosion SOME
Animal Burrows SOME
Weed Control SOME

[signature]
Inspected by

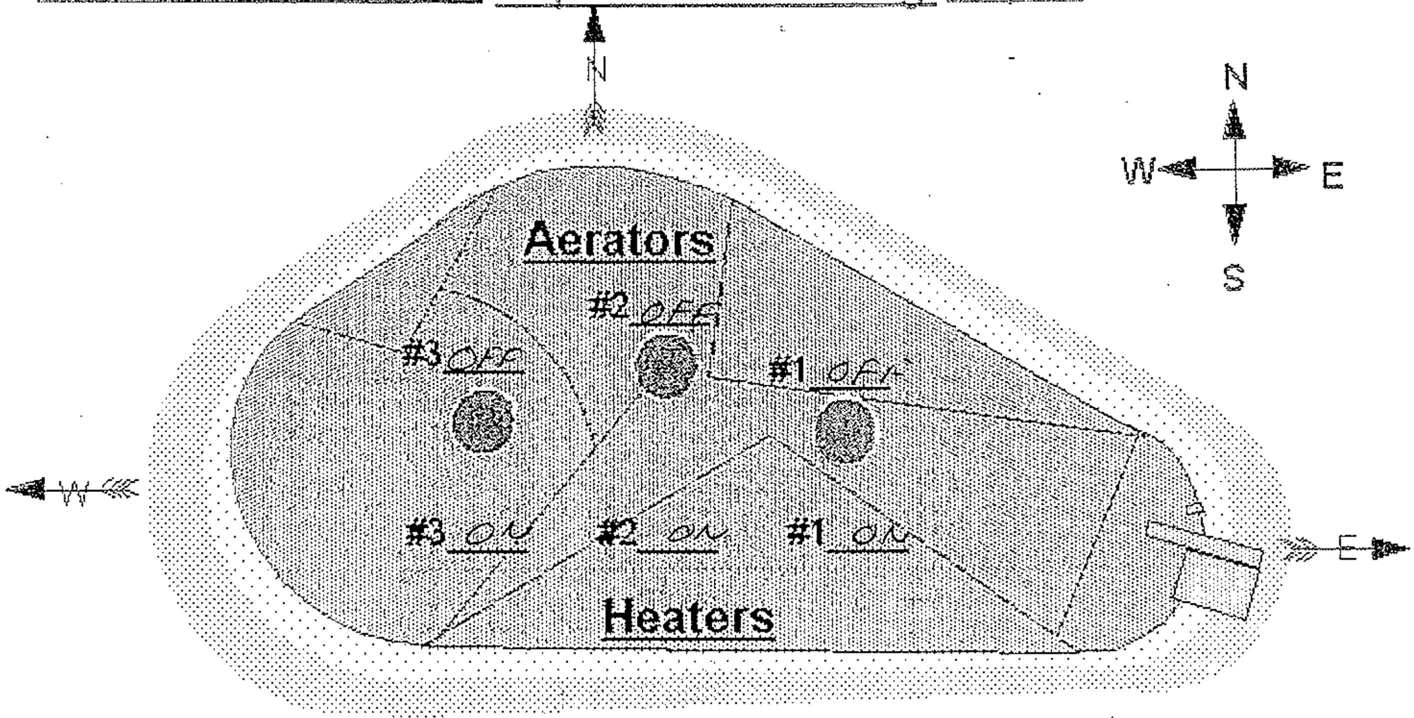
8-31-09
Date

[signature]
Supervisor Review

8-31-09
Date

Comments____________________

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 26.7
Oxygen 12
pH 10.37
Time 1300

East-

Water Temp 24.3
Oxygen 12
pH 10.39
Time 1330

Water Level +43/4"
Water Meter-Stop 65075107
Water Meter-Start 65024301

Water Added 50,806
Air Temp. 34.4
Wind Direction E-W

COLOR----

Green ✓
Green Brown ____
Brown Green ____
Brown ____

ODOR---- NONE

Common Bacterium-Per Drop ____
Activated Sludge ____
Glass Tube Test ✓

Erosion SOME
Animal Burrows SOME
Weed Control SOME

Percolation Pond

Water Level- DRY
Erosion SOME
Animal Burrows SOME
Weed Control SOME

[signature]
Inspected by

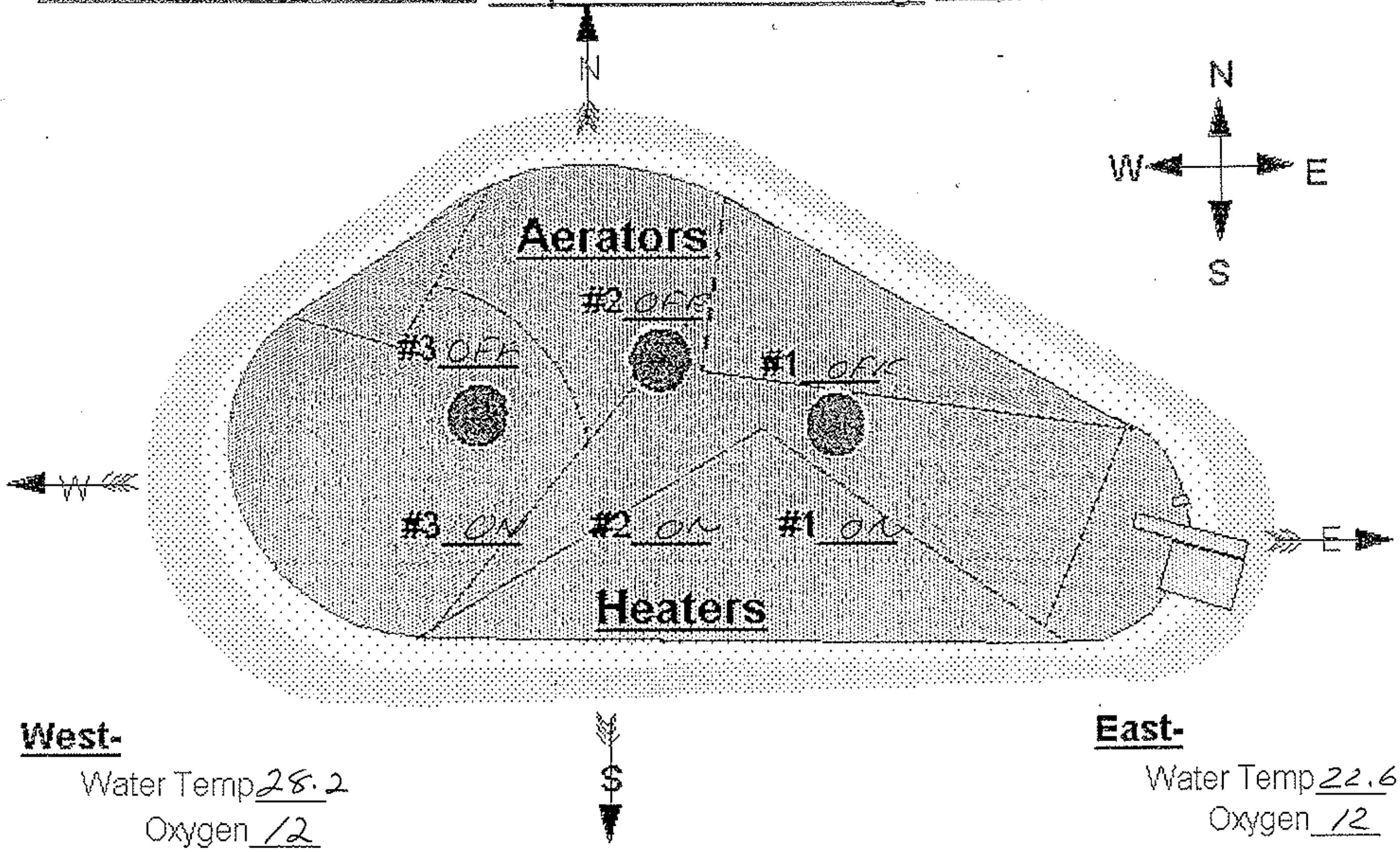
8-27-09
Date

[signature]
Supervisor Review

8-27-09
Date

Comments ____________________

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 28.2
Oxygen 12
pH 10.32
Time 1300

Water Level + 45"
Water Meter-Stop 65624301
Water Meter-Start 64954408

Water Added 69,893
Air Temp. 27.8
Wind Direction E-W

COLOR----

Green ✓
Green Brown ___
Brown Green ___
Brown ___

ODOR--- SLIGHT

East-

Water Temp 22.6
Oxygen 12
pH 10.22
Time 1330

Common Bacterium-Per Drop ___
Activated Sludge ___
Glass Tube Test ✓

Erosion SOME
Animal Burrows SOME
Weed Control SOME

Percolation Pond

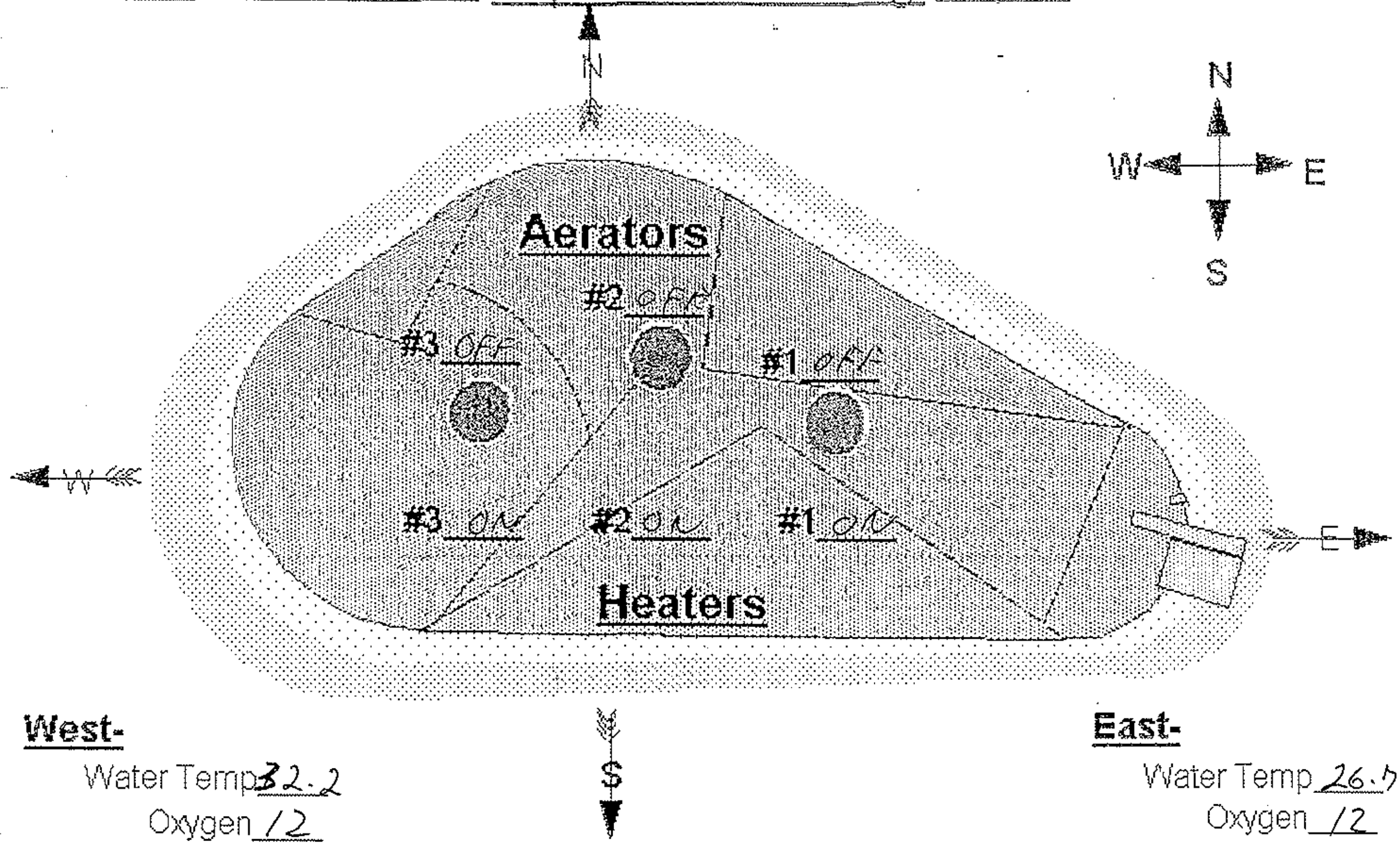
Water Level- DRY
Erosion SOME
Animal Burrows SOME
Weed Control SOME

[signature] 8-24-09
Inspected by **Date**

[signature] 8-24-09
Supervisor Review **Date**

Comments POND APPEARS TO BE IN GOOD CONDITION.

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 32.2
Oxygen 12
pH 9.90
Time 1300

East-

Water Temp 26.7
Oxygen 12
pH 9.78
Time 1330

Water Level +4.5"
Water Meter-Stop 64954408
Water Meter-Start 64898204

Water Added 56,204
Air Temp. 32.2
Wind Direction E-W

COLOR----

Green ✓
Green Brown ____
Brown Green ____
Brown ____

ODOR--- SLIGHT

Common Bacterium-Per Drop ____
Activated Sludge ____
Glass Tube Test ✓

Erosion SOME
Animal Burrows SOME
Weed Control SOME

Percolation Pond

Water Level- DRY
Erosion SOME
Animal Burrows SOME
Weed Control SOME

[signature]
Inspected by

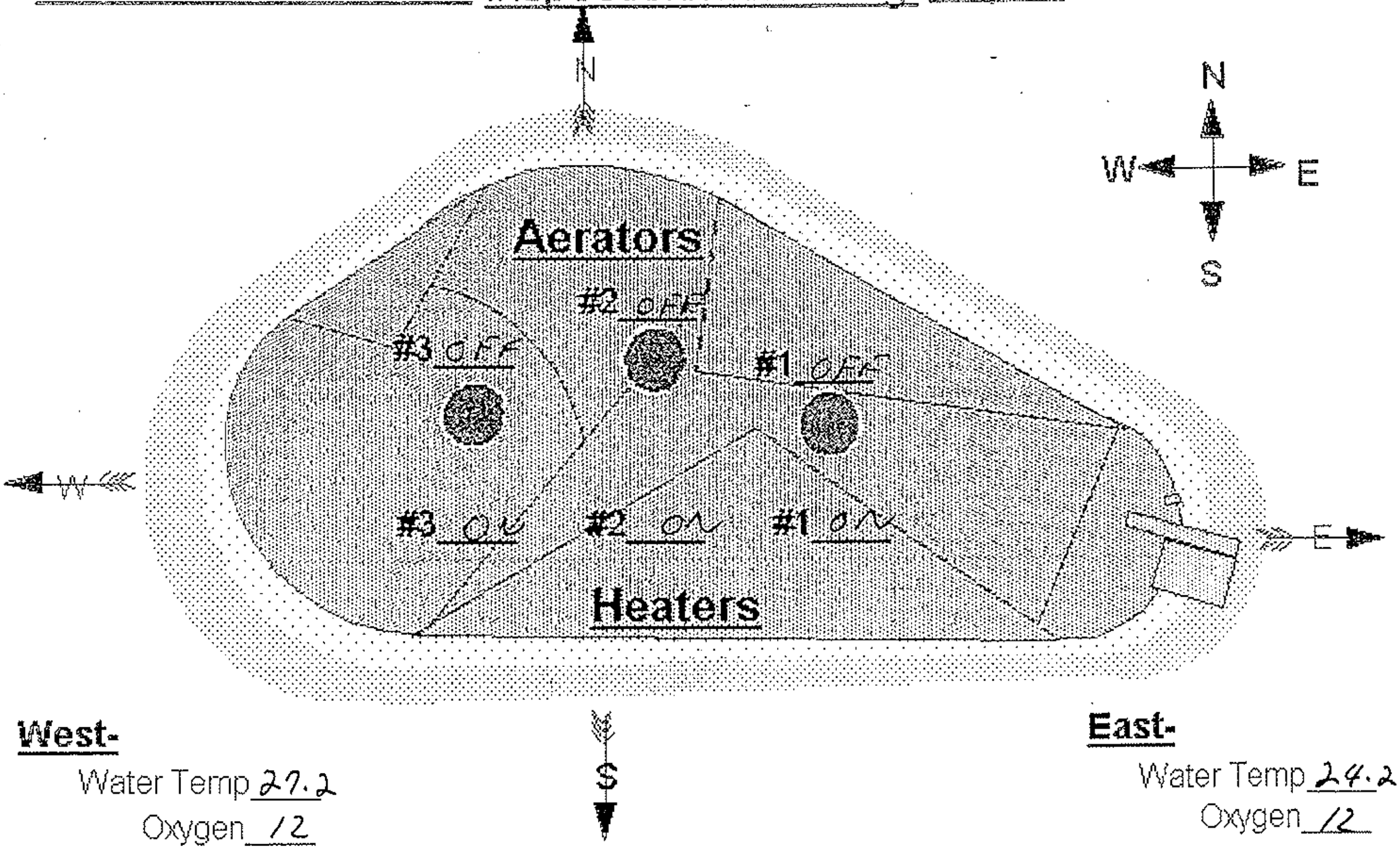
8-20-09
Date

[signature]
Supervisor Review

8-20-09
Date

Comments ____

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 27.2
Oxygen 12
pH 9.74
Time 1300

East-

Water Temp 24.2
Oxygen 12
pH 9.68
Time 1330

Water Level + 45"
Water Meter-Stop 64898204
Water Meter-Start 64345504

Water Added 552,700
Air Temp. 33.3
Wind Direction E-W

COLOR----

Green ✓
Green Brown____
Brown Green____
Brown____

ODOR---- SLIGHT

Common Bacterium-Per Drop____
Activated Sludge____
Glass Tube Test ✓

Erosion SOME
Animal Burrows SOME
Weed Control SOME

Percolation Pond

Water Level- DRY
Erosion SOME
Animal Burrows SOME
Weed Control SOME

Dean Ford
Inspected by

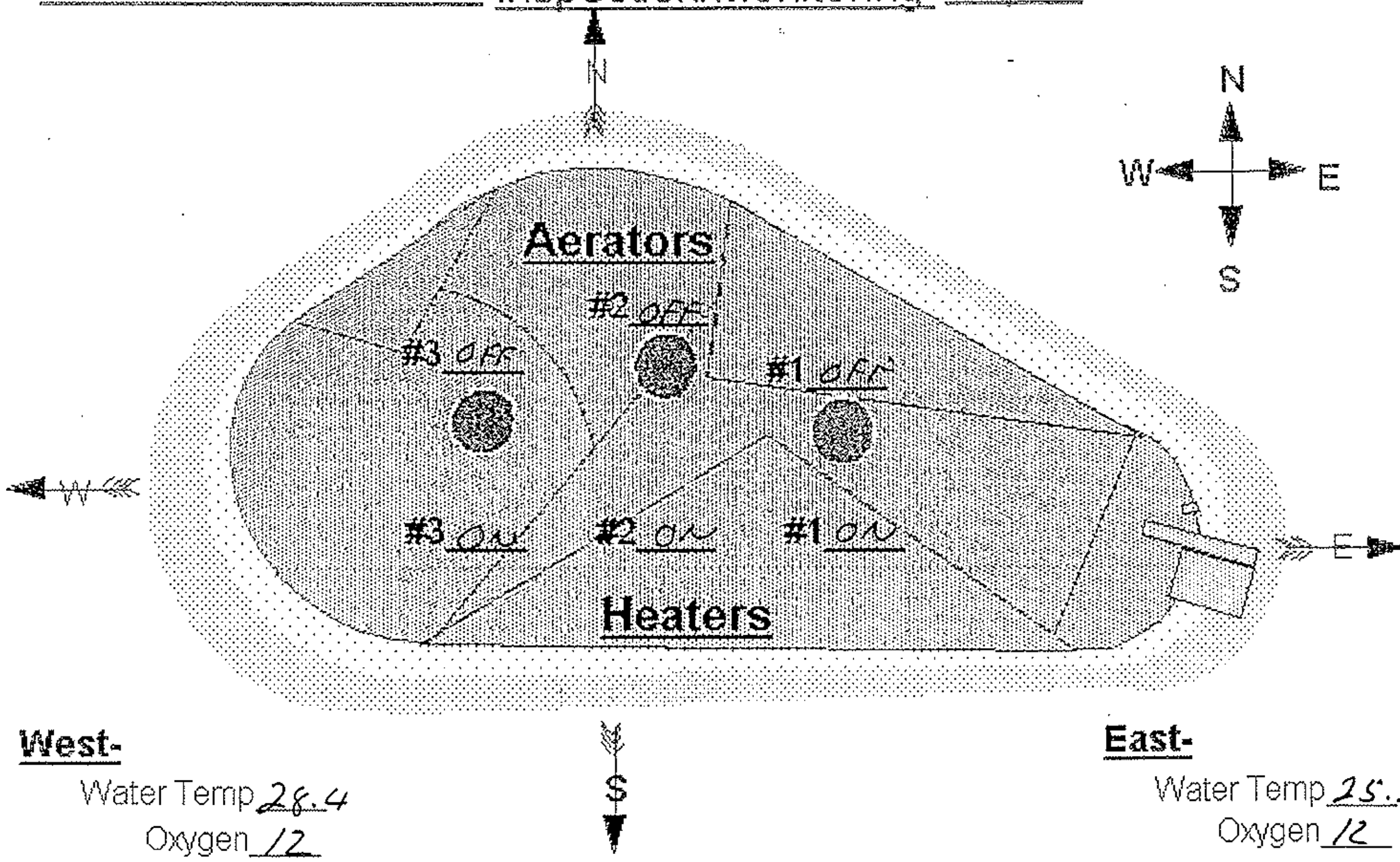
8-17-09
Date

Dean Ford
Supervisor Review

8-17-09
Date

Comments

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 28.4
Oxygen 12
pH 10.01
Time 1300

Water Level +3"
Water Meter-Stop 64345504
Water Meter-Start 63994004

Water Added 351,500
Air Temp. 37.2
Wind Direction E-W

COLOR----

Green ✓
Green Brown____
Brown Green____
Brown____

ODOR---- NONE

East-

Water Temp 25.3
Oxygen 12
pH 10.08
Time 1330

Common Bacterium-Per Drop____
Activated Sludge____
Glass Tube Test ✓

Erosion SOME
Animal Burrows SOME
Weed Control SOME

Percolation Pond

Water Level- DRY
Erosion SOME
Animal Burrows SOME
Weed Control SOME

[signature]
Inspected by

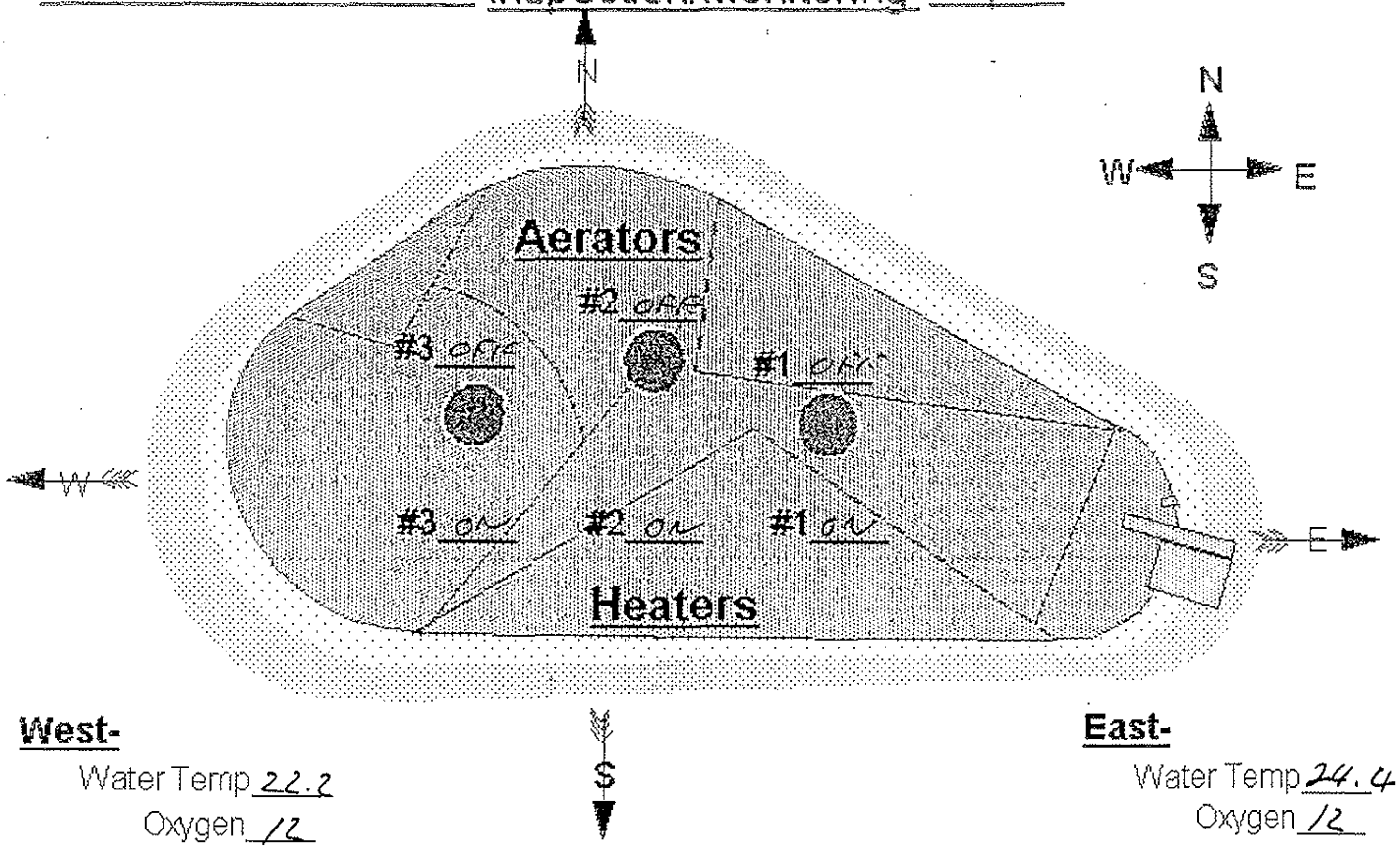
8-10-09
Date

[signature]
Supervisor Review

8-10-09
Date

Comments

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 22.2
Oxygen 12
pH 9.98
Time 1300

East-

Water Temp 24.4
Oxygen 12
pH 10.01
Time 1330

Water Level +1"
Water Meter-Stop 63994004
Water Meter-Start 63733309
Water Added 260,695
Air Temp. 24.4
Wind Direction W-E

COLOR---

Green ✓
Green Brown____
Brown Green____
Brown____

ODOR---- NONE

Common Bacterium-Per Drop____
Activated Sludge____
Glass Tube Test ✓

Erosion SOME
Animal Burrows SOME
Weed Control SOME

Percolation Pond

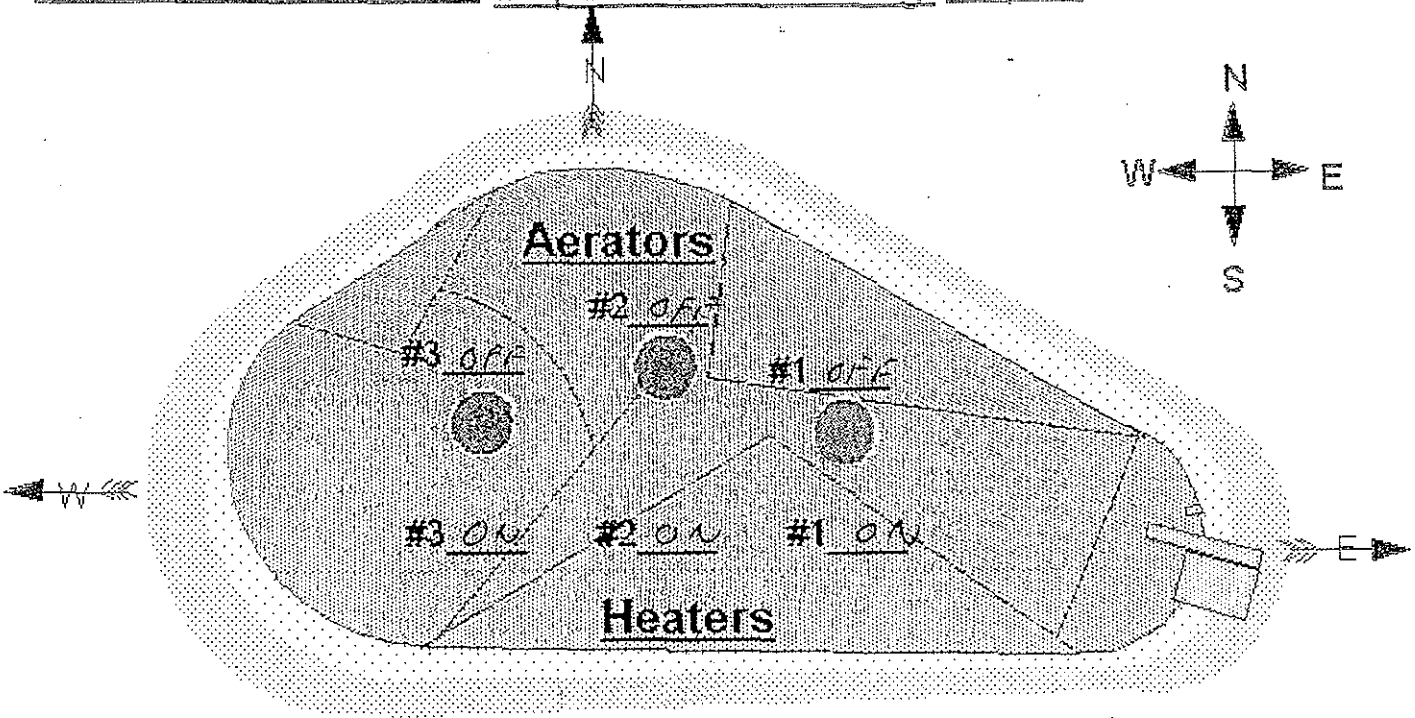
Water Level- DRY
Erosion SOME
Animal Burrows SOME
Weed Control SOME

[signature]
Inspected by
8-6-09
Date

[signature]
Superviser Review
8-6-09
Date

Comments____________________

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 22.7

Oxygen 12

pH 9.99

Time 1300

East-

Water Temp 24.6

Oxygen 12

pH 10.03

Time 1330

Water Level +1/4"

Water Meter-Stop 63733309

Water Meter-Start 63396590

Water Added 336,719

Air Temp. 30.06

Wind Direction W-E

COLOR----

Green ✓

Green Brown____

Brown Green____

Brown____

ODOR---- NONE

Common Bacterium-Per Drop____

Activated Sludge____

Glass Tube Test ✓

Erosion some

Animal Burrows some

Weed Control some

Percolation Pond

Water Level- DRY

Erosion some

Animal Burrows some

Weed Control some

[signature]
Inspected by

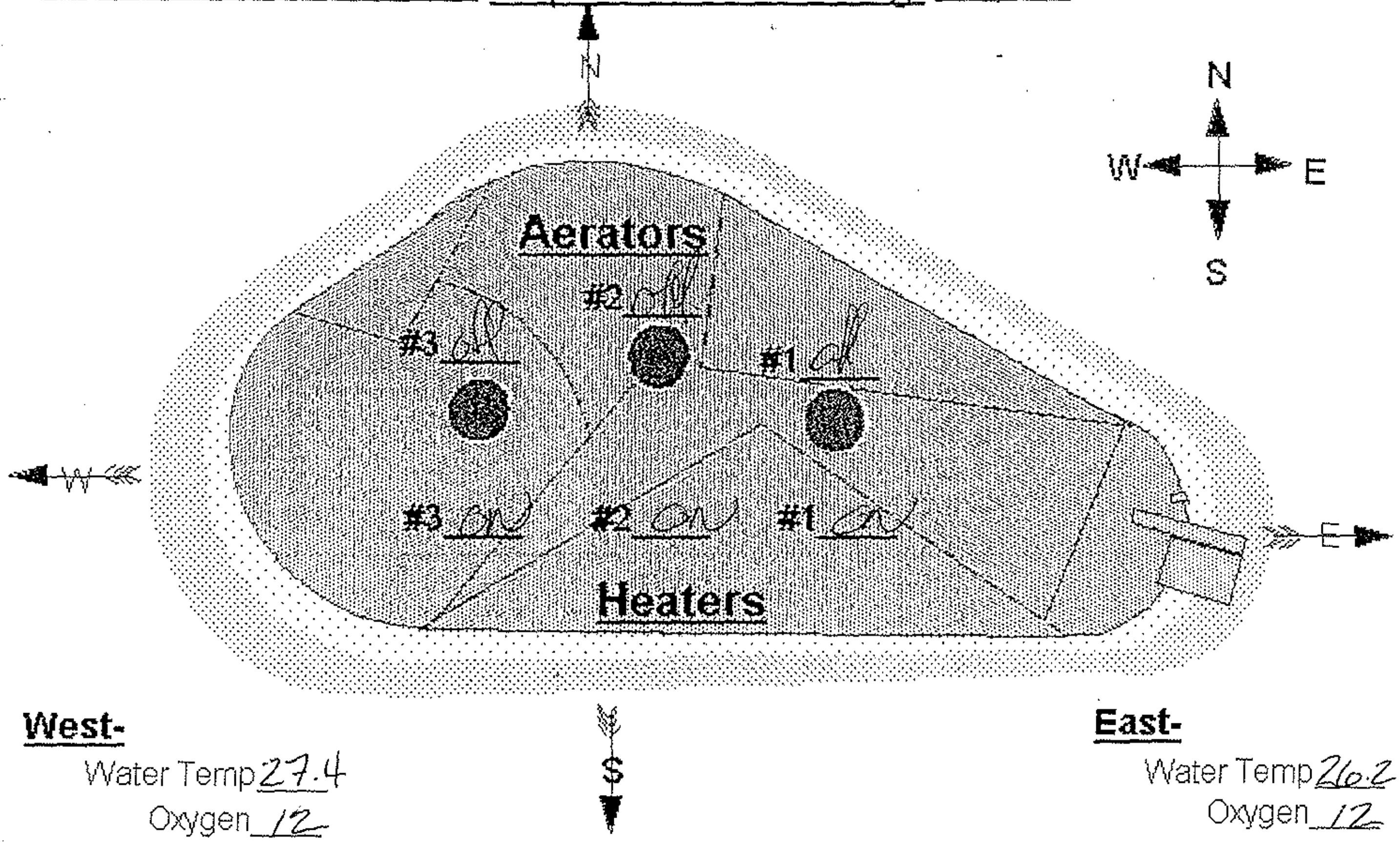
8-3-09
Date

[signature]
Supervisor Review

8-3-09
Date

Comments

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 27.4
Oxygen 12
pH 10.27
Time 1330

Water Level -1"
Water Meter-Stop 63396590
Water Meter-Start 63163001

Water Added 80,289
Air Temp 31.1
Wind Direction W-E

COLOR---

Green ✓
Green Brown ____
Brown Green ____
Brown ____

ODOR--- None

East-

Water Temp 26.2
Oxygen 12
pH 10.08
Time 1330

Common Bacterium-Per Drop ____
Activated Sludge ____
Glass Tube Test ✓

Erosion Some
Animal Burrows Some
Weed Control Some

Percolation Pond

Water Level Dry
Erosion Some
Animal Burrows Some
Weed Control Some

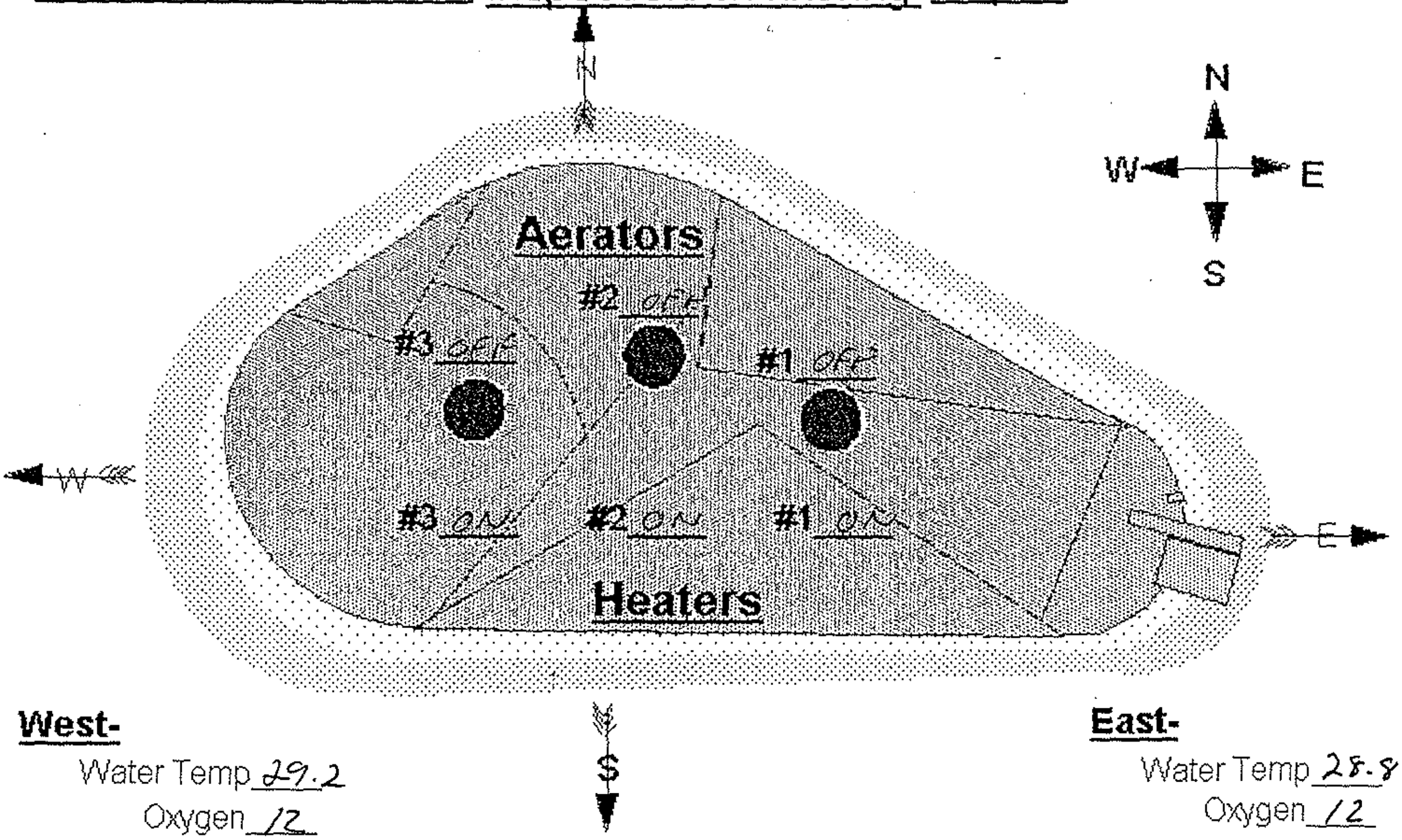
Dave Amaro
Inspected by

7-30-09
Date

Supervisor Review ____ **Date** ____

Comments ____

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 29.2
Oxygen 12
pH 10.10
Time 1300

East-

Water Temp 28.8
Oxygen 12
pH 10.04
Time 1330

Water Level -1"
Water Meter-Stop 63163001
Water Meter-Start 62823802
Water Added 339199
Air Temp. 37.8
Wind Direction N-S

COLOR---

Green ✓
Green Brown____
Brown Green____
Brown____

ODOR--- NONE

Common Bacterium-Per Drop____
Activated Sludge____
Glass Tube Test ✓

Erosion SOME
Animal Burrows SOME
Weed Control SOME

Percolation Pond

Water Level- DRY
Erosion SOME
Animal Burrows SOME
Weed Control SOME

[signature]
Inspected by

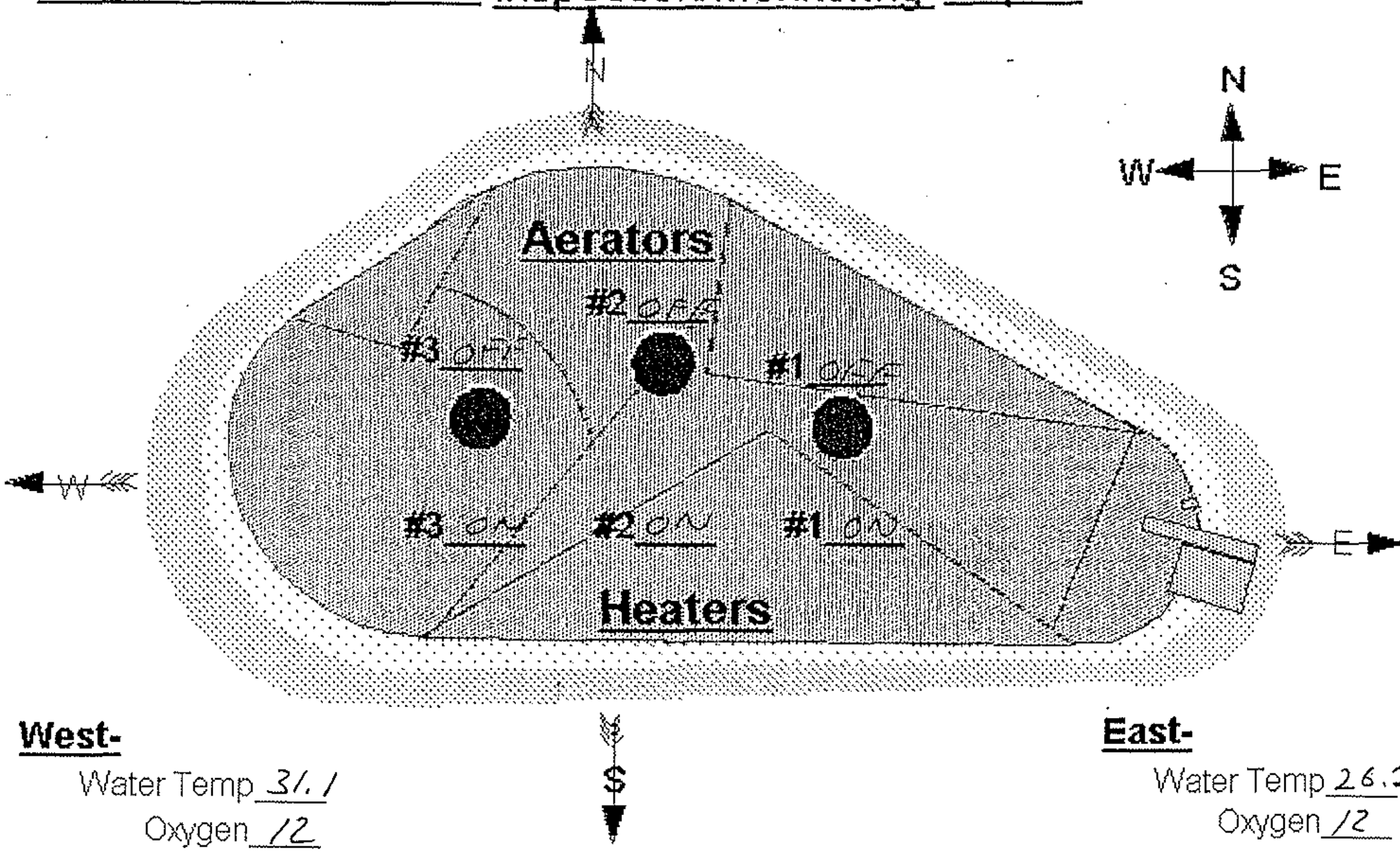
7-27-09
Date

[signature]
Supervisor Review

7-27-09
Date

Comments

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 31.1
Oxygen 12
pH 10.09
Time 1300

Water Level -1"
Water Meter-Stop 62823802
Water Meter-Start 62568805

Water Added 254,997
Air Temp. 31.7
Wind Direction E-W

COLOR----

Green ✓
Green Brown ____
Brown Green ____
Brown ____

ODOR---- SLIGHT

East-

Water Temp 26.2
Oxygen 12
pH 9.97
Time 1330

Common Bacterium-Per Drop ____
Activated Sludge ____
Glass Tube Test ✓

Erosion some
Animal Burrows some
Weed Control some

Percolation Pond

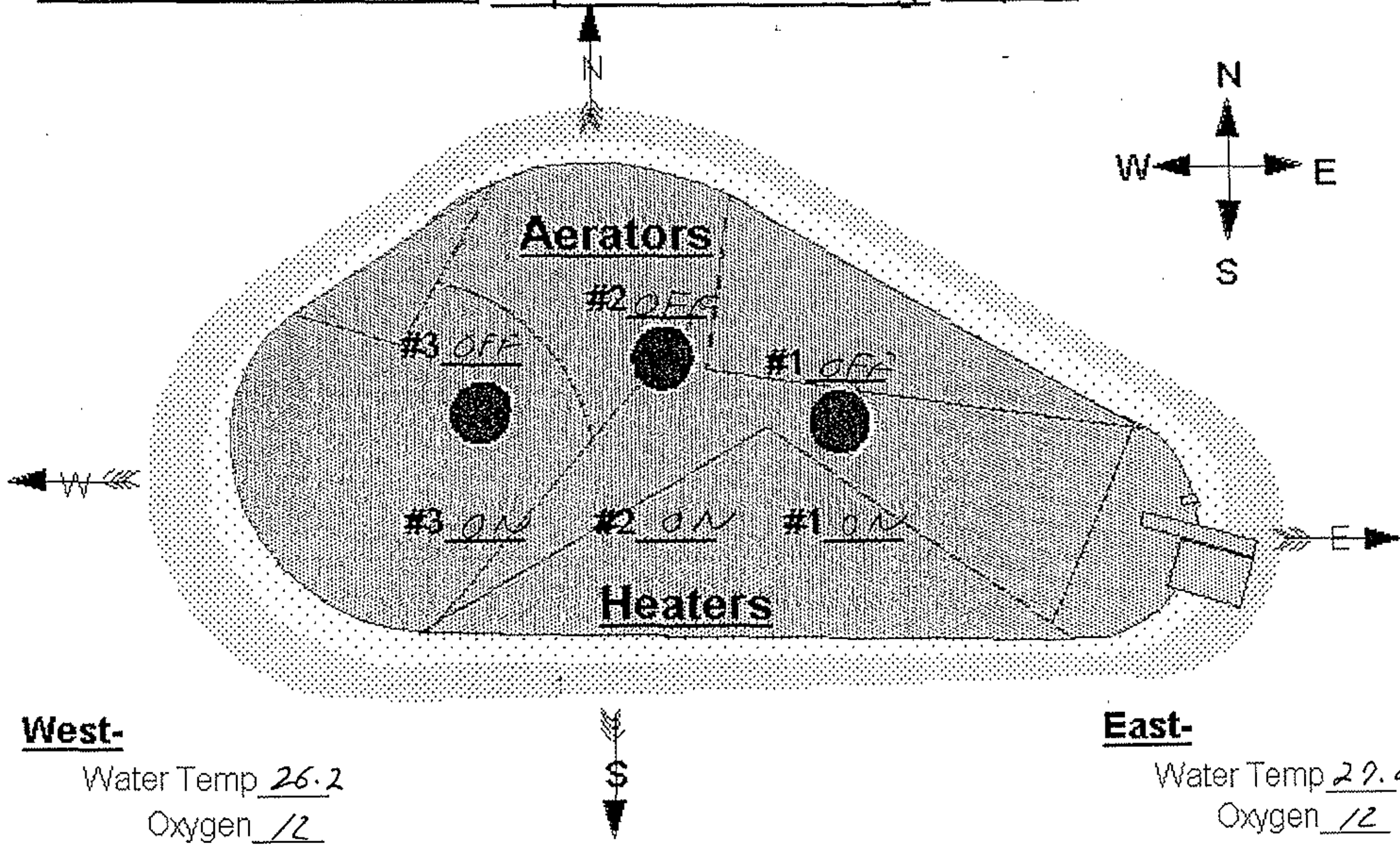
Water Level- DRY
Erosion some
Animal Burrows some
Weed Control some

[signature]
Inspected by
7-23-09
Date

[signature]
Supervisor Review
7-23-09
Date

Comments ____

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 26.2
Oxygen 12
pH 9.87
Time 1300

Water Level -1½"
Water Meter-Stop 62568805
Water Meter-Start 62478702

Water Added 90,103
Air Temp. 37.2
Wind Direction W-E

COLOR----

Green ✓
Green Brown ____
Brown Green ____
Brown ____

ODOR--- NONE

East-

Water Temp 27.4
Oxygen 12
pH 9.90
Time 1330

Common Bacterium-Per Drop ____
Activated Sludge ____
Glass Tube Test ✓

Erosion SOME
Animal Burrows SOME
Weed Control SOME

Percolation Pond

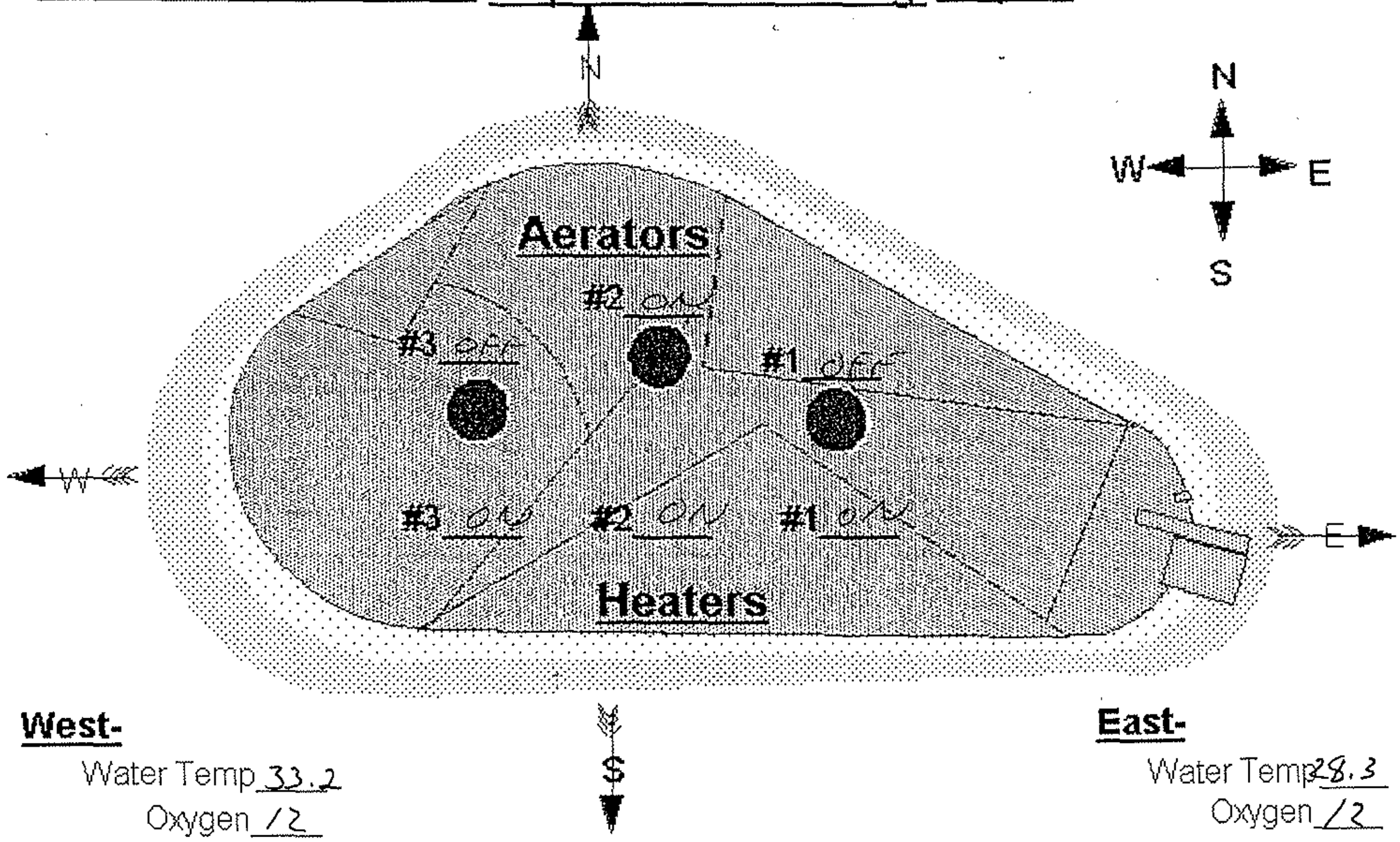
Water Level- DRY
Erosion SOME
Animal Burrows SOME
Weed Control SOME

[signature]
Inspected by   7-20-09 **Date**

[signature]
Supervisor Review   7-20-09 **Date**

Comments ____

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 33.2
Oxygen 12
pH 10.10
Time 1400

Water Level -½"
Water Meter-Stop 62478702
Water Meter-Start 62408607

Water Added 70,095
Air Temp. 37.8
Wind Direction E-W

COLOR----

Green ✓
Green Brown ____
Brown Green ____
Brown ____

ODOR--- NONE

East-

Water Temp 28.3
Oxygen 12
pH 9.86
Time 1430

Common Bacterium-Per Drop ____
Activated Sludge ____
Glass Tube Test ✓

Erosion some
Animal Burrows some
Weed Control some

Percolation Pond

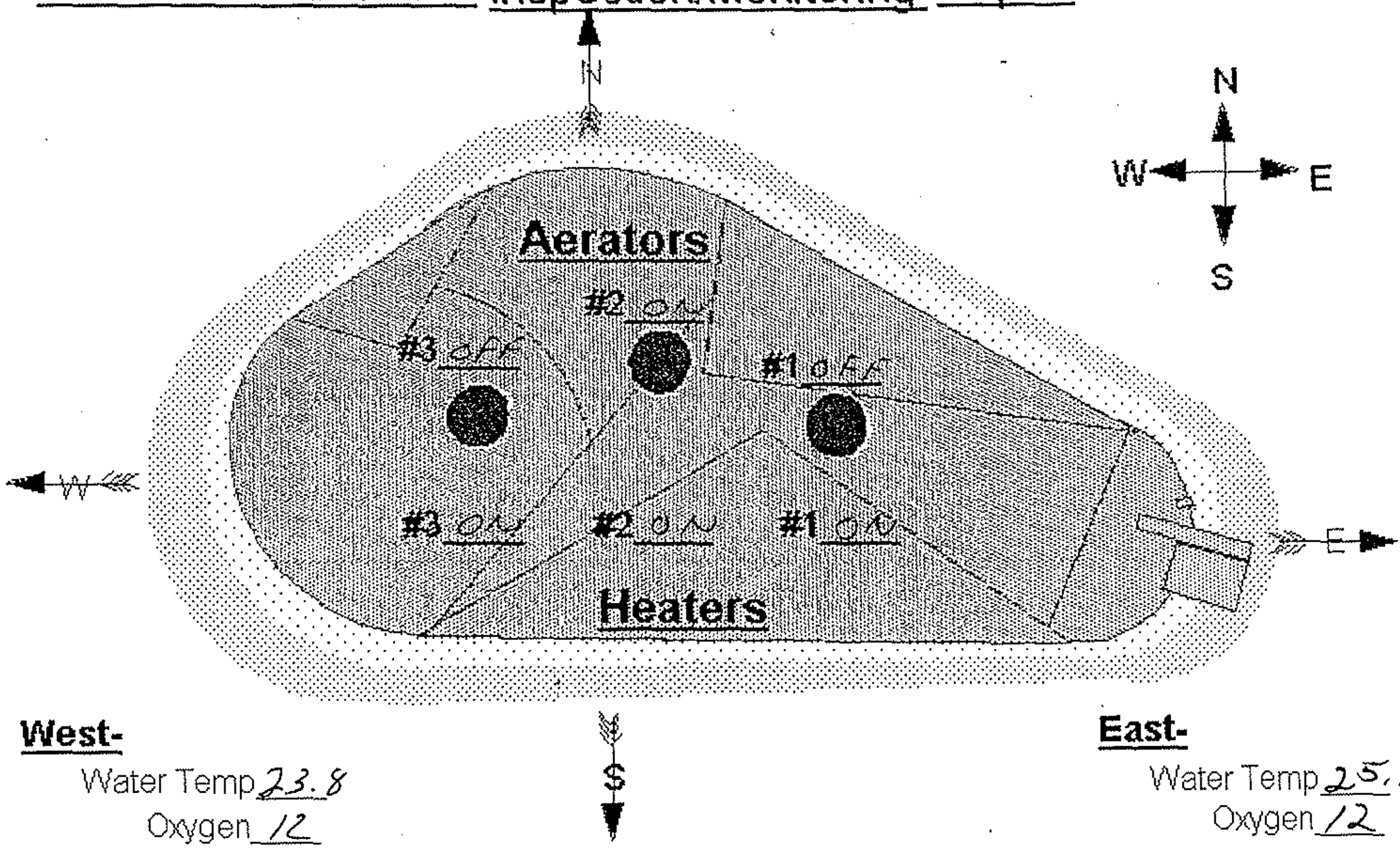
Water Level- DRY
Erosion some
Animal Burrows some
Weed Control some

[signature] **Inspected by** 7-16-09 **Date**

[signature] **Supervisor Review** 7-16-09 **Date**

Comments ____

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 23.8
Oxygen 12
pH 9.84
Time 1300

East-

Water Temp 25.2
Oxygen 12
pH 9.87
Time 1330

Water Level 0
Water Meter-Stop 62408607
Water Meter-Start 62318606
Water Added 90,001
Air Temp. 32.2
Wind Direction N-S

COLOR---

Green ✓
Green Brown____
Brown Green____
Brown____

ODOR--- NONE

Common Bacterium-Per Drop____
Activated Sludge____
Glass Tube Test ✓
Erosion SOME
Animal Burrows SOME
Weed Control SOME

Percolation Pond

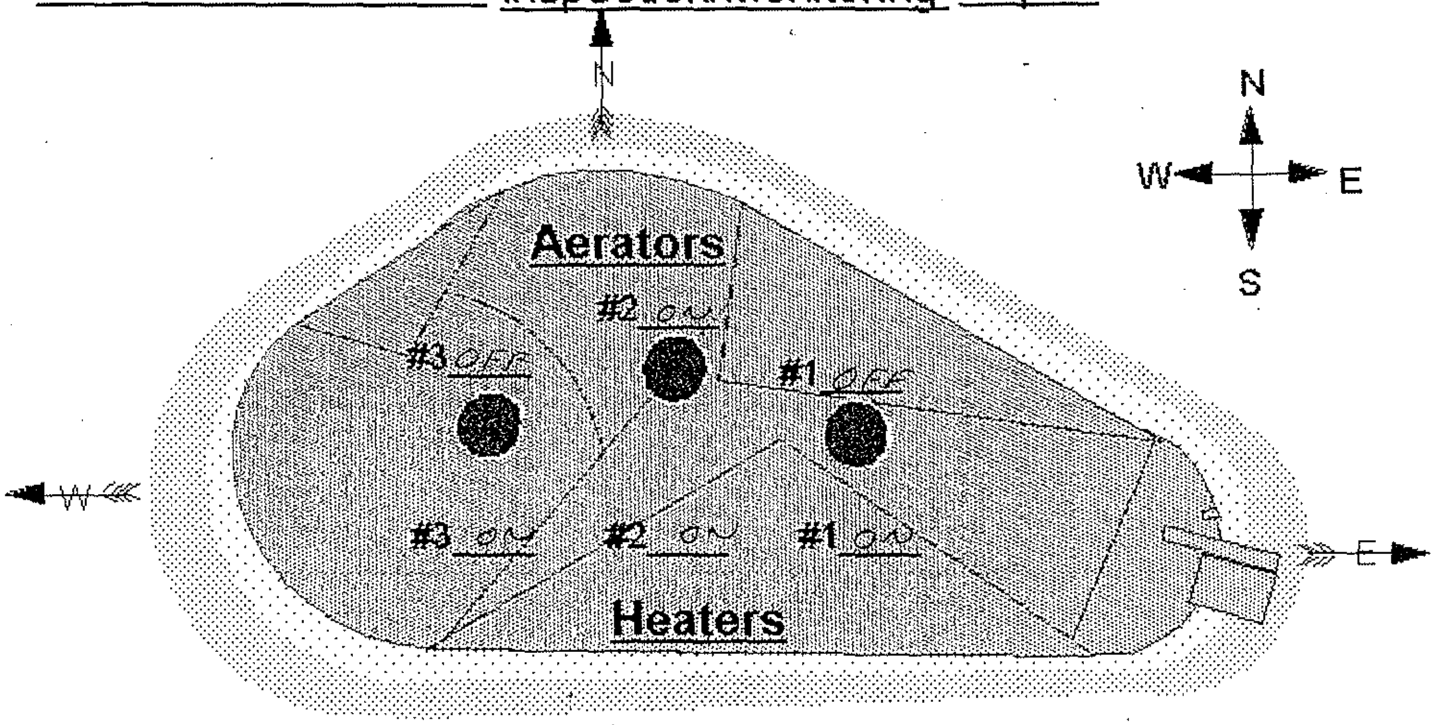
Water Level-DRY
Erosion SOME
Animal Burrows SOME
Weed Control SOME

Inspected by [signature] **Date** 7-13-09

Supervisor Review [signature] **Date** 7-13-09

Comments

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 24.3
Oxygen 12
pH 9.81
Time 1300

Water Level + ½"
Water Meter-Stop 62318606
Water Meter-Start 62247422

Water Added 71,184
Air Temp. 28.9
Wind Direction W-E

COLOR---

Green ✓
Green Brown ____
Brown Green ____
Brown ____

ODOR--- NONE

East-

Water Temp 26.6
Oxygen 12
pH 9.84
Time 1330

Common Bacterium-Per Drop ____
Activated Sludge ____
Glass Tube Test ✓

Erosion SOME
Animal Burrows SOME
Weed Control SOME

Percolation Pond

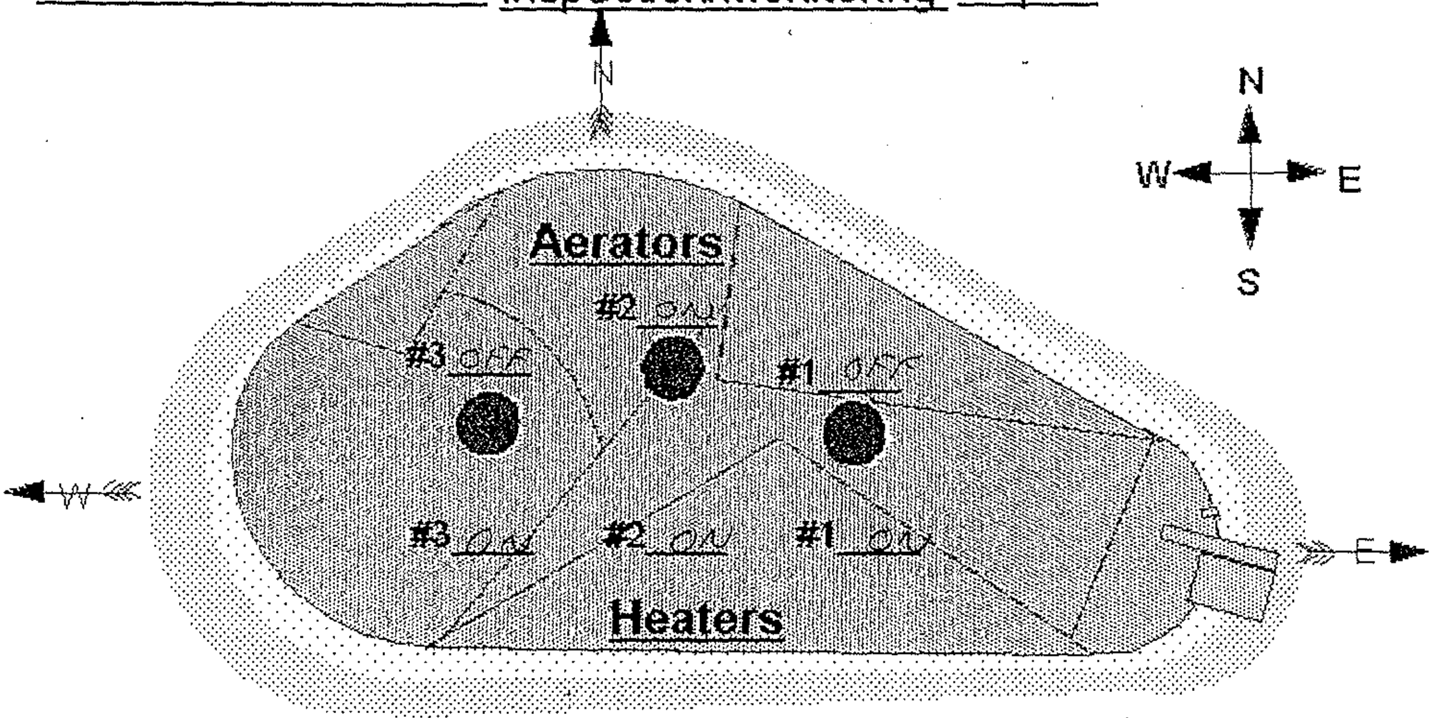
Water Level- DRY
Erosion SOME
Animal Burrows SOME
Weed Control SOME

Inspected by [signature] **Date** 7-9-09

Supervisor Review [signature] **Date** 7-9-09

Comments ____

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 22.3

Oxygen 12

pH 9.93

Time 1300

East-

Water Temp 24.2

Oxygen 12

pH 9.87

Time 1330

Water Level +1"

Water Meter-Stop 62247422

Water Meter-Start 61715330

Water Added 532,092

Air Temp. 27.8

Wind Direction W-E

COLOR---

Green ✓

Green Brown____

Brown Green____

Brown____

ODOR--- NONE

Common Bacterium-Per Drop____

Activated Sludge____

Glass Tube Test ✓

Erosion some

Animal Burrows some

Weed Control some

Percolation Pond

Water Level- DRY

Erosion some

Animal Burrows some

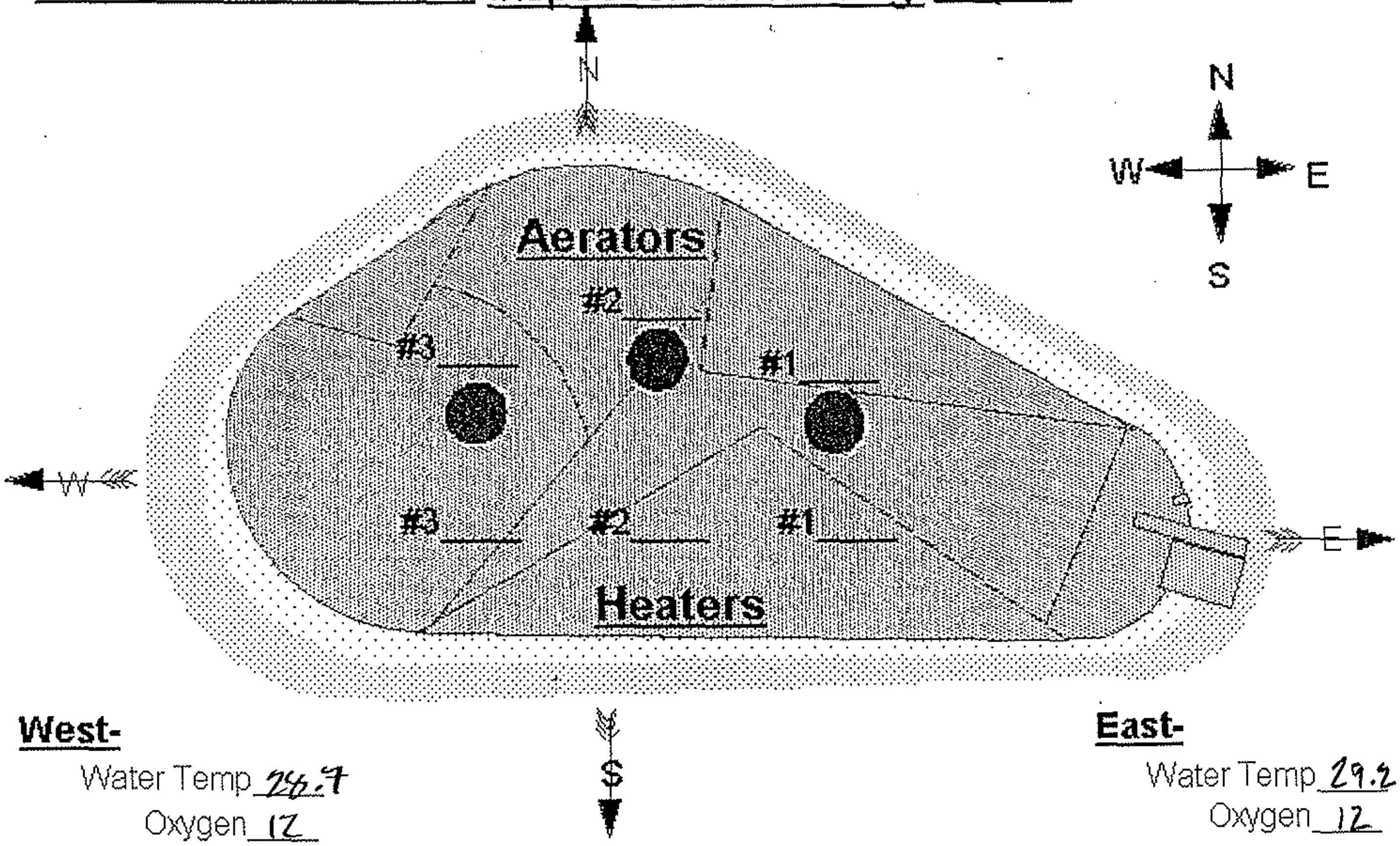
Weed Control some

Inspected by [signature] Date 7-6-09

Supervisor Review [signature] Date 7-6-09

Comments____

Site 300 Sewer Pond- Inspection/Monitoring Report



West-

Water Temp 28.7
Oxygen 12
pH 10.08
Time 100

Water Level -1/2
Water Meter-Stop 61715330
Water Meter-Start 61354506
32 days Water Added 360,824
Air Temp. 37.8
Wind Direction E-W

COLOR---

Green ✓
Green Brown ____
Brown Green ____
Brown ____

ODOR--- -

East-

Water Temp 29.2
Oxygen 12
pH 10.24
Time 100

Common Bacterium-Per Drop ____
Activated Sludge ____
Glass Tube Test ✓

Erosion Some
Animal Burrows Some
Weed Control Some

Percolation Pond

Water Level- Dry
Erosion Some
Animal Burrows Some
Weed Control Some

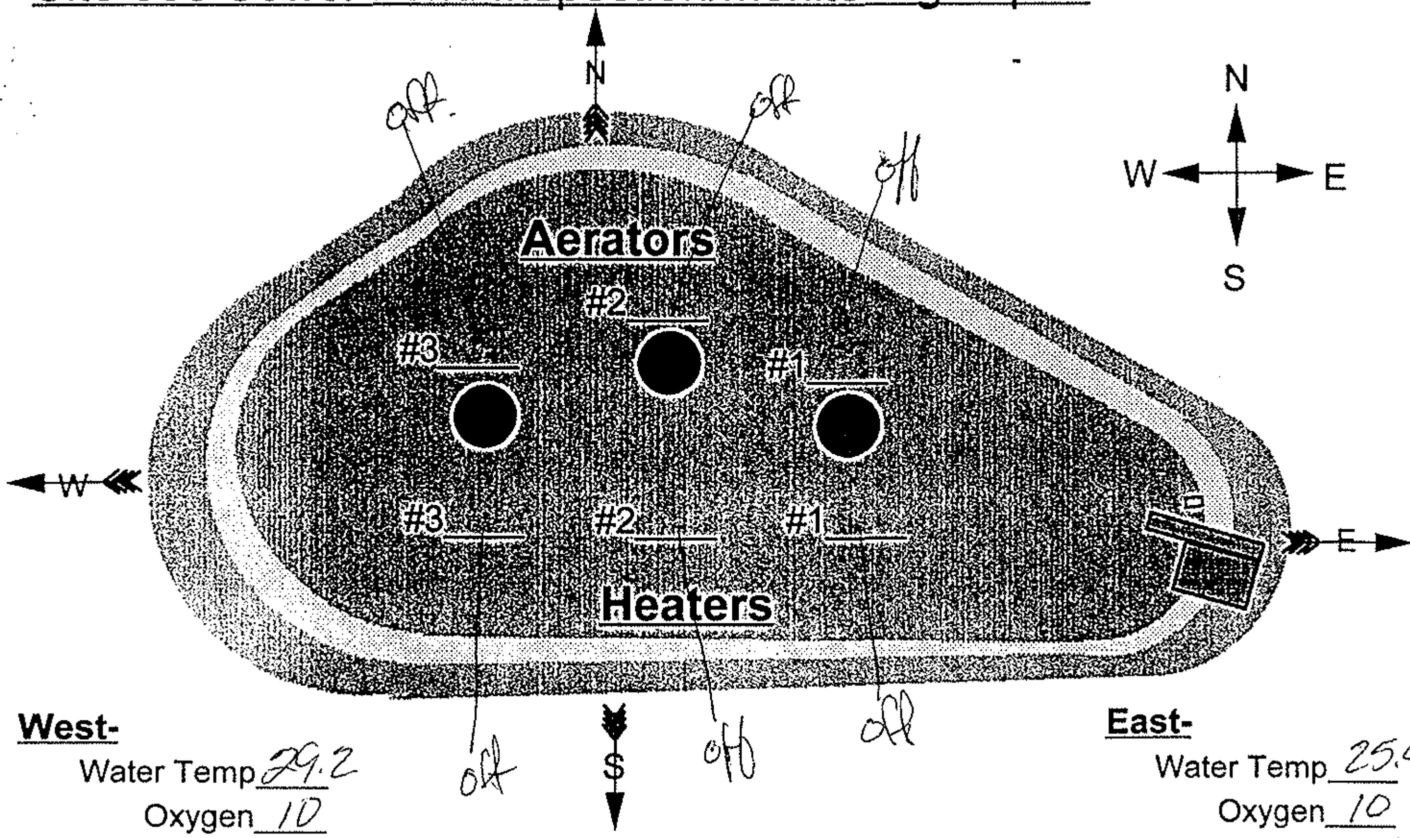
Dave Annero
Inspected by

7-2-09
Date

Supervisor Review ____ **Date** ____

Comments ____

Site 300 Sewer Pond-Inspection/Monitoring Report



West-

Water Temp 29.2

Oxygen 10

pH 10.64

Time 1400

East-

Water Temp 25.4

Oxygen 10

pH 10.68

Time 1400

Water Level -5 1/4

Water Meter-Stop 5234350

Water Meter-Start 5205546

Water Added 28.804

Air Temp. 37.9

Wind Direction E to W

COLOR----

Green ✓

Green Brown ____

Brown Green ____

Brown ____

ODOR----/ None

Common Bacterium-Per Drop ____

Activated Sludge ____

Glass Tube Test ✓

Erosion Some

Animal Burrows Some

Weed Control Some

Percolation Pond

Water Level- Not flowing

Erosion Some.

Animal Burrows None

Weed Control Some.

Dave Amaro
Inspected by

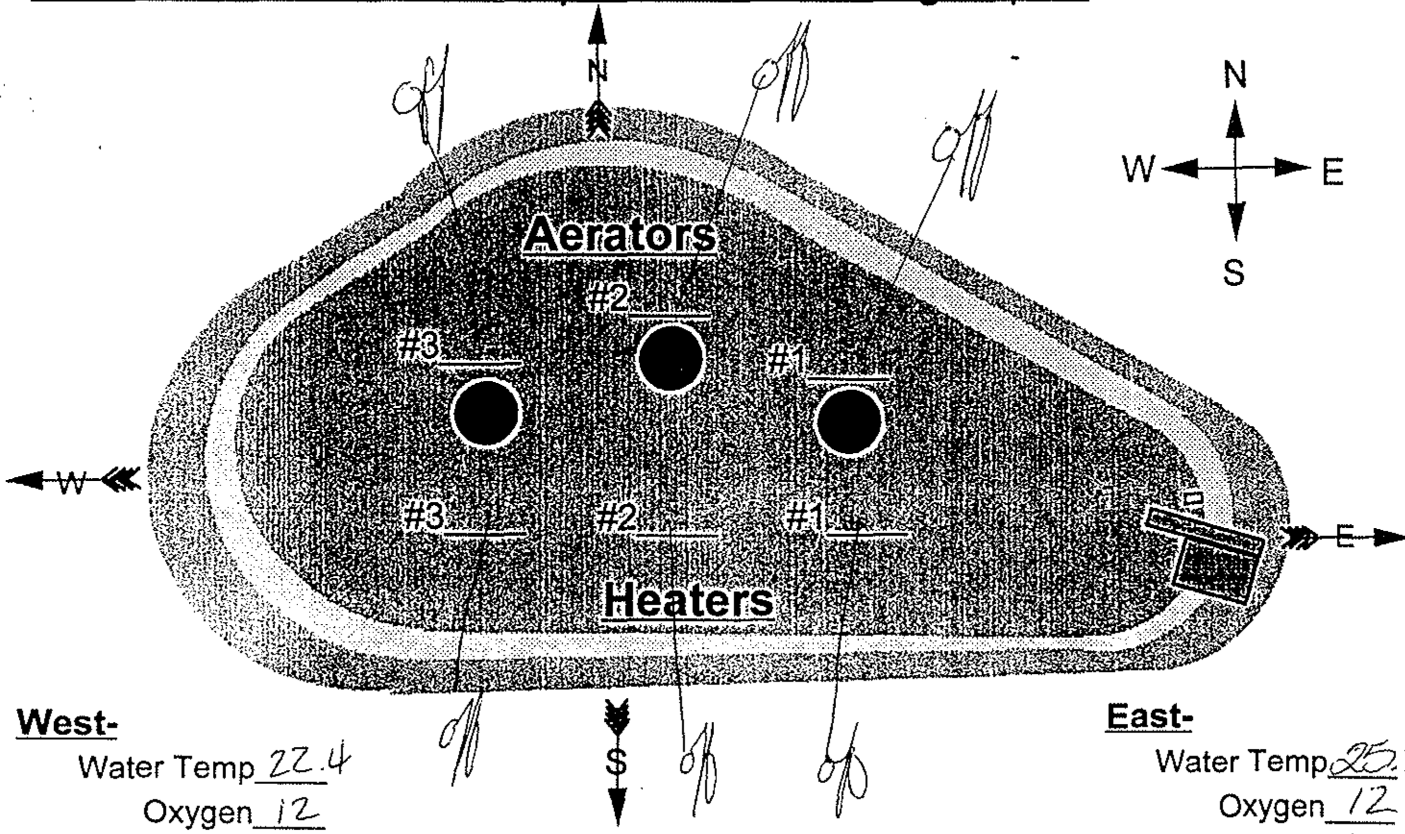
7-7-08.
Date

Duane [illegible]
Supervisor Review

7-14-08
Date

Comments ____________________

Site 300 Sewer Pond-Inspection/Monitoring Report



West-

Water Temp 22.4
Oxygen 12
pH 10.07
Time 1400

East-

Water Temp 25.2
Oxygen 12
pH 10.12
Time 1400

Water Level -5'4
Water Meter-Stop 5205546
Water Meter-Start 5195991

Water Added 9555
Air Temp. 34.4
Wind Direction E to W

COLOR----

Green ✓
Green Brown____
Brown Green____
Brown____

ODOR----/ None

Common Bacterium-Per Drop____
Activated Sludge____
Glass Tube Test ✓

Erosion Some
Animal Burrows Some
Weed Control Some

Percolation Pond

Water Level- Not Flowing
Erosion Some
Animal Burrows yes
Weed Control Some

Dan Amaro
Inspected by

7-2-08
Date

[signature]
Supervisor Review

7-14-08
Date

Comments________________

All Ground Water Sampling Data

WEMD

Target Sample Date: **10-Aug-2009** Month: Norm Qtr: **3** Norm Year: **2009**

WELL ID: **W-7DS** AREA INFO: **S300/GSA/EGSA**

DATE: **10-Aug-2009** LOG BOOK (DOCUMENT CONTROL) #: **AA17143**

PURGE METHOD/SAMPLE METHOD: **GF / 3VES** CONTAMINANT PRESENT: **ND**

SCREENED INTERVAL: **18.80 - 28.80** PUMP INTAKE DEPTH: **27.80**

DEPTH OF CASING: **30.30** CASING DIAMETER: **4.50**

DEPTH TO WATER: 15.32 VOLUME FACTOR: **0.826**

WATER IN CASING (ft): 14.98 CASING VOL (Gal/Time): 12.4 x 3cv = 37.2

TIME PUMP ON: 0816 INITIAL FLOW RATE (Q=GPM): 2.6

TIME PUMP OFF: 0840 MEASURED BY: FLOW METER GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
0821		12.4	1	7.33	21.5	16.22	11	\	15.41
0826		24.8	2	7.36	21.3	1626	22	\	15.48
0832		37.2	3	7.37	21.4	1628	29	\	15.48
0834									
0836									

METER SERIAL # CALIBRATED
pH : 6205114 YES/NO
SC : YES/NO
mV : YES/NO
H2O: YES/NO

SAMPLER /EMPLOYER: **silva90**
PROJECT: **3MRP**
SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-7DS / 3VES TIME COLLECTED: 0840

PROJECT	/ ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
3MRP	BCLABS-BAK	S3ANIONS	1	250ml Polyethylene
3MRP	BCLABS-BAK	S3METALS	1	500ml Polyethylene
3MRP	BCLABS-BAK	S3METALS:FILTER	0	500ml Polyethylene
3MRP	BCLABS-BAK	S3WETCHEM	2	500ml Polyethylene
~~3MRP~~	~~FGLSTK~~	~~SM9221:SHO~~	~~1~~	~~250 mL Sterilized Polyethylene~~

NO Sample for SM9221:SHO

Added 2.5 oz of CL

All Ground Water Sampling Data

WGMD

Target Sample Date: **11-Aug-2009** Month: Norm Qtr: **3** Norm Year: **2009**

WELL ID: **W-7DS** AREA INFO: **S300/GSA/EGSA**

DATE: **11-Aug-2009** LOG BOOK (DOCUMENT CONTROL) #: **AA17143** 4

PURGE METHOD/SAMPLE METHOD: **GF / 3VES** CONTAMINANT PRESENT: **ND**

SCREENED INTERVAL: **18.80 - 28.80** PUMP INTAKE DEPTH: **27.80**

DEPTH OF CASING: **30.30** CASING DIAMETER: **4.50**

DEPTH TO WATER: 15.33 VOLUME FACTOR: **0.826**

WATER IN CASING (ft): 14.97 CASING VOL (Gal/Time): 12.4 x 3cv = 37.2

TIME PUMP ON: 1031 INITIAL FLOW RATE (Q=GPM): 2.5 Q

TIME PUMP OFF: 1053 MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1036		12.4	1	7.63	21.6	1627	7	\	15.40
1041		24.8	2	7.56	21.9	1626	2	\	15.40
1045		37.2	3	7.49	21.6	1627	28	\	15.41
1047				7.46	21.5	1629	32		
1049				7.43	21.4	1627	34		
1051				7.44	21.4	1630	31		

METER	SERIAL #	CALIBRATED
pH :	620514	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER /EMPLOYER: **silva90**
PROJECT: **3MRP**
SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-7DS/3VES TIME COLLECTED: 1053

PROJECT	/ ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
~~3MRP~~	~~BCLABS-BAK~~	~~S3ANIONS~~	~~1~~	~~250ml Polyethylene~~
~~3MRP~~	~~BCLABS-BAK~~	~~S3METALS~~	~~1~~	~~500ml Polyethylene~~
~~3MRP~~	~~BCLABS-BAK~~	~~S3METALS:FILTER~~	~~0~~	~~500ml Polyethylene~~
~~3MRP~~	~~BCLABS-BAK~~	~~S3WETCHEM~~	~~2~~	~~500ml Polyethylene~~
3MRP	FGLSTK	SM9221:SHO	1	250 mL Sterilized Polyethylene

only Sampled SM9221:SHO

Evacuated all cc

Revision: 01/30/2009

All Ground Water Sampling Data

WMMD

Target Sample Date: 09-Nov-2009 Month: Norm Qtr: 4 Norm Year: 2009

WELL ID: W-7DS AREA INFO: 8300/GSA/EGSA

DATE: 09-Nov-2009 LOG BOOK (DOCUMENT CONTROL) #: AA19020

PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT: ND

SCREENED INTERVAL: 18.80 - 28.80 PUMP INTAKE DEPTH: 27.80

DEPTH OF CASING: 30.30 CASING DIAMETER: 4.50

DEPTH TO WATER: 16.53 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 13.77 CASING VOL (Gal/Time): 11.4 x 3cv = 34.2 Gal

TIME PUMP ON: 0932 INITIAL FLOW RATE (Q=GPM): 2.5 Q

TIME PUMP OFF: MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
0936		11.4	1	7.35	22.0	1452	232	1	16.58
0941		22.8	2	7.35	22.3	1631	233	1	16.58
0946		34.2	3	7.31	22.6	1640	207	1	16.59
0948				7.32	22.4	1633	201		
0950				7.31	22.7	1638	212		

METER	SERIAL #	CALIBRATED
pH :	6202454	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER /EMPLOYER: silva90
PROJECT: 3EMG
SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-7DS / 3VES TIME COLLECTED: 0956

PROJECT /	ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
3EMG	BCLABS-BAK	E120.1	1	250 mL Polyethylene
3EMG	BCLABS-BAK	E150.1	1	250 mL Polyethylene
3EMG	BCLABS-BAK	E300.0:NO3	1	250 mL Polyethylene
~~3EMG~~	~~POLSTK~~	~~SM9221:SHO~~	~~1~~	~~250 mL Sterilized Polyethylene~~

Added 2.5 oz of cl to well.

All Ground Water Sampling Data

WGMD

Target Sample Date: **10-Aug-2009** Month: Norm Qtr: **3** Norm Year: **2009**

WELL ID: **W-7ES** AREA INFO: **S300/GSA/CGSA**

DATE: **10-Aug-2009** LOG BOOK (DOCUMENT CONTROL) #: **AA17143**

PURGE METHOD/SAMPLE METHOD: **GF / 3VES** CONTAMINANT PRESENT: **NO3-11**

SCREENED INTERVAL: **18.30 - 28.30** PUMP INTAKE DEPTH: **26.30**

DEPTH OF CASING: **30.10** CASING DIAMETER: **4.50**

DEPTH TO WATER: 16.66 VOLUME FACTOR: **0.826**

WATER IN CASING (ft): 13.44 CASING VOL (Gal/Time): 11.1 x 3cv = 33.3

TIME PUMP ON: 1028 INITIAL FLOW RATE (Q=GPM): 2.0

TIME PUMP OFF: 1057 MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1034 ~~1028~~		11.1	1	7.37	23.8	1660	-32	1	16.79
1040		22.2	2	7.36	23.5	1658	-33	1	1680
1045		33.3	3	7.37	23.6	1679	-15	1	16.83
1047				7.34	23.2	1671	-18		
1049				7.30	23.1	1670	-18		

METER	SERIAL #	CALIBRATED
pH :	6205114	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER /EMPLOYER: **silva90**

PROJECT: **3MRP**

SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-7ES / 3VES TIME COLLECTED: 1057

PROJECT	/ ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
3MRP	BCLABS-BAK	S3ANIONS	1	250ml Polyethylene
3MRP	BCLABS-BAK	S3METALS	1	500ml Polyethylene
3MRP	BCLABS-BAK	S3METALS:FILTER	0	500ml Polyethylene
3MRP	BCLABS-BAK	S3WETCHEM	2	500ml Polyethylene
~~3MRP~~	~~FGLSTK~~	~~SM9221:SHO~~	~~1~~	~~250 mL Sterilized Polyethylene~~

No Sample for SM9221:SHO

Added 2.0 oz of CL

Revision: 01/30/2009

All Ground Water Sampling Data

WGMD

Target Sample Date: **11-Aug-2009** Month: Norm Qtr: **3** Norm Year: **2009**

WELL ID: **W-7ES** AREA INFO: **S300/GSA/CGSA**

DATE: **11-Aug-2009** LOG BOOK (DOCUMENT CONTROL) #: **AA17149** 4

PURGE METHOD/SAMPLE METHOD: **GF / 3VES** CONTAMINANT PRESENT: **NO3-11**

SCREENED INTERVAL: **18.30 - 28.30** PUMP INTAKE DEPTH: **26.30**

DEPTH OF CASING: **30.10** CASING DIAMETER: **4.50**

DEPTH TO WATER: 16.69 VOLUME FACTOR: **0.826**

WATER IN CASING (ft): 13.41 CASING VOL (Gal/Time): 11.0 x 3 = 33 Gal

TIME PUMP ON: 1130 INITIAL FLOW RATE (Q=GPM): 2.0

TIME PUMP OFF: 1153 MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1136		11	1	7.48	23.3	1661	-64	1	16.81
1141		22	2	7.41	23.5	1660	-46	1	16.83
1147		33	3	7.42	23.9	1662	-25	1	16.83
1149				7.44	23.7	1660	-18	1	
1151				7.44	23.5	1661	-9		

METER	SERIAL #	CALIBRATED
pH :	6205114	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER /EMPLOYER: **silva90**
PROJECT: **3MRP**
SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-7ES / 3VES TIME COLLECTED: 1153

PROJECT	/ ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
~~3MRP~~	~~BCLABS-BAK~~	~~S3ANIONS~~	~~1~~	~~250ml Polyethylene~~
~~3MRP~~	~~BCLABS-BAK~~	~~S3METALS~~	~~1~~	~~500ml Polyethylene~~
~~3MRP~~	~~BCLABS-BAK~~	~~S3METALS:FILTER~~	~~0~~	~~500ml Polyethylene~~
~~3MRP~~	~~BCLABS-BAK~~	~~S3WETCHEM~~	~~2~~	~~500ml Polyethylene~~
3MRP	FGLSTK	SM9221:SHO	1	250 mL Sterilized Polyethylene

Evacuated all CL
Sampled for SM9221:SHO only

Revision: 01/30/2009

All Ground Water Sampling Data

WAMD

Target Sample Date: 09-Nov-2009 Month: Norm Qtr: 4 Norm Year: 2009

WELL ID: W-7ES AREA INFO: S300/GSA/CGSA

DATE: 09-Nov-2009 LOG BOOK (DOCUMENT CONTROL) #: AA19020

PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT: NO3-11

SCREENED INTERVAL: 18.30 - 28.30 PUMP INTAKE DEPTH: 26.30

DEPTH OF CASING: 30.10 CASING DIAMETER: 4.50

DEPTH TO WATER: 18.2 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 11.9 CASING VOL (Gal/Time): 9.8 x 3cv = 30.0 Gal

TIME PUMP ON: 1148 INITIAL FLOW RATE (Q=GPM): 2.5

TIME PUMP OFF: 1206 MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1152		10	1	7.28	23.2	1675	-22	|	18.41
1155		20	2	7.33	23.5	1674	-56	|	1843
1158		30	3	7.27	23.4	1631	-48	|	18.44
1200				7.28	23.4	1627	-41		
1202				7.26	23.3	1628	-39		

METER	SERIAL #	CALIBRATED
pH :	6202454	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER /EMPLOYER: silva90
PROJECT: 3EMG 3CMP
SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: ~~—~~

SAMPLE ID (VERIFY): W-7ES/3VES TIME COLLECTED: 1206

PROJECT	/ ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
3EMG	BCLABS-BAK	E120.1	1	250 mL Polyethylene
3EMG	BCLABS-BAK	E150.1	1	250 mL Polyethylene
3EMG	BCLABS-BAK	E300.0:NO3	1	250 mL Polyethylene
3CMP	BCLABS-BAK	E601	3	40 mL Glass VOA vial
~~3EMG~~	~~FGLSTK~~	~~SM9221:SHO~~	~~1~~	~~250 mL Sterilized Polyethylene~~

Added 2.0oz of CL

Revision: 01/30/2009

WOMID

All Ground Water Sampling Data

Target Sample Date: 09-Nov-2009 Month: Norm Qtr: 4 Norm Year: 2009

WELL ID: W-7E 52 AREA INFO: 6300/GSA/CGSA

DATE: 09-Nov-2009 LOG BOOK (DOCUMENT CONTROL) #: AA19020

PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT: ND

SCREENED INTERVAL: 61.68 - 80.88 PUMP INTAKE DEPTH: 78.00

DEPTH OF CASING: 80.88 CASING DIAMETER: 4.50

DEPTH TO WATER: 18.07 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 62.81 CASING VOL (Gal/Time): 51.88 x 3cv = 155.64

TIME PUMP ON: 1036 INITIAL FLOW RATE (Q=GPM): 3.0

TIME PUMP OFF: 1137 MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1054		51.88	1	8.41	20.8	1369	37	\	29.21
1111		104	2	8.41	21.2	1328	-83	\	29.41
1128		156	3	8.37	21.5	1480	-124	\	29.63
1130				8.38	21.3	1477	-120		
1132				8.39	21.3	1470	-123		

METER	SERIAL #	CALIBRATED
pH :	6202454	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER /EMPLOYER: silva90
PROJECT: 3EMG 3CMP
SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: CGSAFB QC LAB(S): FGLSTK, BCLABS-BAK QC SAMPLE TIME:

SAMPLE ID (VERIFY): W-7E / 3VES TIME COLLECTED: 1137

PROJECT /	ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
3EMG	BCLABS-BAK	E120.1	1	250 mL Polyethylene
3EMG	BCLABS-BAK	E150.1	1	250 mL Polyethylene
3EMG	BCLABS-BAK	E300.0:NO3	1	250 mL Polyethylene
3CMP	BCLABS-BAK	E601	3	40 mL Glass VOA vial
~~3EMG~~	~~FGLSTK~~	~~SM9221:SHO~~	~~1~~	~~250 mL Sterilized Polyethylene~~

Added 11 oz of CL

Revision: 01/30/2009

All Ground Water Sampling Data

WDGMD

Target Sample Date: **11-Aug-2009** Month: Norm Qtr: **3** Norm Year: **2009**

WELL ID: **W-7PS** AREA INFO: **8300/GSA/CGSA**

DATE: **11-Aug-2009** LOG BOOK (DOCUMENT CONTROL) #: **AA17144**

PURGE METHOD/SAMPLE METHOD: **GF / 3VES** CONTAMINANT PRESENT: **TCE-3/NO3-17**

SCREENED INTERVAL: **19.48 - 22.48** INTAKE DEPTH: **0.00**

DEPTH OF CASING: **22.48** CASING DIAMETER: **4.50**

DEPTH TO WATER: 16.41 VOLUME FACTOR: **0.826**

WATER IN CASING (ft): 6.07 CASING VOL (Gal/Time): 5.0 x 3cv = 15 Gal

TIME PUMP ON: 0812 INITIAL FLOW RATE (Q=GPM): .8

TIME PUMP OFF: MEASURED BY FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
0817		5	1	7.40	22.6	1653	79	1	16.55
0822		10	2	7.36	22.8	1657	43	1	16.61
0827		15	3	7.35	23.0	1659	-66		16.62
0829				7.35	22.8	1660	-59		
0831				7.33	22.8	1660	-53		

METER	SERIAL #	CALIBRATED
pH :	670571/4	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER /EMPLOYER: **silva90**
PROJECT: **3CMP 3MRP**
SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: **W-7PY** QC LAB(S): **FGLSTK, BCLABS-BAK** QC SAMPLE TIME: 0742

SAMPLE ID (VERIFY): W-7PS/3VES TIME COLLECTED: 0837

PROJECT /	ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
3CMP	BCLABS-BAK	E601	3	40 mL Glass VOA vial
3MRP	BCLABS-BAK	S3ANIONS	1	250ml Polyethylene
3MRP	BCLABS-BAK	S3METALS	1	500ml Polyethylene
3MRP	BCLABS-BAK	S3METALS:FILTER	0	500ml Polyethylene
3MRP	BCLABS-BAK	S3WETCHEM	2	500ml Polyethylene
~~3MRP~~	~~FGLSTK~~	~~SM9221:SHO~~	~~1~~	~~250 mL Sterilized Polyethylene~~

No Sample for SM9221:SHO

Added 2.0 oz of Cl

NOTE:
Purge rate/time: N/A since est_sus_flow = 0
Purge Volume: 23.7900009 gal.
Revision: 01/30/2009

All Ground Water Sampling Data

WGMD

Target Sample Date: **12-Aug-2009** Month: Norm Qtr: **3** Norm Year: **2009**

WELL ID: **W-7PS** AREA INFO: **8300/GSA/CGSA**

DATE: **12-Aug-2009** LOG BOOK (DOCUMENT CONTROL) #: **AA17144**

PURGE METHOD/SAMPLE METHOD: **GF / 3VES** CONTAMINANT PRESENT: **TCE-3/NO3-17**

SCREENED INTERVAL: **19.48 - 22.48** INTAKE DEPTH: **0.00**

DEPTH OF CASING: **22.48** CASING DIAMETER: **4.50**

DEPTH TO WATER: 16.31 VOLUME FACTOR: **0.826**

WATER IN CASING (ft): 6.17 CASING VOL (Gal/Time): 5.0 x 3cv = 15Gal

TIME PUMP ON: 0932 INITIAL FLOW RATE (Q=GPM): 1.0

TIME PUMP OFF: MEASURED BY:FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
0937		5.0	1	7.19	23.1	1687	563	1	16.65
0942		10.0	2	7.14	23.1	1682	644	1	16.65
0947		15.0	3	7.16	23.2	1676	607	1	16.63
0949				7.15	23.2	1671	631		
0951				7.13	22.9	1669	625		

METER	SERIAL #	CALIBRATED
pH :	G205M	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER /EMPLOYER: **silva90**
PROJECT: **3CMP 3MRP**
SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: **W-7PY** QC LAB(S): **FGLSTK, BCLABS-BAK** QC SAMPLE TIME: ~~0955~~ 0834

SAMPLE ID (VERIFY): W-7PS/3083 TIME COLLECTED: 0954

PROJECT	/ ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
~~3CMP~~	~~BCLABS-BAK~~	~~E601~~	~~3~~	~~40 mL Glass VOA vial~~
~~3MRP~~	~~BCLABS-BAK~~	~~S3ANIONS~~	~~1~~	~~250ml Polyethylene~~
~~3MRP~~	~~BCLABS-BAK~~	~~S3METALS~~	~~1~~	~~500ml Polyethylene~~
~~3MRP~~	~~BCLABS-BAK~~	~~S3METALS:FILTER~~	~~0~~	~~500ml Polyethylene~~
~~3MRP~~	~~BCLABS-BAK~~	~~S3WETCHEM~~	~~2~~	~~500ml Polyethylene~~
3MRP	FGLSTK	SM9221:SHO	1	250 mL Sterilized Polyethylene

ONly Sampled SM9221:SHO

Evacuated all CL

NOTE:
Purge rate/time: N/A since est_sus_flow = 0
Purge Volume: 23.7900009 gal.
Revision: 01/30/2009

All Ground Water Sampling Data

WBMD

Target Sample Date: 04-Nov-2009 Month: Norm Qtr: 4 Norm Year: 2009

WELL ID: W-7PS AREA INFO: S300/GSA/CGSA

DATE: 04-Nov-2009 LOG BOOK (DOCUMENT CONTROL) #: AA19018

PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT: TCE-3/NO3-17

SCREENED INTERVAL: 19.48 - 22.48 INTAKE DEPTH: 0.00

DEPTH OF CASING: 22.48 CASING DIAMETER: 4.50

DEPTH TO WATER: ~~16.40~~ 17.51 VOLUME FACTOR: 0.826

WATER IN CASING (ft): ~~6.08~~ 4.97 CASING VOL (Gal/Time): ~~5.0 + 3cu~~ 4.1 + 3cu = 12.3 Gal

TIME PUMP ON: ~~1106~~ 1109 INITIAL FLOW RATE (Q=GPM): 1.0 Q

TIME PUMP OFF: MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1114		4.1	1	7.05	23.9	1685	121	1	17.81
1118		8.2	2	6.99	24.5	1685	104	1	17.83
1122		12.3	3	7.05	24.7	1682	103	1	17.87
1124				6.99	24.9	1679	108		
1126				7.01	24.6	1680	107		

METER SERIAL # CALIBRATED
pH : 610085 YES/NO
SC : YES/NO
mV : YES/NO
H2O: YES/NO

SAMPLER /EMPLOYER: silva90
PROJECT: 3EMG 3CMP
SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-7PS / 3VES TIME COLLECTED: 1133

PROJECT	/ ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
3EMG	BCLABS-BAK	E120.1	1	250 mL Polyethylene
3EMG	BCLABS-BAK	E150.1	1	250 mL Polyethylene
3EMG	BCLABS-BAK	E300.0:NO3	1	250 mL Polyethylene
3CMP	BCLABS-BAK	E601	3	40 mL Glass VOA vial
~~3EMG~~	FGLSTK	SM9221:SHO	1	250 mL Sterilized Polyethylene

Added 2.0 oz of CL

~~Added 2.5oz of CL~~

NOTE:
Purge rate/time: N/A since est_sus_flow = 0
Purge Volume: 23.7900009 gal.
Revision: 01/30/2009

All Ground Water Sampling Data

WGMD

Target Sample Date: 05-Nov-2009   Month: Norm Qtr: 4   Norm Year: 2009

WELL ID: W-7PS   AREA INFO: S300/GSA/CGSA

DATE: 05-Nov-2009   LOG BOOK (DOCUMENT CONTROL) #: ~~AA19018~~ AA19019

PURGE METHOD/SAMPLE METHOD: GF / 3VES   CONTAMINANT PRESENT: TCE-3/NO3-17

SCREENED INTERVAL: 19.48 - 22.48   INTAKE DEPTH: 0.00

DEPTH OF CASING: 22.48   CASING DIAMETER: 4.50

DEPTH TO WATER: 17.54   VOLUME FACTOR: 0.826

WATER IN CASING (ft): 4.94   CASING VOL (Gal/Time): 4.0 x 3cv = 12 gal

TIME PUMP ON: 1138   INITIAL FLOW RATE (Q=GPM): 1.0

TIME PUMP OFF: 1159   MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1143		4.0	1	7.03	23.4	1709	218	1	17.88
1147		8.0	2	7.05	24.0	1684	183	1	17.88
1151		12.0	3	7.02	23.8	1681	127	1	
1153				7.02	23.7	1689	121		
1155				7.03	23.2	1689	118		

METER	SERIAL #	CALIBRATED
pH :	610085	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER /EMPLOYER: silva90
PROJECT: 3EMG 3CMP
SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: ____ QC LAB(S): ____ QC SAMPLE TIME: ____

SAMPLE ID (VERIFY): W-7PS / 3VES   TIME COLLECTED: 1159

PROJECT	/ ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
~~3EMG~~	~~BCLABS-BAK~~	~~E120.1~~	~~1~~	~~250 mL Polyethylene~~
~~3EMG~~	~~BCLABS-BAK~~	~~E150.1~~	~~1~~	~~250 mL Polyethylene~~
~~3EMG~~	~~BCLABS-BAK~~	~~E300.0:NO3~~	~~1~~	~~250 mL Polyethylene~~
~~3CMP~~	~~BCLABS-BAK~~	~~E601~~	~~3~~	~~40 mL Glass VOA vial~~
3EMG	FGLSTK	SM9221:SHO	1	250 mL Sterilized Polyethylene

Evacuated all CL

NOTE:
Purge rate/time: N/A since est_sus_flow = 0
Purge Volume: 23.7900009 gal.
Revision: 01/30/2009

All Ground Water Sampling Data

WGMD

Target Sample Date: **12-Aug-2009** Month: Norm Qtr: **3** Norm Year: **2009**

WELL ID: **W-26R-01** AREA INFO: **S300/GSA/EGSA**

DATE: **12-Aug-2009** LOG BOOK (DOCUMENT CONTROL) #: **AA17145**

PURGE METHOD/SAMPLE METHOD: **GF / 3VES** CONTAMINANT PRESENT: ***TCE-15/NO3-40**

SCREENED INTERVAL: **22.72 - 27.72** PUMP INTAKE DEPTH: **29.00**

DEPTH OF CASING: **30.00** CASING DIAMETER: **4.50**

DEPTH TO WATER: 18.71 VOLUME FACTOR: **0.826**

WATER IN CASING (ft): 11.29 CASING VOL (Gal/Time): 9.3 x 3cv = 27.9

TIME PUMP ON: 1123 INITIAL FLOW RATE (Q=GPM): 1.0

TIME PUMP OFF: MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1132		9.3	1	7.36	24.2	1420	13	1	21.38
1141		18.6	2	7.41	24.3	1418	30	1	21.59
1150		27.9	3	7.40	24.3	1438	45	1	21.84
1152				7.39	24.2	1421	45		
1154				7.38	22.9	1410	41		

METER	SERIAL #	CALIBRATED
pH :	620511 4	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER /EMPLOYER: **silva90**
PROJECT: **3MRP**
SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-26R-01/30E3 TIME COLLECTED: 1157

PROJECT	/ ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
3MRP	BCLABS-BAK	S3ANIONS	1	250ml Polyethylene
3MRP	BCLABS-BAK	S3METALS	1	500ml Polyethylene
3MRP	BCLABS-BAK	S3METALS:FILTER	0	500ml Polyethylene
3MRP	BCLABS-BAK	S3WETCHEM	2	500ml Polyethylene
~~3MRP~~	~~FGLSTK~~	~~SM9221:SHO~~	~~1~~	~~250 mL Sterilized Polyethylene~~

No Sample for SM9221:SHO

Added 2.0 oz of CL

Revision: 01/30/2009

All Ground Water Sampling Data

WGMD

Target Sample Date: 13-Aug-2009 Month: Norm Qtr: 3 Norm Year: 2009

WELL ID: W-26R-01 AREA INFO: S300/GSA/EGSA

DATE: 13-Aug-2009 LOG BOOK (DOCUMENT CONTROL) #: AA17146

PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT: *TCE-15/NO3-40

SCREENED INTERVAL: 22.72 - 27.72 PUMP INTAKE DEPTH: 29.00

DEPTH OF CASING: 30.00 CASING DIAMETER: 4.50

DEPTH TO WATER: 18.71 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 11.29 CASING VOL (Gal/Time): 9.3 x 3 = 27.9

TIME PUMP ON: 1100 INITIAL FLOW RATE (Q=GPM): 1.0

TIME PUMP OFF: MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1110		9.3	1	7.31	~~24.2~~ 23.7	1496	724	1	21.83
1119		18.6	2	7.21	23.6	1438	711	1	22.14
1128		27.9	3	7.32	23.9	1426	682	1	22.31
1130				7.30	23.7	1420	631		
1132				7.31	23.2	1424	601		

METER SERIAL # CALIBRATED

pH : 620511 YES/NO

SC : YES/NO

mV : YES/NO

H2O: YES/NO

SAMPLER /EMPLOYER: silva90

PROJECT: 3MRP

SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-26R-01 / 3065 TIME COLLECTED: 1141

PROJECT	/ ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
~~3MRP~~	~~BCLABS-BAK~~	~~S3ANIONS~~	~~1~~	~~250ml Polyethylene~~
~~3MRP~~	~~BCLABS-BAK~~	~~S3METALS~~	~~1~~	~~500ml Polyethylene~~
~~3MRP~~	~~BCLABS-BAK~~	~~S3METALS:FILTER~~	~~0~~	~~500ml Polyethylene~~
~~3MRP~~	~~BCLABS-BAK~~	~~S3WETCHEM~~	~~2~~	~~500ml Polyethylene~~
3MRP	FGLSTK	SM9221:SHO	1	250 mL Sterilized Polyethylene

Only Sampled for SM9221:SHO
Evacuated all CL

Revision: 01/30/2009

All Ground Water Sampling Data

Target Sample Date: 04-Nov-2009 Month: Norm Qtr: 4 Norm Year: 2009

WGMD

WELL ID: W-26R-01 AREA INFO: S300/GSA/EGSA

DATE: 04-Nov-2009 LOG BOOK (DOCUMENT CONTROL) #: AA19018

PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT: *TCE-15/NO3-40

SCREENED INTERVAL: 22.72 - 27.72 PUMP INTAKE DEPTH: 29.00

DEPTH OF CASING: 30.00 CASING DIAMETER: 4.50

DEPTH TO WATER: 19.80 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 10.20 CASING VOL (Gal/Time): 8.4 x 3cv = 25.2

TIME PUMP ON: 0848 INITIAL FLOW RATE (Q=GPM): 1.0

TIME PUMP OFF: 0924 MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
0856		8	1	7.18	22.9	1426	52	1	22.53
0905		16	2	7.21	23.3	1428	32	1	23.05
0913		24	3	7.20	23.7	1430	14	1	23.30 ~~32.30~~
~~40~~0915				7.19	22.9	1428	11		
0917				7.20	23.2	1433	6		

METER SERIAL # CALIBRATED
pH : 60085 YES/NO
SC : YES/NO
mV : YES/NO
H2O: YES/NO

SAMPLER /EMPLOYER: silva90
PROJECT: 3EMG 3PSDMP
SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: W-26R-79Y QC LAB(~~FGLSTK~~, BCLABS-BAK, ~~CALTEST~~ SAMPLE TIME: 1303

SAMPLE ID (VERIFY): W-26R-01 / 3025 TIME COLLECTED: 0924

PROJECT /	ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
3EMG	BCLABS-BAK	E120.1	1	250 mL Polyethylene
3EMG	BCLABS-BAK	E150.1	1	250 mL Polyethylene
3EMG	BCLABS-BAK	E300.0:NO3	1	250 mL Polyethylene
3PSDMP	CALTEST	E601	3	40 mL Glass VOA vial
~~3EMG~~	FGLSTK	SM9221:SHO	1	250 mL Sterilized Polyethylene

Added 2.0 oz of CL to well

All Ground Water Sampling Data

WAMD

Target Sample Date: 05-Nov-2009 Month: Norm Qtr: 4 Norm Year: 2009

WELL ID: W-26R-01 AREA INFO: 8300/GSA/EGSA

DATE: 05-Nov-2009 LOG BOOK (DOCUMENT CONTROL) #: AA190~~18~~ 19

PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT: *TCE-15/NO3-40

SCREENED INTERVAL: 22.72 - 27.72 PUMP INTAKE DEPTH: 29.00

DEPTH OF CASING: 30.00 CASING DIAMETER: 4.50

DEPTH TO WATER: 19.80 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 10.2 CASING VOL (Gal/Time): 8.4 x 3 = 25.2

TIME PUMP ON: 0959 INITIAL FLOW RATE (Q=GPM): 1.0 Q

TIME PUMP OFF: MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1007 ~~0959~~		8.4	1	7.18	22.8	1521	483	1	22.58
1016		16.8	2	7.22	23.4	1457	392	1	22.90
1024		25.2	3	7.17	22.9	1453	182	1	23.02
1026				7.18	22.7	1451	108		
1028				7.17	22.7	1450	103		

METER	SERIAL #	CALIBRATED
pH :	610085	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER /EMPLOYER: silva90
PROJECT: 3EMG 3PSDMP
SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: W-26R-79Y QC LAB(FGLSTK, BCLABS-BAK, CALTEST) SAMPLE TIME: 1018 ~~1030/1033~~

SAMPLE ID (VERIFY): W-26R-01 / 3045 TIME COLLECTED: 1030

PROJECT	/ ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
~~3EMG~~	~~BCLABS-BAK~~	~~E120.1~~	~~1~~	~~250 mL Polyethylene~~
~~3EMG~~	~~BCLABS-BAK~~	~~E150.1~~	~~1~~	~~250 mL Polyethylene~~
~~3EMG~~	~~BCLABS-BAK~~	~~B300.0:NO3~~	~~1~~	~~250 mL Polyethylene~~
~~3PSDMP~~	~~CALTEST~~	~~E601~~	~~3~~	~~40 mL Glass VOA vial~~
3EMG	FGLSTK	SM9221:SHO	1	250 mL Sterilized Polyethylene

Evacuated collect from well

Revision: 01/30/2009

All Ground Water Sampling Data

WGMD

Target Sample Date: 10-Aug-2009 Month: Norm Qtr: 3 Norm Year: 2009

WELL ID: W-26R-05 AREA INFO: 8300/GSA/EGSA

DATE: 10-Aug-2009 LOG BOOK (DOCUMENT CONTROL) #: AA17143

PURGE METHOD/SAMPLE METHOD: PB / 90BA CONTAMINANT PRESENT: TCE-3.3/NO3-53

SCREENED INTERVAL: 22.05 - 27.05 INTAKE DEPTH: 0.00

DEPTH OF CASING: 26.68 CASING DIAMETER: 4.50

DEPTH TO WATER: 22.46 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 4.22 CASING VOL (Gal/Time): 3.4 x 90% = 3.06

TIME PUMP ON: — INITIAL FLOW RATE (Q=GPM):

TIME PUMP OFF: — MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1211		3.5	90%	7.84	22.5	1082	133	1	25.31

METER SERIAL # CALIBRATED

pH : 6205114 YES/NO

SC : YES/NO

mV : YES/NO

H2O: YES/NO

SAMPLER /EMPLOYER: silva90

PROJECT: 3MRP

SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-26R-05 / 90BA TIME COLLECTED: 1214

PROJECT /	ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
3MRP	BCLABS-BAK	S3ANIONS	1	250ml Polyethylene
3MRP	BCLABS-BAK	S3METALS	1	500ml Polyethylene
3MRP	BCLABS-BAK	S3METALS:FILTER	0	500ml Polyethylene
3MRP	BCLABS-BAK	S3WETCHEM	2	500ml Polyethylene
~~3MRP~~	~~FGLSTK~~	~~SM9221:SHO~~	~~1~~	~~250 mL Sterilized Polyethylene~~

No Sample for SM9221:SHO

Added .3 oz of CL

NOTE:
Purge rate/time: N/A since est_sus_flow = 0
Purge Volume: 10 gal.

Revision: 01/30/2009

All Ground Water Sampling Data

WAMD

Target Sample Date: **13-Aug-2009** Month: Norm Qtr: **3** Norm Year: **2009**

WELL ID: **W-26R-05** AREA INFO: **S300/GSA/EGSA**

DATE: **13-Aug-2009** LOG BOOK (DOCUMENT CONTROL) #: **AA17145** 6

PURGE METHOD/SAMPLE METHOD: **PB / 90BA** CONTAMINANT PRESENT: **TCE-3.3/NO3-53**

SCREENED INTERVAL: **22.05 - 27.05** INTAKE DEPTH: **0.00**

DEPTH OF CASING: **26.68** CASING DIAMETER: **4.50**

DEPTH TO WATER: 23.60 VOLUME FACTOR: **0.826**

WATER IN CASING (ft): 3.08 CASING VOL (Gal/Time): 2.5 X 90% = 2.25

TIME PUMP ON: — INITIAL FLOW RATE (Q=GPM):

TIME PUMP OFF: — MEASURED BY: FLOW METER/ GRAD CYL / BUCKET/ OTHER

	TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
8/10/09	0717			D.O	7.66	22.5	1270	748	1	D.O
8/11/09	1447			D.O	7.56	20.8	1294	762	1	DO
8/12/09	0753			D.O	7.32	20.7	1178	730		
	1528			D.O	7.71	22.6	1157	616		
8/13/09	1029		2.25	90%	7.70	23.2	1139	384		

METER	SERIAL #	CALIBRATED
pH :	620514	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER /EMPLOYER: **silva90**
PROJECT: **3MRP**
SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-26R-05 / 90BA TIME COLLECTED: 1033

PROJECT /	ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
~~3MRP~~	~~BCLABS-BAK~~	~~S3ANIONS~~	~~1~~	~~250ml Polyethylene~~
~~3MRP~~	~~BCLABS-BAK~~	~~S3METALS~~	~~1~~	~~500ml Polyethylene~~
~~3MRP~~	~~BCLABS-BAK~~	~~S3METALS:FILTER~~	~~0~~	~~500ml Polyethylene~~
~~3MRP~~	~~BCLABS-BAK~~	~~S3WETCHEM~~	~~2~~	~~500ml Polyethylene~~
3MRP	FGLSTK	SM9221:SHO	1	250 mL Sterilized Polyethylene

Evacuated all CL after drying out for 3 days.

NOTE:
Purge rate/time: N/A since est_sus_flow = 0
Purge Volume: 10 gal.
Revision: 01/30/2009

All Ground Water Sampling Data

WGMD

Target Sample Date: 09-Nov-2009 Month: Norm Qtr: 4 Norm Year: 2009

WELL ID: W-26R-05 AREA INFO: S300/GSA/EGSA

DATE: 09-Nov-2009 LOG BOOK (DOCUMENT CONTROL) #: AA19020

PURGE METHOD/SAMPLE METHOD: PB / 90BA CONTAMINANT PRESENT: TCE-3.3/NO3-53

SCREENED INTERVAL: 22.05 - 27.05 INTAKE DEPTH: 0.00

DEPTH OF CASING: 26.68 CASING DIAMETER: 4.50

DEPTH TO WATER: 23.26 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 3.42 CASING VOL (Gal/Time): 2.8 X 90% = 2.5 Gal

TIME PUMP ON: — INITIAL FLOW RATE (Q=GPM): —

TIME PUMP OFF: — MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
0907		3.0	90%	7.68	20.3	1152	327	1	26.09

METER SERIAL # CALIBRATED

pH : 6202454 YES/NO

SC : YES/NO

mV : YES/NO

H2O: YES/NO

SAMPLER /EMPLOYER: silva90

PROJECT: 3EMG 3PSDMP

SAMPLE PRESERVATION/AMT of REAGENT:

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-26R-05 / 90BA TIME COLLECTED: 0918

PROJECT /	ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
3EMG	BCLABS-BAK	E120.1	1	250 mL Polyethylene
3EMG	BCLABS-BAK	E150.1	1	250 mL Polyethylene
3EMG	BCLABS-BAK	E300.0:NO3	1	250 mL Polyethylene
3PSDMP	CALTEST	E601	3	40 mL Glass VOA vial
~~3EMG~~	~~FGLSTK~~	~~SM9221:SHO~~	~~1~~	~~250 mL Sterilized Polyethylene~~

Used New Bailer

Added .3 oz of CL

NOTE:

Purge rate/time: N/A since est_sus_flow = 0

Purge Volume: 10 gal.

Revision: 01/30/2009

All Ground Water Sampling Data

WAMD

Target Sample Date: 12-Nov-2009 Month: Norm Qtr: 4 Norm Year: 2009

WELL ID: W-26R-05 AREA INFO: S300/GSA/EGSA

DATE: 12-Nov-2009 LOG BOOK (DOCUMENT CONTROL) #: AA19020

PURGE METHOD/SAMPLE METHOD: PB / 90BA CONTAMINANT PRESENT: TCE-3.3/NO3-53

SCREENED INTERVAL: 22.05 - 27.05 INTAKE DEPTH: 0.00

DEPTH OF CASING: 26.68 CASING DIAMETER: 4.50

DEPTH TO WATER: 25.81 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 1.98 CASING VOL (Gal/Time): 1.6 x 90% = 1.44

TIME PUMP ON: — INITIAL FLOW RATE (Q=GPM): —

TIME PUMP OFF: — MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

	TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
11/10/09	0827		~~1.4~~	90%	7.67	20.5	1194	665	1	24.92
11/11/09	0902			90%	7.59	21.2	1018	211	1	25.18
11/12/09	0908		1.4	90%	7.64	18.9	1122	157	1	

METER SERIAL # CALIBRATED
pH : 6A0454 YES/NO
SC : YES/NO
mV : YES/NO
H2O: YES/NO

SAMPLER /EMPLOYER: silva90
PROJECT: 3EMG 3PSDMP
SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-26R-05 / 90BA TIME COLLECTED: 0909

PROJECT /	ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
~~3EMG~~	BCLABS-BAK	E120.1	1	250 mL Polyethylene
~~3EMG~~	BCLABS-BAK	E150.1	1	250 mL Polyethylene
~~3EMG~~	BCLABS-BAK	E300.0:NO3	1	250 mL Polyethylene
~~3PSDMP~~	CALTEST	E601	3	40 mL Glass VOA vial
3EMG	FGLSTK	SM9221:SHO	1	250 mL Sterilized Polyethylene

Purged H2O 2 times daily after initial sample to evacuate all CL.

NOTE:
Purge rate/time: N/A since est_sus_flow = 0
Purge Volume: 10 gal.
Revision: 01/30/2009

All Ground Water Sampling Data

WAMD

Target Sample Date: 12-Nov-2009 Month: Norm Qtr: 4 Norm Year: 2009

WELL ID: W-26R-05 AREA INFO: S300/GSA/EGSA

DATE: 12-Nov-2009 LOG BOOK (DOCUMENT CONTROL) #: AA19020

PURGE METHOD/SAMPLE METHOD: PB / 90BA CONTAMINANT PRESENT: TCE-3.3/NO3-53

SCREENED INTERVAL: 22.05 - 27.05 INTAKE DEPTH: 0.00

DEPTH OF CASING: 26.68 CASING DIAMETER: 4.50

DEPTH TO WATER: 25.81 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 1.98 CASING VOL (Gal/Time): 1.6 × 90% = 1.44

TIME PUMP ON: — INITIAL FLOW RATE (Q=GPM): —

TIME PUMP OFF: — MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

	TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
11/10/09	0827		~~1.44~~	90%	7.67	20.5	1194	665	1	24.92
11/11/09	0902			90%	7.59	21.2	1018	211	1	25.18
11/12/09	0908		1.4	90%	7.64	18.9	1122	157	1	

METER SERIAL # CALIBRATED
pH : G802454 YES/NO
SC : YES/NO
mV : YES/NO
H2O: YES/NO

SAMPLER /EMPLOYER: silva90
PROJECT: 3EMG 3PSDMP
SAMPLE PRESERVATION/AMT of REAGENT: N/A

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-26R-05 / 90BA TIME COLLECTED: 0909

PROJECT /	ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
~~3EMG~~	BCLABS-BAK	E120.1	1	250 mL Polyethylene
~~3EMG~~	BCLABS-BAK	E150.1	1	250 mL Polyethylene
~~3EMG~~	BCLABS-BAK	E300.0:NO3	1	250 mL Polyethylene
~~3PSDMP~~	CALTEST	E601	3	40 mL Glass VOA vial
3EMG	FGLSTK	SM9221:SHO	1	250 mL Sterilized Polyethylene

Purged H2O 2 times daily after initial sample to evacuate all CL.

NOTE:
Purge rate/time: N/A since est_sus_flow = 0
Purge Volume: 10 gal.
Revision: 01/30/2009

All Ground Water Sampling Data

WGMD

Target Sample Date: **10-Aug-2009** Month: Norm Qtr: **3** Norm Year: **2009**

WELL ID: **W-26R-11** AREA INFO: **S300/GSA/EGSA**

DATE: **10-Aug-2009** LOG BOOK (DOCUMENT CONTROL) #: **AA17143**

PURGE METHOD/SAMPLE METHOD: **GF / 3VES** CONTAMINANT PRESENT: **TCE-1.6/NO3-14**

SCREENED INTERVAL: **18.08 - 28.08** PUMP INTAKE DEPTH: **31.08**

DEPTH OF CASING: **29.28** CASING DIAMETER: **4.50**

DEPTH TO WATER: 16.00 VOLUME FACTOR: **0.826**

WATER IN CASING (ft): 13.28 CASING VOL (Gal/Time): 11. x 3vv = 33 Gal

TIME PUMP ON: 0853 INITIAL FLOW RATE (Q=GPM): 1.8

TIME PUMP OFF: 0923 MEASURED BY: FLOW METER / GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
0859		11	1	7.39	22.0	1589	61	1	16.00
0905		~~22~~ 22	2	7.37	22.0	1591	29	1	16.03
0912		33	3	7.31	22.1	1591	28	1	16.03
0914				7.40	21.9	1590	18		
0916				7.33	21.9	1591	22		

METER	SERIAL #	CALIBRATED
pH :	620514	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER /EMPLOYER: **silva90**
PROJECT: **3MRP**
SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: **EGSAFB W-26R-88Y** QC LAB(S): **FGLSTK, BCLABS-BAK** QC SAMPLE TIME: 0958

SAMPLE ID (VERIFY): W-26R-11 / 3VES TIME COLLECTED: 0923

PROJECT /	ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
3MRP	BCLABS-BAK	S3ANIONS	1	250ml Polyethylene
3MRP	BCLABS-BAK	S3METALS	1	500ml Polyethylene
3MRP	BCLABS-BAK	S3METALS:FILTER	0	500ml Polyethylene
3MRP	BCLABS-BAK	S3WETCHEM	2	500ml Polyethylene
~~3MRP~~	~~FGLSTK~~	~~SM9221:SHO~~	~~1~~	~~250 mL Sterilized Polyethylene~~

No Sample for SM9221:SHO

Added 20 oz of cl

Revision: 01/30/2009

All Ground Water Sampling Data

WGMP

Target Sample Date: 11-Aug-2009 Month: Norm Qtr: 3 Norm Year: 2009

WELL ID: W-26R-11 AREA INFO: S300/GSA/EGSA

DATE: 11-Aug-2009 LOG BOOK (DOCUMENT CONTROL) #: AA171404

PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT: TCE-1.6/NO3-14

SCREENED INTERVAL: 18.08 - 28.08 PUMP INTAKE DEPTH: 31.08

DEPTH OF CASING: 29.28 CASING DIAMETER: 4.50

DEPTH TO WATER: 15.97 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 13.31 CASING VOL (Gal/Time): 11.0 x 3vc = 33 Gal

TIME PUMP ON: 1101 INITIAL FLOW RATE (Q=GPM): 2.0

TIME PUMP OFF: 1124 MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1107		11	1	7.67	22.7	~~57~~ 1594	57	1	15.98
1112		22	2	7.40	22.2	1599	42	1	16.02
1118		33	3	7.40	22.3	1596	30	1	16.02
1120				7.41	22.1	1595	24		
1122				7.37	21.9	1593	22		

METER	SERIAL #	CALIBRATED
pH :	6205114	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER /EMPLOYER: silva90
PROJECT: 3MRP
SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: EGSAFB W-26R-88Y QC LAB(S): FGLSTK, BCLABS-BAK QC SAMPLE TIME: 1101

SAMPLE ID (VERIFY): W-26R-11 / 3085 TIME COLLECTED: 1124

PROJECT /	ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
~~3MRP~~	~~BCLABS-BAK~~	~~S3ANIONS~~	~~1~~	~~250ml Polyethylene~~
~~3MRP~~	~~BCLABS-BAK~~	~~S3METALS~~	~~1~~	~~500ml Polyethylene~~
~~3MRP~~	~~BCLABS-BAK~~	~~S3METALS:FILTER~~	~~0~~	~~500ml Polyethylene~~
~~3MRP~~	~~BCLABS-BAK~~	~~S3WETCHEM~~	~~2~~	~~500ml Polyethylene~~
3MRP	FGLSTK	SM9221:SHO	1	250 mL Sterilized Polyethylene

Sampled SM9221:SHO

Evacuated all CC

All Ground Water Sampling Data

WAMID

Target Sample Date: 05-Nov-2009 Month: Norm Qtr: 4 Norm Year: 2009

WELL ID: W-26R-11 AREA INFO: S300/GSA/EGSA

DATE: 05-Nov-2009 LOG BOOK (DOCUMENT CONTROL) #: AA19018 19

PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT: TCE-1.6/NO3-14

SCREENED INTERVAL: 18.08 - 28.08 PUMP INTAKE DEPTH: 31.08

DEPTH OF CASING: 29.28 CASING DIAMETER: 4.50

DEPTH TO WATER: 17.18 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 12.1 CASING VOL (Gal/Time): 10.0 x 3 = 30.0

TIME PUMP ON: 1052 INITIAL FLOW RATE (Q=GPM): 2.0 Q

TIME PUMP OFF: MEASURED BY FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1057		10.0	1	7.11	23.0	1583	164	1	~~17.48~~
1102		20.0	2	7.03	22.9	1611	171	1	17.18
1107		30.0	3	7.06	22.8	1610	169	1	17.18
1109				7.06	22.5	1607	160		
1111				7.08	22.5	1611	154		

METER SERIAL # CALIBRATED

pH : 616085 YES/NO

SC : YES/NO

mV : YES/NO

H2O: YES/NO

SAMPLER /EMPLOYER: silva90

PROJECT: 3EMG 3CMP

SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-26R-11 / 3VES TIME COLLECTED: 1114

PROJECT	/ ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
~~3EMG~~	~~BCLABS-BAK~~	~~E120.1~~	~~1~~	~~250 mL Polyethylene~~
~~3EMG~~	~~BCLABS-BAK~~	~~E150.1~~	~~1~~	~~250 mL Polyethylene~~
~~3EMG~~	~~BCLABS-BAK~~	~~E300.0:NO3~~	~~1~~	~~250 mL Polyethylene~~
~~3CMP~~	~~BCLABS-BAK~~	~~E601~~	~~3~~	~~40 mL Glass VOA vial~~
3EMG	FGLSTK	SM9221:SHO	1	250 mL Sterilized Polyethylene

Replaced PVC parts to sample port (new)

Evacuated all CL

Revision: 01/30/2009

All Ground Water Sampling Data

WLMD

Target Sample Date: 04-Nov-2009 Month: Norm Qtr: 4 Norm Year: 2009

WELL ID: W-26R-11 AREA INFO: S300/GSA/EGSA

DATE: 04-Nov-2009 LOG BOOK (DOCUMENT CONTROL) #: AA19018

PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT: TCE-1.6/NO3-14

SCREENED INTERVAL: 18.08 - 28.08 PUMP INTAKE DEPTH: 31.08

DEPTH OF CASING: 29.28 CASING DIAMETER: 4.50

DEPTH TO WATER: 17.05 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 12.23 CASING VOL (Gal/Time): 10.10 X 3cv = 30.30

TIME PUMP ON: 1003 INITIAL FLOW RATE (Q=GPM): 2.0

TIME PUMP OFF: 1029 MEASURED BY:FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1008		10.10	1	7.04	23.0	1606	178	1	17.09
1013		20.2	2	7.02	23.0	1609	59	1	17.11
1018		30.3	3	6.99	23.1	1604	134	1	17.11
1020				7.05	23.1	1609	129		
1022				7.08	22.9	1607	123		

METER SERIAL # CALIBRATED
pH : 610085 YES/NO
SC : YES/NO
mV : YES/NO
H2O: YES/NO

SAMPLER /EMPLOYER: silva90
PROJECT: 3EMG 3CMP
SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-26R-11 / 3VES TIME COLLECTED: 1029

PROJECT	/ ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
3EMG	BCLABS-BAK	E120.1	1	250 mL Polyethylene
3EMG	BCLABS-BAK	E150.1	1	250 mL Polyethylene
3EMG	BCLABS-BAK	E300.0:NO3	1	250 mL Polyethylene
3CMP	BCLABS-BAK	E601	3	40 mL Glass VOA vial
~~3EMG~~	FGLSTK	SM9221:SHO	1	250 mL Sterilized Polyethylene

Added 2.0 oz of CL

All Ground Water Sampling Data

WGMP

Target Sample Date: 10-Aug-2009 Month: Norm Qtr: 3 Norm Year: 2009

WELL ID: W-25N-20 AREA INFO: S300/GSA/EGSA

DATE: 10-Aug-2009 LOG BOOK (DOCUMENT CONTROL) #: AA17143

PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT: ND

SCREENED INTERVAL: 14.83 - 29.83 PUMP INTAKE DEPTH: 26.00

DEPTH OF CASING: 30.83 CASING DIAMETER: 4.50

DEPTH TO WATER: 14.22 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 16.61 CASING VOL (Gal/Time): 13.7 x 3cv = 41.1

TIME PUMP ON: 0736 INITIAL FLOW RATE (Q=GPM): 3.0 Q

TIME PUMP OFF: 0759 MEASURED BY: FLOW METER / GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
0741		13.7	1	7.27	23.1	1629	-69	1	14.28
0746		27.4	2	7.30	22.3	1641	-64	1	14.29
0750		41.1	3	7.32	22.3	1643	-58	1	14.29
0752				7.31	220	1644	-47		
0754				7.30	21.9	1646	-44		

METER SERIAL # CALIBRATED

pH : 6205114 YES/NO

SC : YES/NO

mV : YES/NO

H2O: YES/NO

SAMPLER /EMPLOYER: silva90

PROJECT: 3MRP

SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-25N-20 / 3VES TIME COLLECTED: 0759

PROJECT /	ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
3MRP	BCLABS-BAK	S3ANIONS	1	250ml Polyethylene
3MRP	BCLABS-BAK	S3METALS	1	500ml Polyethylene
3MRP	BCLABS-BAK	S3METALS:FILTER	0	500ml Polyethylene
3MRP	BCLABS-BAK	S3WETCHEM	2	500ml Polyethylene
~~3MRP~~	~~FGLSTK~~	~~SM9221.SHO~~	~~1~~	~~250 mL Sterilized Polyethylene~~

No Sample for SM9221:SHO

Added 2.5 oz of CL

Revision: 01/30/2009

WGMP

All Ground Water Sampling Data

Target Sample Date: **11-Aug-2009** Month: Norm Qtr: **3** Norm Year: **2009**

WELL ID: **W-25N-20** AREA INFO: **S300/GSA/EGSA**

DATE: **11-Aug-2009** LOG BOOK (DOCUMENT CONTROL) #: **AA17142** 4

PURGE METHOD/SAMPLE METHOD: **GF / 3VES** CONTAMINANT PRESENT: **ND**

SCREENED INTERVAL: **14.83 - 29.83** PUMP INTAKE DEPTH: **26.00**

DEPTH OF CASING: **30.83** CASING DIAMETER: **4.50**

DEPTH TO WATER: 14.21 VOLUME FACTOR: **0.826**

WATER IN CASING (ft): 16.62 CASING VOL (Gal/Time): 13.8 x3 = 41.4 Gal

TIME PUMP ON: 1008 INITIAL FLOW RATE (Q=GPM): 3.0

TIME PUMP OFF: MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1013		13.8		7.33	21.7	1647	-51	1	14.31
1018		27.6		7.32	21.7	1648	-43	1	14.31
1022		41.4		7.39	22.3	1649	-36	1	14.31
1024				7.34	22.0	1652	-27		
1026				7.36	22.1	1650	-23		

METER SERIAL # CALIBRATED
pH : 6205114 YES/NO
SC : YES/NO
mV : YES/NO
H2O: YES/NO

SAMPLER /EMPLOYER: **silva90**
PROJECT: **3MRP**
SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-25N-20 / 3VES TIME COLLECTED: 1028

PROJECT /	ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
~~3MRP~~	~~BCLABS-BAK~~	~~S3ANIONS~~	~~1~~	~~250ml Polyethylene~~
~~3MRP~~	~~BCLABS-BAK~~	~~S3METALS~~	~~1~~	~~500ml Polyethylene~~
~~3MRP~~	~~BCLABS-BAK~~	~~S3METALS:FILTER~~	~~0~~	~~500ml Polyethylene~~
~~3MRP~~	~~BCLABS-BAK~~	~~S3WETCHEM~~	~~2~~	~~500ml Polyethylene~~
3MRP	FGLSTK	SM9221:SHO	1	250 mL Sterilized Polyethylene

only sampled for SM9221:SHO

Evacuated all CL

Revision: 01/30/2009

All Ground Water Sampling Data

WGMD

Target Sample Date: 04-Nov-2009 Month: Norm Qtr: 4 Norm Year: 2009

WELL ID: W-25N-20 AREA INFO: 8300/GSA/EGSA

DATE: 04-Nov-2009 LOG BOOK (DOCUMENT CONTROL) #: AA19018

PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT: ND

SCREENED INTERVAL: 14.83 - 29.83 PUMP INTAKE DEPTH: 26.00

DEPTH OF CASING: 30.83 CASING DIAMETER: 4.50

DEPTH TO WATER: 15.17 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 15.66 CASING VOL (Gal/Time): 13.0 x 3cv = 39 Gal

TIME PUMP ON: 0807 INITIAL FLOW RATE (Q=GPM): 3.0

TIME PUMP OFF: 0828 MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
0812		13.0	1	6.92	22.8	1679	9	1	15.26
0816		26.0	2	6.96	23.1	1674	518 "	1	15.27
0820		39.0	3	7.00	23.1	1674	527 "	1	15.28
0822				7.00	23.3	1674	532 "		
0824				7.01	23.3	1673	518		

METER SERIAL # CALIBRATED
pH : 610085 YES/NO
SC : YES/NO
mV : YES/NO
H2O: YES/NO

SAMPLER /EMPLOYER: silva90
PROJECT: 3EMG
SAMPLE PRESERVATION/AMT of REAGENT: N/A

QC SAMPLE ID: EGSAFB QC LAB(S): FGLSTK, BCLABS-BAK QC SAMPLE TIME: 0828

SAMPLE ID (VERIFY): W-25N-20/3VES TIME COLLECTED: 0828

PROJECT	/ ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
3EMG	BCLABS-BAK	E120.1	1	250 mL Polyethylene
3EMG	BCLABS-BAK	E150.1	1	250 mL Polyethylene
3EMG	BCLABS-BAK	E300.0:NO3	1	250 mL Polyethylene
3EMG	FGLSTK	SM9221:SHO	1	250 mL Sterilized Polyethylene

Added 2.5 oz of CL to well allowed to mix for 12 min

All Ground Water Sampling Data

UGWMD

Target Sample Date: 05-Nov-2009 | Month: | Norm Qtr: 4 | Norm Year: 2009

WELL ID: W-25N-20 | AREA INFO: S300/GSA/EGSA

DATE: 05-Nov-2009 | LOG BOOK (DOCUMENT CONTROL) #: AA190~~10~~ 19

PURGE METHOD/SAMPLE METHOD: GF / 3VES | CONTAMINANT PRESENT: ND

SCREENED INTERVAL: 14.83 - 29.83 | PUMP INTAKE DEPTH: 26.00

DEPTH OF CASING: 30.83 | CASING DIAMETER: 4.50

DEPTH TO WATER: 15.20 | VOLUME FACTOR: 0.826

WATER IN CASING (ft): 15.63 | CASING VOL (Gal/Time): 13.0 x 3cv = 39.0

TIME PUMP ON: 0928 | INITIAL FLOW RATE (Q=GPM): 3.0 Q

TIME PUMP OFF: | MEASURED BY: FLOW METER / GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
0932		13.	1	6.96	23.3	1673	100	1	15.28
0936		26	2	6.99	23.4	1672	27	1	15.30
0941		39	3	7.03	23.4	1673	17	1	15.31
0943				7.02	23.2	1671	22		
0945				7.02	23.2	1673	18		

METER	SERIAL #	CALIBRATED
pH :	610085	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER /EMPLOYER: silva90
PROJECT: 3EMG
SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: EGSAFB | QC LAB(S): FGLSTK, BCLABS-BAK | QC SAMPLE TIME: 0948

SAMPLE ID (VERIFY): W-25N-20/3VES | TIME COLLECTED: 0948

PROJECT	/ ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
~~3EMG~~	~~BCLABS-BAK~~	~~E120.1~~	~~1~~	~~250 mL Polyethylene~~
~~3EMG~~	~~BCLABS-BAK~~	~~E150.1~~	~~1~~	~~250 mL Polyethylene~~
~~3EMG~~	~~BCLABS-BAK~~	~~E300.0:NO3~~	~~1~~	~~250 mL Polyethylene~~
3EMG	FGLSTK	SM9221:SHO	1	250 mL Sterilized Polyethylene

Evacuated all CL

WGMD

All Ground Water Sampling Data

Target Sample Date: **11-Aug-2009** Month: Norm Qtr: **3** Norm Year: **2009**

WELL ID: **W-25N-22** AREA INFO: **S300/GSA/EGSA**

DATE: **11-Aug-2009** LOG BOOK (DOCUMENT CONTROL) #: **AA17144**

PURGE METHOD/SAMPLE METHOD: **GF / LVES** CONTAMINANT PRESENT: **TCE-1.2**

SCREENED INTERVAL: **20.81 - 30.81** PUMP INTAKE DEPTH: **31.60**

DEPTH OF CASING: **31.31** DISCHARGE LINE: 5"

DEPTH TO WATER: 23.68 VOLUME FACTOR: ~~0.041~~ 1.0

WATER IN CASING (ft): 7.63 CASING VOL (Gal/Time): 7.63 x 3cv = 23.1

TIME PUMP ON: 0848 INITIAL FLOW RATE (Q=GPM): 1.7

TIME PUMP OFF: MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
0853		7.7	1	7.32	22.3	1542	-165	1	25.44
0858		15.4	2	7.35	22.3	1528	-140	1	27.06
0903		23.1	3	7.47	22.6	1508	-129	1	28.92
0905				7.43	22.2	1501	-120		
0907				7.41	22.1	1501	-115		

METER	SERIAL #	CALIBRATED
pH :	6205114	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		~~YES~~/NO

SAMPLER /EMPLOYER: **silva90**
PROJECT: **3MRP**
SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: – QC LAB(S): – QC SAMPLE TIME: –

SAMPLE ID (VERIFY): W-25N-22 / 3085 TIME COLLECTED: 0912

PROJECT /	ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
3MRP	BCLABS-BAK	S3ANIONS	1	250ml Polyethylene
3MRP	BCLABS-BAK	S3METALS	1	500ml Polyethylene
3MRP	BCLABS-BAK	S3METALS:FILTER	0	500ml Polyethylene
3MRP	BCLABS-BAK	S3WETCHEM	2	500ml Polyethylene
~~3MRP~~	~~FGLSTK~~	~~SM9221:SHO~~	~~1~~	~~250 mL Sterilized Polyethylene~~

NO Sample for SM9221:SHO

Added 2.5 oz of Cl

Revision: 01/30/2009

All Ground Water Sampling Data

WGMD

Target Sample Date: 12-Aug-2009 Month: Norm Qtr: 3 Norm Year: 2009

WELL ID: W-25N-22 AREA INFO: S300/GSA/EGSA

DATE: 12-Aug-2009 LOG BOOK (DOCUMENT CONTROL) #: AA17144

PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT: TCE-1.2

SCREENED INTERVAL: 20.81 - 30.81 PUMP INTAKE DEPTH: 31.60

DEPTH OF CASING: 31.31 CASING DIAMETER: 4.50

DEPTH TO WATER: 23.68 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 7.63 CASING VOL (Gal/Time): 6.3 x 3cv = 18.9

TIME PUMP ON: ~~1002~~ 1001 INITIAL FLOW RATE (Q=GPM): 1.1

TIME PUMP OFF: MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1007		~~14~~ 6.3	1	7.31	23.0	1566	126	1	25.06
1013		12.6	2	7.34	23.1	1545	4		26.1
1019		18.9	3	7.40	23.6	1549	-4		26.97
1021				7.36	23.7	1547	-13		
1023				7.33	23.5	1544	-15		

METER	SERIAL #	CALIBRATED
pH :	~~61005~~ 620514	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER /EMPLOYER: silva90

PROJECT: 3MRP

SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-25N-22 / 3VES TIME COLLECTED: 1027

PROJECT	ANALYTICAL LAB	REQUESTED ANALYSIS	QUANTITY	TYPE OF CONTAINERS
~~3MRP~~	~~BCLABS-BAK~~	~~S3ANIONS~~	~~1~~	~~250ml Polyethylene~~
~~3MRP~~	~~BCLABS-BAK~~	~~S3METALS~~	~~1~~	~~500ml Polyethylene~~
~~3MRP~~	~~BCLABS-BAK~~	~~S3METALS:FILTER~~	~~0~~	~~500ml Polyethylene~~
~~3MRP~~	~~BCLABS-BAK~~	~~S3WETCHEM~~	~~2~~	~~500ml Polyethylene~~
3MRP	FGLSTK	SM9221:SHO	1	250 mL Sterilized Polyethylene

Evacuated all CL

Only sampled for SM9221:SHO

Revision: 01/30/2009

All Ground Water Sampling Data

Target Sample Date: **11-Aug-2009** Month: Norm Qtr: **3** Norm Year: **2009**

WAWID

WELL ID: **W-25N-23** AREA INFO: **S300/GSA/EGSA**

DATE: **11-Aug-2009** LOG BOOK (DOCUMENT CONTROL) #: **AA17144**

PURGE METHOD/SAMPLE METHOD: **GF / LVES** CONTAMINANT PRESENT: ***TCE-6.0**

SCREENED INTERVAL: **21.81 - 36.81** PUMP INTAKE DEPTH: **36.50**

DEPTH OF CASING: **38.11** DISCHARGE LINE: ~~1~~ 5"

DEPTH TO WATER: 21.12 VOLUME FACTOR: ~~0.041~~ 1.

WATER IN CASING (ft): 16.99 CASING VOL (Gal/Time): 16.99 x 3cv = 51 Gal

TIME PUMP ON: 0930 INITIAL FLOW RATE (Q=GPM): 2.5

TIME PUMP OFF: MEASURED BY FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
0938		17.00	1	7.27	22.0	1447	-135	1	24.21
0946		34.00	2	7.21	21.9	1448	-127	1	25.02
0954		51.00	3	7.30	21.9	1443	-128	1	25.41
0956				7.26	21.7	1444	-126		
0958				7.21	21.7	1440	-124		

METER	SERIAL #	CALIBRATED
pH :	6205114	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER /EMPLOYER: **silva90**
PROJECT: **3MRP**
SAMPLE PRESERVATION/AMT of REAGENT: N/A

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-25N-23 / JWS TIME COLLECTED: 1003

PROJECT /	ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
3MRP	BCLABS-BAK	S3ANIONS	1	250ml Polyethylene
3MRP	BCLABS-BAK	S3METALS	1	500ml Polyethylene
3MRP	BCLABS-BAK	S3METALS:FILTER	0	500ml Polyethylene
3MRP	BCLABS-BAK	S3WETCHEM	2	500ml Polyethylene
~~3MRP~~	~~FGLSTK~~	~~SM9221:SHO~~	~~1~~	~~250 mL Sterilized Polyethylene~~

NO Sample for SM9221:SHO

added 25 oz of CL

~~2.5~~

Revision: 01/30/2009

All Ground Water Sampling Data

WGMD

Target Sample Date: 12-Aug-2009 Month: Norm Qtr: 3 Norm Year: 2009

WELL ID: W-25N-23 AREA INFO: 8300/GSA/EGSA

DATE: 12-Aug-2009 LOG BOOK (DOCUMENT CONTROL) #: AA17144

PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT: *TCE-6.0

SCREENED INTERVAL: 21.81 - 36.81 PUMP INTAKE DEPTH: 36.50

DEPTH OF CASING: 38.11 CASING DIAMETER: 4.50

DEPTH TO WATER: 21.11 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 17.0 CASING VOL (Gal/Time): 14.0 x 3vo = 42 Gl

TIME PUMP ON: 1039 INITIAL FLOW RATE (Q=GPM): 1.7

TIME PUMP OFF: 1117 MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1050		14.	1	7.30	23.4	1443	-48	1	23.31
1102		28.	2	7.28	22.7	1442	-61	1	23.82
1111		42.	3	7.21	22.5	1439	-70	1	23.84
1113				7.18	22.4	1439	-63		
1115				7.17	22.4	1441	-68		

METER SERIAL # CALIBRATED
pH : 6205114 YES/NO
SC : YES/NO
mV : YES/NO
H2O: YES/NO

SAMPLER /EMPLOYER: silva90
PROJECT: 3MRP
SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-25N-23 / 3045 TIME COLLECTED: 1117

PROJECT	/ ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
~~3MRP~~	~~BCLABS-BAK~~	~~S3ANIONS~~	~~1~~	~~250ml Polyethylene~~
~~3MRP~~	~~BCLABS-BAK~~	~~S3METALS~~	~~1~~	~~500ml Polyethylene~~
~~3MRP~~	~~BCLABS-BAK~~	~~S3METALS:FILTER~~	~~0~~	~~500ml Polyethylene~~
~~3MRP~~	~~BCLABS-BAK~~	~~S3WETCHEM~~	~~2~~	~~500ml Polyethylene~~
3MRP	FGLSTK	SM9221:SHO	1	250 mL Sterilized Polyethylene

Only Sampled SM9221:SHO

Evacuated all CL

Revision: 01/30/2009

All Ground Water Sampling Data

Target Sample Date: 14-Dec-2009 Month: Norm Qtr: 4 Norm Year: 2009

WELL ID: W-25N-23 AREA INFO: 8300/GSA/EGSA

DATE: 14-Dec-2009 LOG BOOK (DOCUMENT CONTROL) #: AA19036

PURGE METHOD/SAMPLE METHOD: GF / LVES CONTAMINANT PRESENT: *TCE-6.0

SCREENED INTERVAL: 21.81 - 36.81 PUMP INTAKE DEPTH: 36.50

DEPTH OF CASING: 38.11 DISCHARGE LINE: 1

DEPTH TO WATER: 22.42 VOLUME FACTOR: 0.041

WATER IN CASING (ft): 15.69 CASING VOL (Gal/Time): 1.6 x 2DC = 3.2 Gal

TIME PUMP ON: 1344 INITIAL FLOW RATE (Q=GPM): 1.2 Q

TIME PUMP OFF: 1349 MEASURED BY FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1347		6.31	2DC	7.09	20.9	1498	-117	1	22.85

METER SERIAL # CALIBRATED
pH : 6202454 YES/NO
SC : YES/NO
mV : YES/NO
H2O: YES/NO

SAMPLER /EMPLOYER: silva90
PROJECT: 3CMP
SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-25N-23/LVES TIME COLLECTED: 1349

PROJECT	/ ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
3CMP	BCLABS-BAK	E601	3	40 mL Glass VOA vial

All Ground Water Sampling Data

WGMD

Target Sample Date: 12-Aug-2009 Month: Norm Qtr: 3 Norm Year: 2009

WELL ID: W-35A-04 AREA INFO: 8300/GSA/CGSA

DATE: 12-Aug-2009 LOG BOOK (DOCUMENT CONTROL) #: AA17145

PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT: ND

SCREENED INTERVAL: 19.30 - 29.30 PUMP INTAKE DEPTH: 28.00

DEPTH OF CASING: 29.30 CASING DIAMETER: 4.50

DEPTH TO WATER: VOLUME FACTOR: 0.826

WATER IN CASING (ft): CASING VOL (Gal/Time):

TIME PUMP ON: INITIAL FLOW RATE (Q=GPM):

TIME PUMP OFF: MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW

METER	SERIAL #	CALIBRATED
pH :		YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER /EMPLOYER: silva90
PROJECT: 3MRP
SAMPLE PRESERVATION/AMT of REAGENT:

QC SAMPLE ID: CGSAFB QC LAB(S): FGLSTK, BCLABS-BAK QC SAMPLE TIME:

SAMPLE ID (VERIFY): TIME COLLECTED:

PROJECT /	ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
3MRP	BCLABS-BAK	S3ANIONS	1	250ml Polyethylene
3MRP	BCLABS-BAK	S3METALS	1	500ml Polyethylene
3MRP	BCLABS-BAK	S3METALS:FILTER	0	500ml Polyethylene
3MRP	BCLABS-BAK	S3WETCHEM	2	500ml Polyethylene
3MRP	FGLSTK	SM9221:SHO	1	250 mL Sterilized Polyethylene

Pump not working
Repair request submitted on 8/13/09

Revision: 01/30/2009

All Ground Water Sampling Data

Target Sample Date: 17-Dec-2009 Month: Norm Qtr: 4 Norm Year: 2009 WBMD

WELL ID: W-35A-04 AREA INFO: 8300/GSA/CGSA

DATE: 17-Dec-2009 LOG BOOK (DOCUMENT CONTROL) #: AA19038

PURGE METHOD/SAMPLE METHOD: Grunfos / 3VES CONTAMINANT PRESENT: ND

SCREENED INTERVAL: 19.30 - 29.30 PUMP INTAKE DEPTH: 26.28

DEPTH OF CASING: 28.57 CASING DIAMETER: 4.50

DEPTH TO WATER: 13.79 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 14.78 CASING VOL (Gal/Time): 12.2 x 3cv = 36.6 Gal

TIME PUMP ON: 1058 INITIAL FLOW RATE (Q=GPM): 3.0

TIME PUMP OFF: 1117 MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1102		12.2	1	7.30	22.2	1686	71	1	13.85
1107		24.4	2	7.37	22.6	1678	64	1	13.88
1111		36.6	3	7.37	22.5	1677	61	1	13.95
1113				7.34	22.7	1679	63		
1115				7.32	22.6	1680	60		

METER	SERIAL #	CALIBRATED
pH :	6202454	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER /EMPLOYER: silva90

PROJECT: 3EMG 3CMP

SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: W-35A-44Y QC LAB(S): BCLABS-BAK, GEL QC SAMPLE TIME: 1138

SAMPLE ID (VERIFY): W-35A-04 / 3VES TIME COLLECTED: 1117

PROJECT	/ ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
3EMG	GEL	AS:FILTER	0	1L Polyethylene
3EMG	GEL	AS:UISO	2	1L Polyethylene
3EMG	BCLABS-BAK	E120.1	1	250 mL Polyethylene
3EMG	BCLABS-BAK	E150.1	1	250 mL Polyethylene
3EMG	BCLABS-BAK	E200.7:FILTER	0	1L Polyethylene
3EMG	BCLABS-BAK	E200.7:K	1	1L Polyethylene
3EMG	BCLABS-BAK	E300.0:NO3	1	250 mL Polyethylene
3EMG	BCLABS-BAK	E300.0:PERC	1	250 mL Polyethylene
3EMG	BCLABS-BAK	E502.2	6	40 mL Glass VOA vial
3CMP	BCLABS-BAK	E601	3	40 mL Glass VOA vial
3EMG	BCLABS-BAK	E625	3	1L Amber Glass
3EMG	BCLABS-BAK	E8330:R+H	3	1L Amber Glass
3EMG	GEL	E900	1	1L Polyethylene
3EMG	GEL	E900:FILTER	0	1L Polyethylene
3EMG	GEL	E906	1	500ml GLASS
3EMG	FGLSTK	SM9221:SHO	1	250 mL Sterilized Polyethylene

Revision: 01/30/2009 2nd Part of Sample

* only Sampled SM9221:SHO
Evacuated all CL

All Ground Water Sampling Data

WBMD

Target Sample Date: 17-Dec-2009 Month: Norm Qtr: 4 Norm Year: 2009

WELL ID: W-35A-04 AREA INFO: 6300/GSA/CGSA

DATE: 17-Dec-2009 LOG BOOK (DOCUMENT CONTROL) #: AA19038

PURGE METHOD/SAMPLE METHOD: Grunfos / 3VBS CONTAMINANT PRESENT: ND

SCREENED INTERVAL: 19.30 - 29.30 PUMP INTAKE DEPTH: 26.28

DEPTH OF CASING: 28.57 CASING DIAMETER: 4.50

DEPTH TO WATER: 13.79 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 14.78 CASING VOL (Gal/Time): 12.2 x 3cv = 36.6Gal

TIME PUMP ON: 1058 INITIAL FLOW RATE (Q=GPM): 3.0

TIME PUMP OFF: 1117 MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1102		12.2	1	7.30	22.2	1686	71	\	13.85
1107		24.4	2	7.37	22.6	1678	64	\	13.88
1111		36.6	3	7.37	22.5	1677	61	\	13.95
1113				7.34	22.7	1679	63		
1115				7.32	22.6	1680	60		

METER SERIAL # CALIBRATED
pH : 6202454 YES/NO
SC : YES/NO
mV : YES/NO
H2O: YES/NO

SAMPLER /EMPLOYER: silva90
PROJECT: 3EMG 3CMP
SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: W-35A-44Y QC LAB(S): BCLABS-BAK, GEL QC SAMPLE TIME: 1138

SAMPLE ID (VERIFY): W-35A-04 / 3VBS TIME COLLECTED: 1117

PROJECT	/ ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
3EMG	GEL	AS:FILTER	0	1L Polyethylene
3EMG	GEL	AS:UISO	2	1L Polyethylene
3EMG	BCLABS-BAK	E120.1	1	250 mL Polyethylene
3EMG	BCLABS-BAK	E150.1	1	250 mL Polyethylene
3EMG	BCLABS-BAK	E200.7:FILTER	0	1L Polyethylene
3EMG	BCLABS-BAK	E200.7:K	1	1L Polyethylene
3EMG	BCLABS-BAK	E300.0:NO3	1	250 mL Polyethylene
3EMG	BCLABS-BAK	E300.0:PERC	1	250 mL Polyethylene
3EMG	BCLABS-BAK	E502.2	6	40 mL Glass VOA vial
3CMP	BCLABS-BAK	E601	3	40 mL Glass VOA vial
3EMG	BCLABS-BAK	E625	3	1L Amber Glass
3EMG	BCLABS-BAK	E8330:R+H	3	1L Amber Glass
3EMG	GEL	E900	1	1L Polyethylene
3EMG	GEL	E900:FILTER	0	1L Polyethylene
3EMG	GEL	E906	1	500ml GLASS
3EMG	FGLSTK	SM9221:SHO	1	250 mL Sterilized Polyethylene

Revision: 01/30/2009

2nd Part of Sample
* only Sampled SM9221SHO
Evacuated all CL

All Ground Water Sampling Data

WGMD

Target Sample Date: 16-Dec-2009 Month: Norm Qtr: 4 Norm Year: 2009

WELL ID: W-35A-04 AREA INFO: 8300/GSA/CGSA

DATE: 16-Dec-2009 LOG BOOK (DOCUMENT CONTROL) #: AA19037

PURGE METHOD/SAMPLE METHOD: Grunfos / 3VES CONTAMINANT PRESENT: ND

SCREENED INTERVAL: 19.30 - 29.30 PUMP INTAKE DEPTH: 26.28

DEPTH OF CASING: 28.57 CASING DIAMETER: 4.50

DEPTH TO WATER: 13.79 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 14.78 CASING VOL (Gal/Time): 12.2 × 3cv = 36.6 Gal

TIME PUMP ON: 1028 INITIAL FLOW RATE (Q=GPM): 3.1

TIME PUMP OFF: MEASURED BY FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1032		12.2	1	7.43	21.6	1684	69	(	13.86
1036		24.4		7.39	22.3	1679	68	(	13.88
1040		36.6		7.37	22.5	1678	64	|	13.93
1042				7.39	22.6	1677	64		
1044				7.37	22.5	1678	59		

METER SERIAL # CALIBRATED
pH : 6202454 YES/NO
SC : YES/NO
mV : YES/NO
H2O: YES/NO

SAMPLER /EMPLOYER: silva90
PROJECT: 3EMG 3CMP
SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: W-35A-44Y QC LAB(S): BCLABS-BAK, GEL QC SAMPLE TIME: 1307

SAMPLE ID (VERIFY): W-35A-04 / 3085 TIME COLLECTED: 1049

PROJECT	/ ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
3EMG	GEL	AS:FILTER	0	1L Polyethylene
3EMG	GEL	AS:UISO	2	1L Polyethylene
3EMG	BCLABS-BAK	E120.1	1	250 mL Polyethylene
3EMG	BCLABS-BAK	E150.1	1	250 mL Polyethylene
3EMG	BCLABS-BAK	E200.7:FILTER	0	1L Polyethylene
3EMG	BCLABS-BAK	E200.7:K	1	1L Polyethylene
3EMG	BCLABS-BAK	E300.0:NO3	1	250 mL Polyethylene
3EMG	BCLABS-BAK	E300.0:PERC	1	250 mL Polyethylene
3EMG	BCLABS-BAK	E502.2	6	40 mL Glass VOA vial
3CMP	BCLABS-BAK	E601	3	40 mL Glass VOA vial
3EMG	BCLABS-BAK	E625	3	1L Amber Glass
3EMG	BCLABS-BAK	E8330:R+H	3	1L Amber Glass
3EMG	GEL	E900	1	1L Polyethylene
3EMG	GEL	E900:FILTER	0	1L Polyethylene
3EMG	GEL	E906	1	500ml GLASS
* ~~3EMG~~	~~FOLSTH~~	~~SM9221:OHO~~	~~1~~	~~250 mL Sterilized Polyethylene~~

Revision: 01/30/2009 * Will sample on 12-17-09 after CL decon. Page: 1 of 2

Added 2.5oz of CL

New Pump installed on 12/14/09

All Ground Water Sampling Data

Target Sample Date: 16-Dec-2009 Month: Norm Qtr: 4 Norm Year: 2009

WKMD

WELL ID: W-35A-04 AREA INFO: 6300/GSA/CGSA

DATE: 16-Dec-2009 LOG BOOK (DOCUMENT CONTROL) #: AA19037

PURGE METHOD/SAMPLE METHOD: Grunfos / 3VES CONTAMINANT PRESENT: ND

SCREENED INTERVAL: 19.30 - 29.30 PUMP INTAKE DEPTH: 26.28

DEPTH OF CASING: 28.57 CASING DIAMETER: 4.50

DEPTH TO WATER: 13.79 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 14.78 CASING VOL (Gal/Time): 12.2 x 3 = 36.6

TIME PUMP ON: 1028 INITIAL FLOW RATE (Q=GPM): 3.1 Q

TIME PUMP OFF: 1049 MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW

METER SERIAL # CALIBRATED
pH : 6201454 YES/NO
SC : YES/NO
mV : YES/NO
H2O: YES/NO

SAMPLER /EMPLOYER: silva90
PROJECT: 3EMG
SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: W-35A-44Y QC LAB(S): FGLSTK, BCLABS-BAK QC SAMPLE TIME: 1307

SAMPLE ID (VERIFY): W-35A-04 / 3VES TIME COLLECTED: 1049

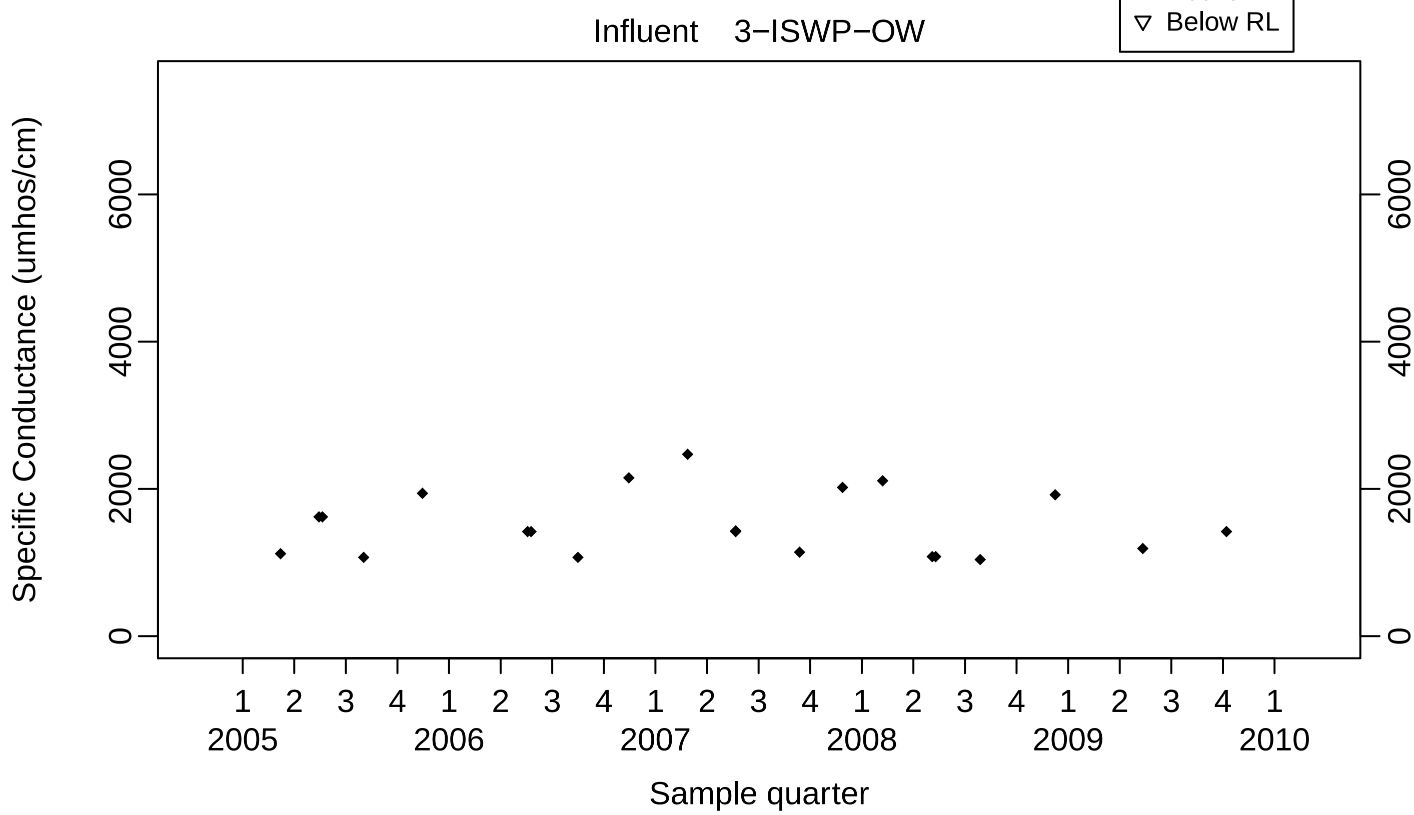
PROJECT	/ ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
3EMG	BCLABS-BAK	WGMGMET3	1	1L Polyethylene
3EMG	BCLABS-BAK	WGMGMET3:FILTER	0	1L Polyethylene

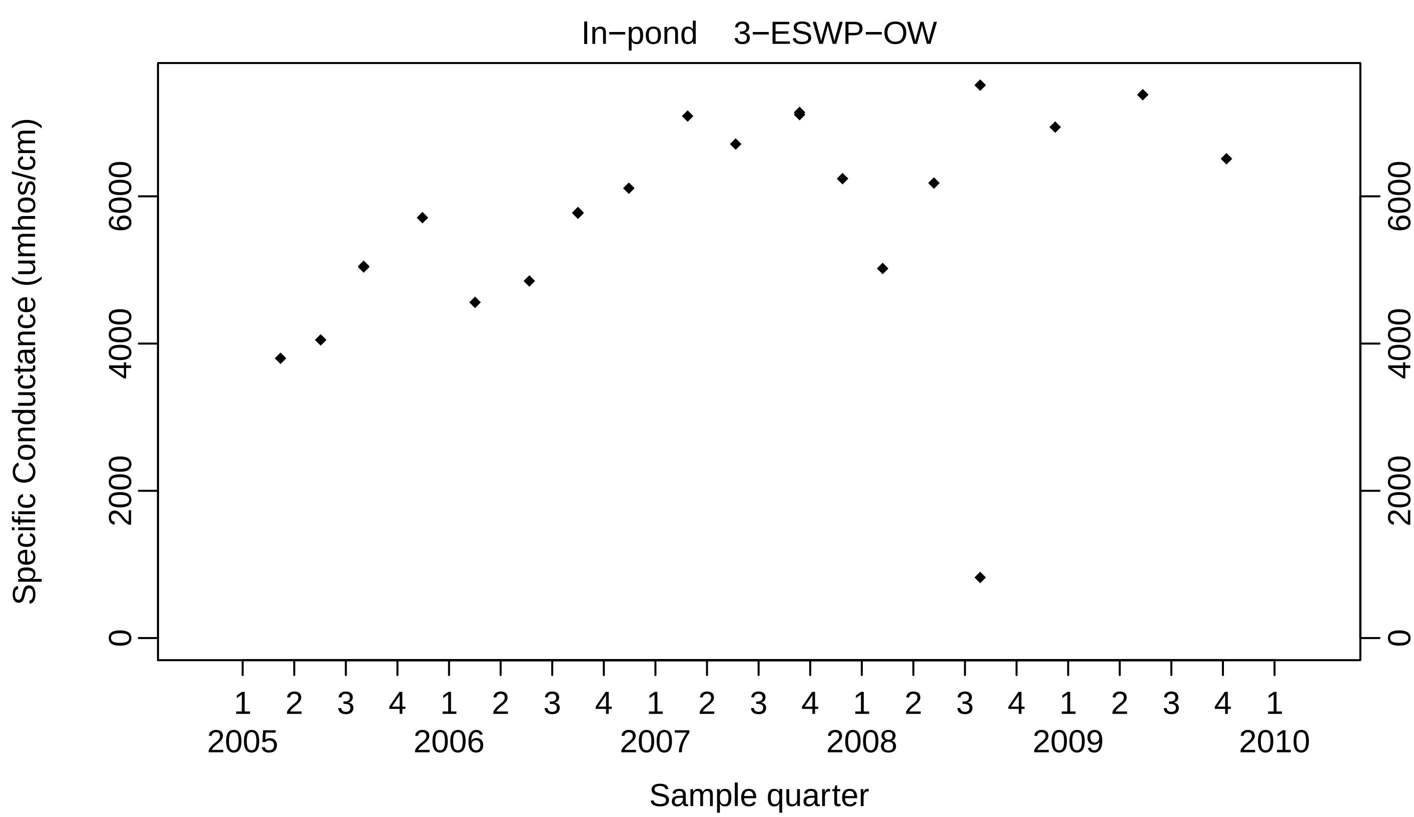
5-Year Historical Data Plots

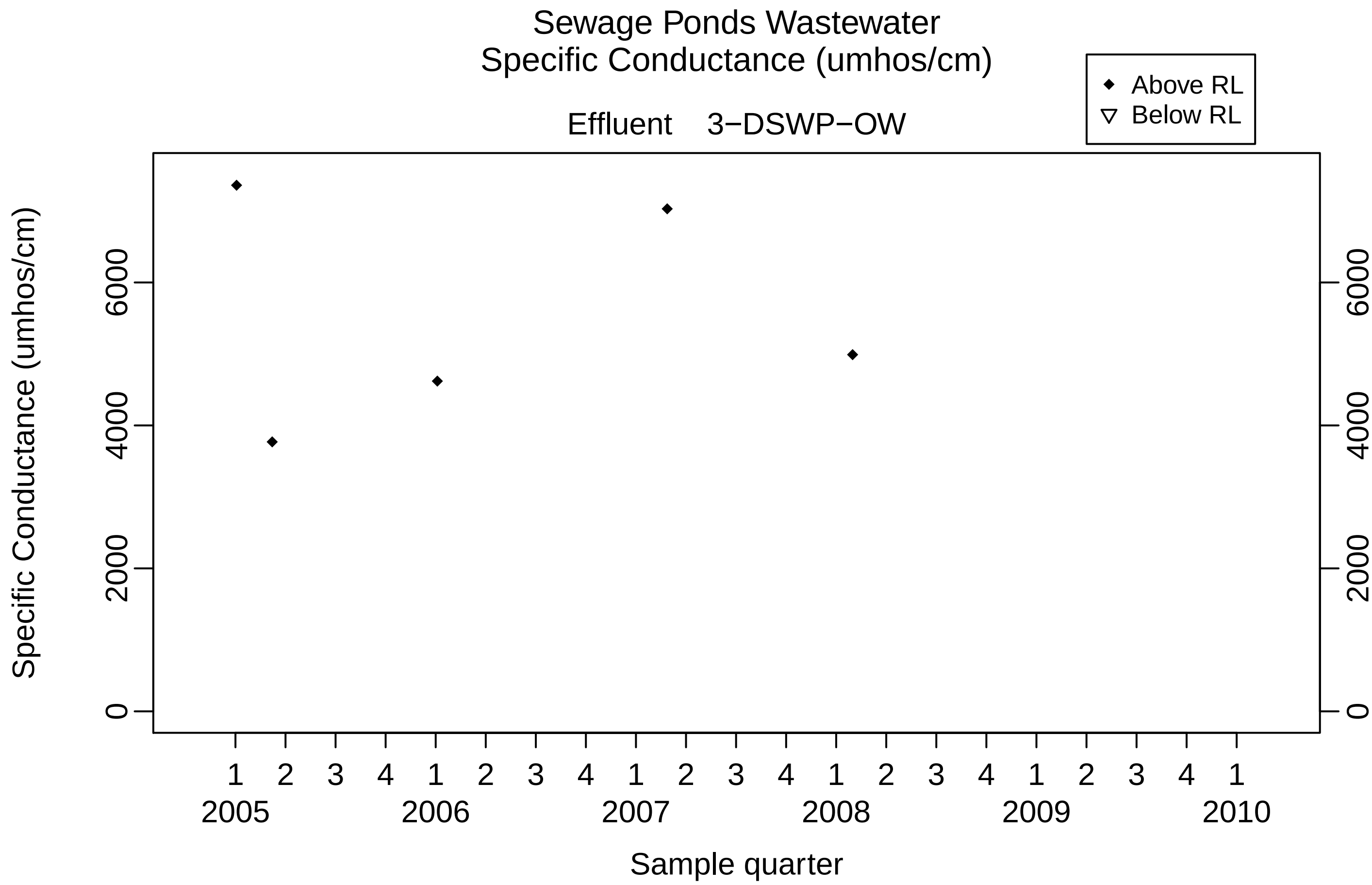
ISWP and ESWP Network
Sewer Pond Groundwater Network

Abbreviation Key:
LL = lower limit
SL = statistical limit
PL = predicative limit
RL = reporting limit

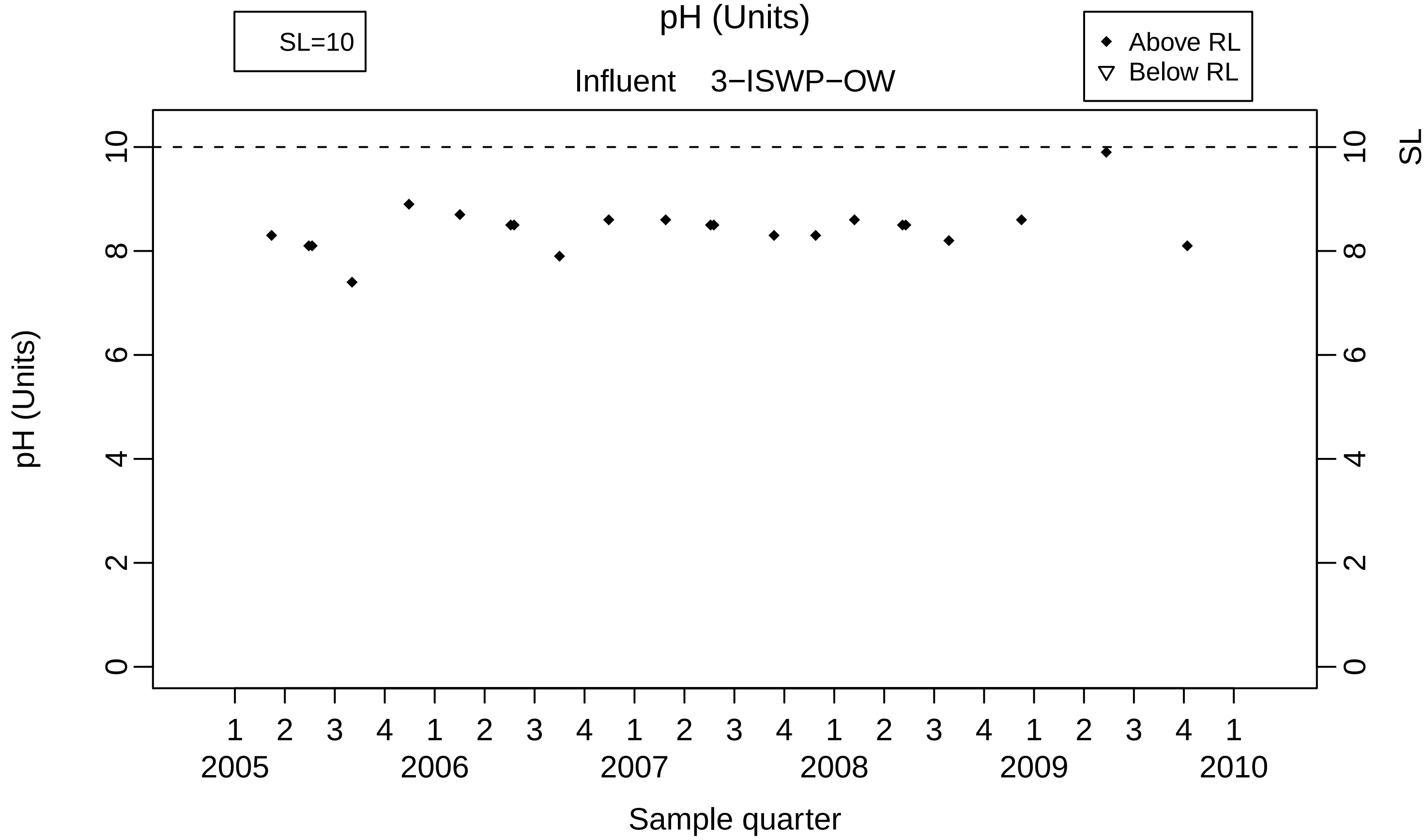
Sewage Ponds Wastewater
Specific Conductance (umhos/cm)

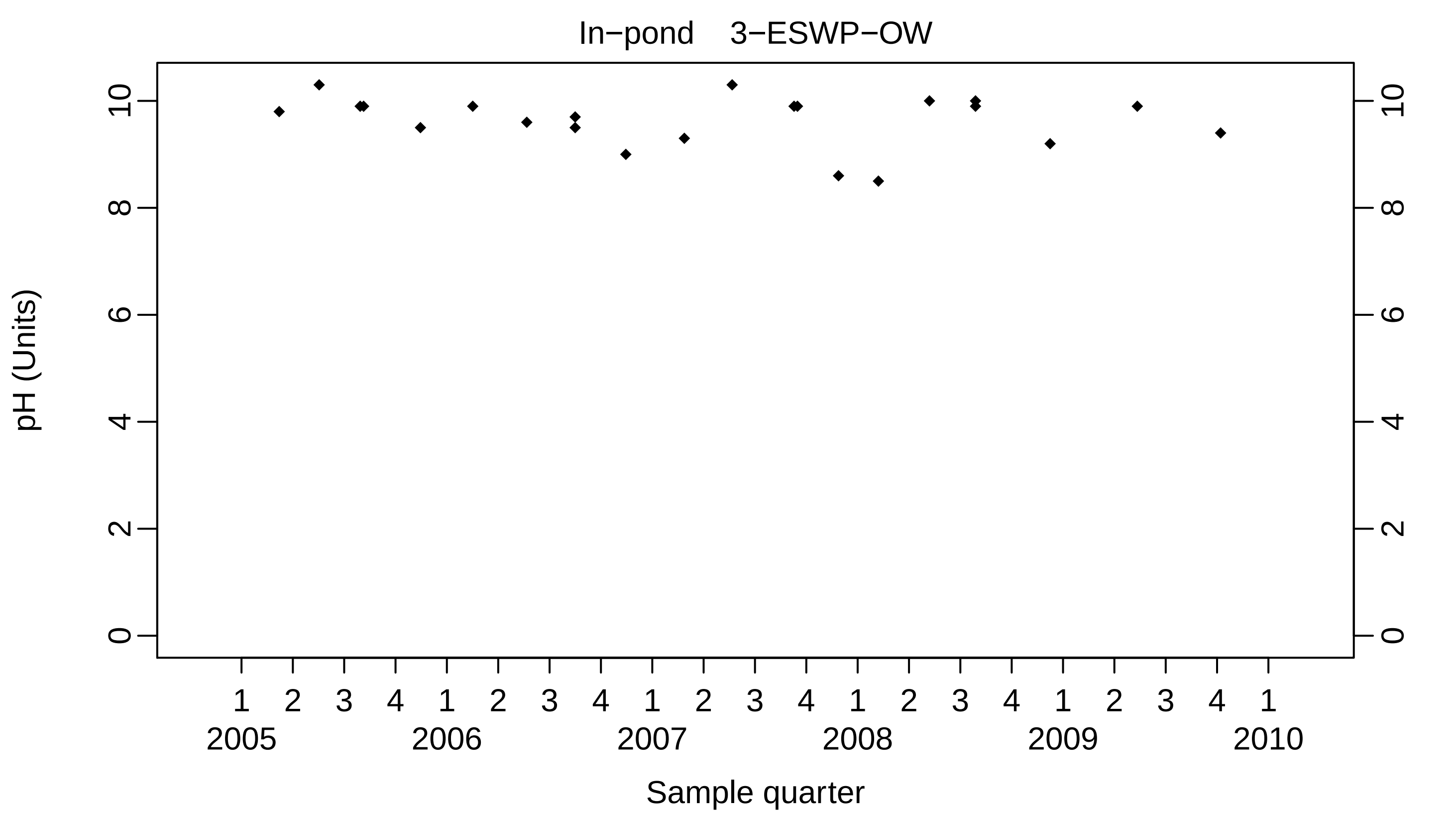


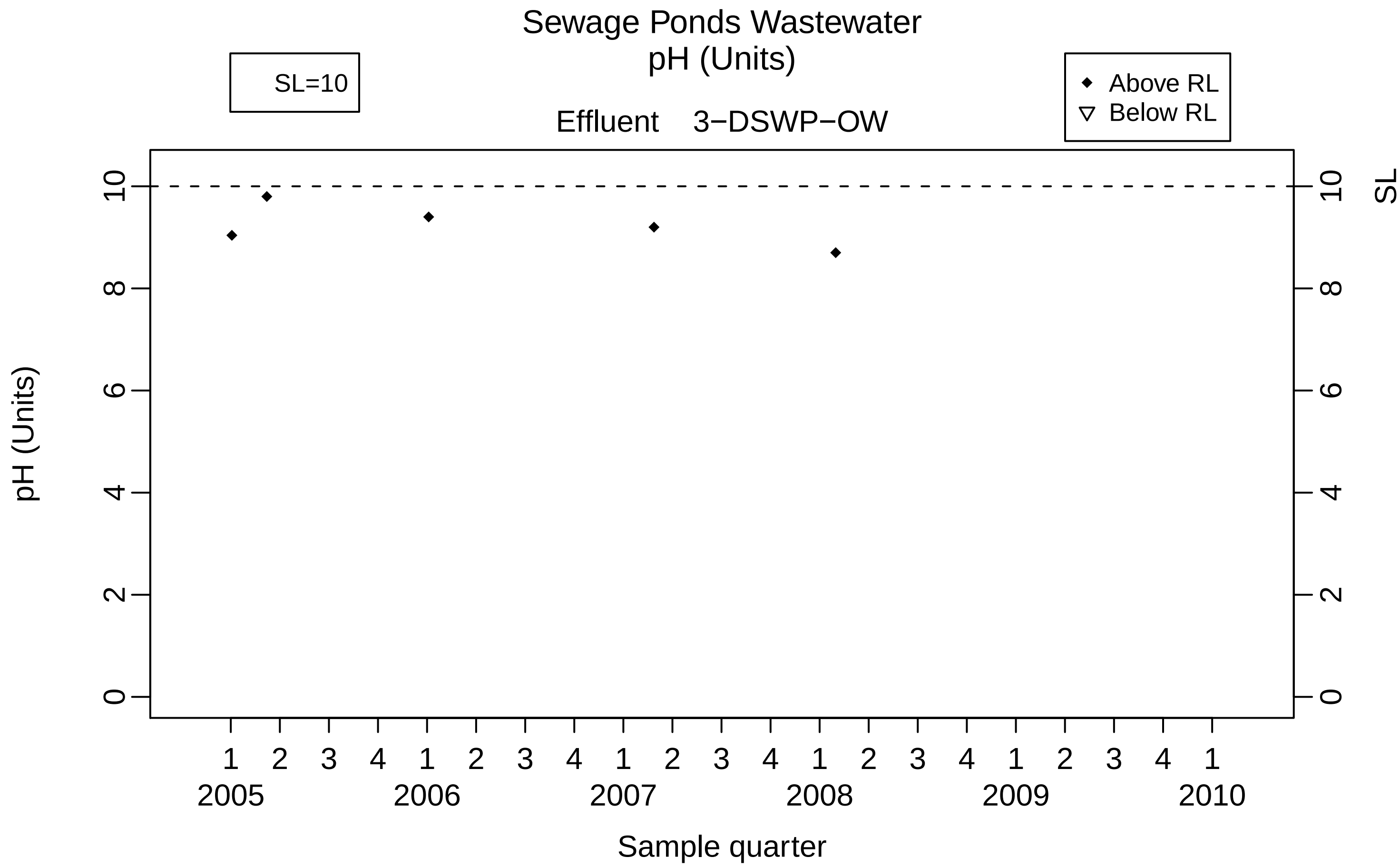


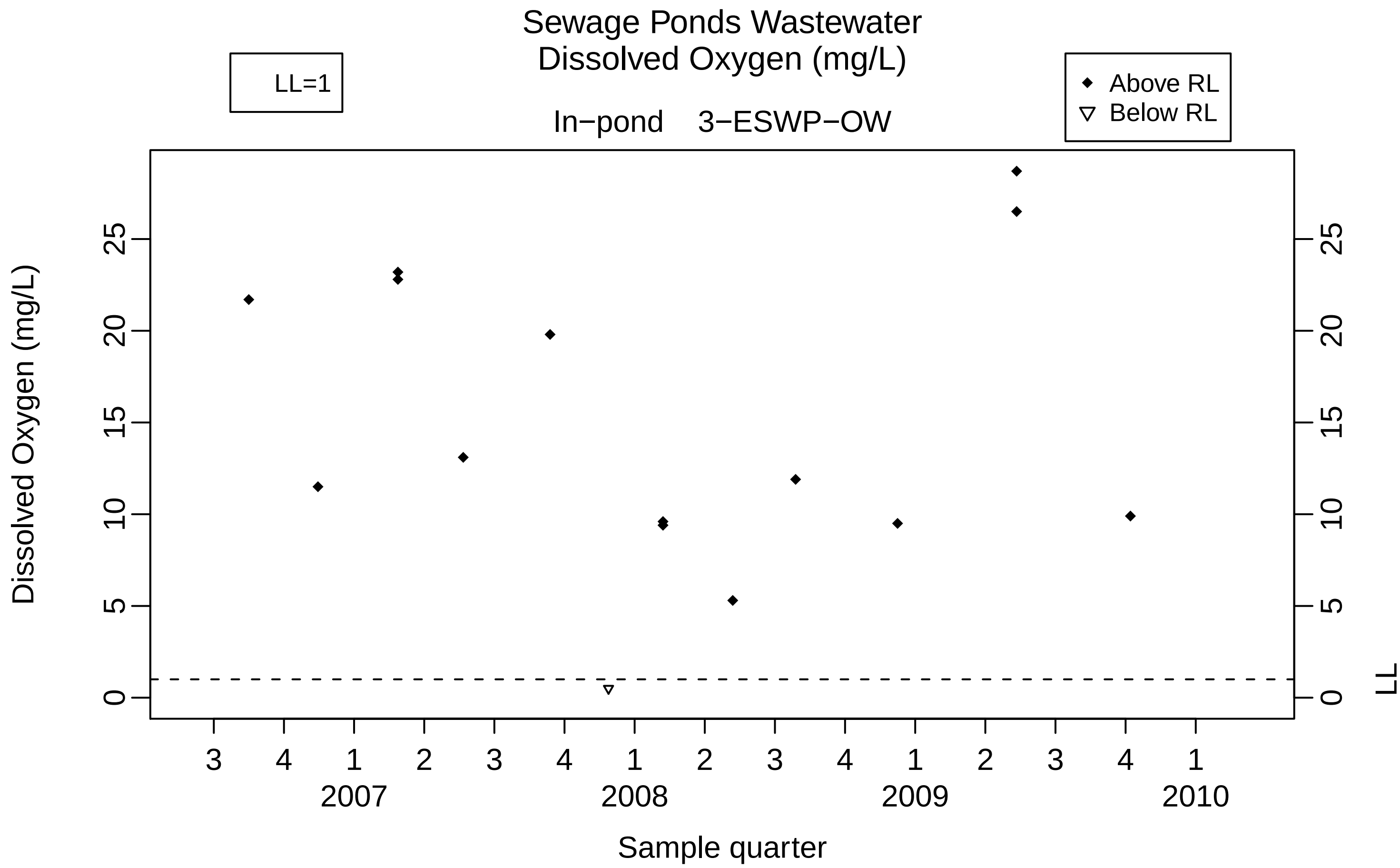

Sewage Ponds Wastewater
Specific Conductance (umhos/cm)
Effluent 3−DSWP−OW
Above RL
Below RL
Specific Conductance (umhos/cm)
0
2000
4000
6000
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005 2006 2007 2008 2009 2010
Sample quarter

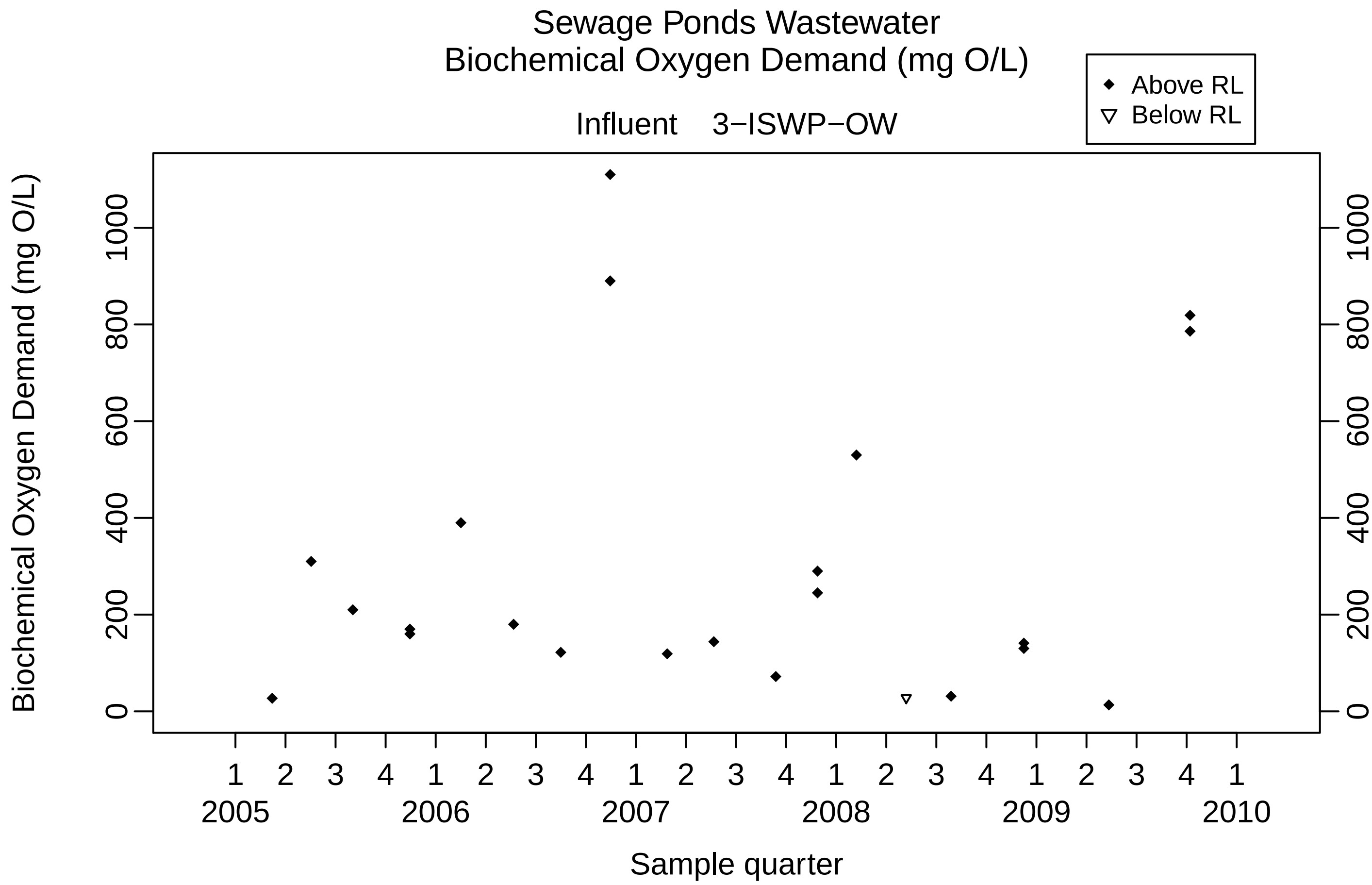
Sewage Ponds Wastewater
pH (Units)

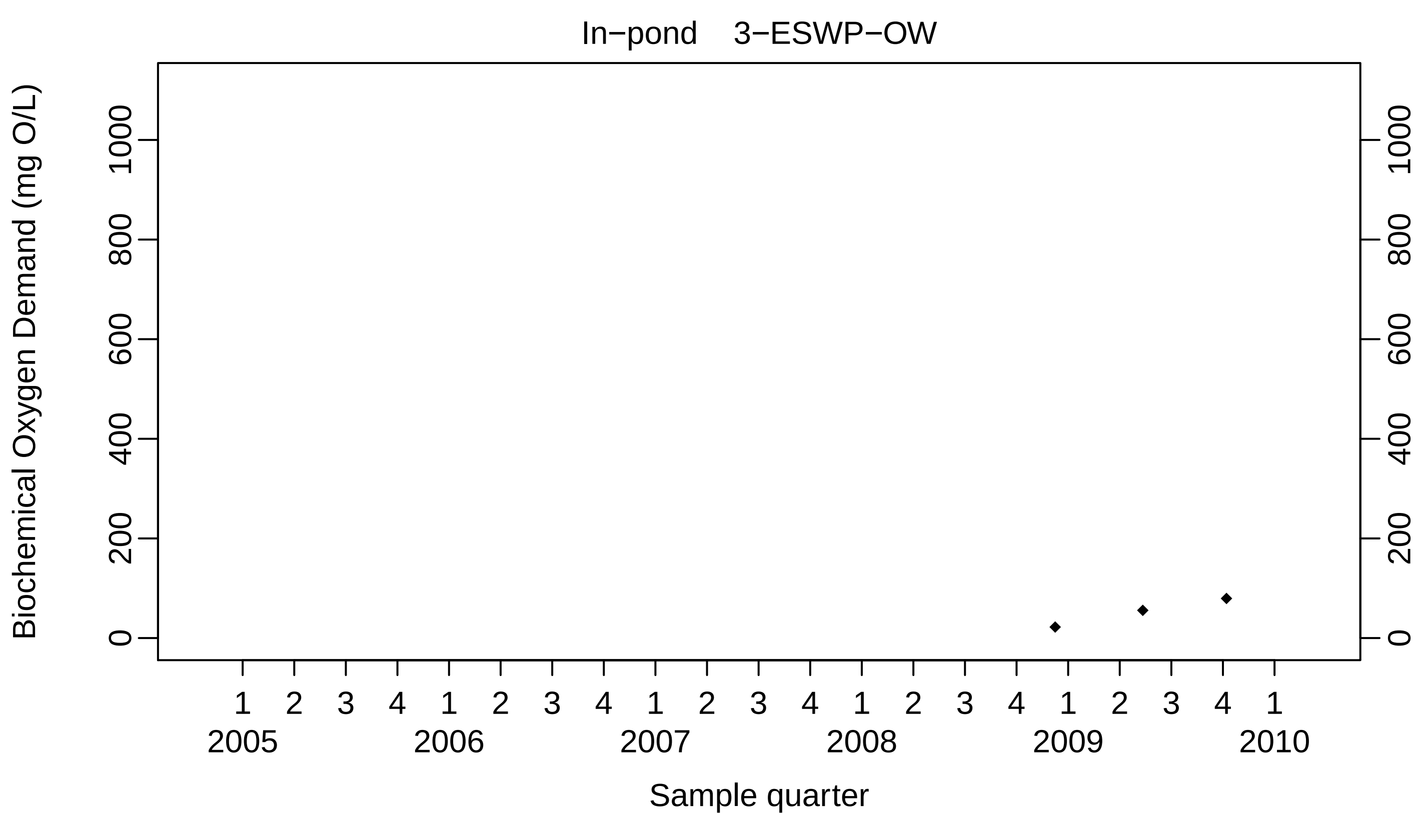


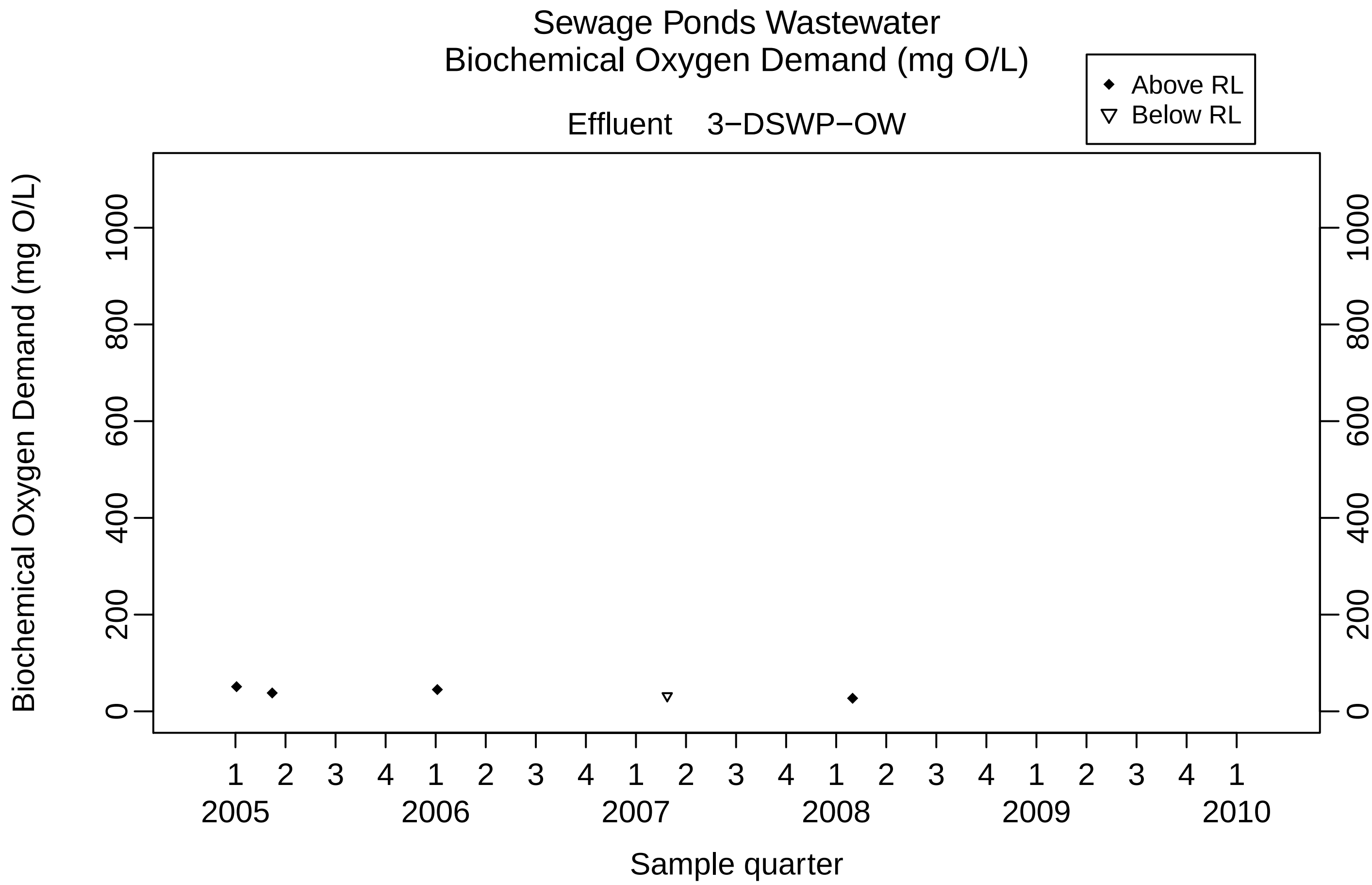


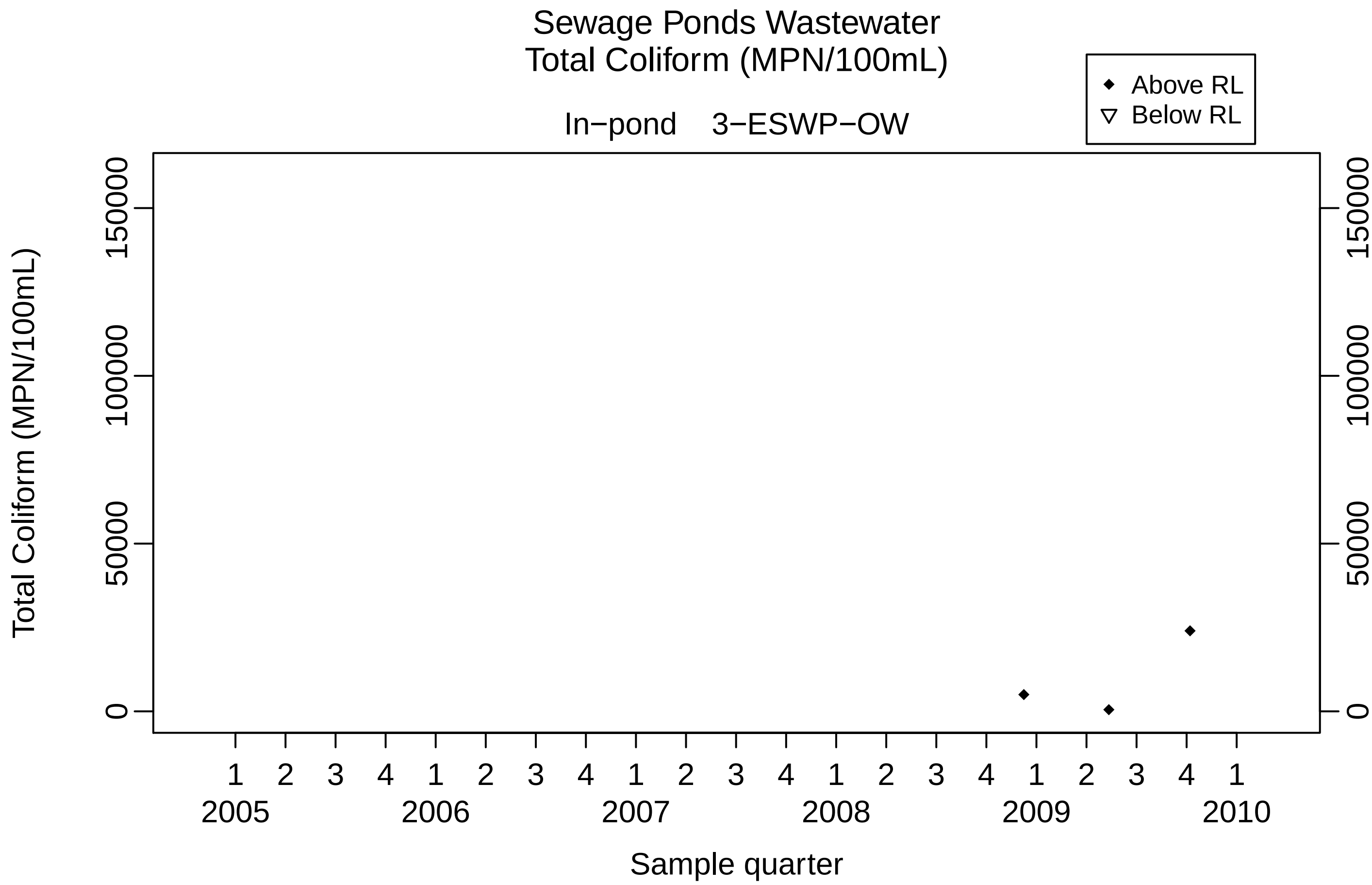

Sewage Ponds Wastewater
pH (Units)
SL=10
Above RL
Below RL
Effluent 3−DSWP−OW
pH (Units)
SL
0
2
4
6
8
10
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005
2006
2007
2008
2009
2010
Sample quarter

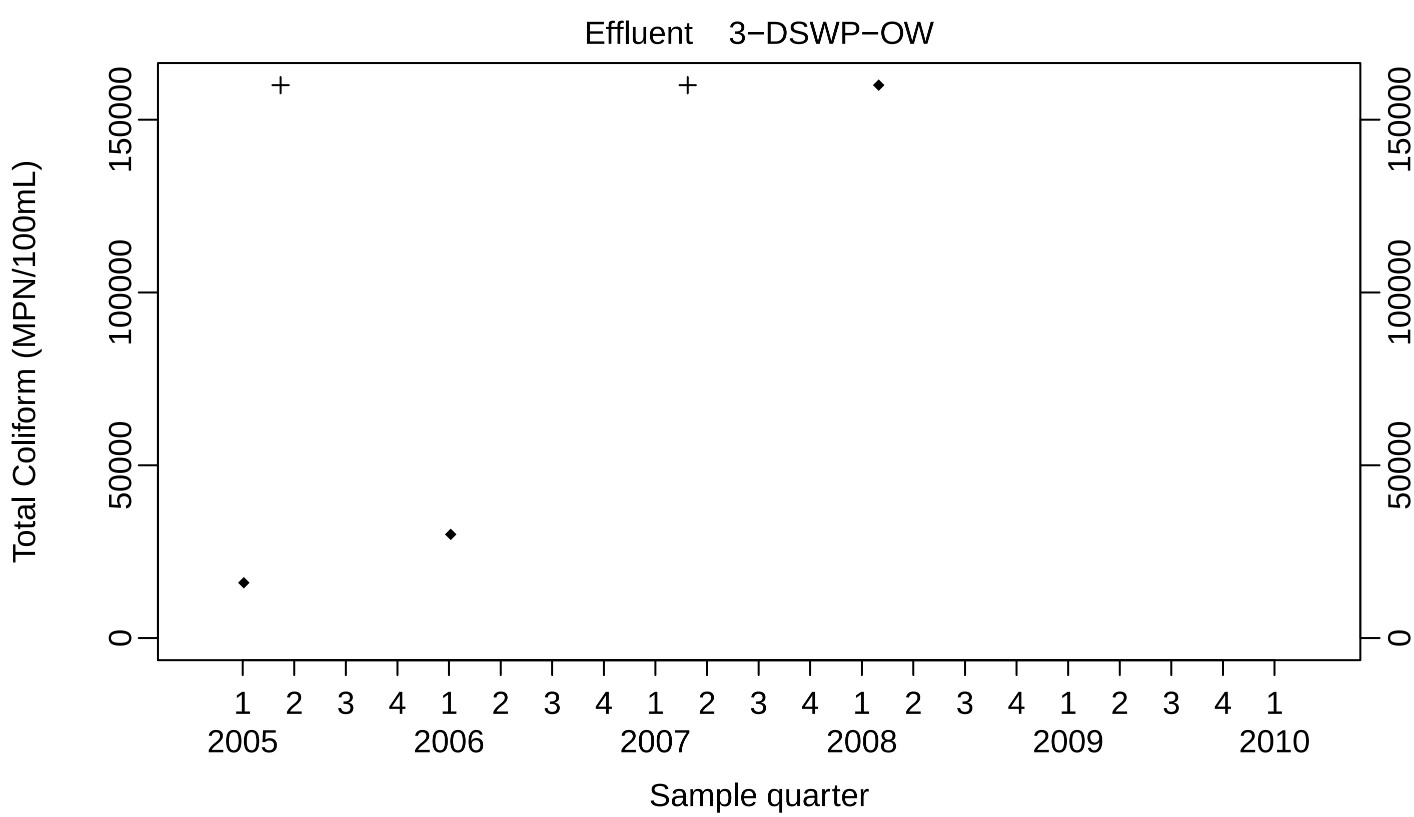

Sewage Ponds Wastewater
Dissolved Oxygen (mg/L)
LL=1
Above RL
Below RL
In−pond 3−ESWP−OW
Dissolved Oxygen (mg/L)
0
5
10
15
20
25
LL
3
4
1
2
3
4
1
2
3
4
1
2
3
4
1
2007
2008
2009
2010
Sample quarter

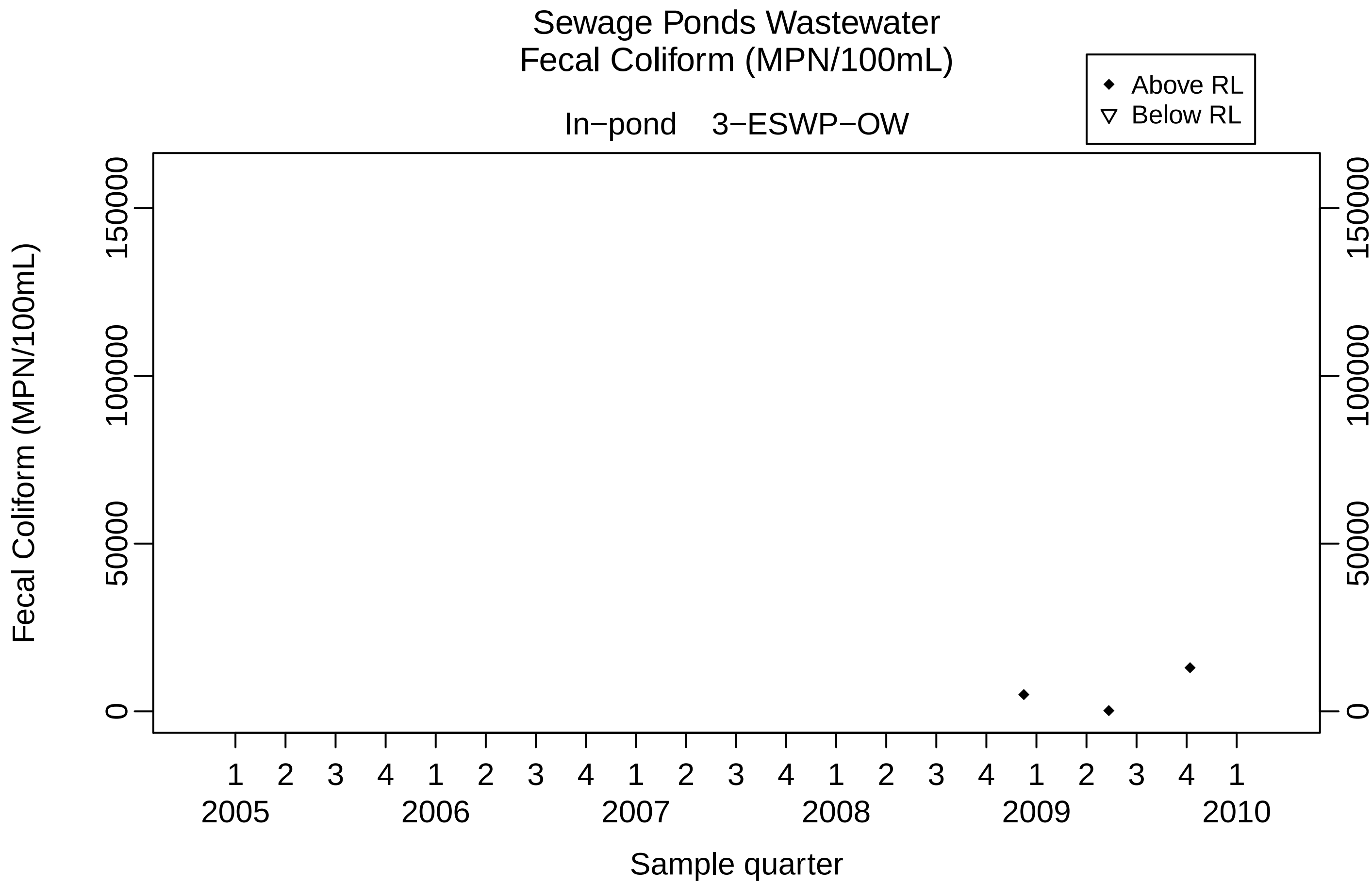

Sewage Ponds Wastewater
Biochemical Oxygen Demand (mg O/L)
Above RL
Below RL
Influent 3−ISWP−OW
Biochemical Oxygen Demand (mg O/L)
0
200
400
600
800
1000
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005
2006
2007
2008
2009
2010
Sample quarter

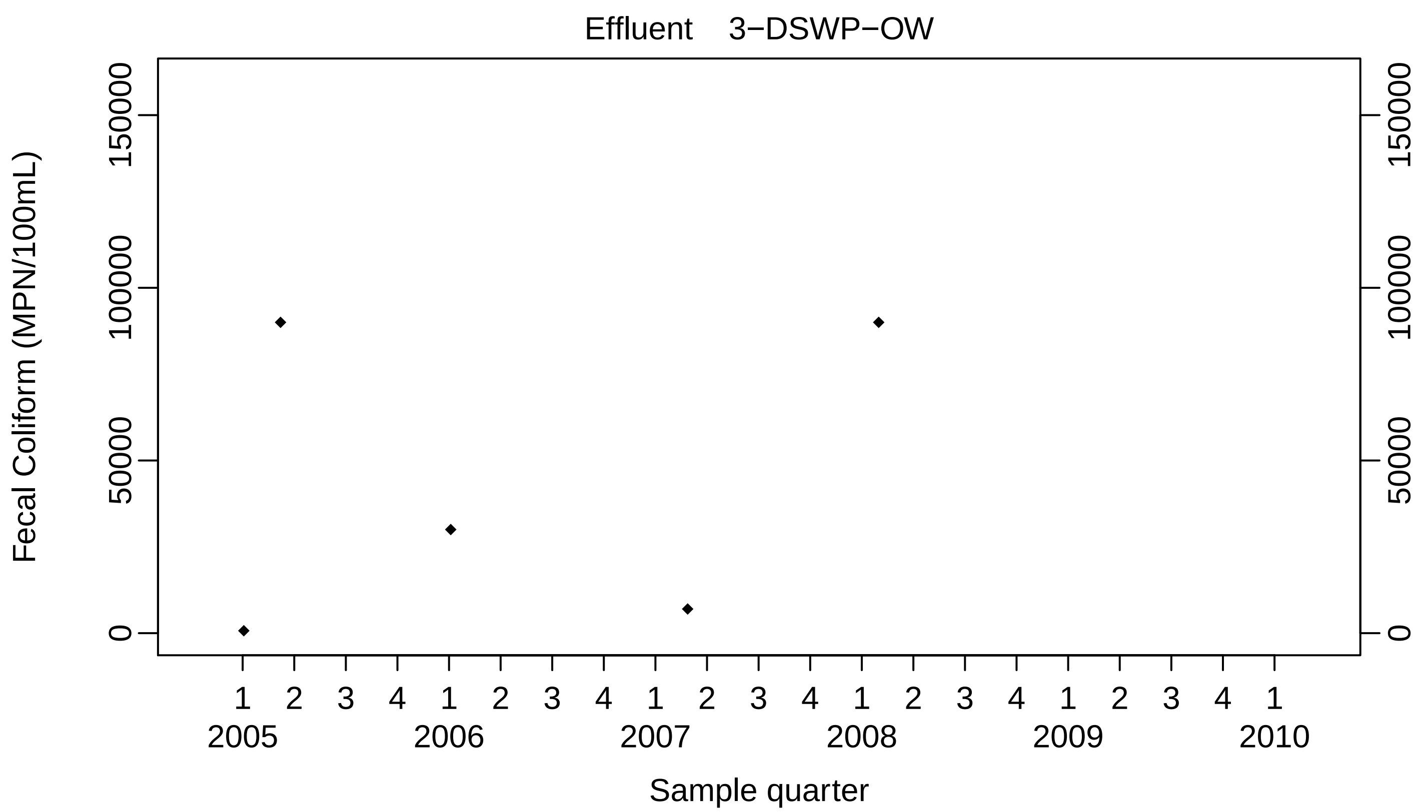

In−pond 3−ESWP−OW
Biochemical Oxygen Demand (mg O/L)
0
200
400
600
800
1000
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005
2006
2007
2008
2009
2010
Sample quarter

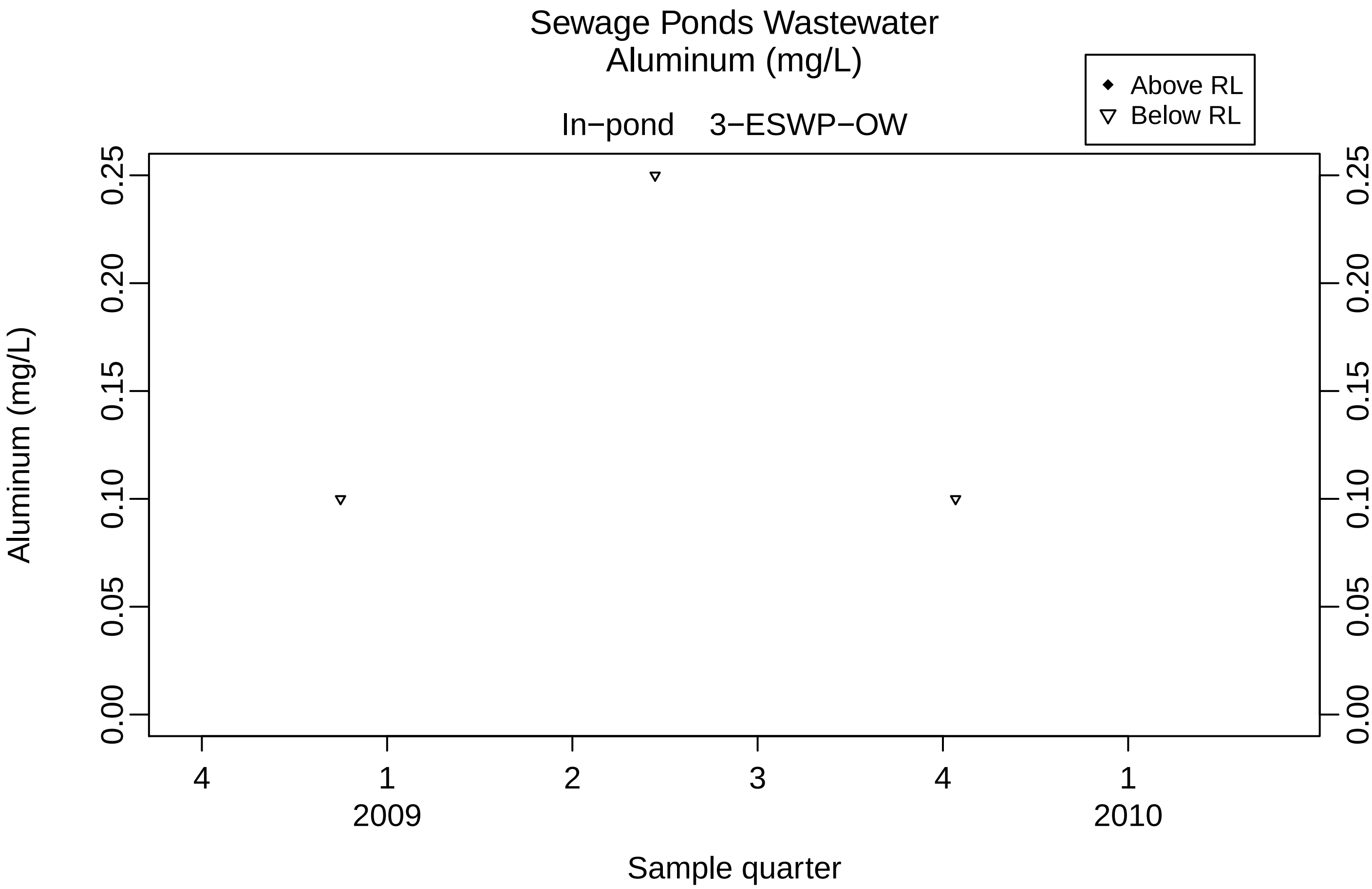

Sewage Ponds Wastewater
Biochemical Oxygen Demand (mg O/L)
Effluent 3−DSWP−OW
Above RL
Below RL
Biochemical Oxygen Demand (mg O/L)
0
200
400
600
800
1000
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005
2006
2007
2008
2009
2010
Sample quarter

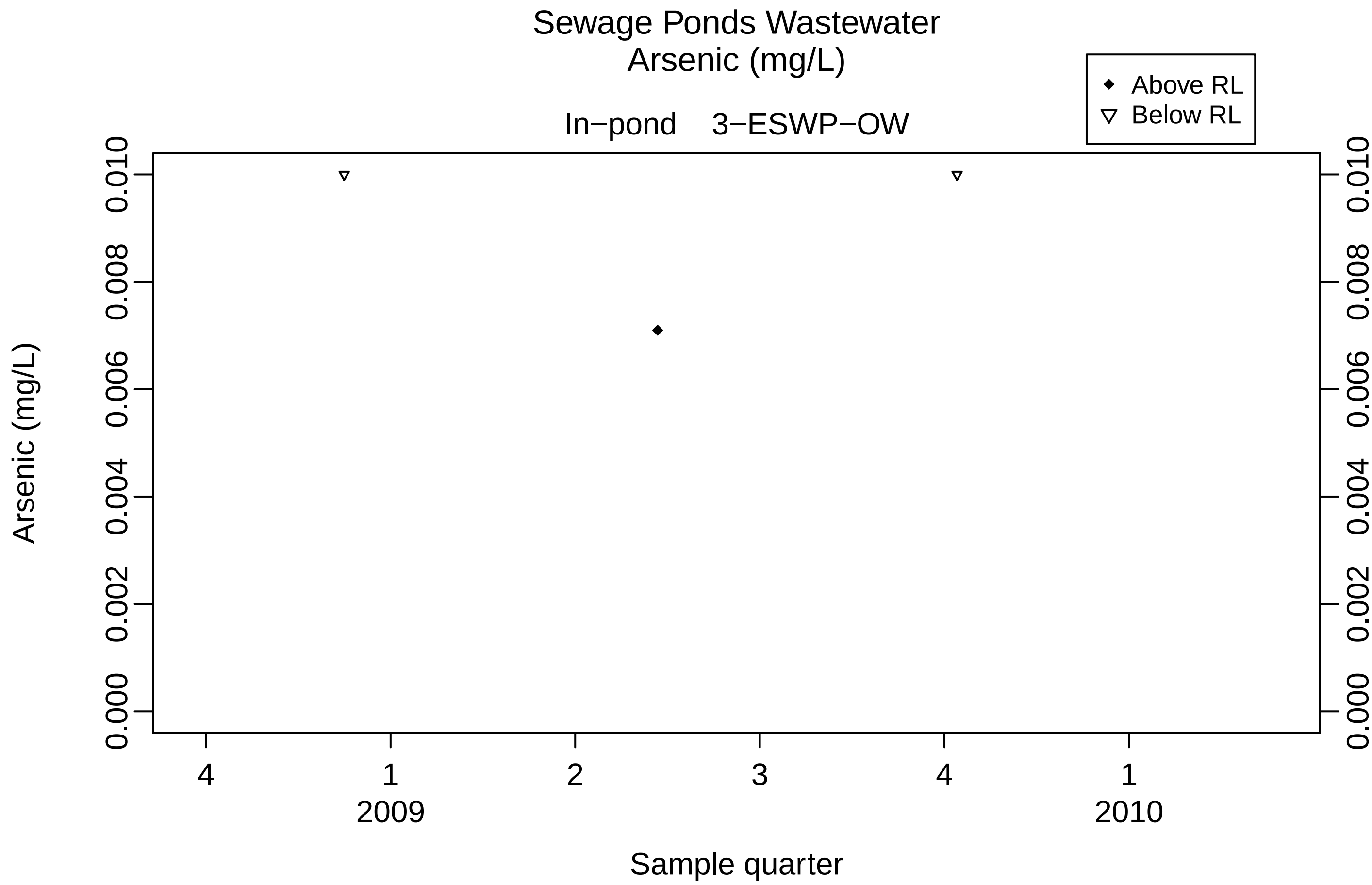

Sewage Ponds Wastewater
Total Coliform (MPN/100mL)
Above RL
Below RL
In−pond 3−ESWP−OW
Total Coliform (MPN/100mL)
0
50000
100000
150000
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005
2006
2007
2008
2009
2010
Sample quarter

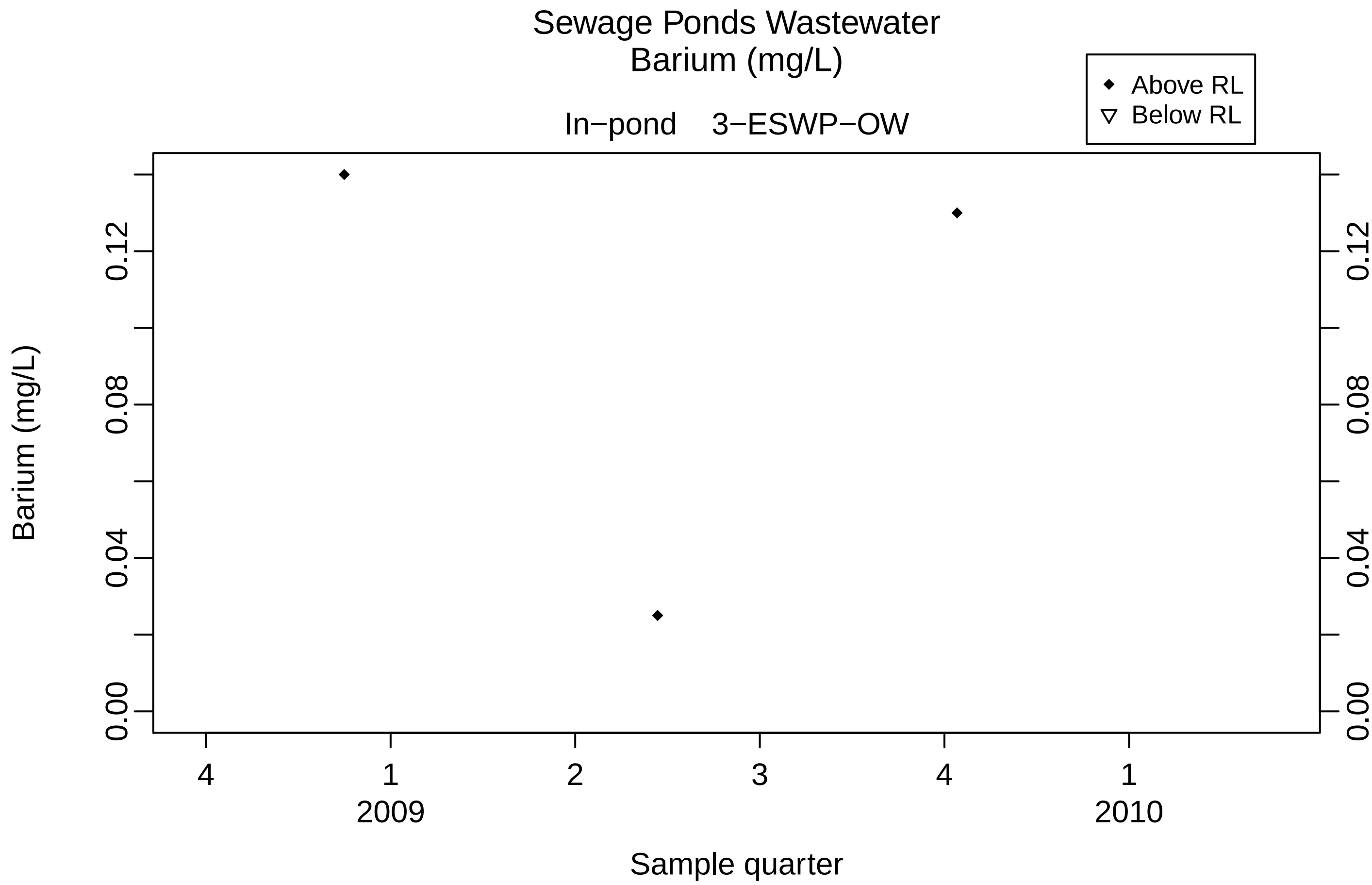

Effluent 3−DSWP−OW
Total Coliform (MPN/100mL)
0
50000
100000
150000
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005
2006
2007
2008
2009
2010
Sample quarter

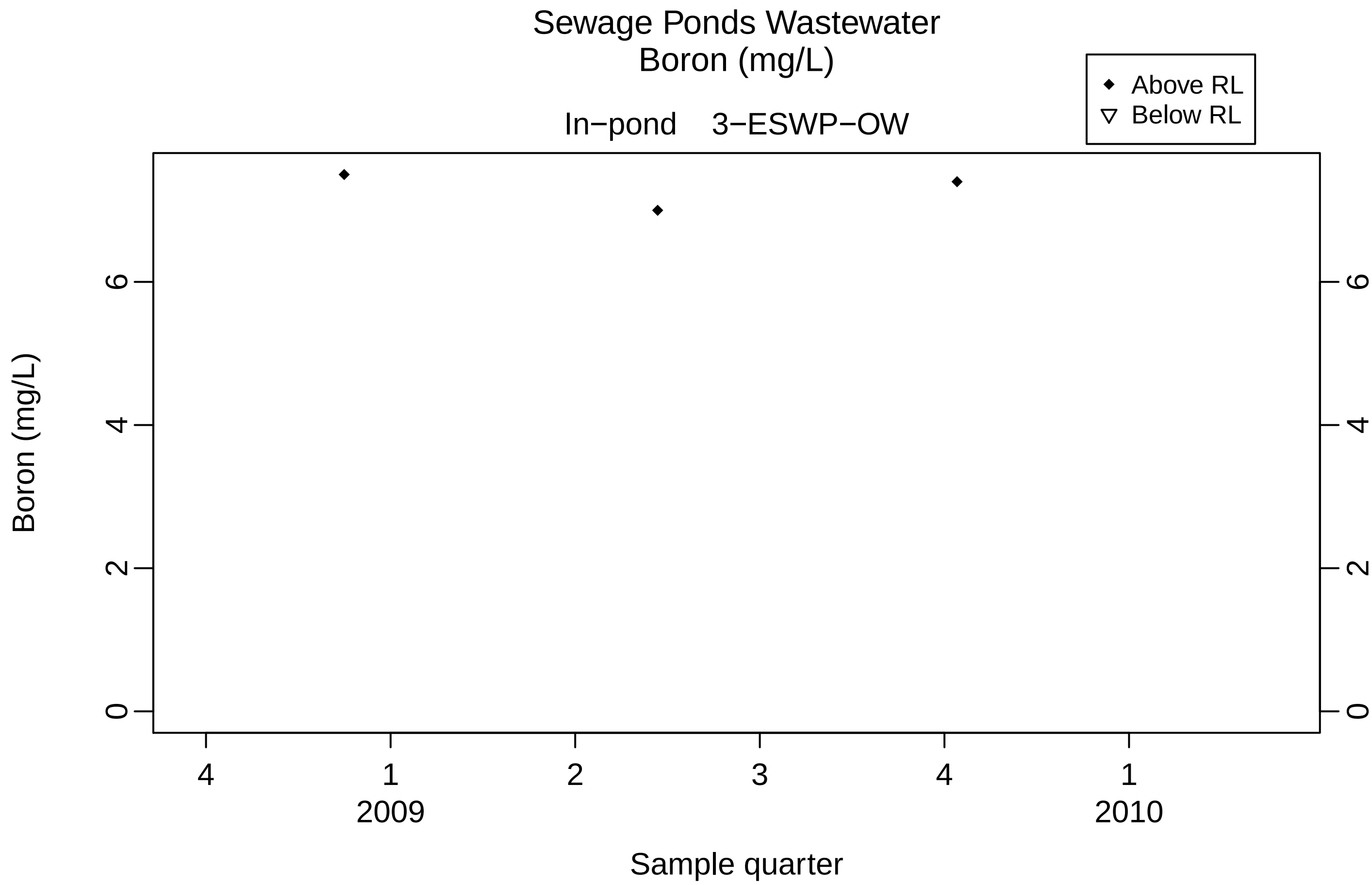

Sewage Ponds Wastewater
Fecal Coliform (MPN/100mL)
Above RL
Below RL
In−pond 3−ESWP−OW
Fecal Coliform (MPN/100mL)
0
50000
100000
150000
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005 2006 2007 2008 2009 2010
Sample quarter

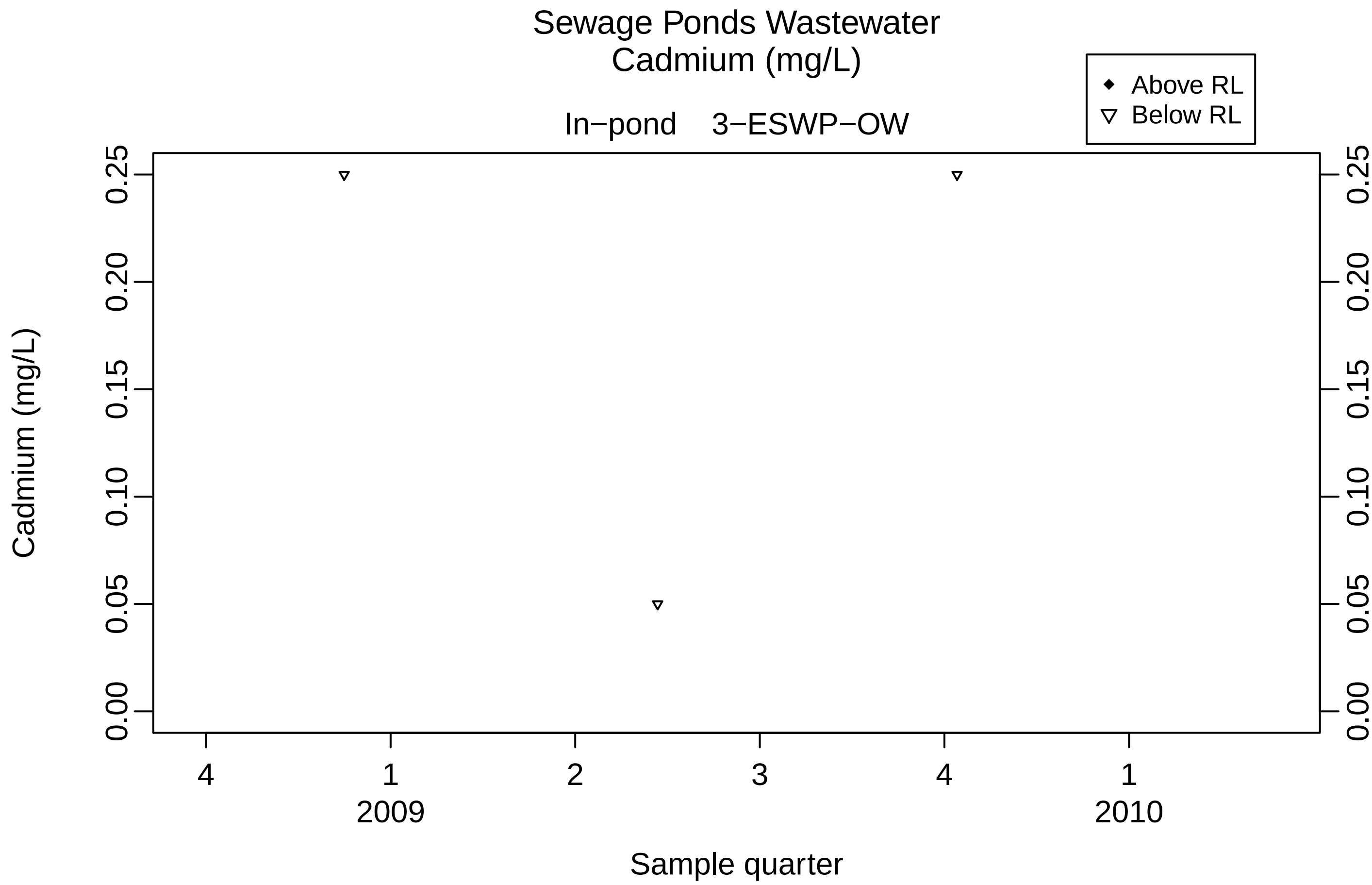

Effluent 3−DSWP−OW
Fecal Coliform (MPN/100mL)
0
50000
100000
150000
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005 2006 2007 2008 2009 2010
Sample quarter

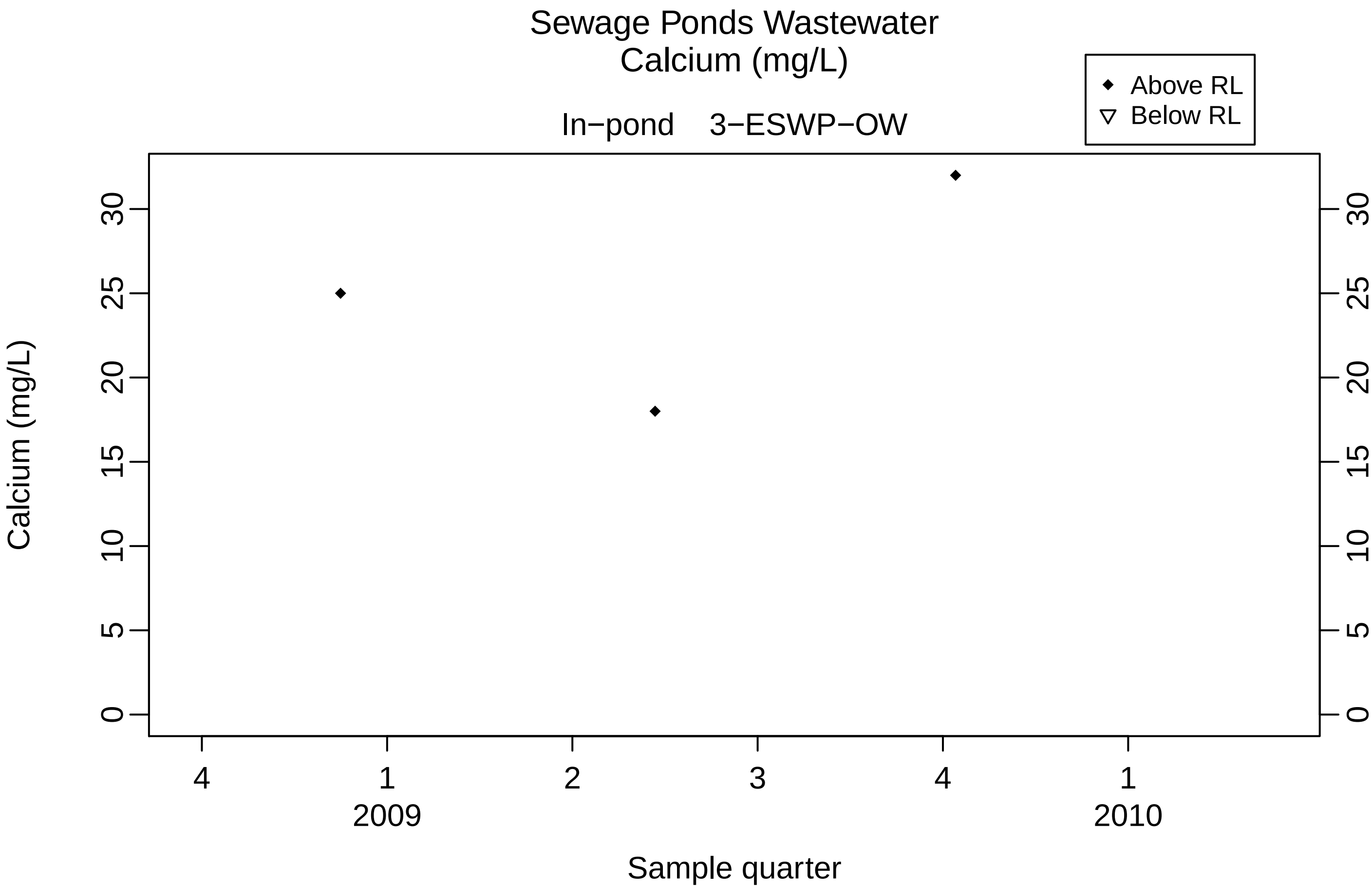

Sewage Ponds Wastewater
Aluminum (mg/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Aluminum (mg/L)
0.00
0.05
0.10
0.15
0.20
0.25
4
1
2
3
4
1
2009
2010
Sample quarter

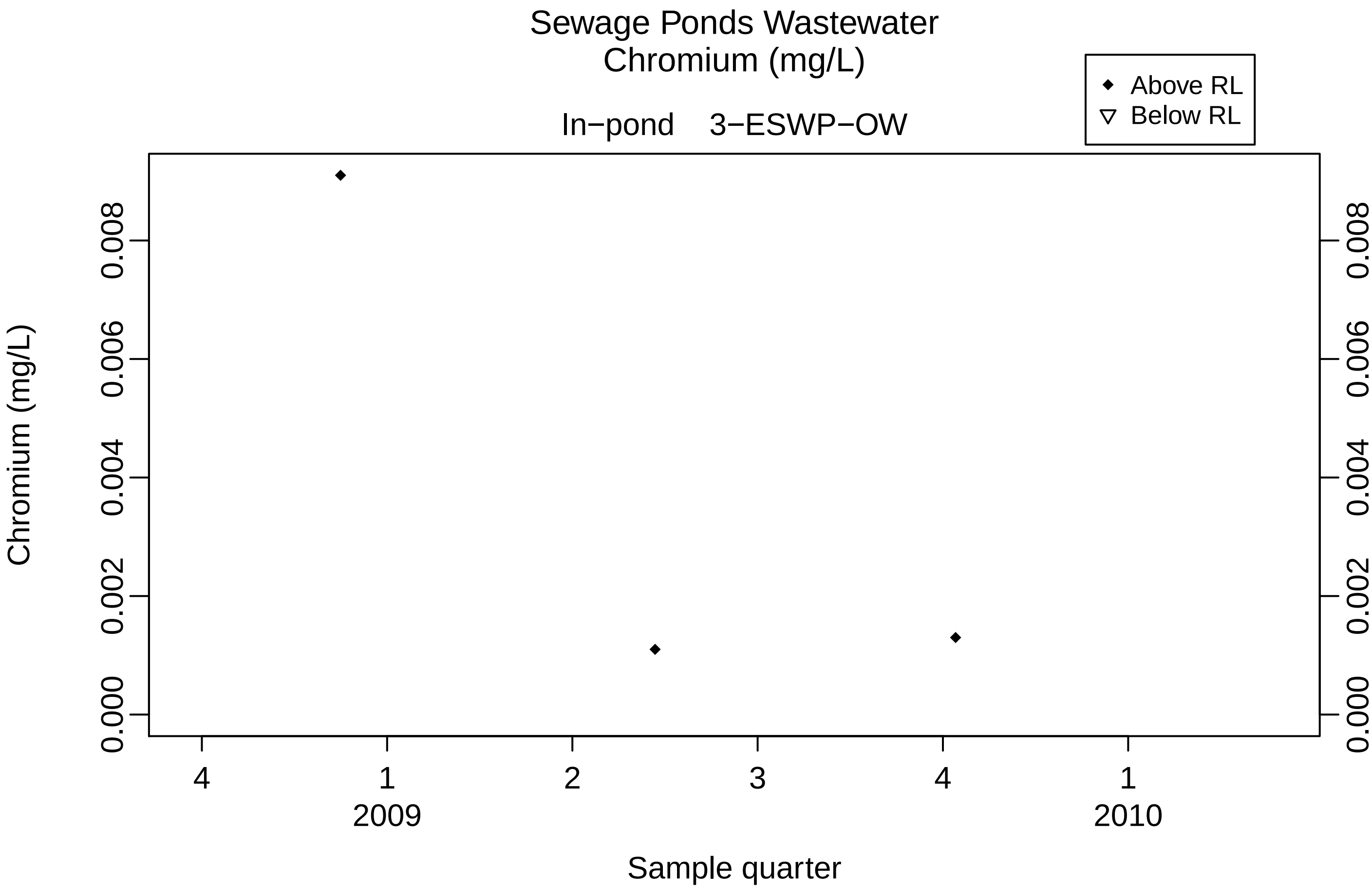

Sewage Ponds Wastewater
Arsenic (mg/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Arsenic (mg/L)
0.000
0.002
0.004
0.006
0.008
0.010
4
1
2
3
4
1
2009
2010
Sample quarter

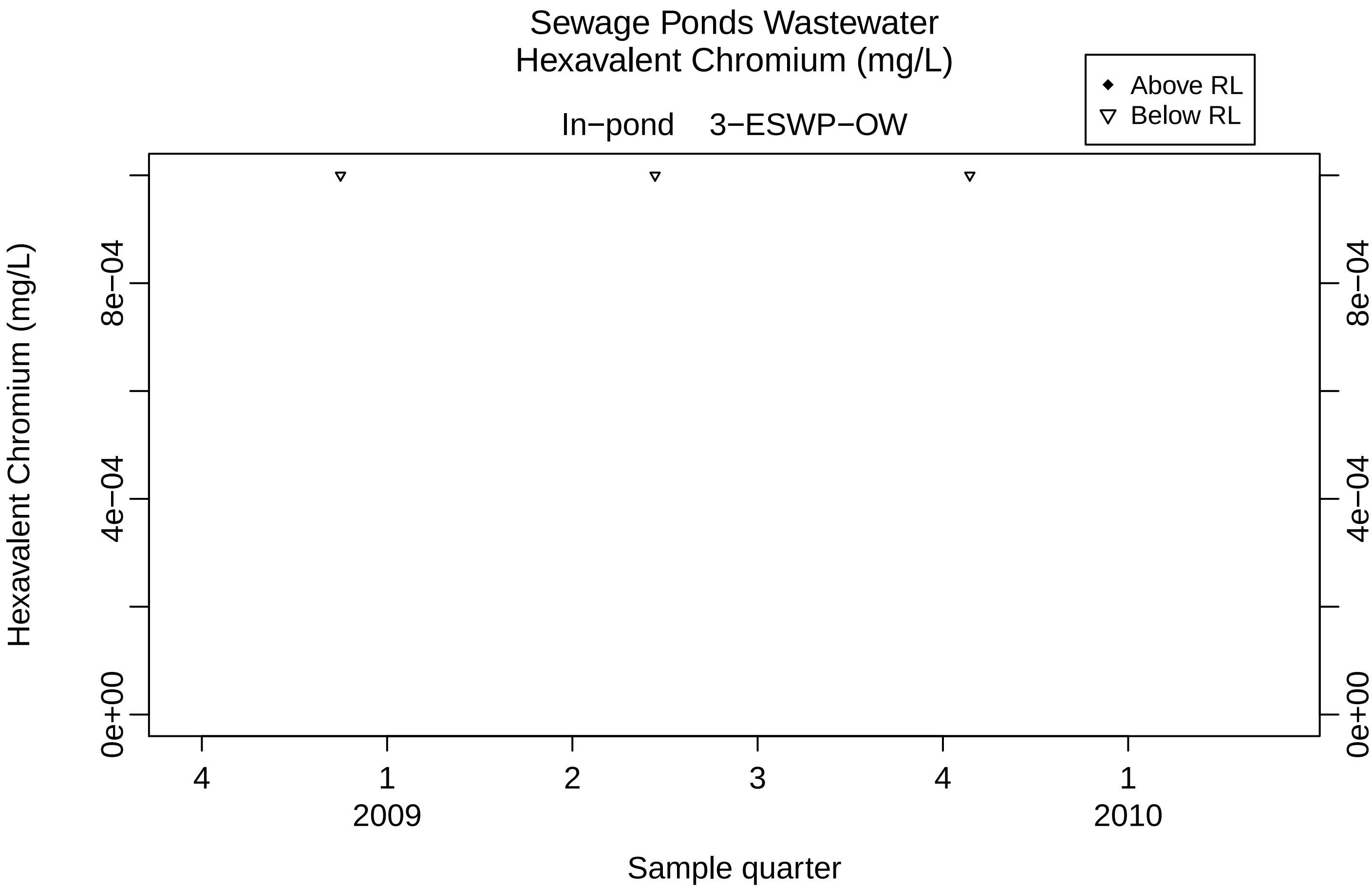

Sewage Ponds Wastewater
Barium (mg/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Barium (mg/L)
0.00
0.04
0.08
0.12
4
1
2
3
4
1
2009
2010
Sample quarter

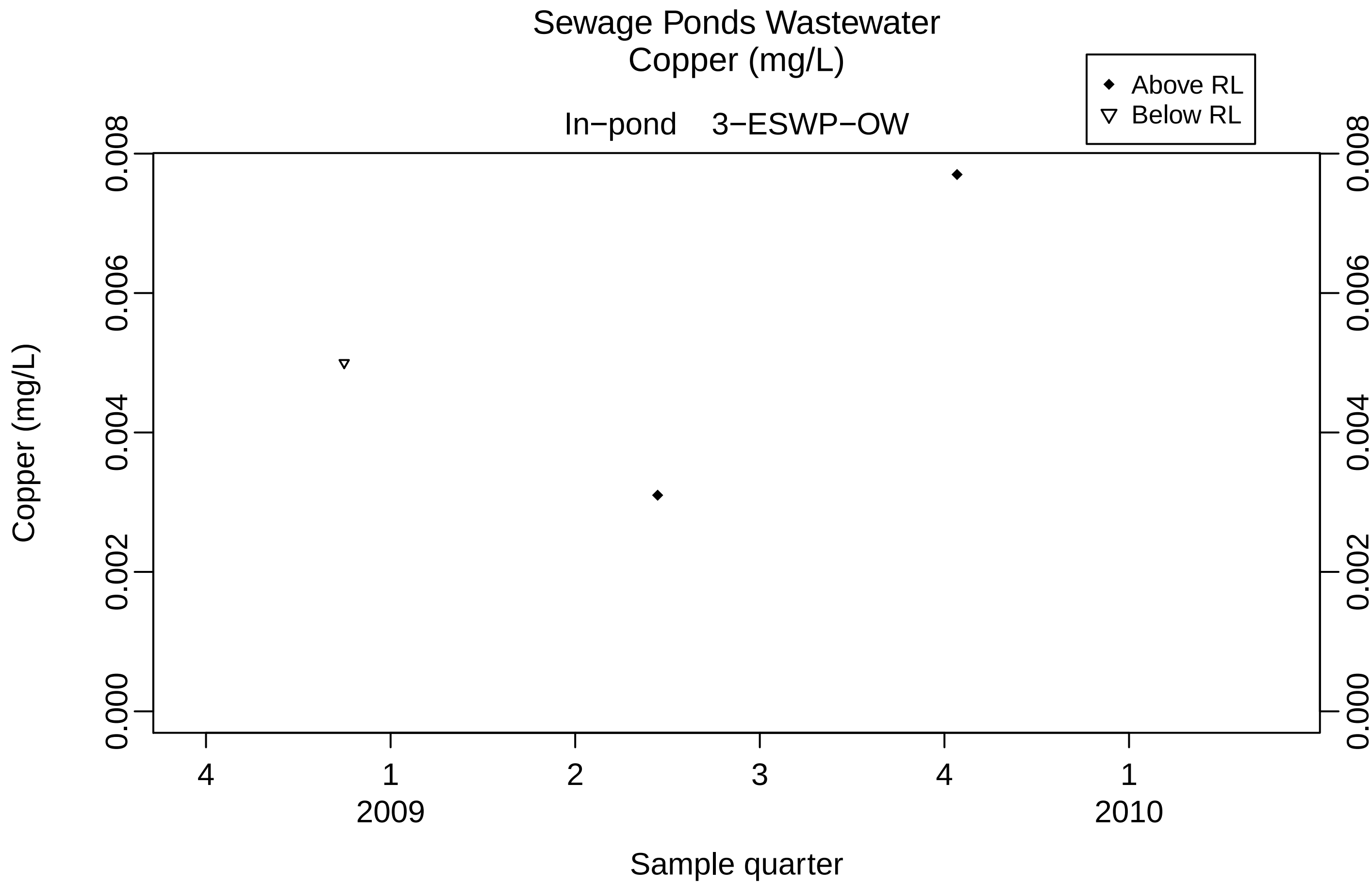

Sewage Ponds Wastewater
Boron (mg/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Boron (mg/L)
0
2
4
6
4
1
2009
2
3
4
1
2010
Sample quarter

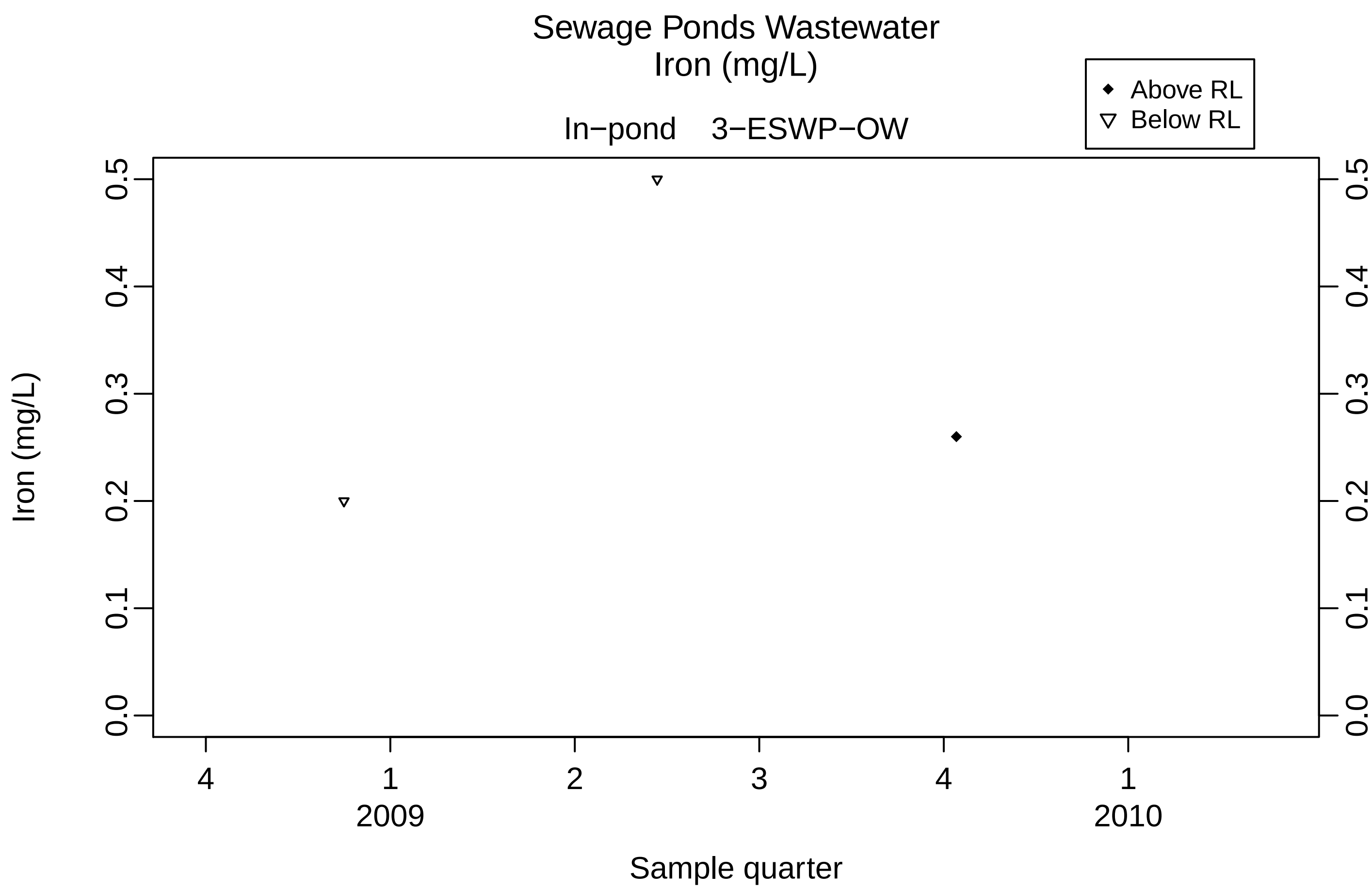

Sewage Ponds Wastewater
Cadmium (mg/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Cadmium (mg/L)
0.00
0.05
0.10
0.15
0.20
0.25
4
1
2
3
4
1
2009
2010
Sample quarter

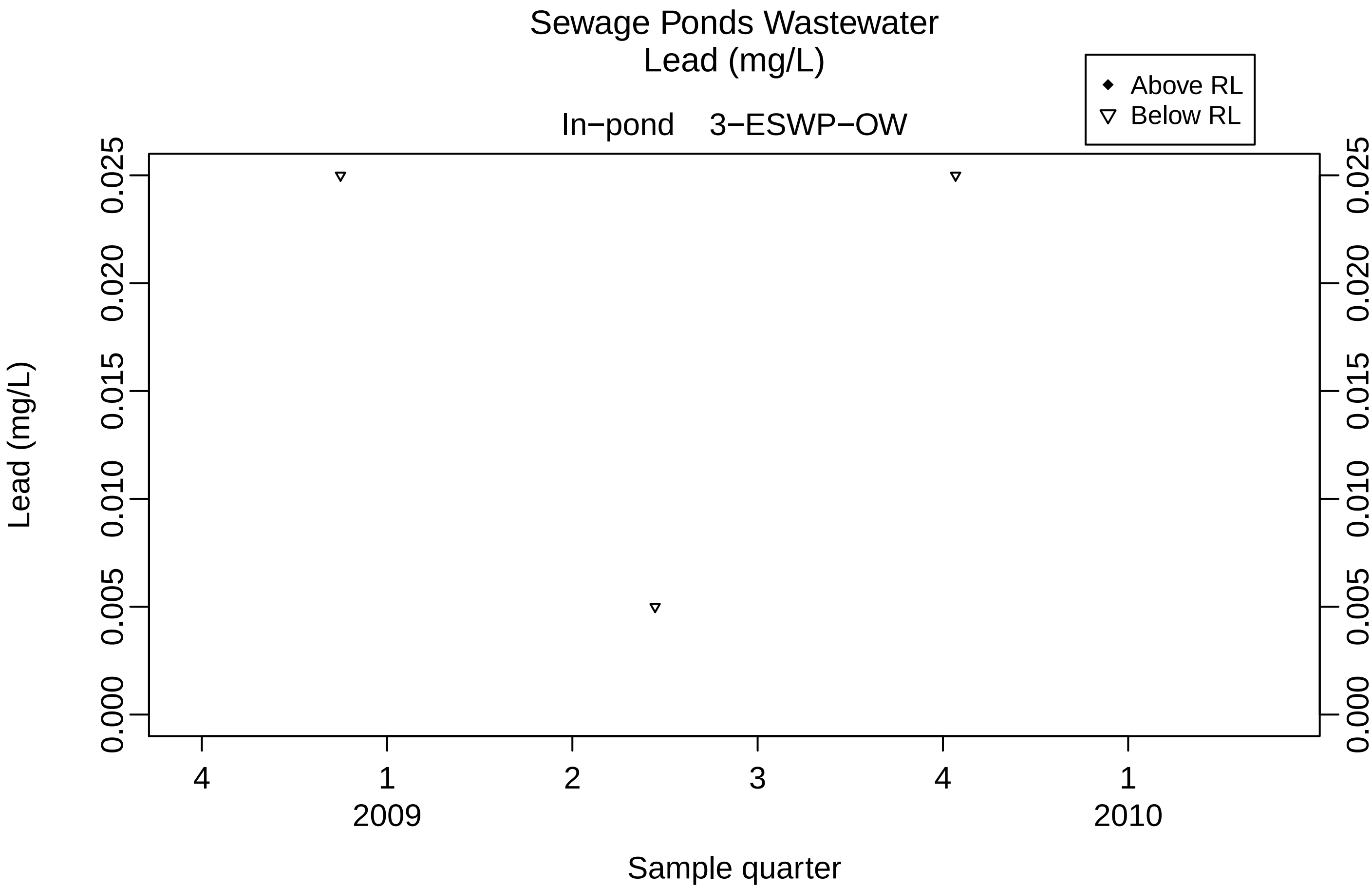

Sewage Ponds Wastewater
Calcium (mg/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Calcium (mg/L)
0
5
10
15
20
25
30
4
1
2
3
4
1
2009
2010
Sample quarter

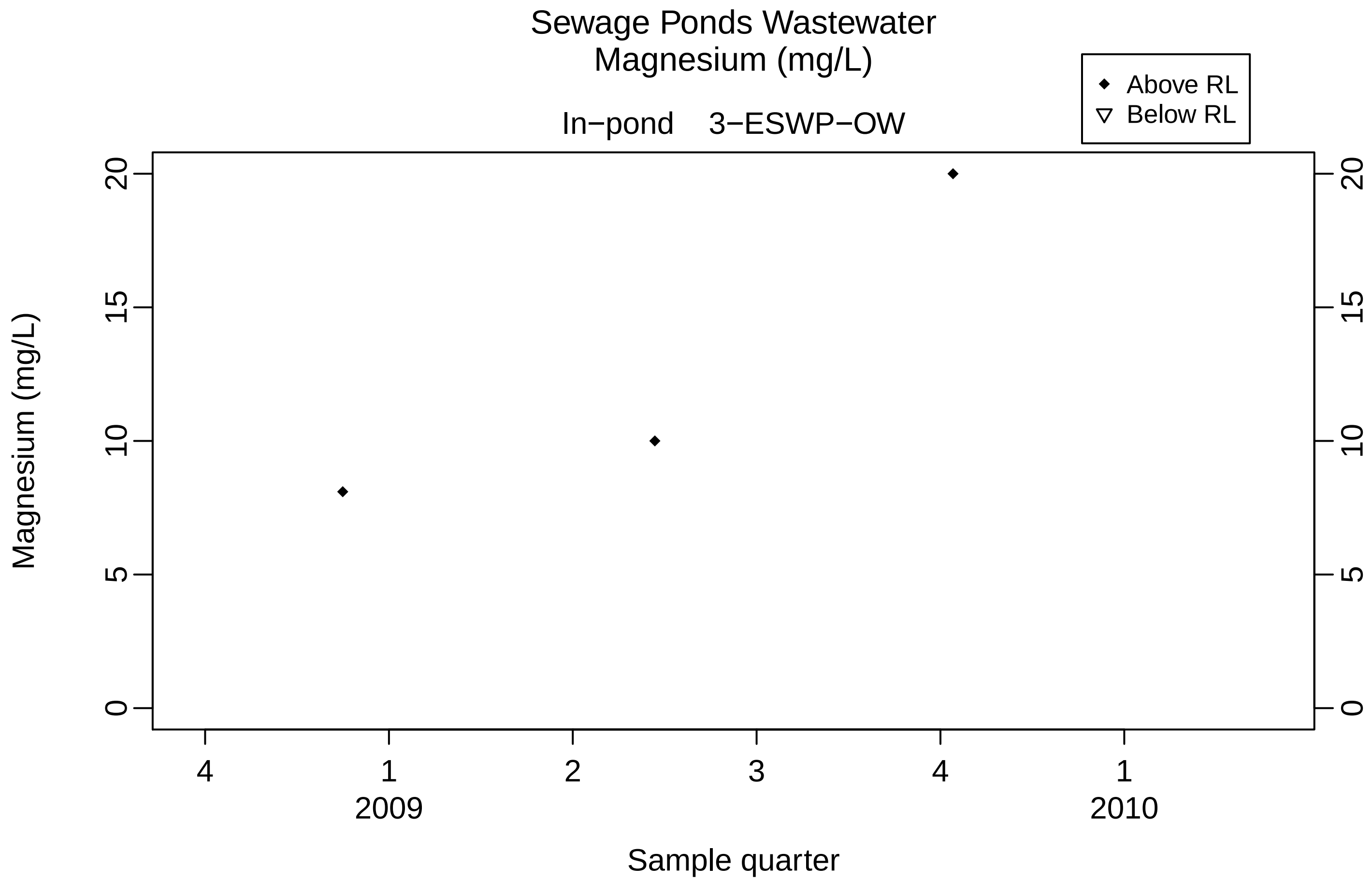

Sewage Ponds Wastewater
Chromium (mg/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Chromium (mg/L)
0.000
0.002
0.004
0.006
0.008
4
1
2
3
4
1
2009
2010
Sample quarter

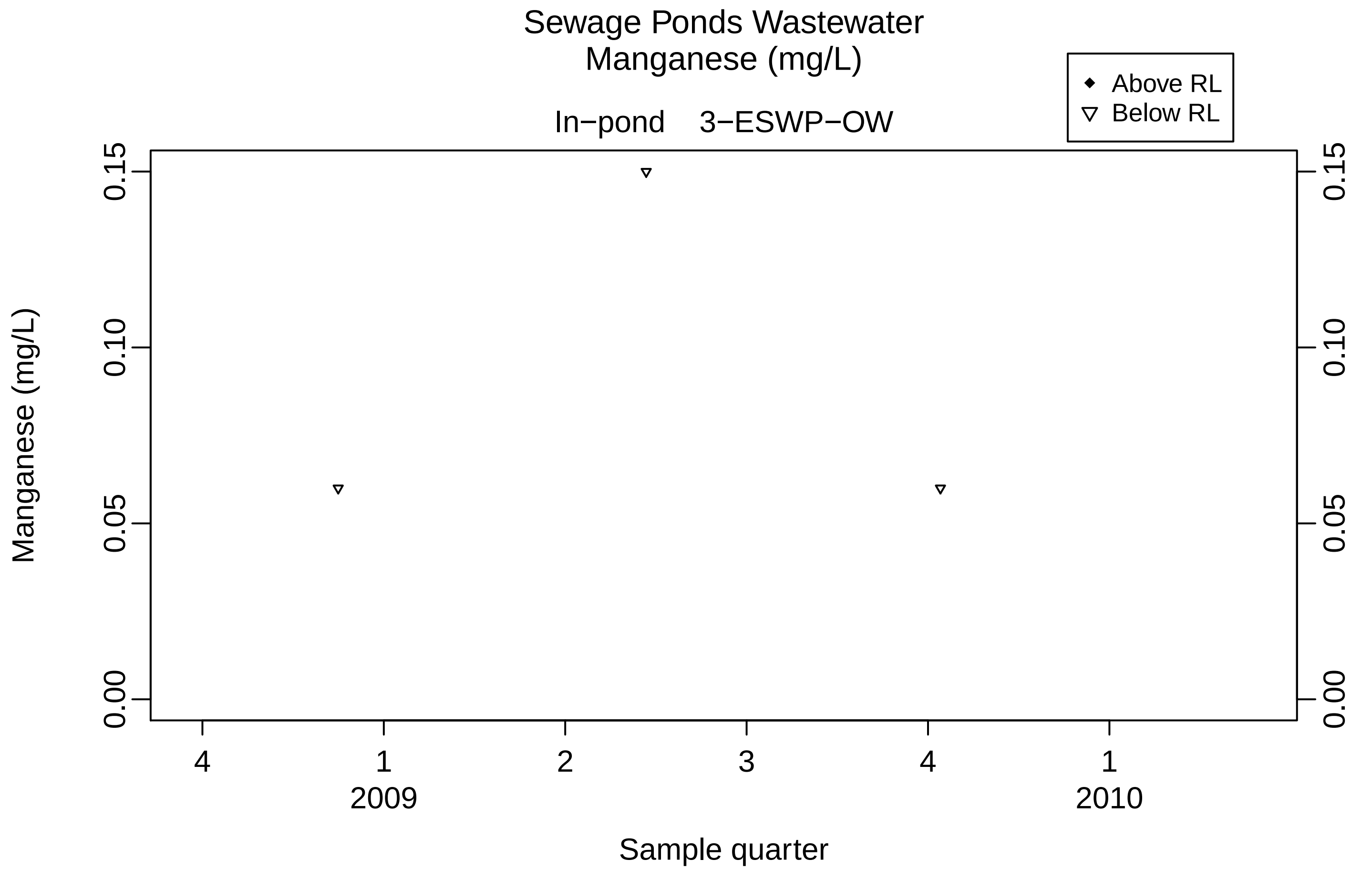

Sewage Ponds Wastewater
Hexavalent Chromium (mg/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Hexavalent Chromium (mg/L)
0e+00
4e−04
8e−04
4
1
2009
2
3
4
1
2010
Sample quarter

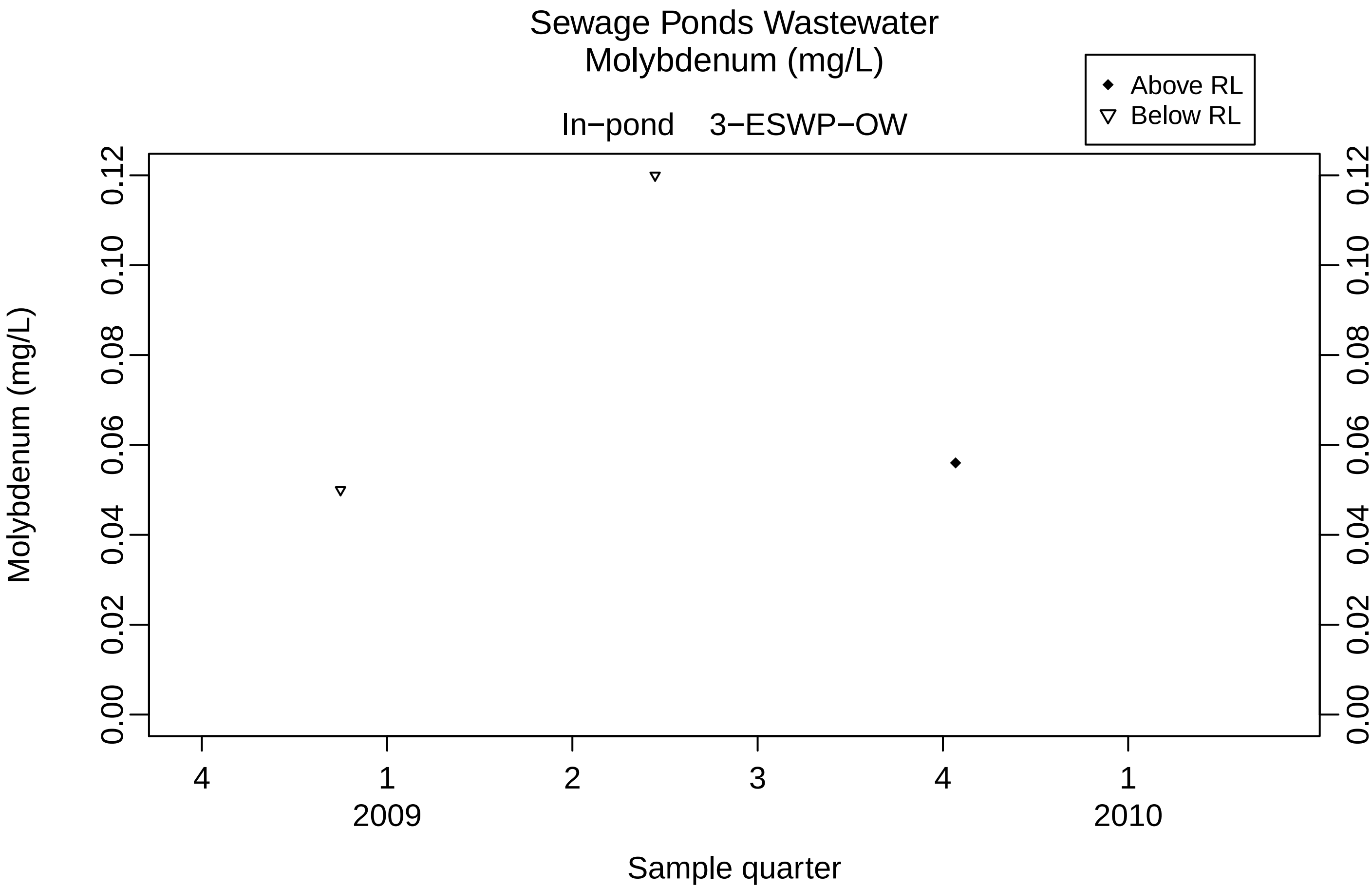

Sewage Ponds Wastewater
Copper (mg/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Copper (mg/L)
0.000
0.002
0.004
0.006
0.008
4
1
2
3
4
1
2009
2010
Sample quarter

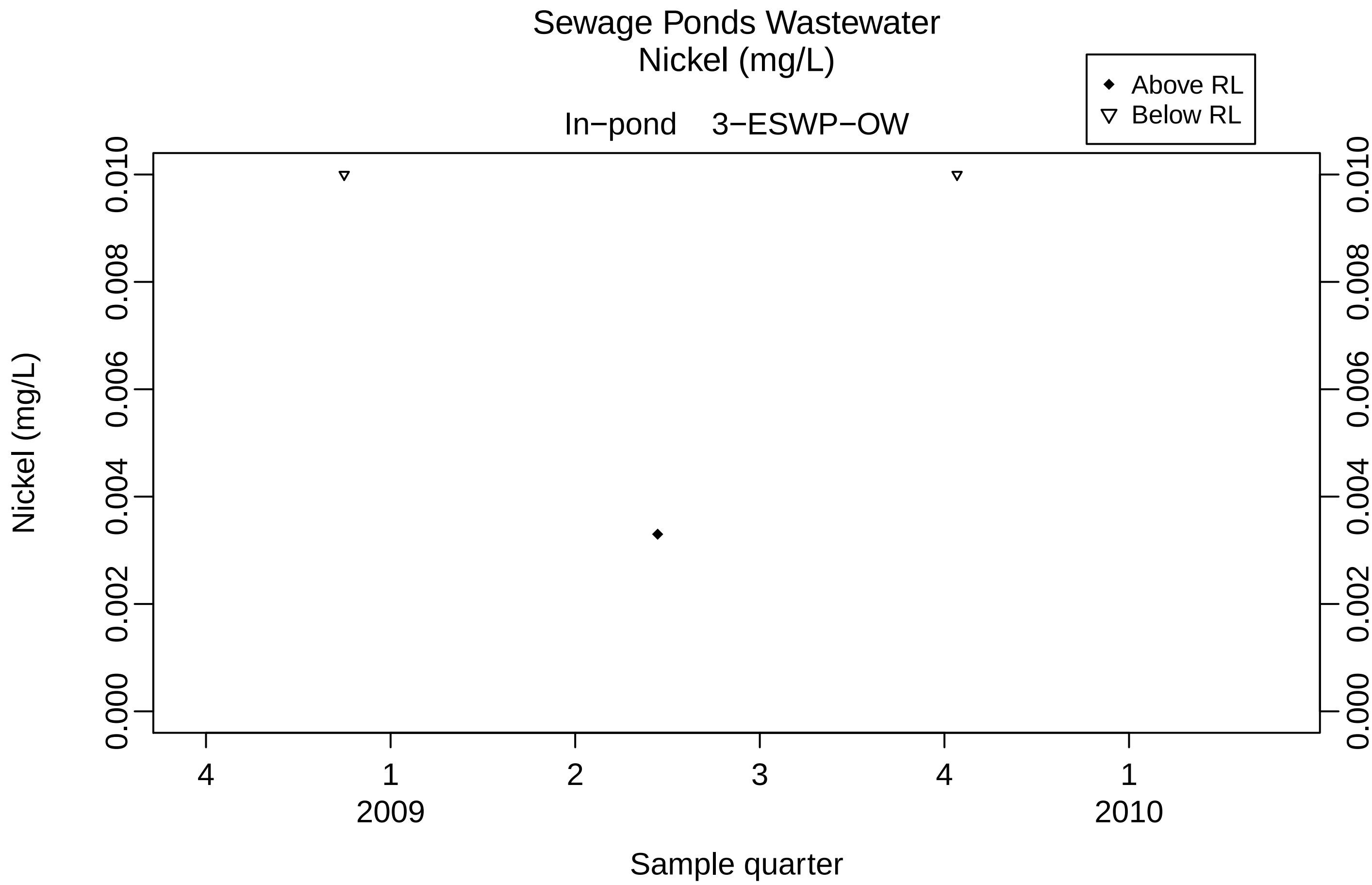

Sewage Ponds Wastewater
Iron (mg/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Iron (mg/L)
0.0
0.1
0.2
0.3
0.4
0.5
4
1
2
3
4
1
2009
2010
Sample quarter

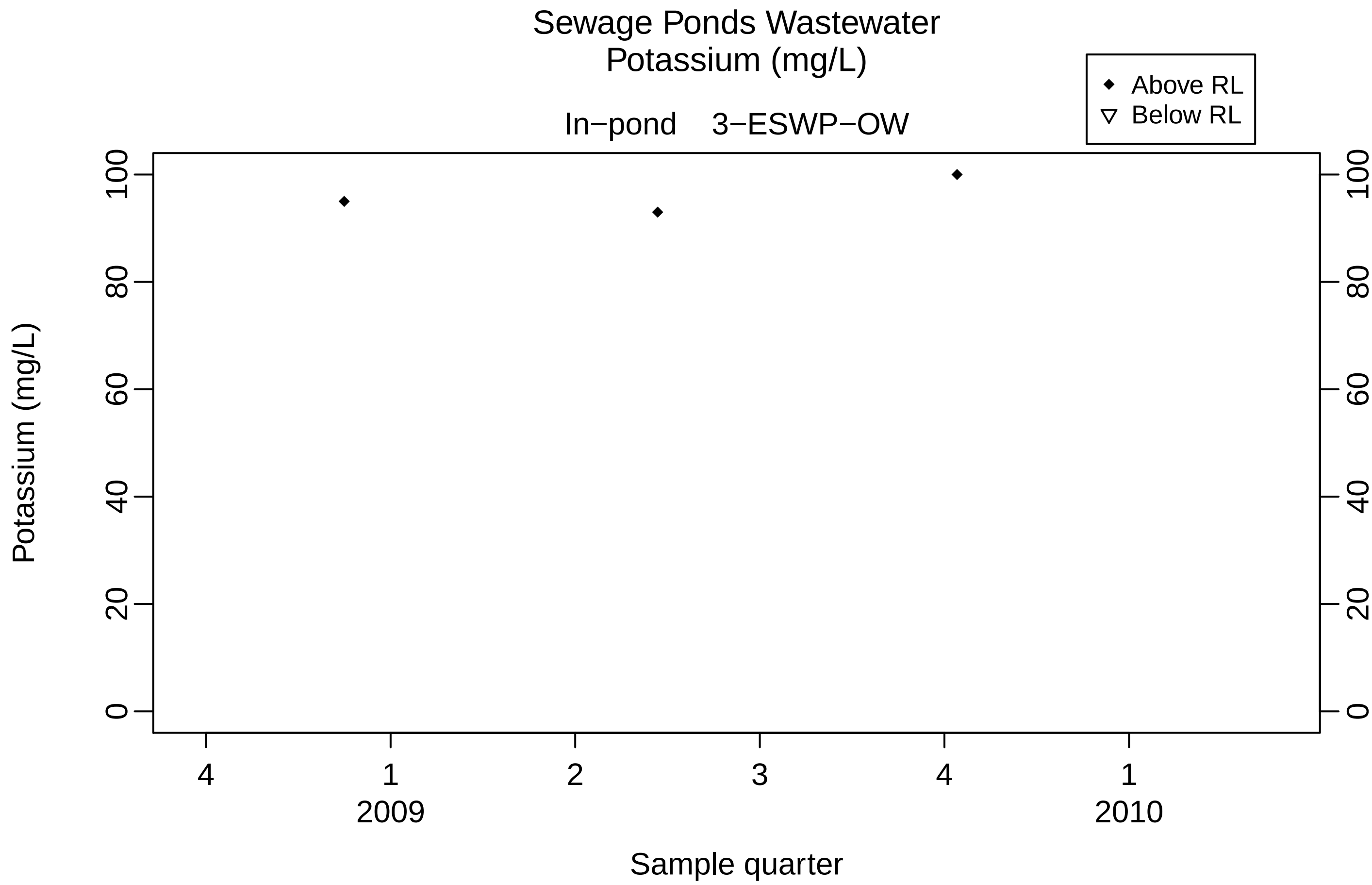

Sewage Ponds Wastewater
Lead (mg/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Lead (mg/L)
0.000
0.005
0.010
0.015
0.020
0.025
4
1
2
3
4
1
2009
2010
Sample quarter

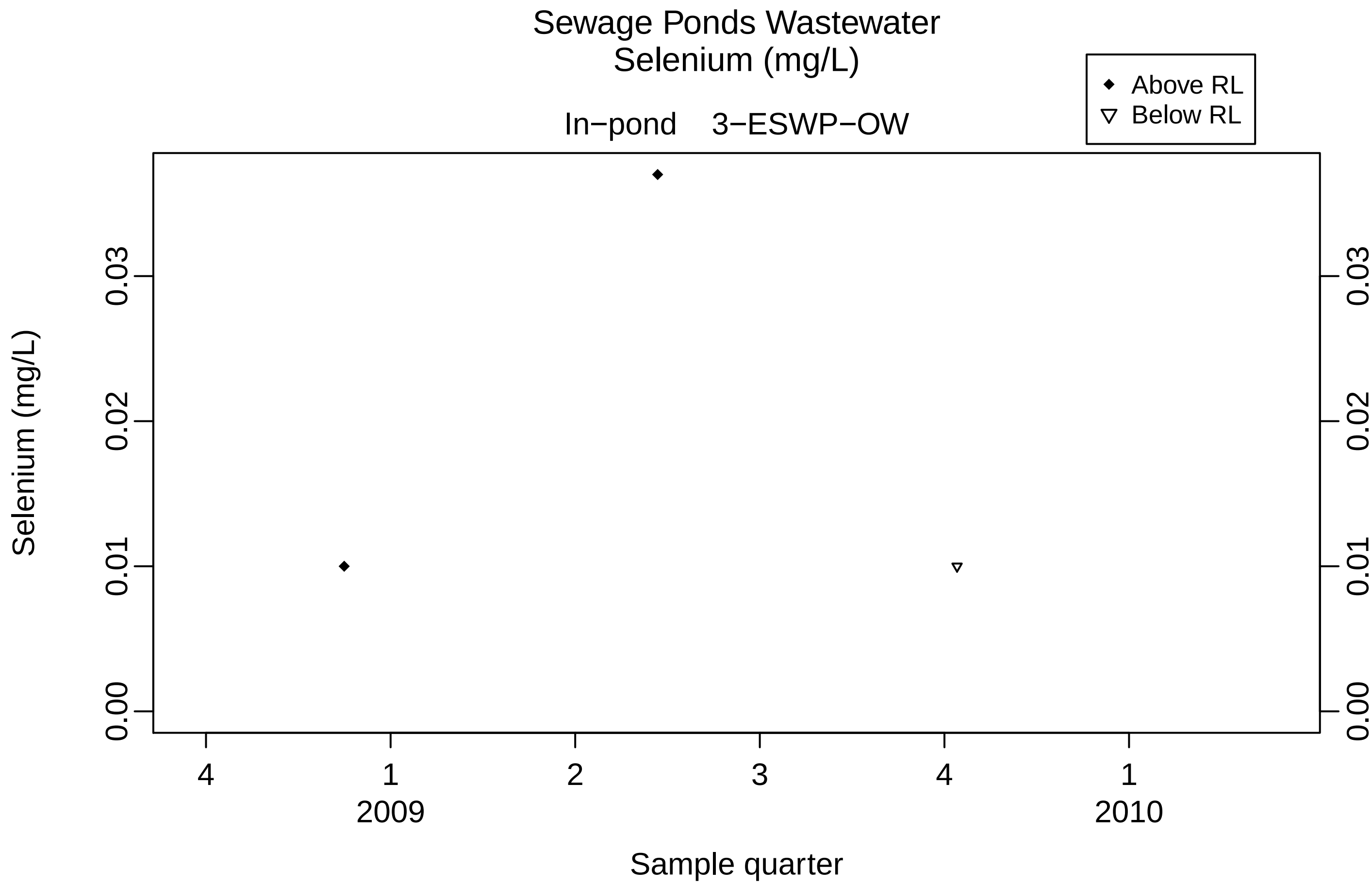

Sewage Ponds Wastewater
Magnesium (mg/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Magnesium (mg/L)
0
5
10
15
20
4
1
2
3
4
1
2009
2010
Sample quarter

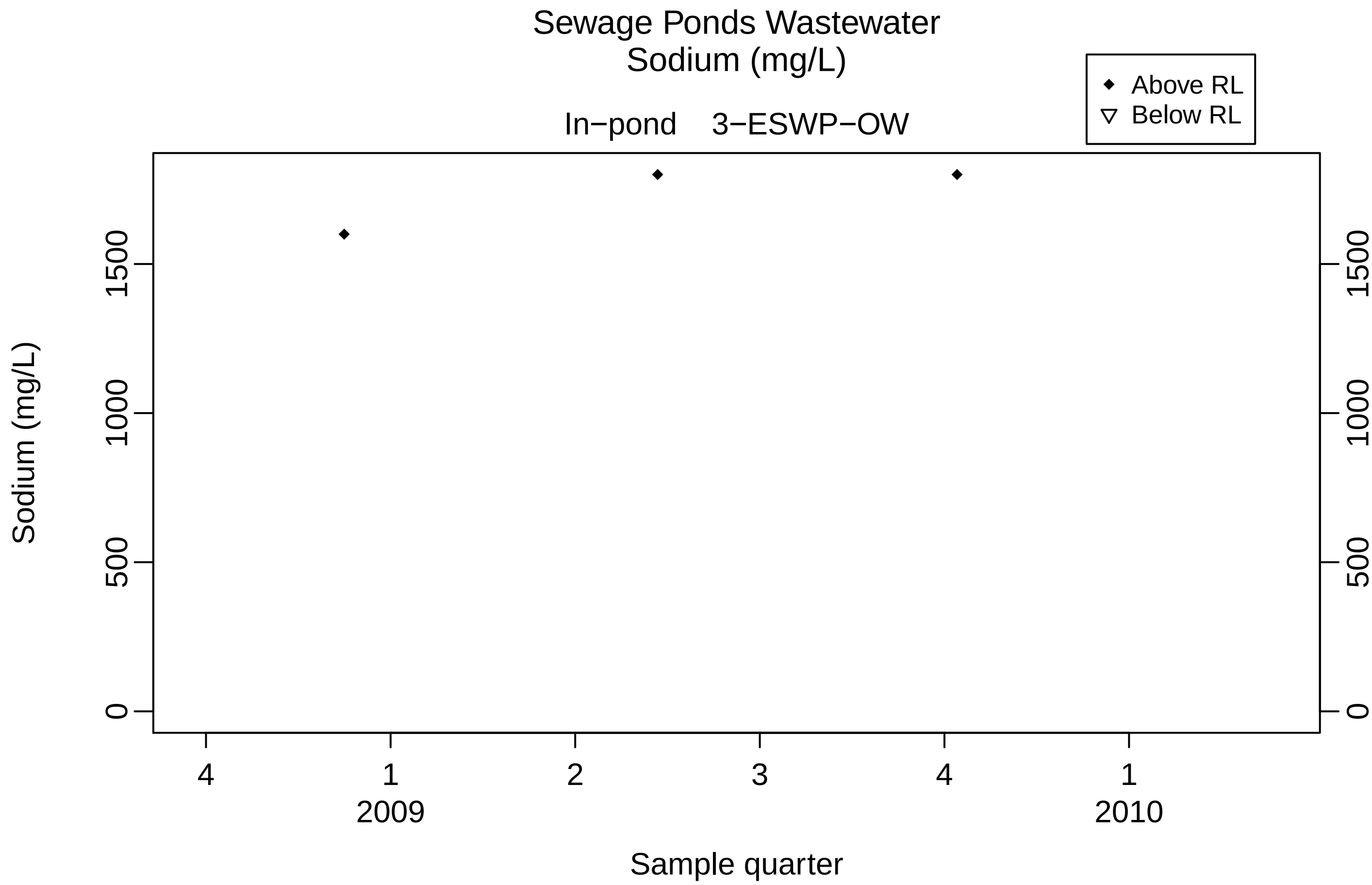

Sewage Ponds Wastewater
Manganese (mg/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Manganese (mg/L)
0.00
0.05
0.10
0.15
0.00
0.05
0.10
0.15
4
1
2
3
4
1
2009
2010
Sample quarter

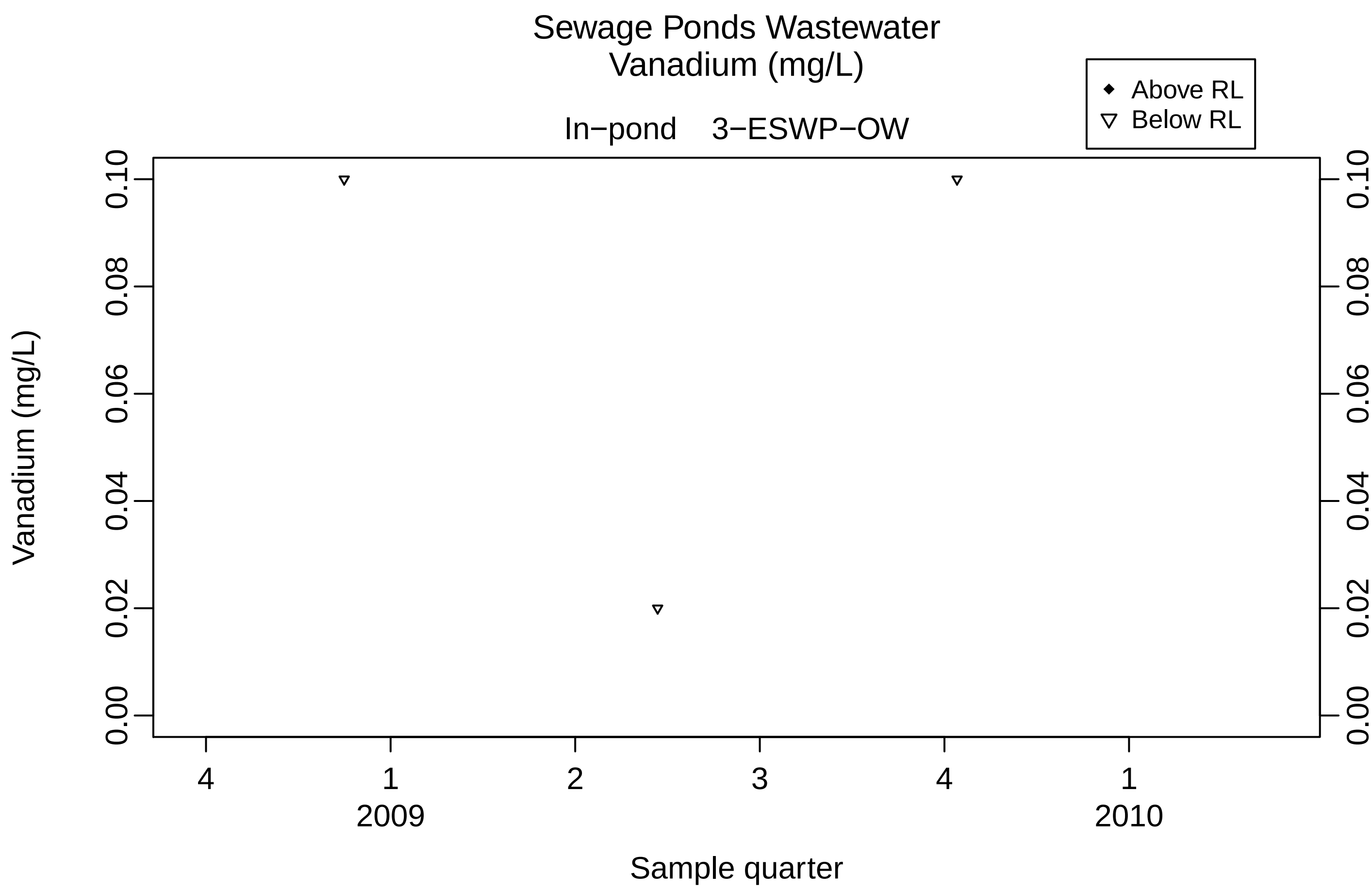

Sewage Ponds Wastewater
Molybdenum (mg/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Molybdenum (mg/L)
0.00
0.02
0.04
0.06
0.08
0.10
0.12
4
1
2009
2
3
4
1
2010
Sample quarter

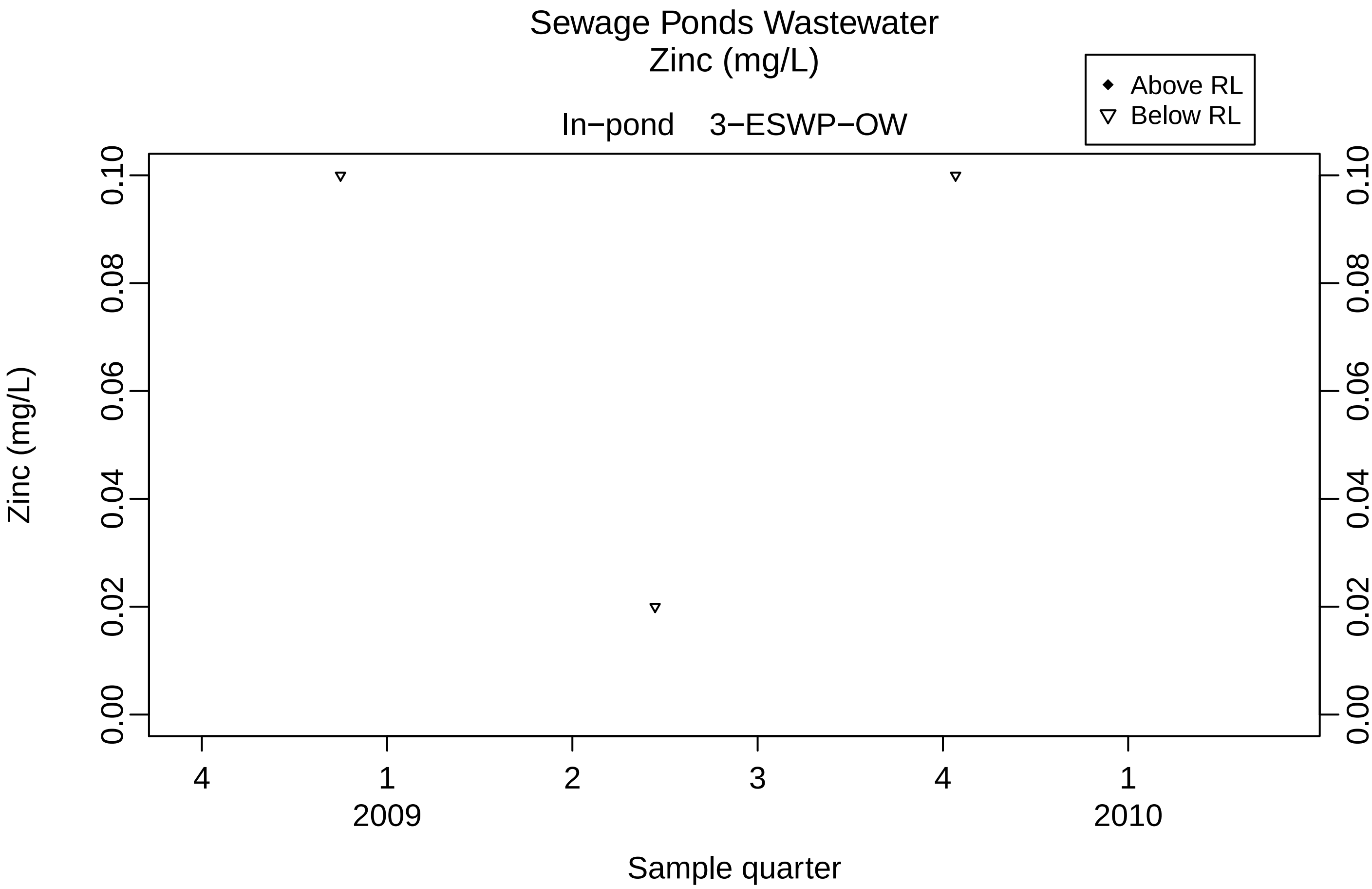

Sewage Ponds Wastewater
Nickel (mg/L)
Above RL
Below RL
In−pond 3−ESWP−OW
Nickel (mg/L)
0.000
0.002
0.004
0.006
0.008
0.010
4
1
2
3
4
1
2009
2010
Sample quarter


Sewage Ponds Wastewater
Potassium (mg/L)
Above RL
Below RL
In−pond 3−ESWP−OW
Potassium (mg/L)
0
20
40
60
80
100
4
1
2
3
4
1
2009
2010
Sample quarter

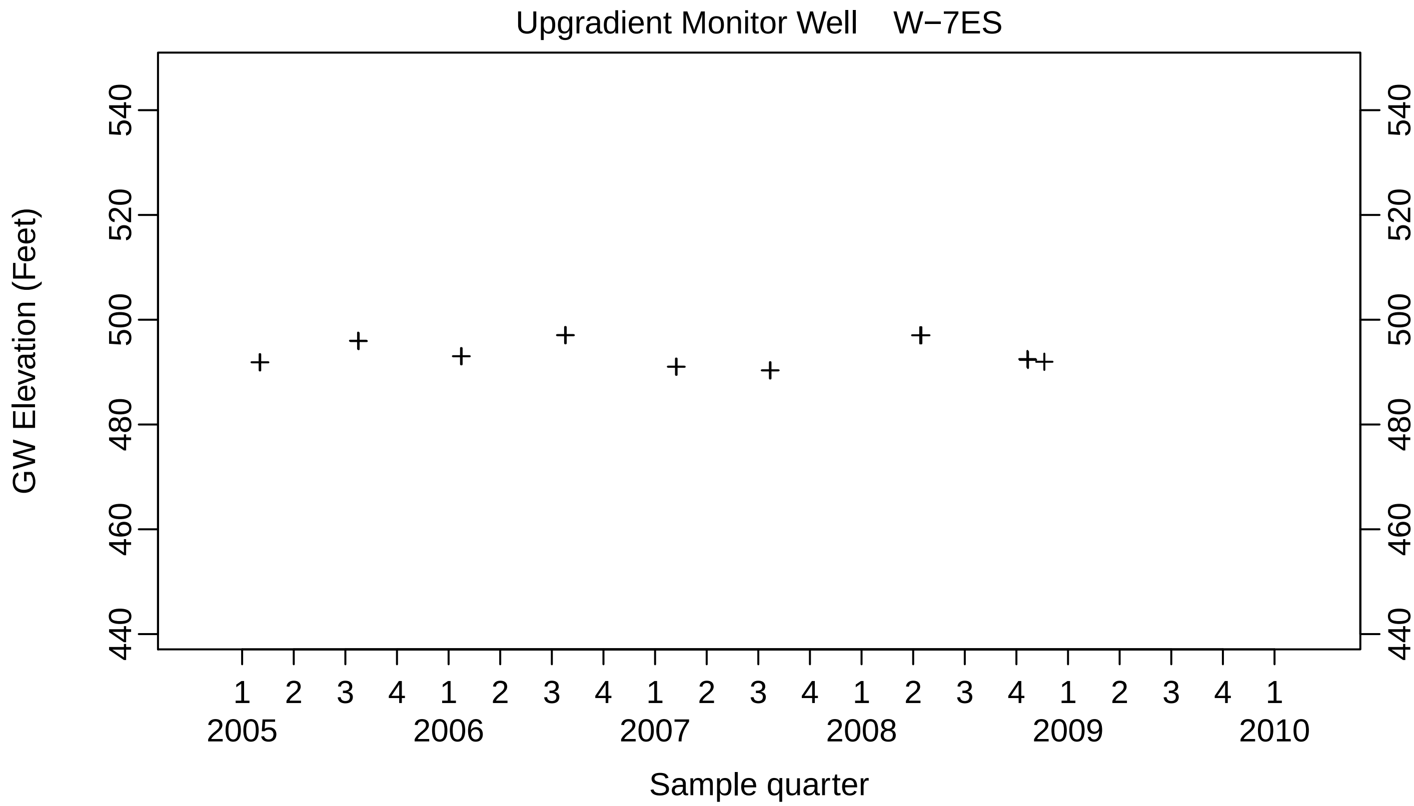

Sewage Ponds Wastewater
Selenium (mg/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Selenium (mg/L)
0.00
0.01
0.02
0.03
4
1
2
3
4
1
2009
2010
Sample quarter

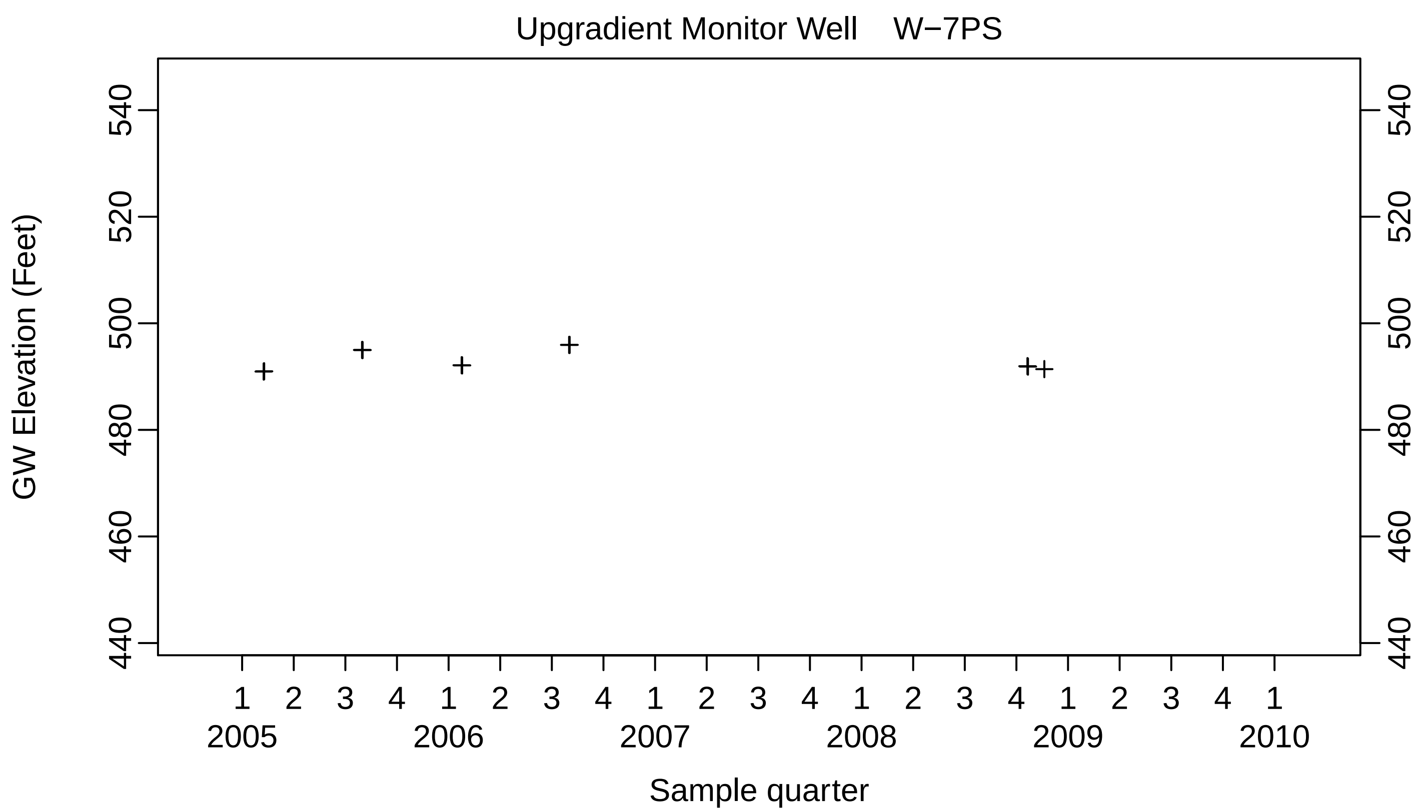

Sewage Ponds Wastewater
Sodium (mg/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Sodium (mg/L)
0
500
1000
1500
4
1
2
3
4
1
2009
2010
Sample quarter


Sewage Ponds Wastewater
Vanadium (mg/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Vanadium (mg/L)
0.00
0.02
0.04
0.06
0.08
0.10
4
1
2
3
4
1
2009
2010
Sample quarter

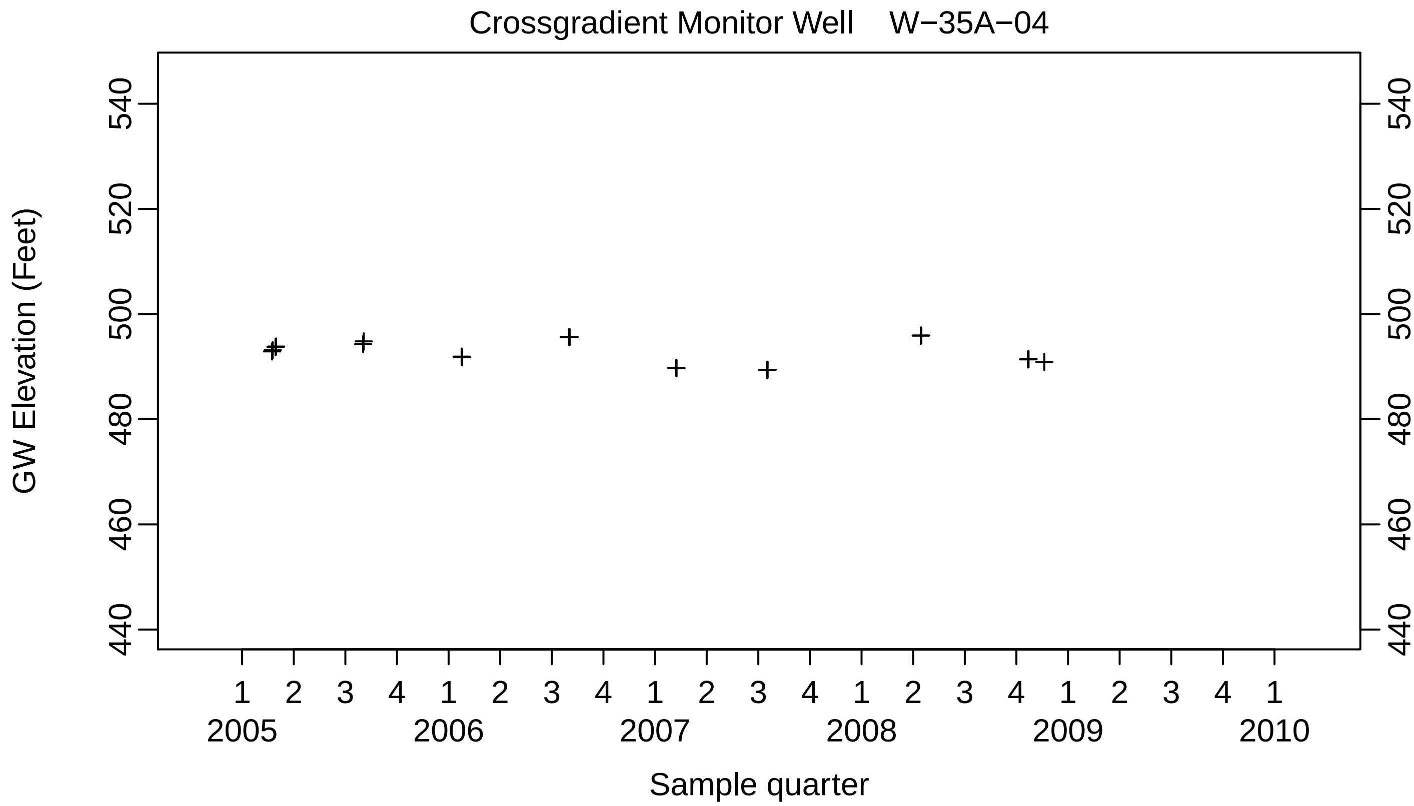

Sewage Ponds Wastewater
Zinc (mg/L)
In−pond 3−ESWP−OW
Above RL
Below RL
Zinc (mg/L)
0.00
0.02
0.04
0.06
0.08
0.10
4
1
2
3
4
1
2009
2010
Sample quarter

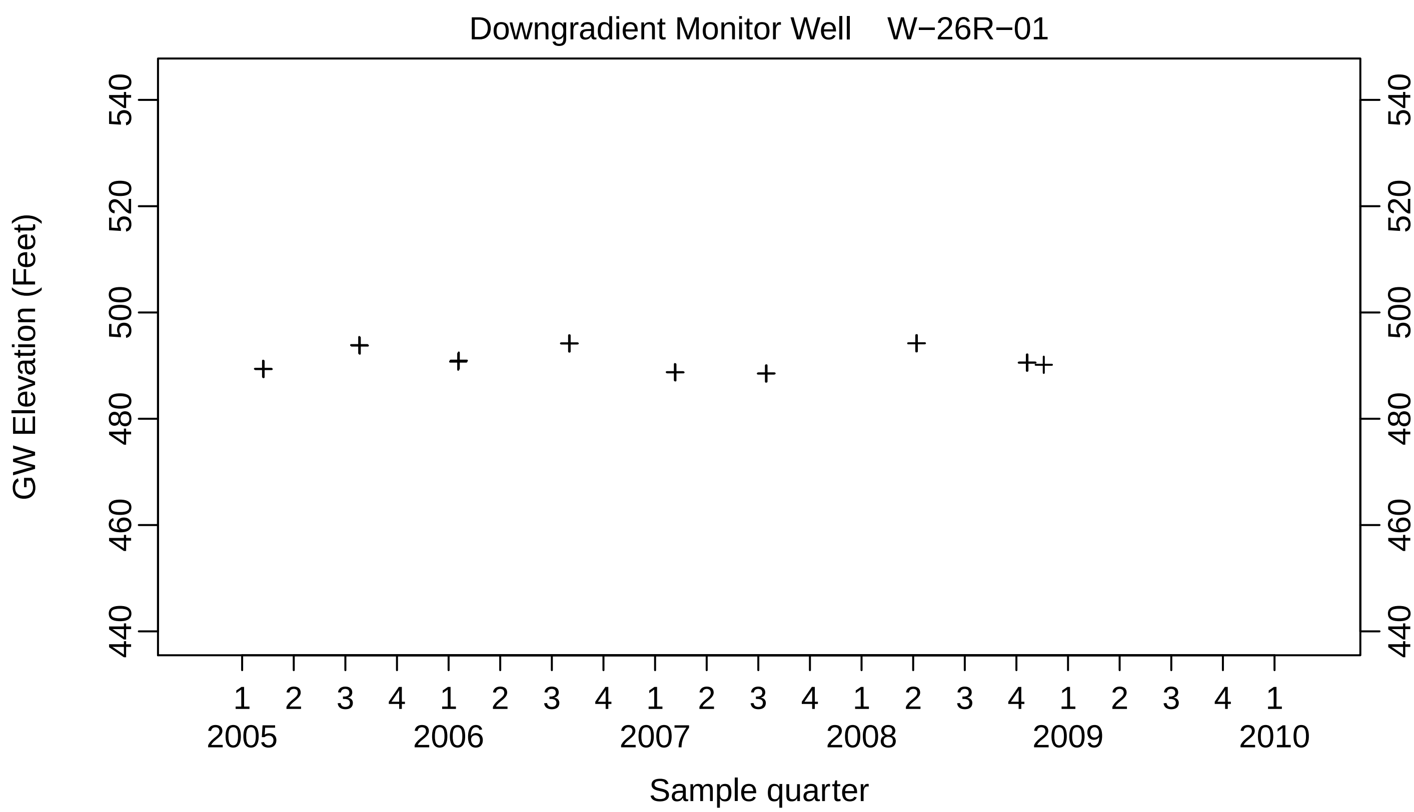
Sewage Ponds Ground Water
GW Elevation (Feet)



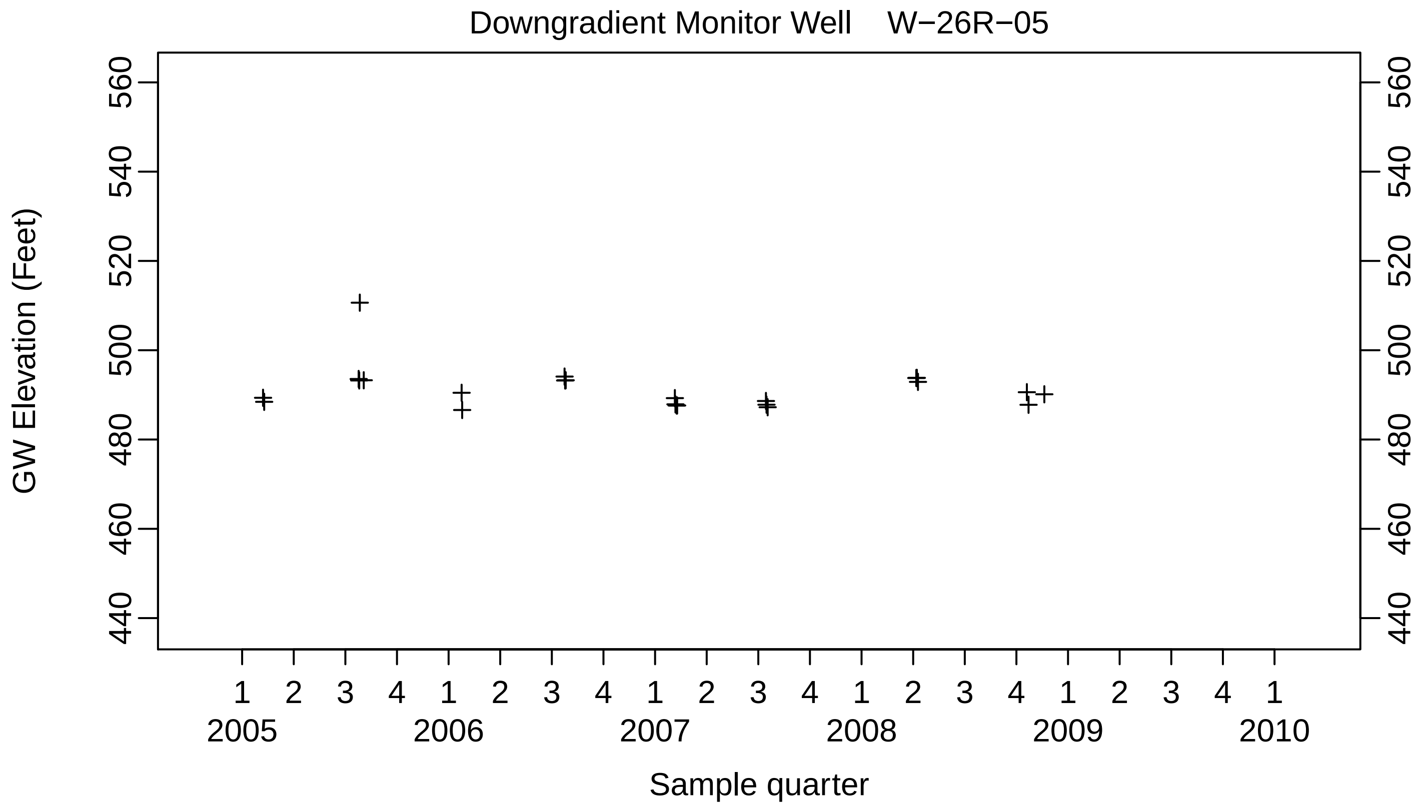


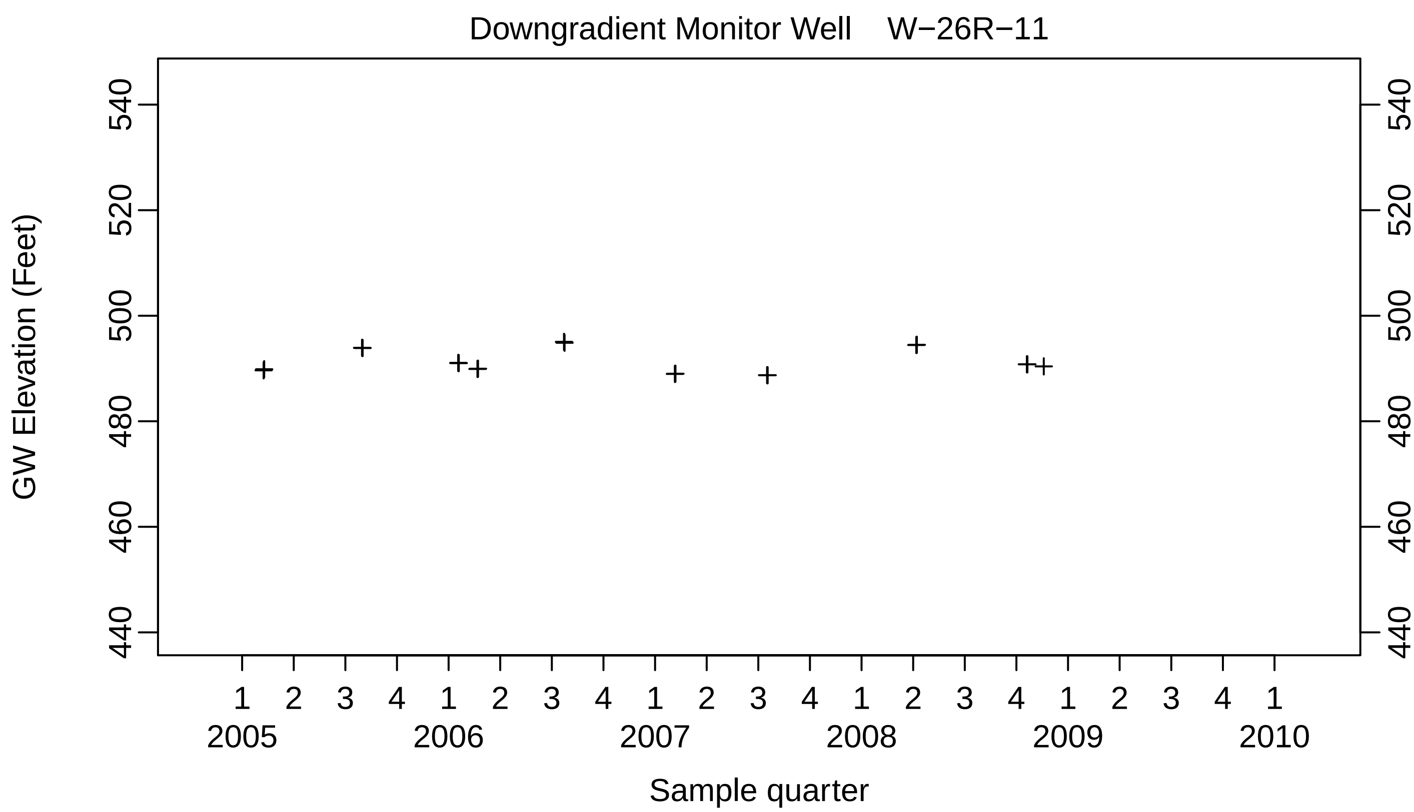
Sewage Ponds Ground Water
GW Elevation (Feet)



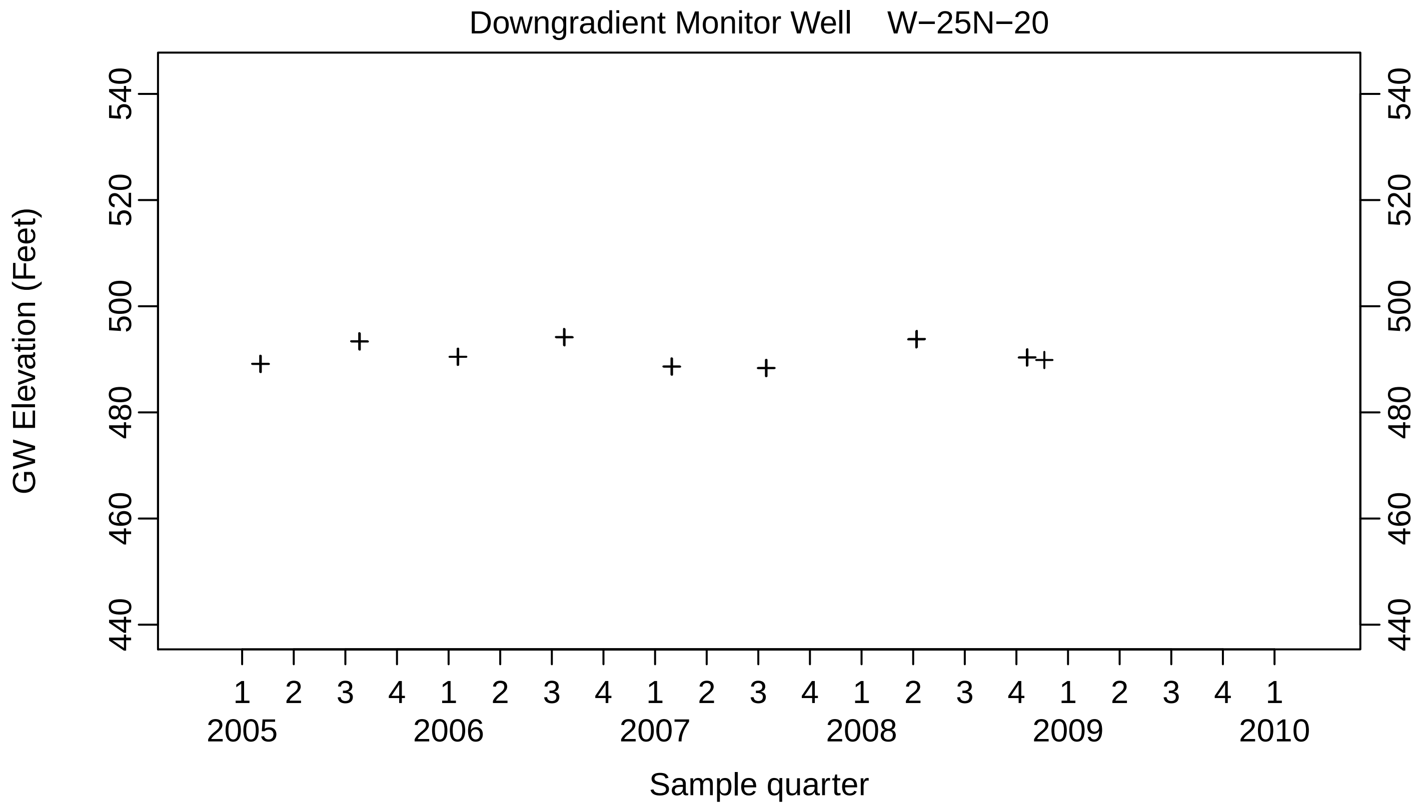


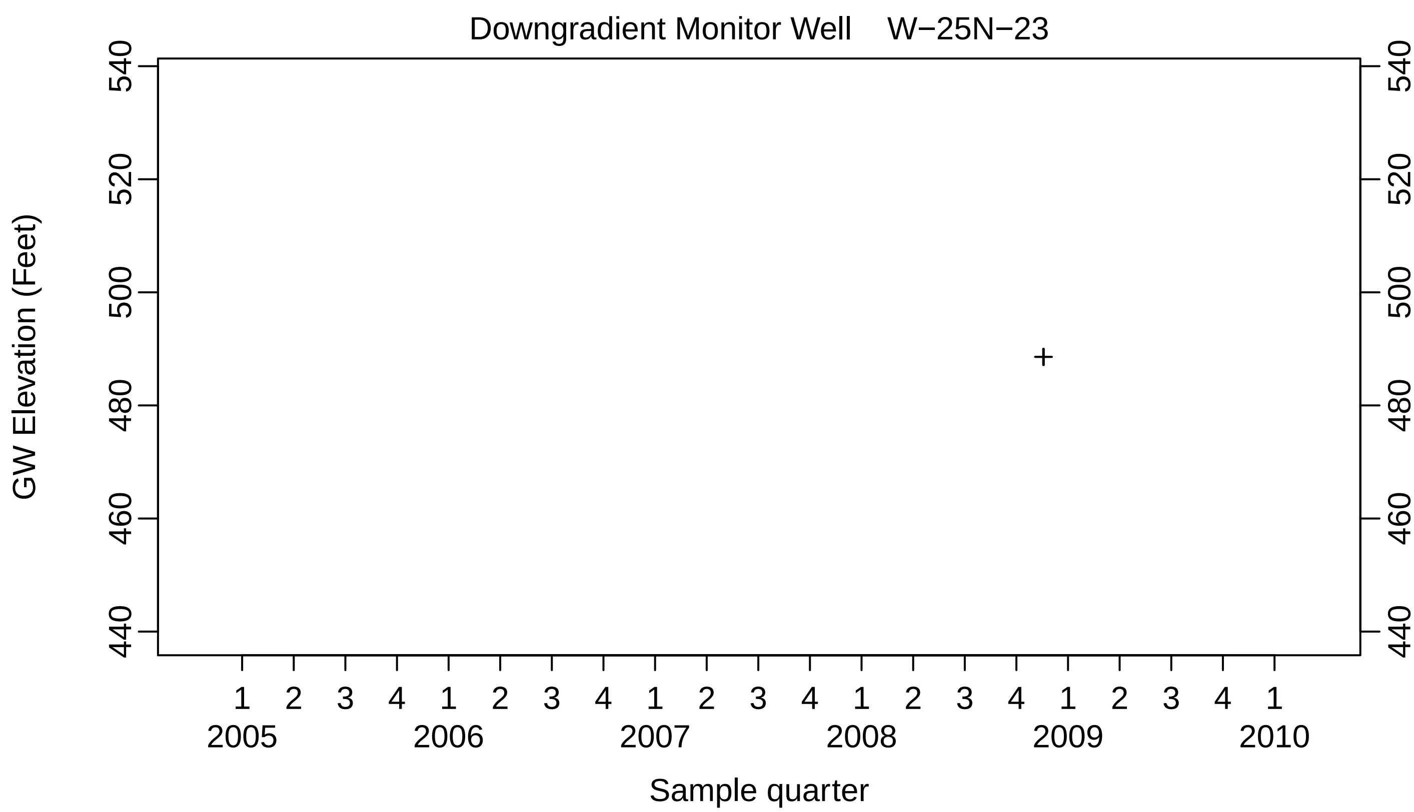
Sewage Ponds Ground Water
GW Elevation (Feet)



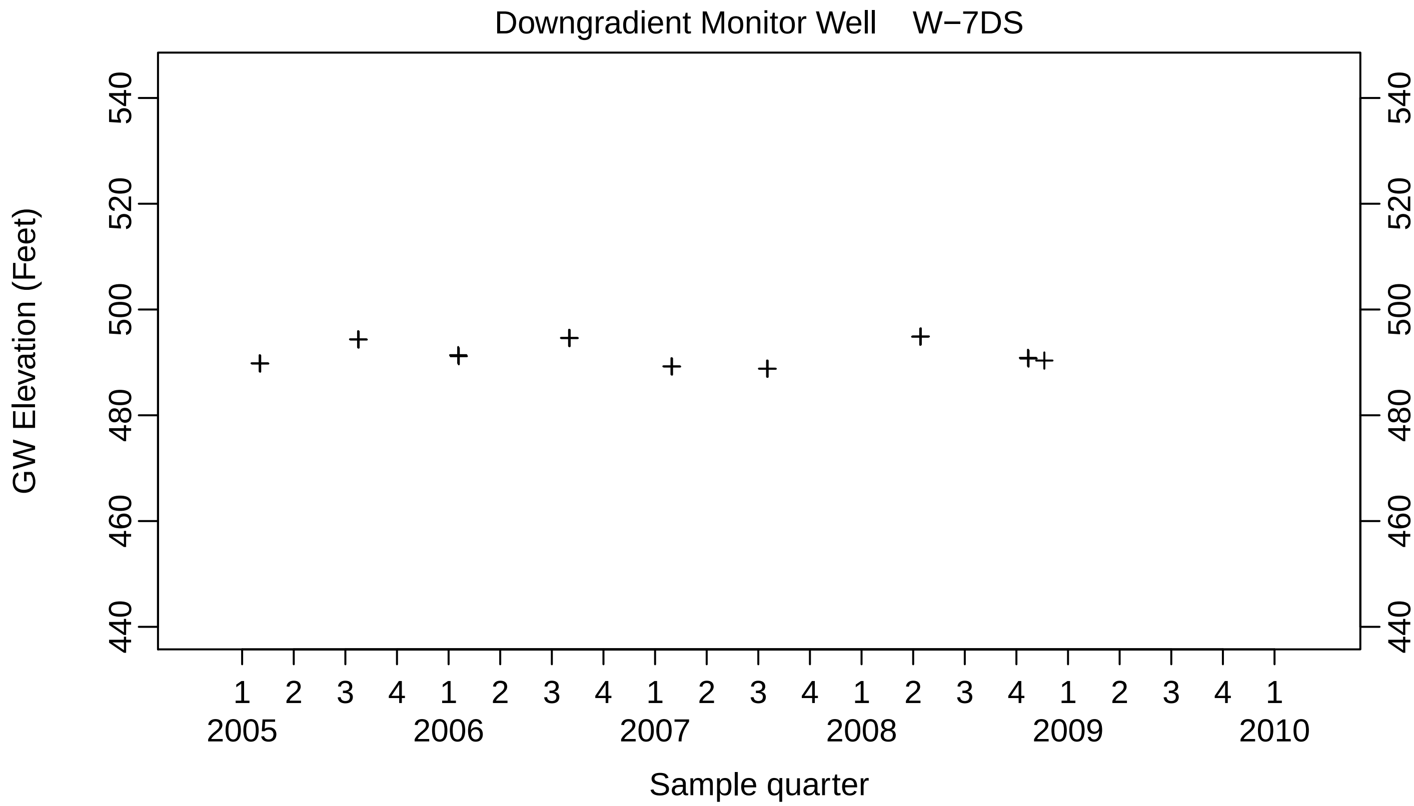


Sewage Ponds Ground Water
GW Elevation (Feet)



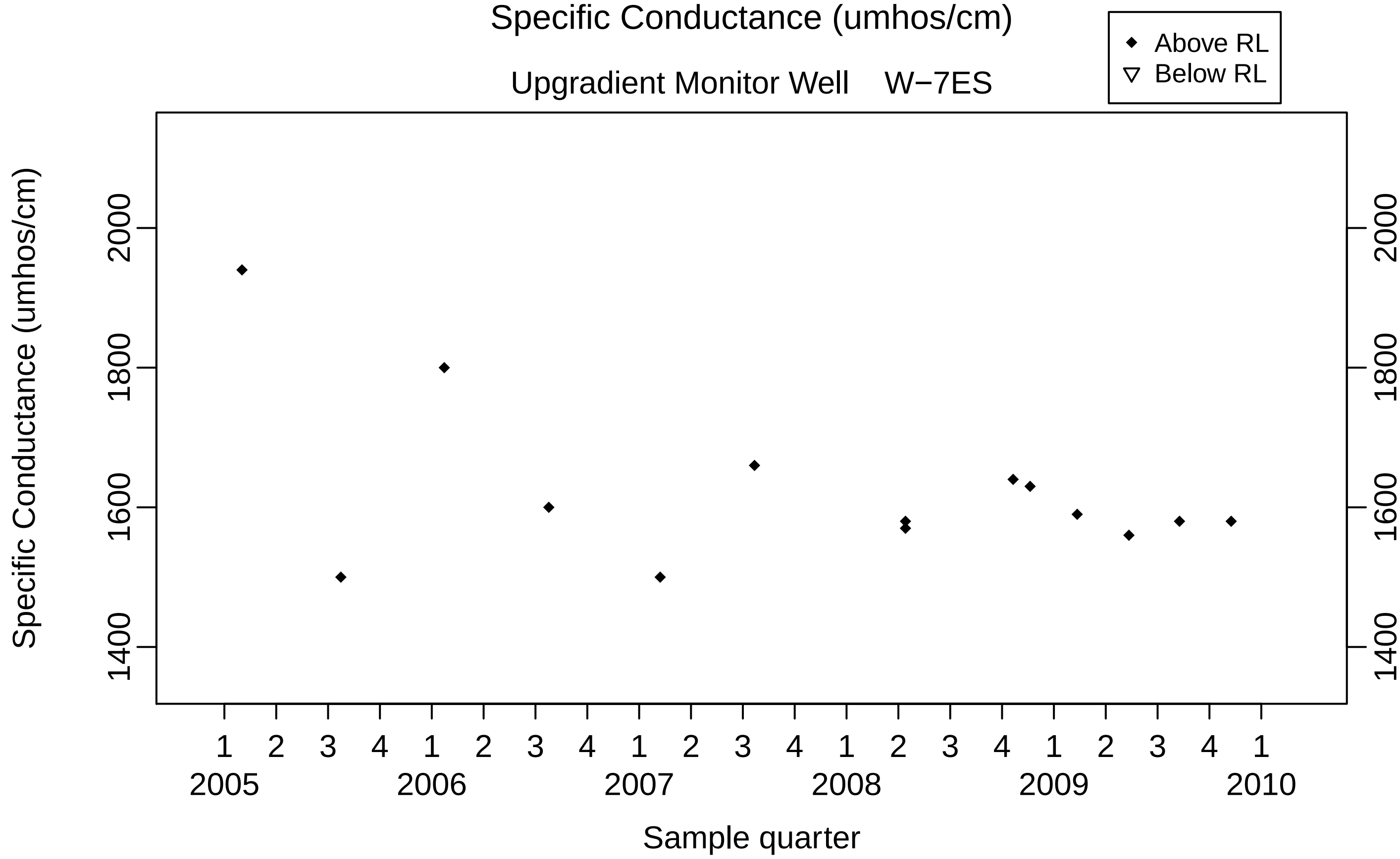


Sewage Ponds Ground Water
GW Elevation (Feet)

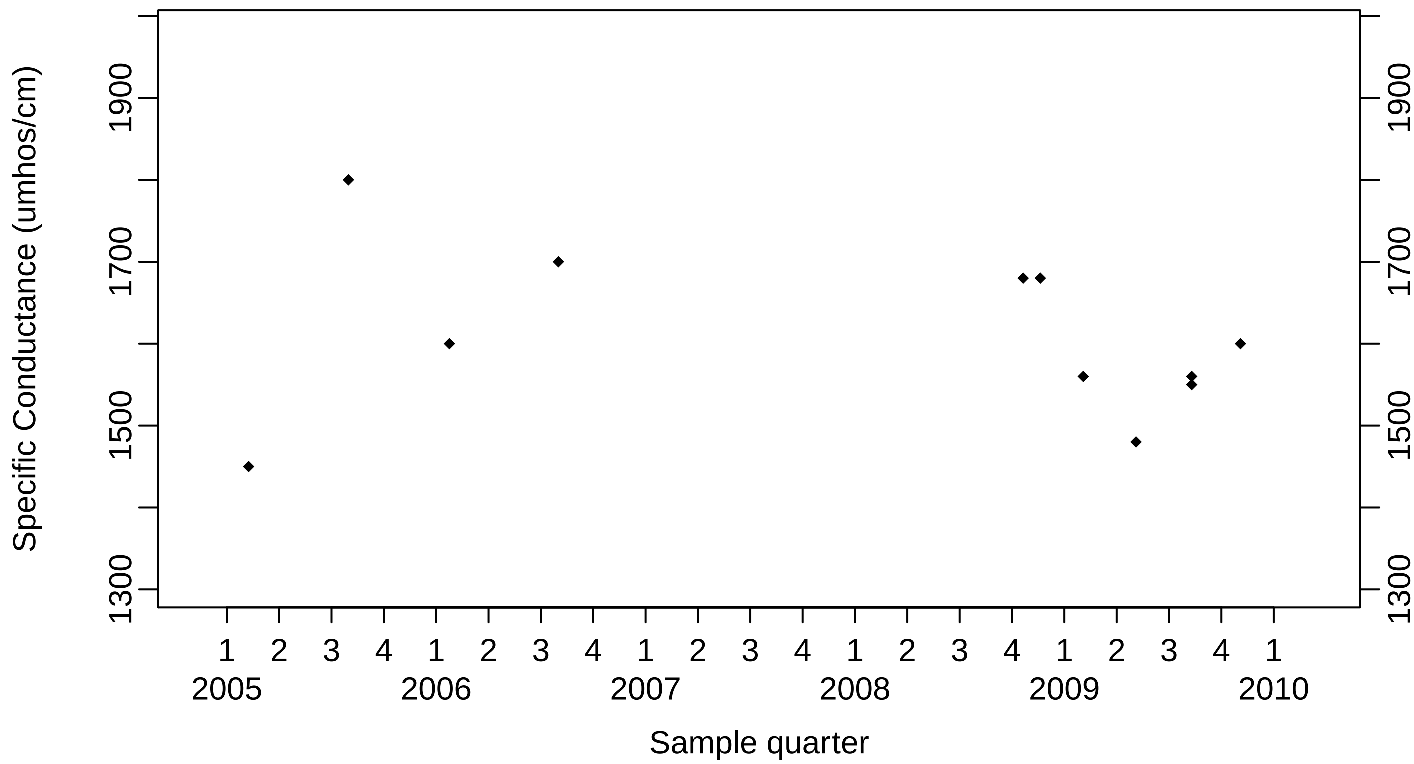


Sewage Ponds Ground Water
Specific Conductance (umhos/cm)

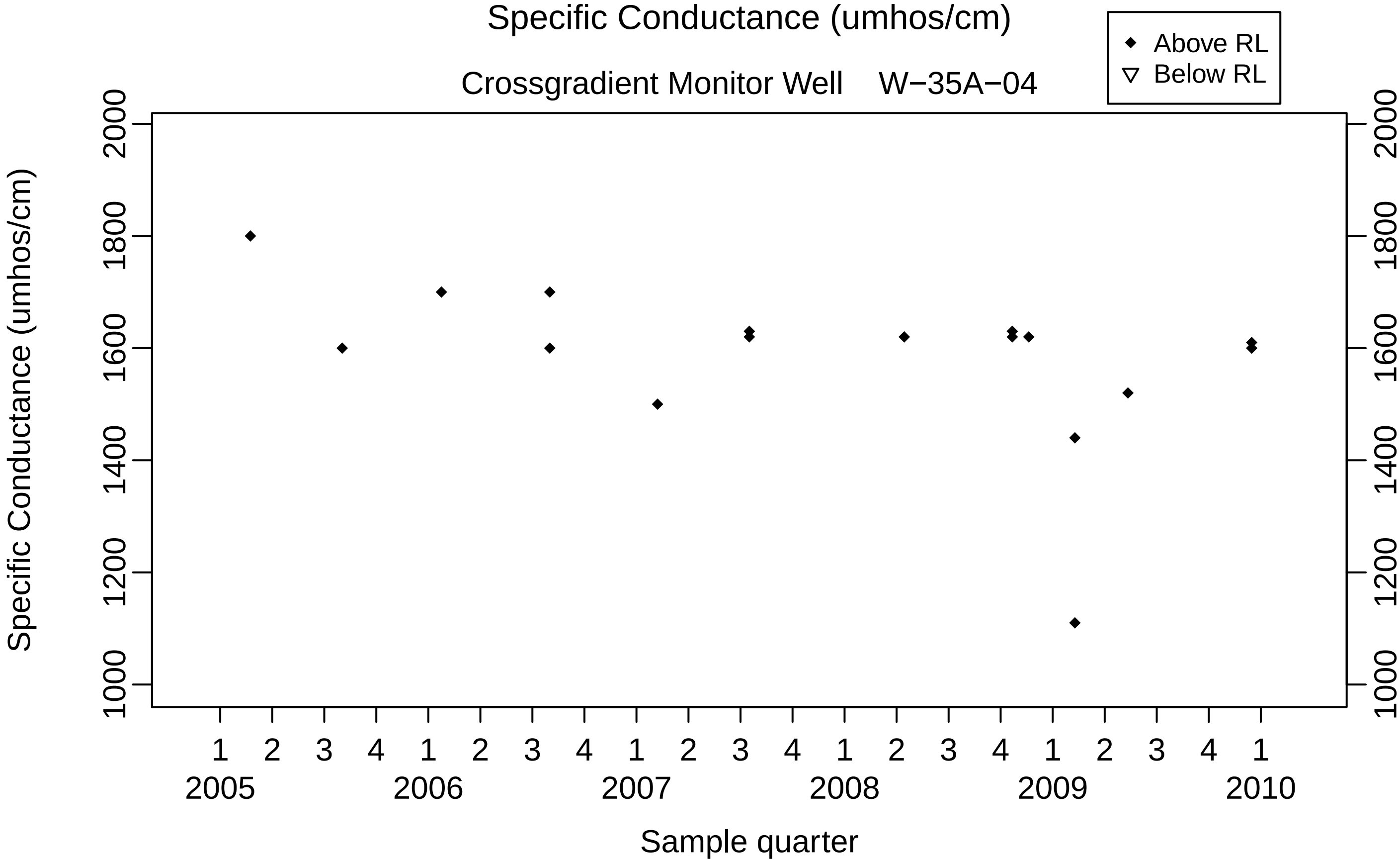
Upgradient Monitor Well W−7ES

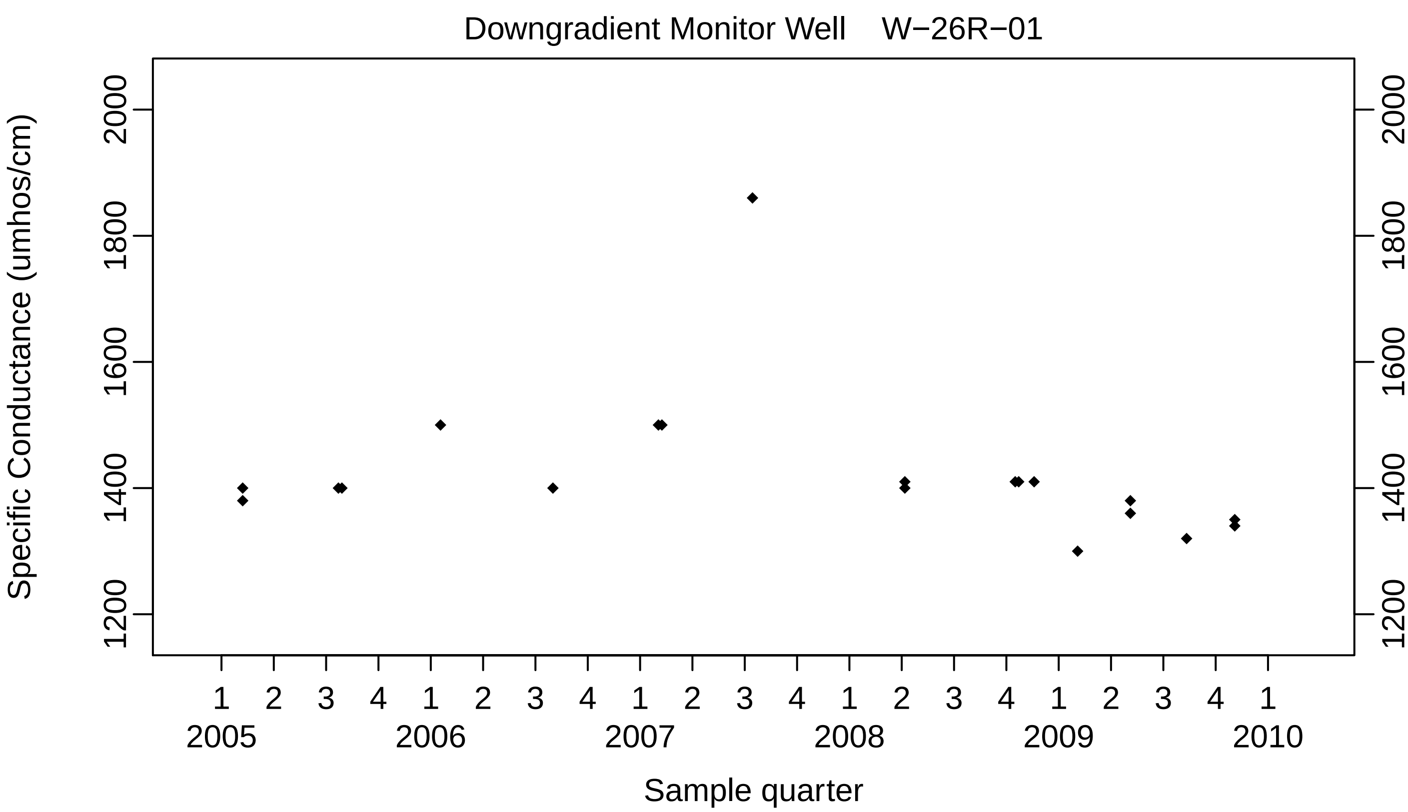


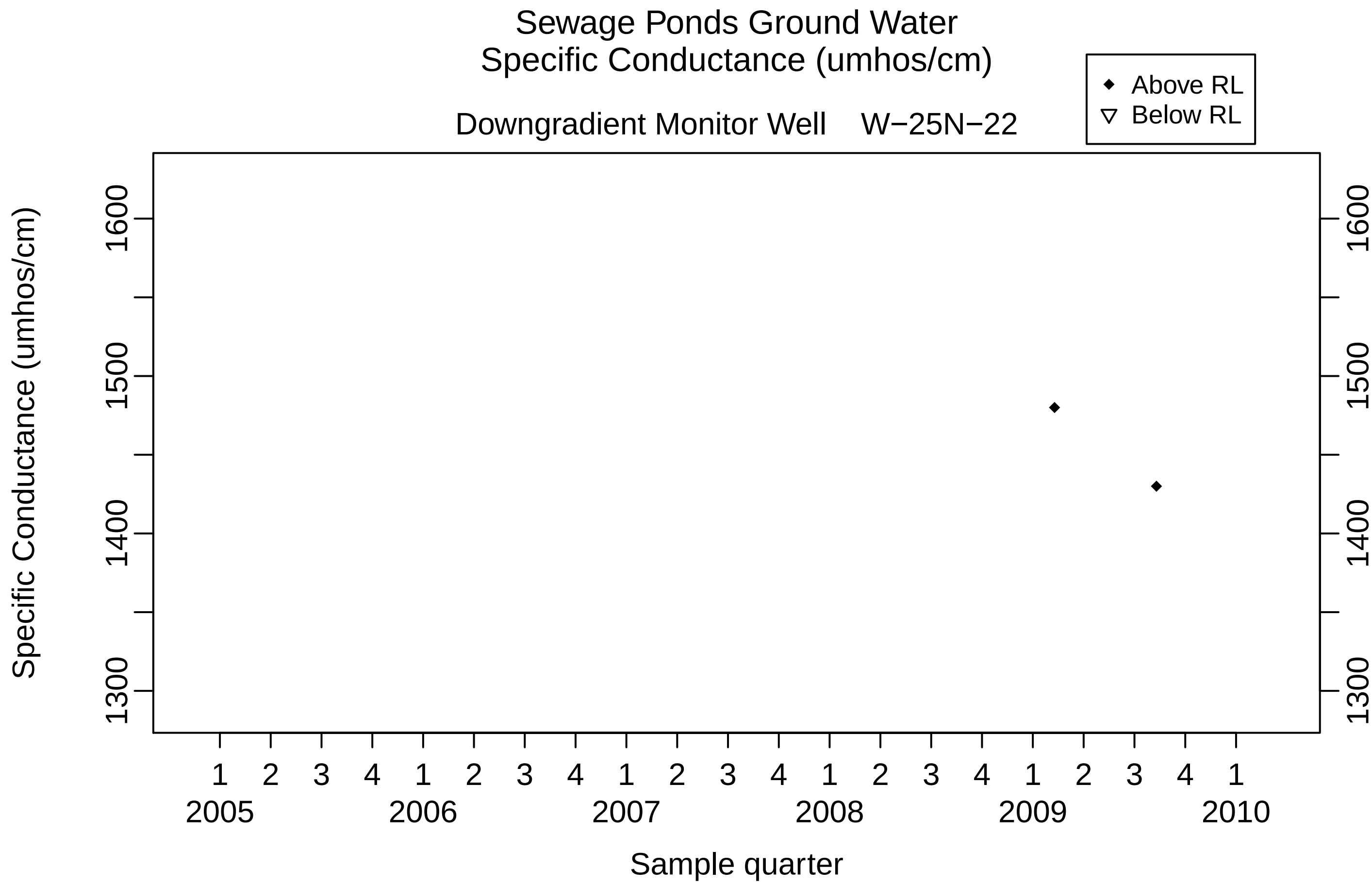
Upgradient Monitor Well W−7PS

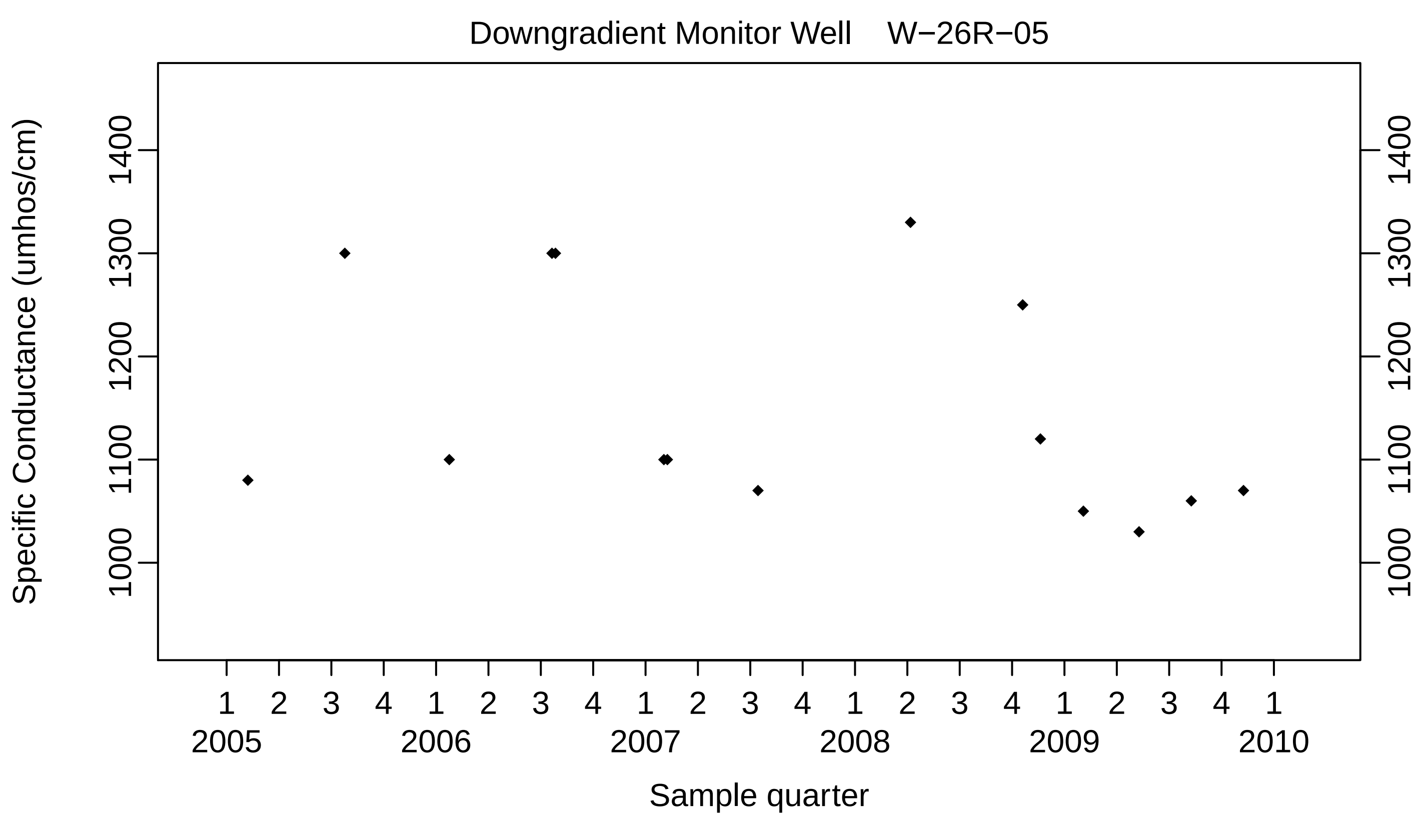


Sewage Ponds Ground Water
Specific Conductance (umhos/cm)

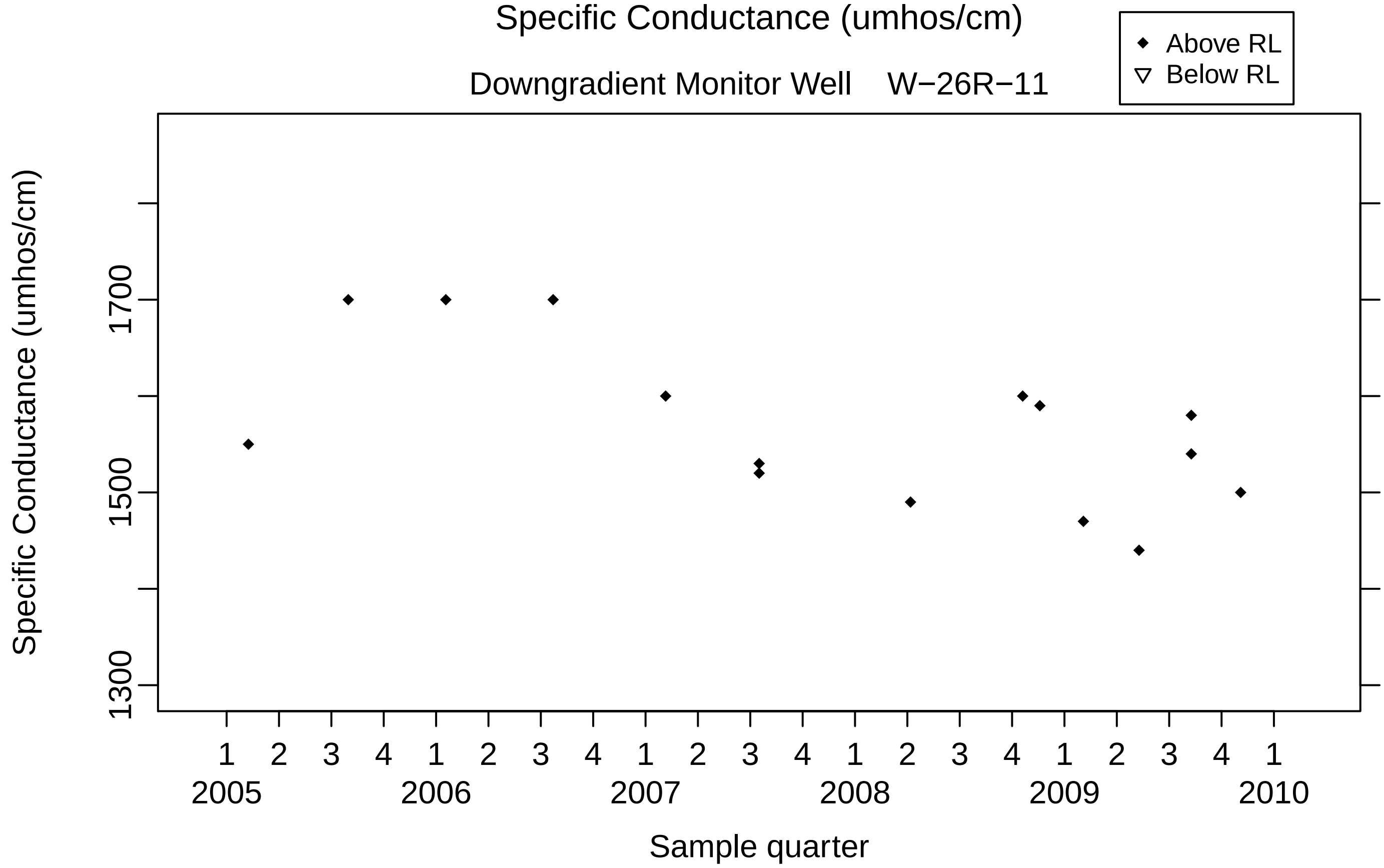


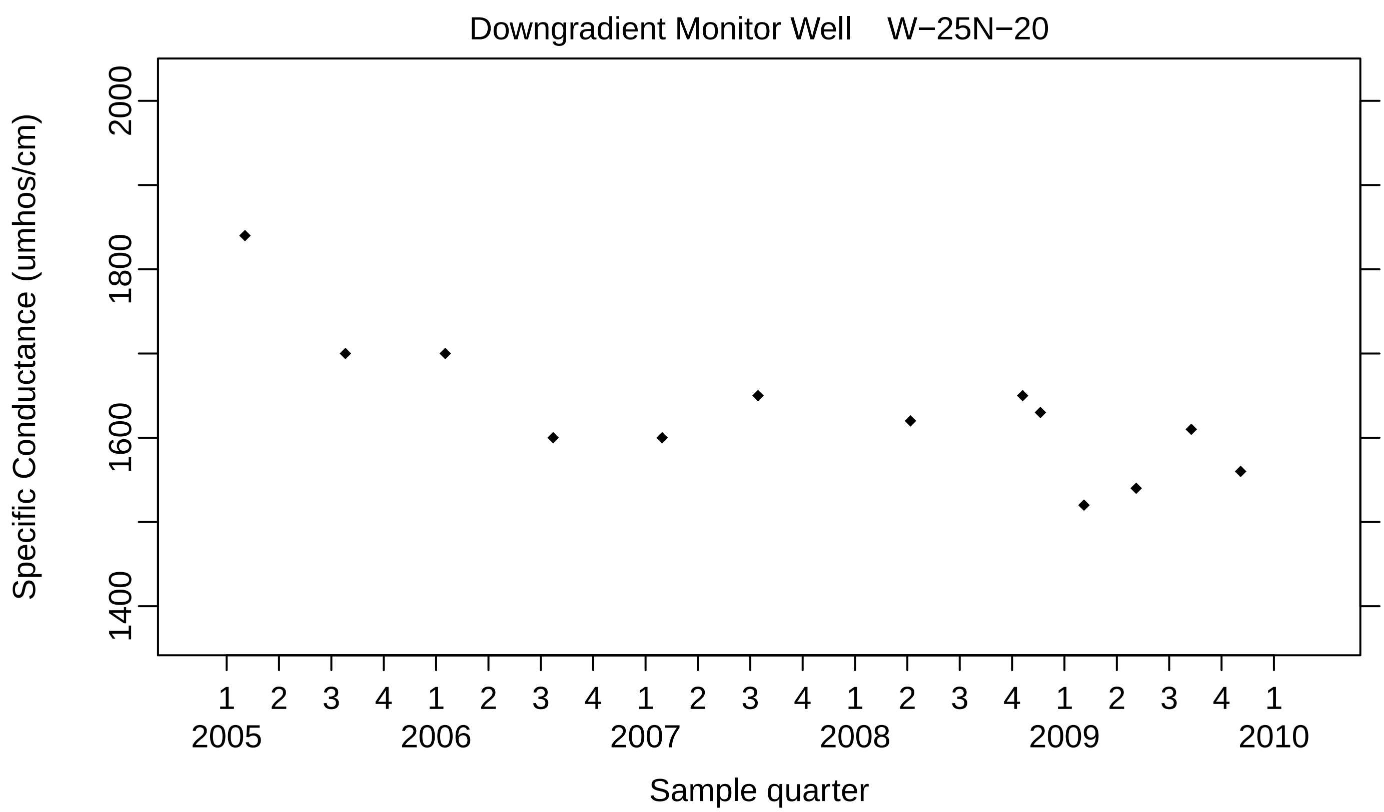



Sewage Ponds Ground Water
Specific Conductance (umhos/cm)
Above RL
Below RL
Downgradient Monitor Well W−25N−22
Specific Conductance (umhos/cm)
1300
1400
1500
1600
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005
2006
2007
2008
2009
2010
Sample quarter

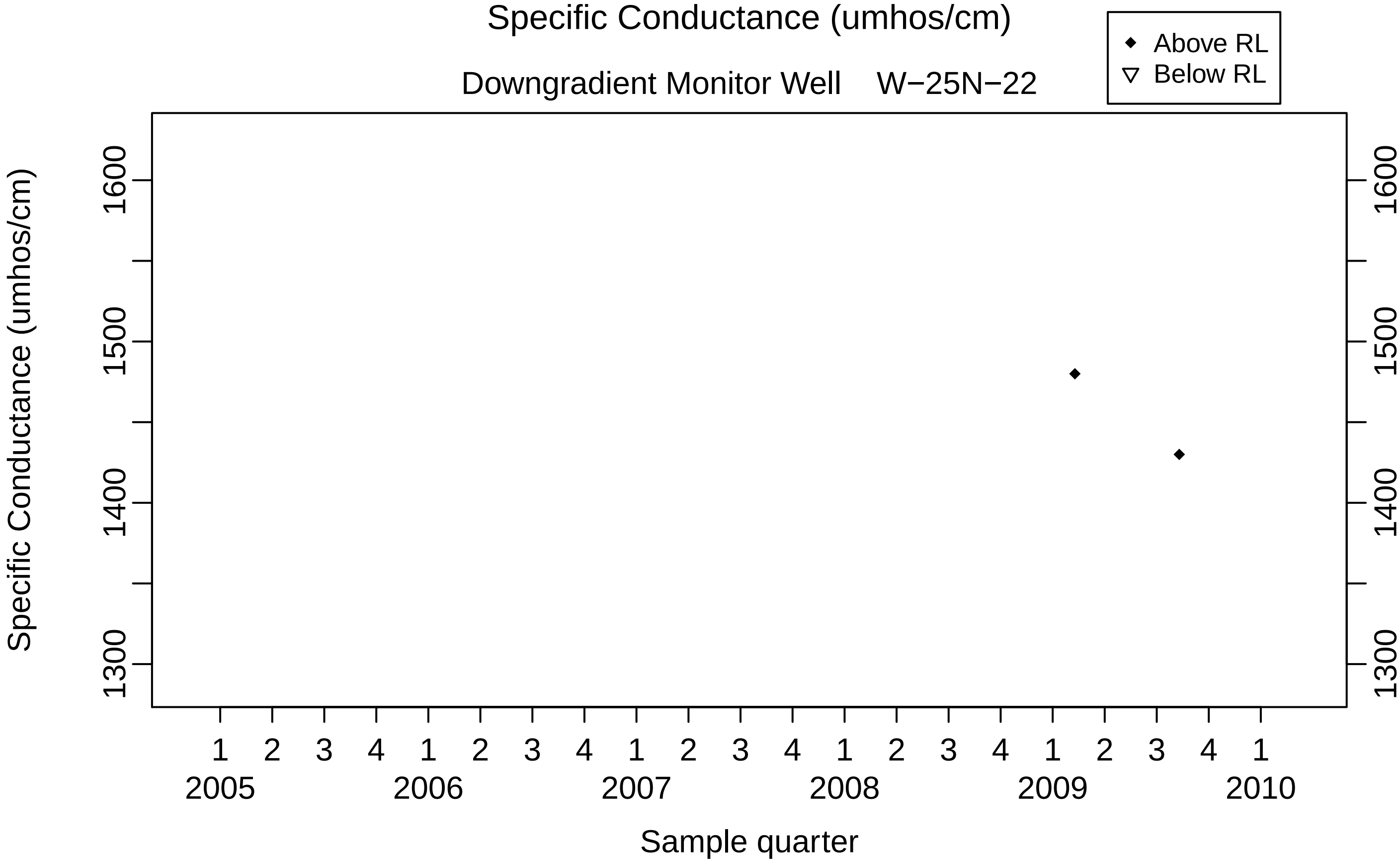

Downgradient Monitor Well W−26R−05
Specific Conductance (umhos/cm)
1000
1100
1200
1300
1400
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005
2006
2007
2008
2009
2010
Sample quarter

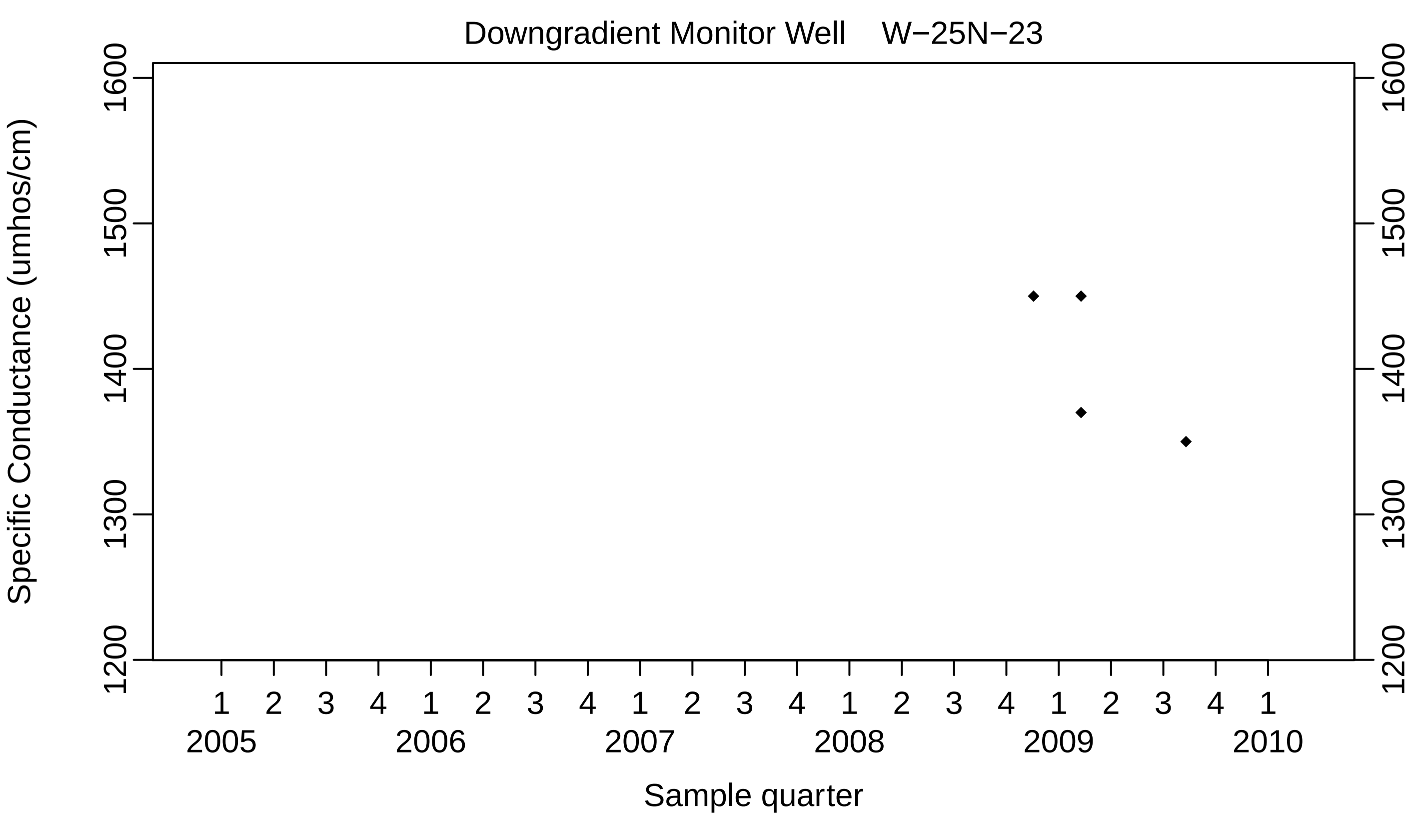
Sewage Ponds Ground Water
Specific Conductance (umhos/cm)

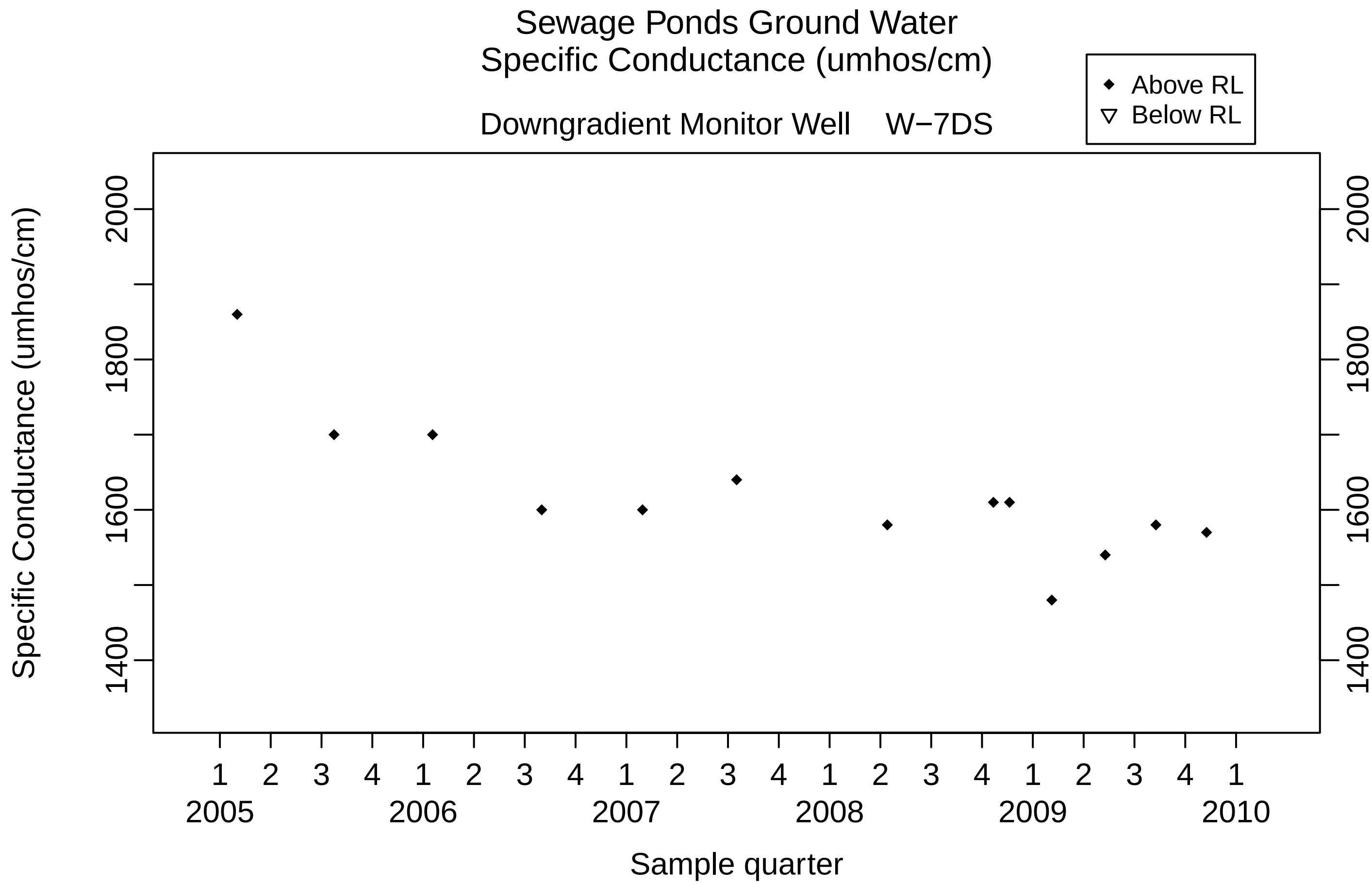




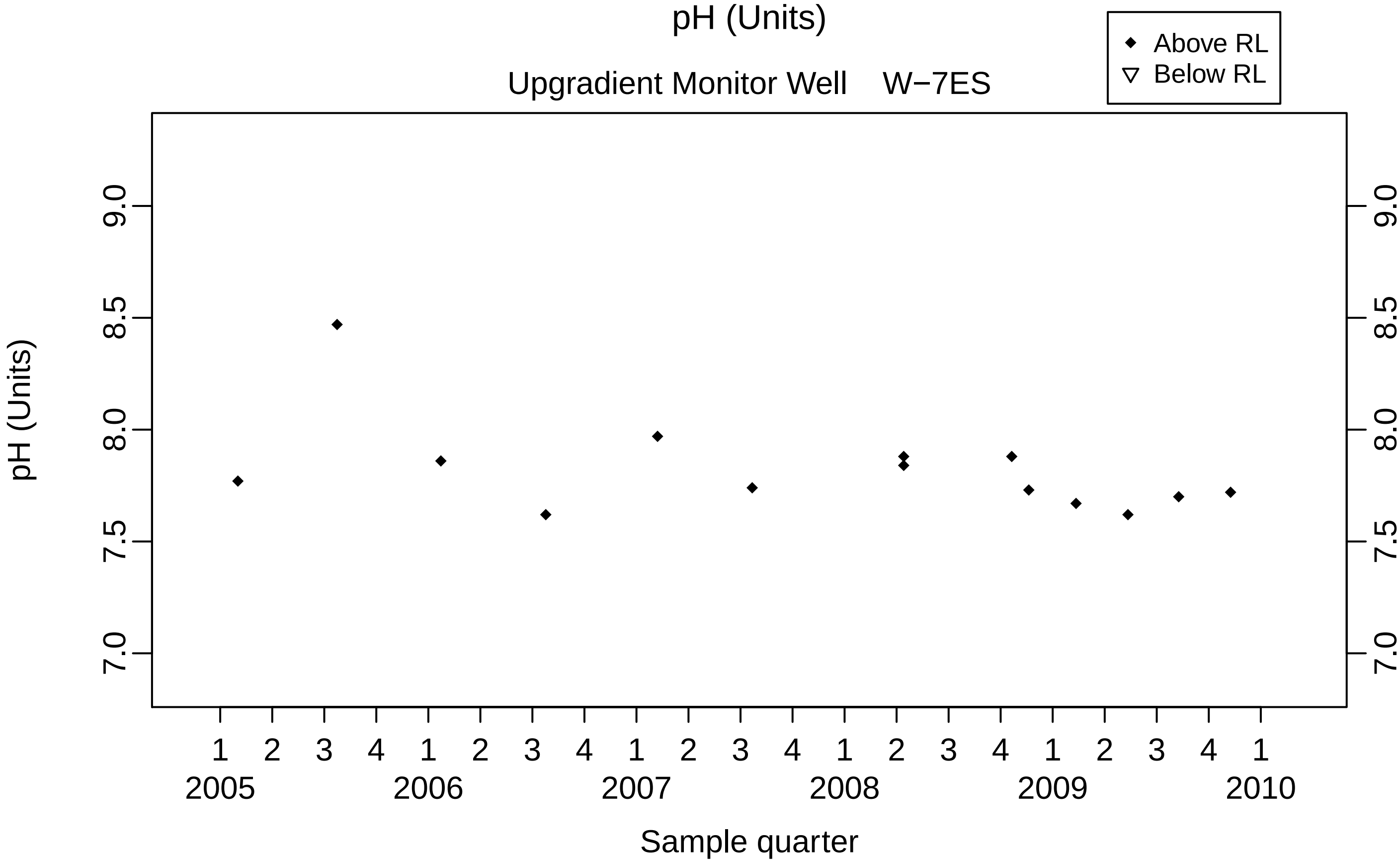
Sewage Ponds Ground Water
Specific Conductance (umhos/cm)

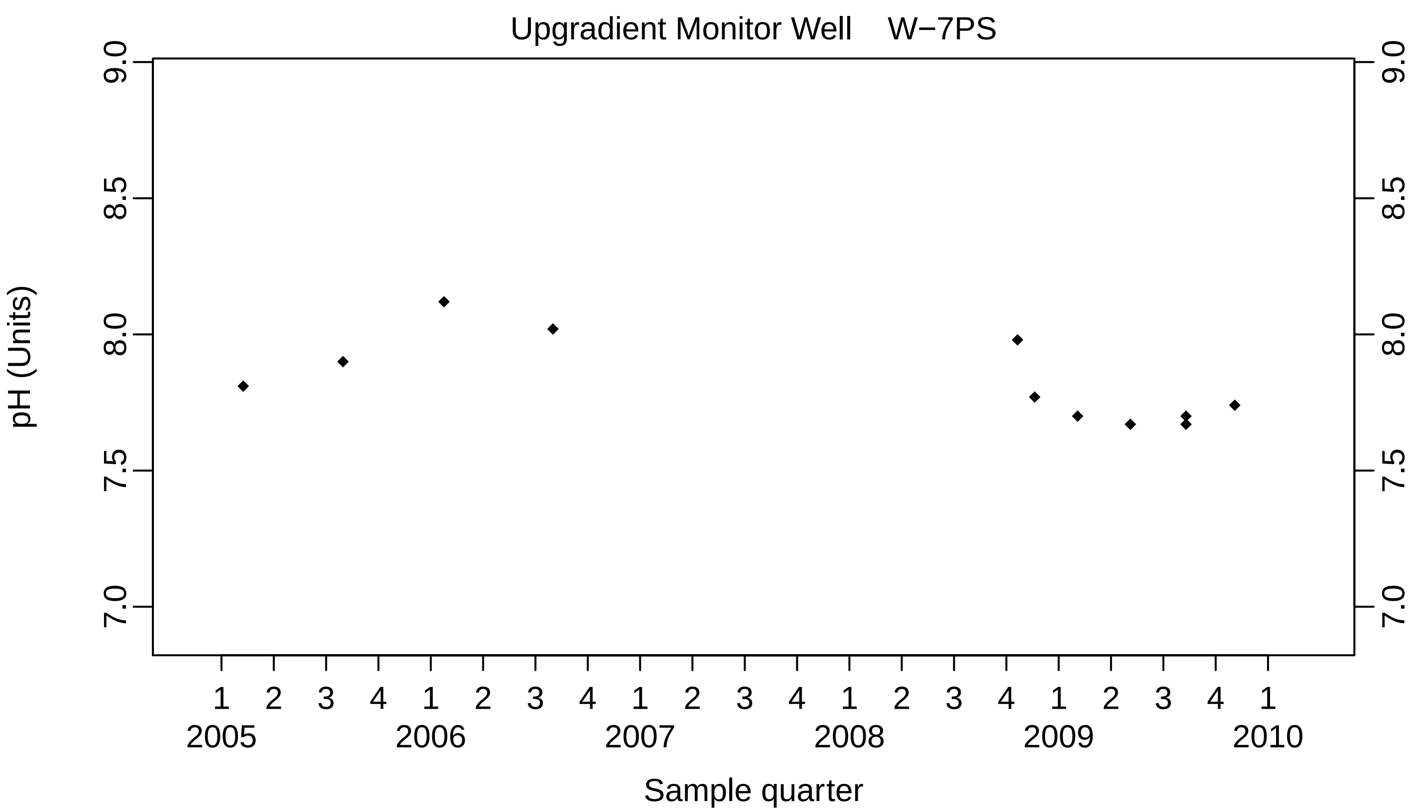




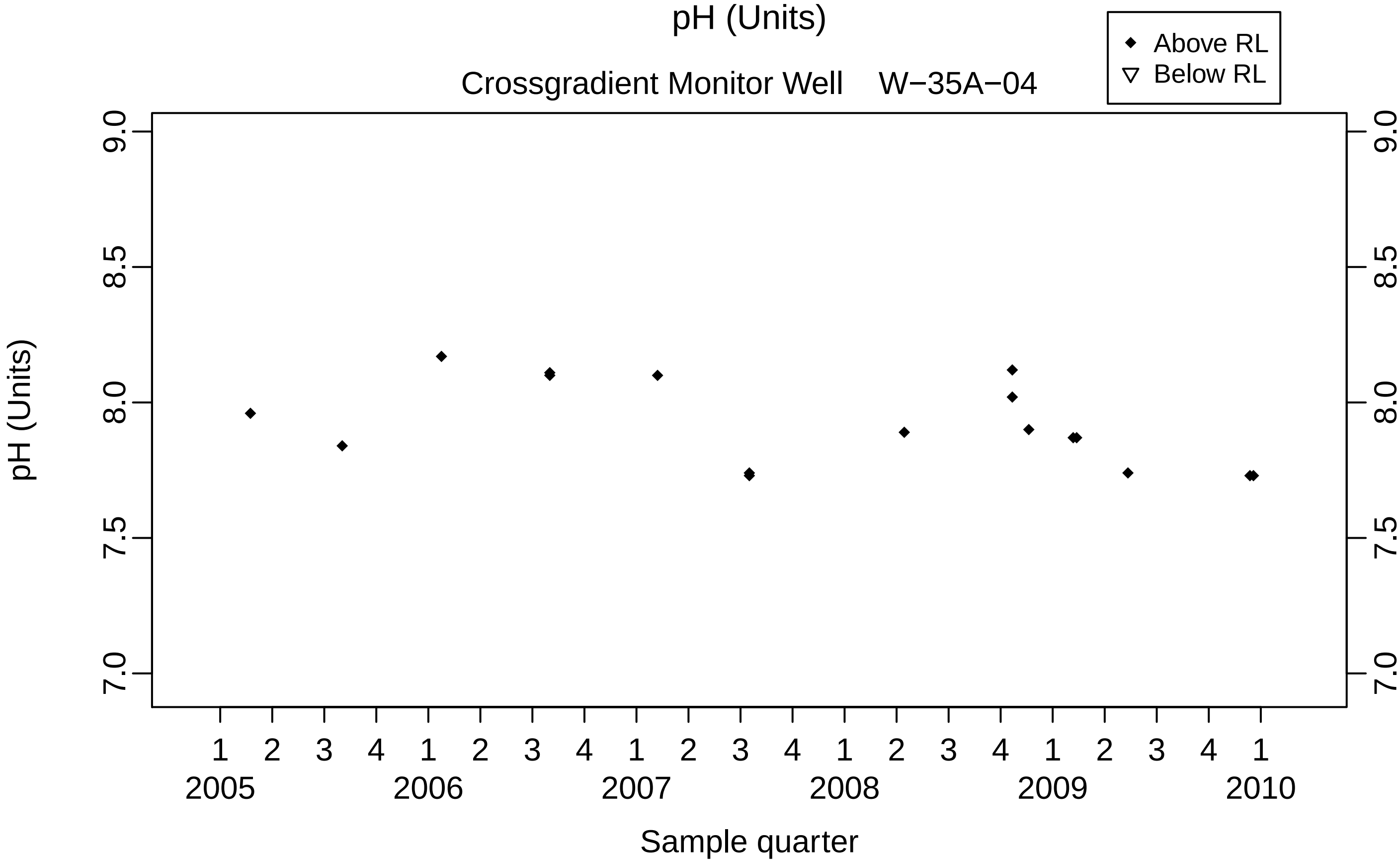

Sewage Ponds Ground Water
Specific Conductance (umhos/cm)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Specific Conductance (umhos/cm)
1400
1600
1800
2000
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005
2006
2007
2008
2009
2010
Sample quarter

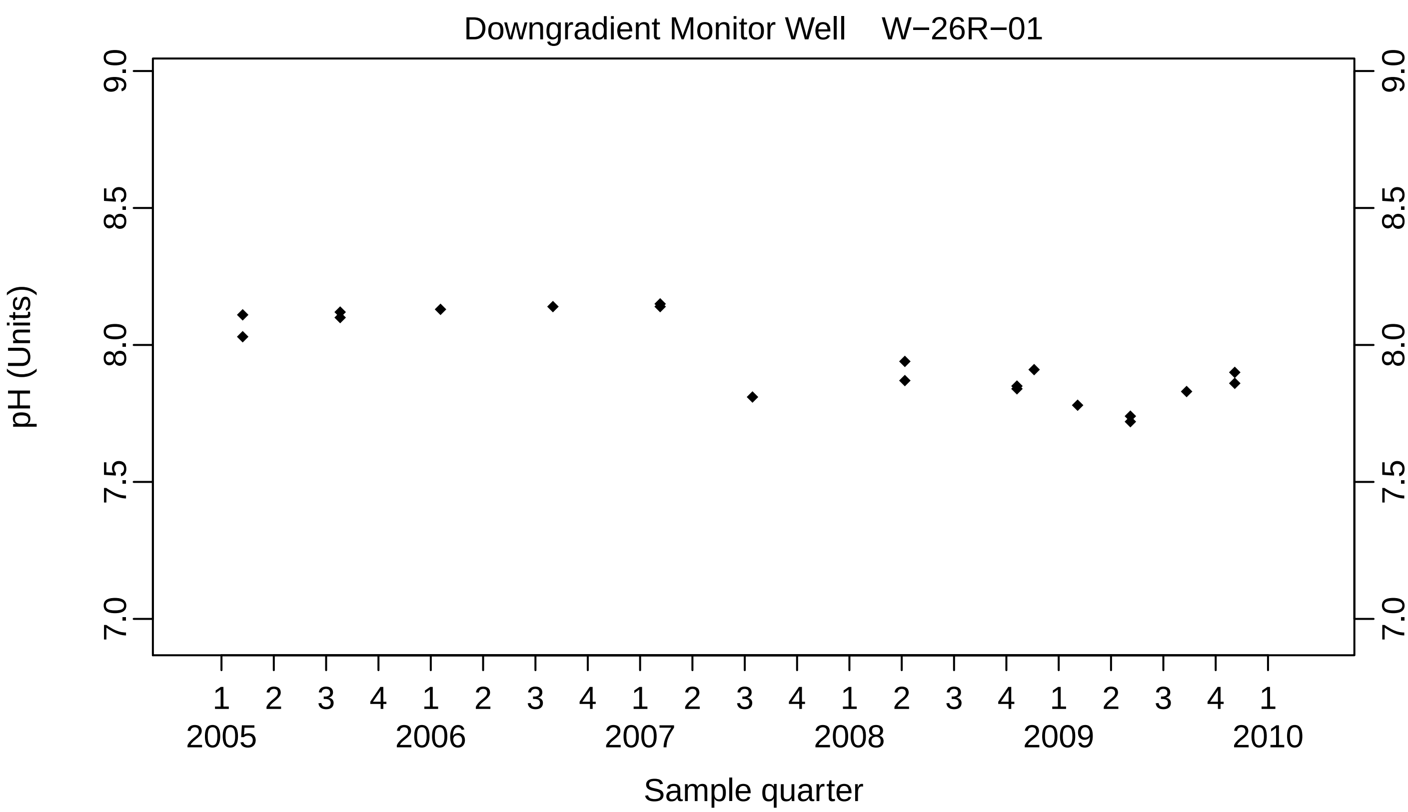
Sewage Ponds Ground Water
pH (Units)

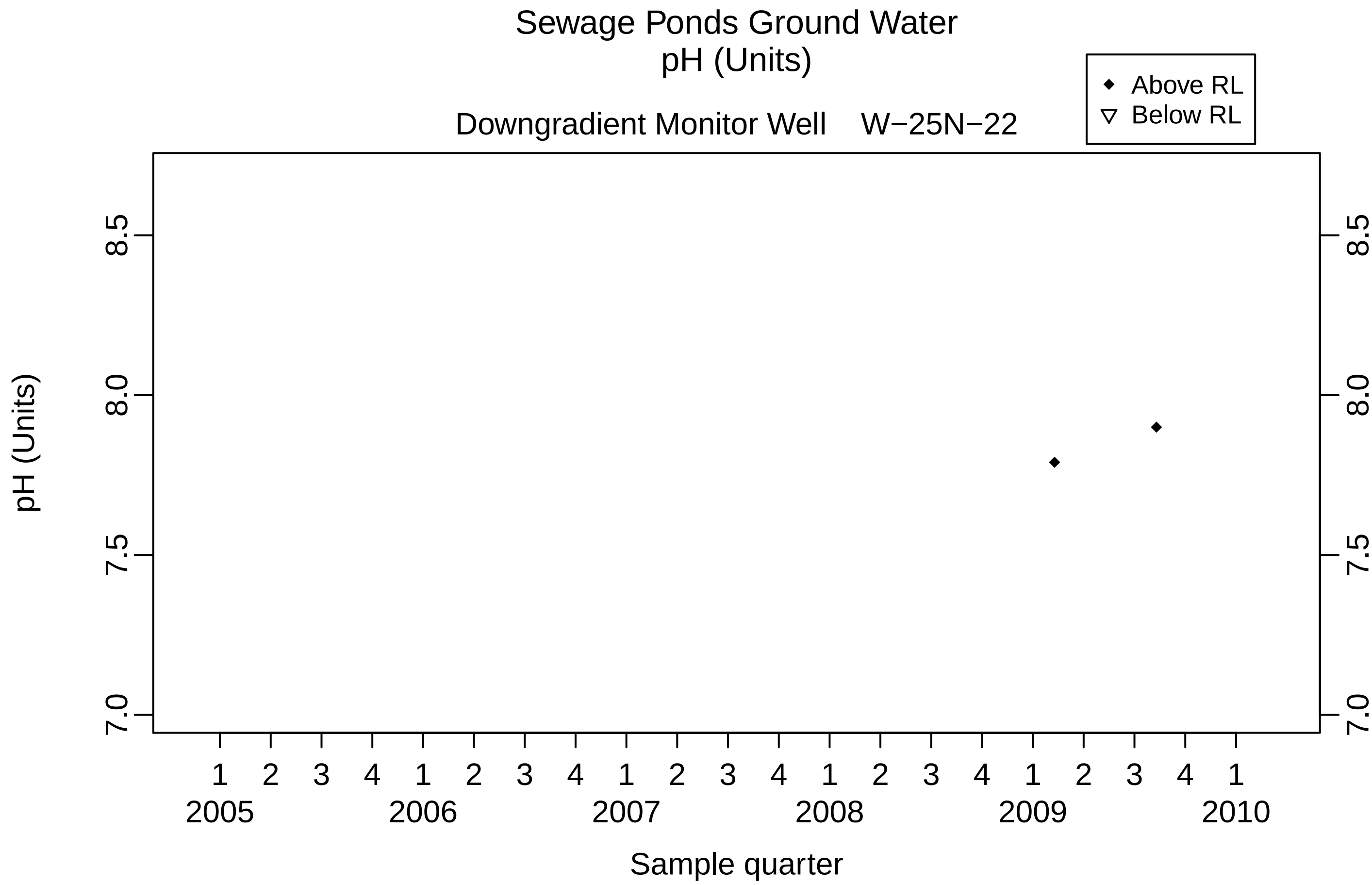


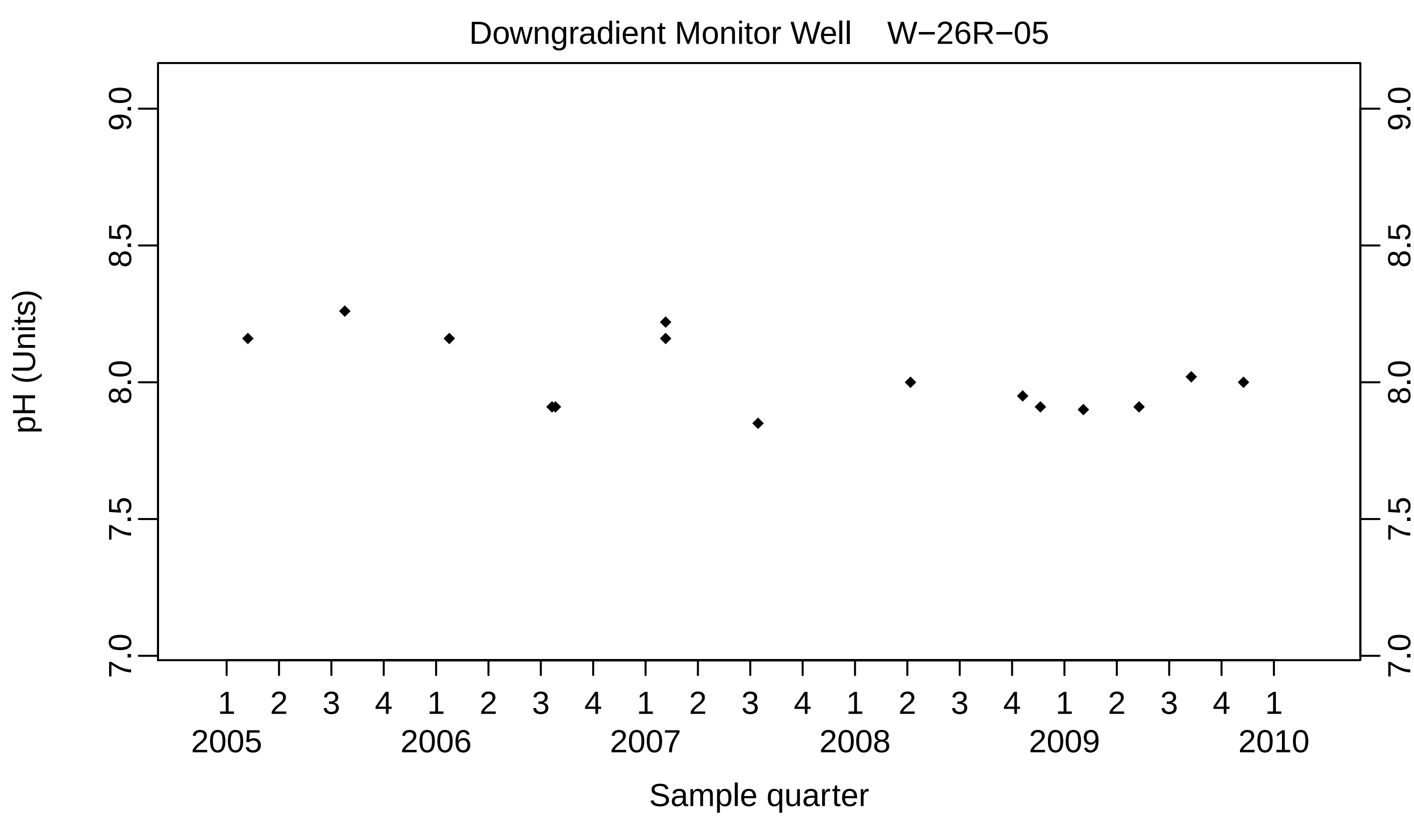


Sewage Ponds Ground Water
pH (Units)

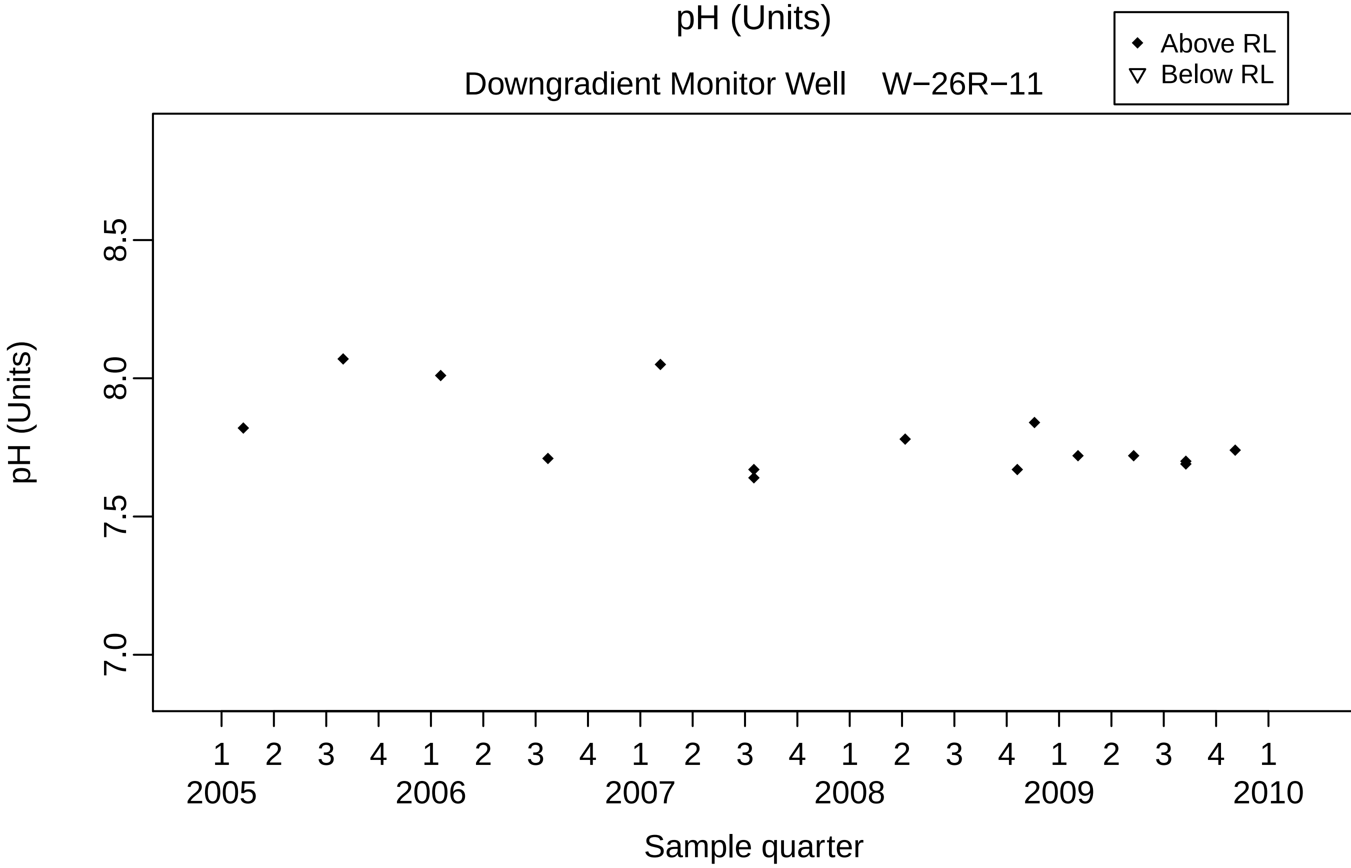


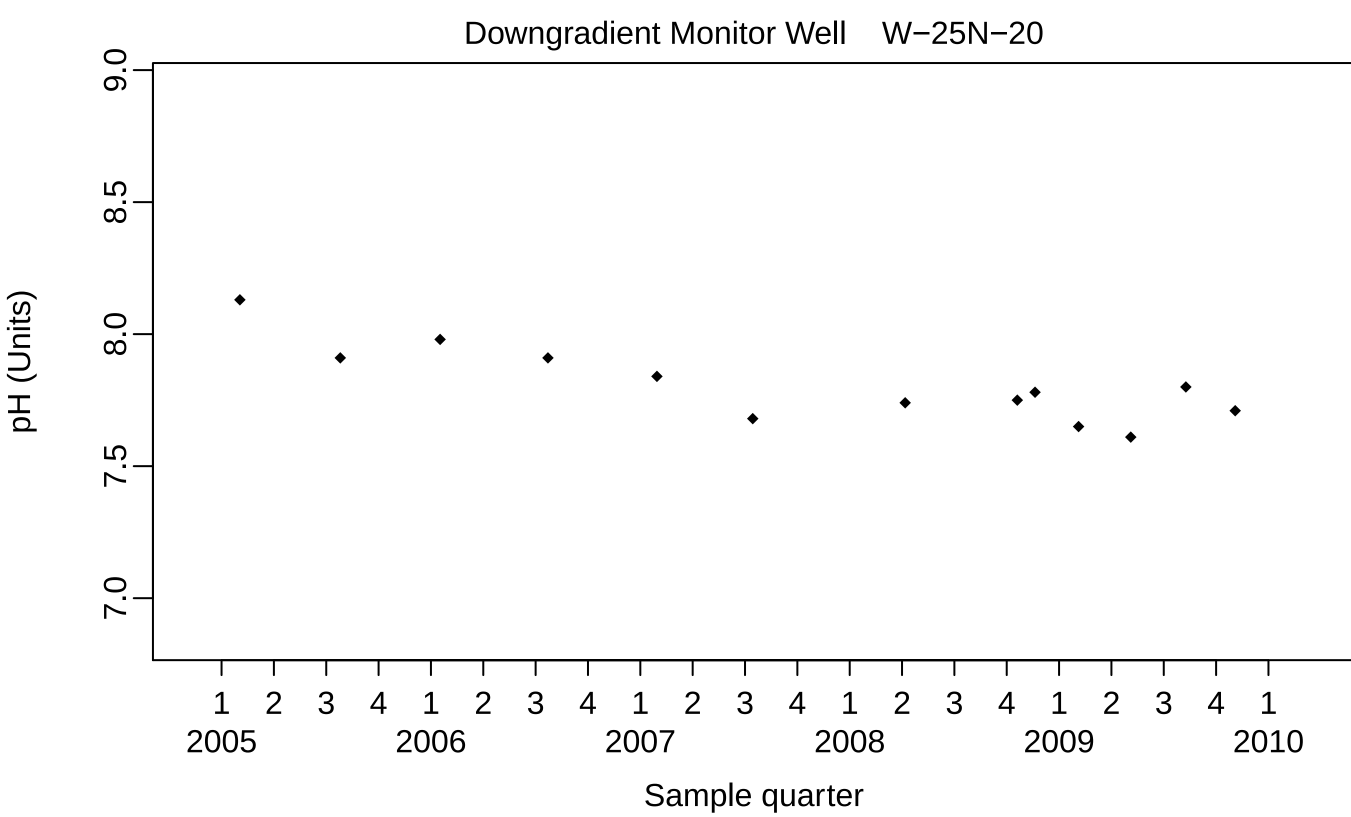



Sewage Ponds Ground Water
pH (Units)
Above RL
Below RL
Downgradient Monitor Well W−25N−22
pH (Units)
7.0
7.5
8.0
8.5
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005 2006 2007 2008 2009 2010
Sample quarter

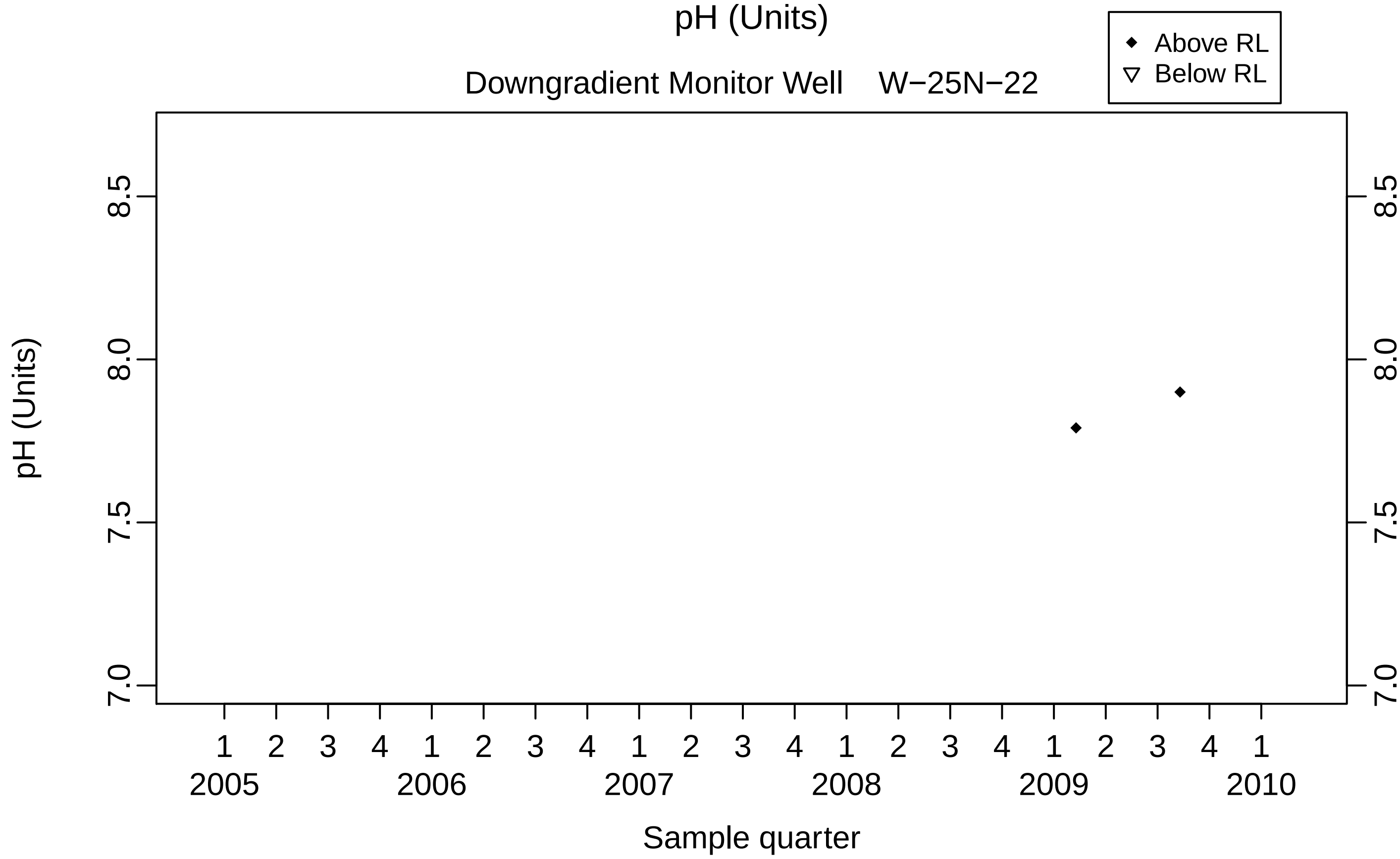

Downgradient Monitor Well W−26R−05
pH (Units)
7.0
7.5
8.0
8.5
9.0
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005 2006 2007 2008 2009 2010
Sample quarter

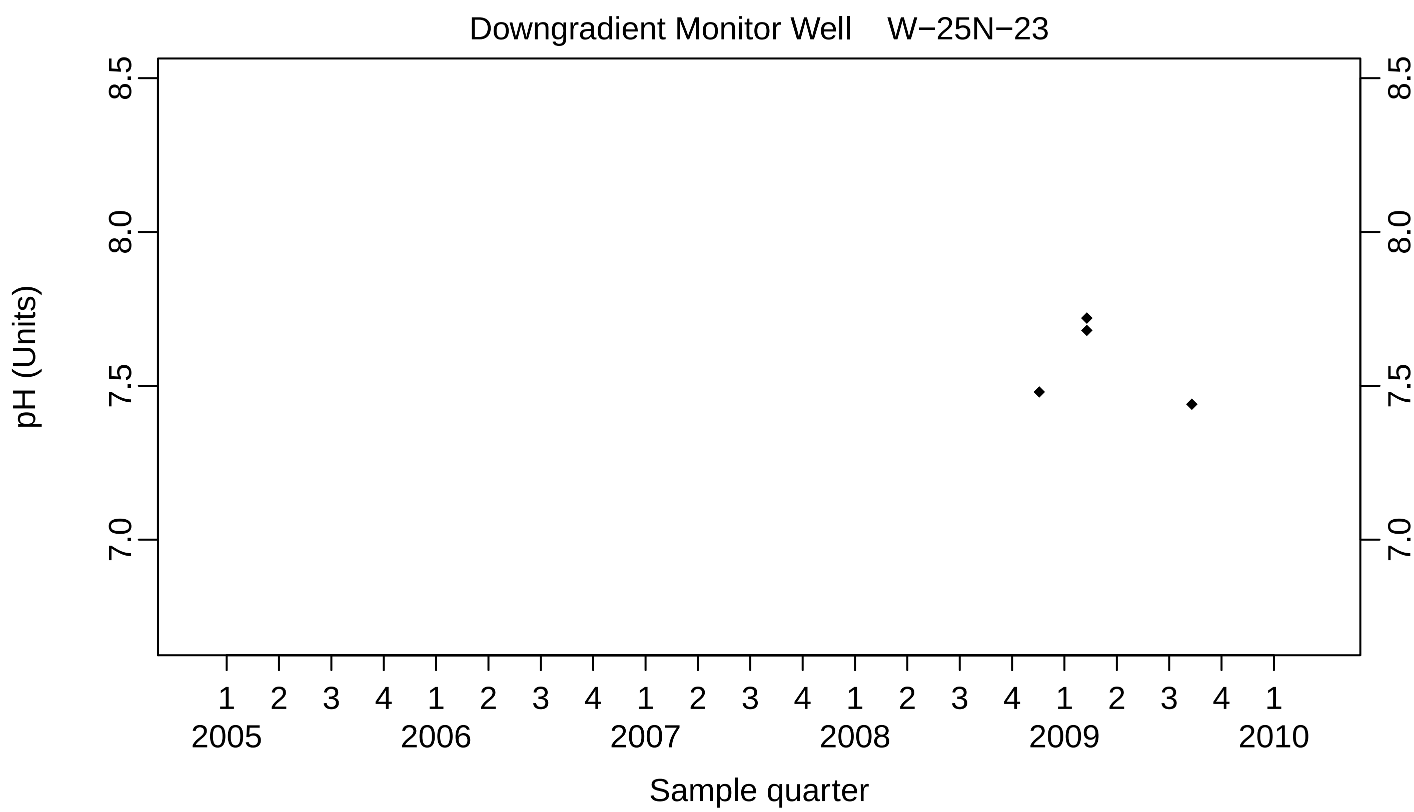
Sewage Ponds Ground Water
pH (Units)

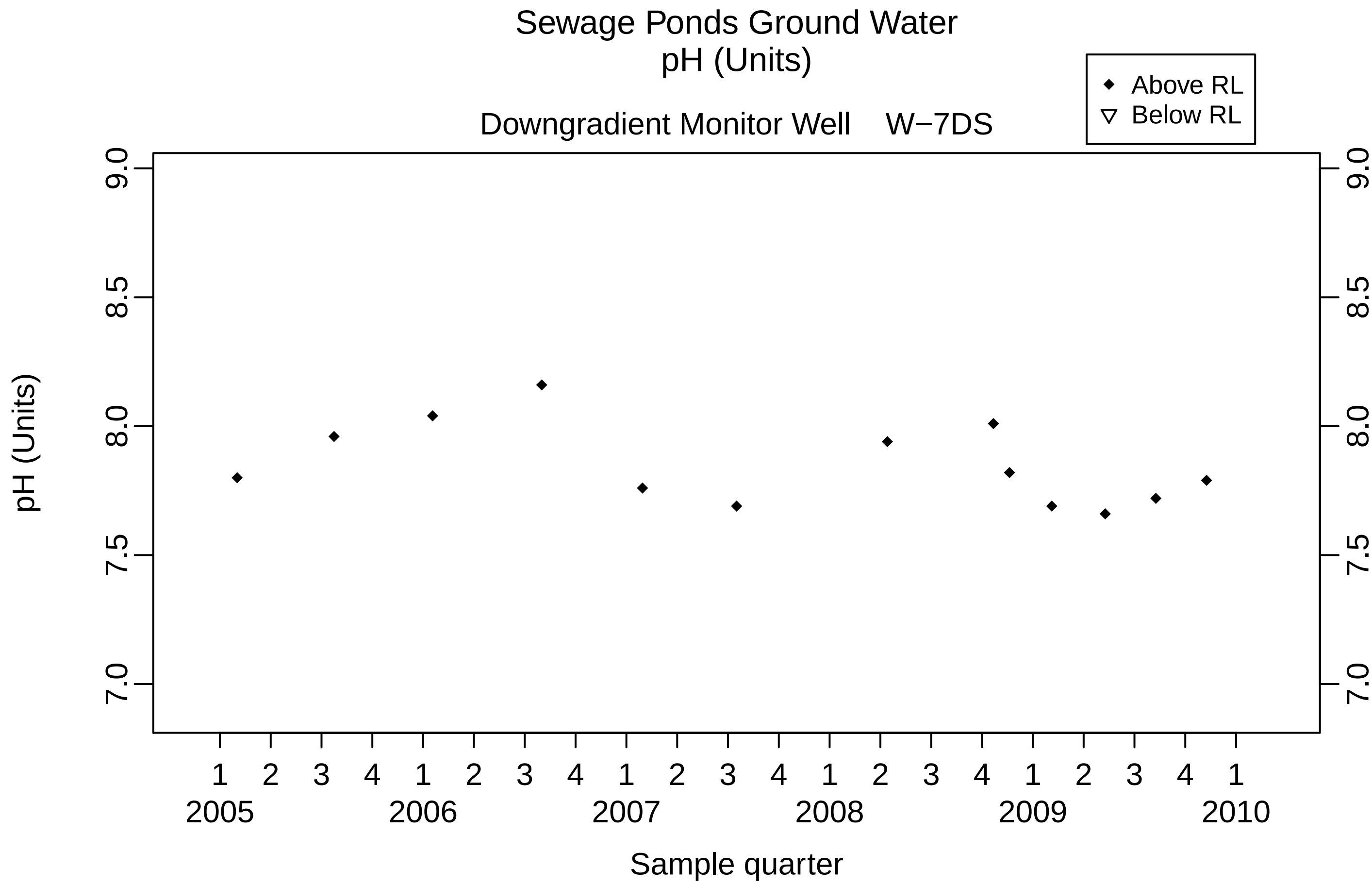


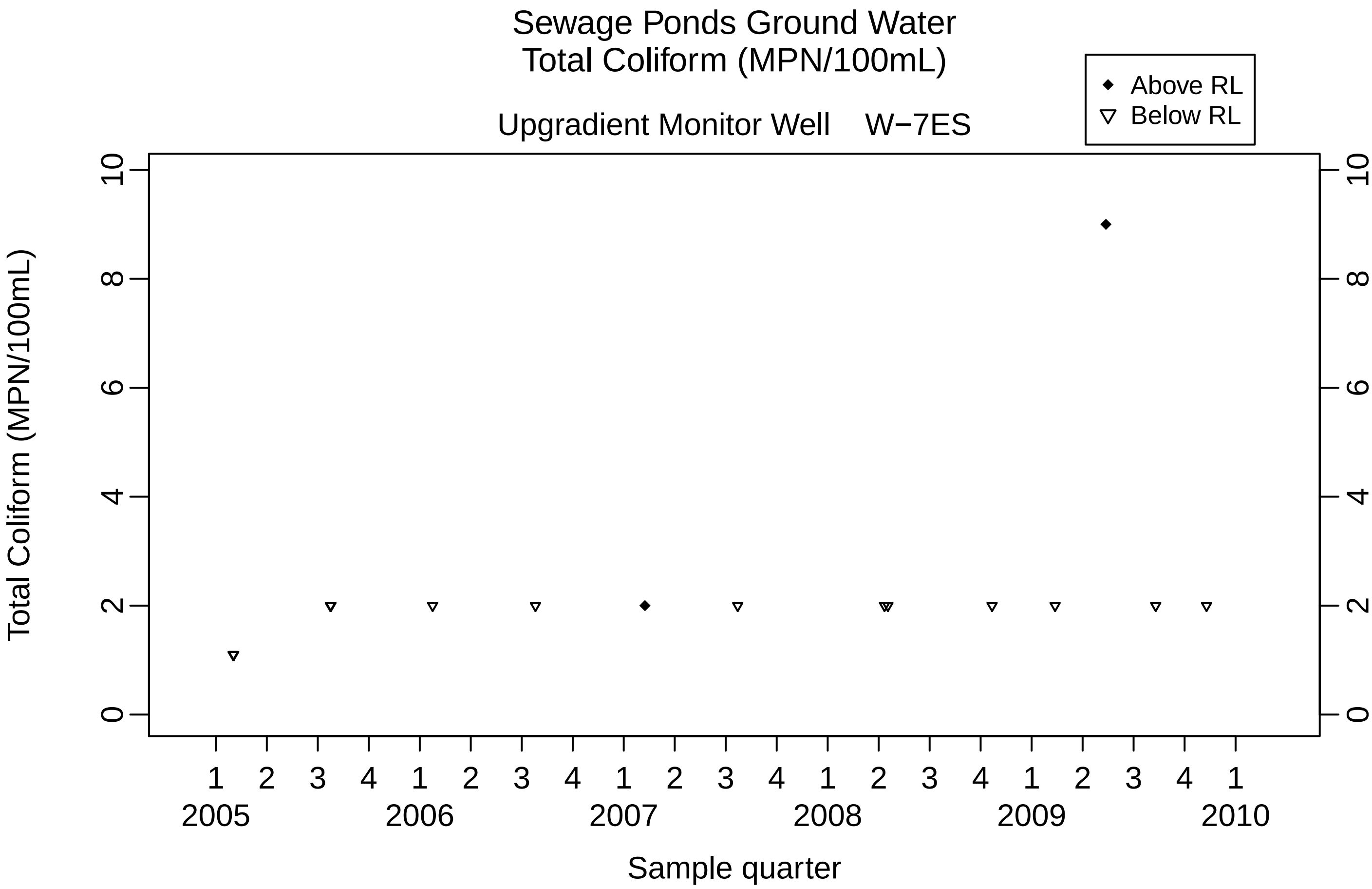


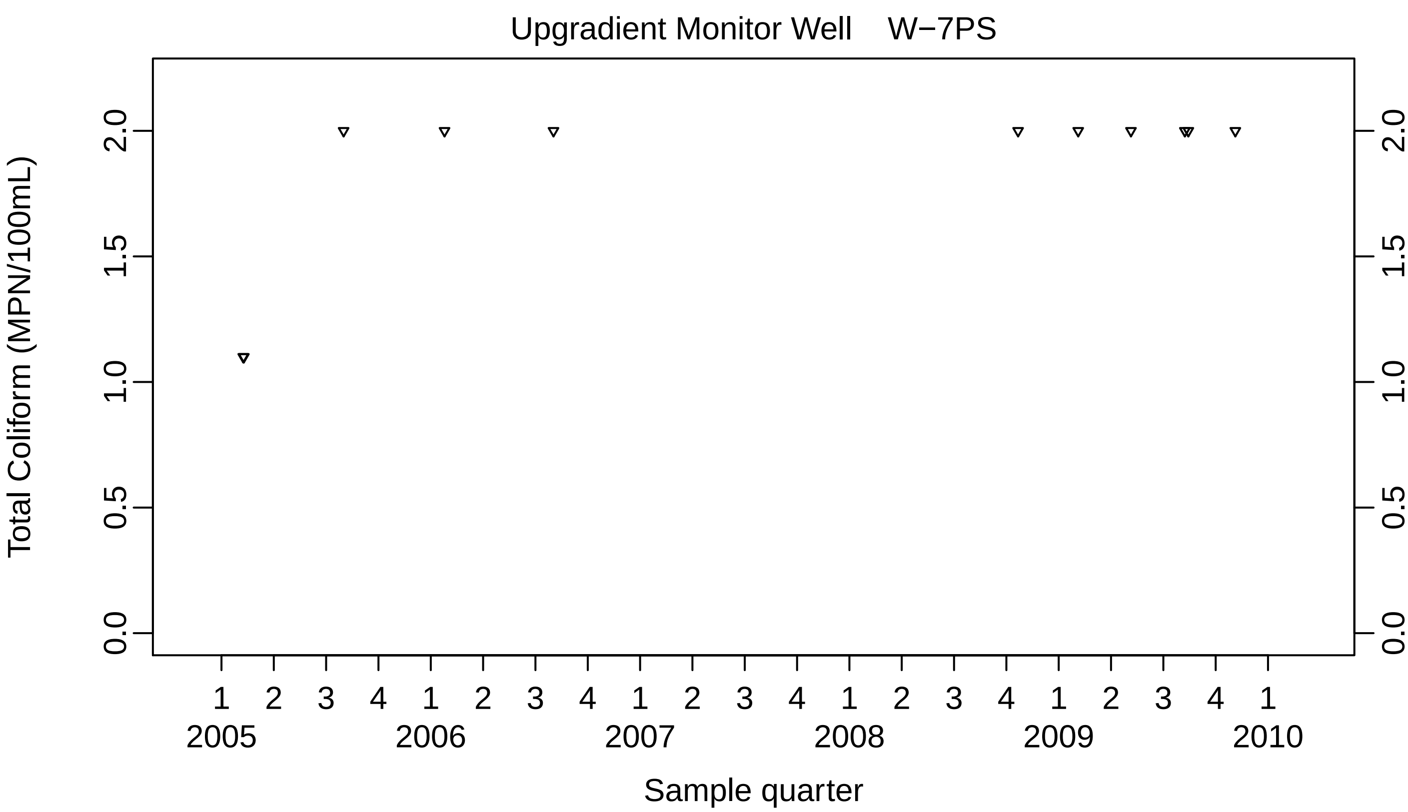
Sewage Ponds Ground Water
pH (Units)

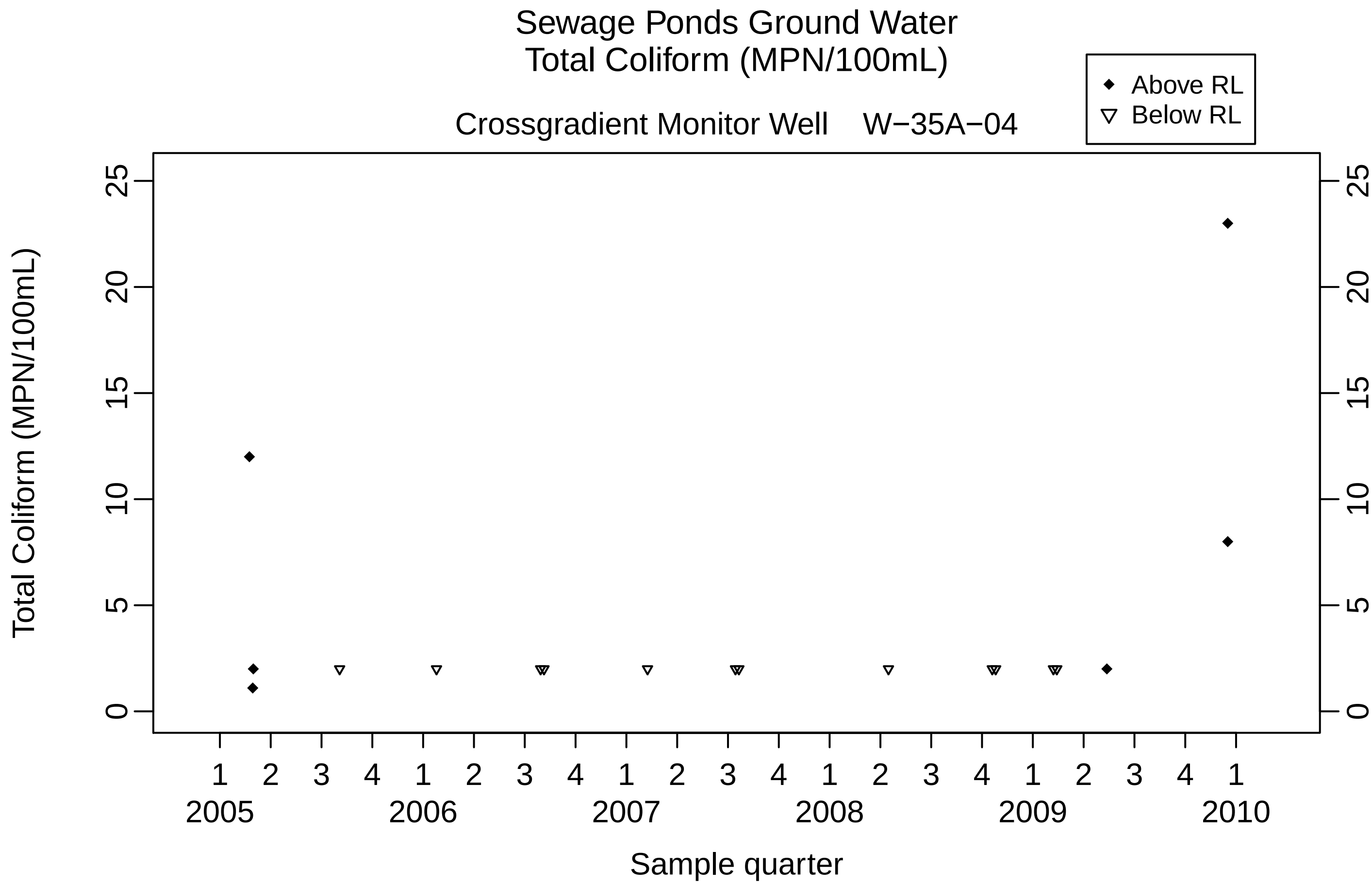


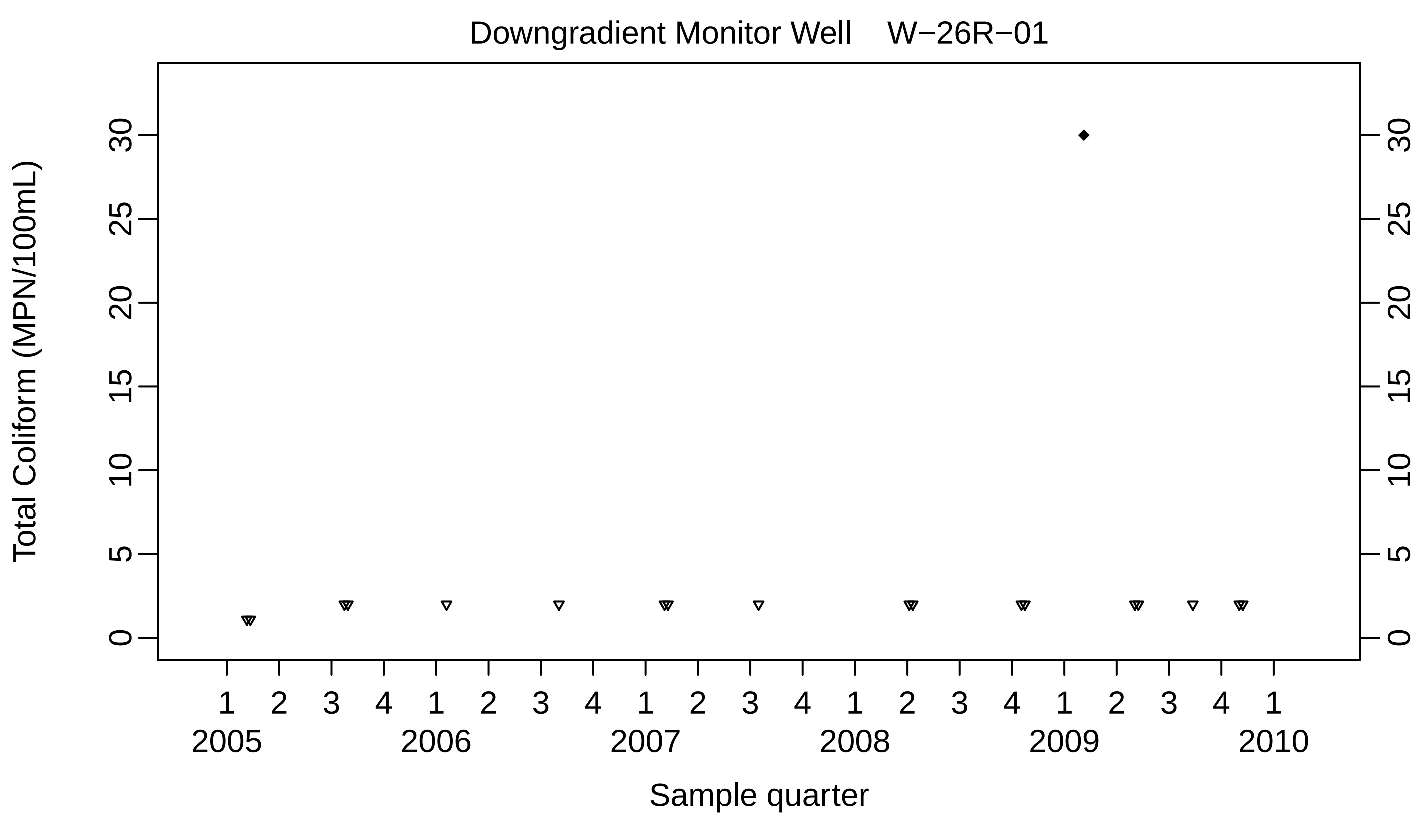



Sewage Ponds Ground Water
pH (Units)
Downgradient Monitor Well W−7DS
Above RL
Below RL
pH (Units)
9.0
8.5
8.0
7.5
7.0
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005 2006 2007 2008 2009 2010
Sample quarter

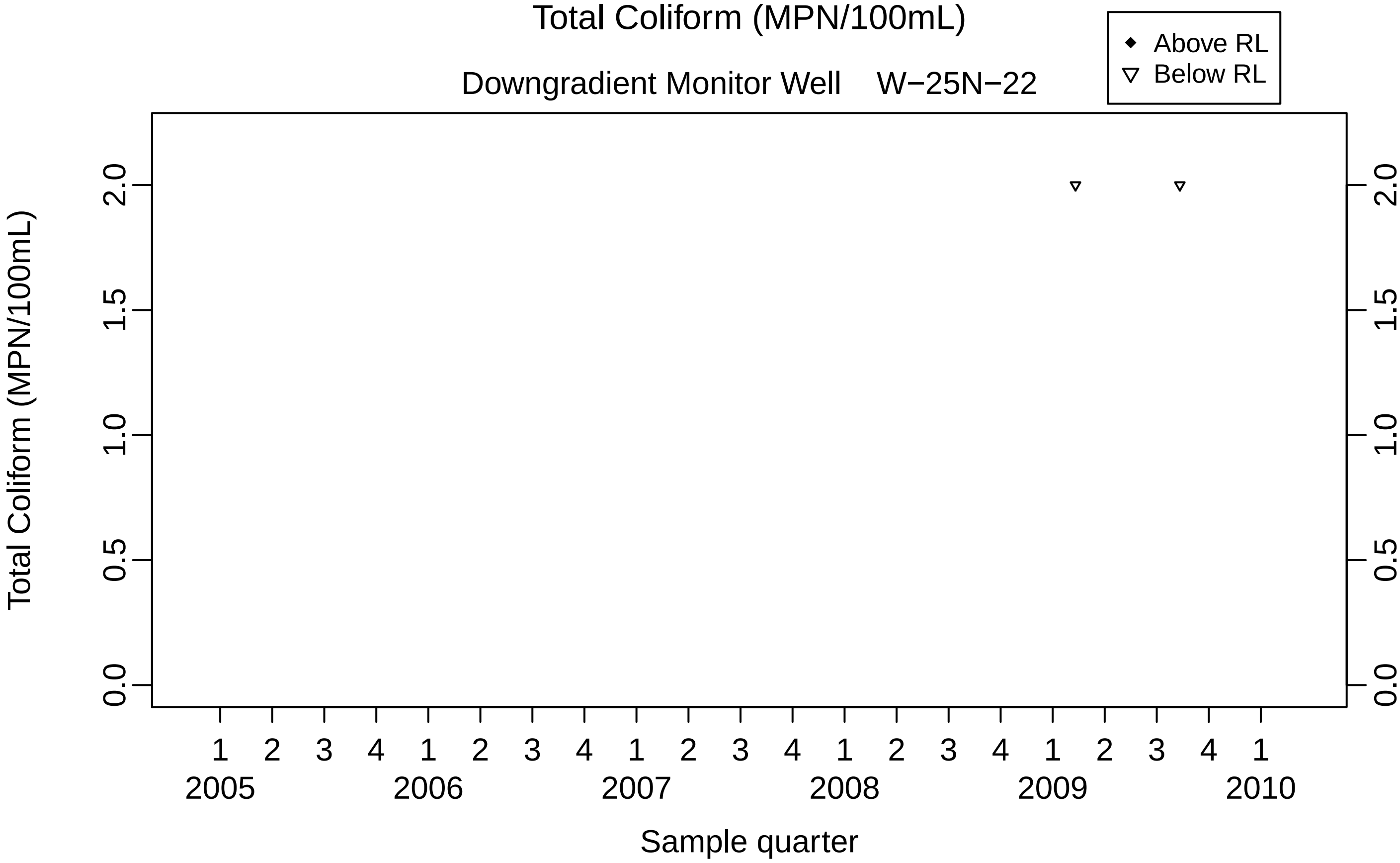

Sewage Ponds Ground Water
Total Coliform (MPN/100mL)
Above RL
Below RL
Upgradient Monitor Well W−7ES
Total Coliform (MPN/100mL)
0
2
4
6
8
10
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005
2006
2007
2008
2009
2010
Sample quarter

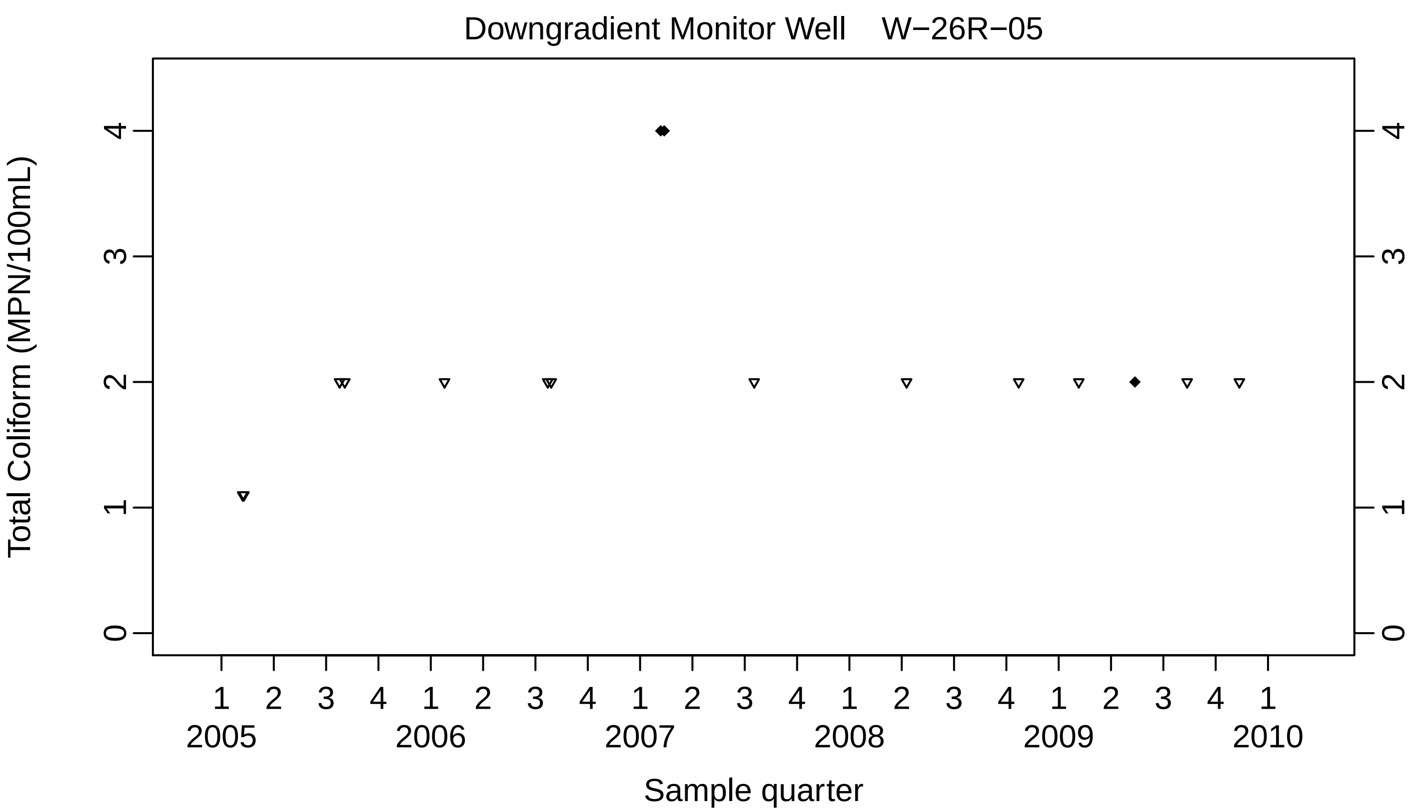

Upgradient Monitor Well W−7PS
Total Coliform (MPN/100mL)
0.0
0.5
1.0
1.5
2.0
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005
2006
2007
2008
2009
2010
Sample quarter

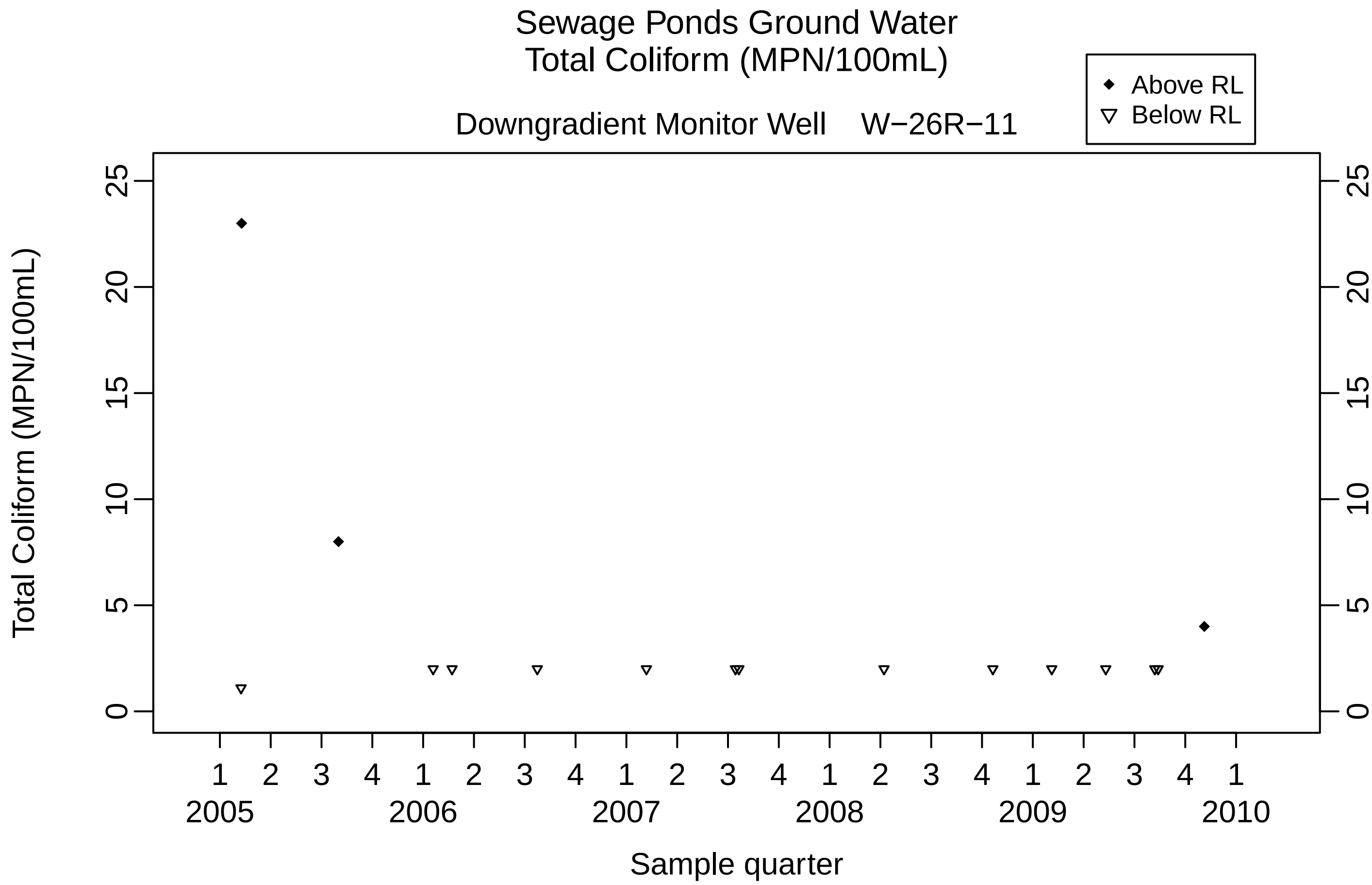

Sewage Ponds Ground Water
Total Coliform (MPN/100mL)
Above RL
Below RL
Crossgradient Monitor Well W−35A−04
Total Coliform (MPN/100mL)
0
5
10
15
20
25
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005 2006 2007 2008 2009 2010
Sample quarter

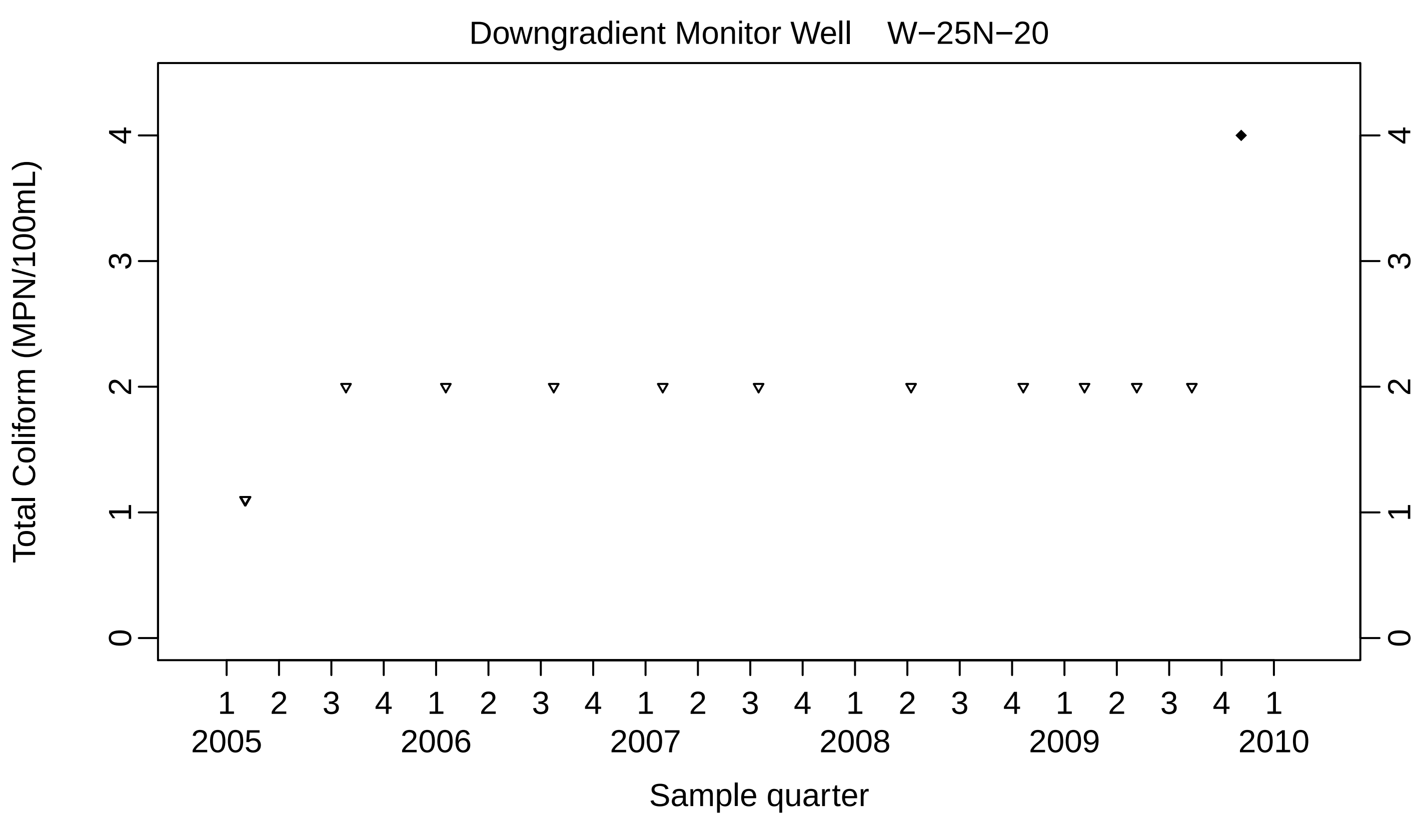

Downgradient Monitor Well W−26R−01
Total Coliform (MPN/100mL)
0
5
10
15
20
25
30
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005 2006 2007 2008 2009 2010
Sample quarter

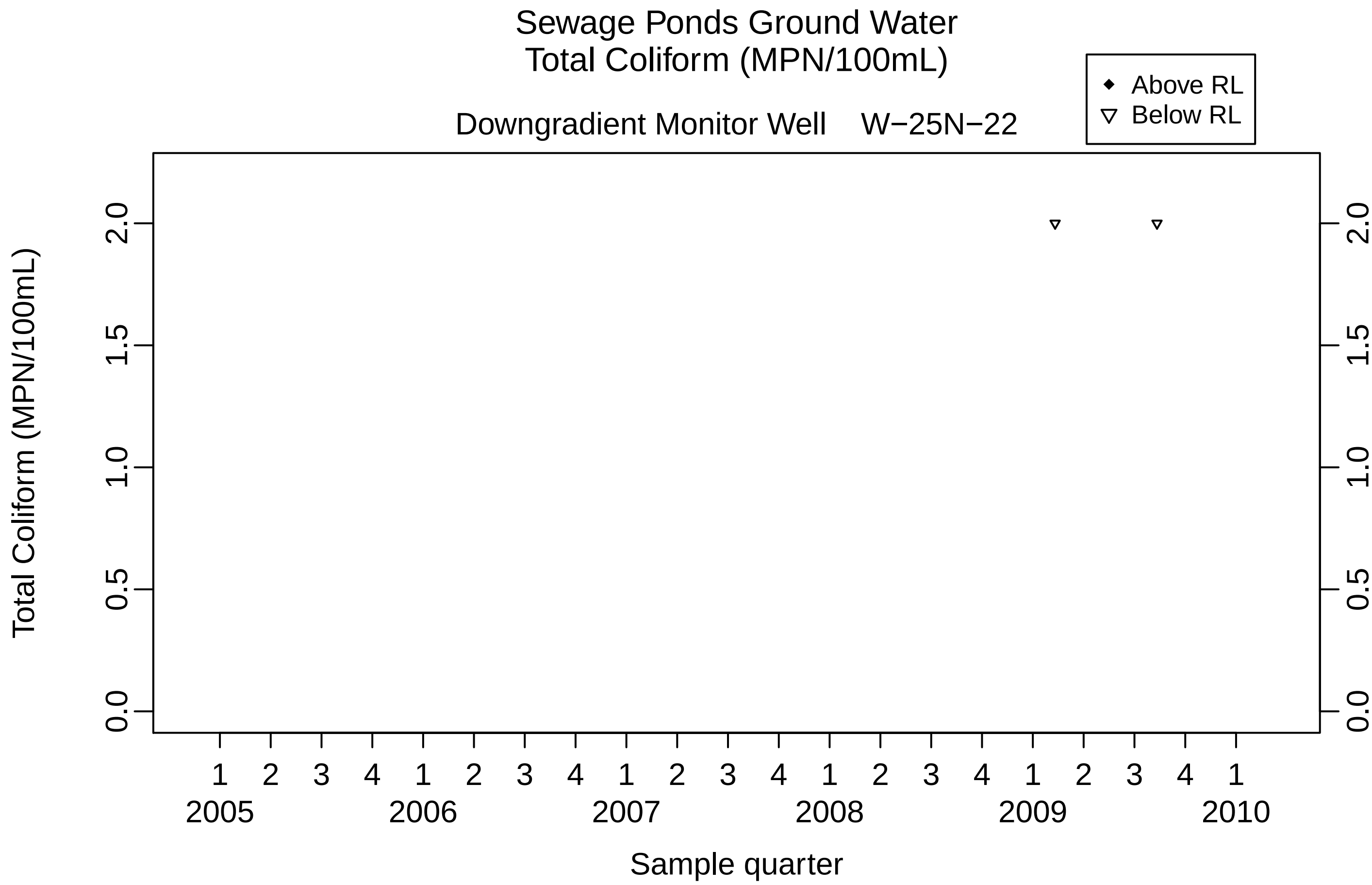
Sewage Ponds Ground Water
Total Coliform (MPN/100mL)

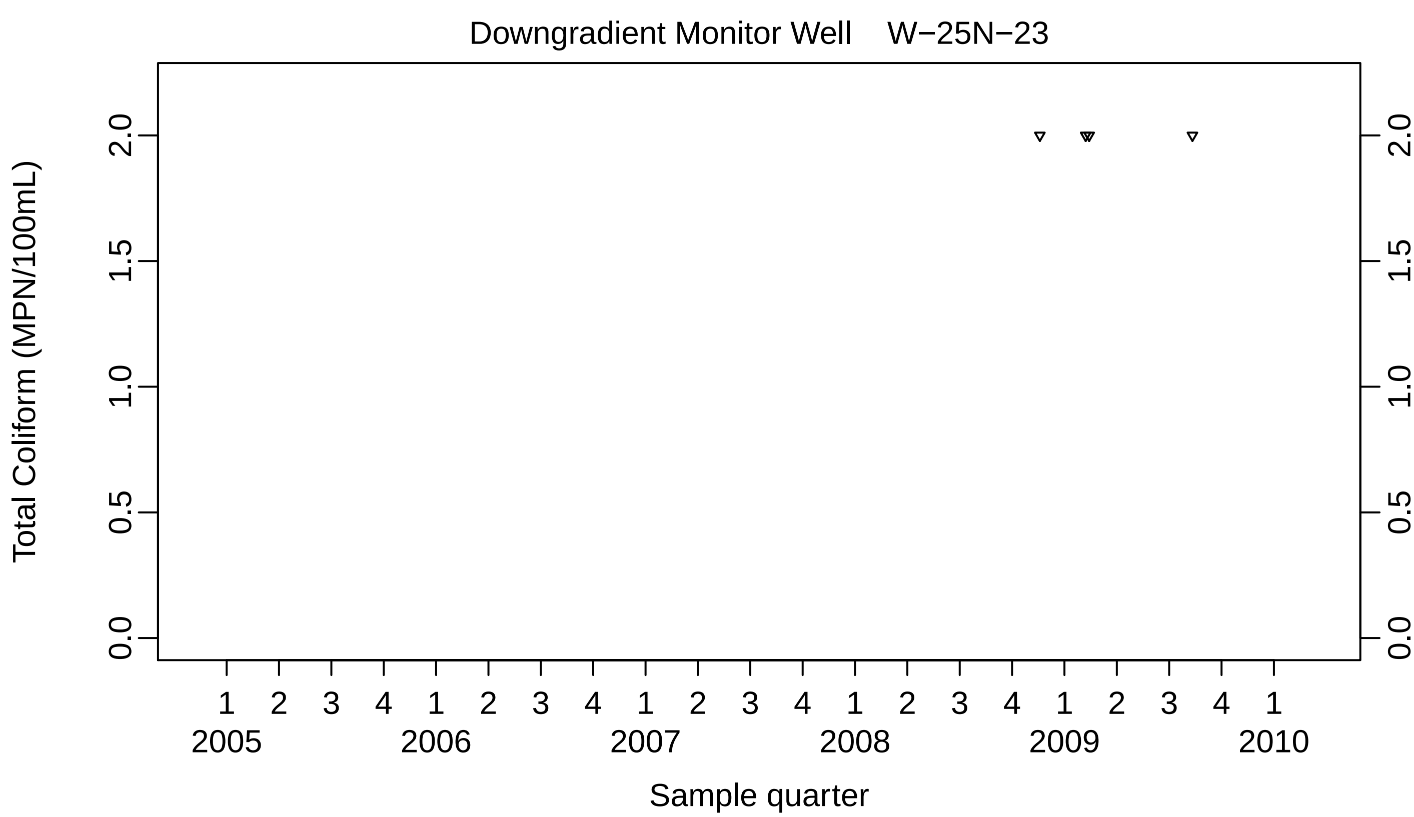


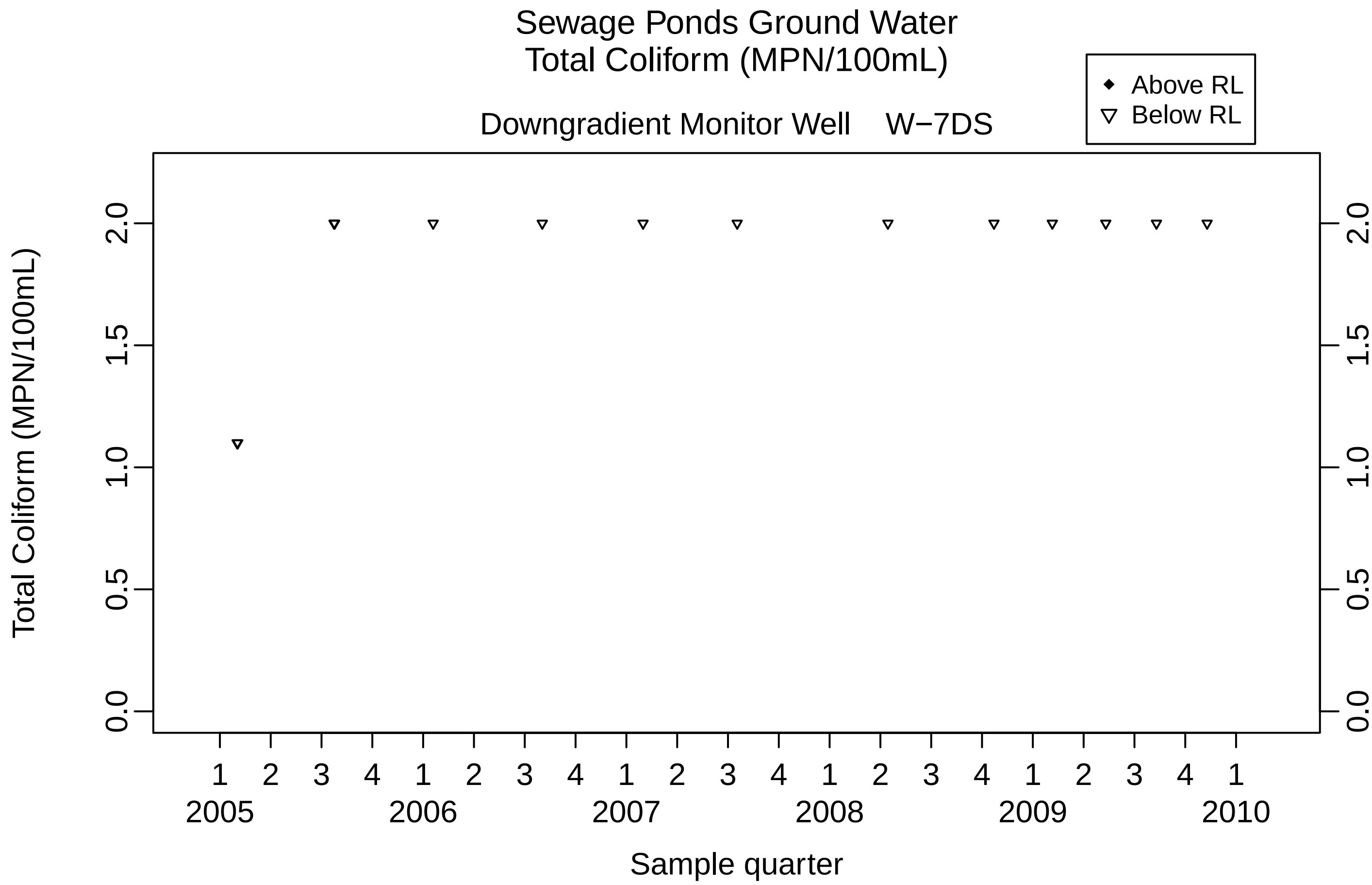


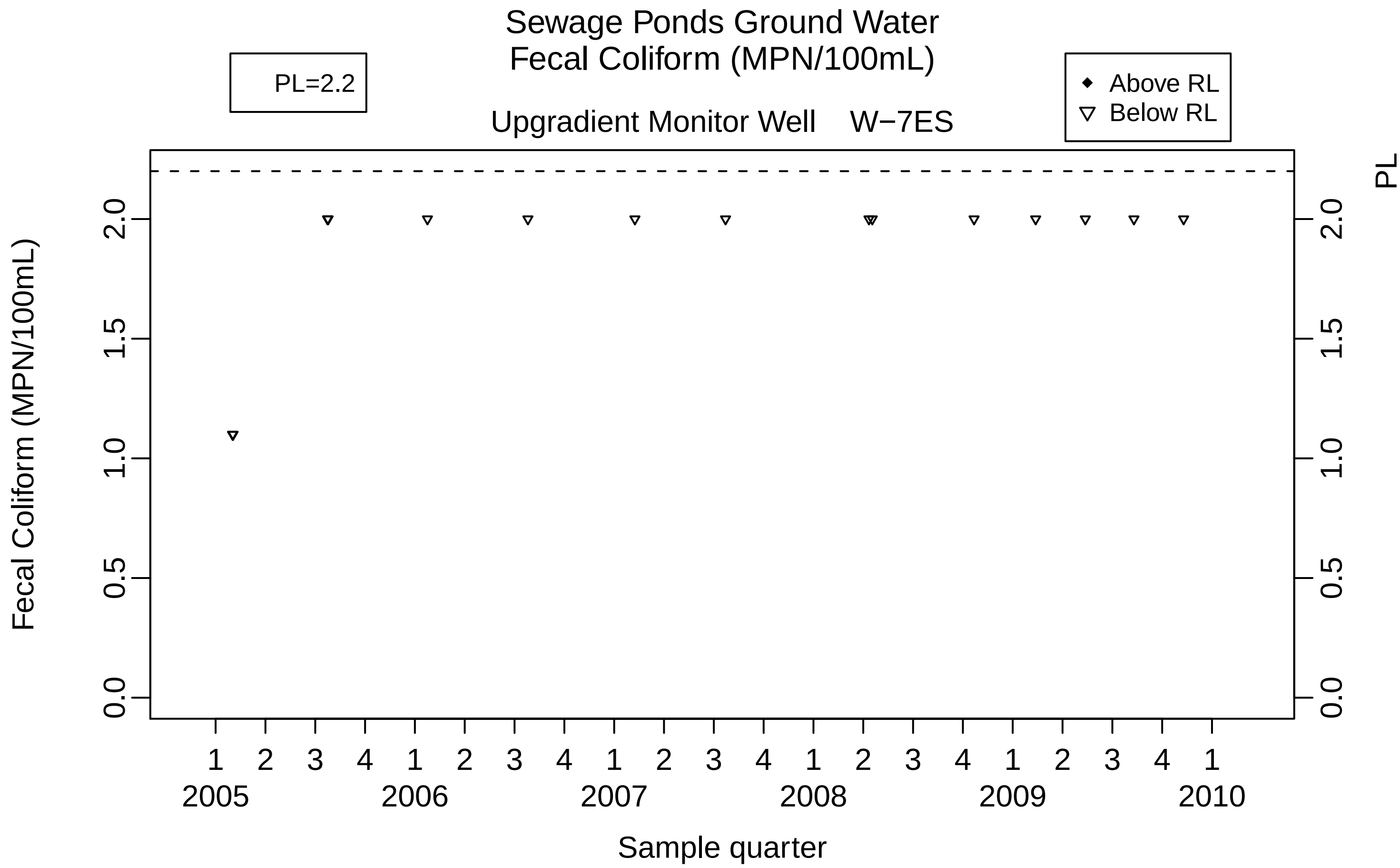

Sewage Ponds Ground Water
Total Coliform (MPN/100mL)
Above RL
Below RL
Downgradient Monitor Well W−26R−11
Total Coliform (MPN/100mL)
0
5
10
15
20
25
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005 2006 2007 2008 2009 2010
Sample quarter

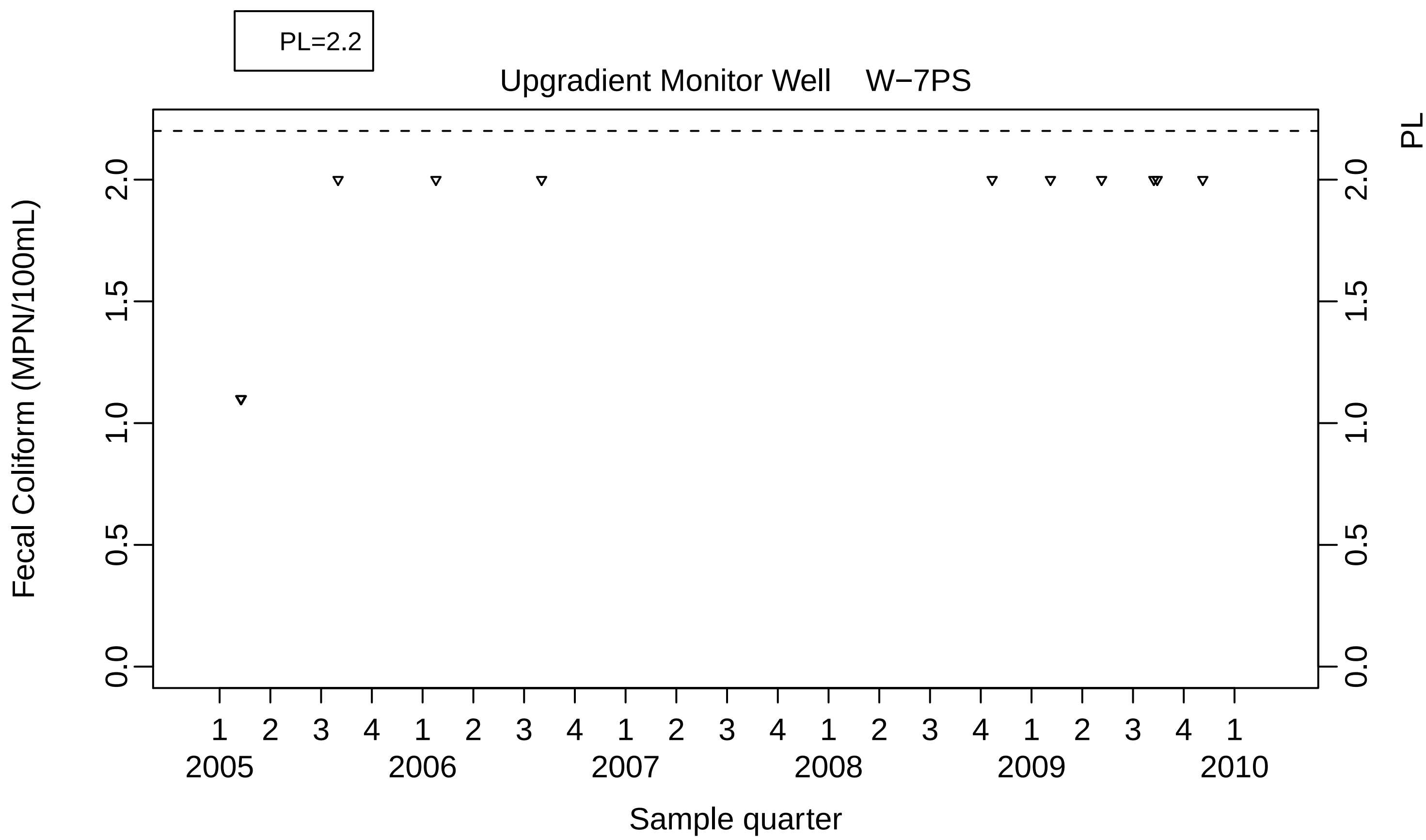

Downgradient Monitor Well W−25N−20
Total Coliform (MPN/100mL)
0
1
2
3
4
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005 2006 2007 2008 2009 2010
Sample quarter

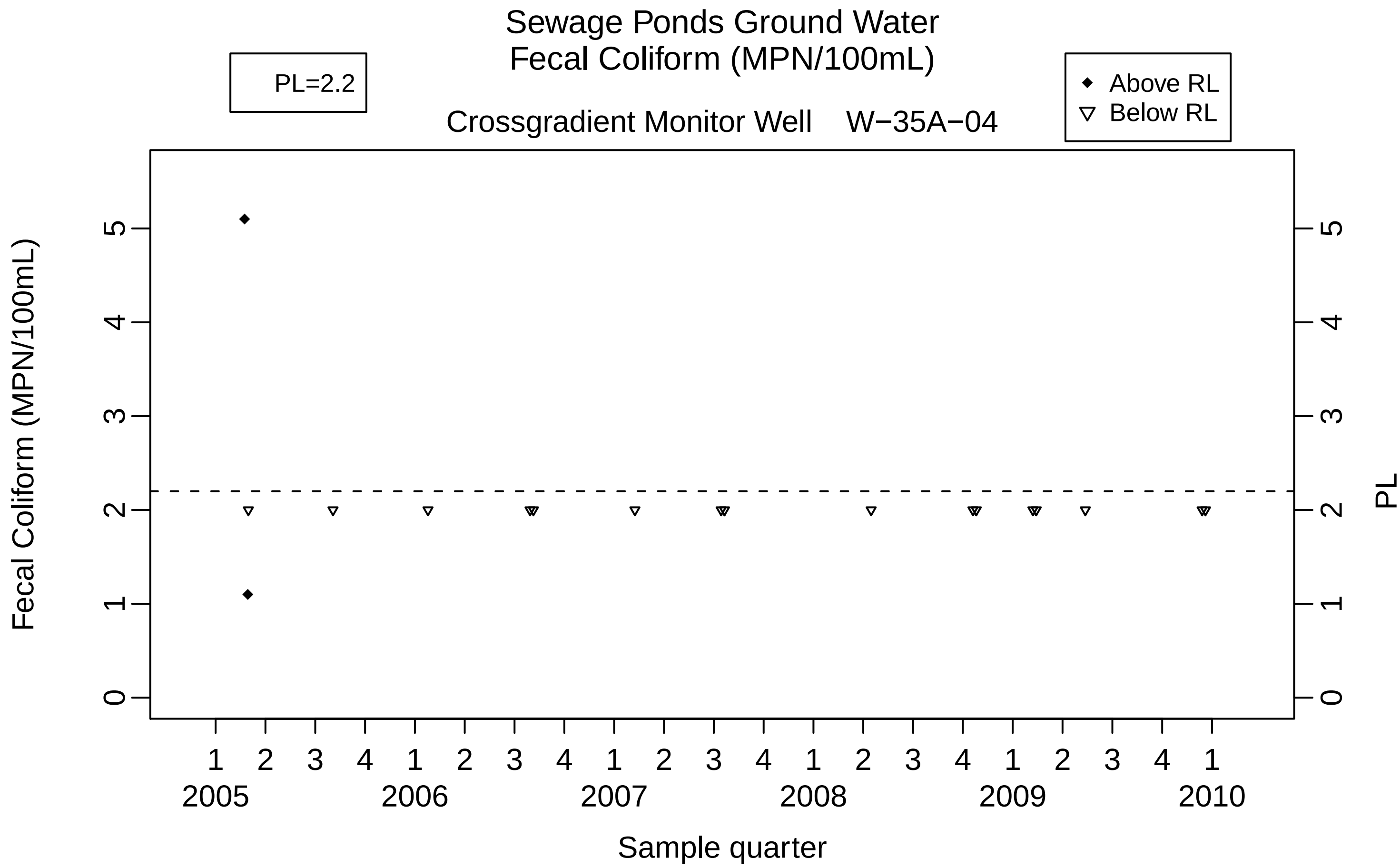

Sewage Ponds Ground Water
Total Coliform (MPN/100mL)
Above RL
Below RL
Downgradient Monitor Well W−25N−22
Total Coliform (MPN/100mL)
0.0
0.5
1.0
1.5
2.0
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005 2006 2007 2008 2009 2010
Sample quarter

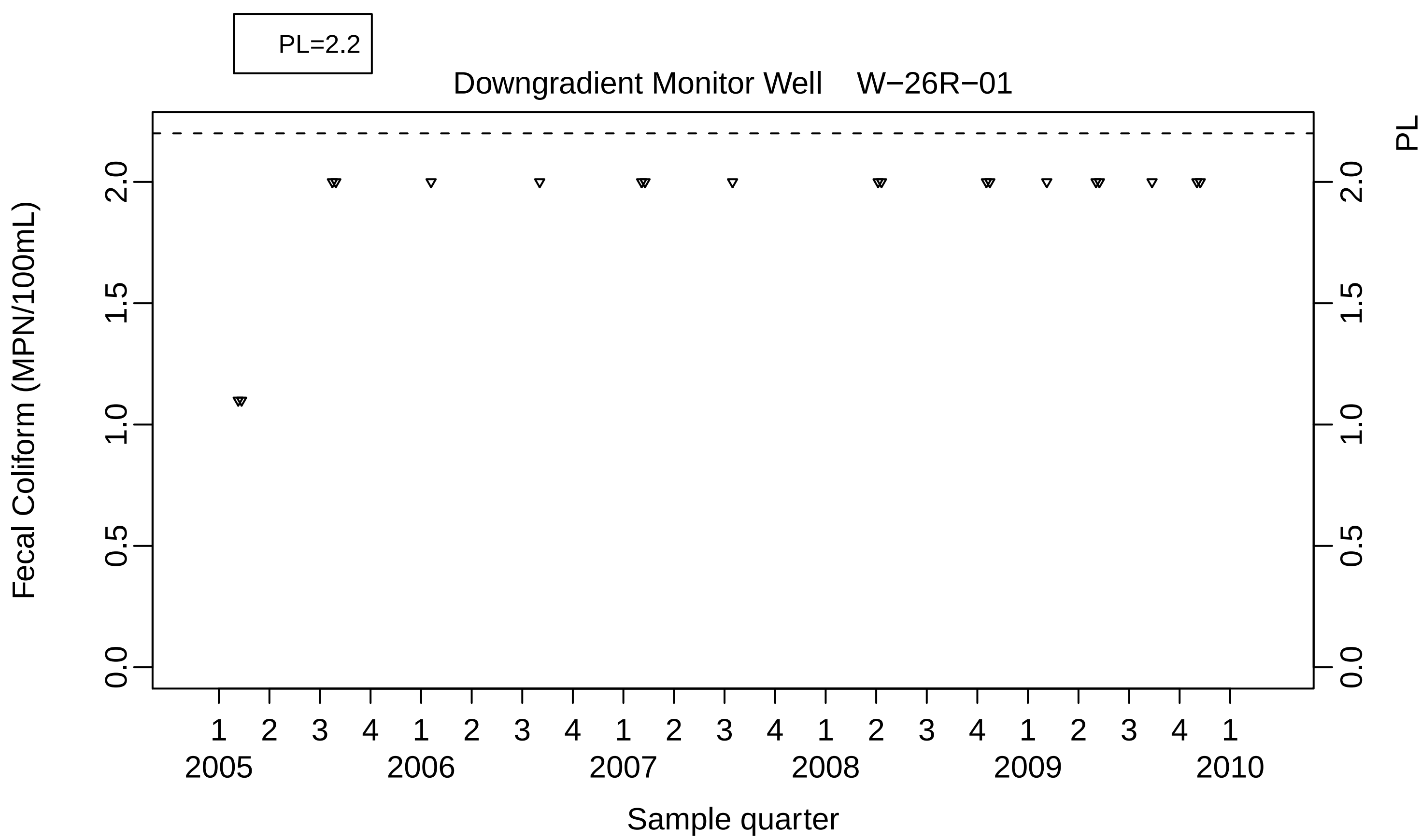

Downgradient Monitor Well W−25N−23
Total Coliform (MPN/100mL)
0.0
0.5
1.0
1.5
2.0
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005 2006 2007 2008 2009 2010
Sample quarter

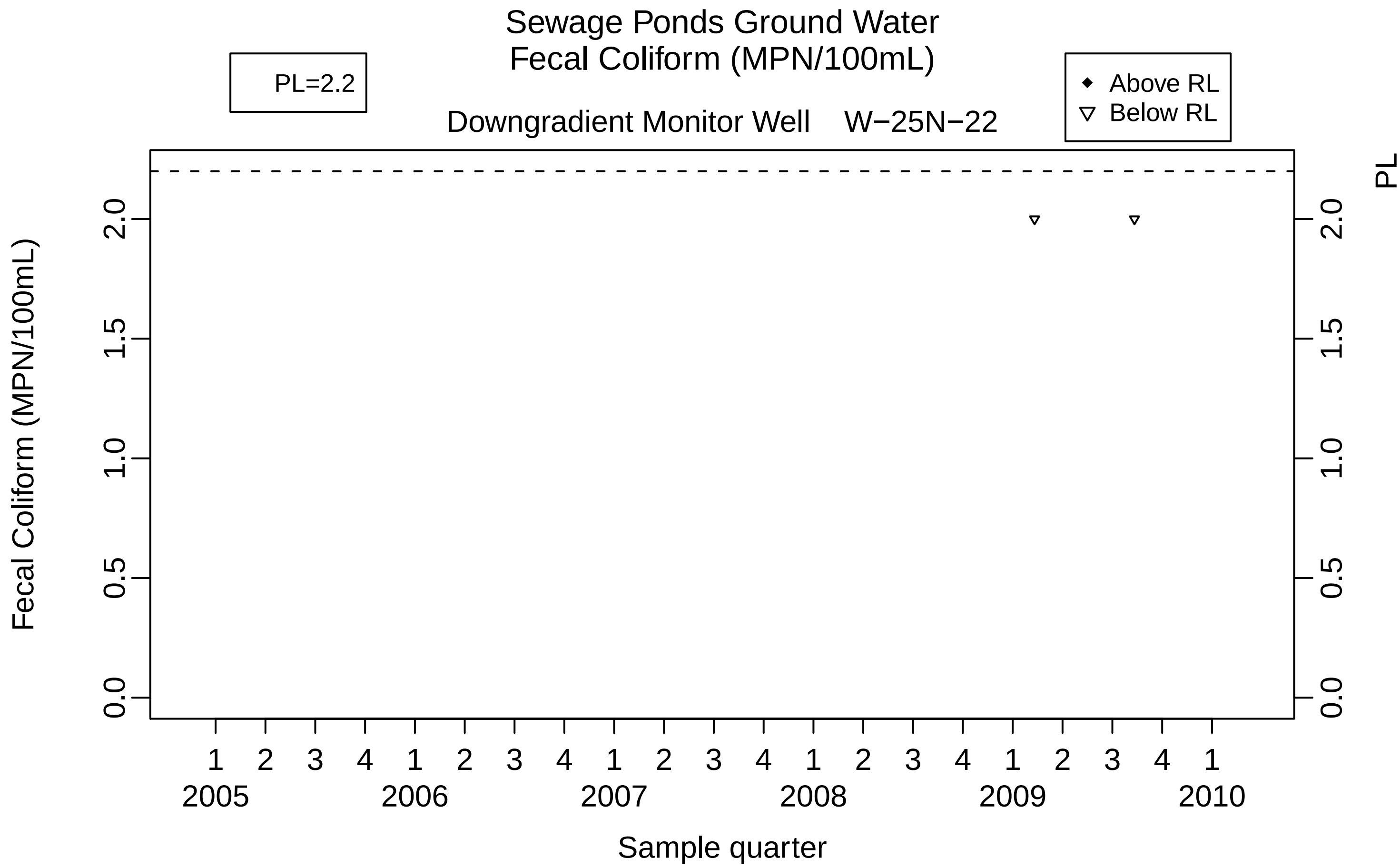

Sewage Ponds Ground Water
Total Coliform (MPN/100mL)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Total Coliform (MPN/100mL)
0.0
0.5
1.0
1.5
2.0
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005
2006
2007
2008
2009
2010
Sample quarter

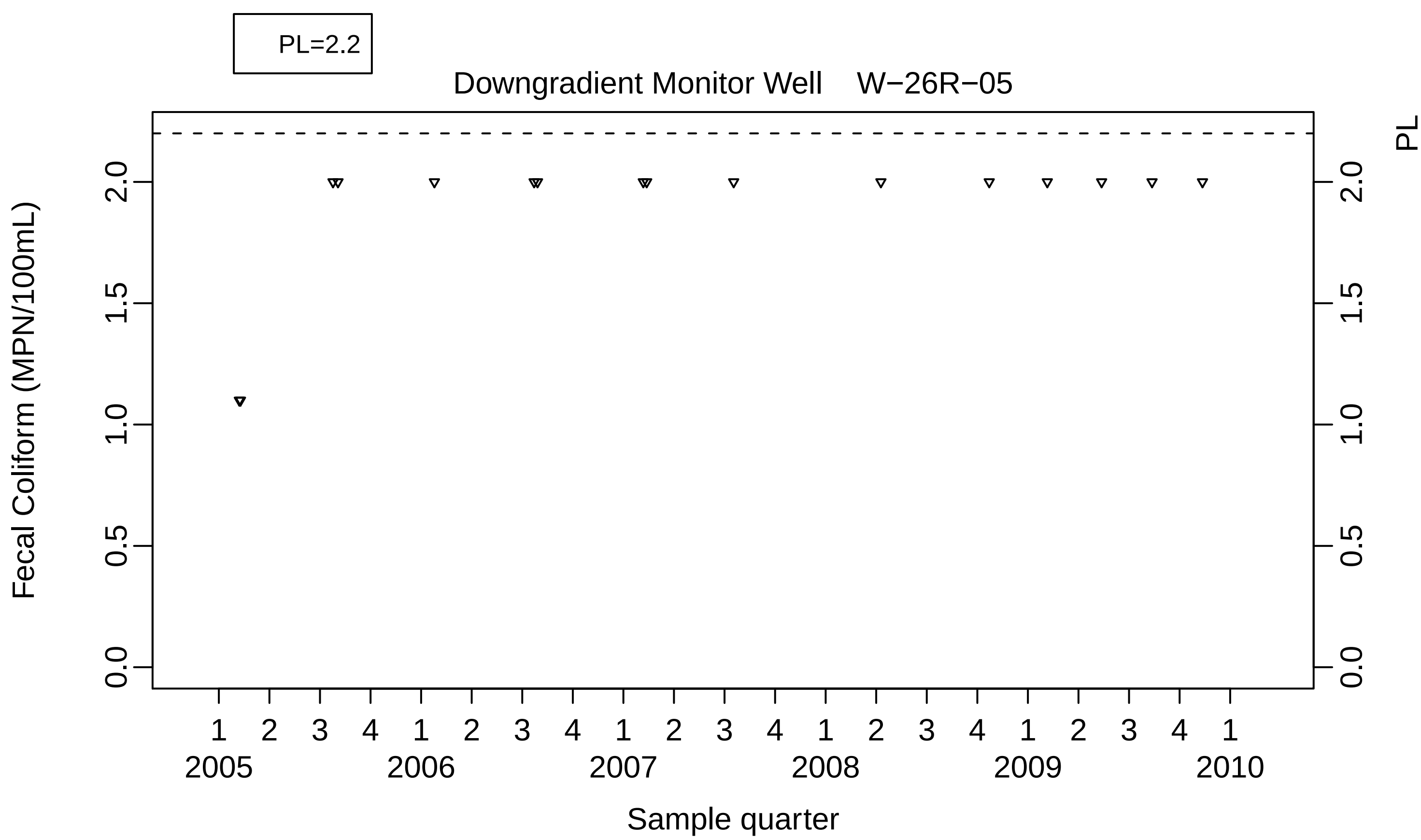

Sewage Ponds Ground Water
Fecal Coliform (MPN/100mL)
PL=2.2
Above RL
Below RL
Upgradient Monitor Well W−7ES
PL
Fecal Coliform (MPN/100mL)
0.0
0.5
1.0
1.5
2.0
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005 2006 2007 2008 2009 2010
Sample quarter

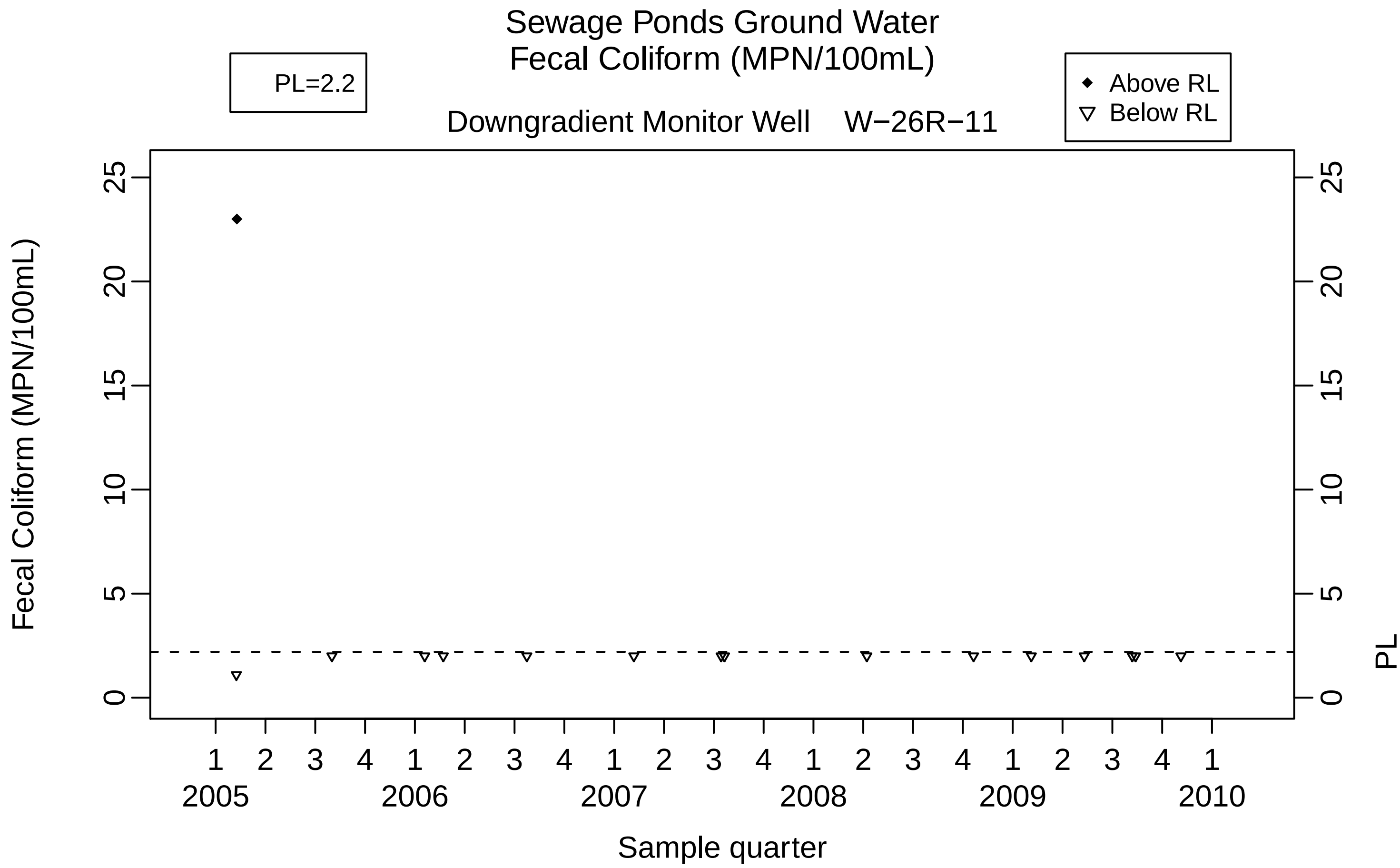

PL=2.2
Upgradient Monitor Well W−7PS
PL
Fecal Coliform (MPN/100mL)
0.0
0.5
1.0
1.5
2.0
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005 2006 2007 2008 2009 2010
Sample quarter

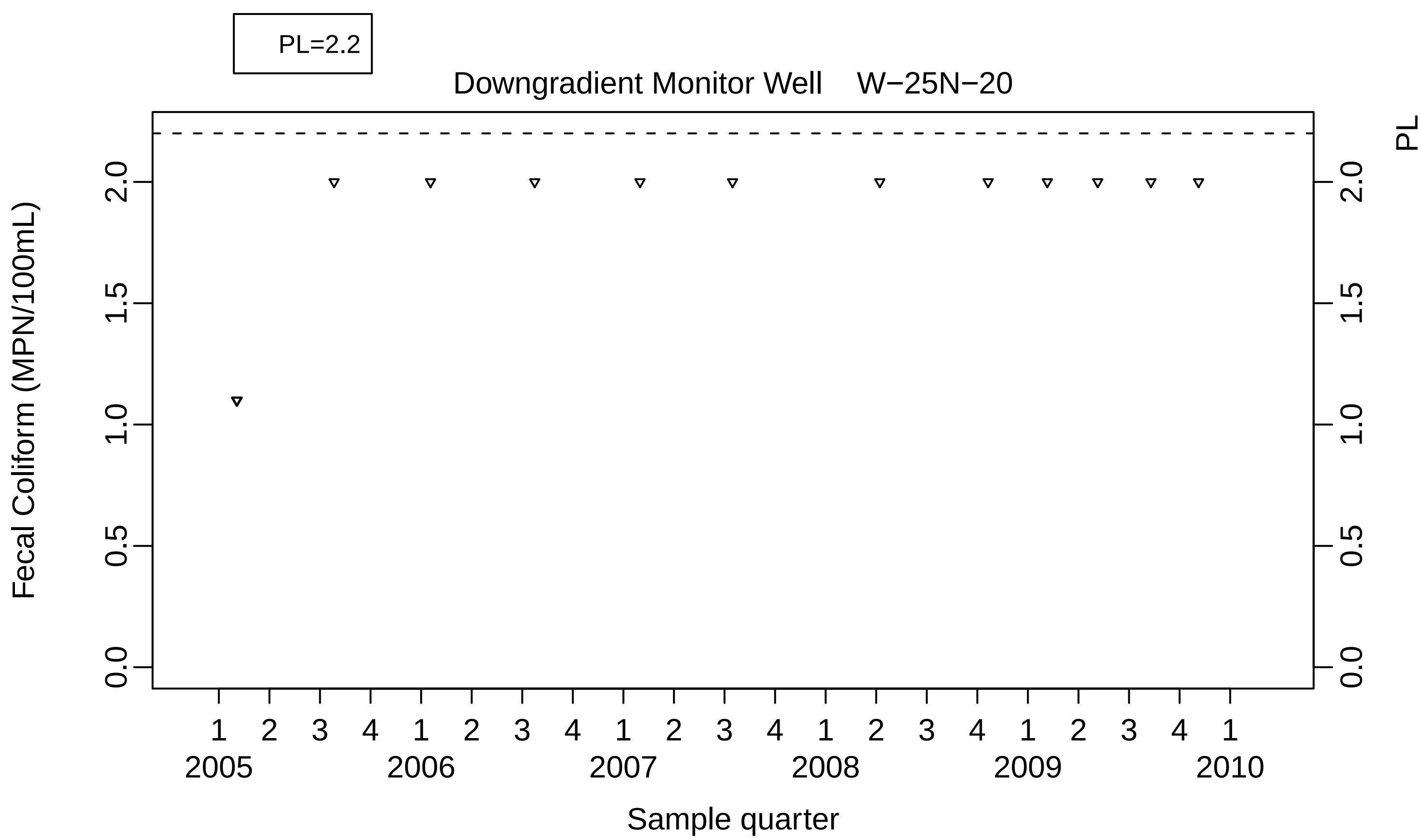

Sewage Ponds Ground Water
Fecal Coliform (MPN/100mL)
PL=2.2
Above RL
Below RL
Crossgradient Monitor Well W−35A−04
Fecal Coliform (MPN/100mL)
0
1
2
3
4
5
PL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005 2006 2007 2008 2009 2010
Sample quarter

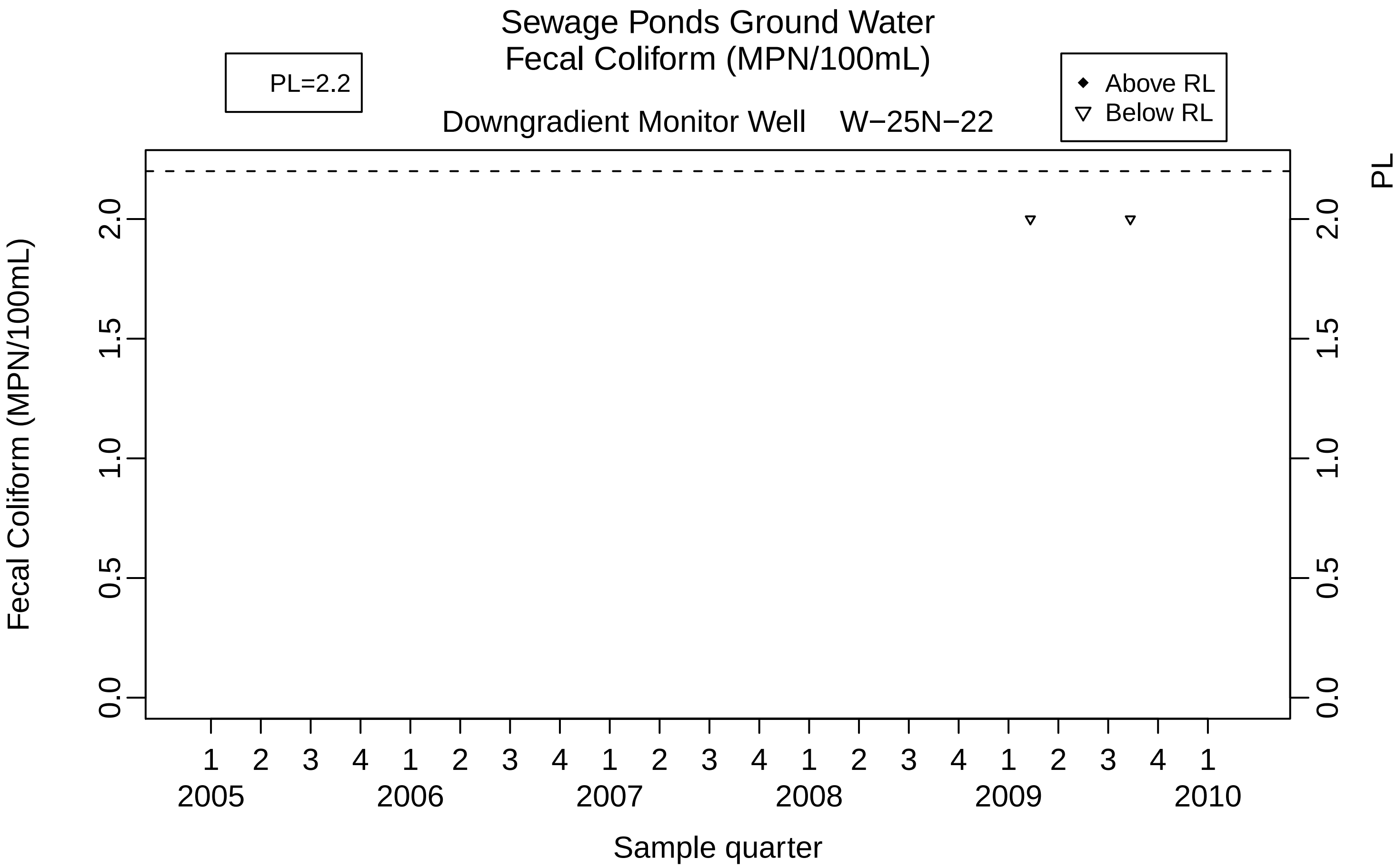

PL=2.2
Downgradient Monitor Well W−26R−01
Fecal Coliform (MPN/100mL)
0.0
0.5
1.0
1.5
2.0
PL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005 2006 2007 2008 2009 2010
Sample quarter

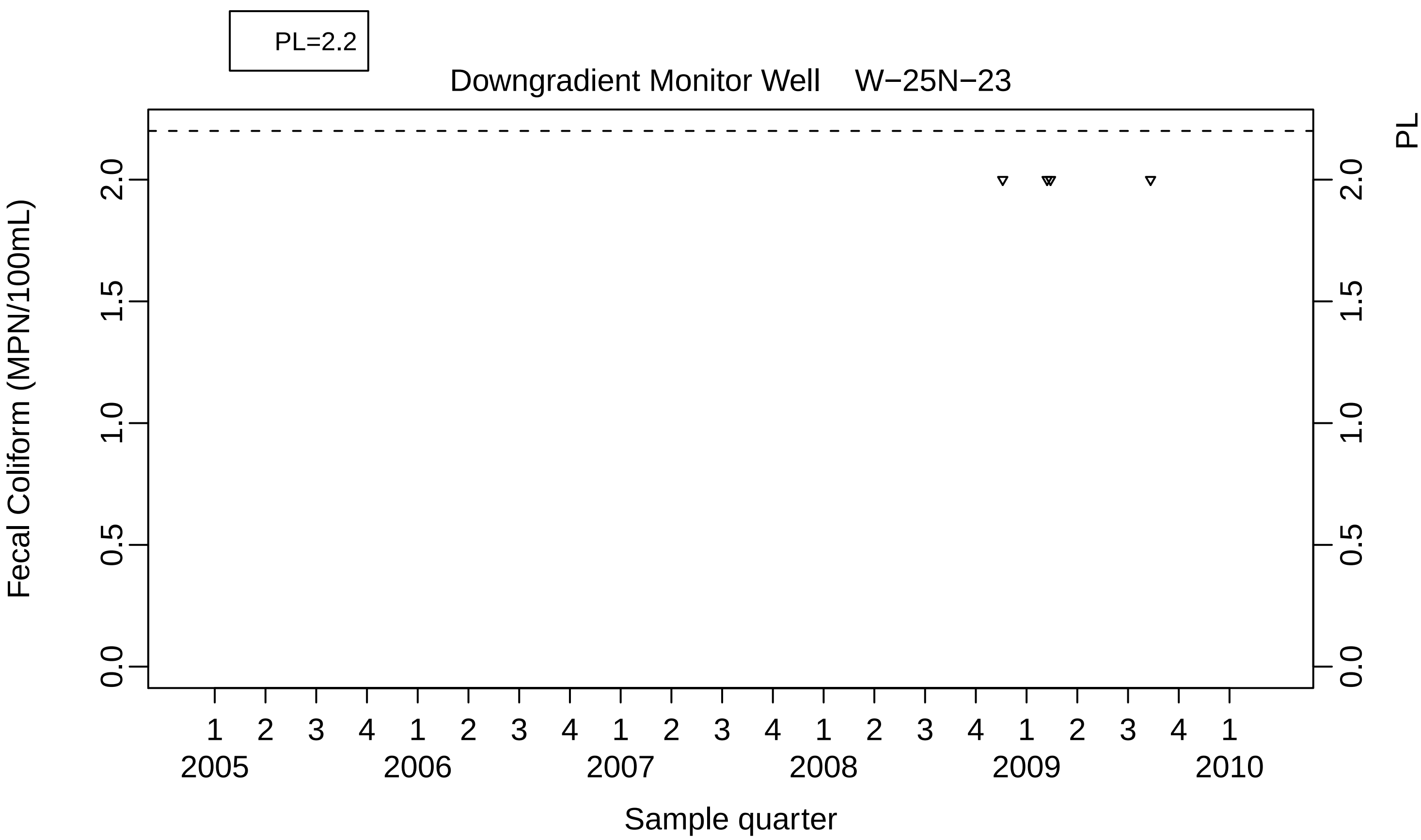

Sewage Ponds Ground Water
Fecal Coliform (MPN/100mL)
PL=2.2
Above RL
Below RL
Downgradient Monitor Well W−25N−22
Fecal Coliform (MPN/100mL)
PL
0.0
0.5
1.0
1.5
2.0
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005 2006 2007 2008 2009 2010
Sample quarter

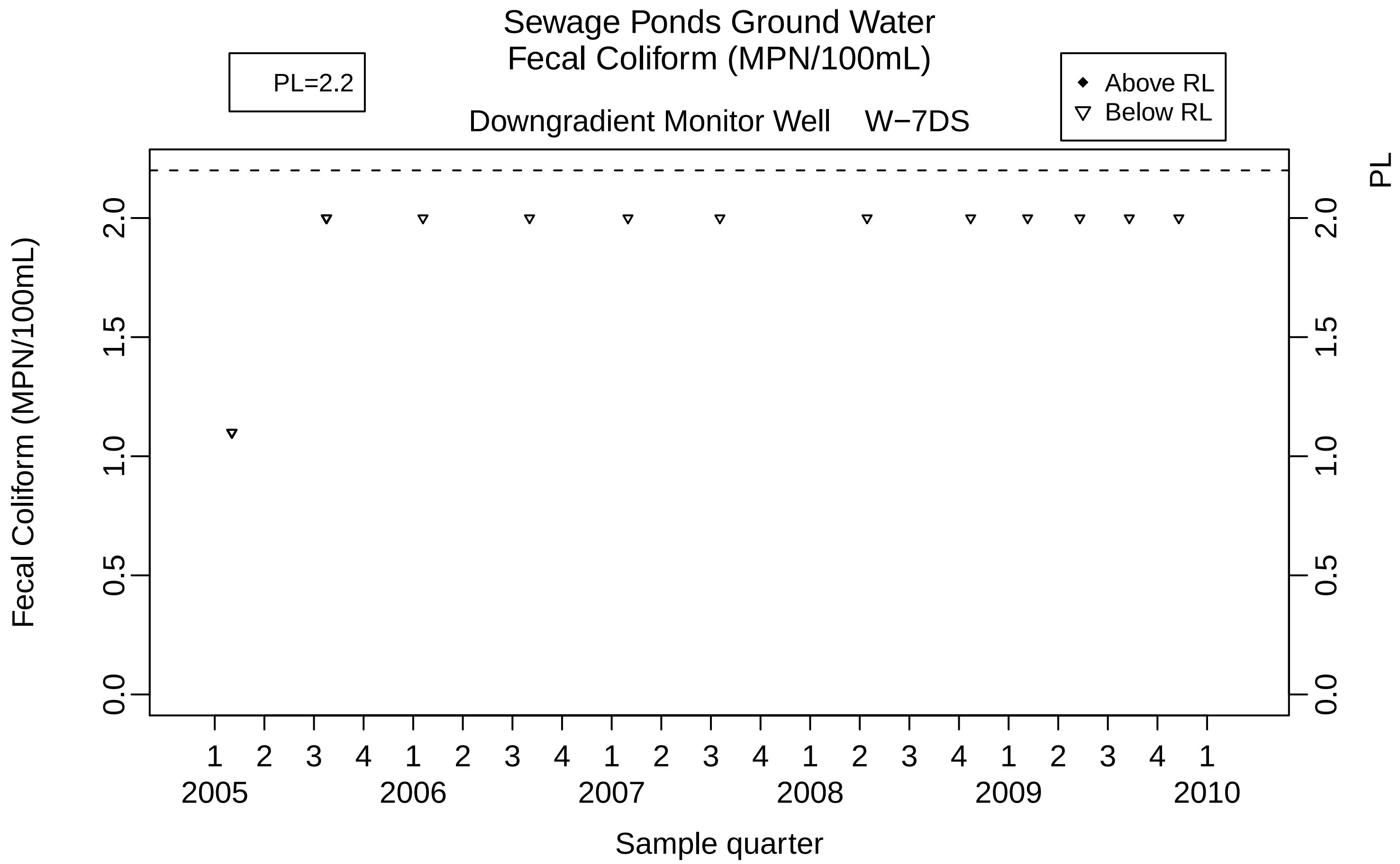

PL=2.2
Downgradient Monitor Well W−26R−05
Fecal Coliform (MPN/100mL)
PL
0.0
0.5
1.0
1.5
2.0
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005 2006 2007 2008 2009 2010
Sample quarter


Sewage Ponds Ground Water
Fecal Coliform (MPN/100mL)
PL=2.2
Above RL
Below RL
Downgradient Monitor Well W−26R−11
Fecal Coliform (MPN/100mL)
0
5
10
15
20
25
PL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005 2006 2007 2008 2009 2010
Sample quarter


PL=2.2
Downgradient Monitor Well W−25N−20
Fecal Coliform (MPN/100mL)
0.0
0.5
1.0
1.5
2.0
PL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005 2006 2007 2008 2009 2010
Sample quarter

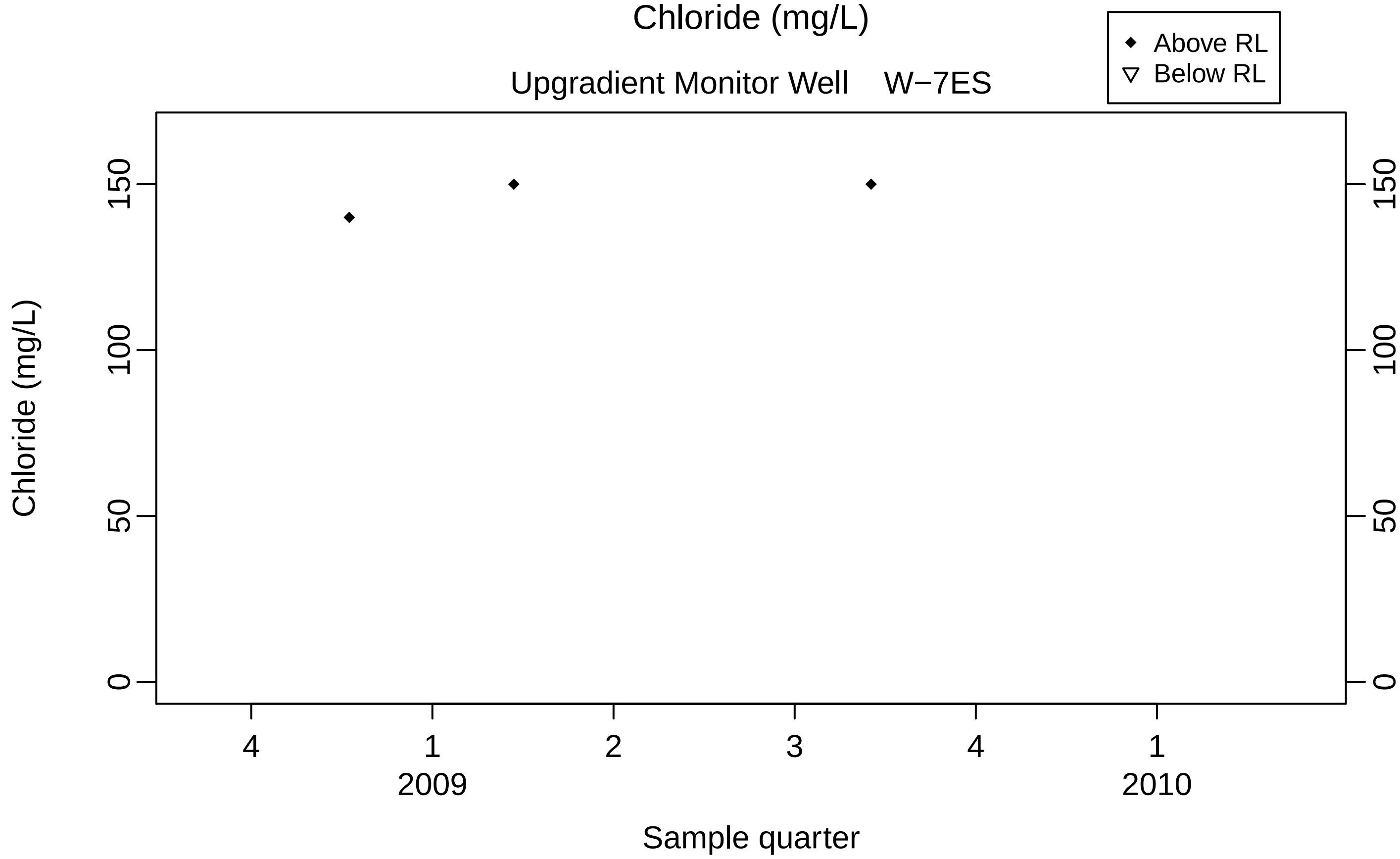

Sewage Ponds Ground Water
Fecal Coliform (MPN/100mL)
PL=2.2
Above RL
Below RL
Downgradient Monitor Well W−25N−22
Fecal Coliform (MPN/100mL)
PL
0.0
0.5
1.0
1.5
2.0
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005 2006 2007 2008 2009 2010
Sample quarter


PL=2.2
Downgradient Monitor Well W−25N−23
Fecal Coliform (MPN/100mL)
PL
0.0
0.5
1.0
1.5
2.0
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005 2006 2007 2008 2009 2010
Sample quarter

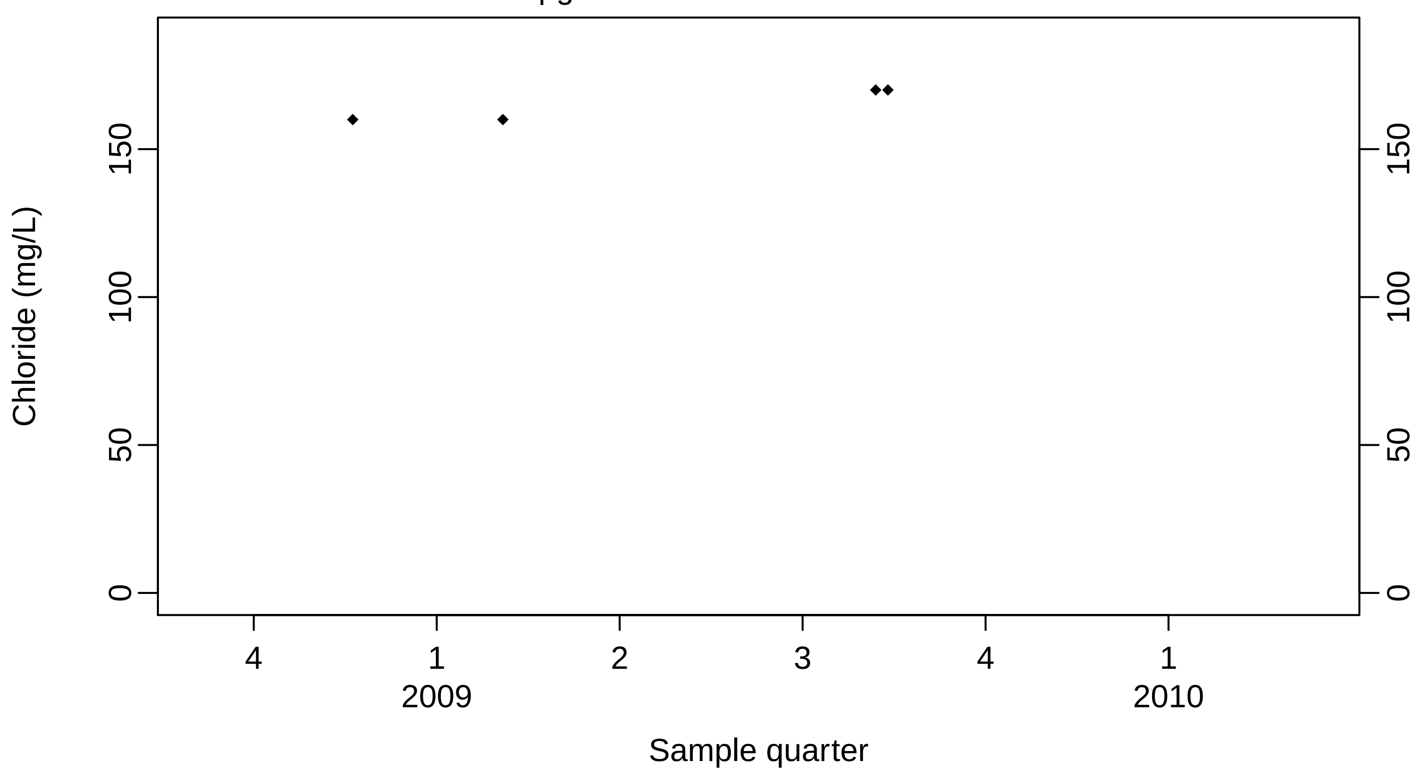

Sewage Ponds Ground Water
Fecal Coliform (MPN/100mL)
PL=2.2
Above RL
Below RL
Downgradient Monitor Well W−7DS
PL
Fecal Coliform (MPN/100mL)
0.0
0.5
1.0
1.5
2.0
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005
2006
2007
2008
2009
2010
Sample quarter

Sewage Ponds Ground Water
Chloride (mg/L)

Upgradient Monitor Well W−7ES

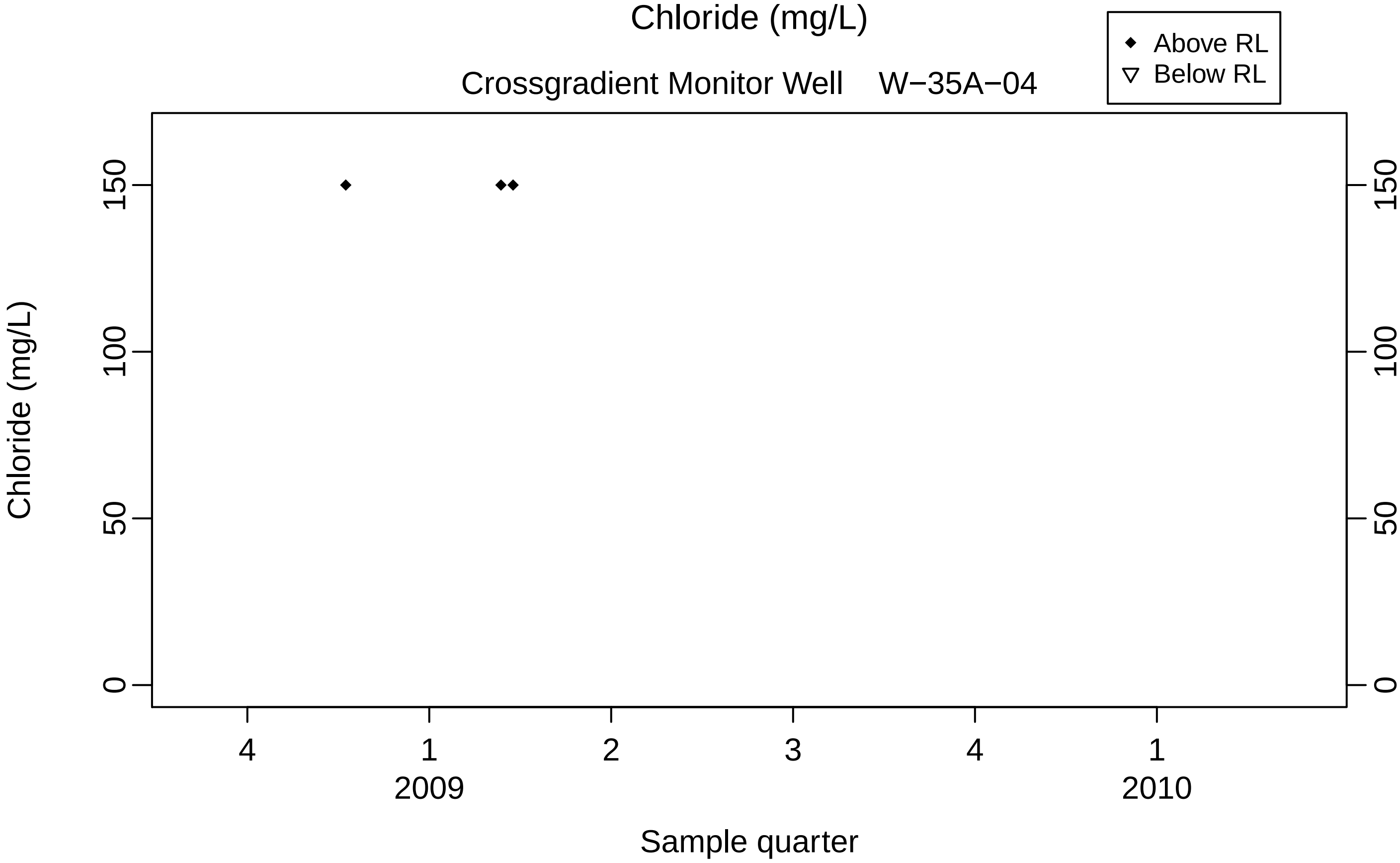


Upgradient Monitor Well W−7PS

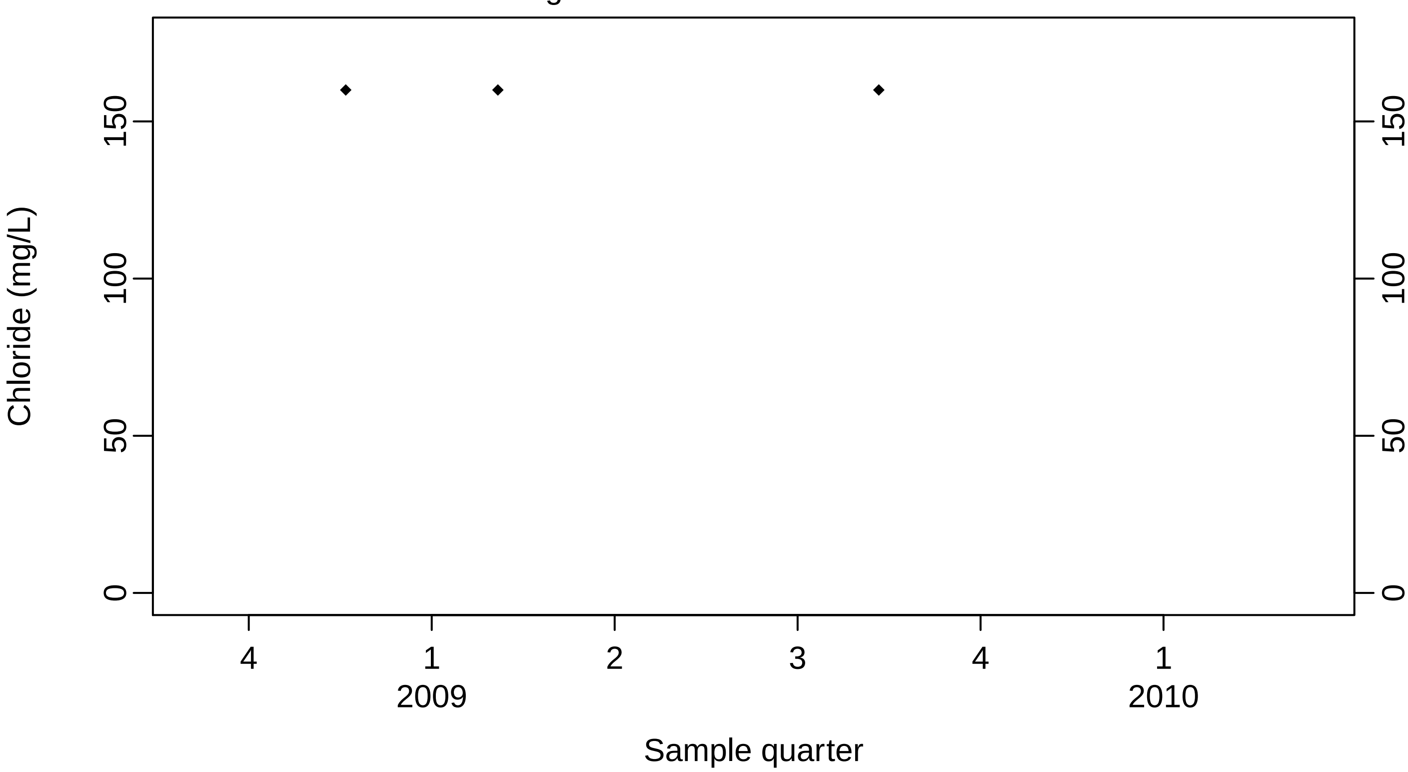


Sewage Ponds Ground Water
Chloride (mg/L)

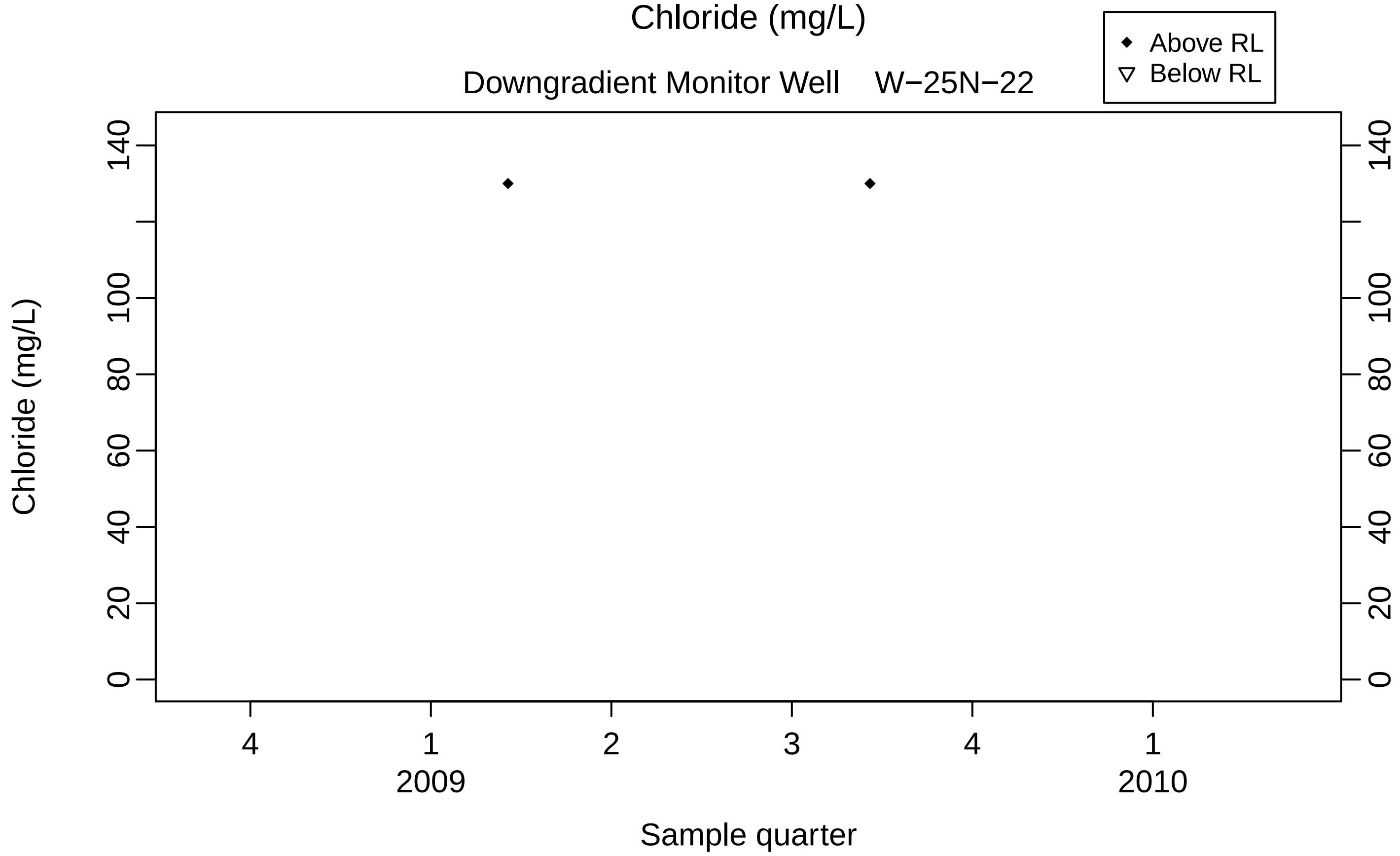
Crossgradient Monitor Well W−35A−04

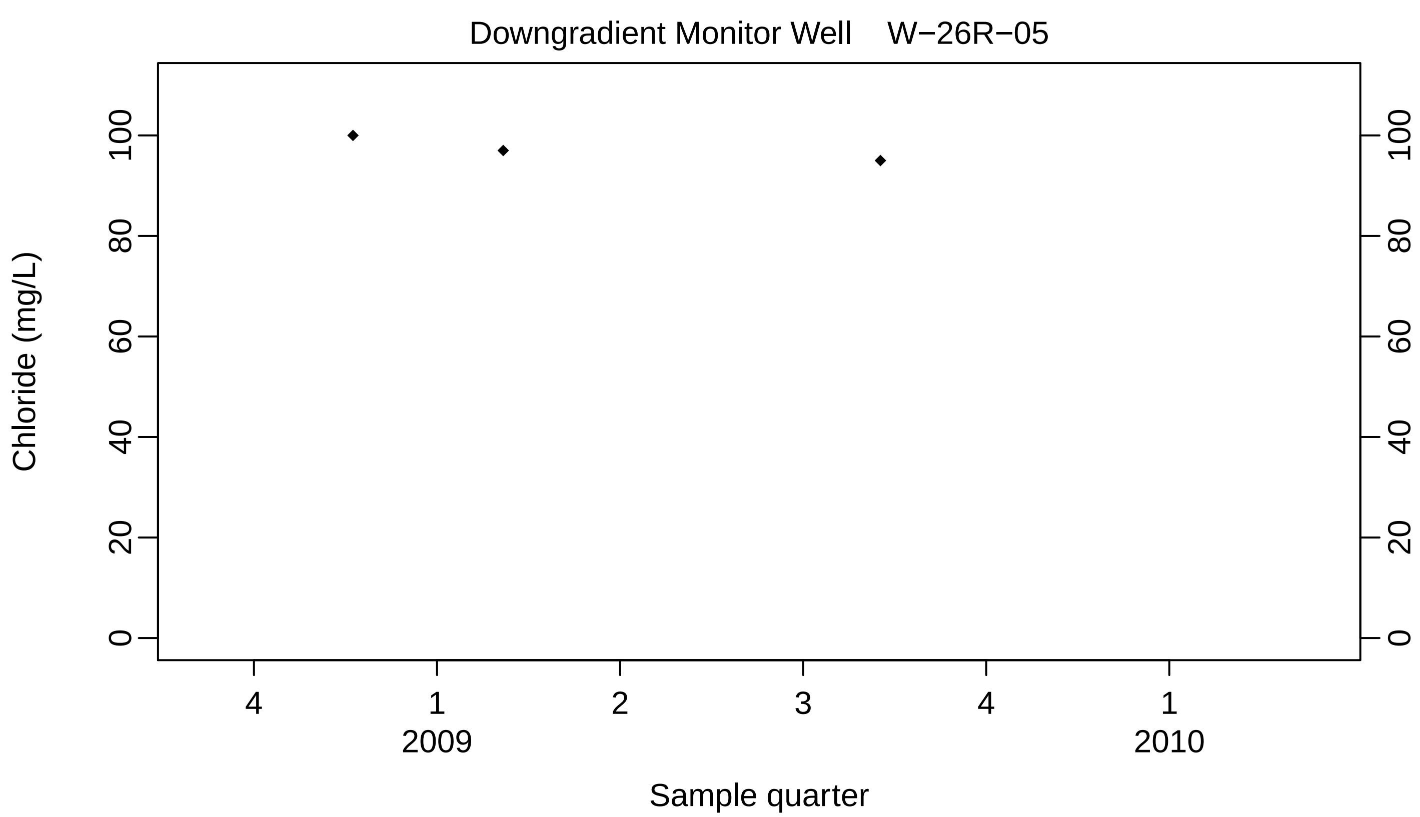


Downgradient Monitor Well W−26R−01

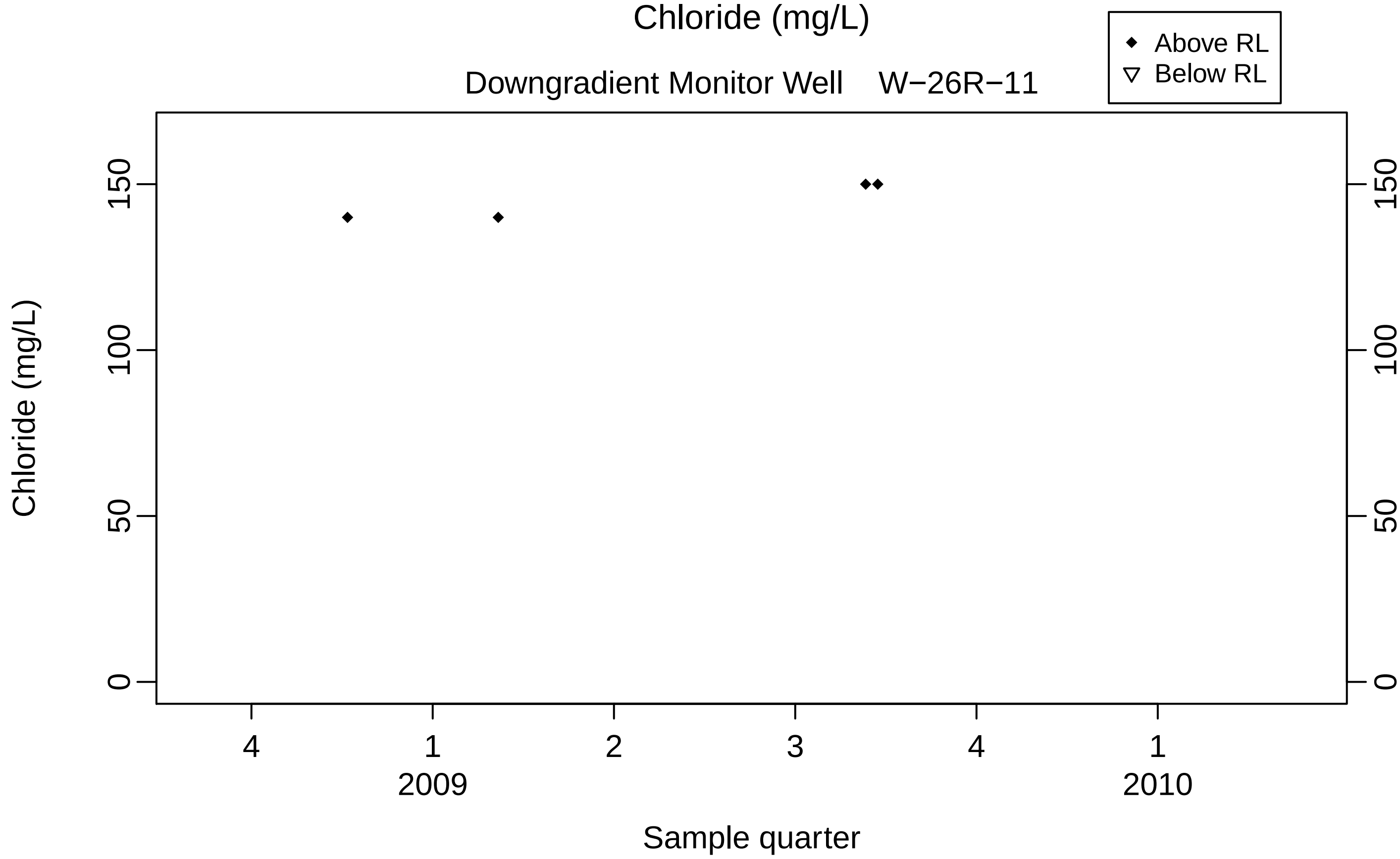


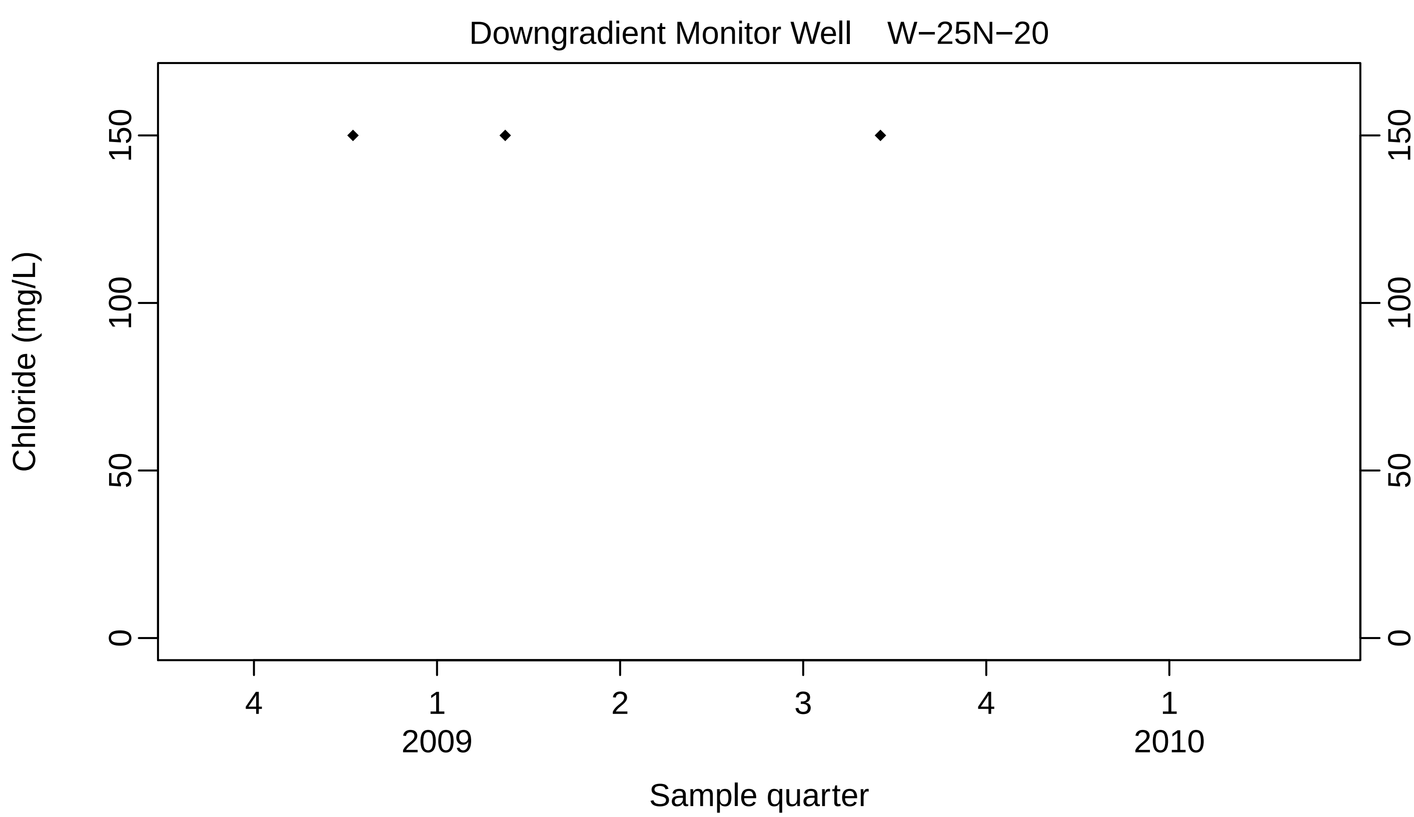
Sewage Ponds Ground Water
Chloride (mg/L)



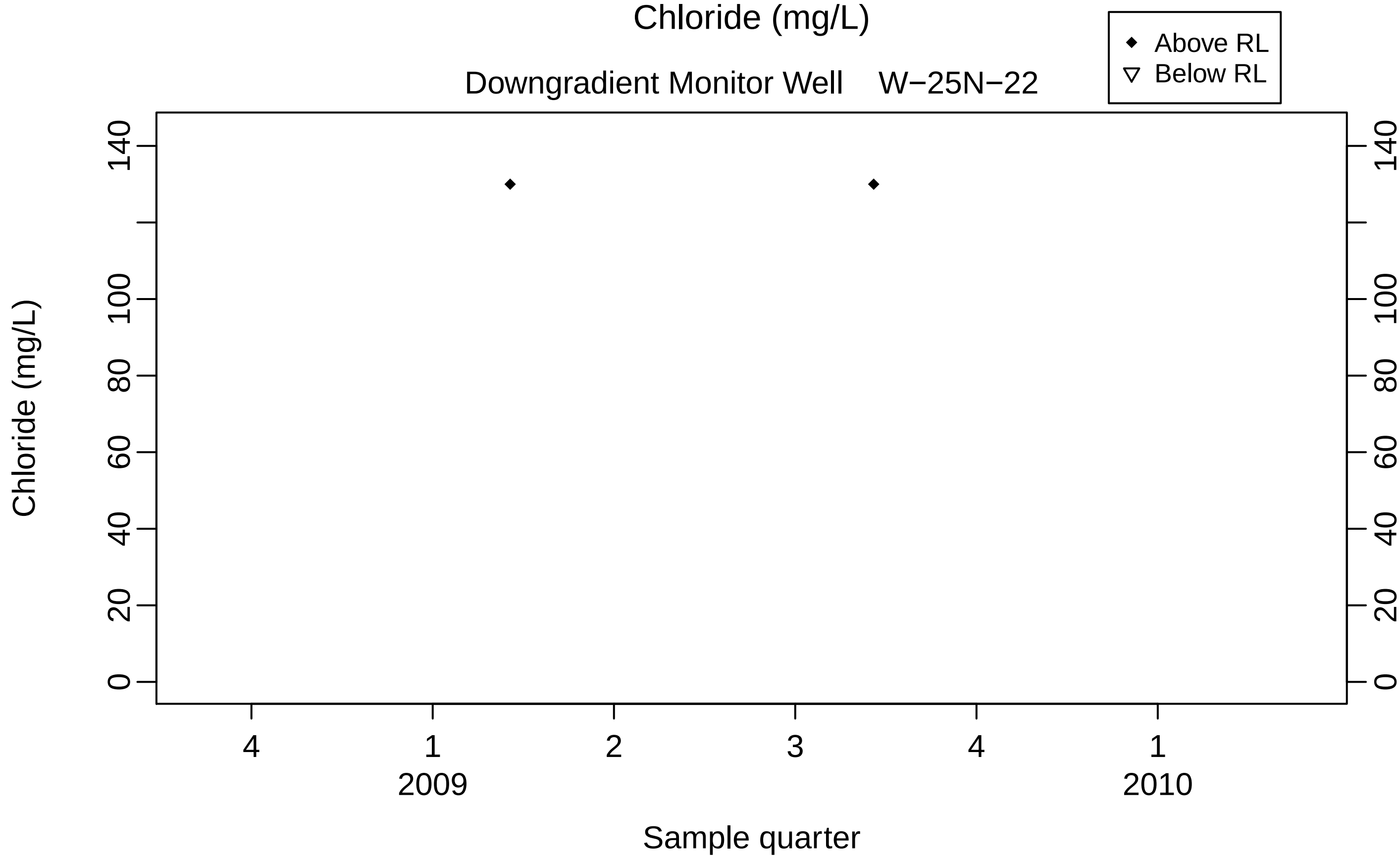


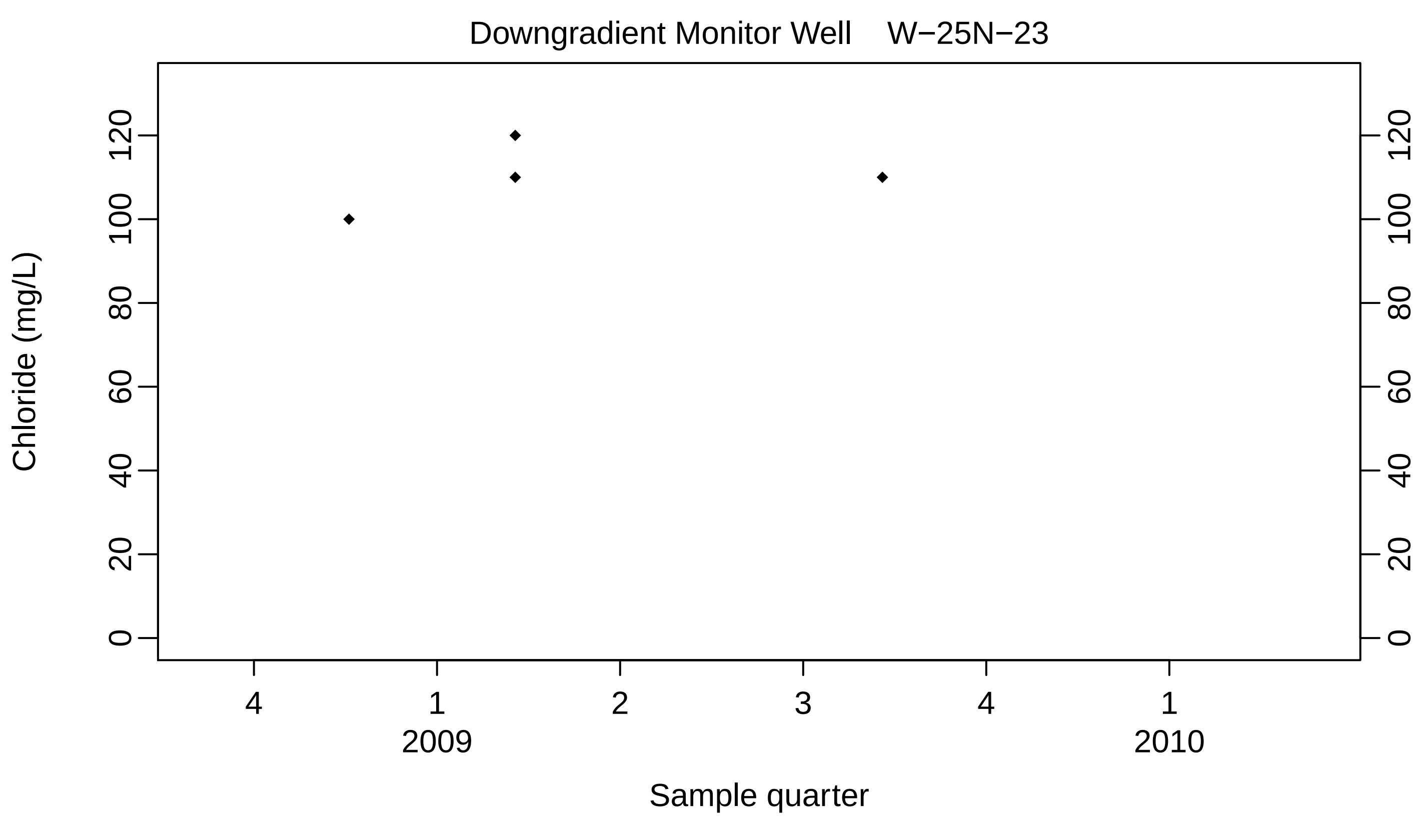
Sewage Ponds Ground Water
Chloride (mg/L)

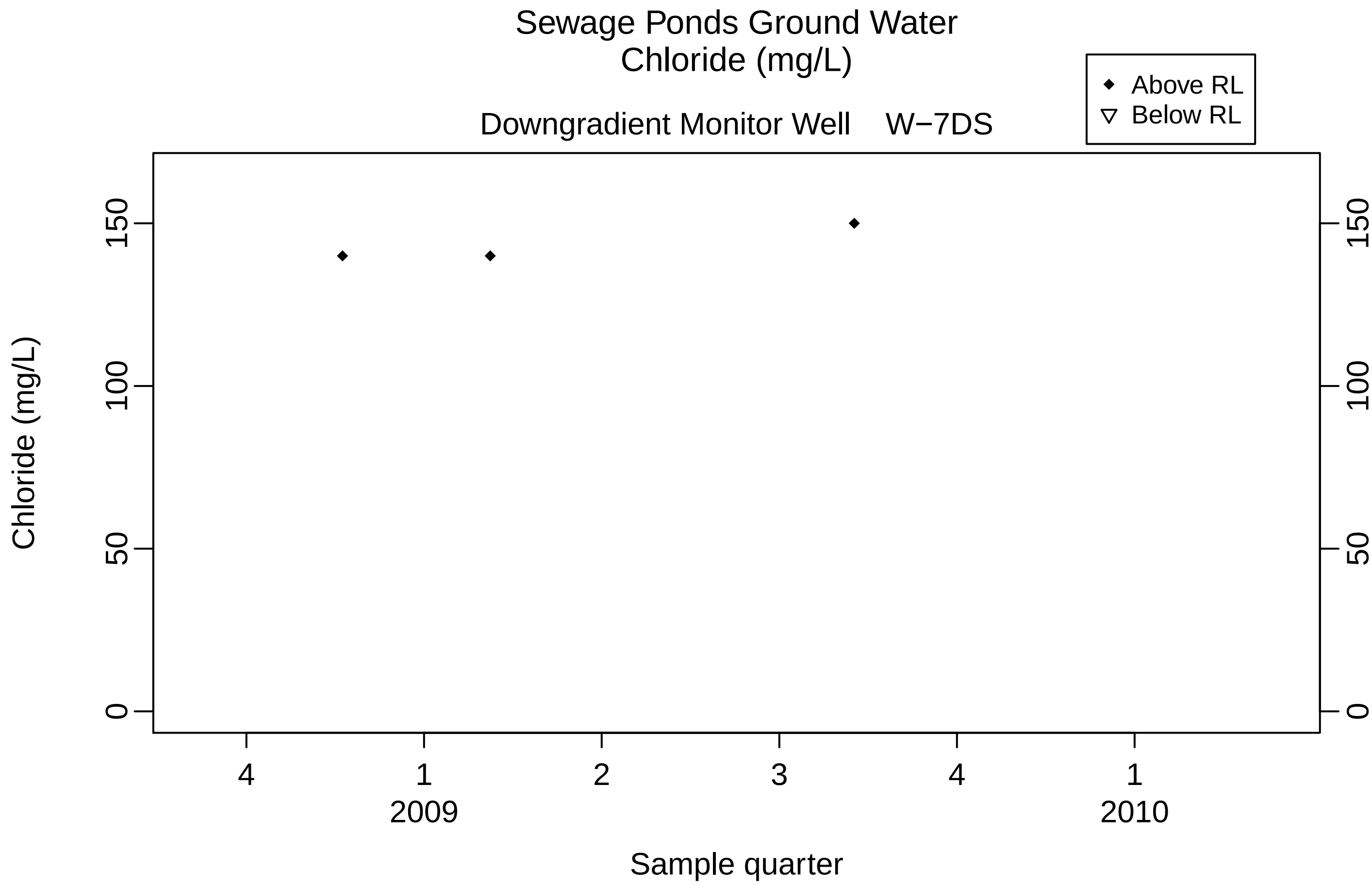




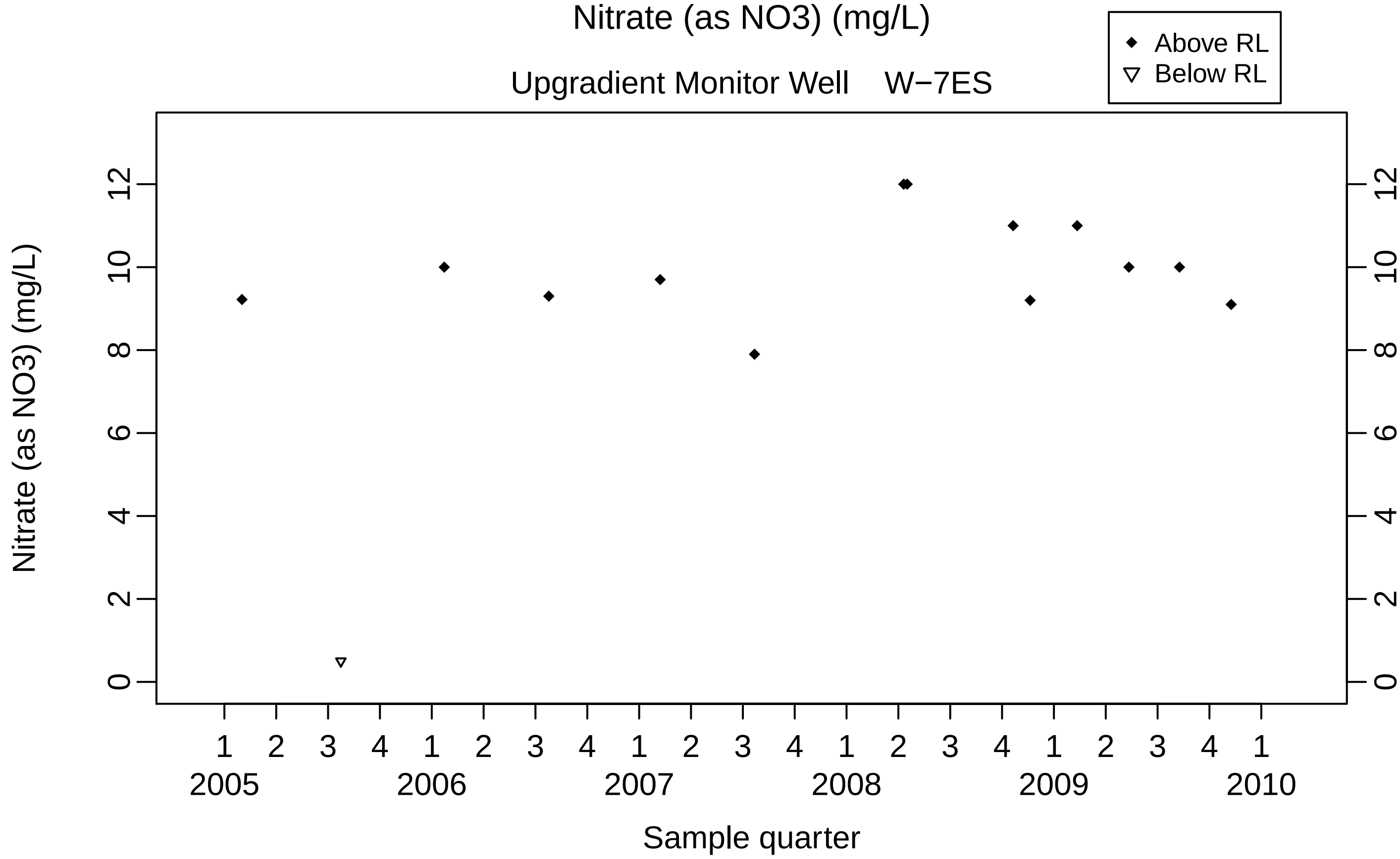
Sewage Ponds Ground Water
Chloride (mg/L)

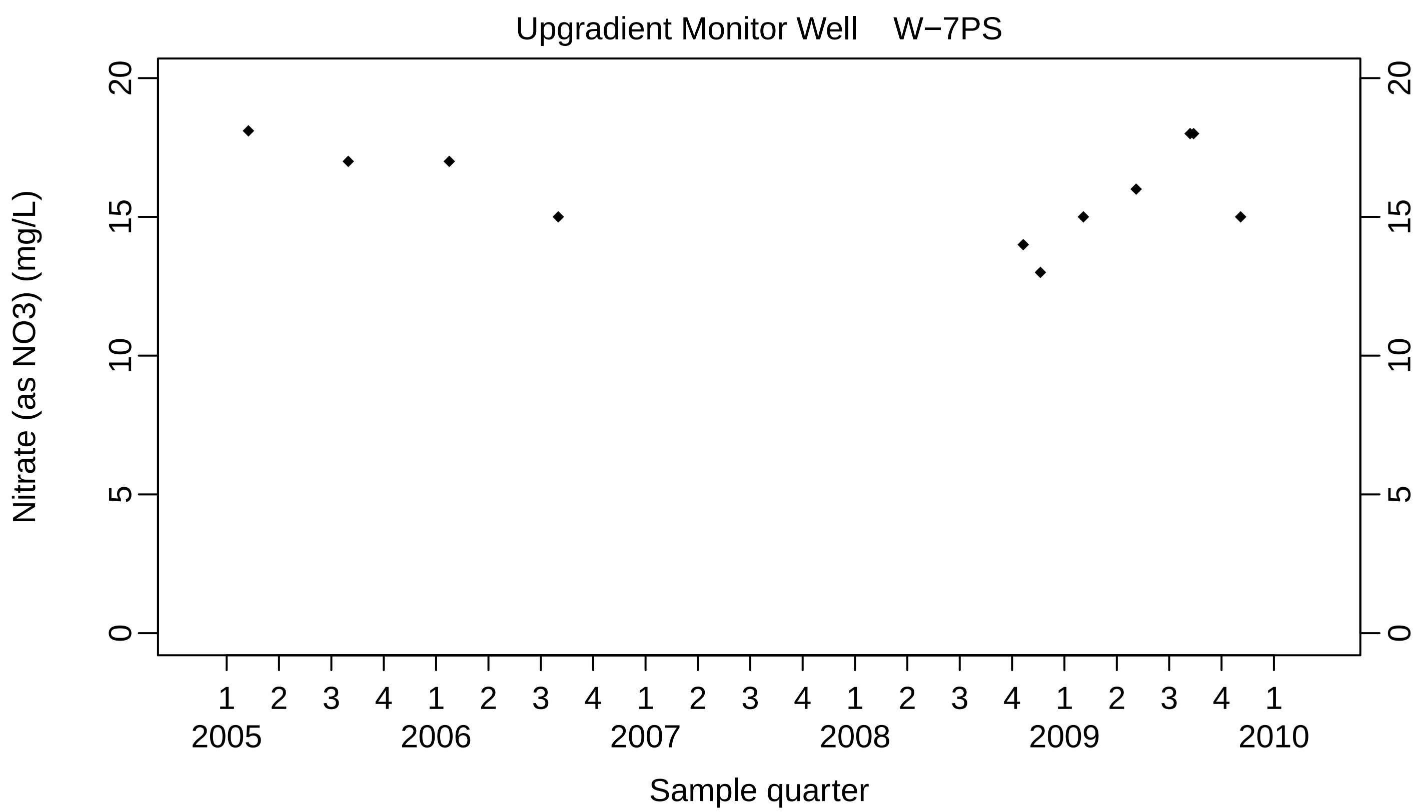


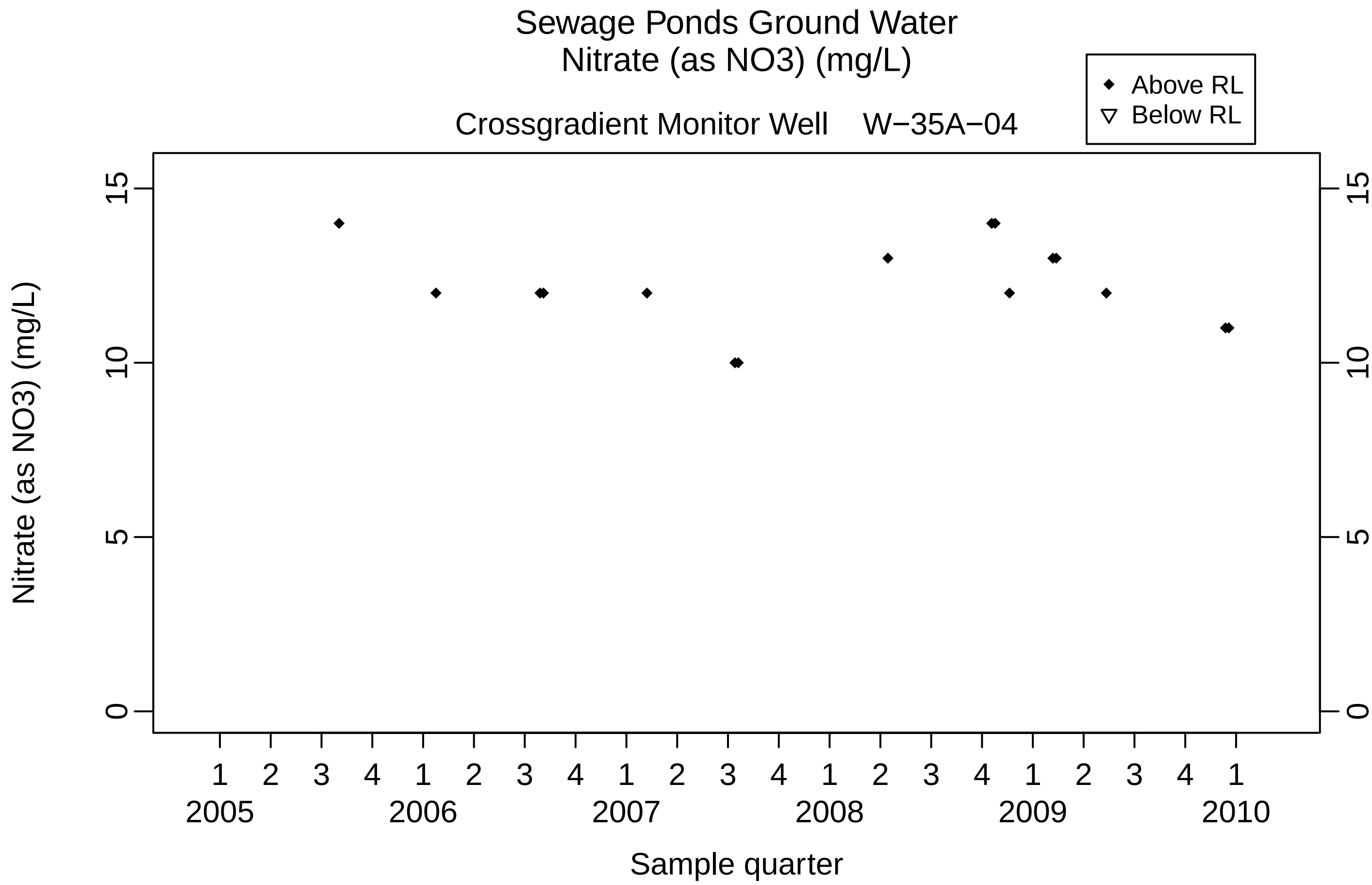


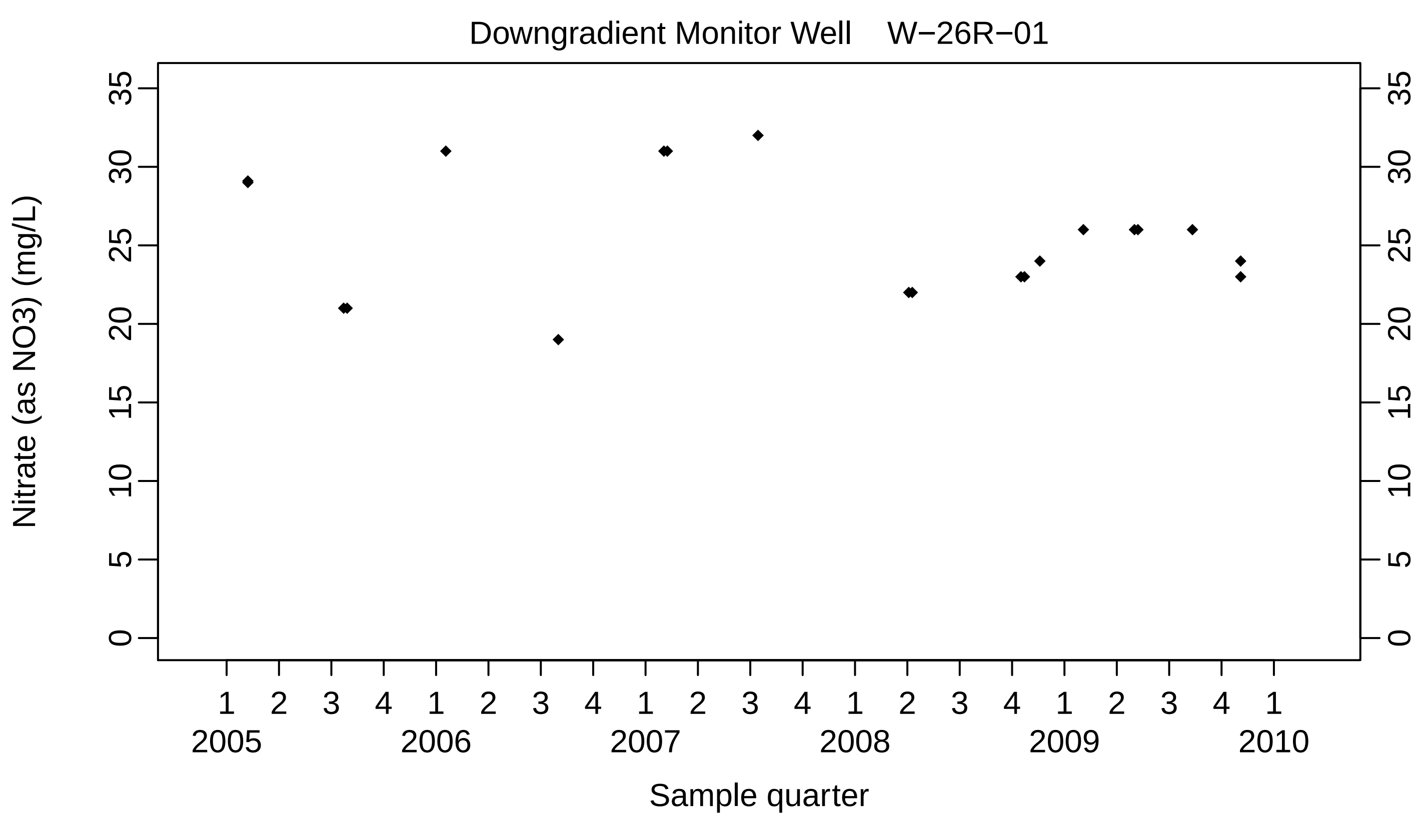

Sewage Ponds Ground Water
Chloride (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−7DS
Chloride (mg/L)
0
50
100
150
4
1
2
3
4
1
2009
2010
Sample quarter

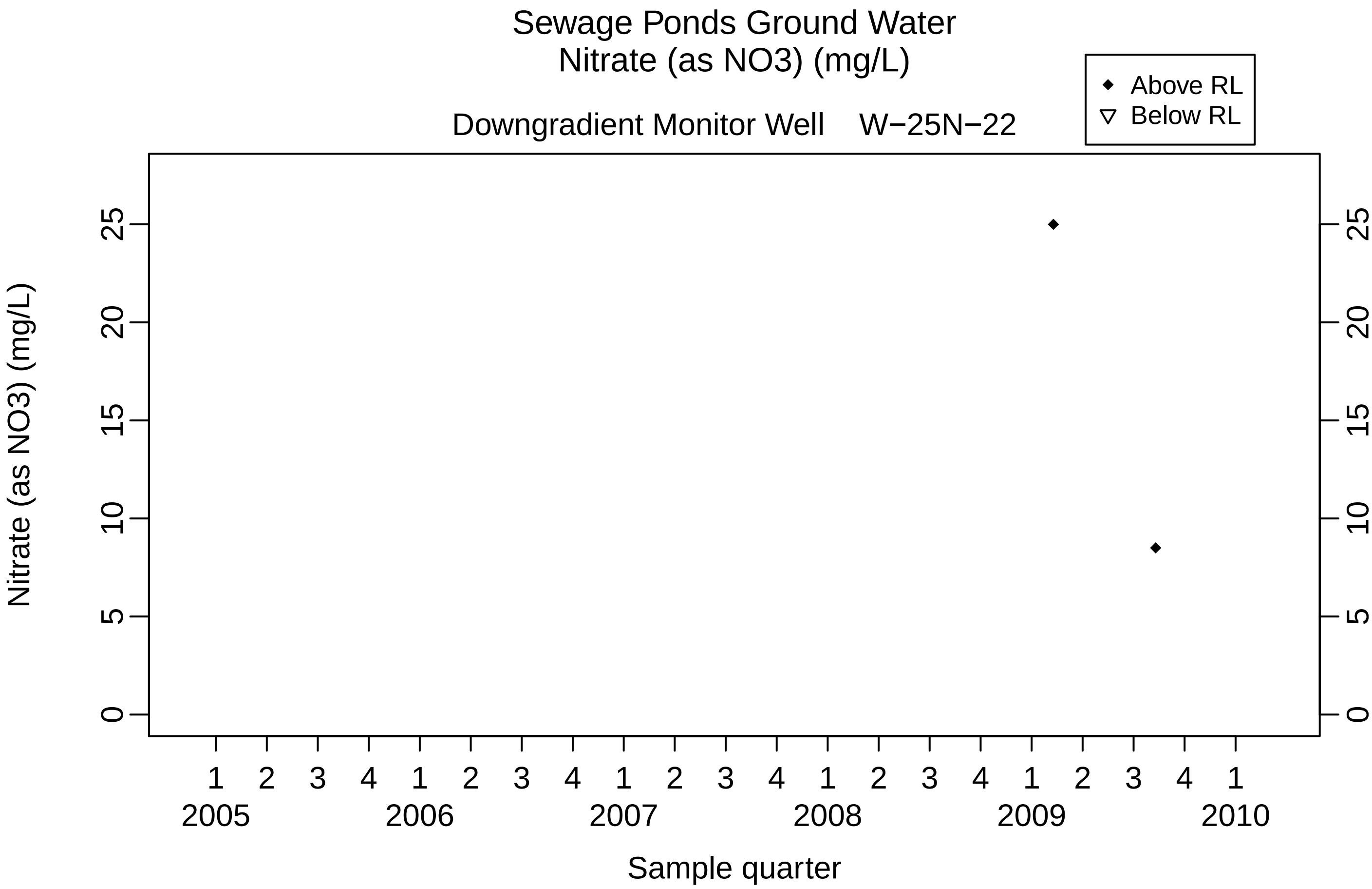
Sewage Ponds Ground Water
Nitrate (as NO3) (mg/L)

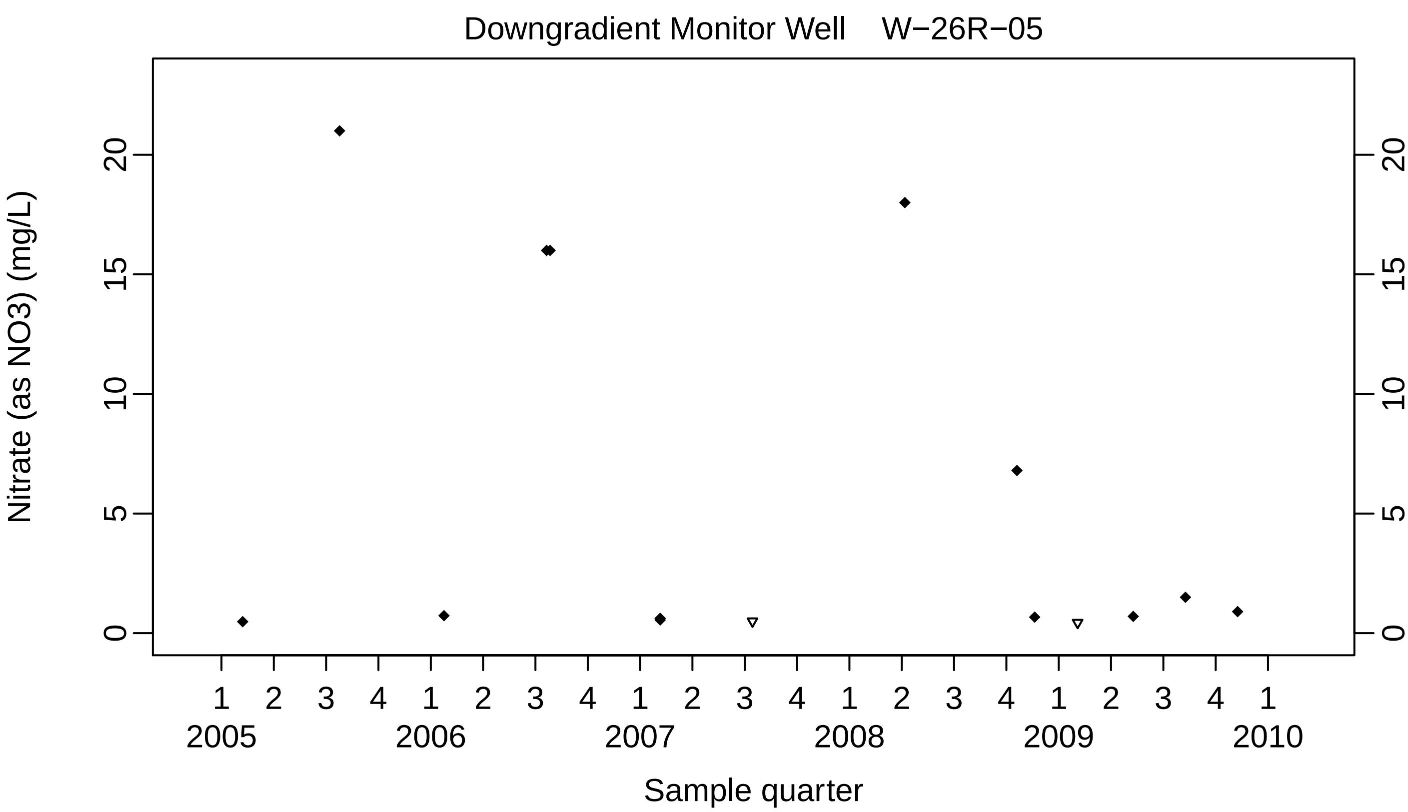




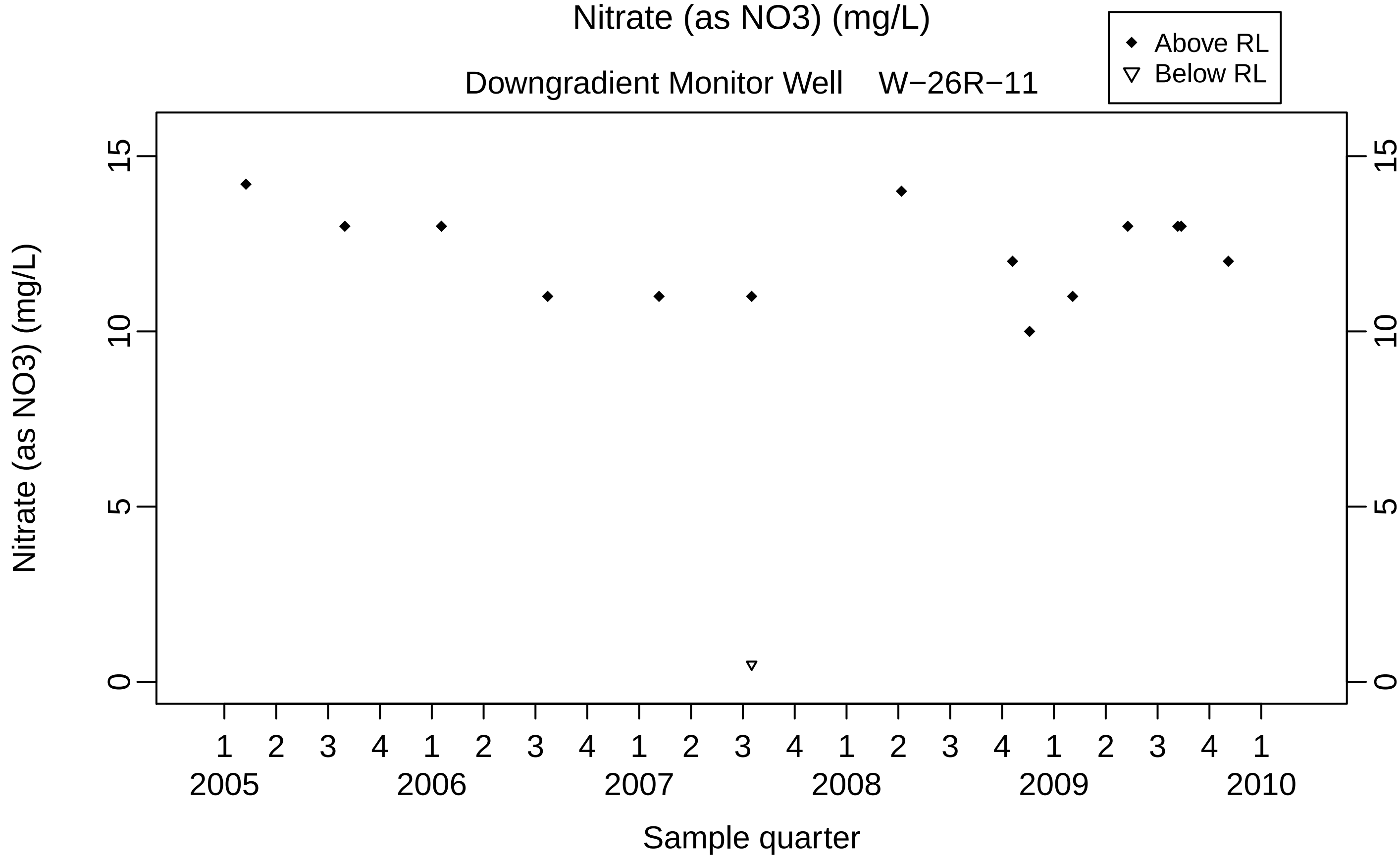

Sewage Ponds Ground Water
Nitrate (as NO3) (mg/L)
Above RL
Below RL
Crossgradient Monitor Well W−35A−04
Nitrate (as NO3) (mg/L)
0
5
10
15
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005 2006 2007 2008 2009 2010
Sample quarter

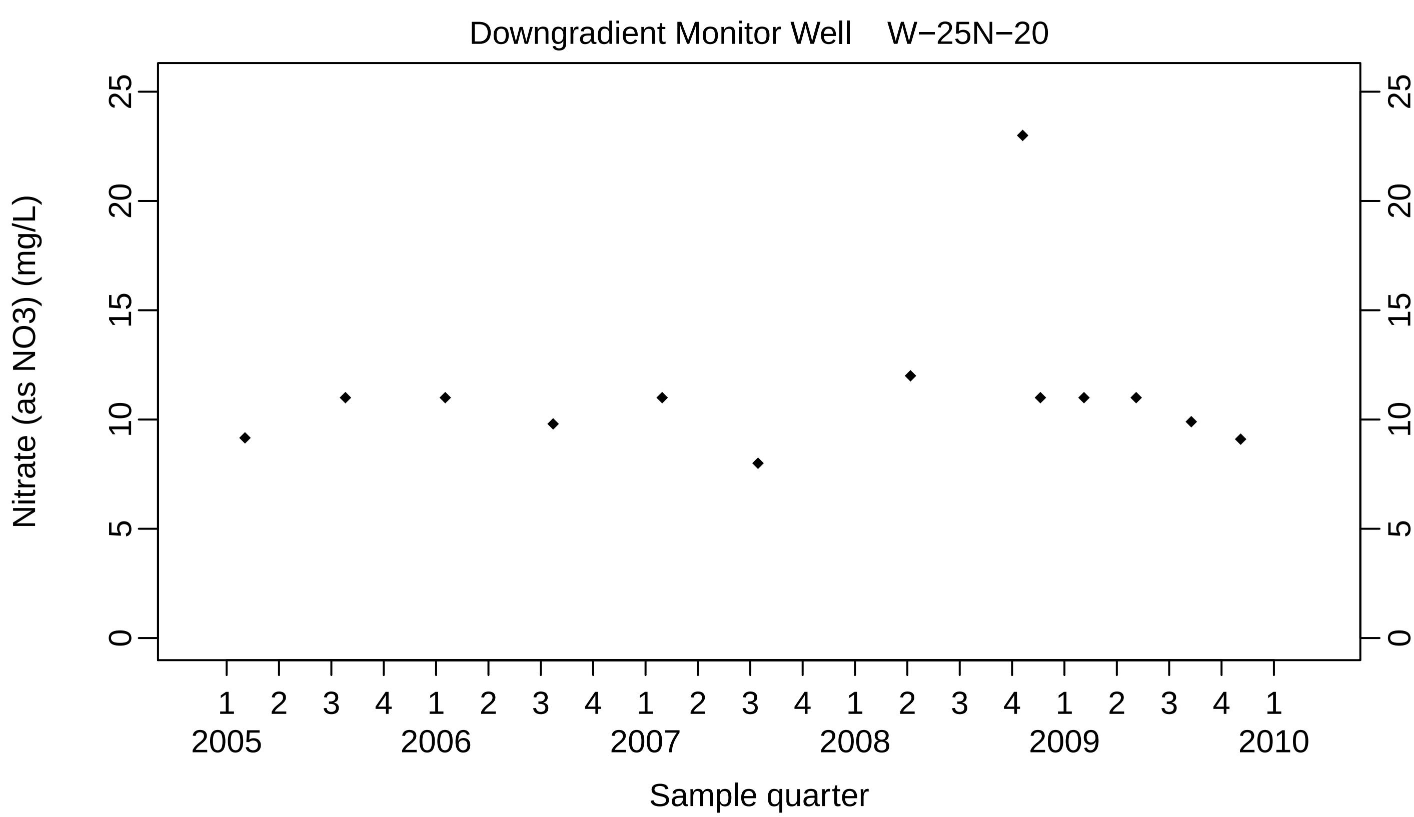

Downgradient Monitor Well W−26R−01
Nitrate (as NO3) (mg/L)
0
5
10
15
20
25
30
35
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005 2006 2007 2008 2009 2010
Sample quarter

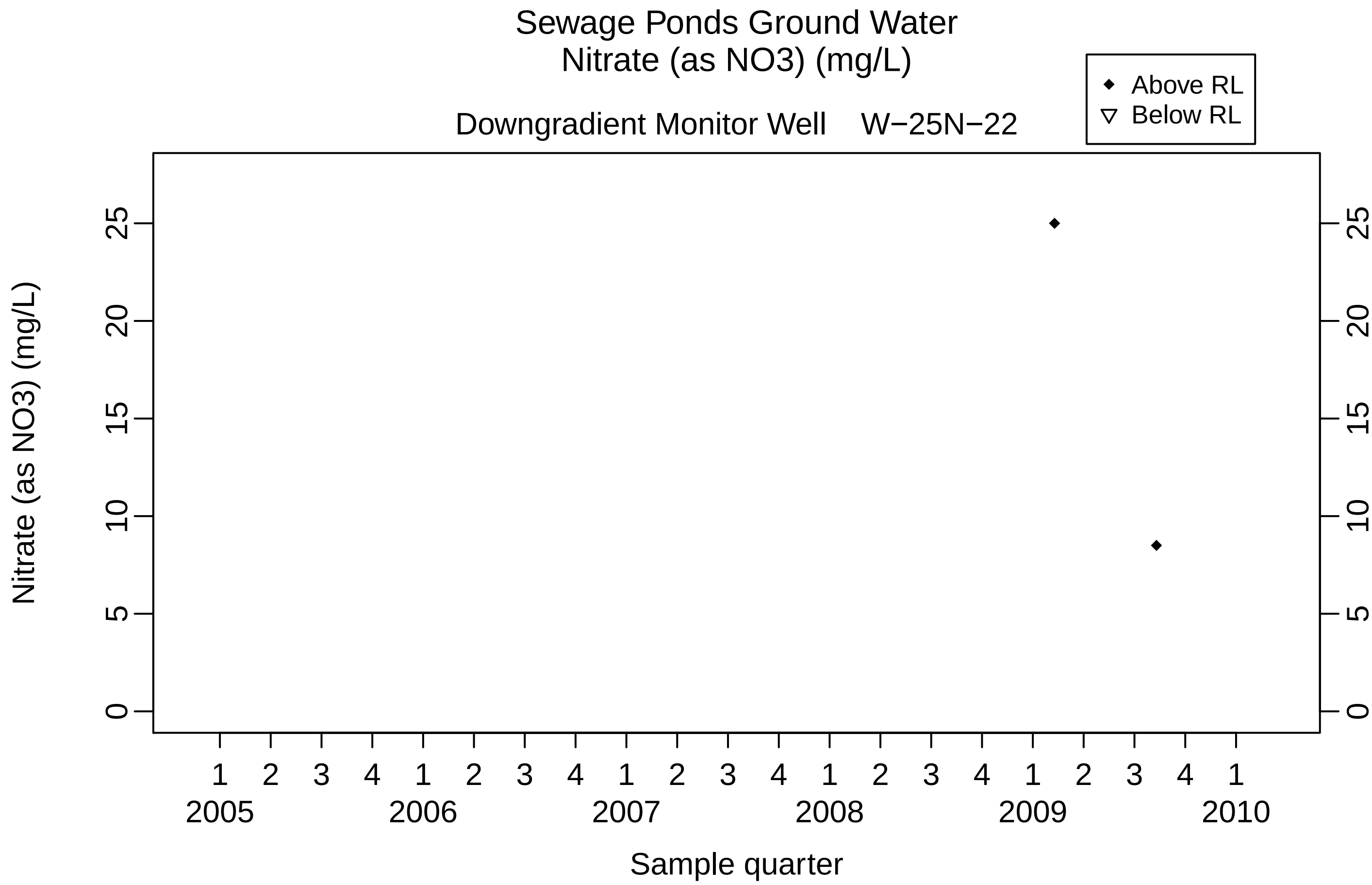

Sewage Ponds Ground Water
Nitrate (as NO3) (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−25N−22
Nitrate (as NO3) (mg/L)
0
5
10
15
20
25
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005 2006 2007 2008 2009 2010
Sample quarter

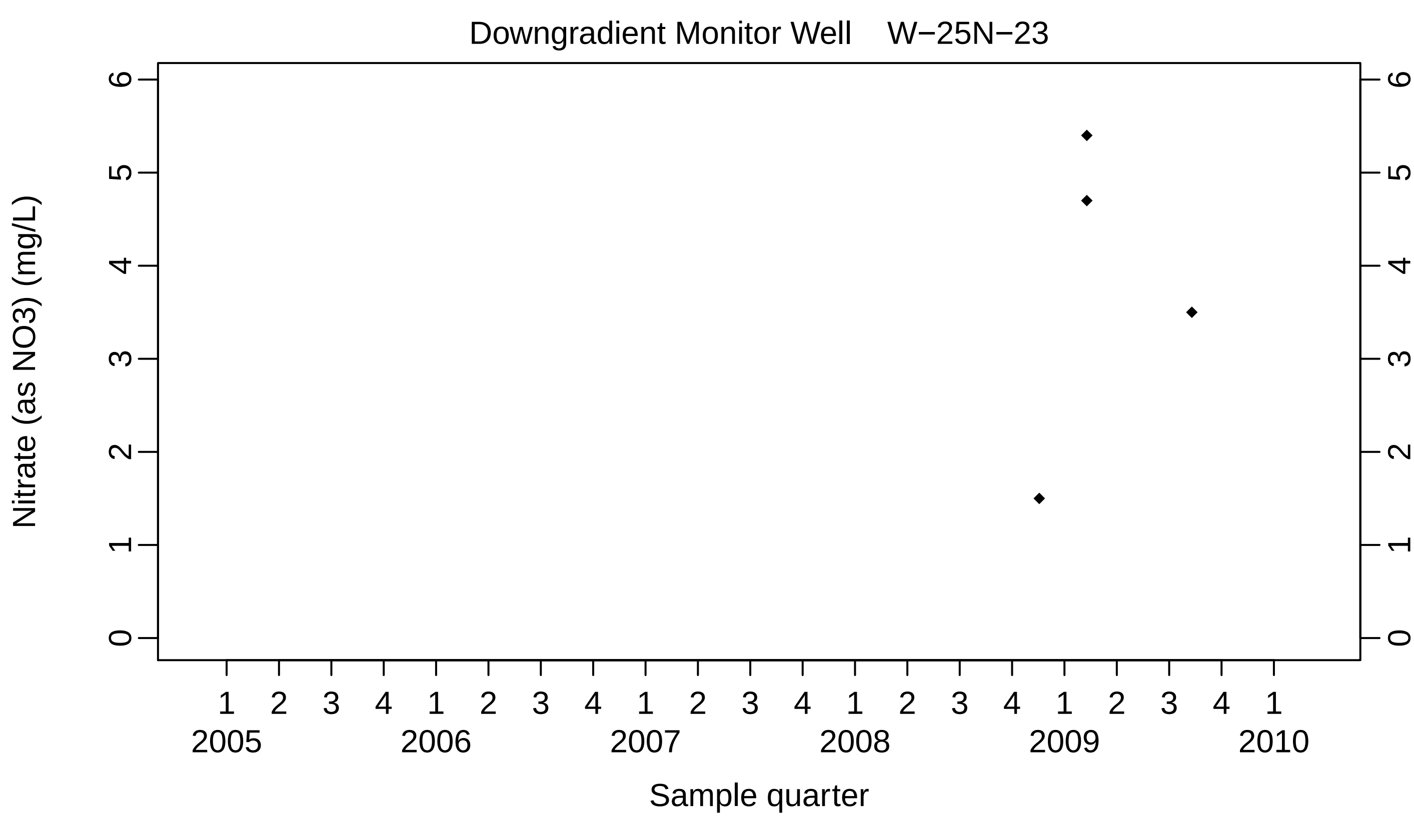

Downgradient Monitor Well W−26R−05
Nitrate (as NO3) (mg/L)
0
5
10
15
20
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005 2006 2007 2008 2009 2010
Sample quarter

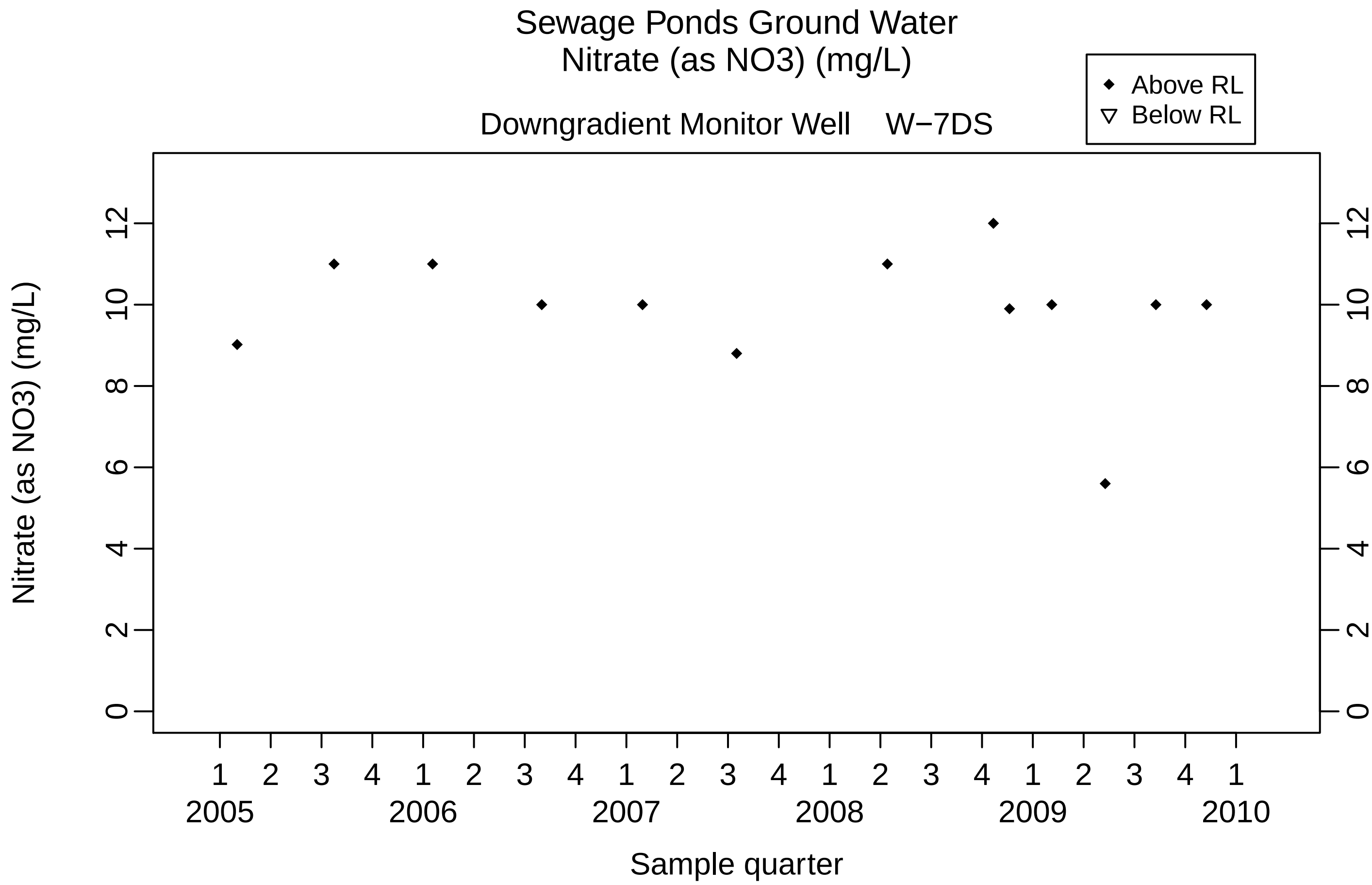
Sewage Ponds Ground Water
Nitrate (as NO3) (mg/L)



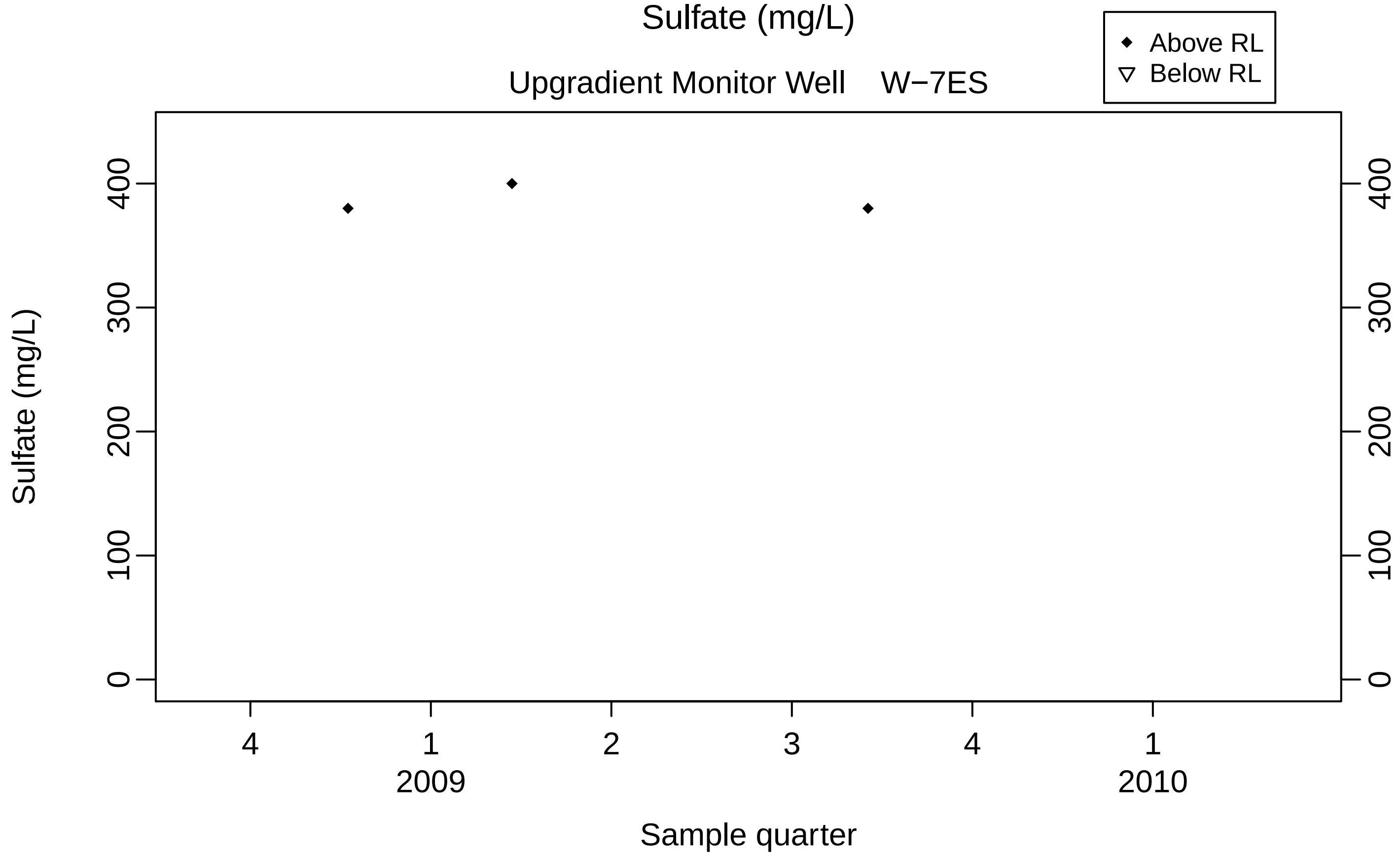


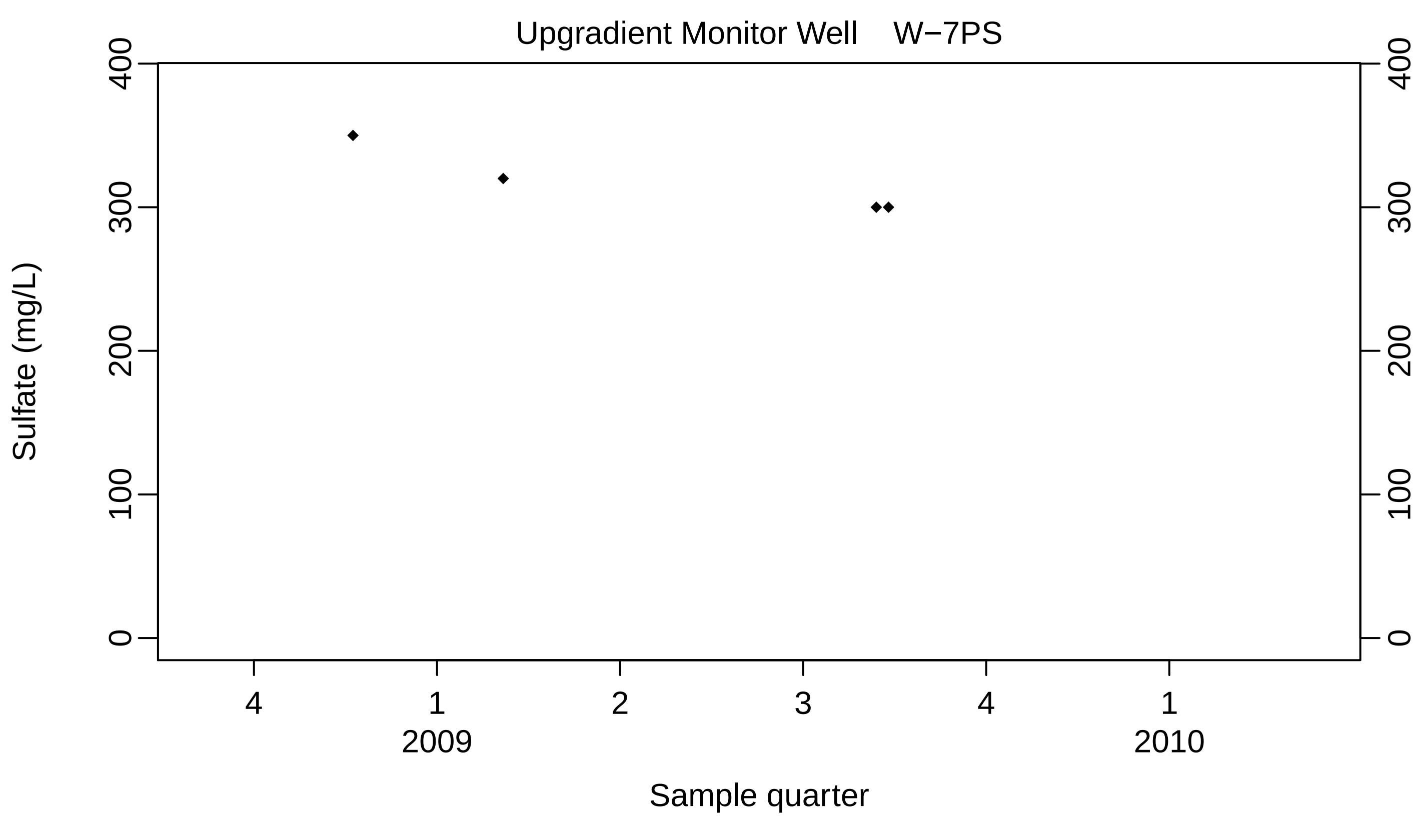

Sewage Ponds Ground Water
Nitrate (as NO3) (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−25N−22
Nitrate (as NO3) (mg/L)
0
5
10
15
20
25
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005 2006 2007 2008 2009 2010
Sample quarter

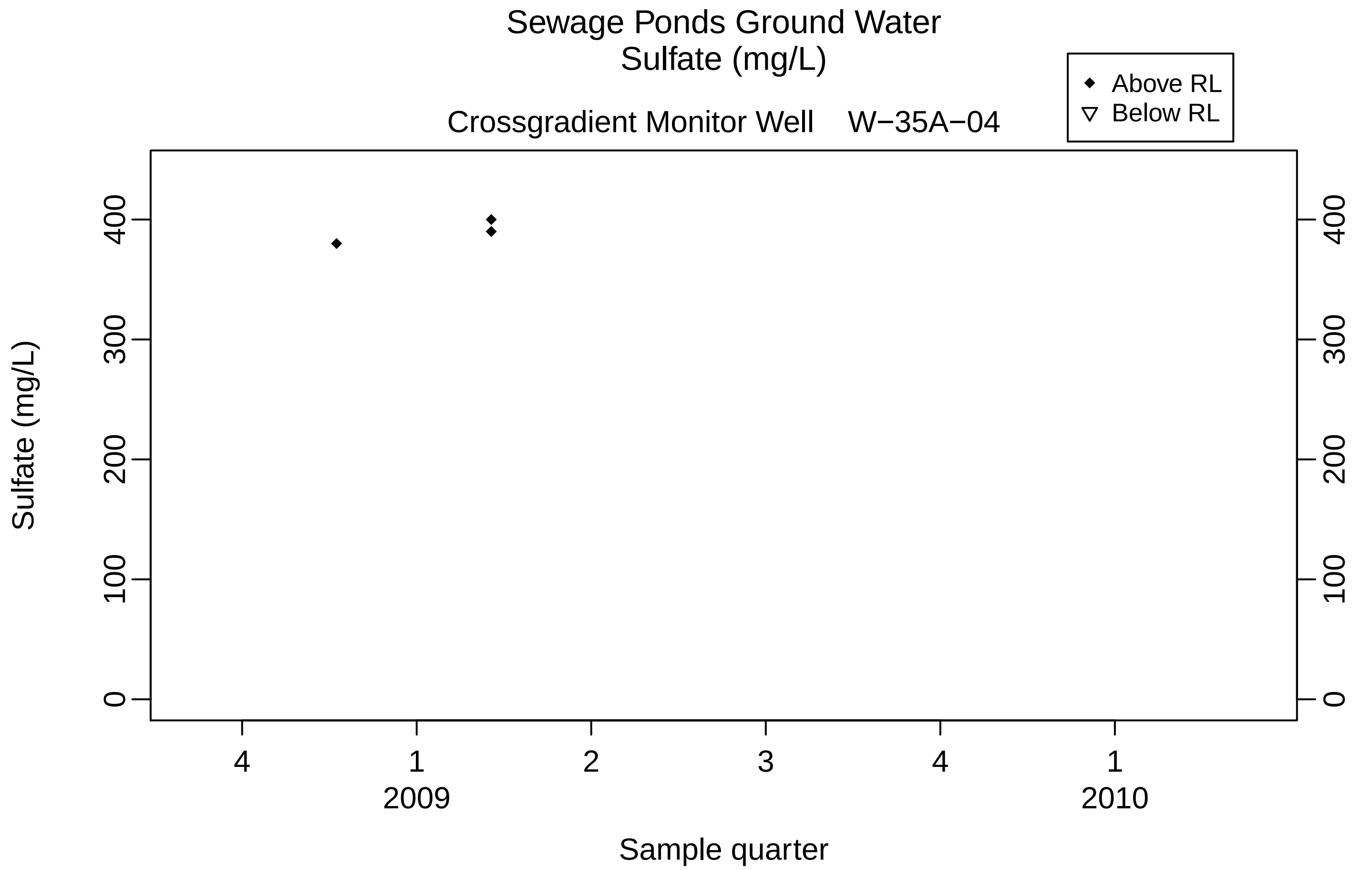

Downgradient Monitor Well W−25N−23
Nitrate (as NO3) (mg/L)
0
1
2
3
4
5
6
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005 2006 2007 2008 2009 2010
Sample quarter

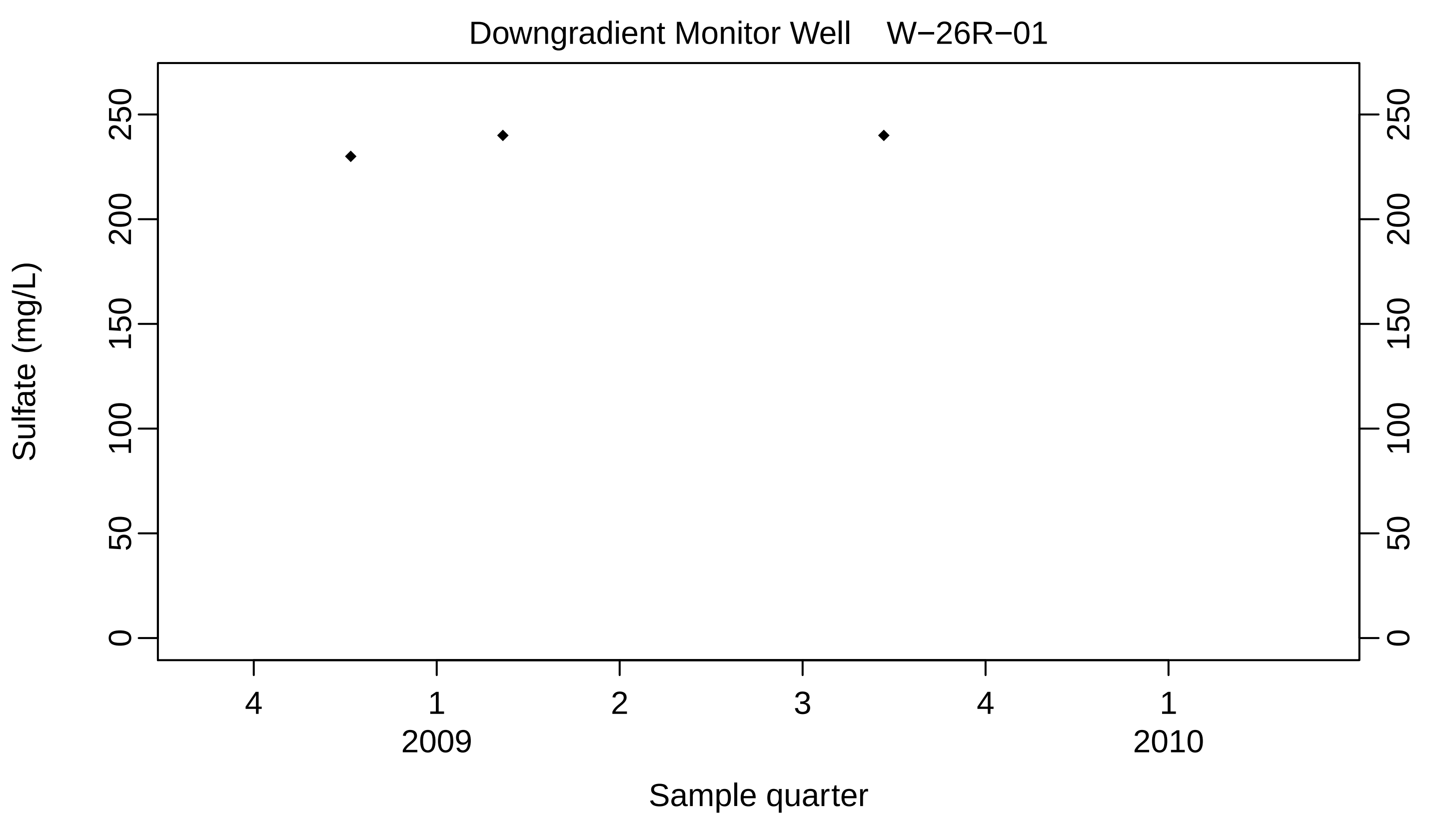

Sewage Ponds Ground Water
Nitrate (as NO3) (mg/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Nitrate (as NO3) (mg/L)
0
2
4
6
8
10
12
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2005
2006
2007
2008
2009
2010
Sample quarter

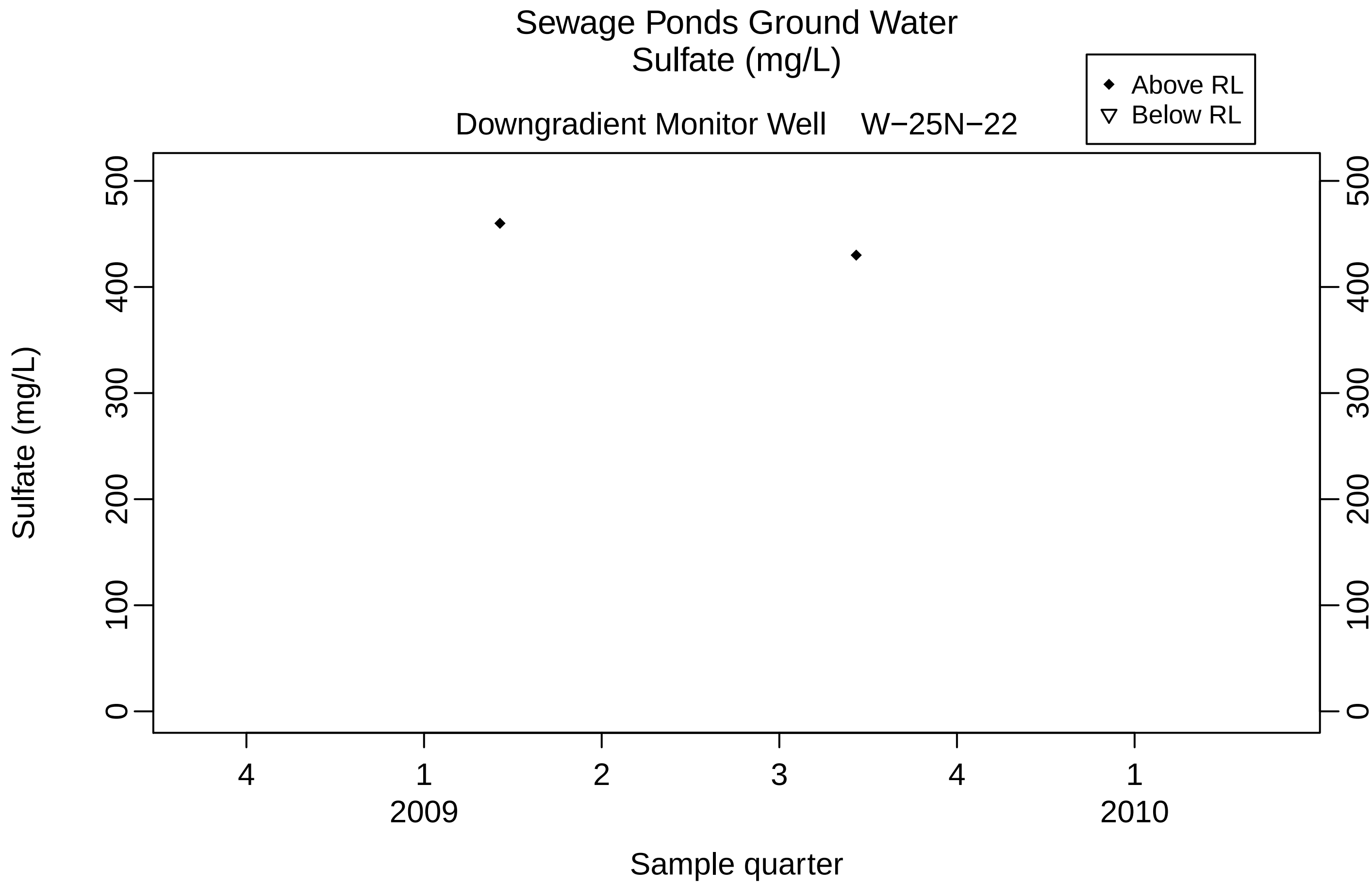
Sewage Ponds Ground Water
Sulfate (mg/L)

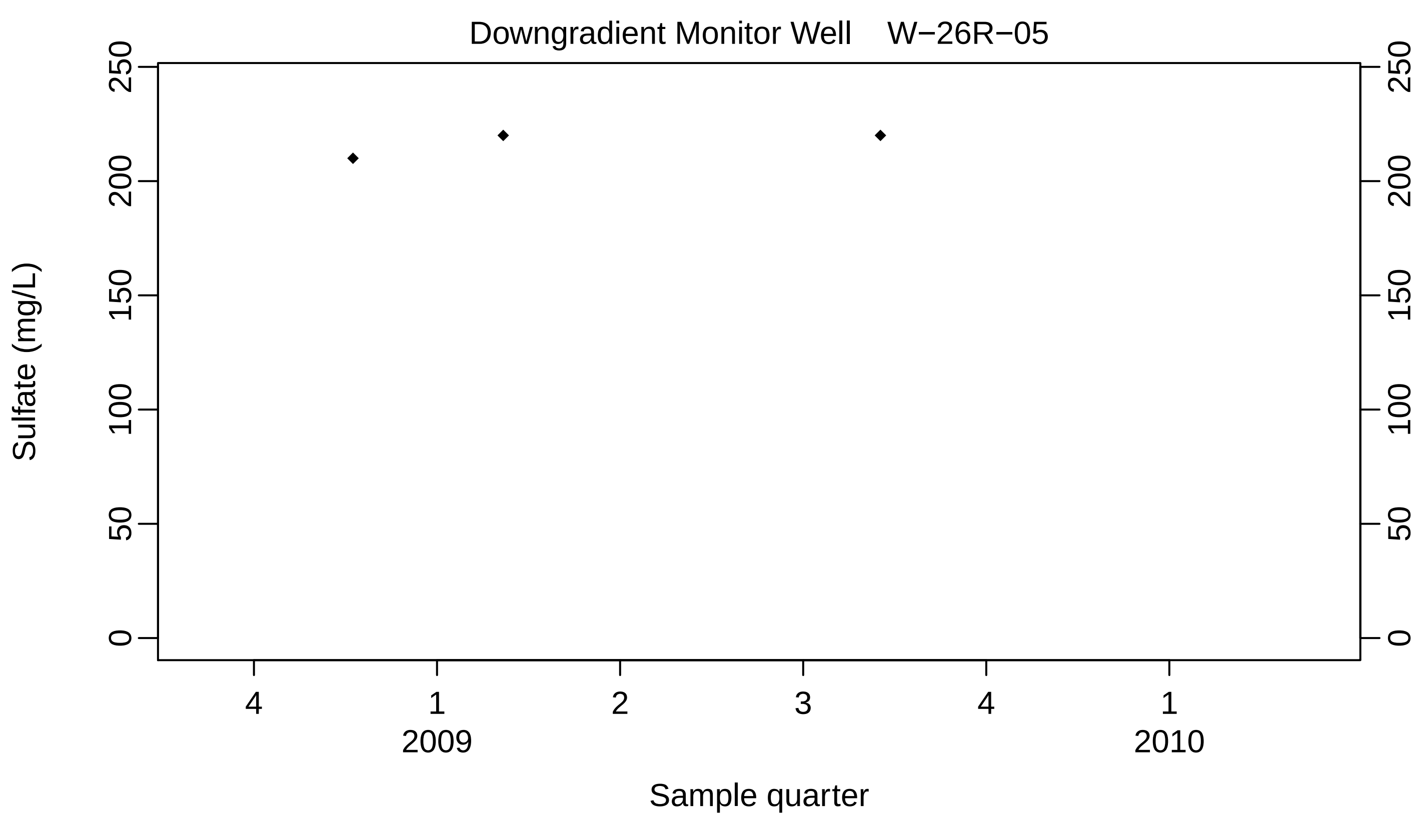


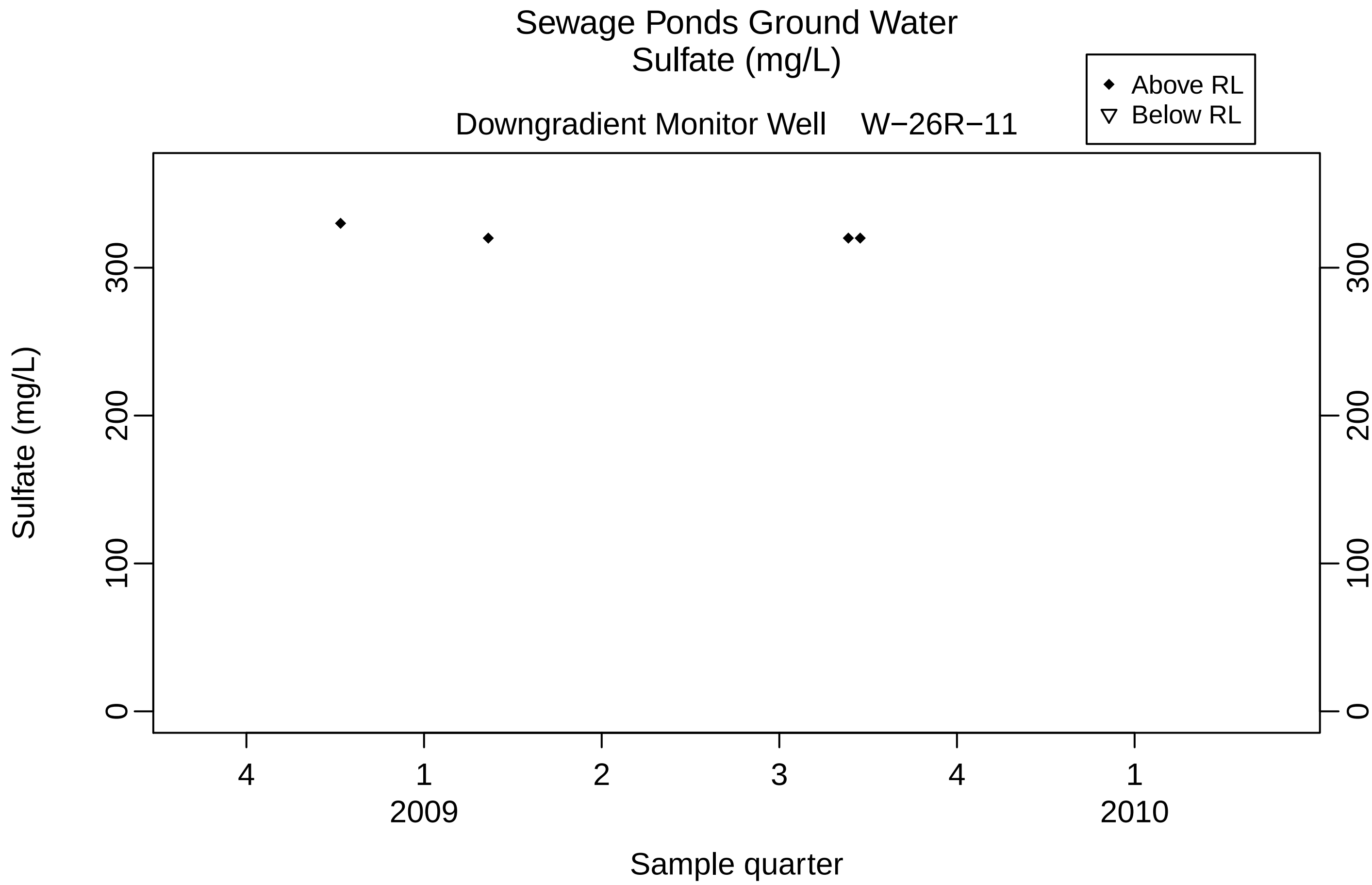


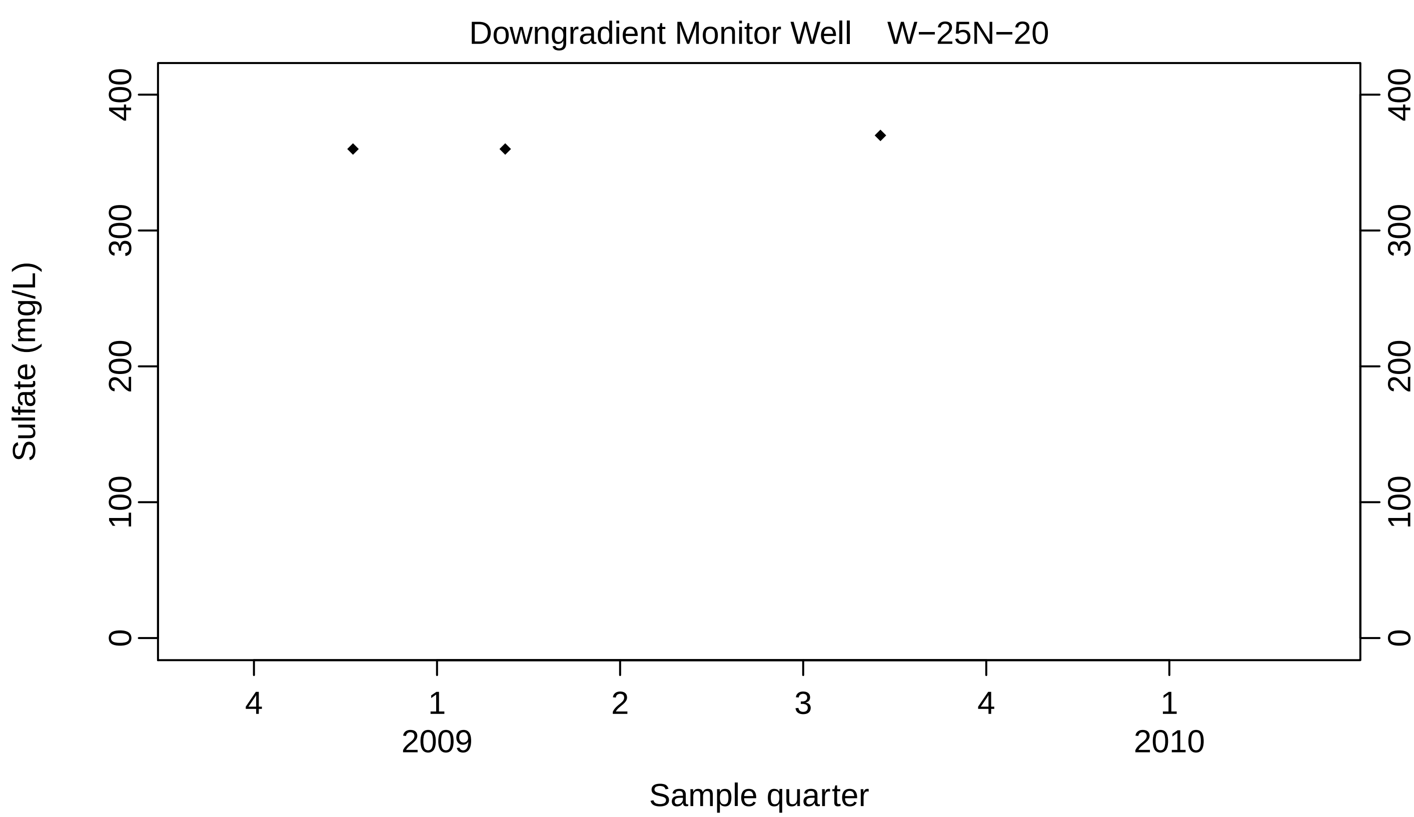

Sewage Ponds Ground Water
Sulfate (mg/L)
Above RL
Below RL
Crossgradient Monitor Well W−35A−04
Sulfate (mg/L)
0
100
200
300
400
4
1
2
3
4
1
2009
2010
Sample quarter

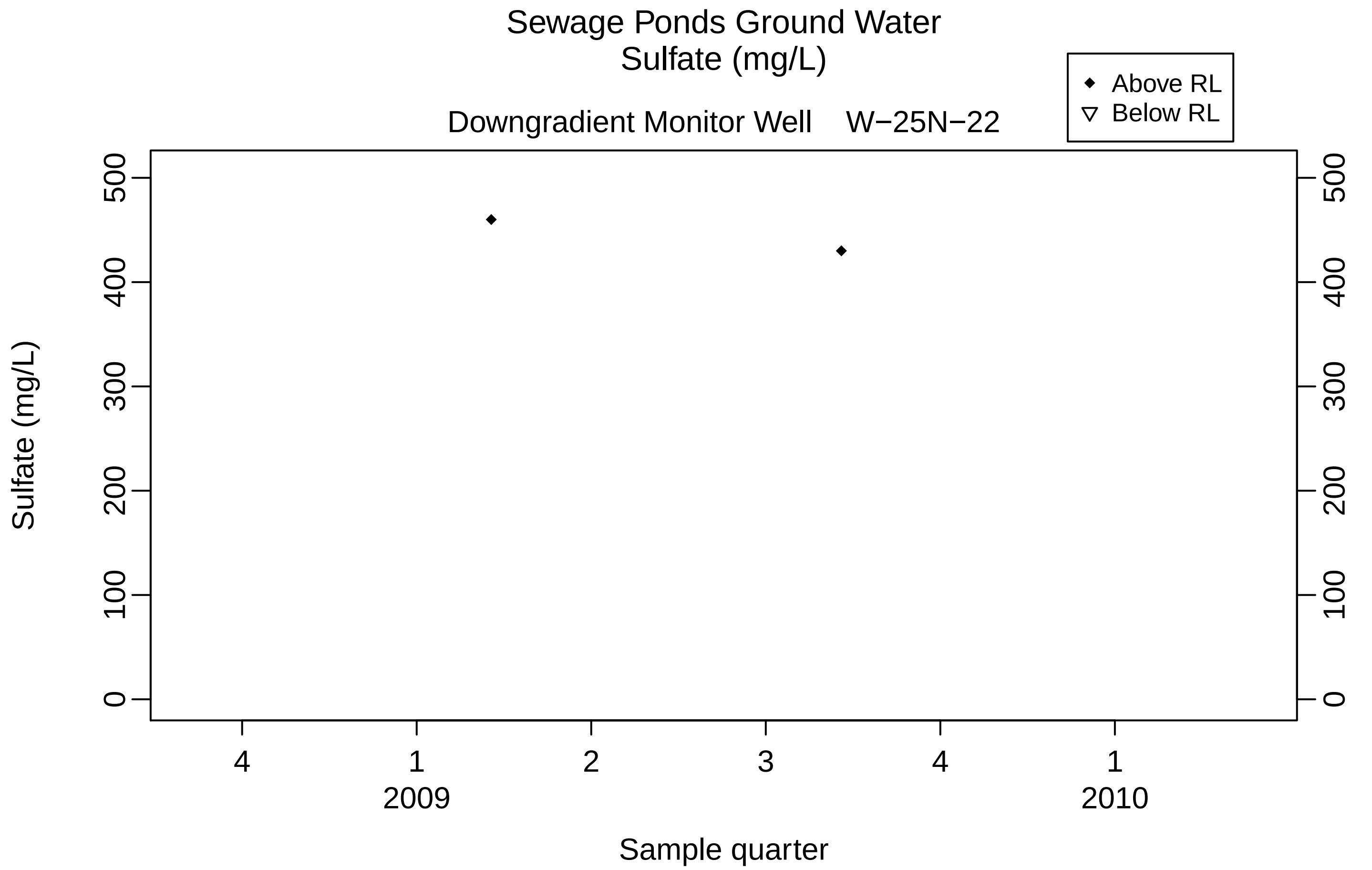

Downgradient Monitor Well W−26R−01
Sulfate (mg/L)
0
50
100
150
200
250
4
1
2
3
4
1
2009
2010
Sample quarter

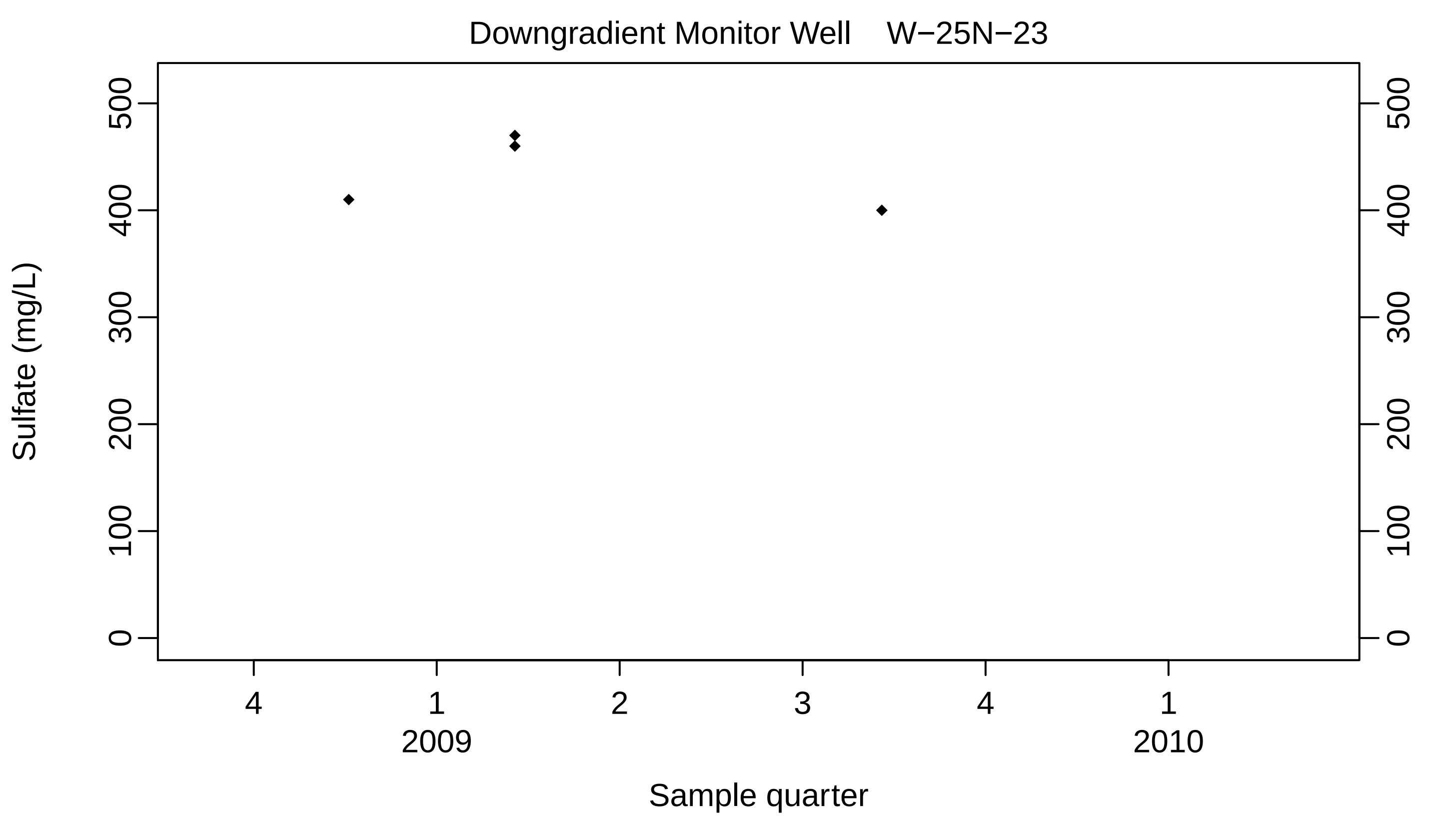

Sewage Ponds Ground Water
Sulfate (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−25N−22
Sulfate (mg/L)
0
100
200
300
400
500
4
1
2
3
4
1
2009
2010
Sample quarter

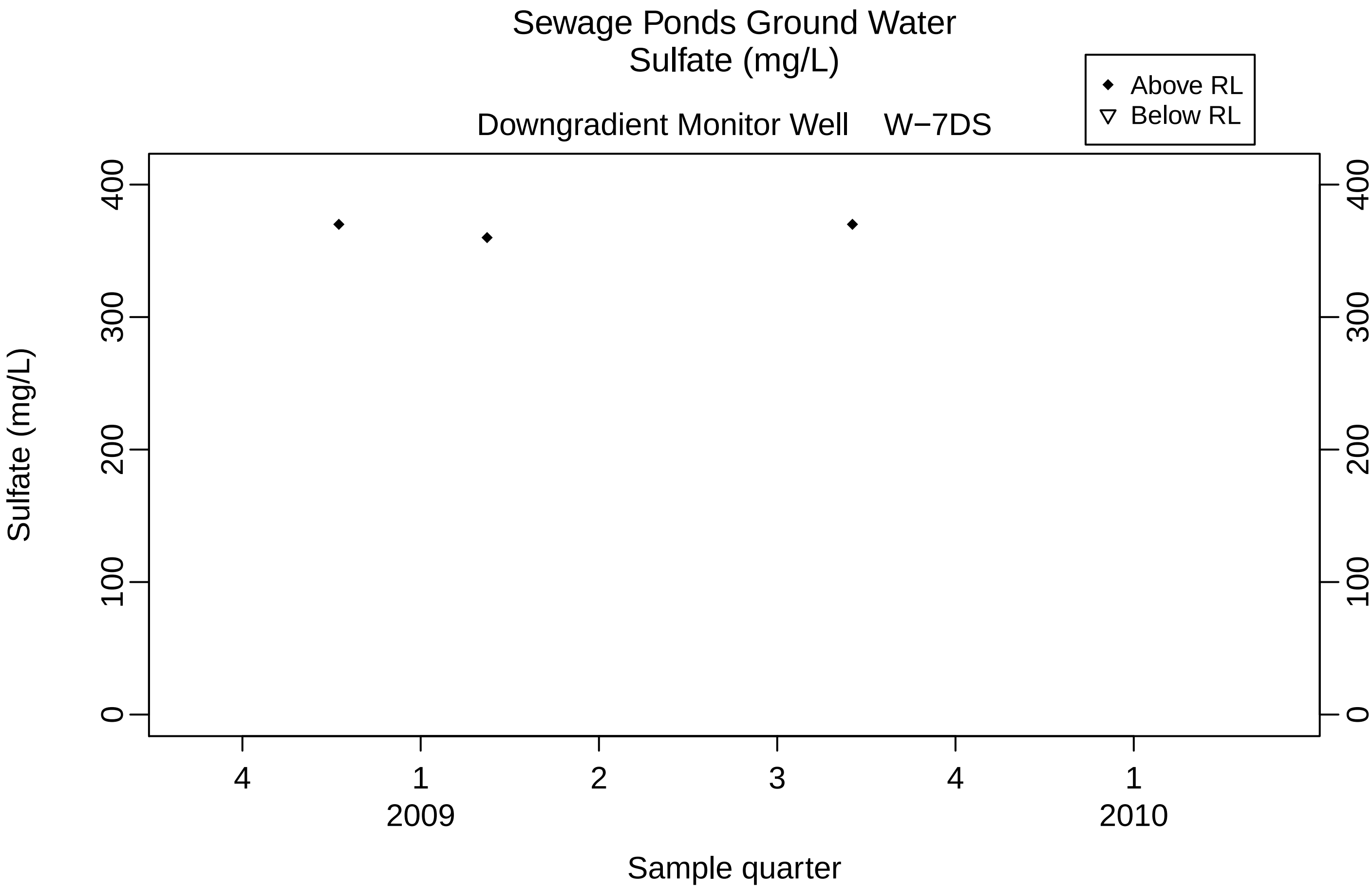

Downgradient Monitor Well W−26R−05
Sulfate (mg/L)
0
50
100
150
200
250
4
1
2
3
4
1
2009
2010
Sample quarter


Sewage Ponds Ground Water
Sulfate (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−26R−11
Sulfate (mg/L)
0
100
200
300
4
1
2
3
4
1
2009
2010
Sample quarter

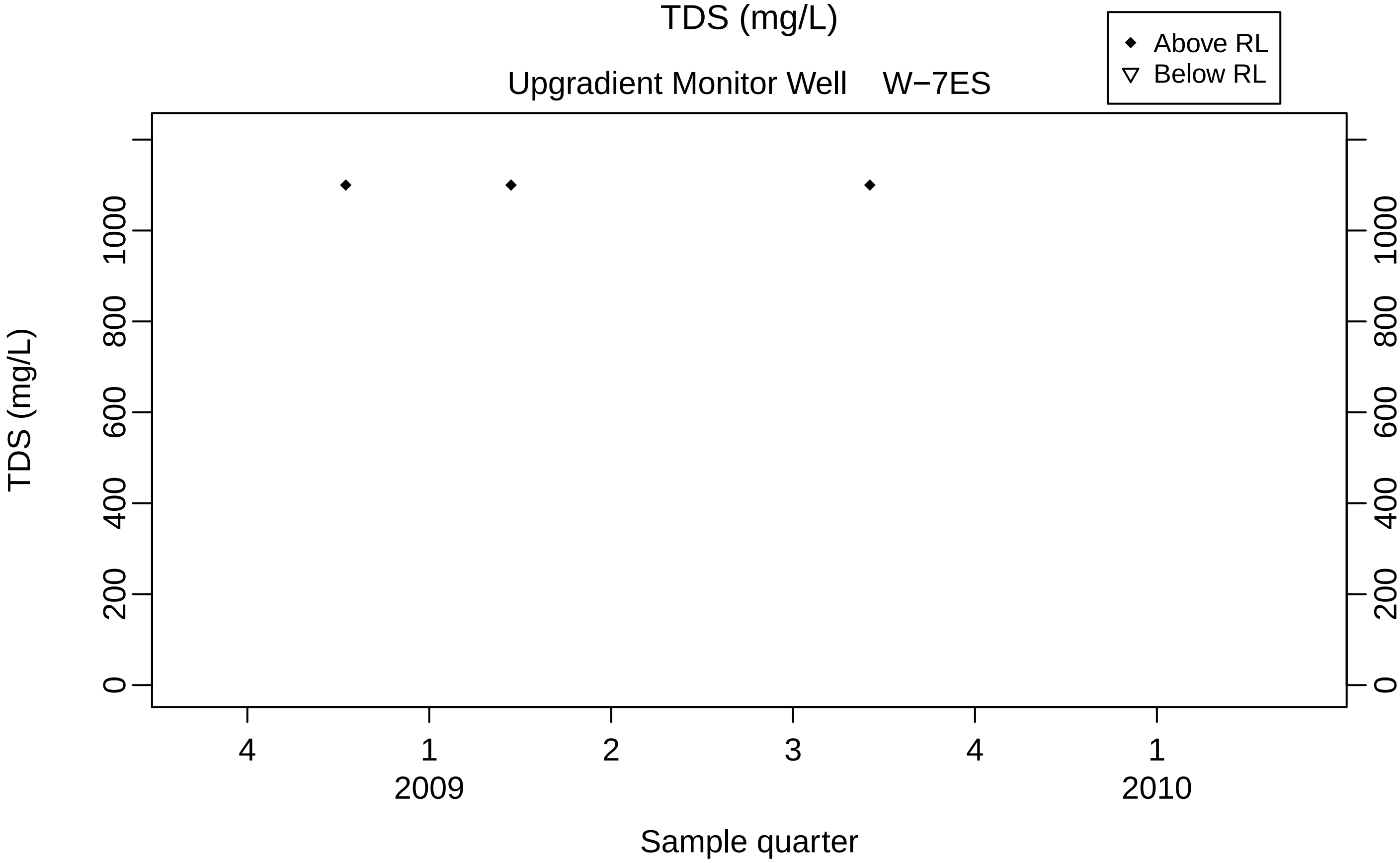

Downgradient Monitor Well W−25N−20
Sulfate (mg/L)
0
100
200
300
400
4
1
2
3
4
1
2009
2010
Sample quarter

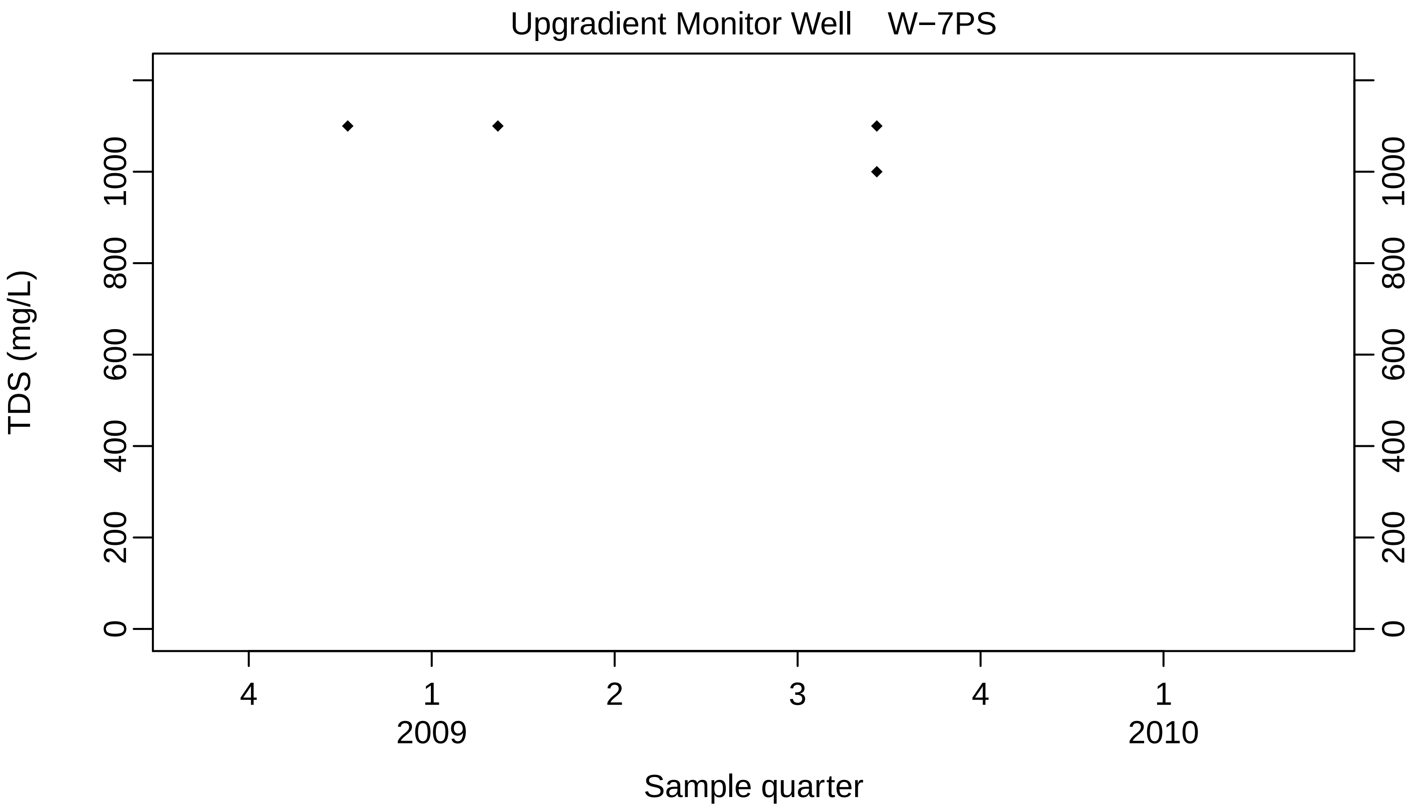

Sewage Ponds Ground Water
Sulfate (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−25N−22
Sulfate (mg/L)
0
100
200
300
400
500
4
1
2
3
4
1
2009
2010
Sample quarter


Downgradient Monitor Well W−25N−23
Sulfate (mg/L)
0
100
200
300
400
500
4
1
2
3
4
1
2009
2010
Sample quarter

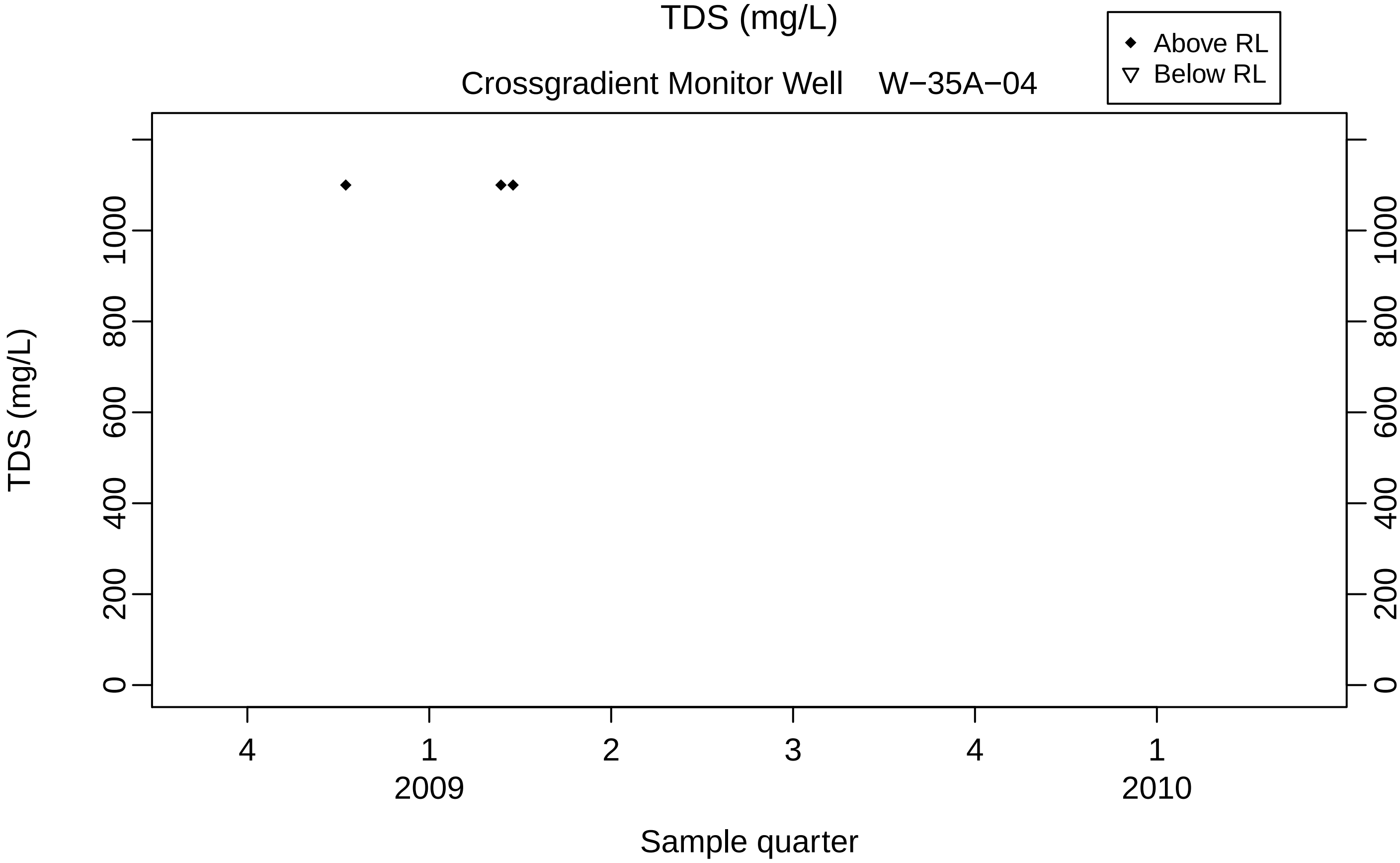

Sewage Ponds Ground Water
Sulfate (mg/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Sulfate (mg/L)
0
100
200
300
400
4
1
2
3
4
1
2009
2010
Sample quarter

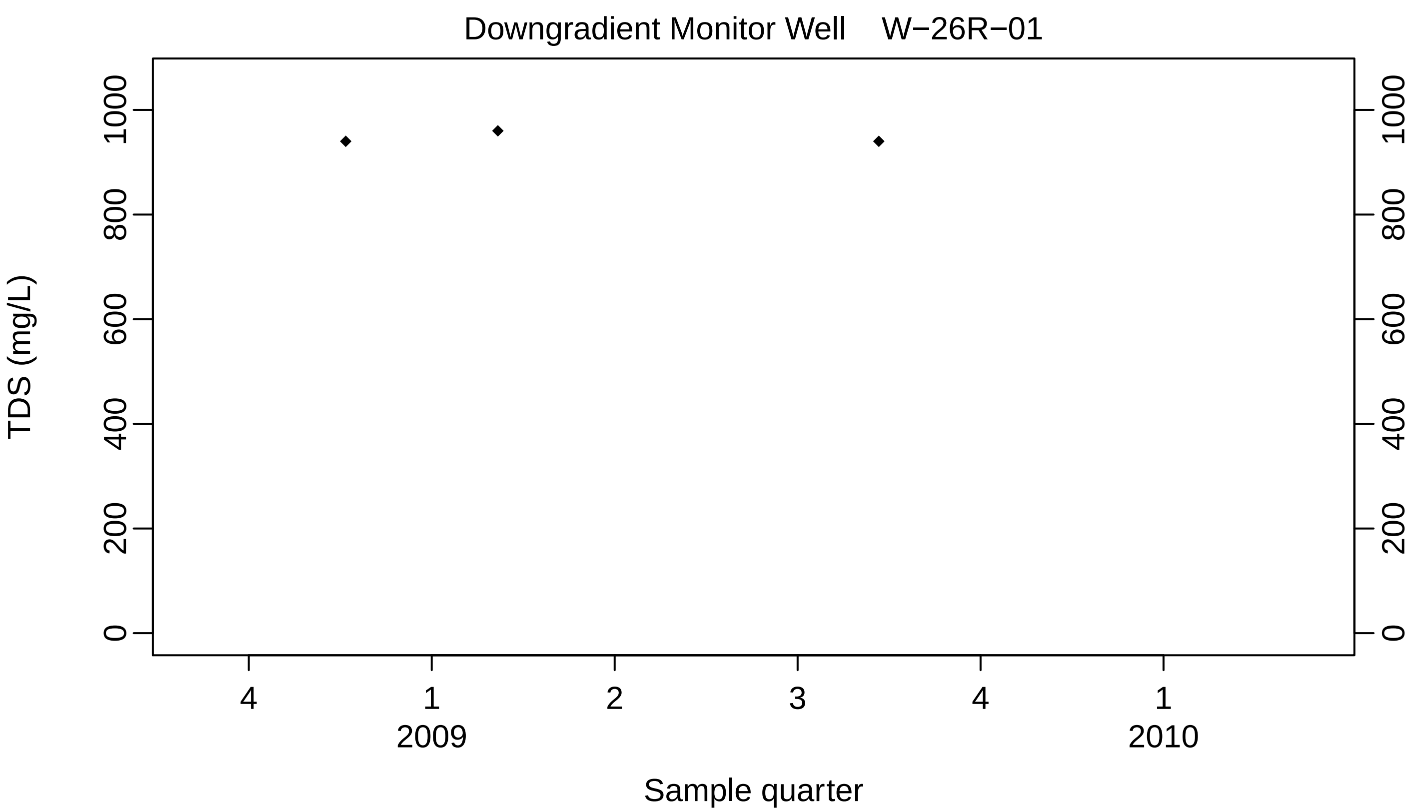
Sewage Ponds Ground Water
TDS (mg/L)



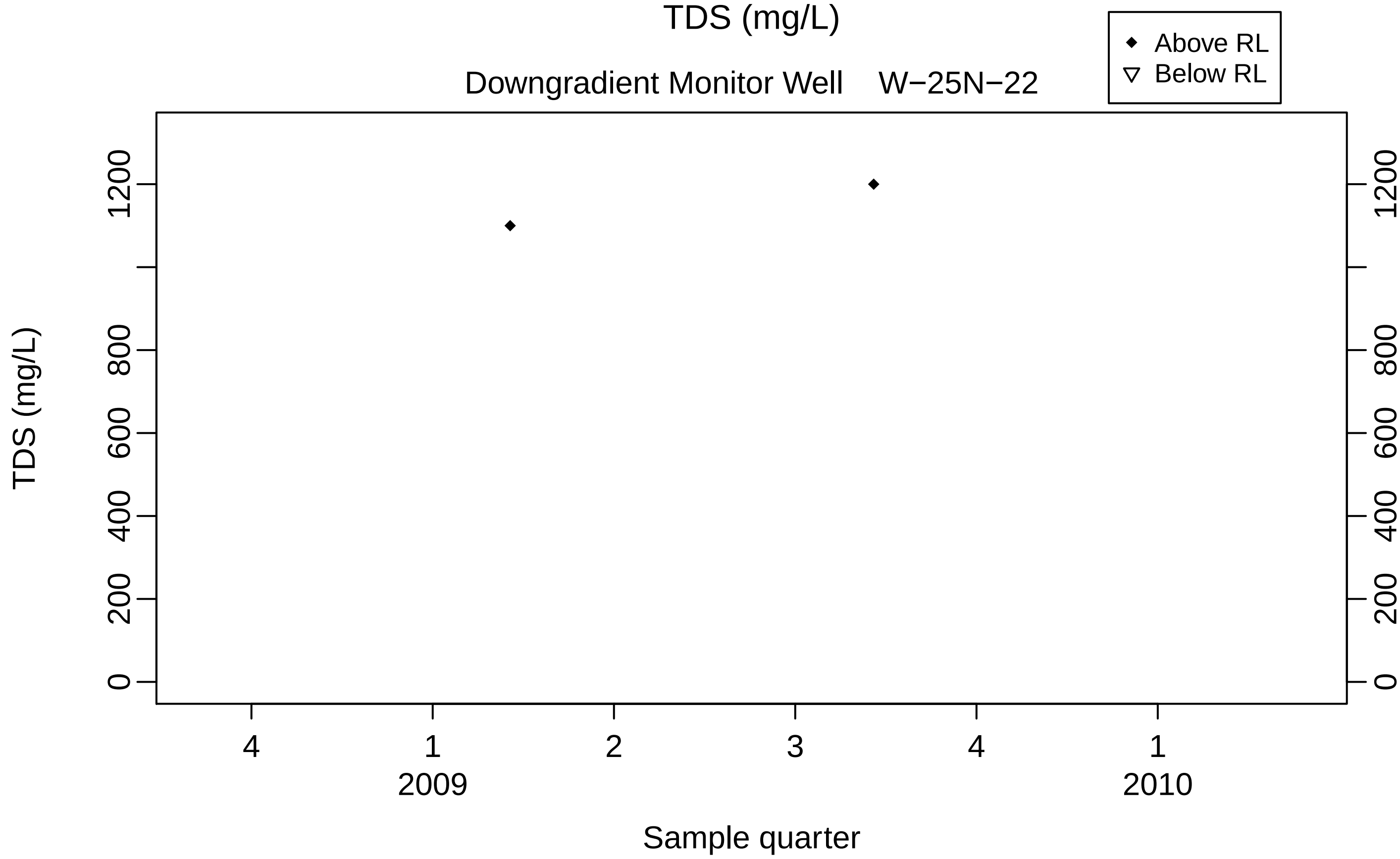


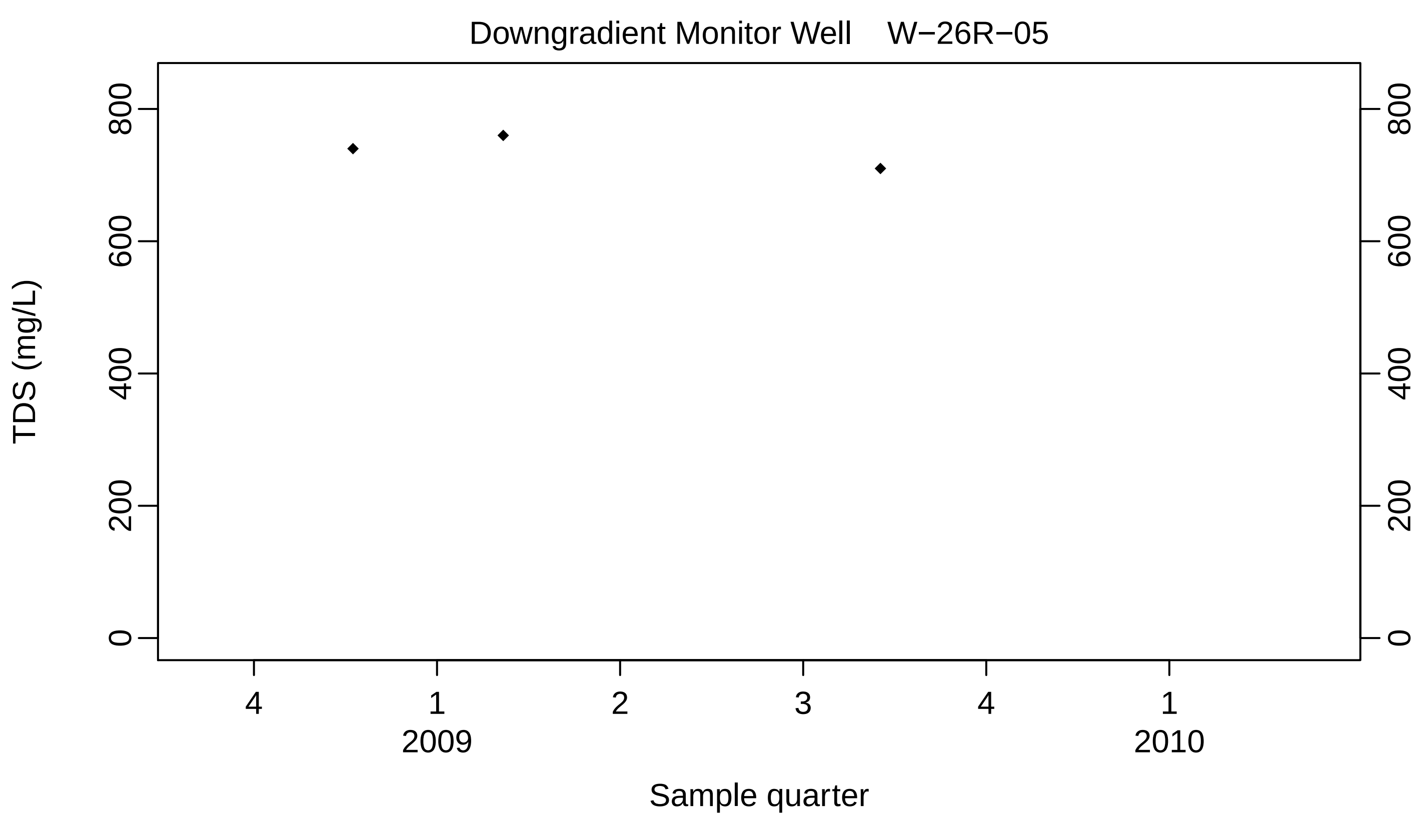
Sewage Ponds Ground Water
TDS (mg/L)



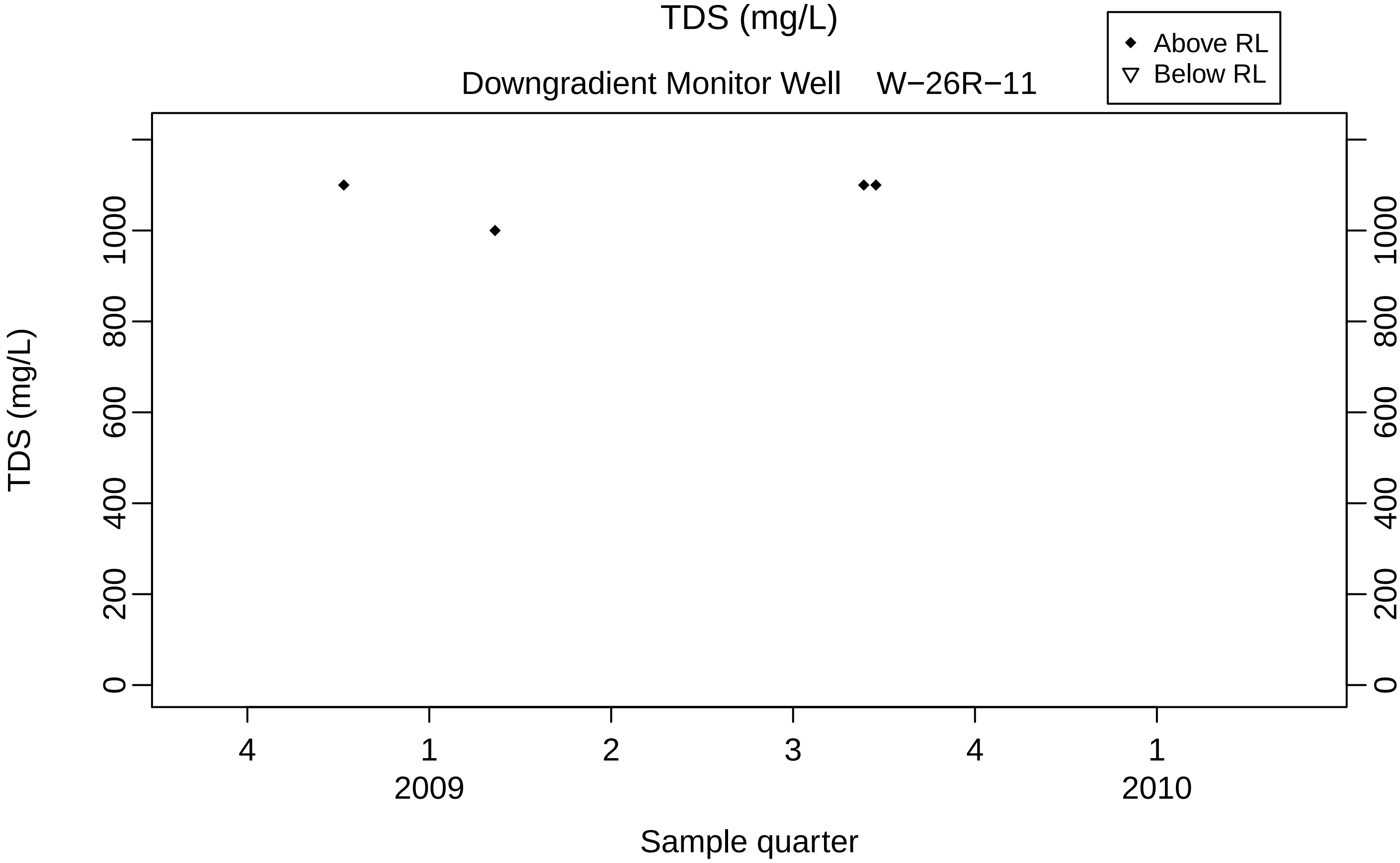


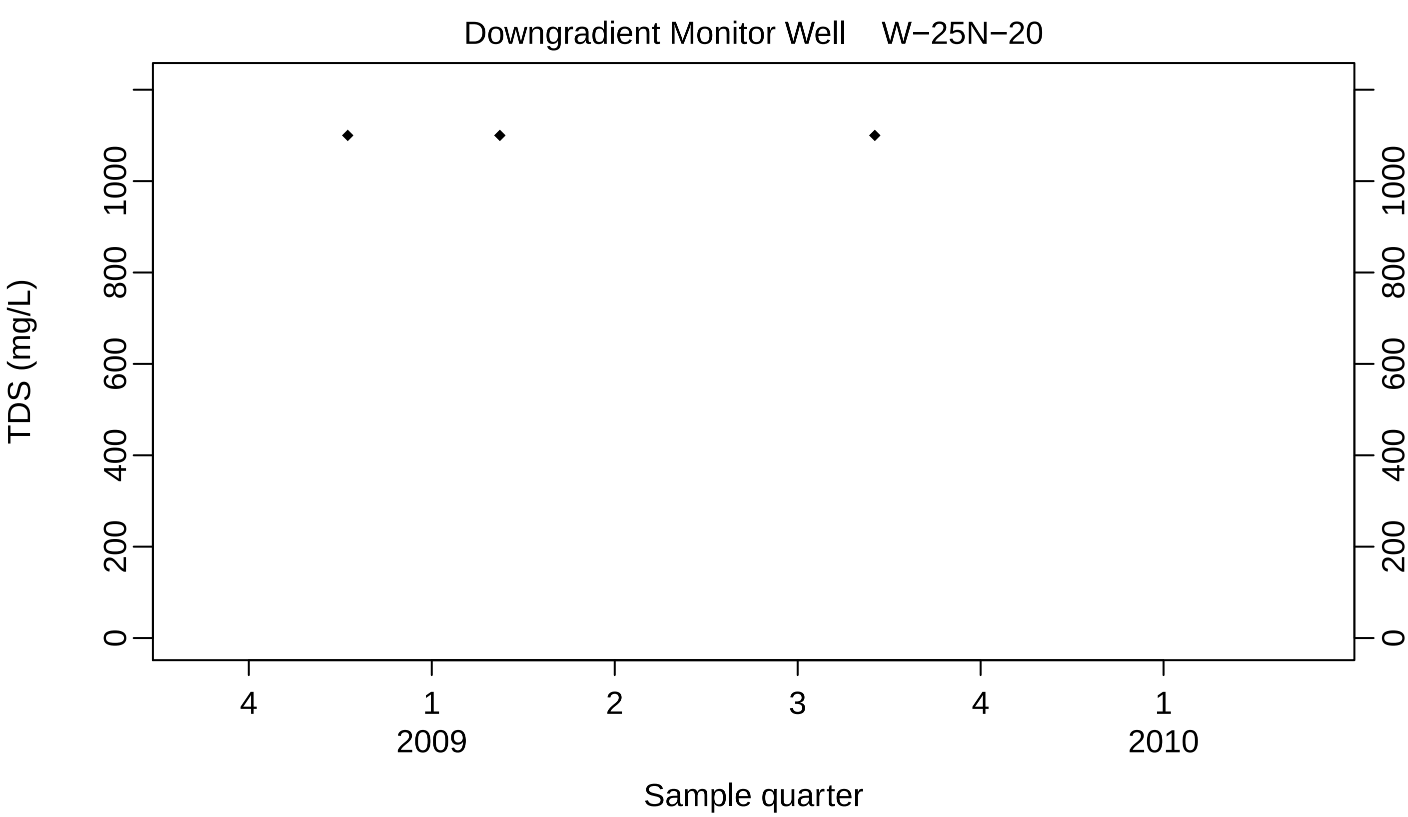
Sewage Ponds Ground Water
TDS (mg/L)

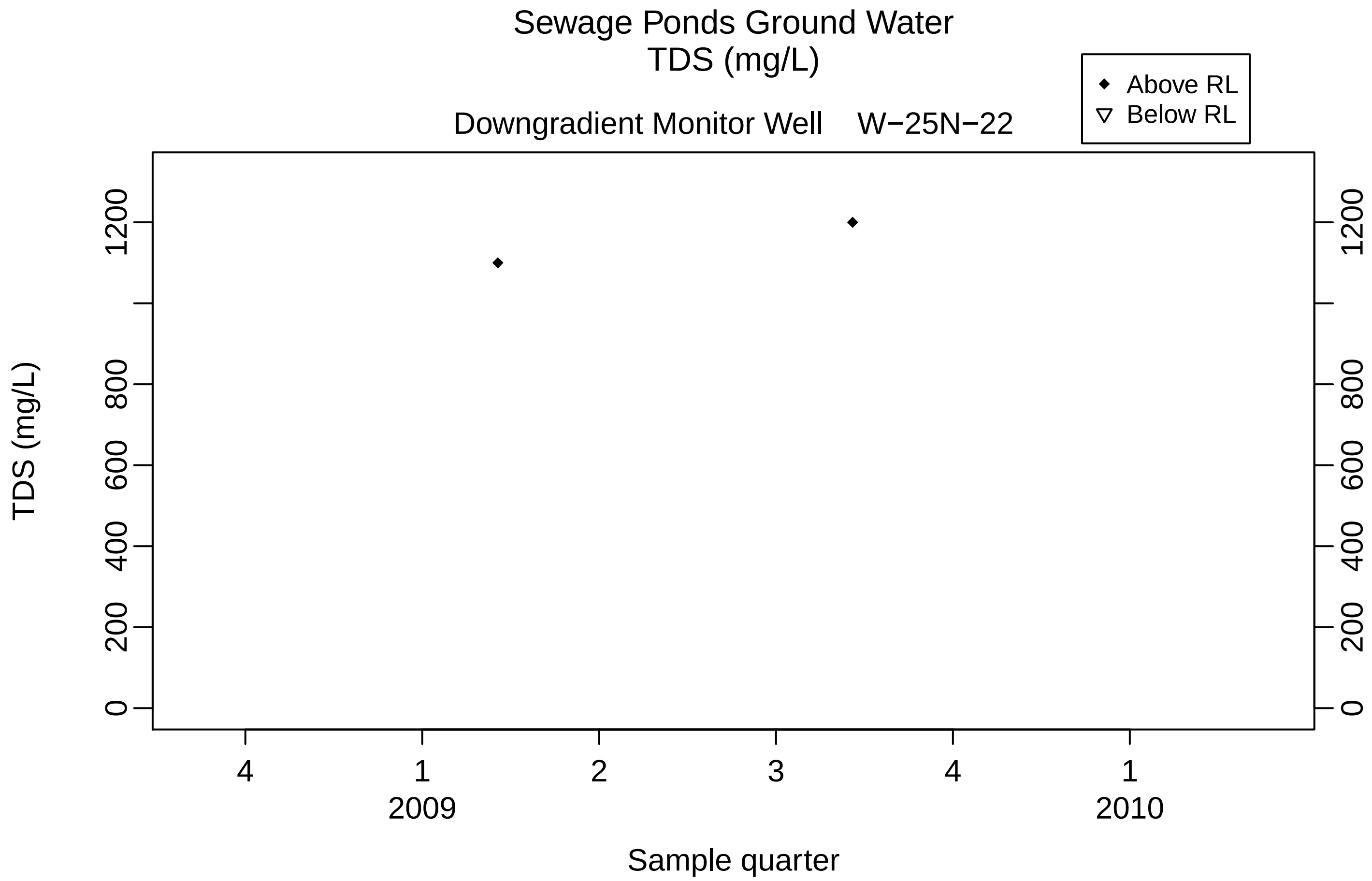


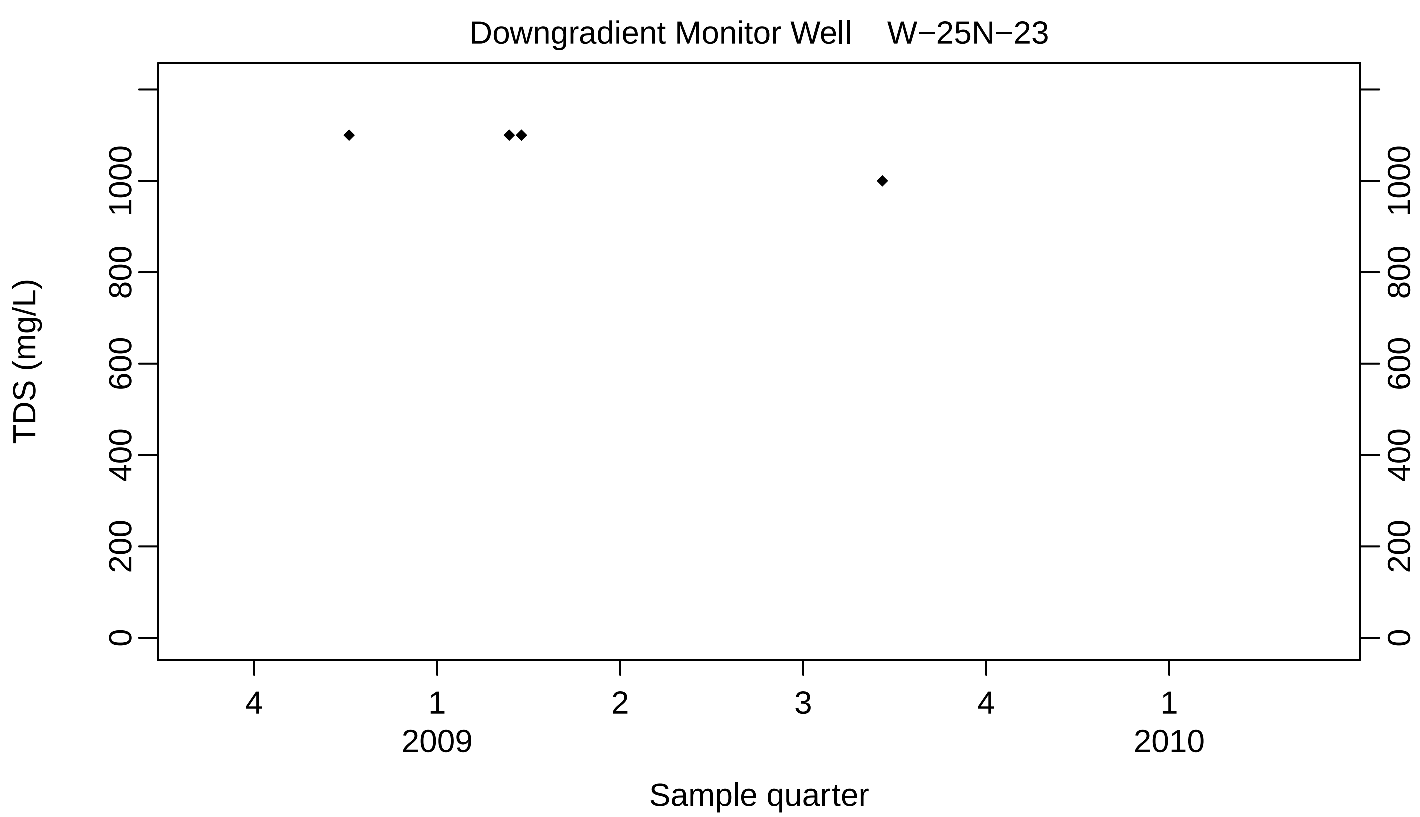


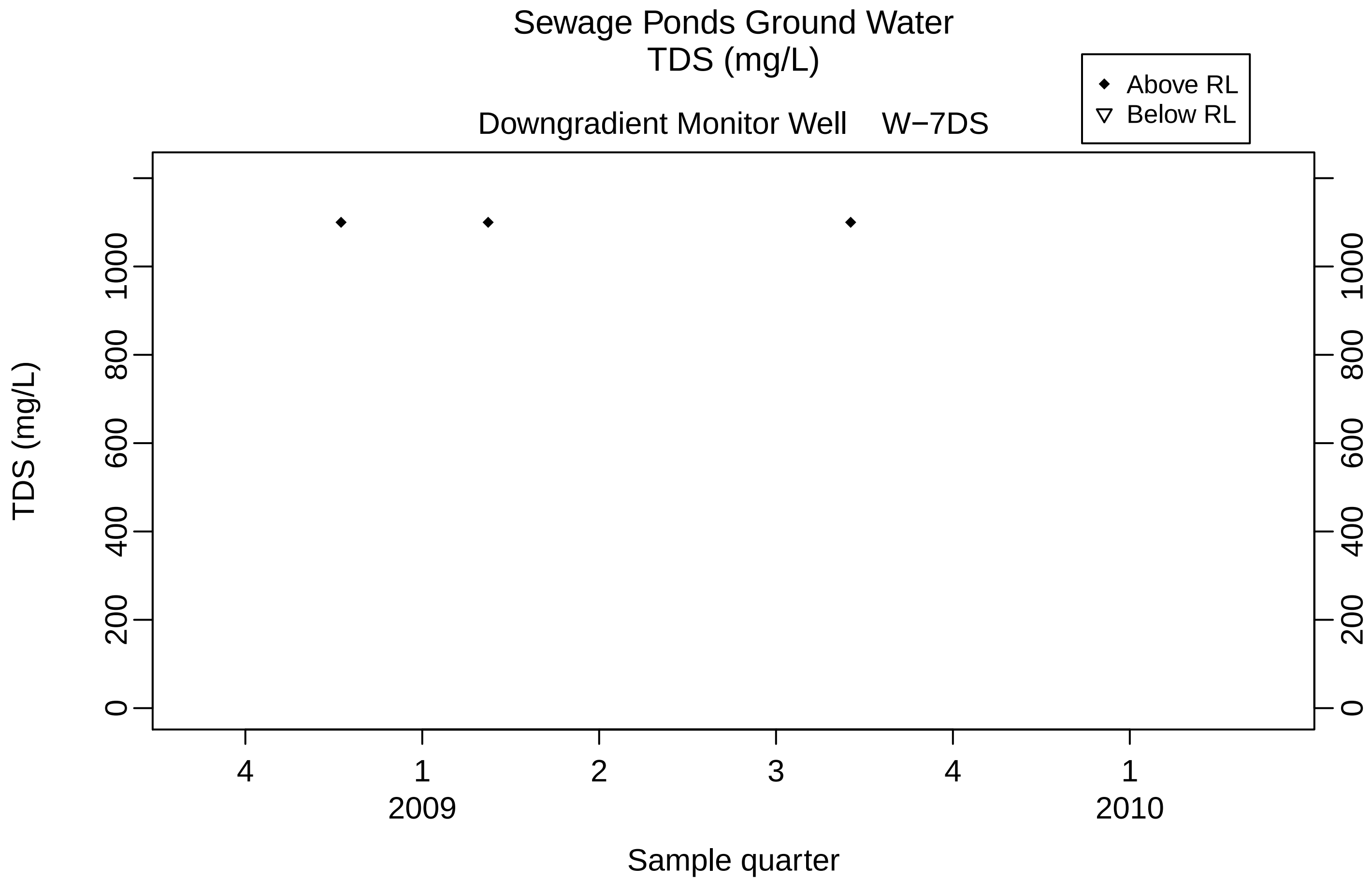
Sewage Ponds Ground Water
TDS (mg/L)

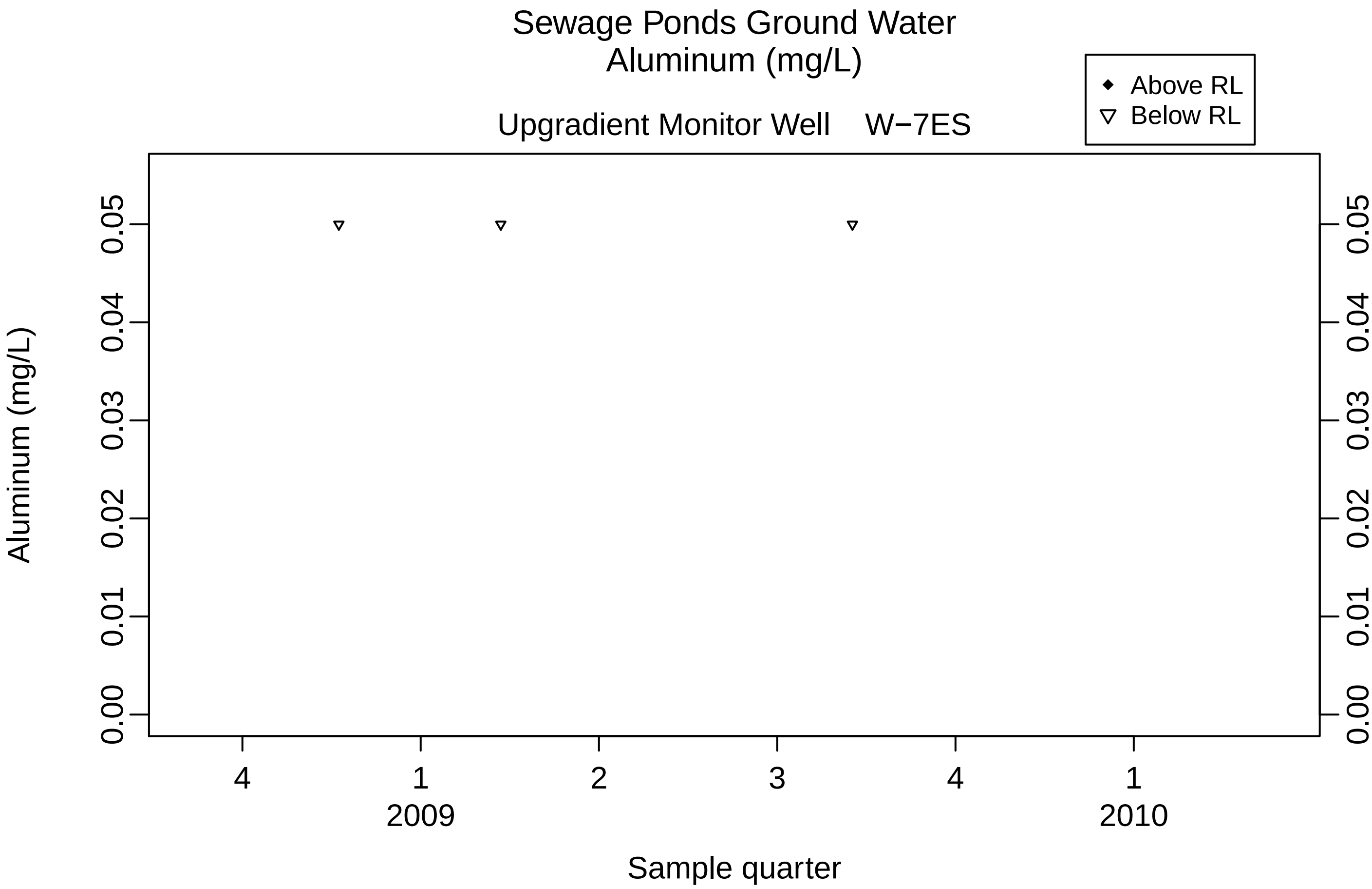


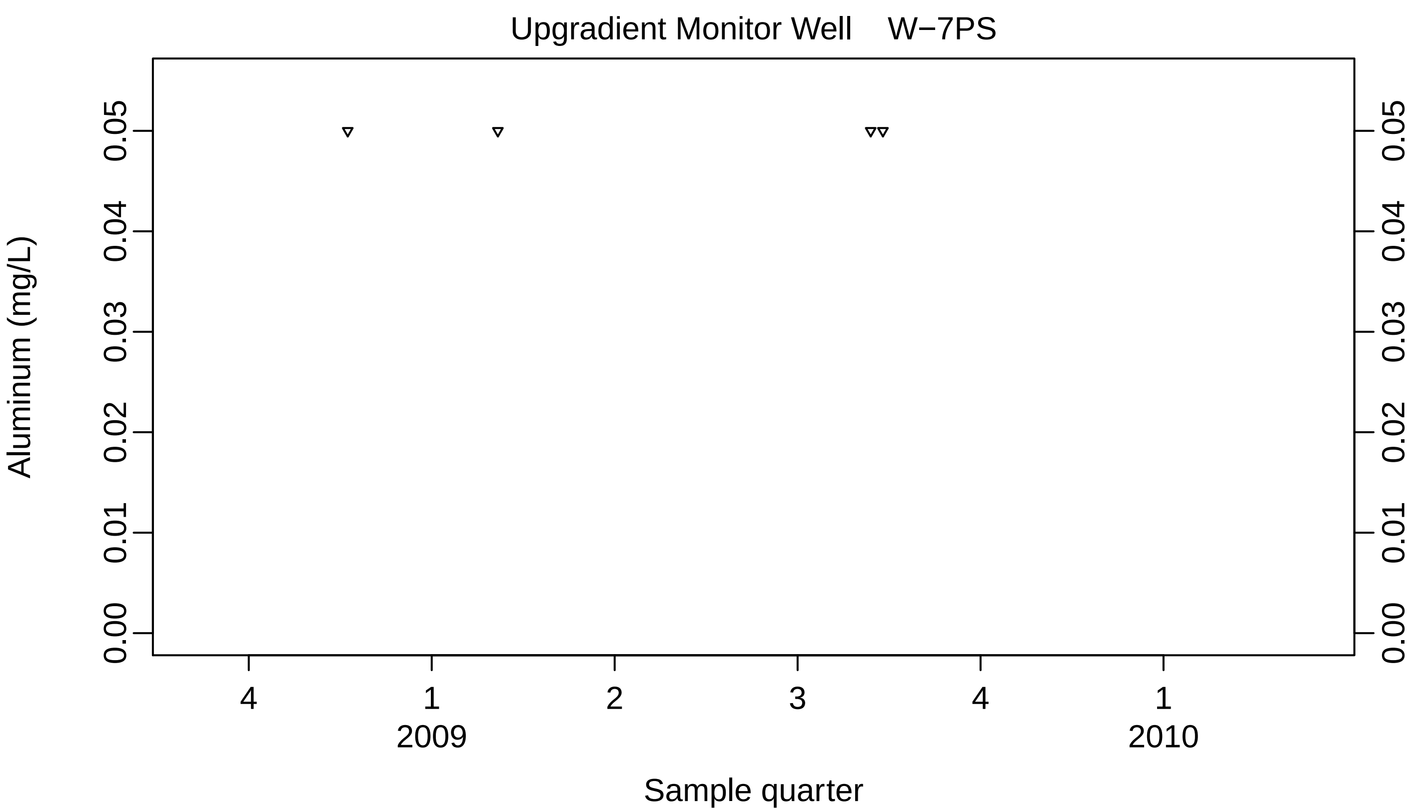



Sewage Ponds Ground Water
TDS (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−25N−22
TDS (mg/L)
0
200
400
600
800
1200
4
1
2
3
4
1
2009
2010
Sample quarter


Downgradient Monitor Well W−25N−23
TDS (mg/L)
0
200
400
600
800
1000
4
1
2
3
4
1
2009
2010
Sample quarter

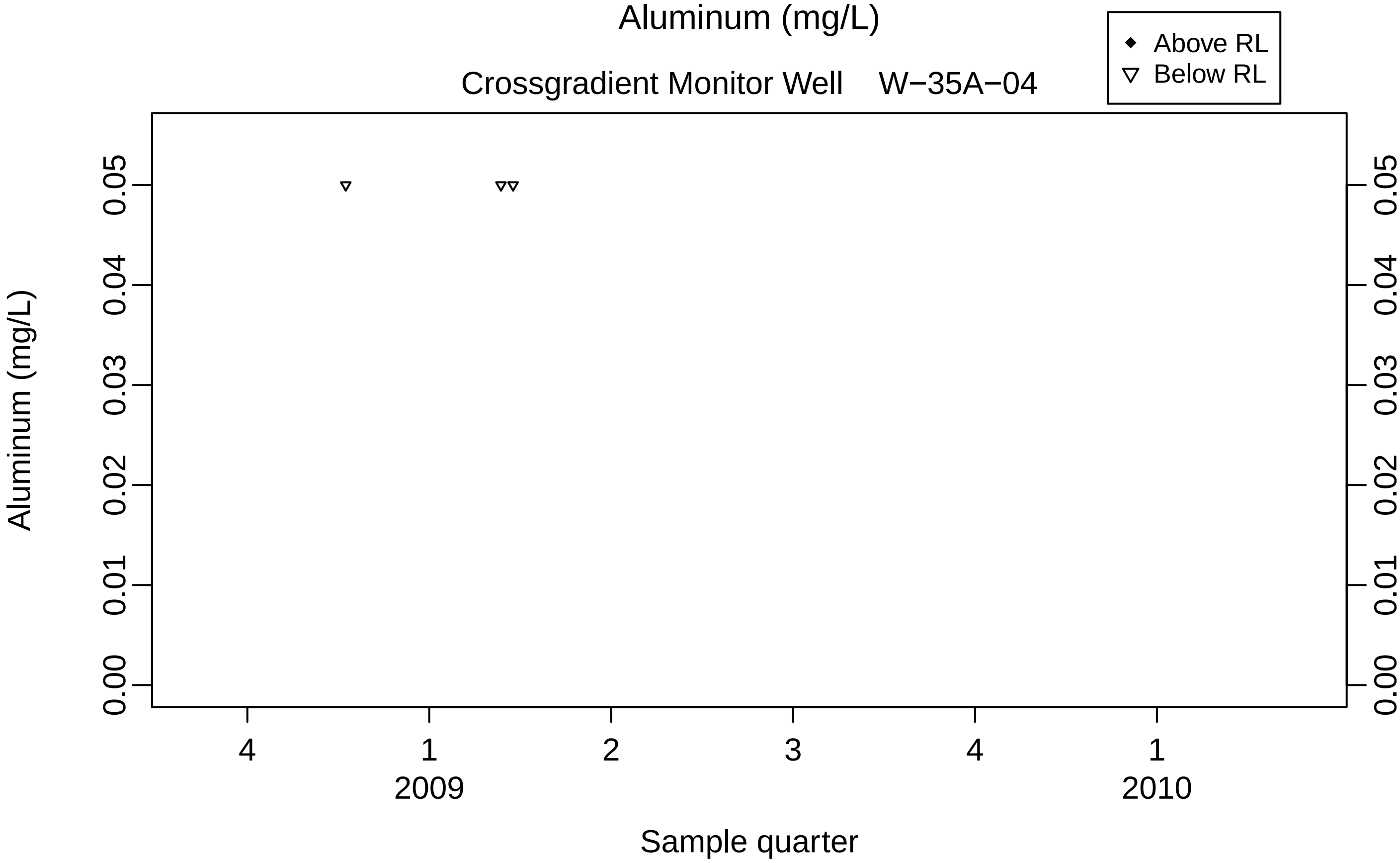

Sewage Ponds Ground Water
TDS (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−7DS
TDS (mg/L)
0
200
400
600
800
1000
4
1
2
3
4
1
2009
2010
Sample quarter


Sewage Ponds Ground Water
Aluminum (mg/L)
Above RL
Below RL
Upgradient Monitor Well W−7ES
Aluminum (mg/L)
0.00
0.01
0.02
0.03
0.04
0.05
4
1
2
3
4
1
2009
2010
Sample quarter

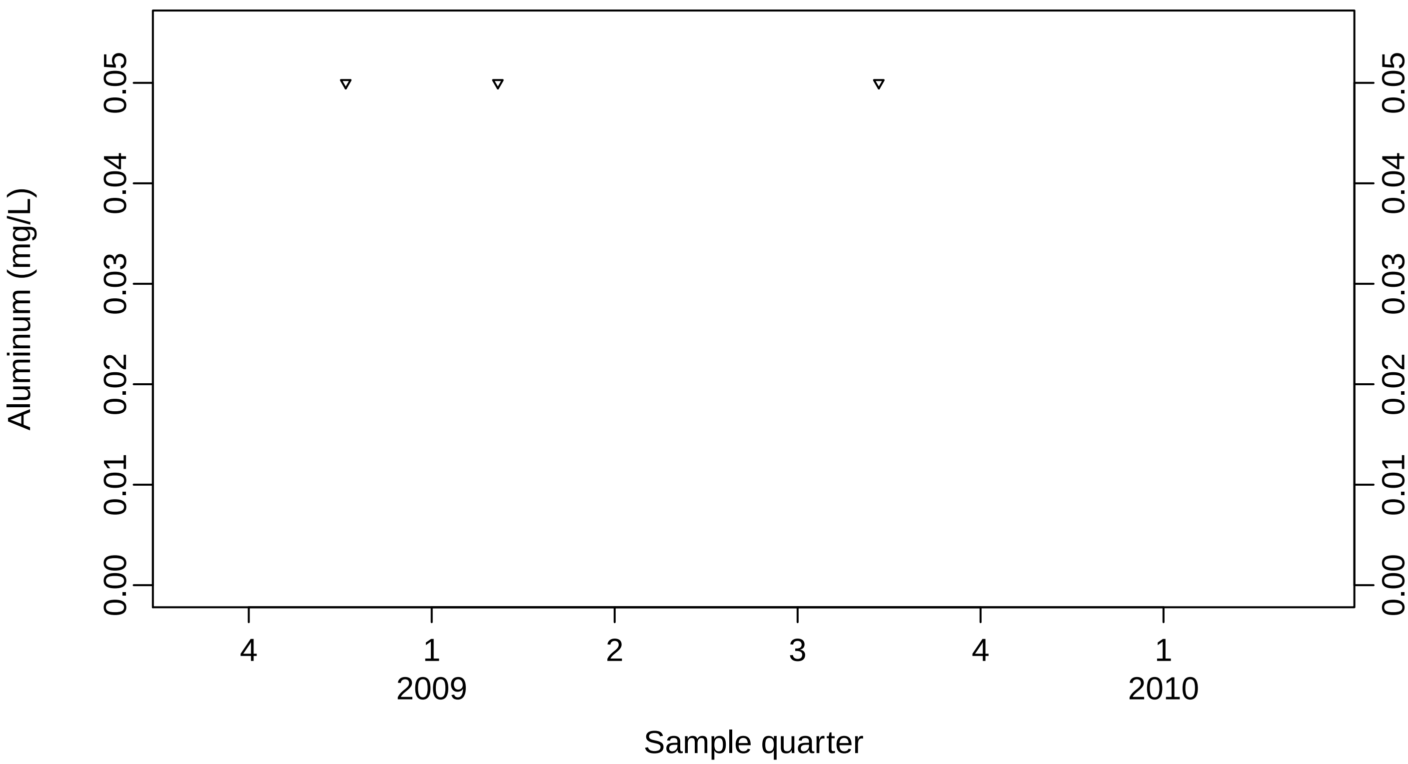

Upgradient Monitor Well W−7PS
Aluminum (mg/L)
0.00
0.01
0.02
0.03
0.04
0.05
4
1
2
3
4
1
2009
2010
Sample quarter

Sewage Ponds Ground Water
Aluminum (mg/L)

Crossgradient Monitor Well W−35A−04

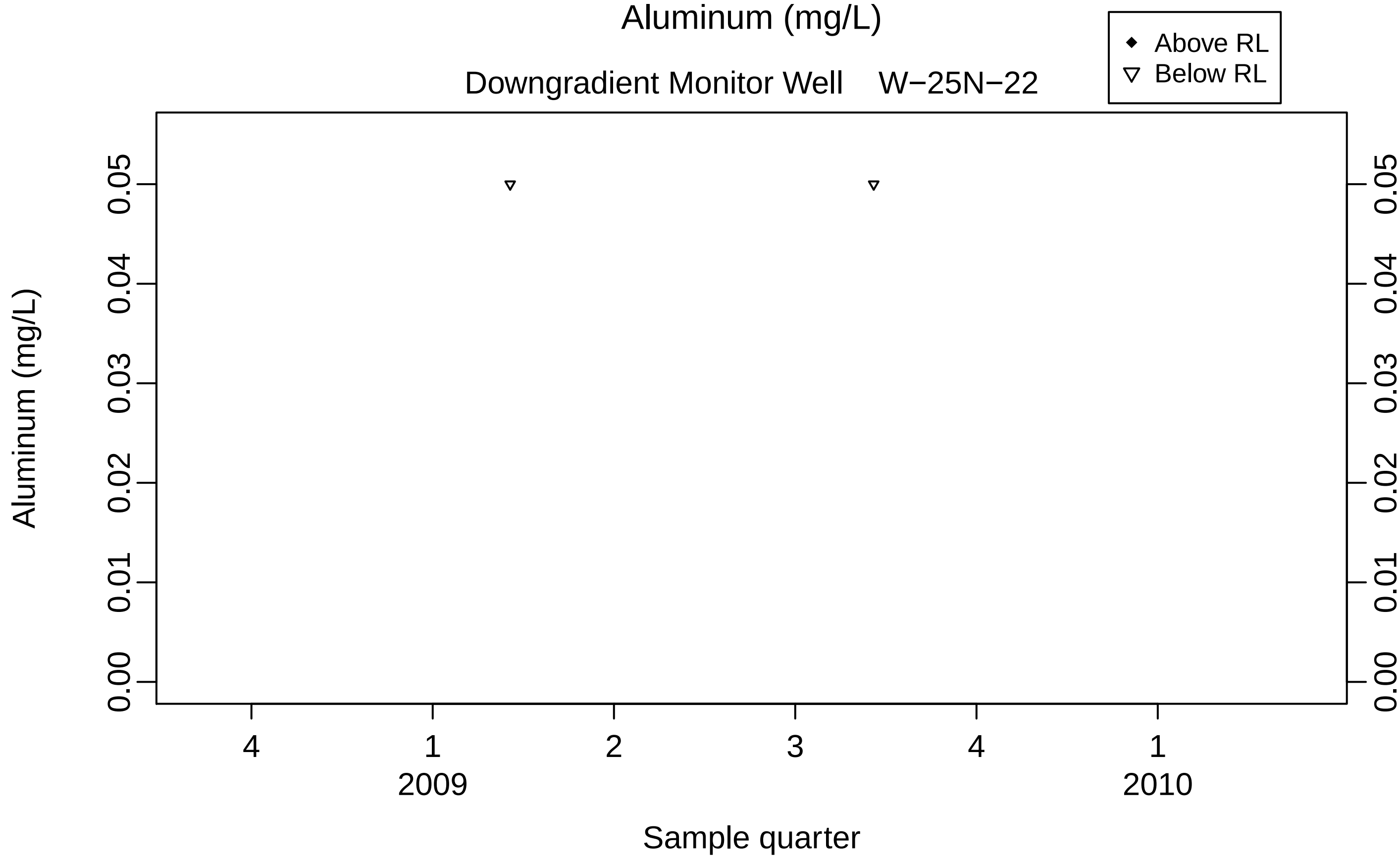


Downgradient Monitor Well W−26R−01

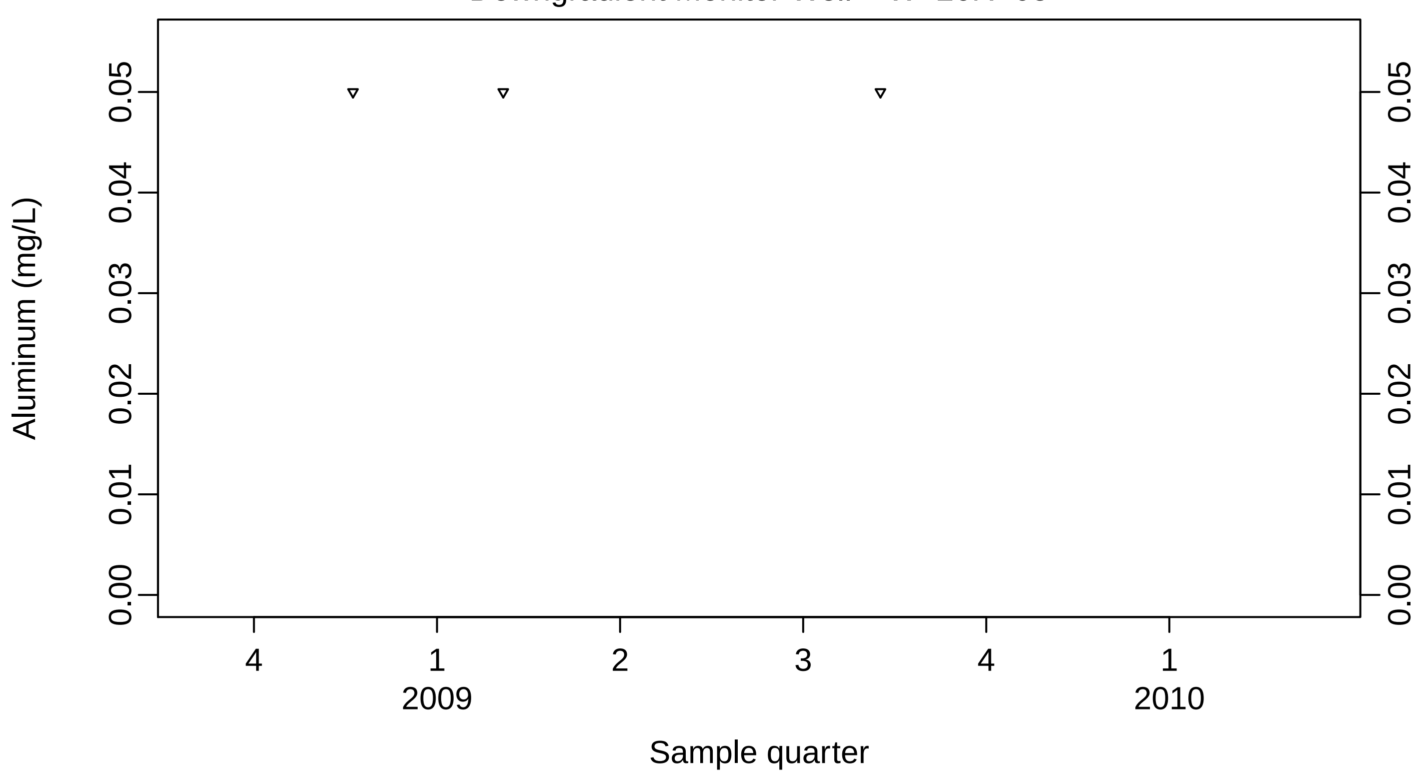


Sewage Ponds Ground Water
Aluminum (mg/L)

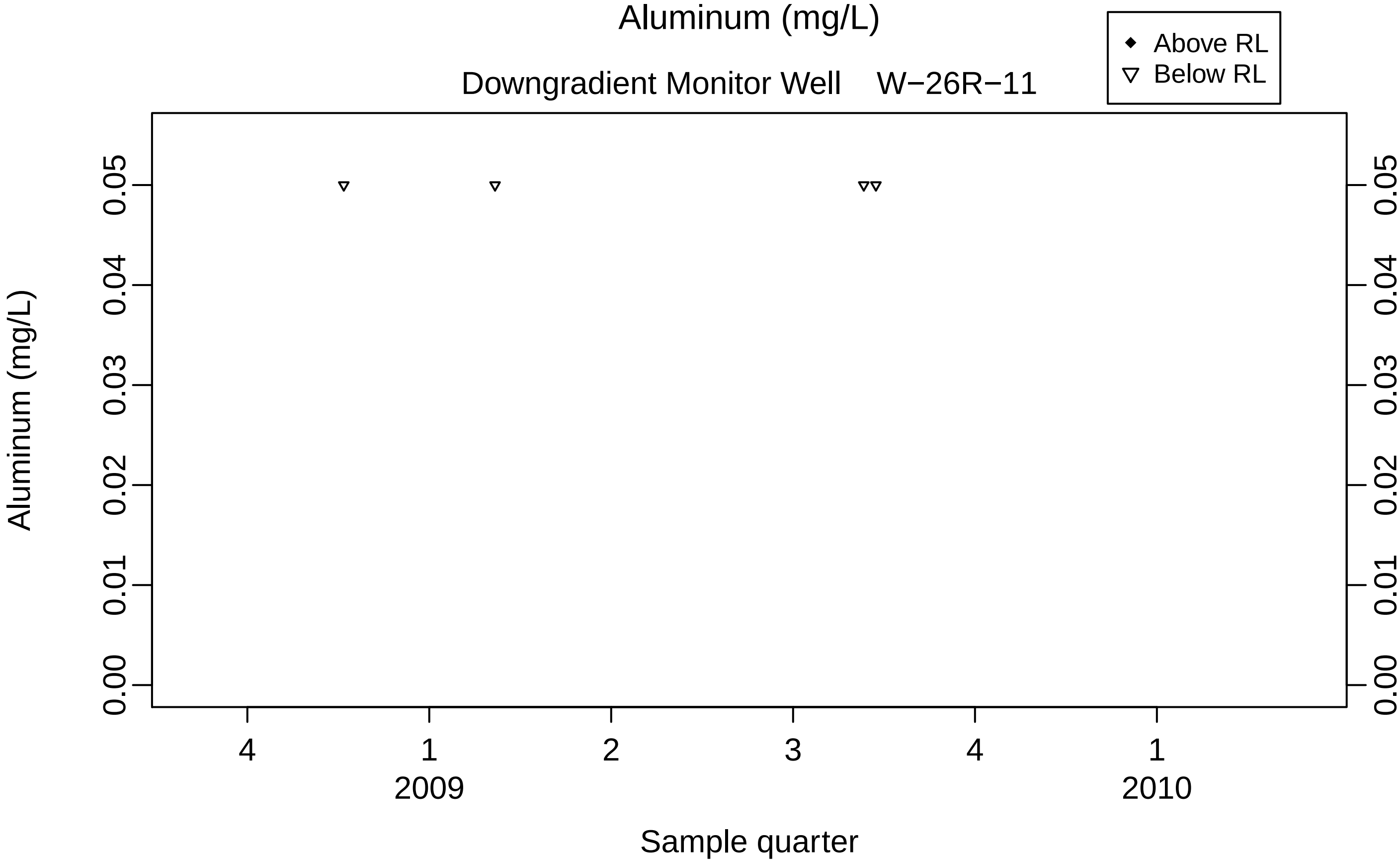
Downgradient Monitor Well W−25N−22

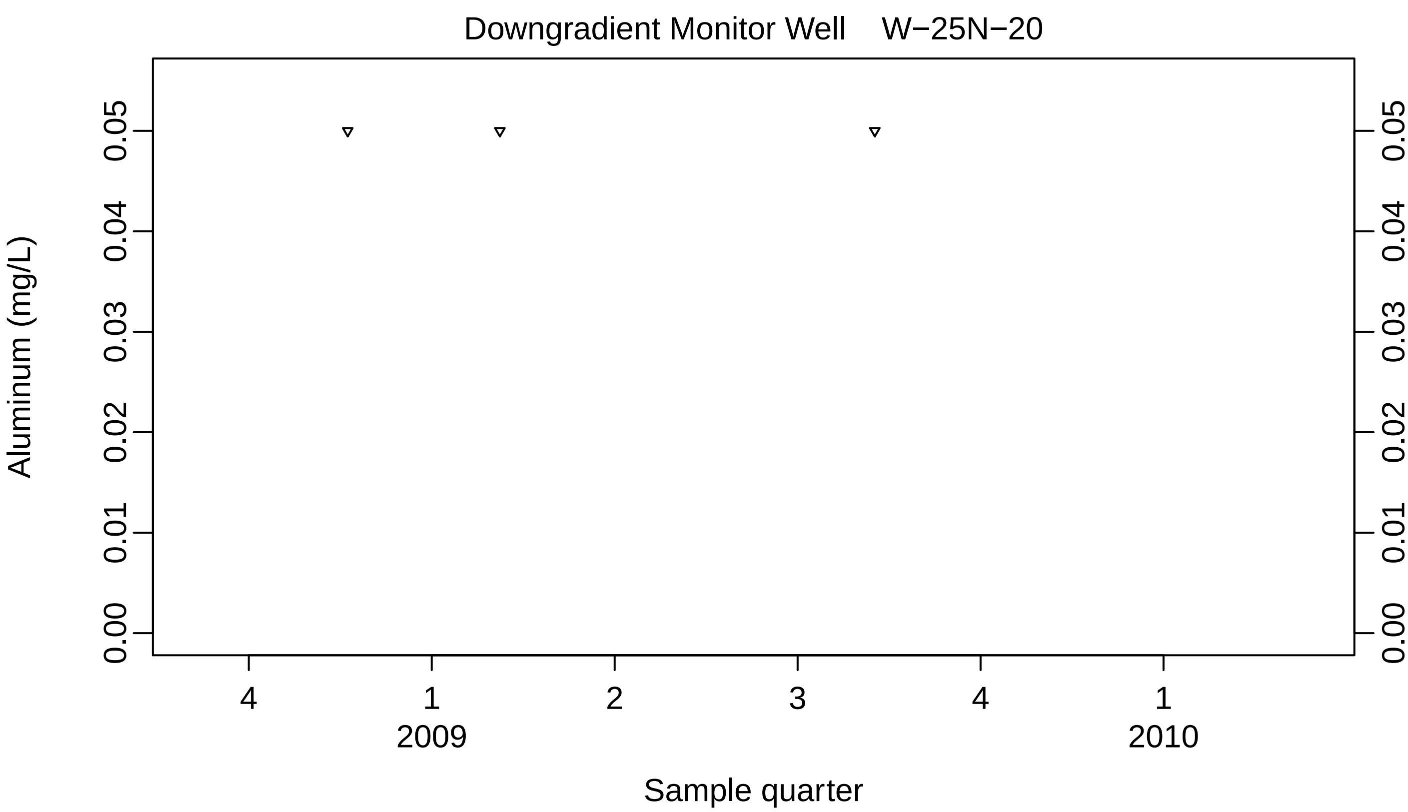


Downgradient Monitor Well W−26R−05



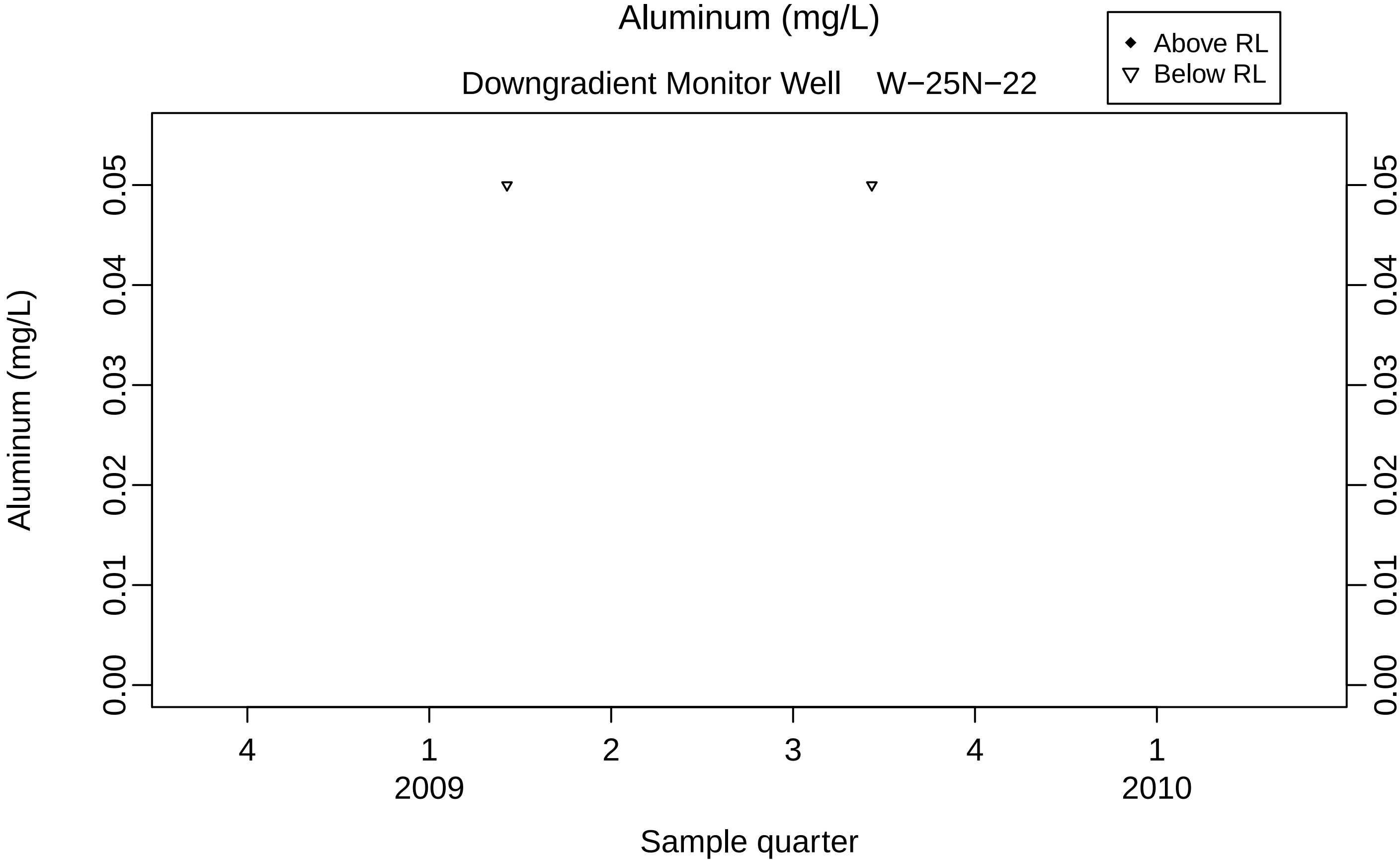
Sewage Ponds Ground Water
Aluminum (mg/L)



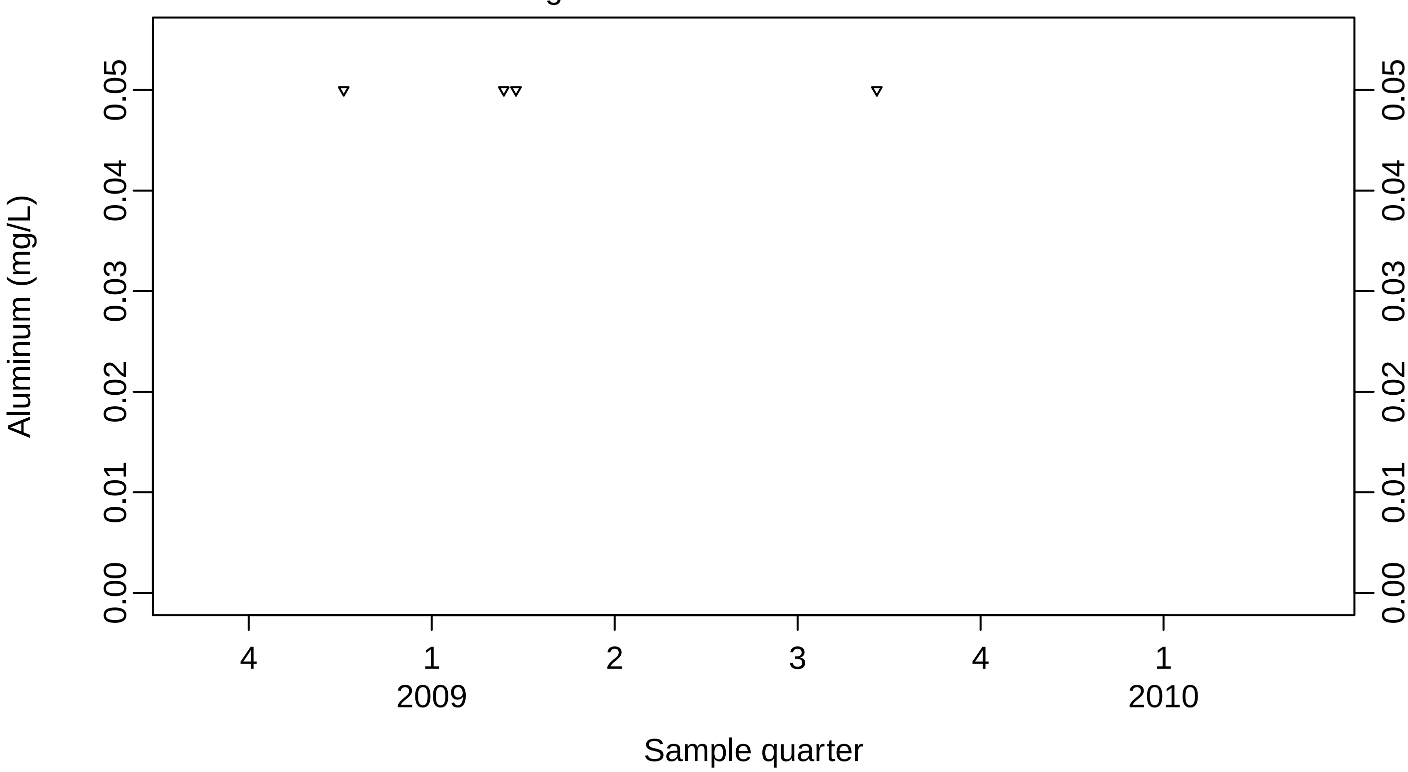


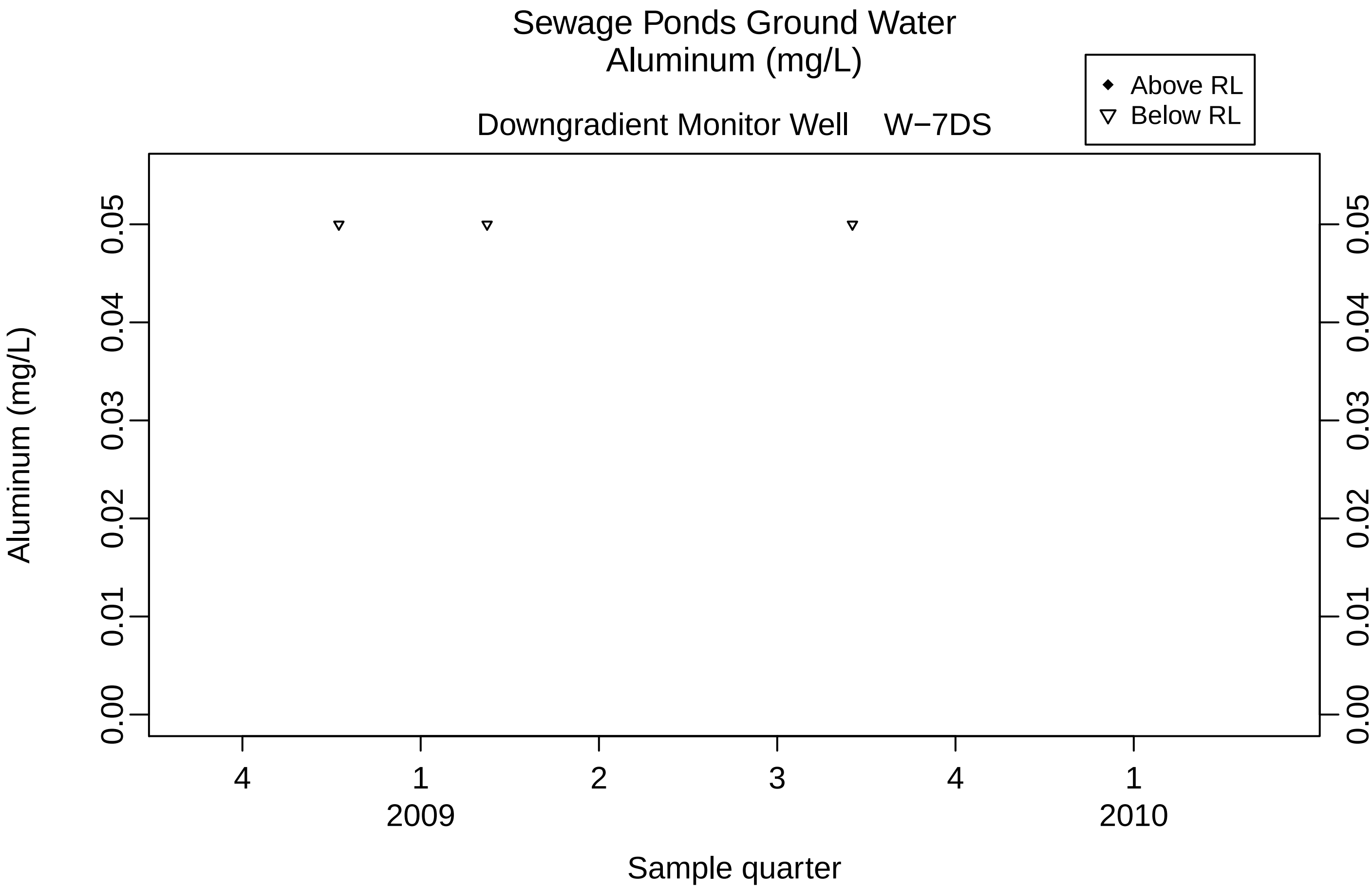
Sewage Ponds Ground Water
Aluminum (mg/L)

Downgradient Monitor Well W−25N−22

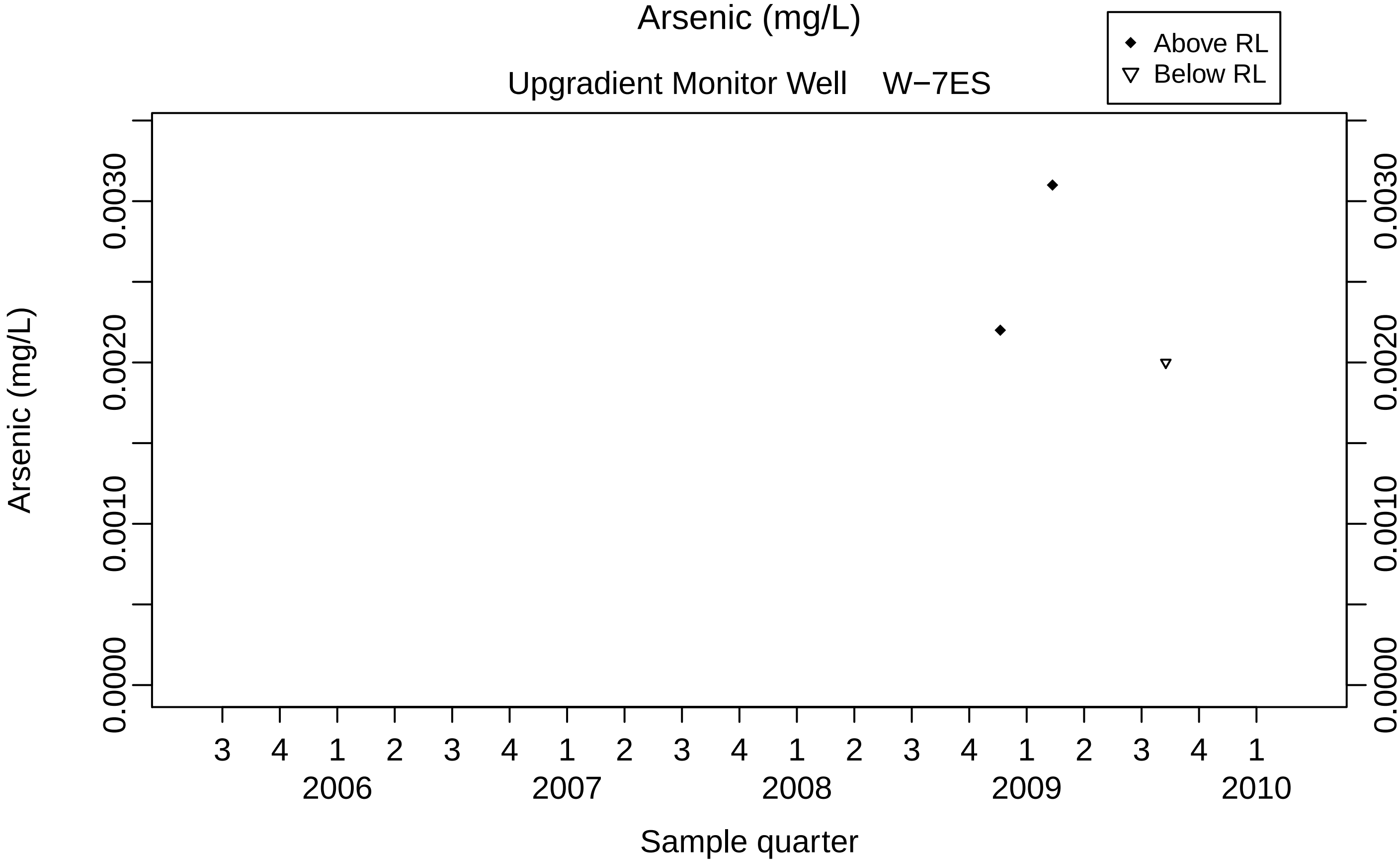


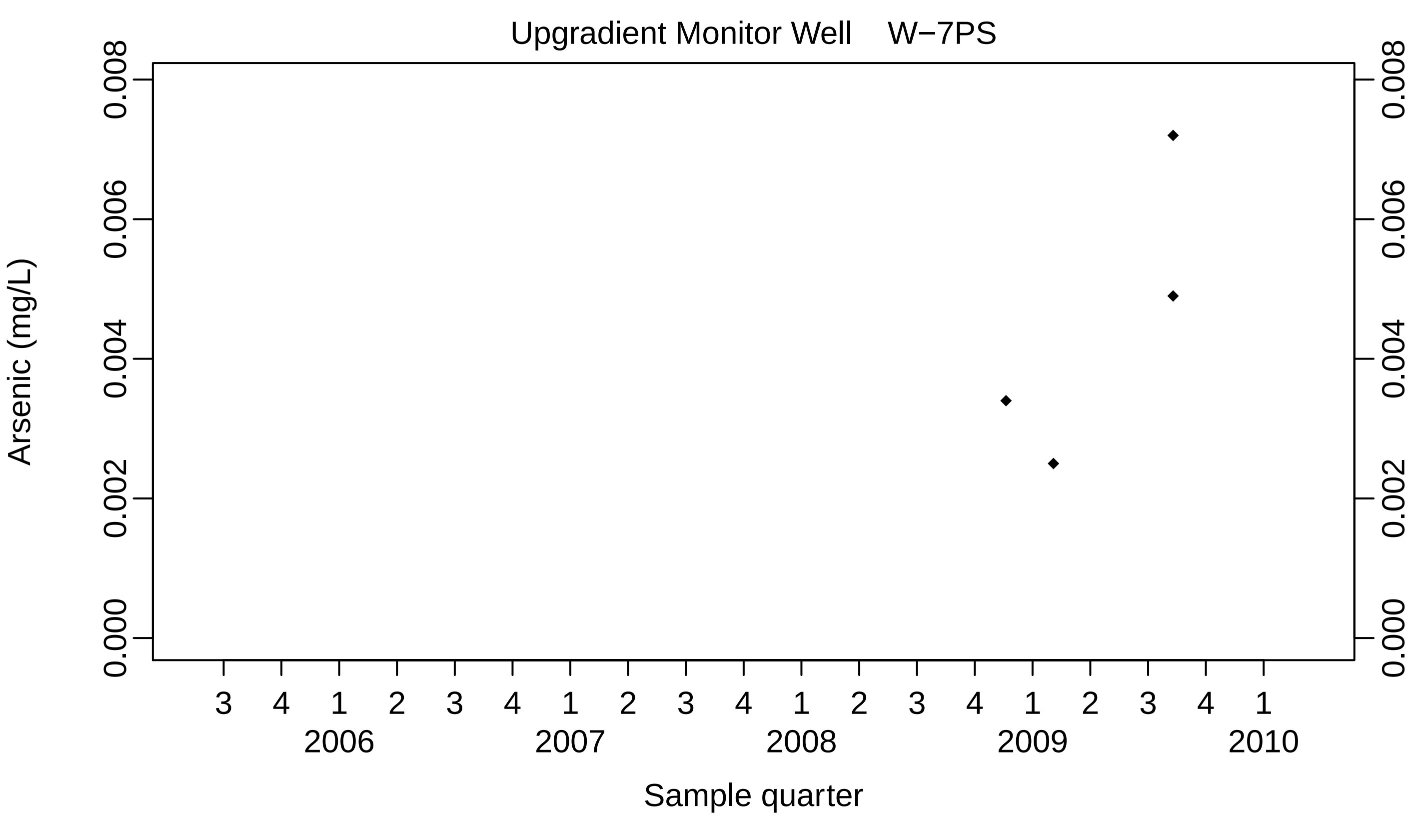
Downgradient Monitor Well W−25N−23




Sewage Ponds Ground Water
Aluminum (mg/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Aluminum (mg/L)
0.00
0.01
0.02
0.03
0.04
0.05
4
1
2
3
4
1
2009
2010
Sample quarter

Sewage Ponds Ground Water
Arsenic (mg/L)

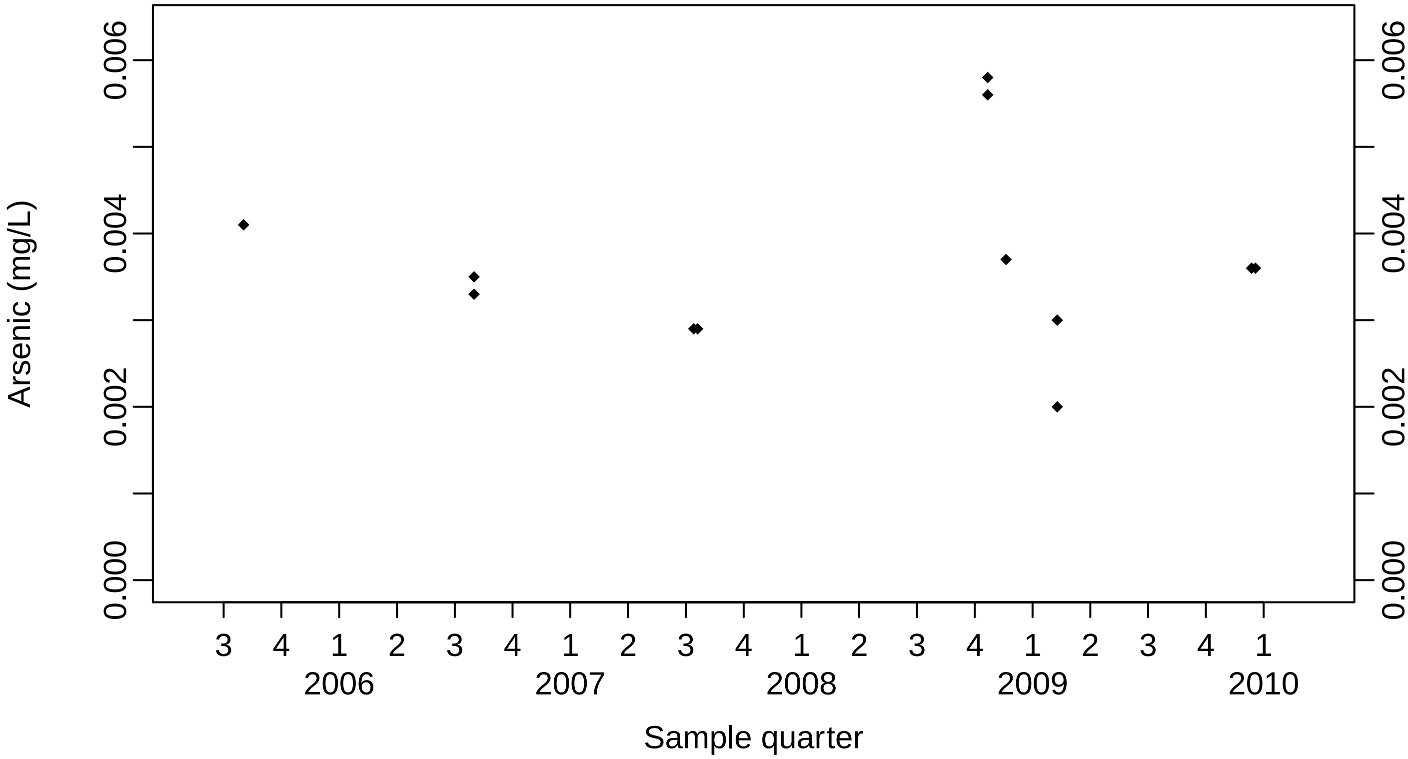




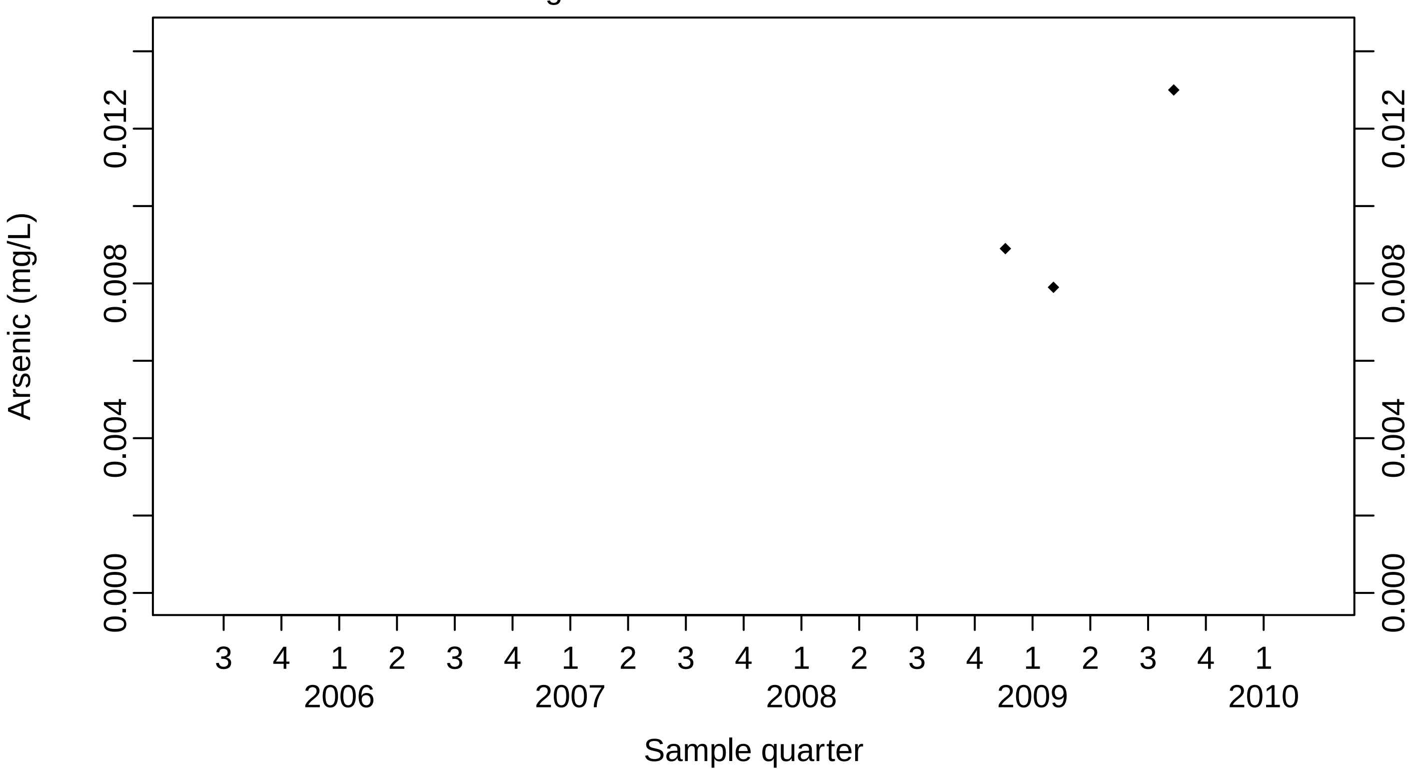
Sewage Ponds Ground Water
Arsenic (mg/L)

◆ Above RL
▽ Below RL

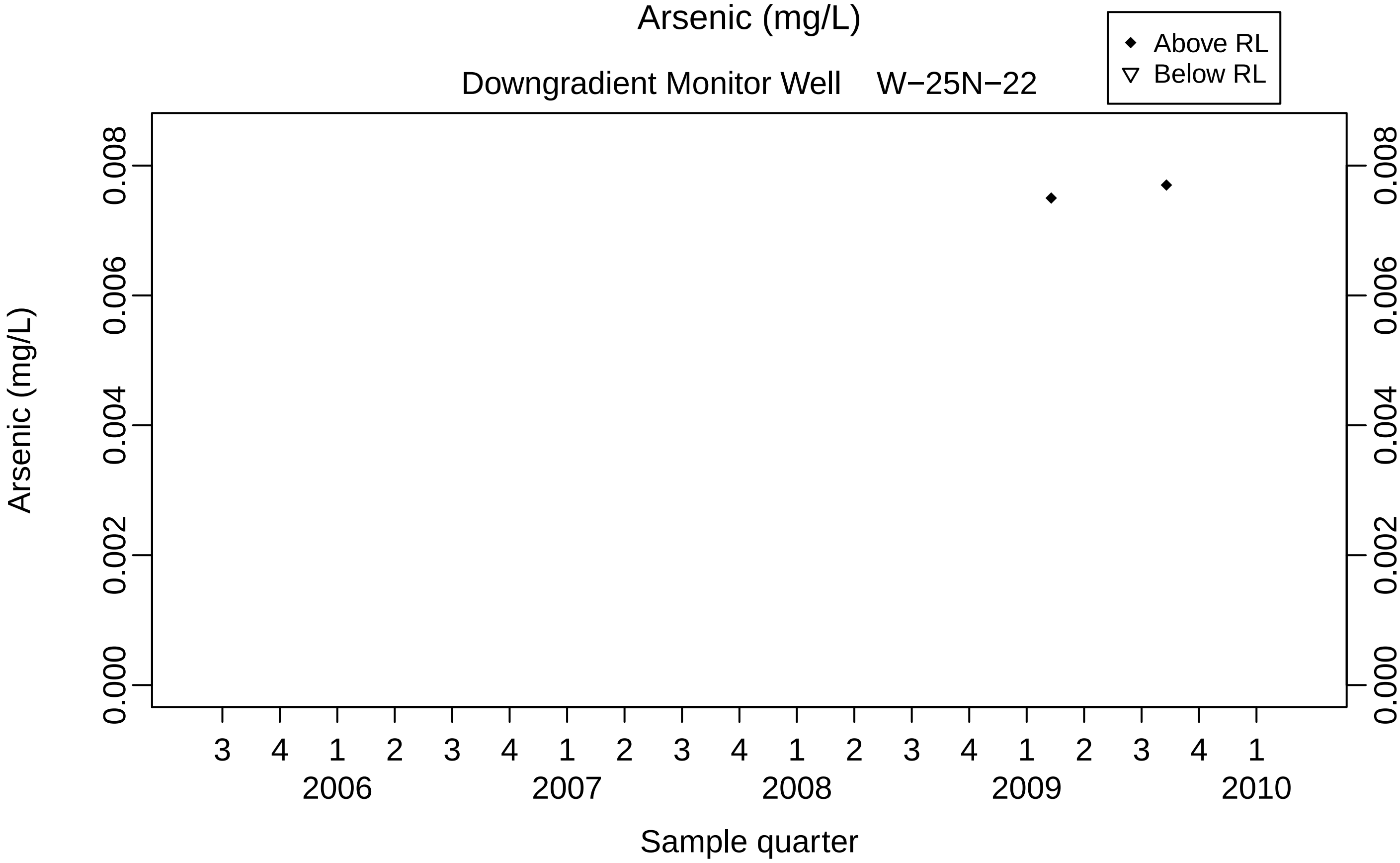
Crossgradient Monitor Well W−35A−04

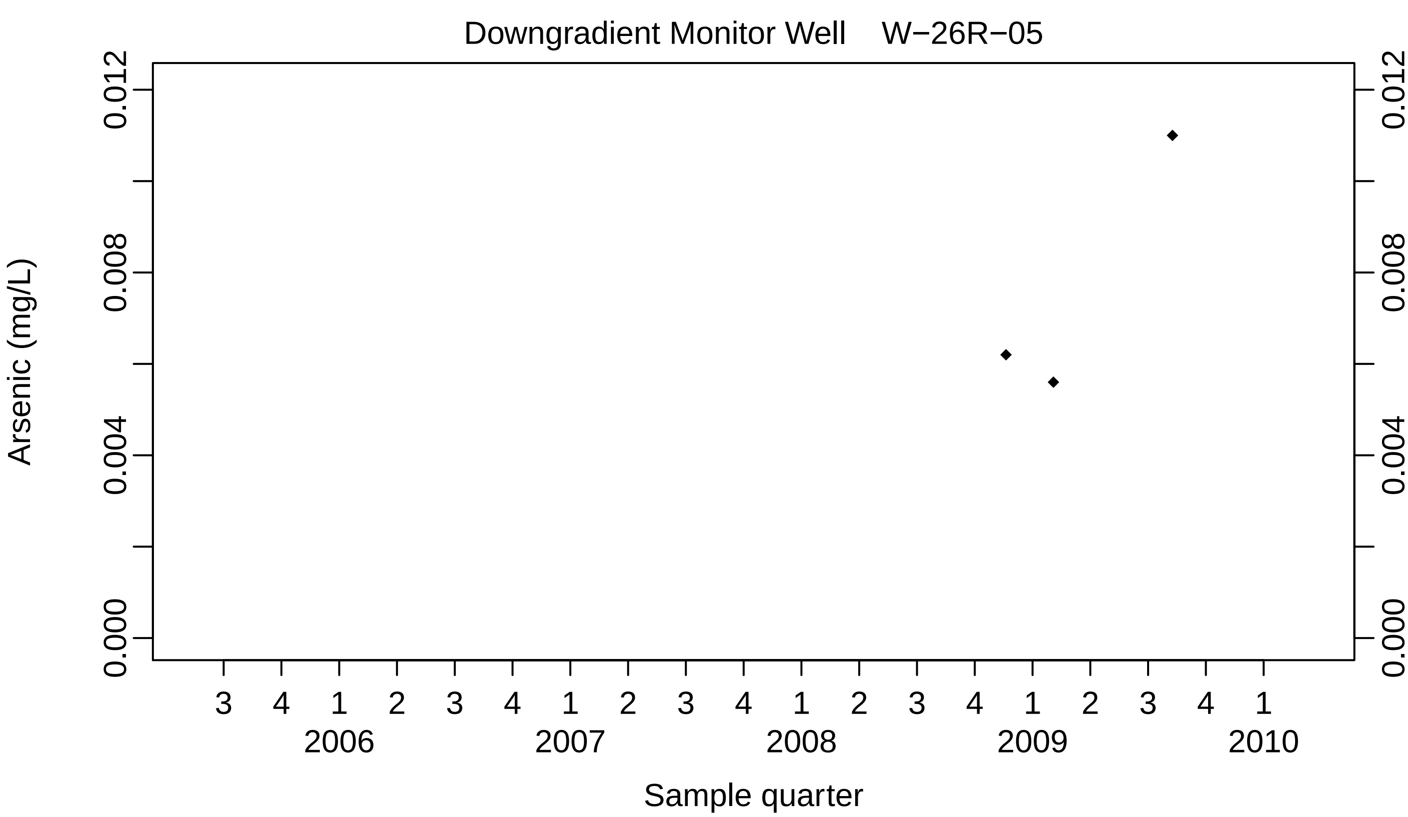


Downgradient Monitor Well W−26R−01

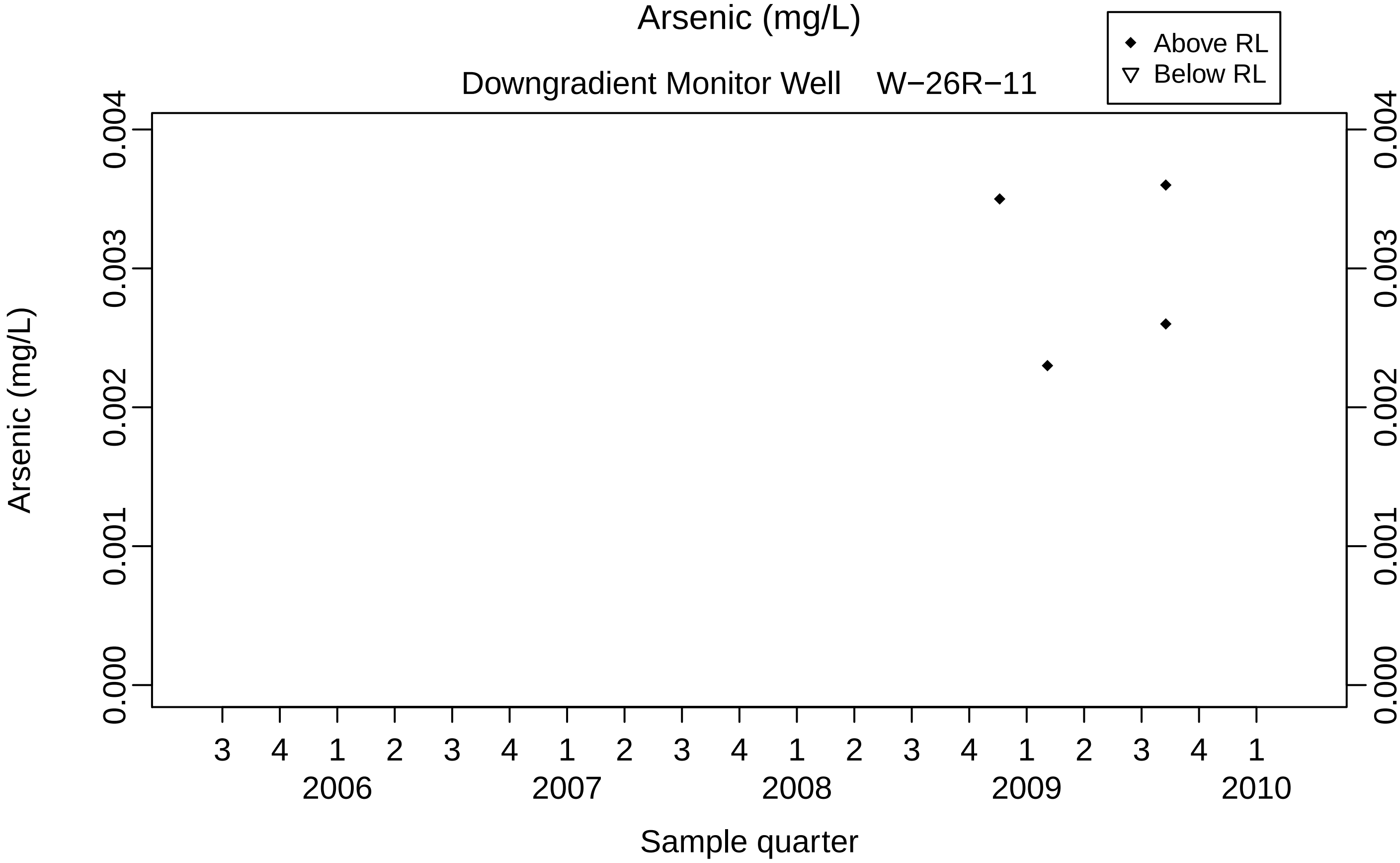


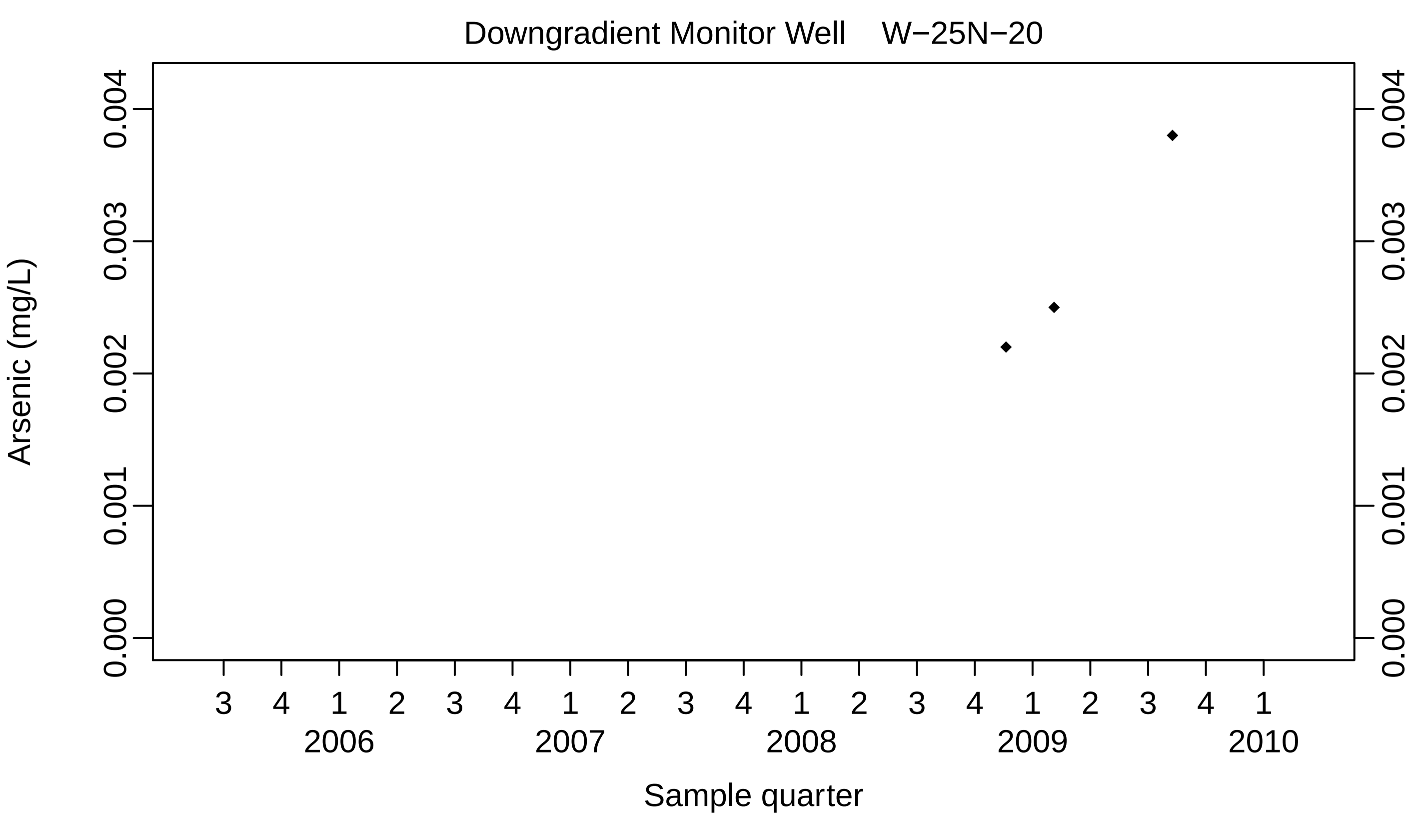
Sewage Ponds Ground Water
Arsenic (mg/L)

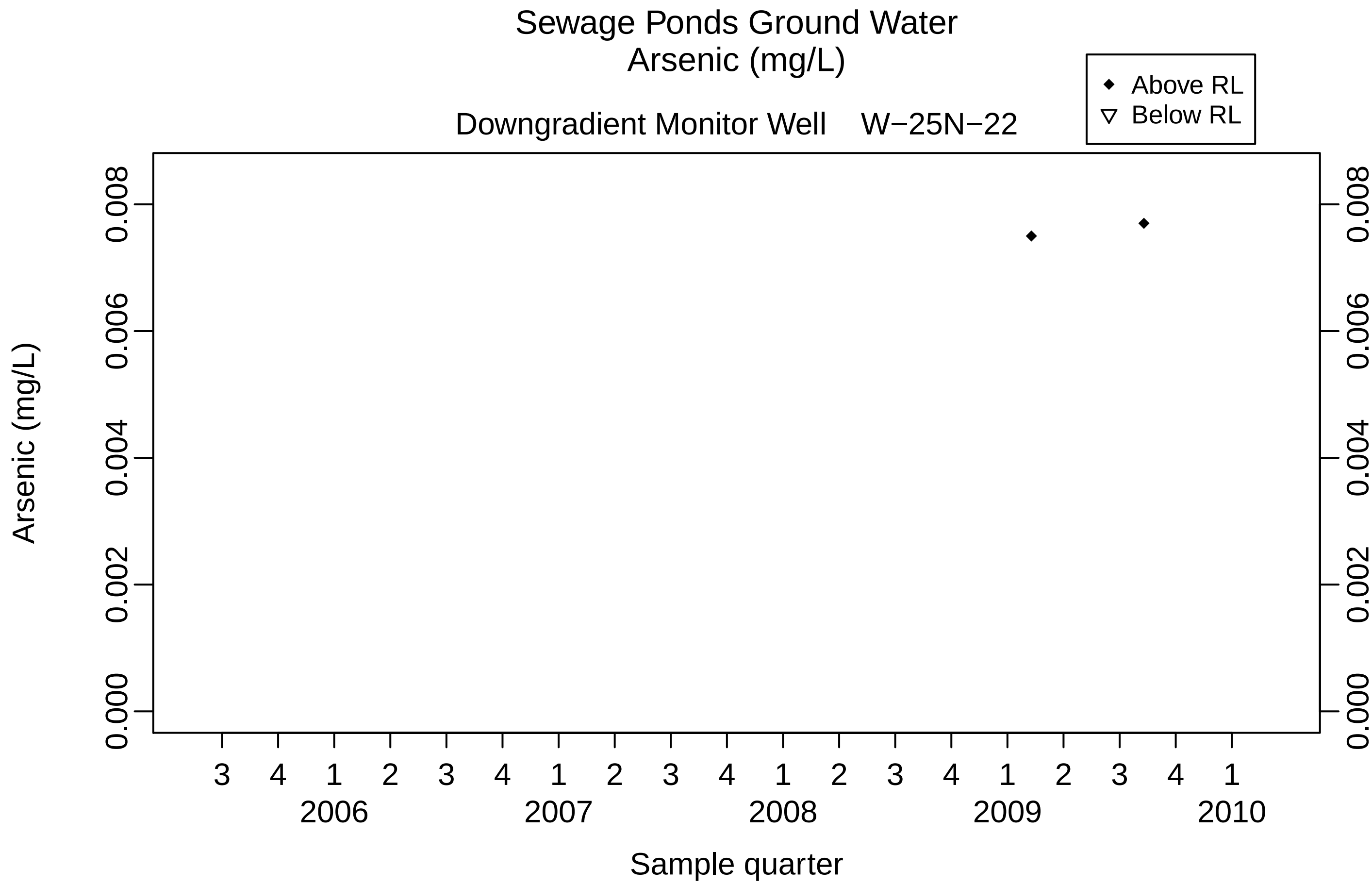


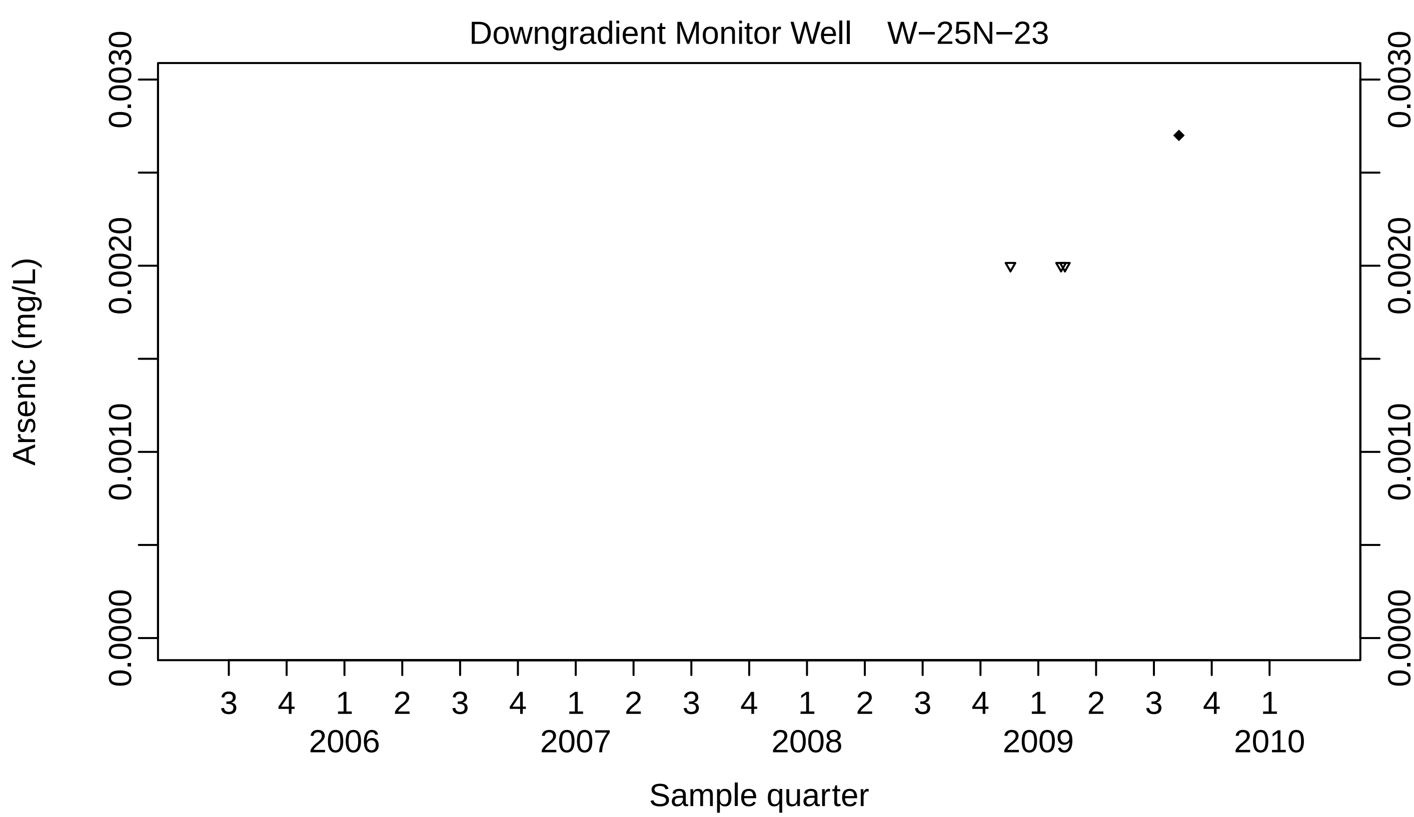


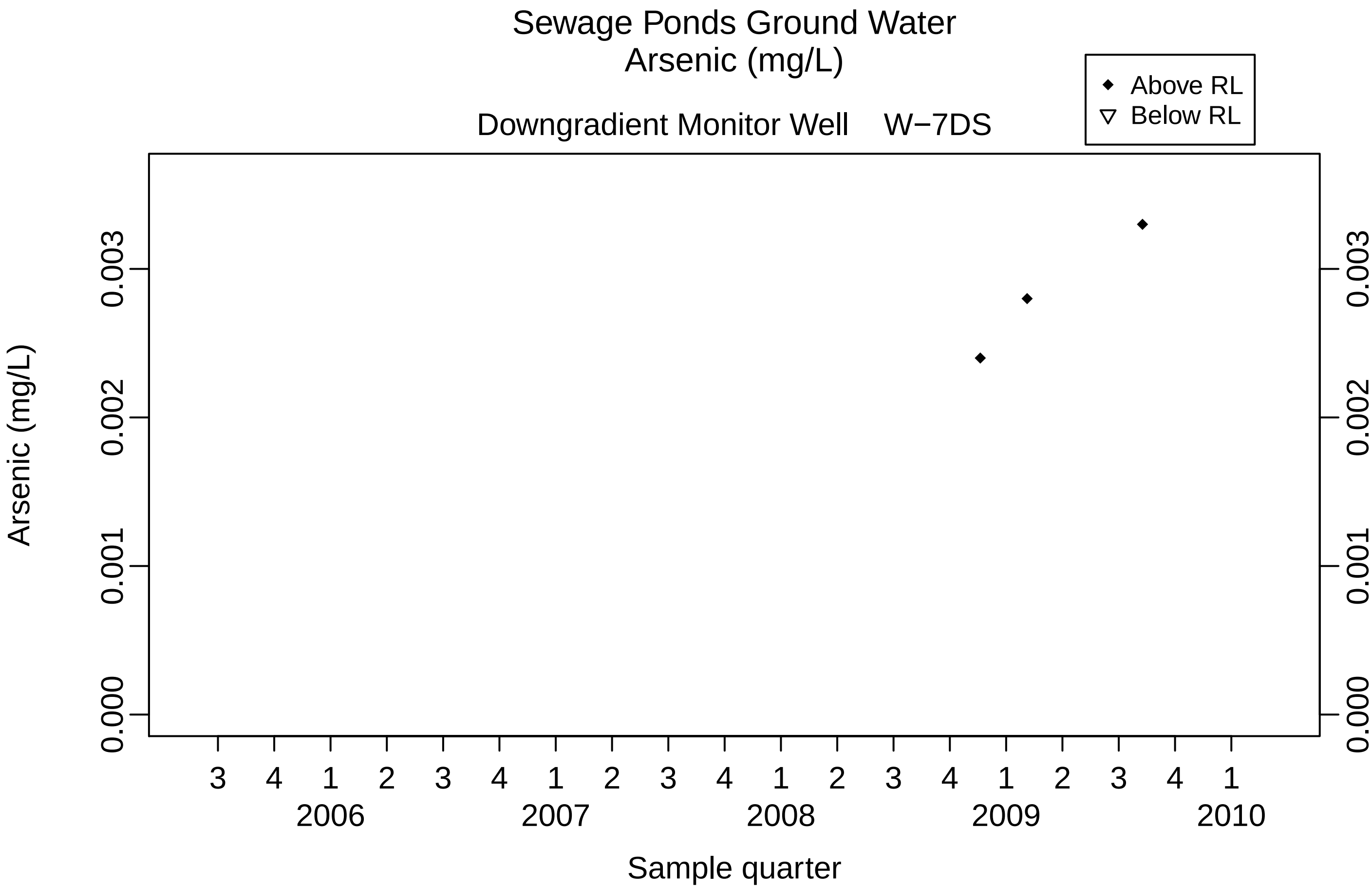
Sewage Ponds Ground Water
Arsenic (mg/L)



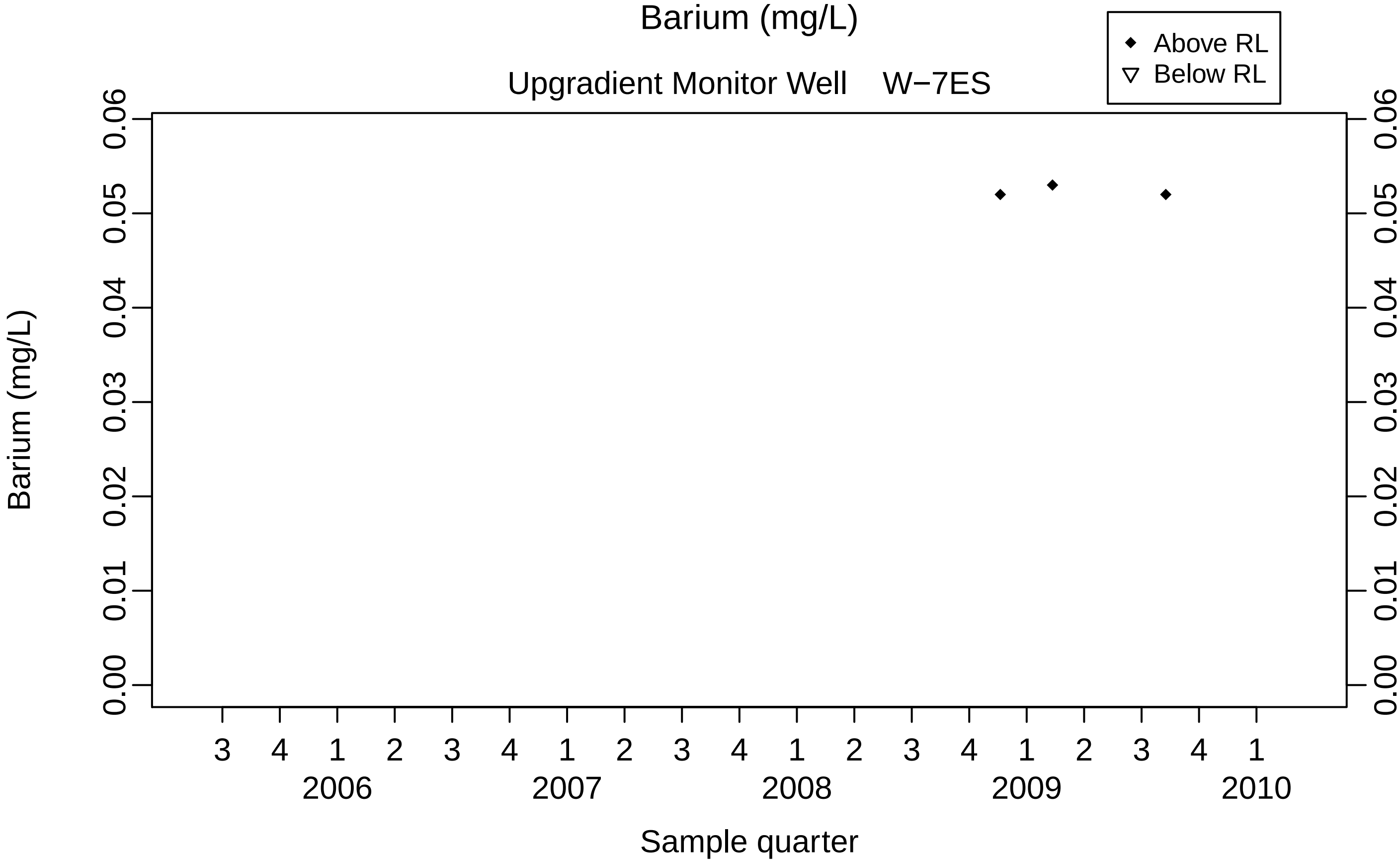


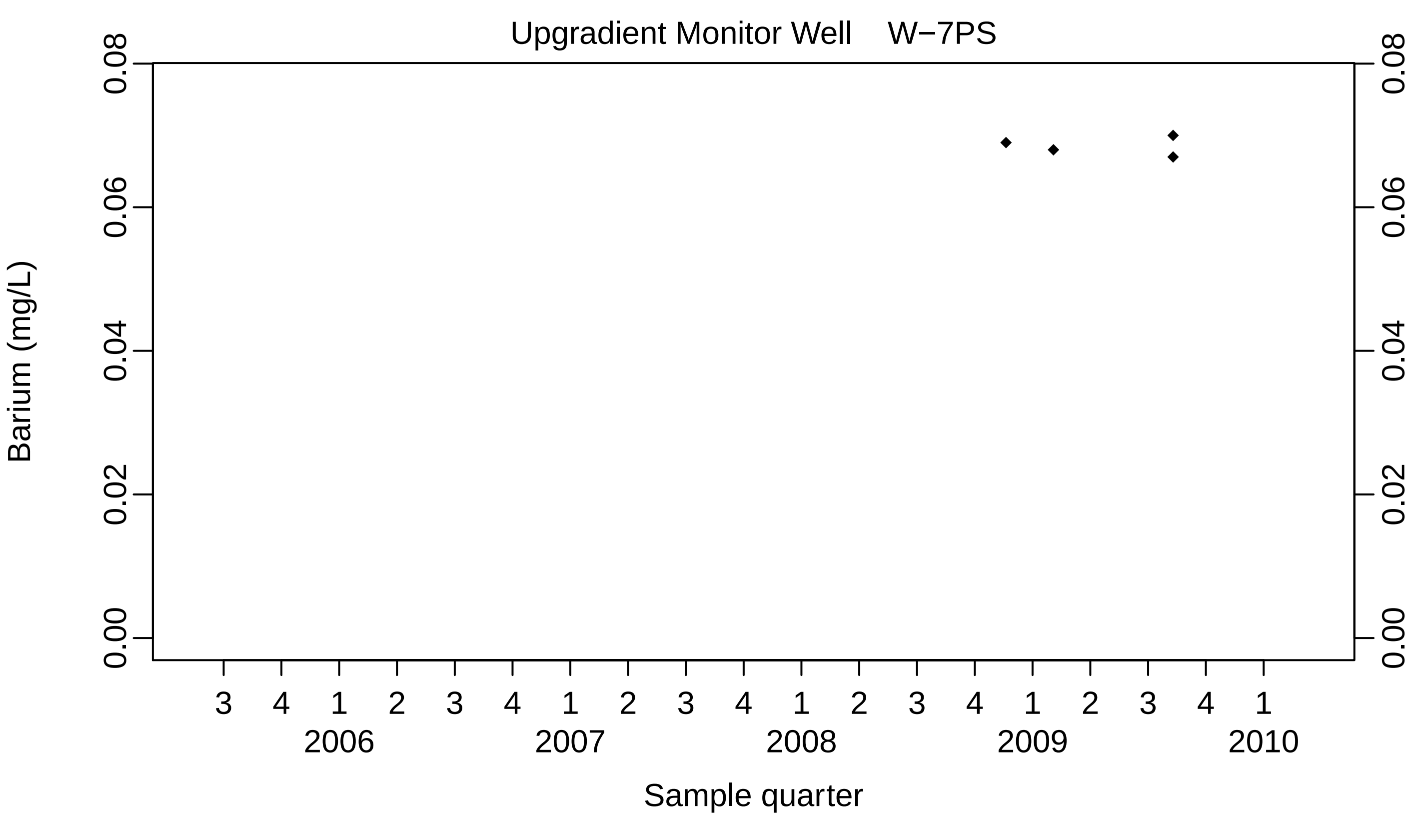

Sewage Ponds Ground Water
Arsenic (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−25N−22
Arsenic (mg/L)
0.000
0.002
0.004
0.006
0.008
3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006 2007 2008 2009 2010
Sample quarter

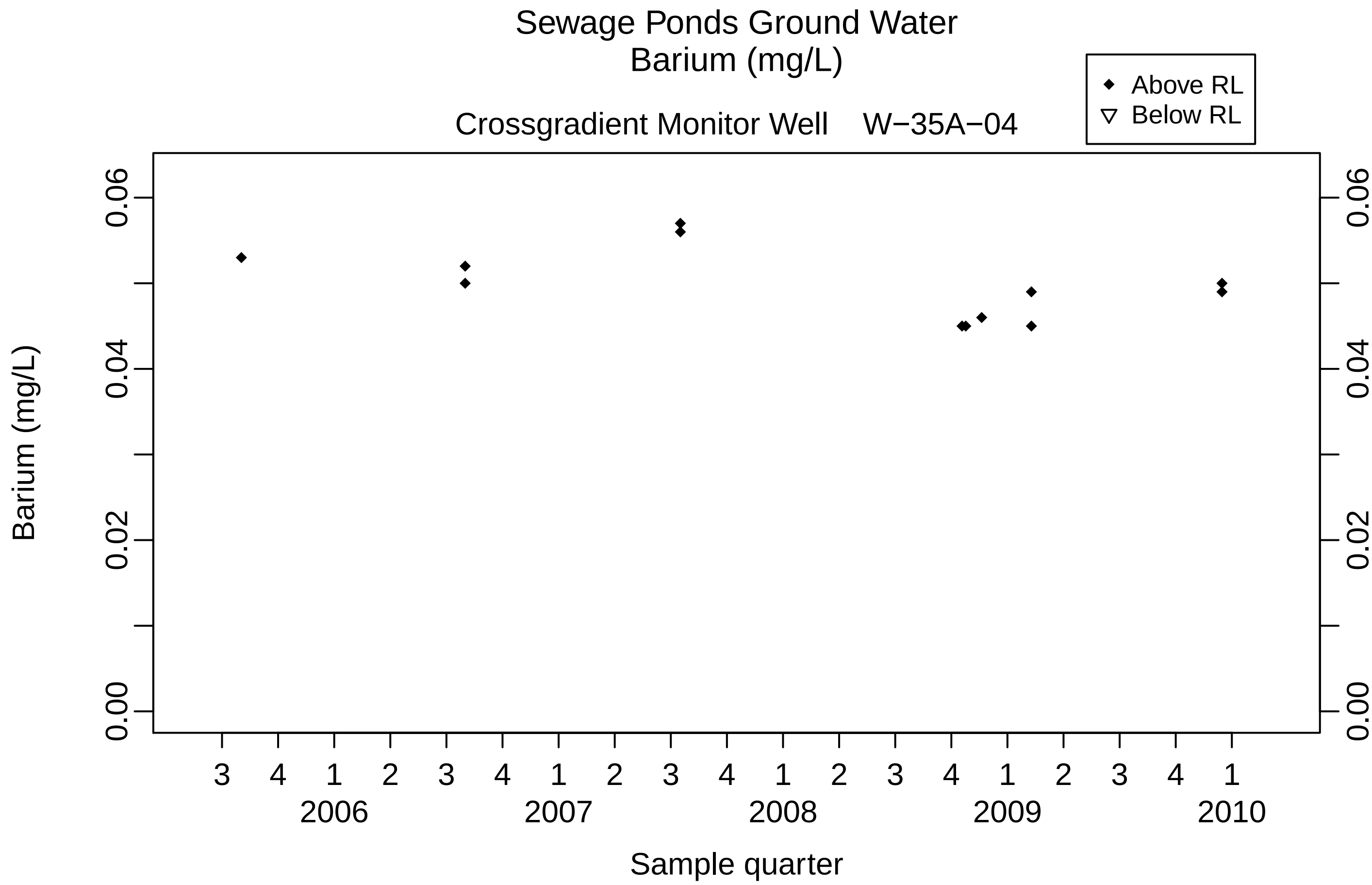

Downgradient Monitor Well W−25N−23
Arsenic (mg/L)
0.0000
0.0010
0.0020
0.0030
3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006 2007 2008 2009 2010
Sample quarter

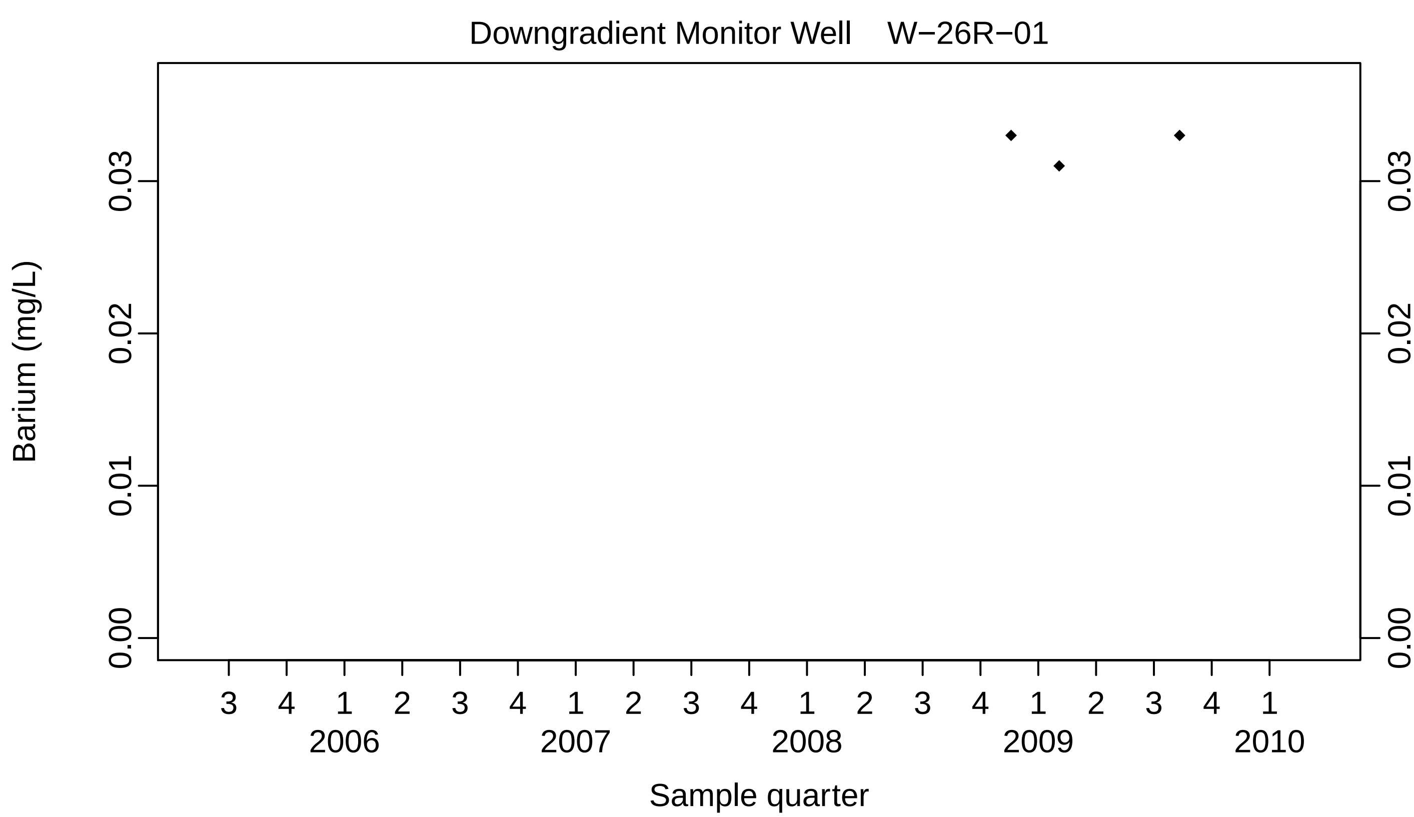

Sewage Ponds Ground Water
Arsenic (mg/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Arsenic (mg/L)
0.000
0.001
0.002
0.003
3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006
2007
2008
2009
2010
Sample quarter

Sewage Ponds Ground Water
Barium (mg/L)

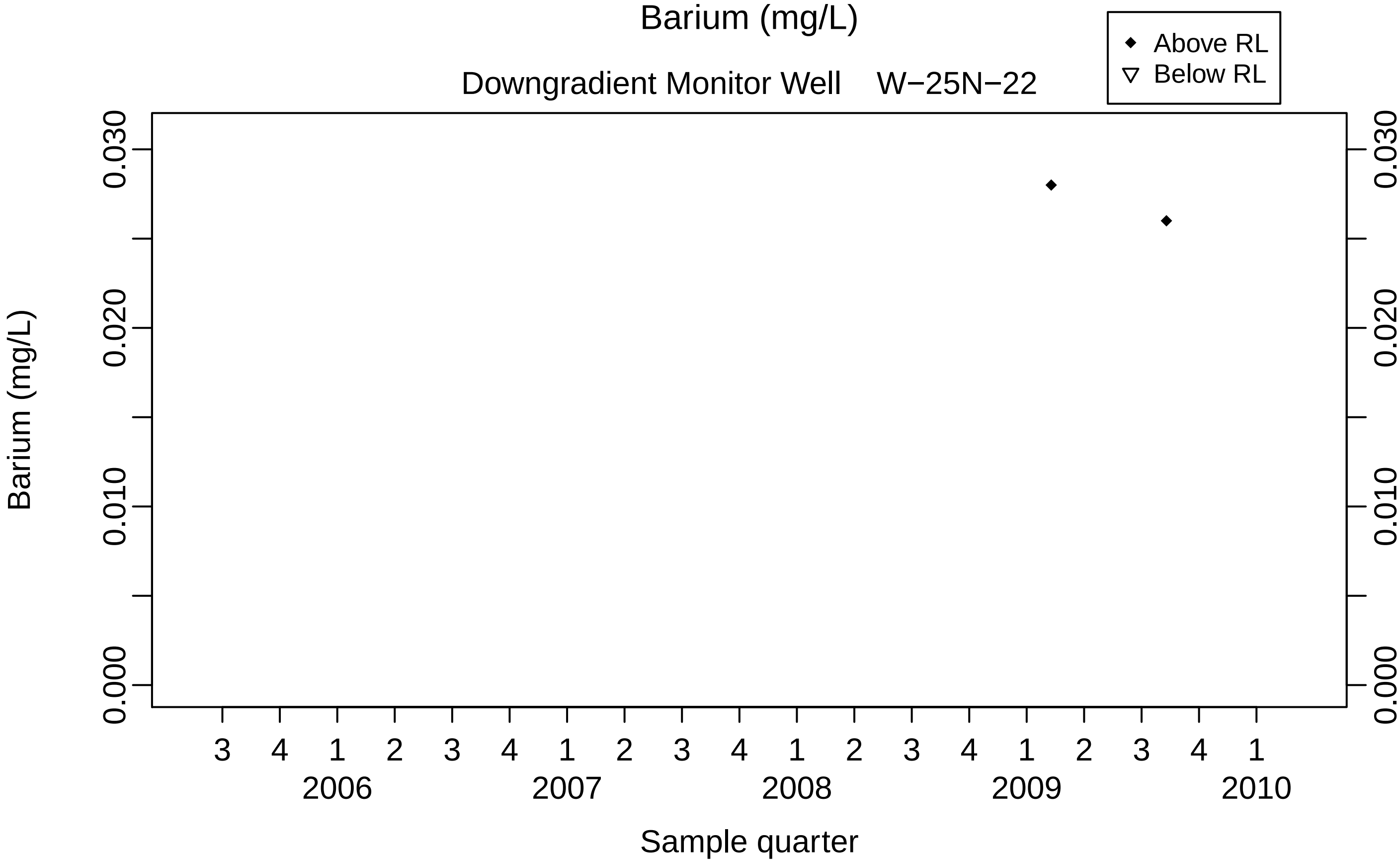


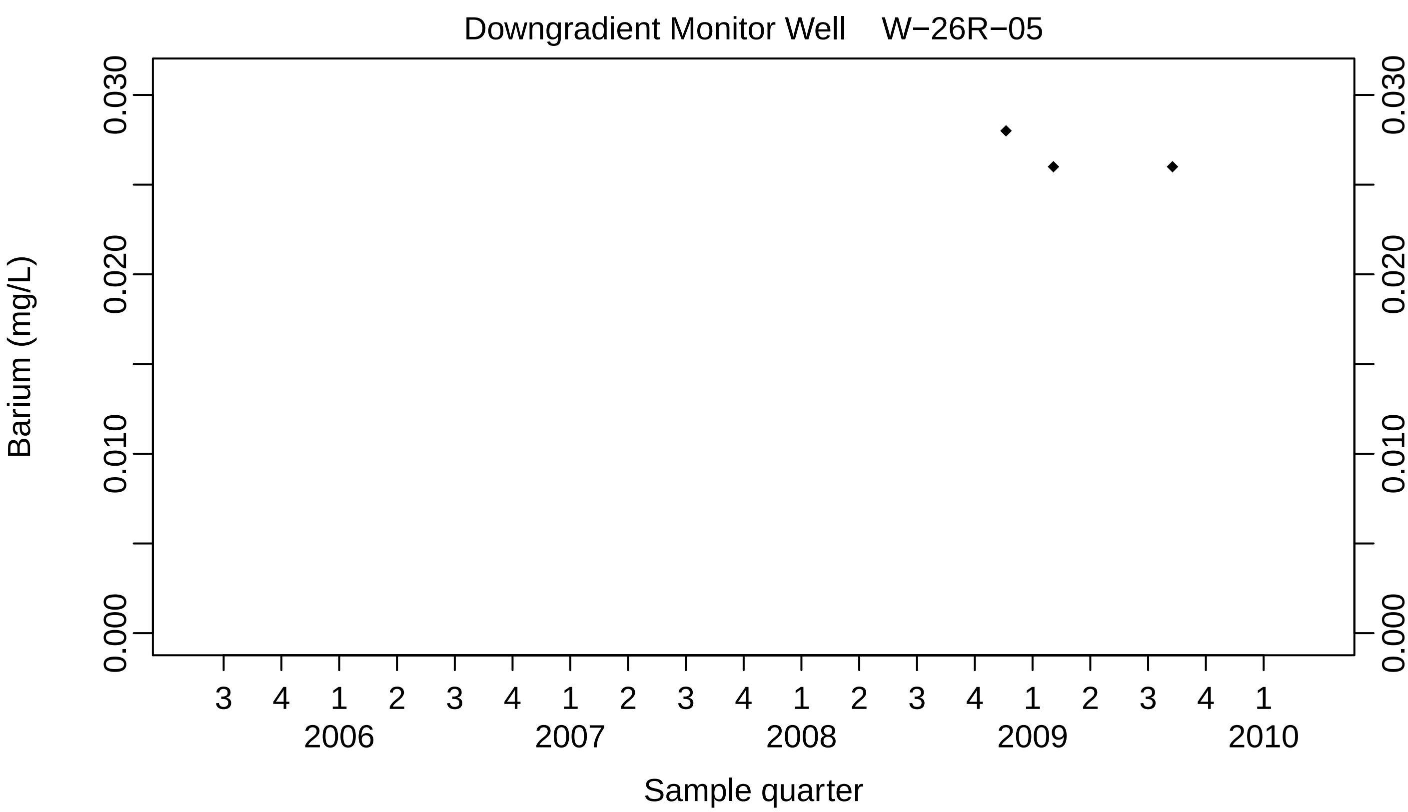



Sewage Ponds Ground Water
Barium (mg/L)
Above RL
Below RL
Crossgradient Monitor Well W−35A−04
Barium (mg/L)
0.00
0.02
0.04
0.06
3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006
2007
2008
2009
2010
Sample quarter

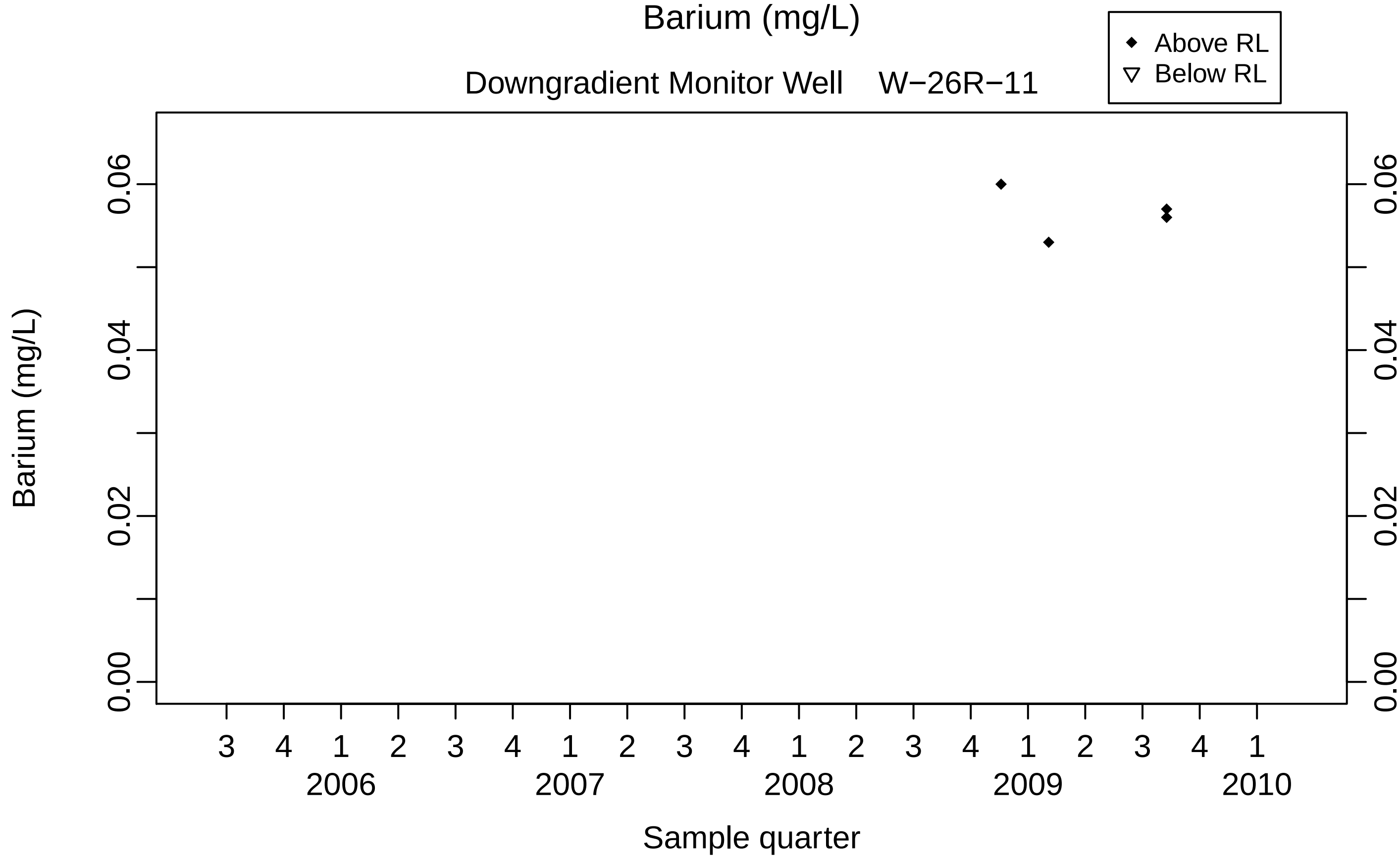

Downgradient Monitor Well W−26R−01
Barium (mg/L)
0.00
0.01
0.02
0.03
3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006
2007
2008
2009
2010
Sample quarter

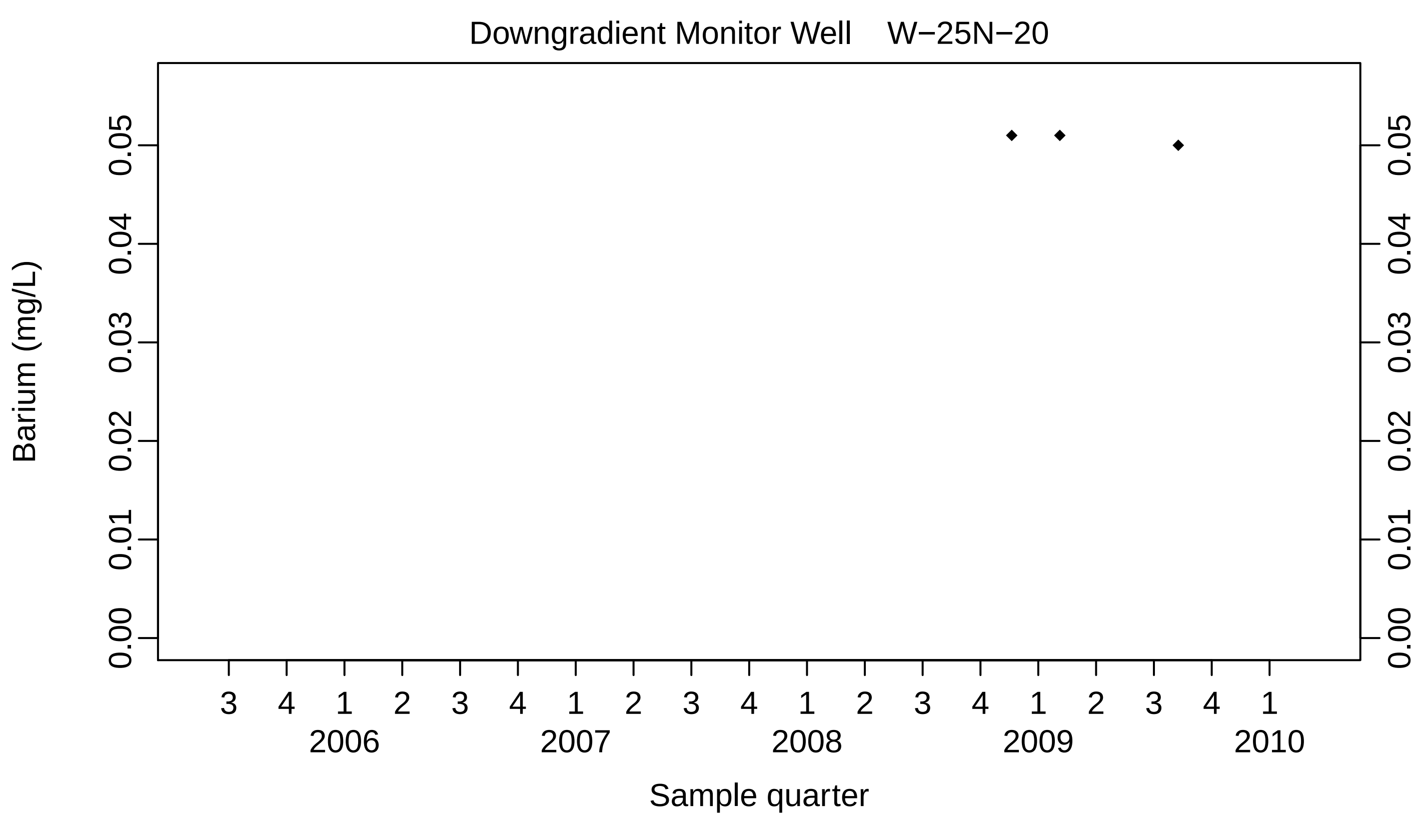
Sewage Ponds Ground Water
Barium (mg/L)



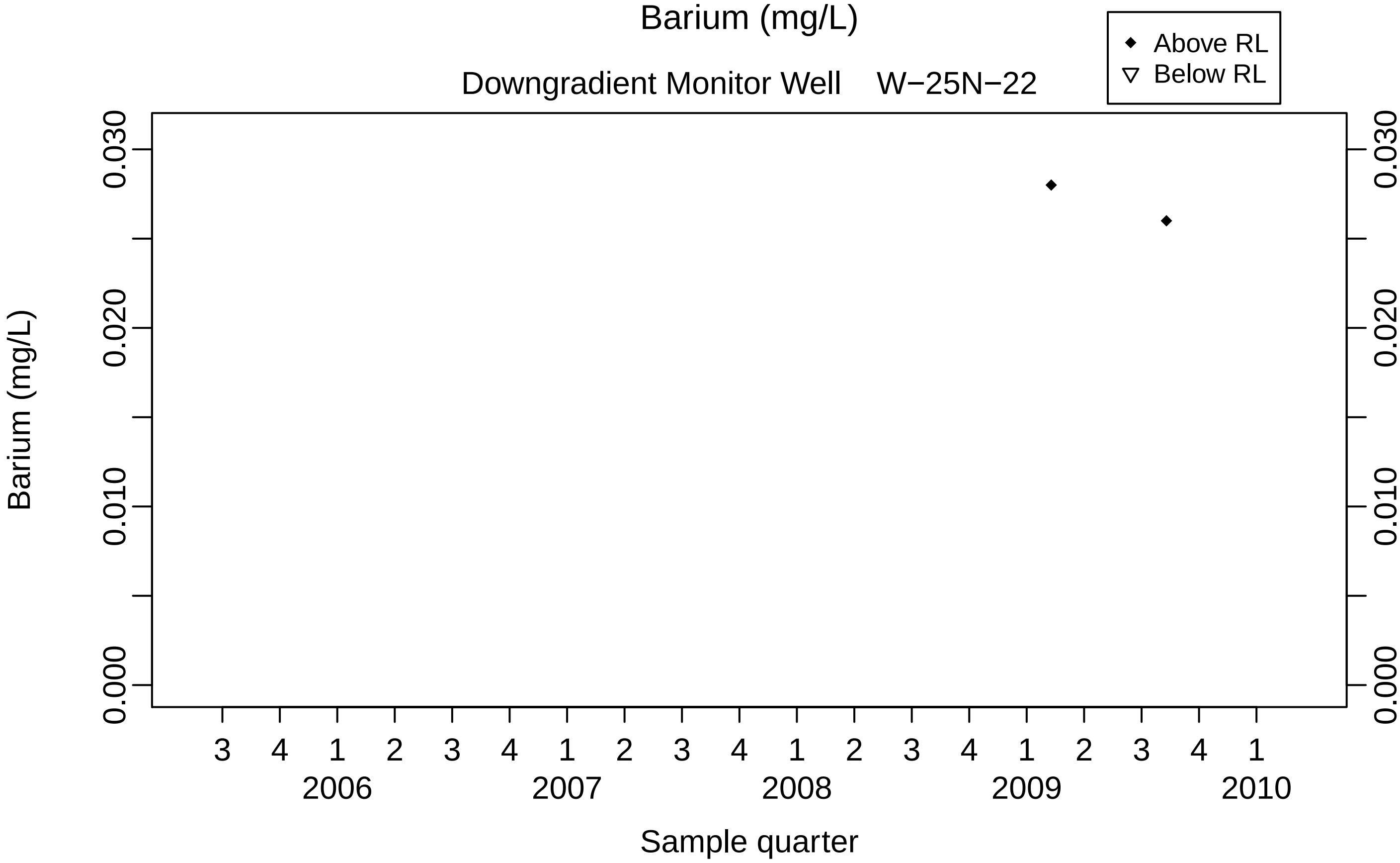


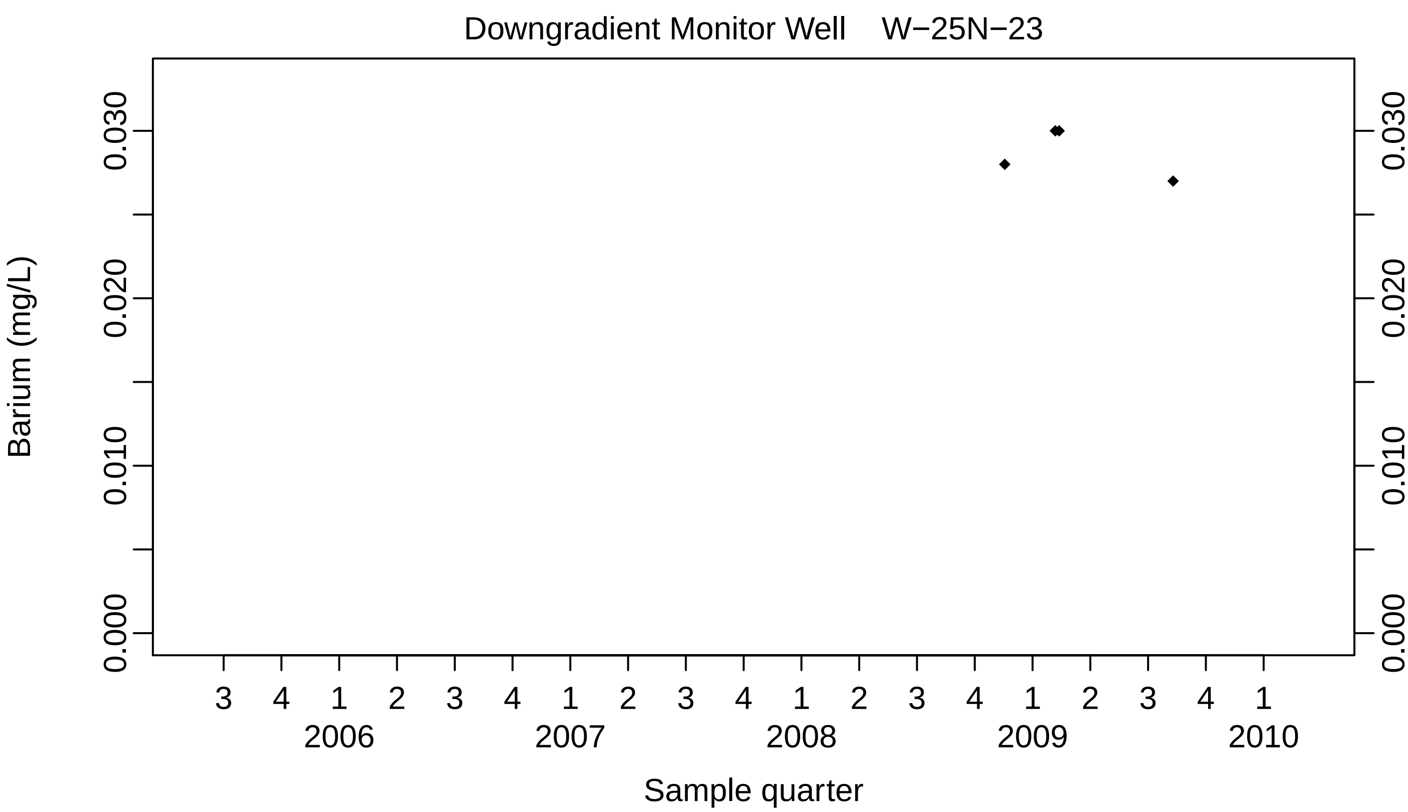
Sewage Ponds Ground Water
Barium (mg/L)

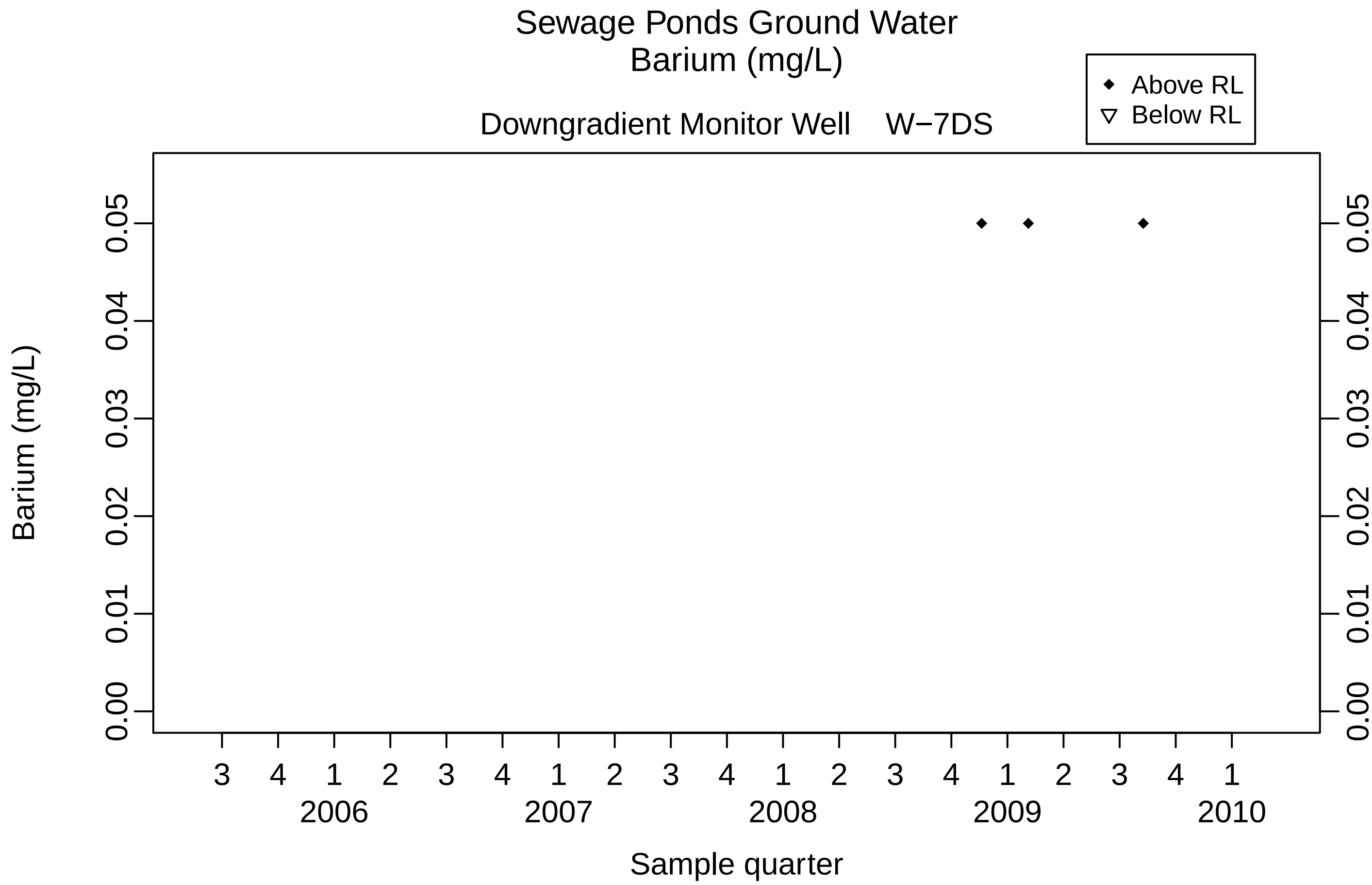




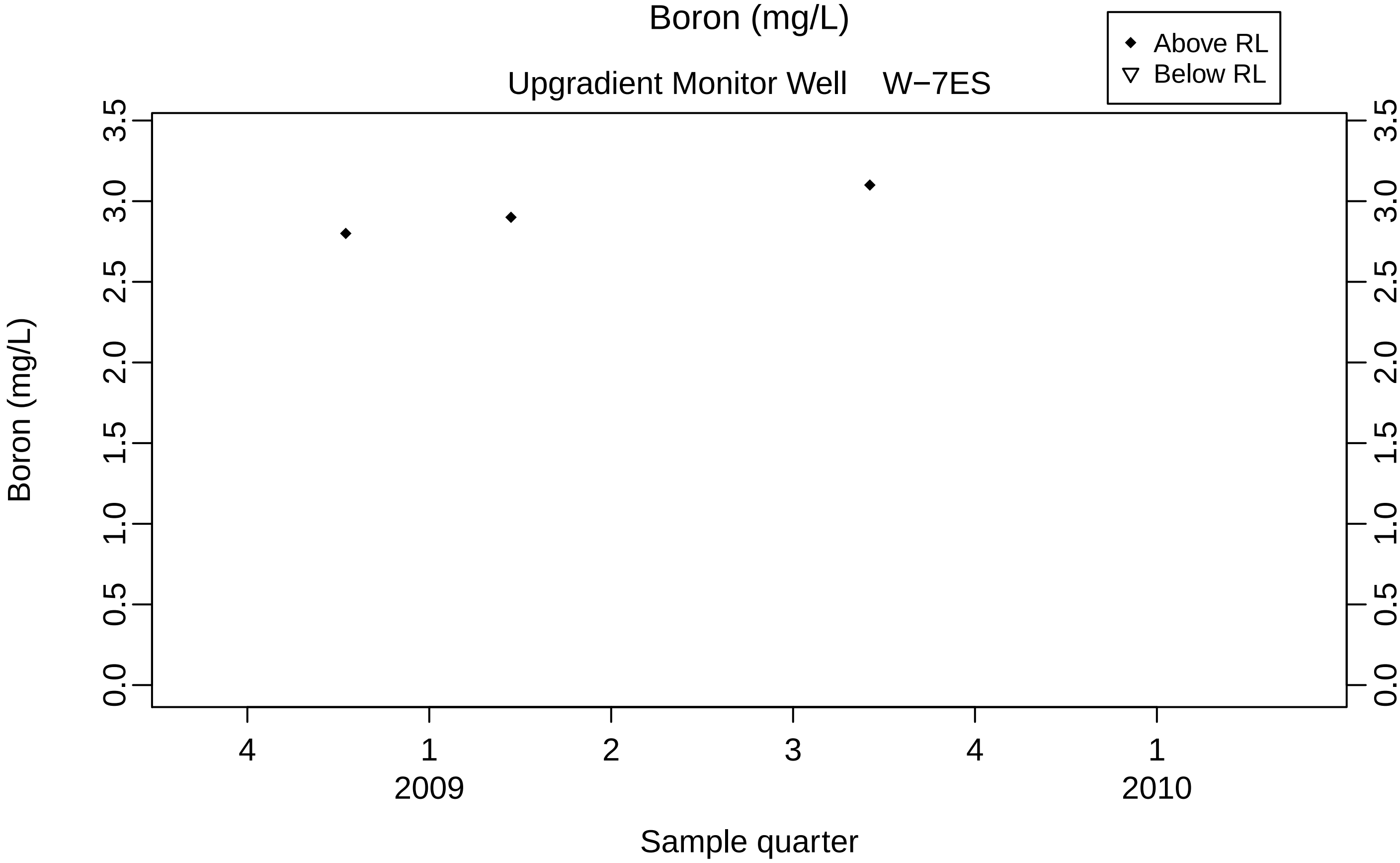
Sewage Ponds Ground Water
Barium (mg/L)

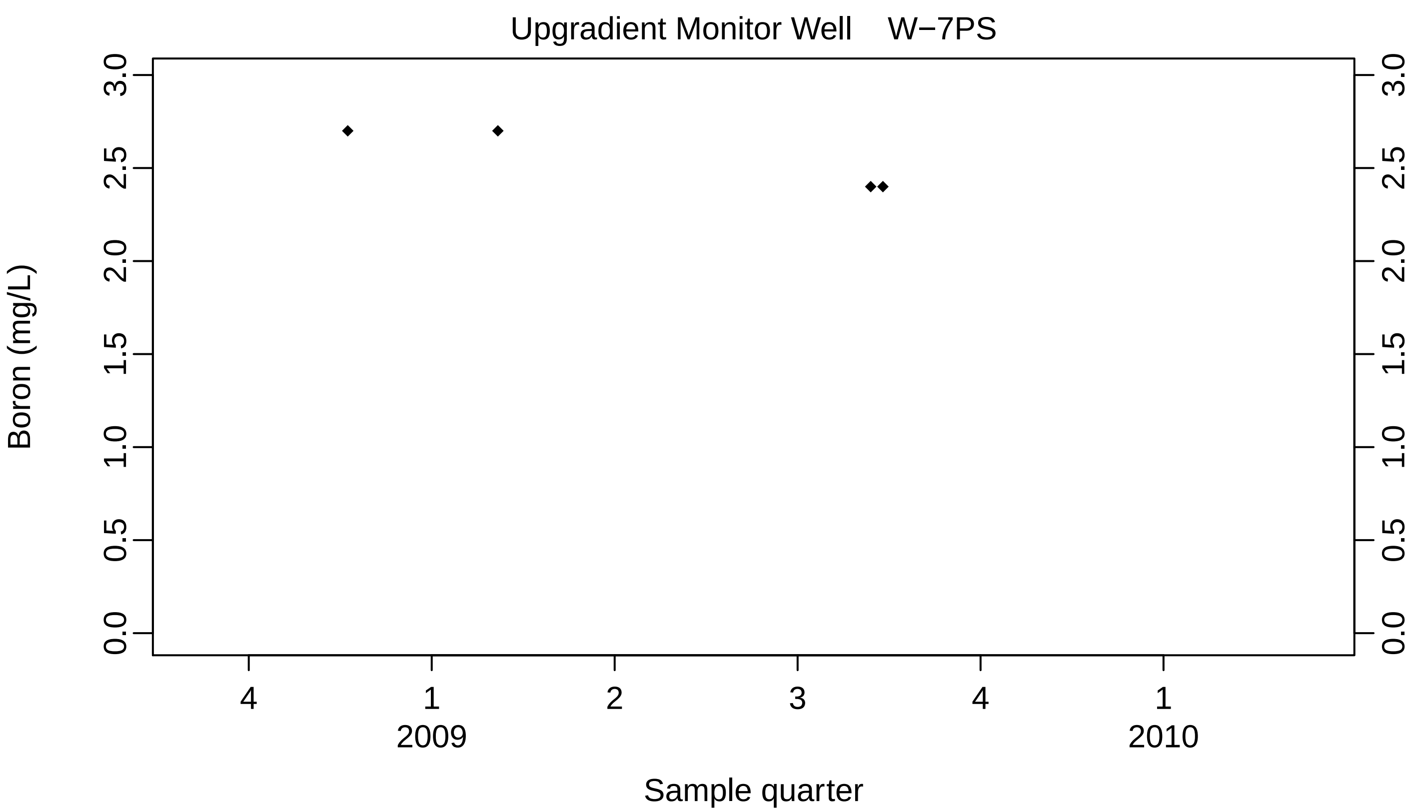




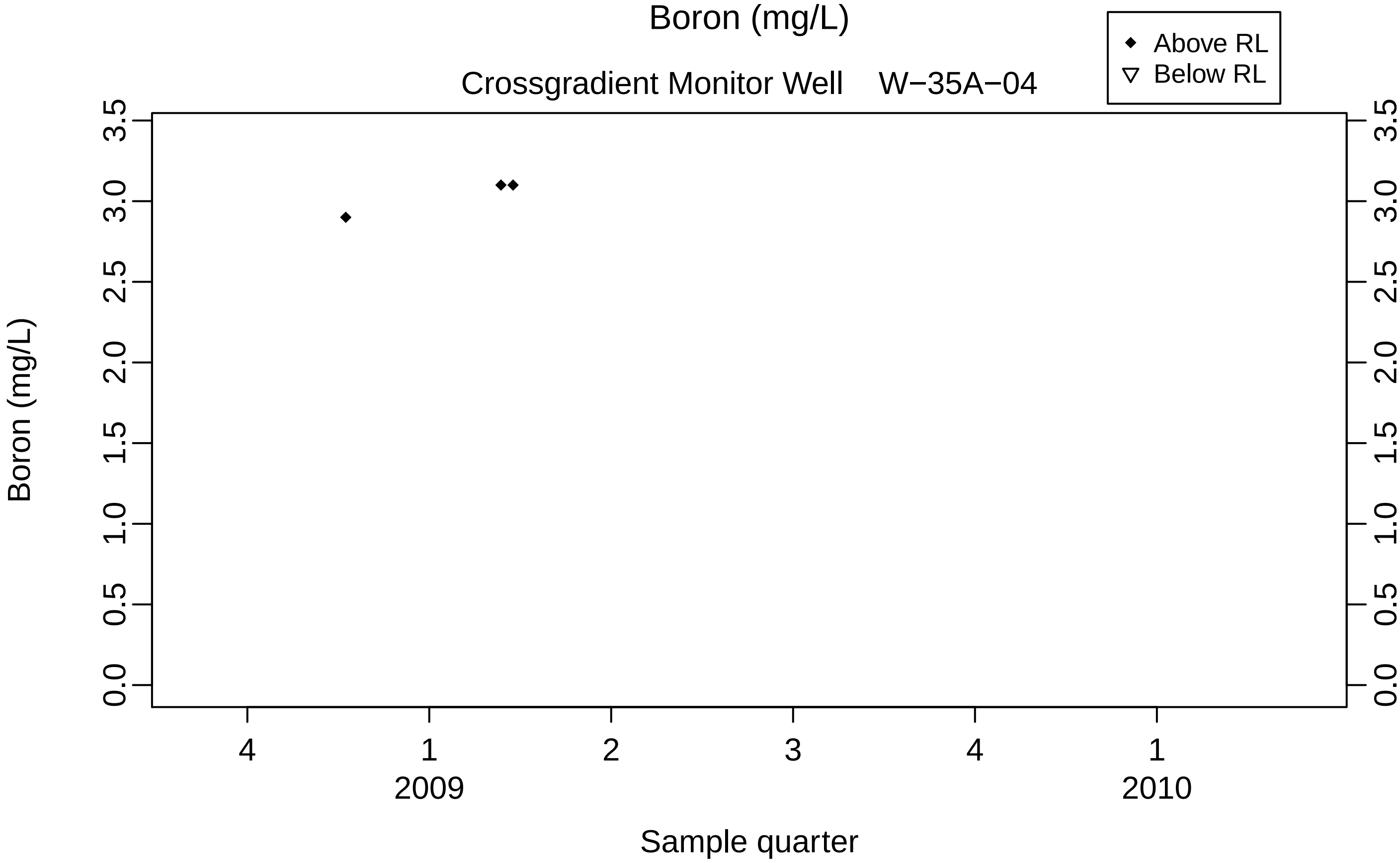

Sewage Ponds Ground Water
Barium (mg/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Barium (mg/L)
0.00
0.01
0.02
0.03
0.04
0.05
3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006
2007
2008
2009
2010
Sample quarter

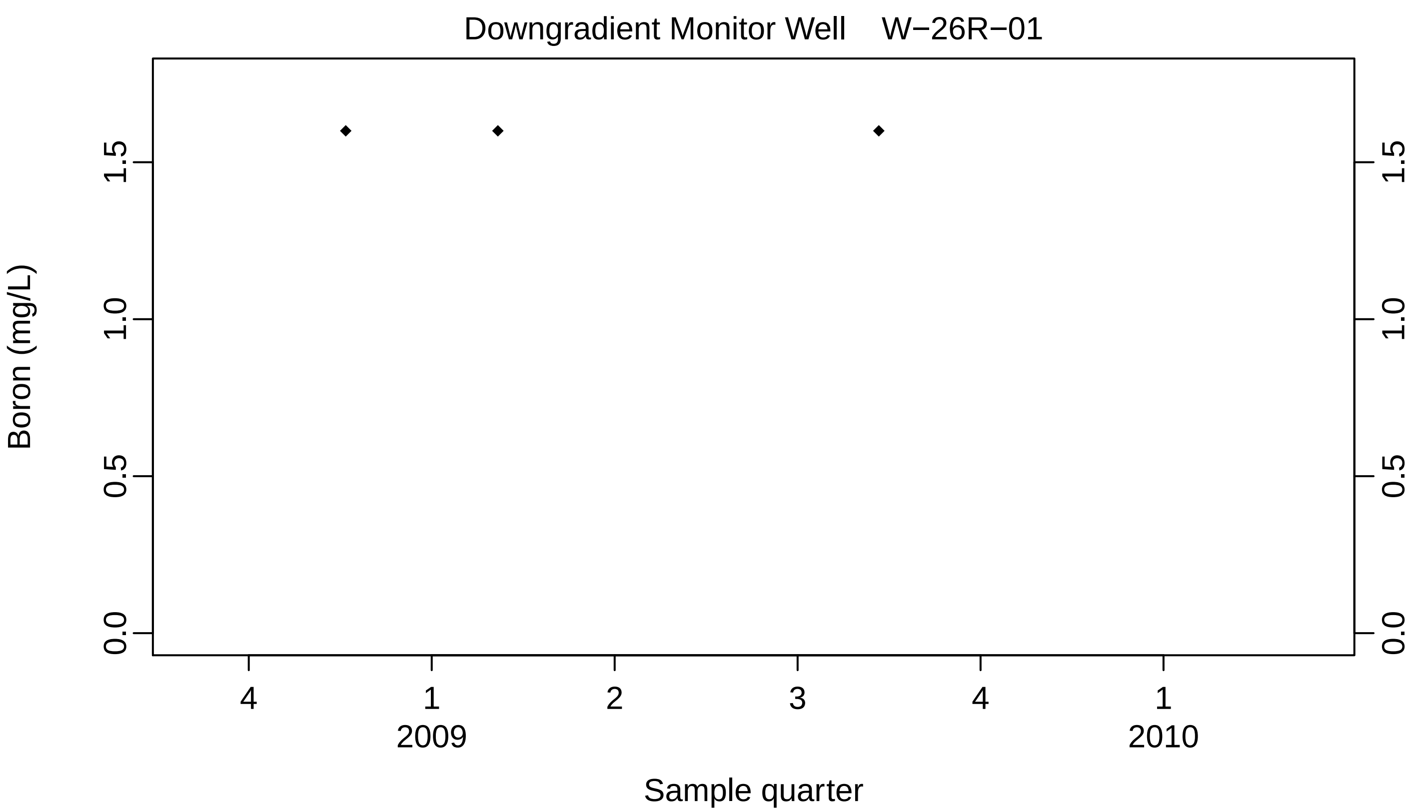
Sewage Ponds Ground Water
Boron (mg/L)



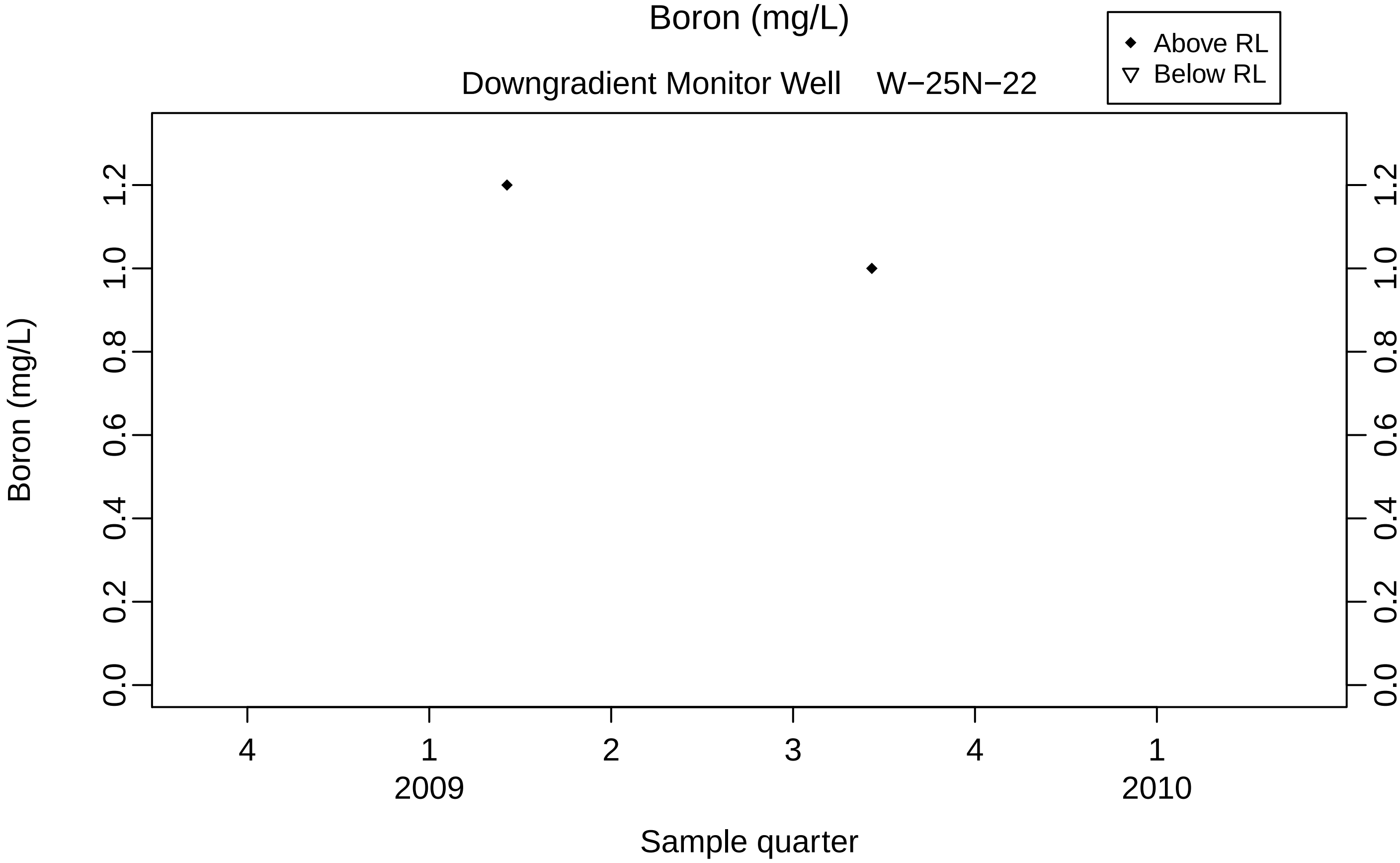


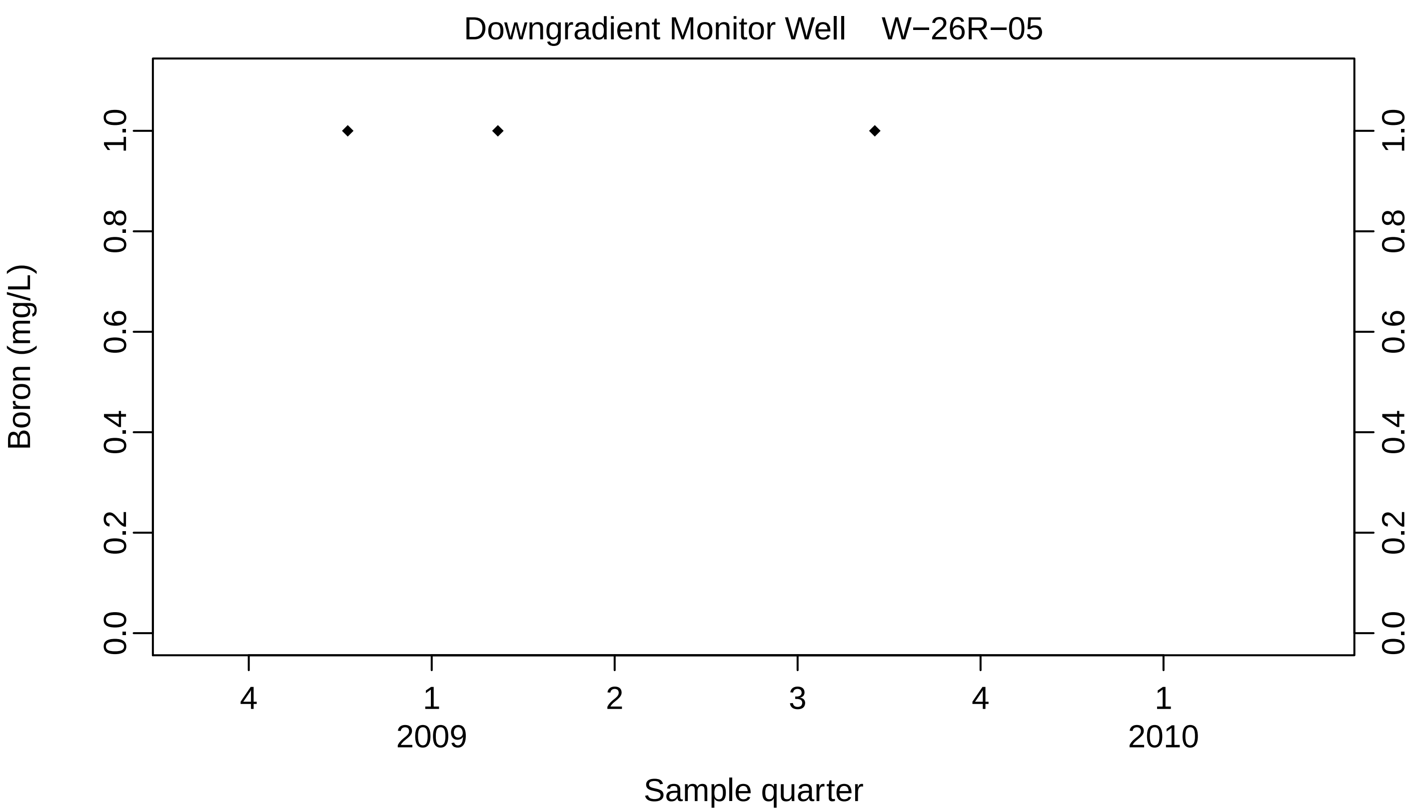
Sewage Ponds Ground Water
Boron (mg/L)

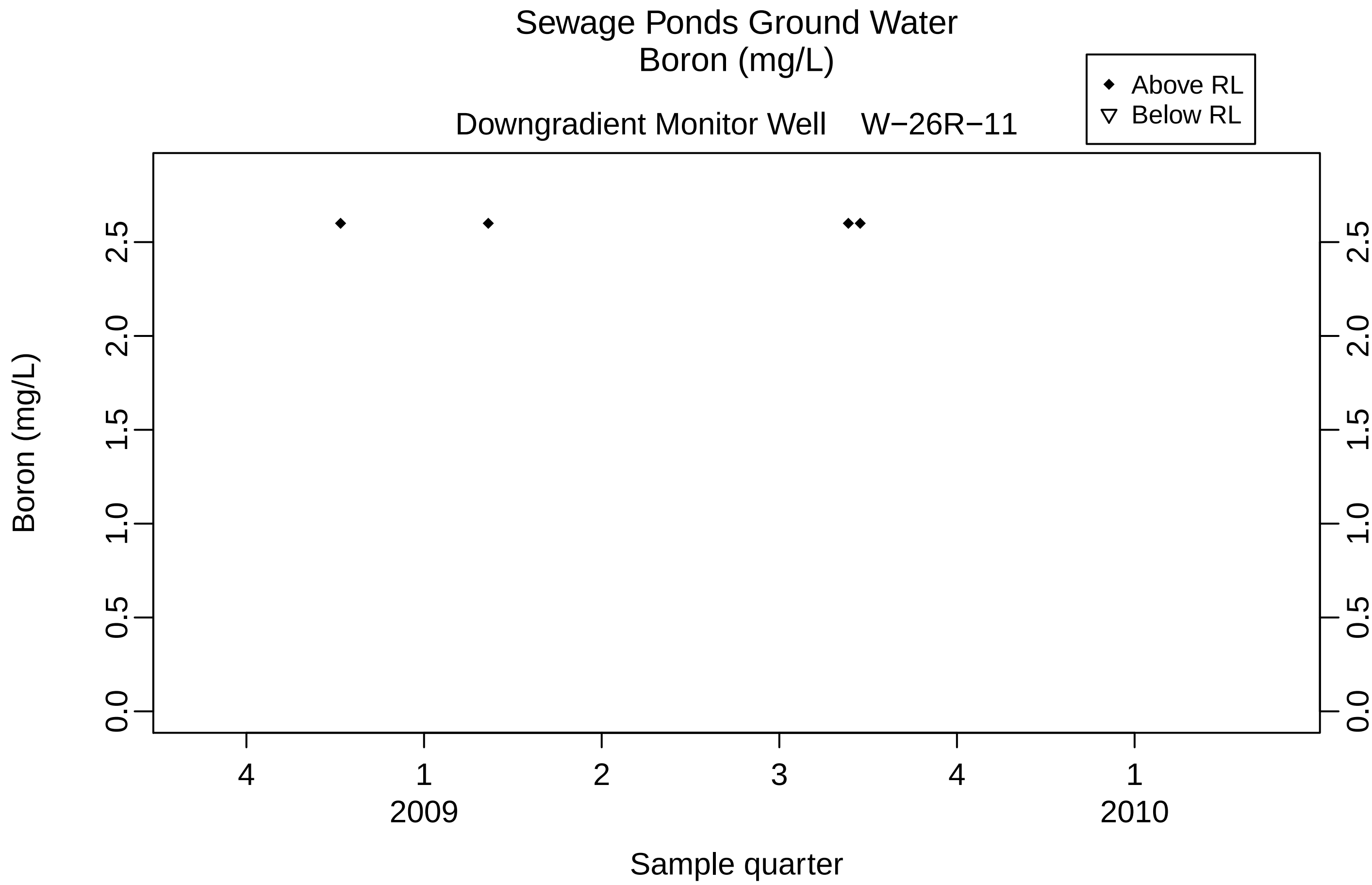


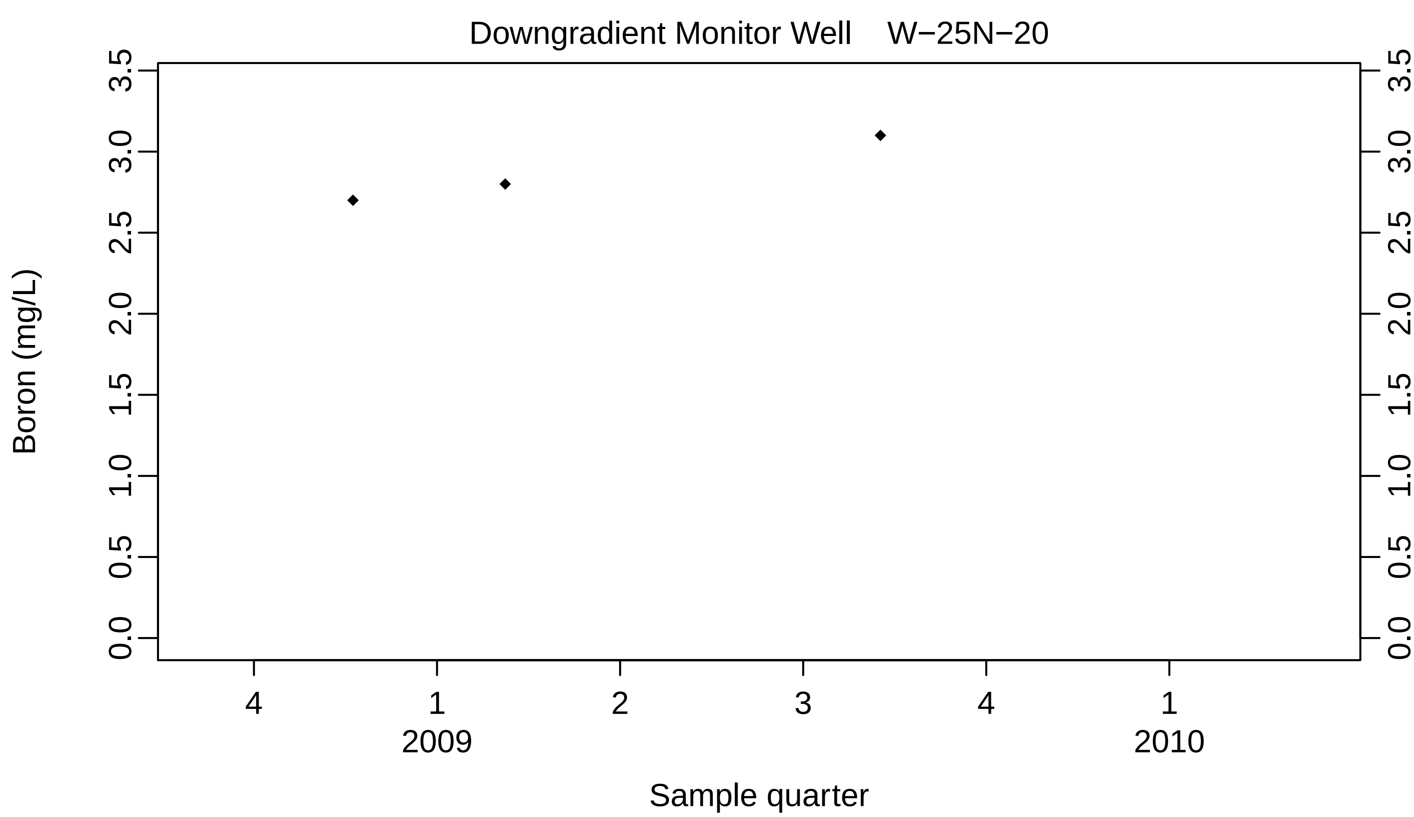


Sewage Ponds Ground Water
Boron (mg/L)

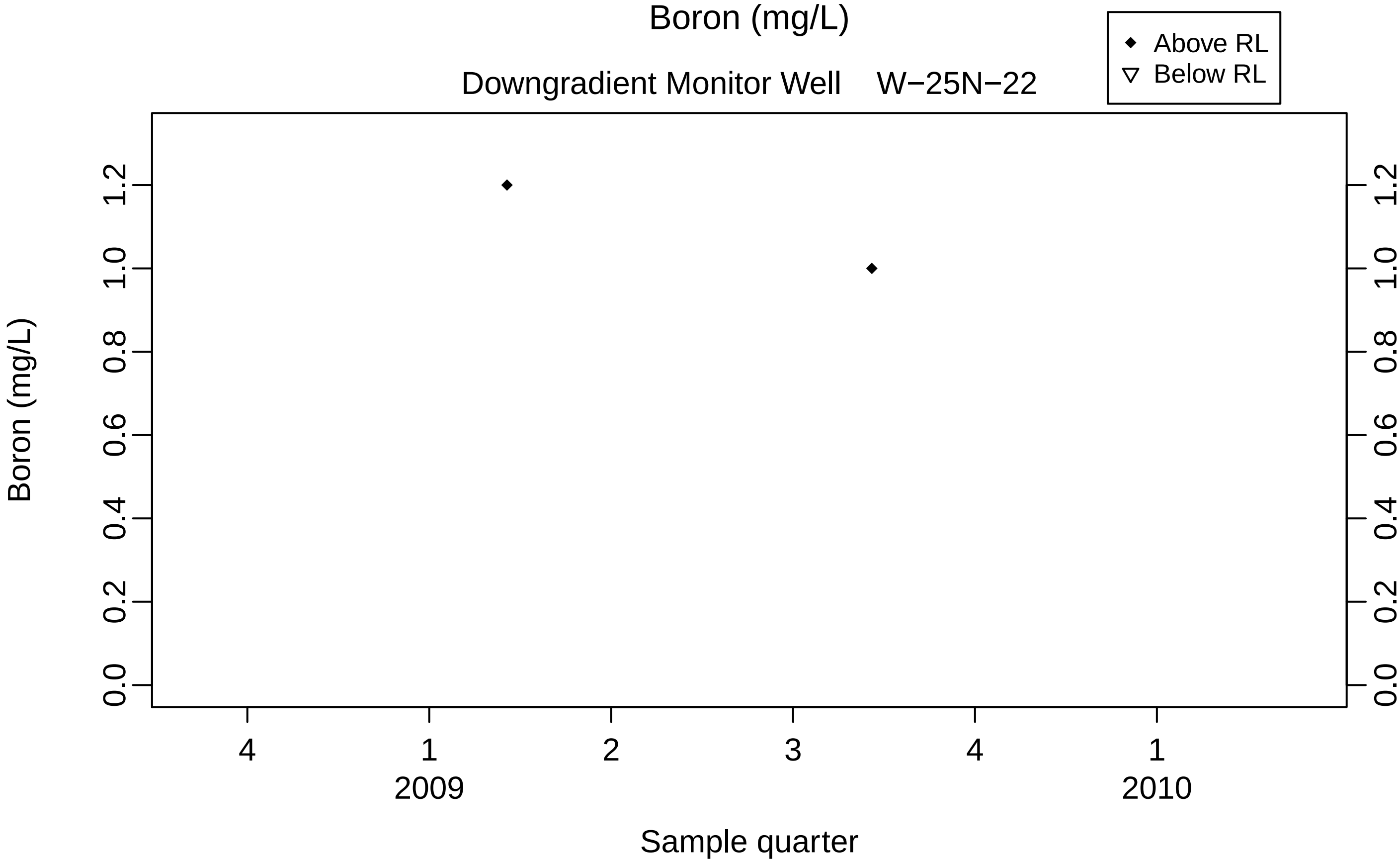


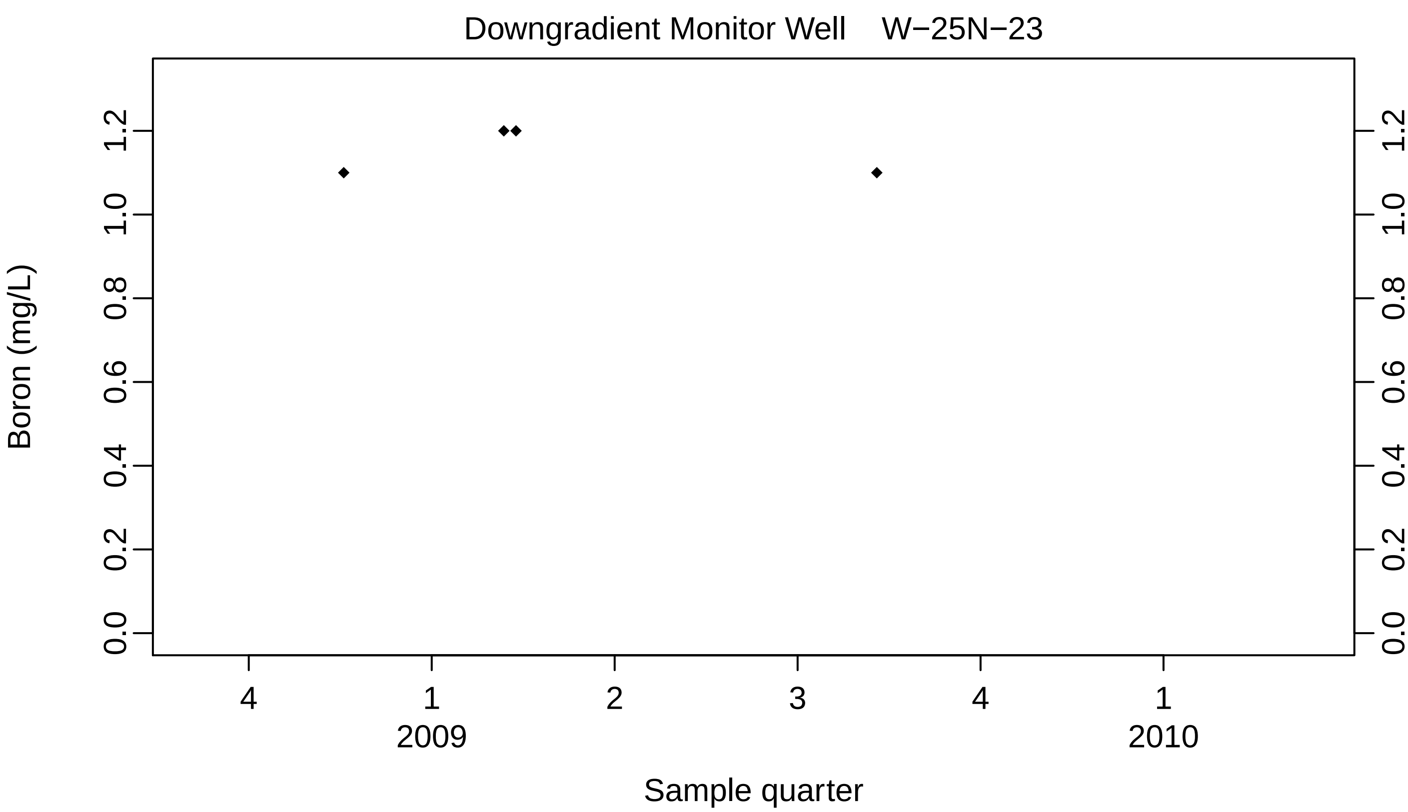


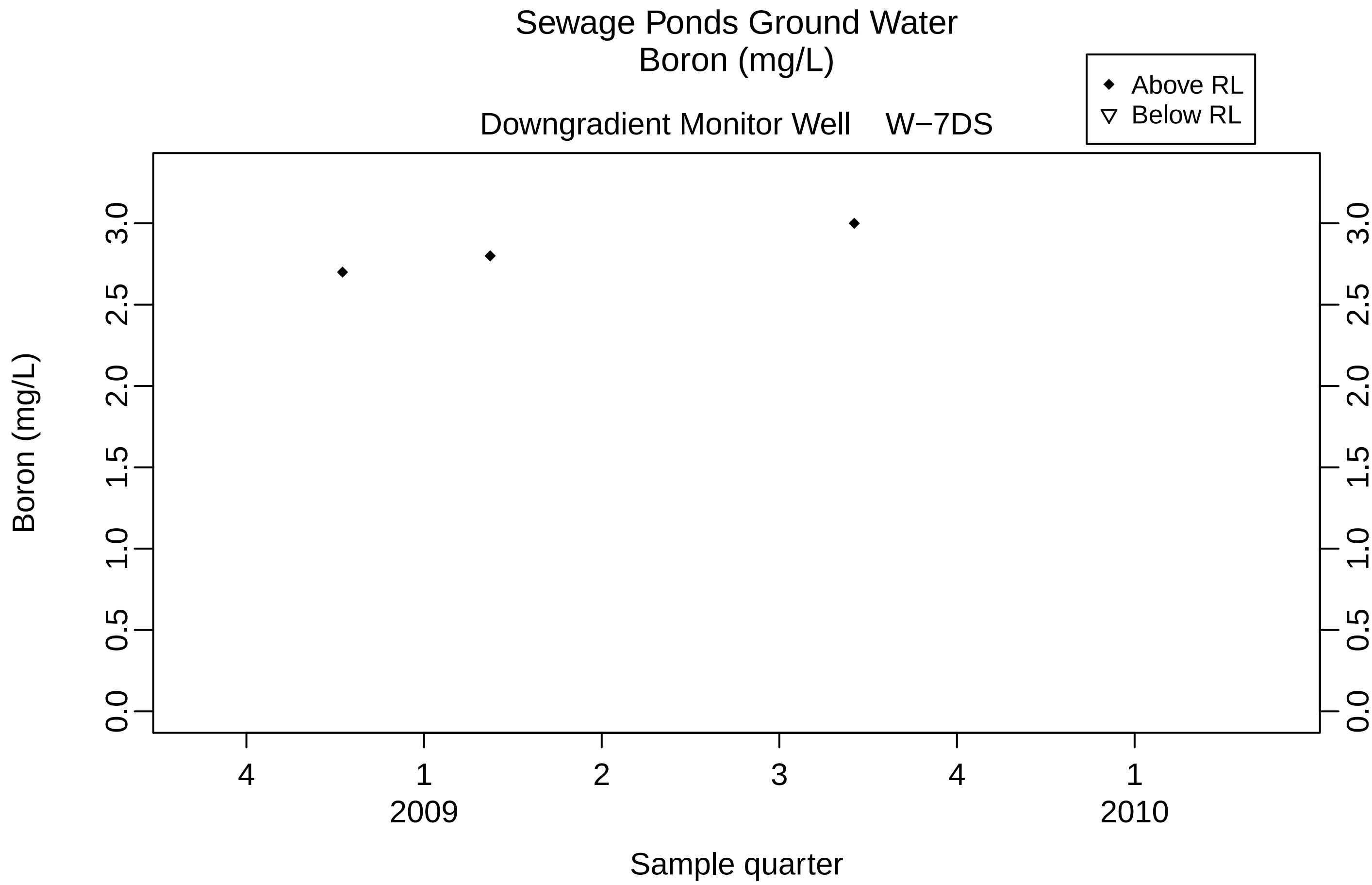

Sewage Ponds Ground Water
Boron (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−26R−11
Boron (mg/L)
0.0
0.5
1.0
1.5
2.0
2.5
4
1
2
3
4
1
2009
2010
Sample quarter


Downgradient Monitor Well W−25N−20
Boron (mg/L)
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4
1
2
3
4
1
2009
2010
Sample quarter

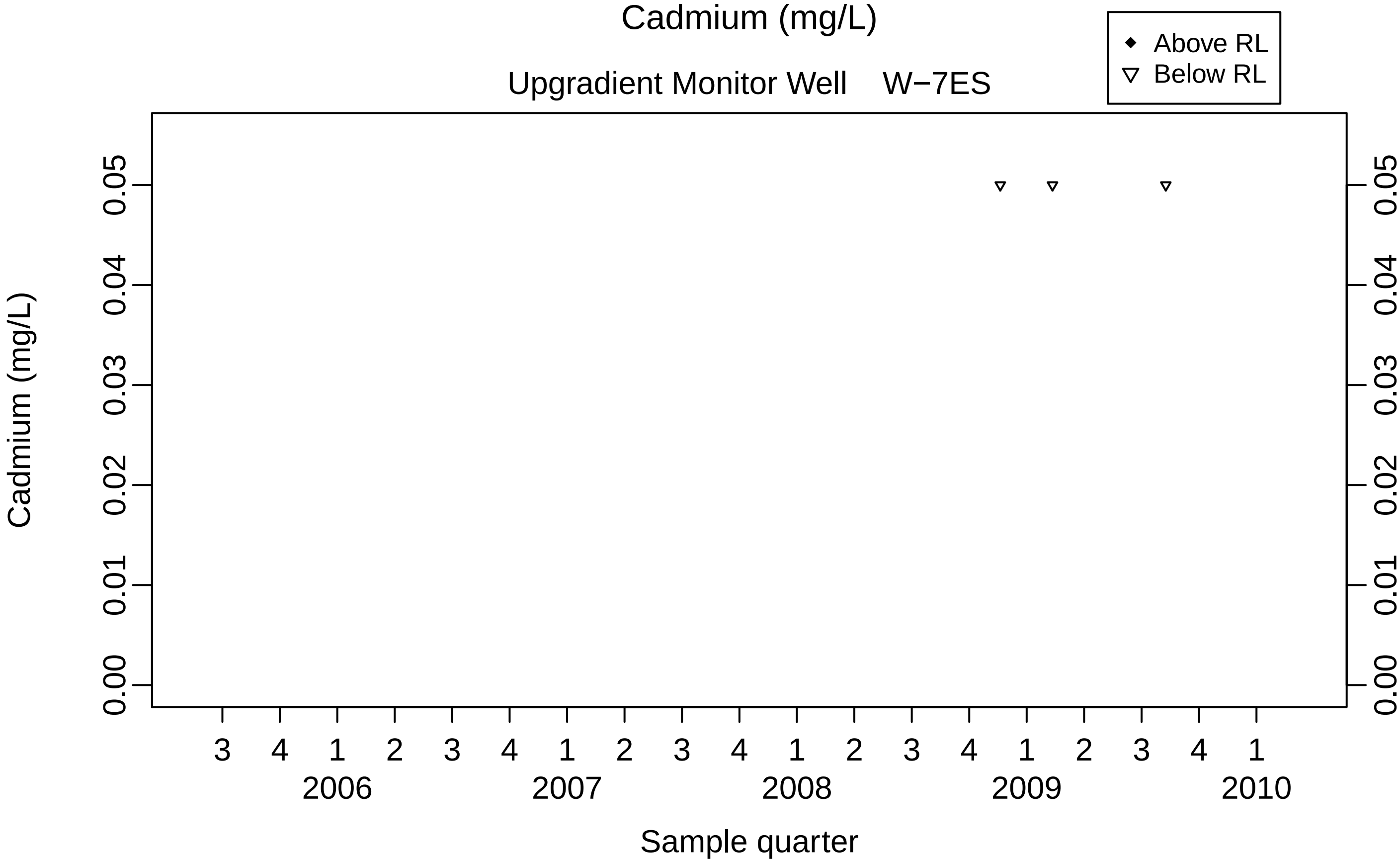
Sewage Ponds Ground Water
Boron (mg/L)

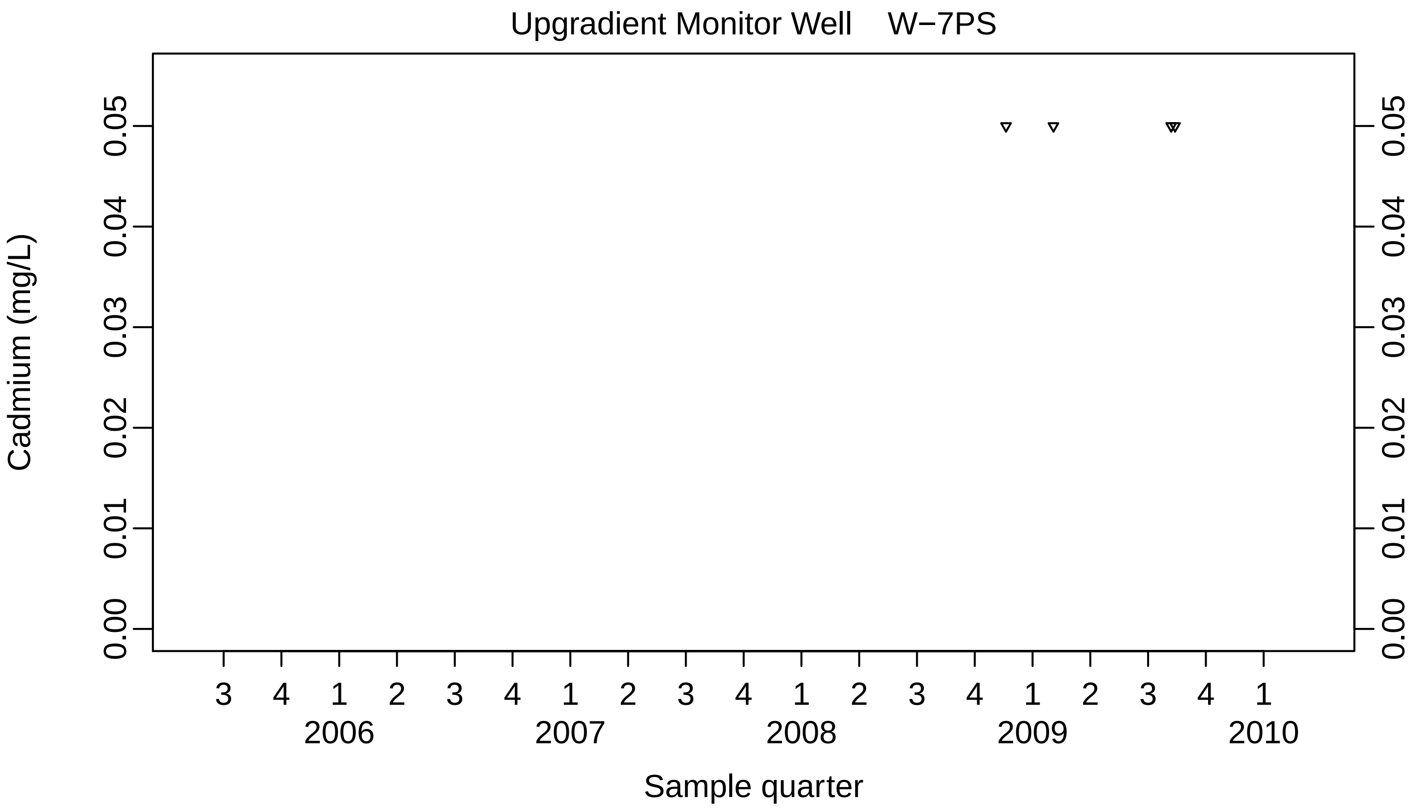




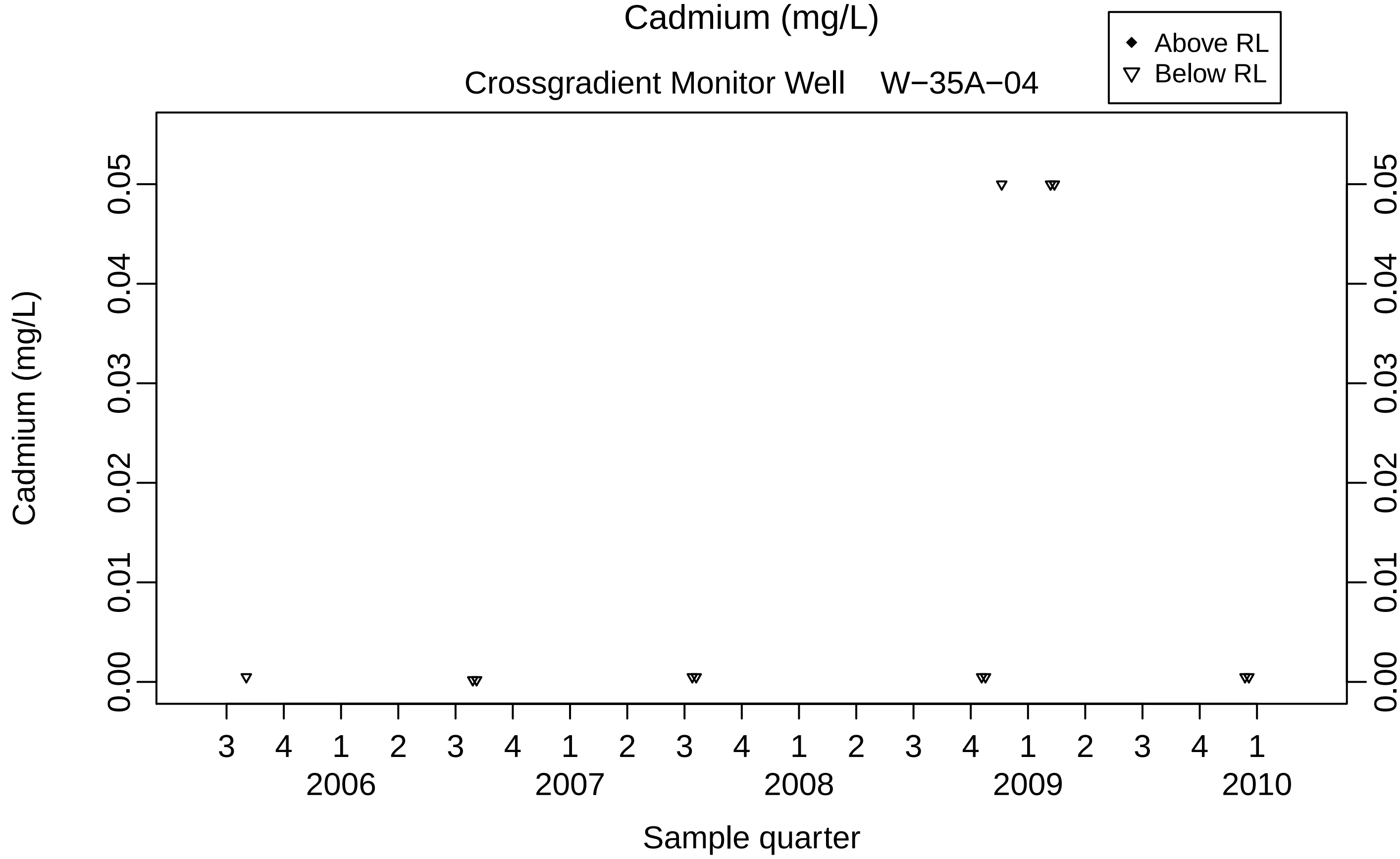

Sewage Ponds Ground Water
Boron (mg/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Boron (mg/L)
0.0
0.5
1.0
1.5
2.0
2.5
3.0
4
1
2
3
4
1
2009
2010
Sample quarter

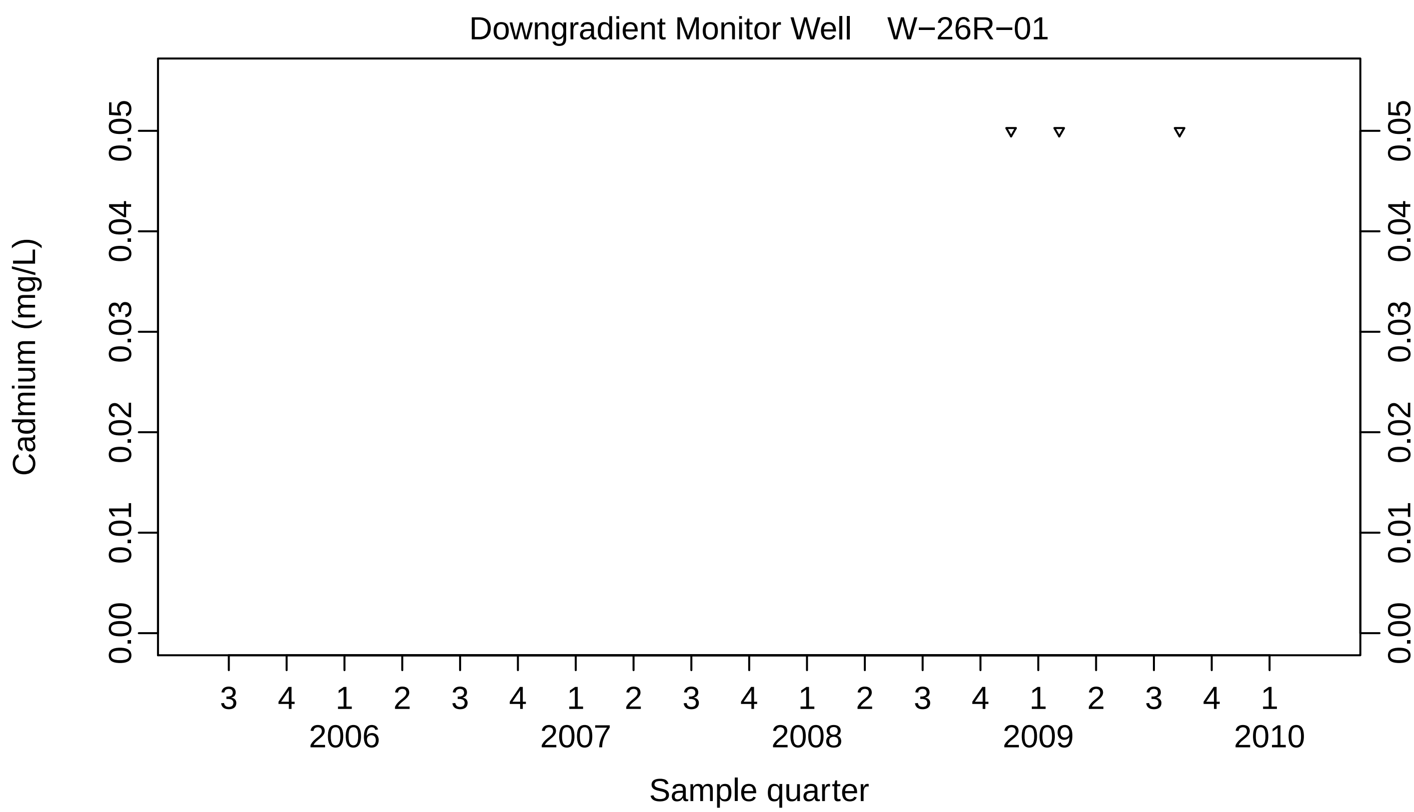
Sewage Ponds Ground Water
Cadmium (mg/L)



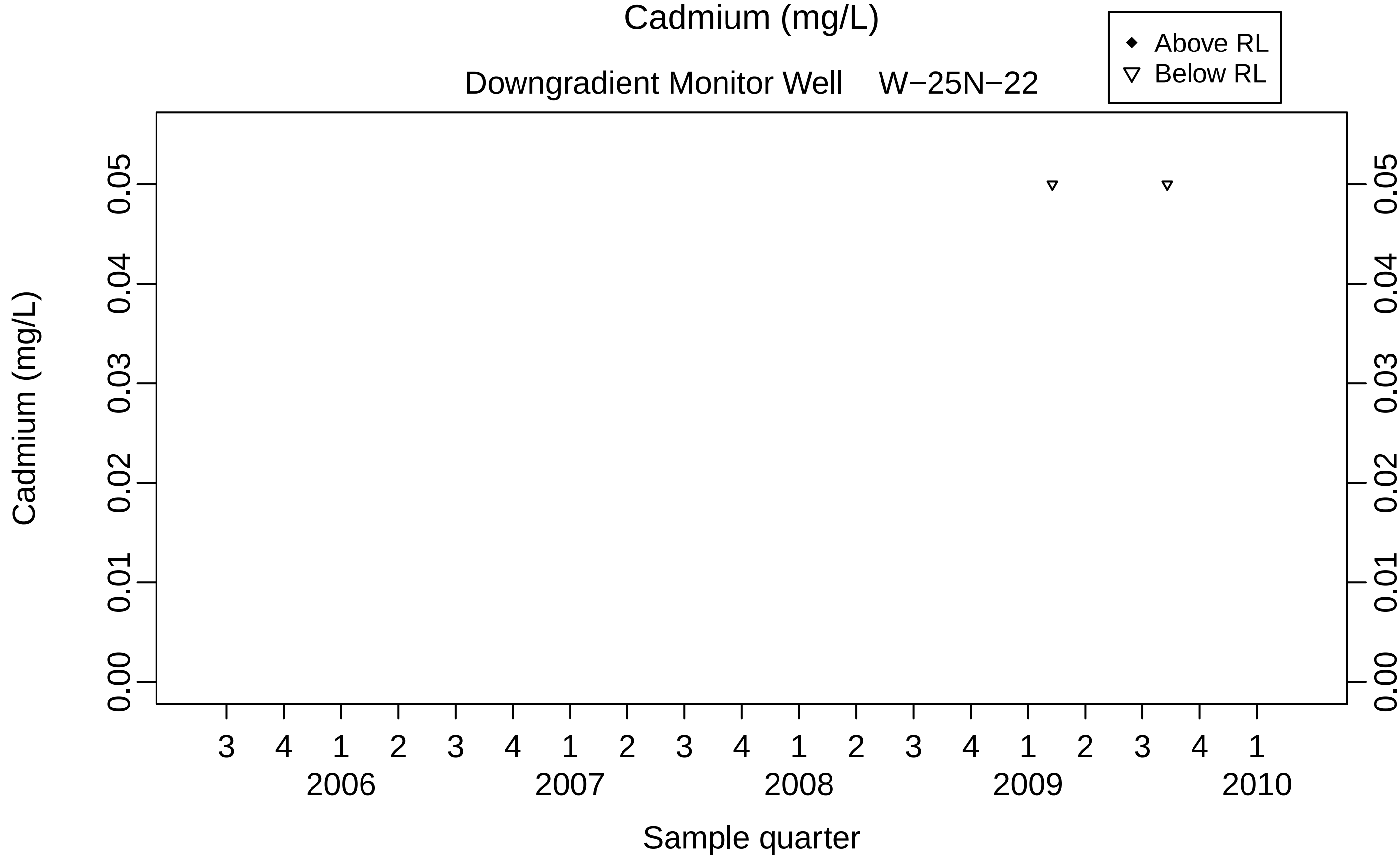


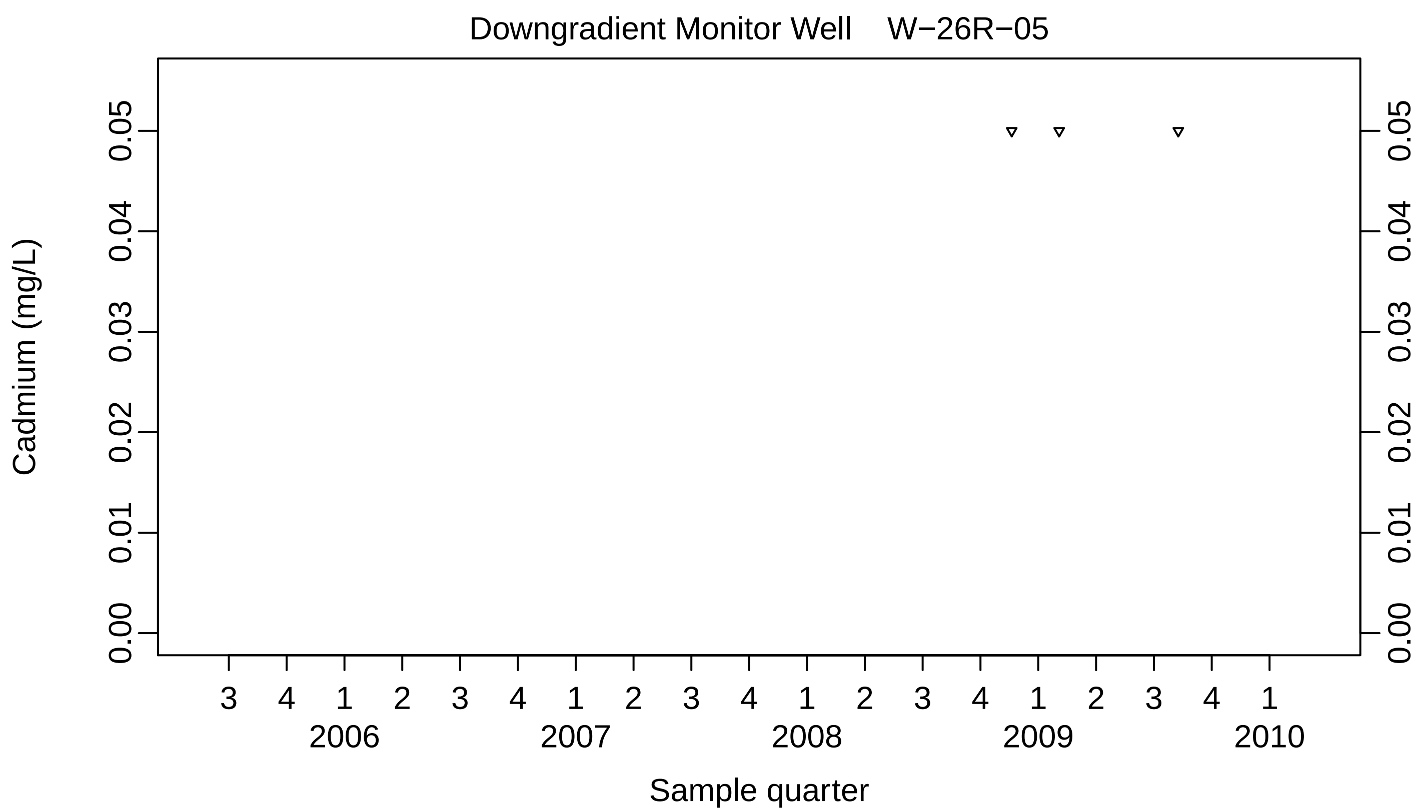
Sewage Ponds Ground Water
Cadmium (mg/L)



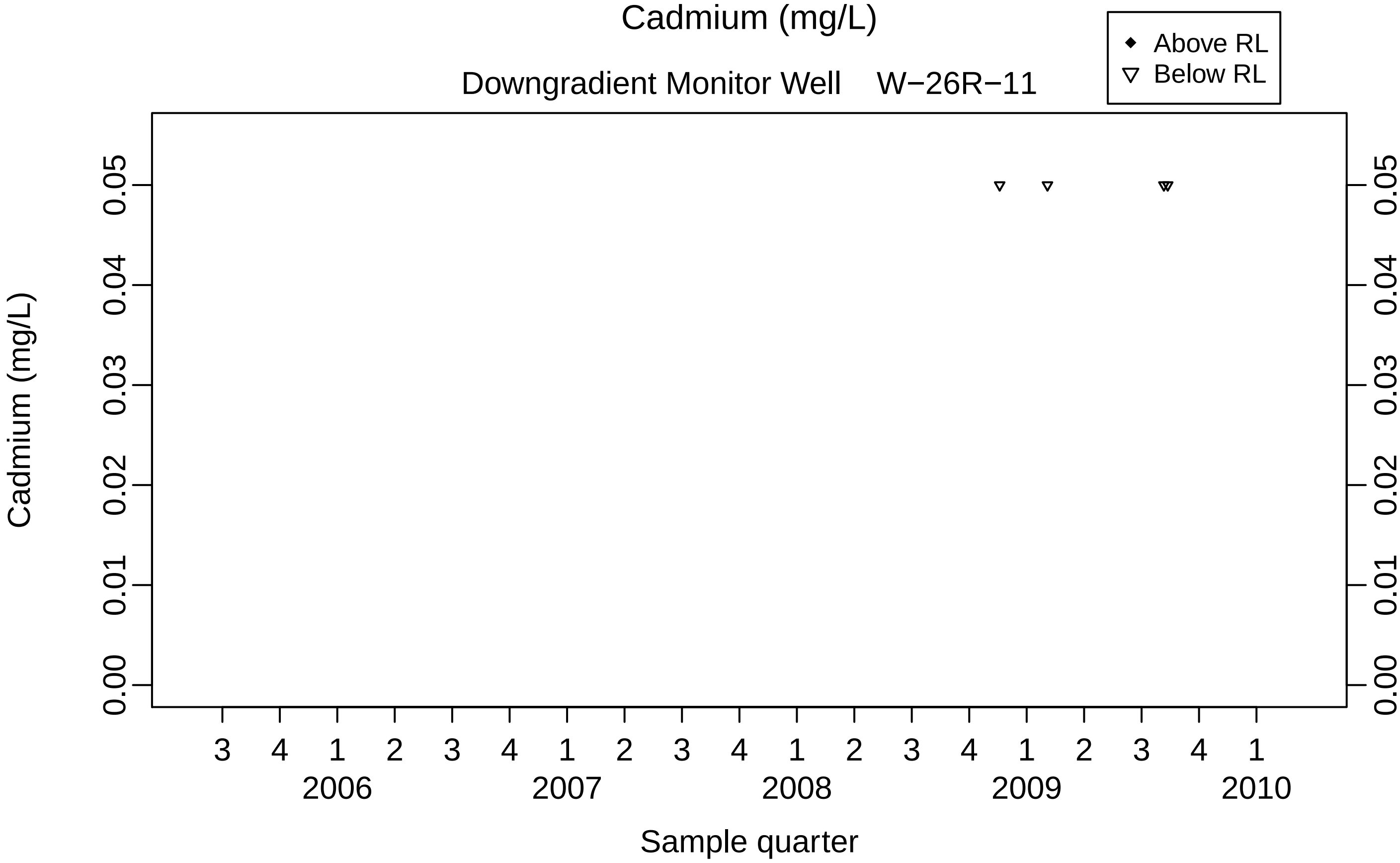


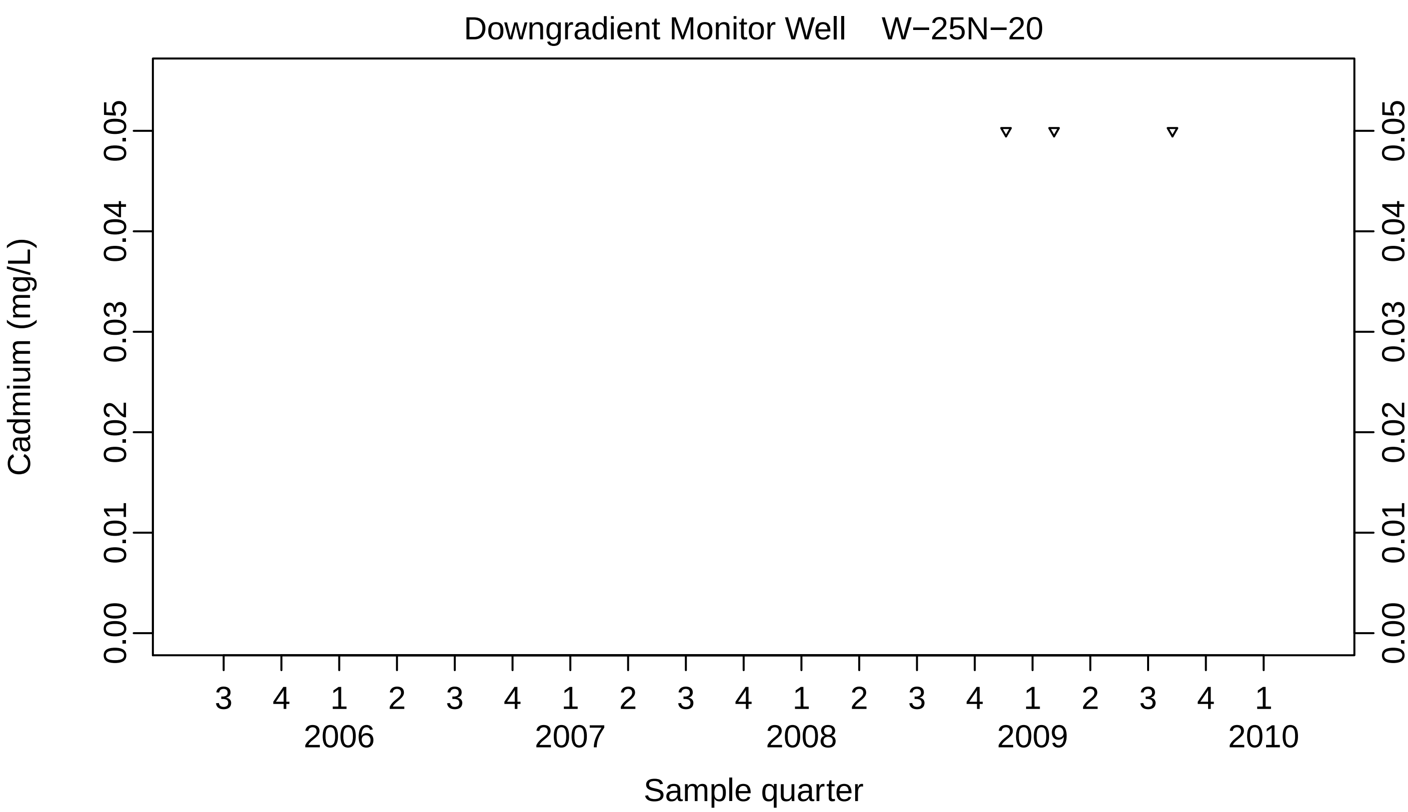
Sewage Ponds Ground Water
Cadmium (mg/L)



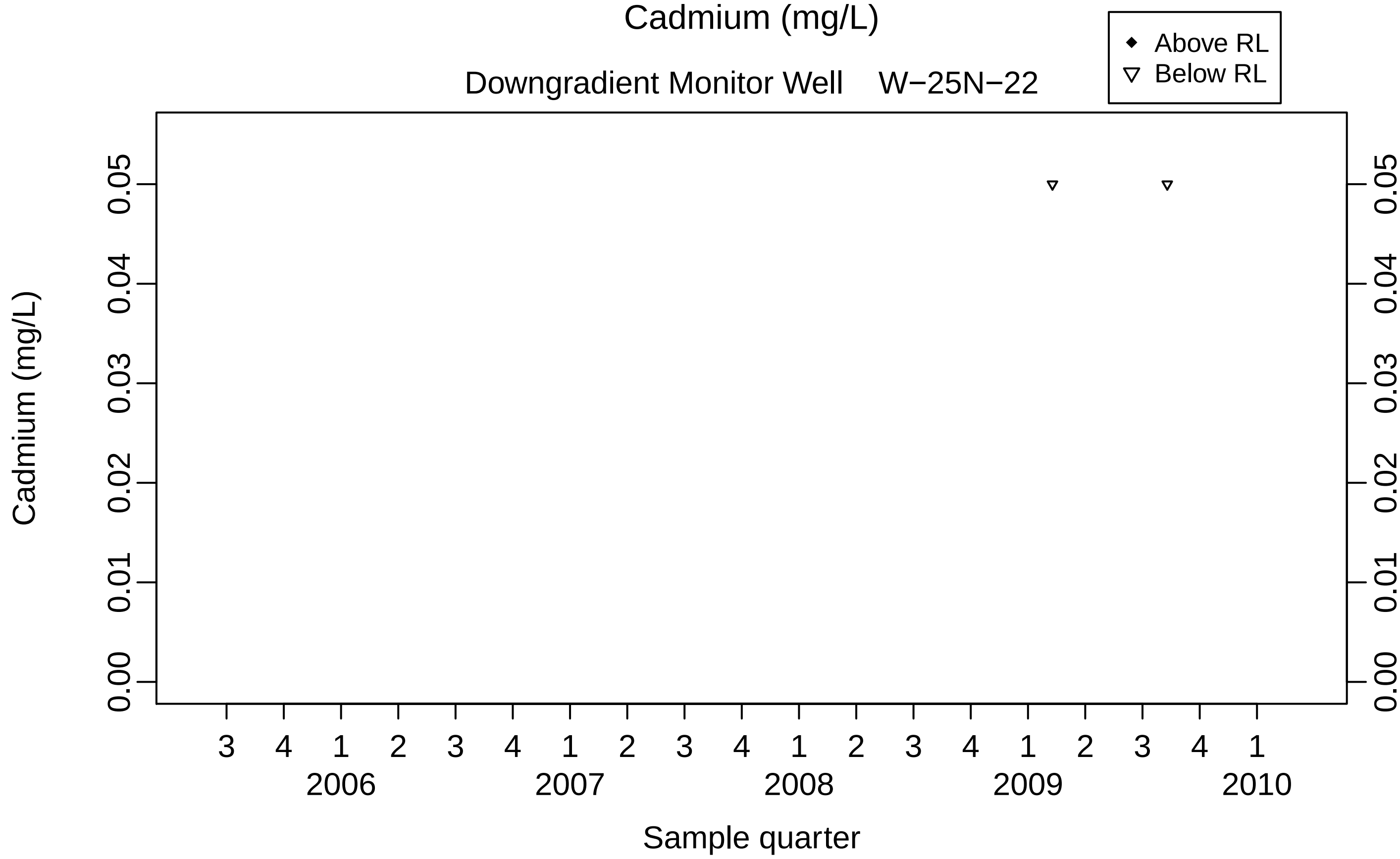


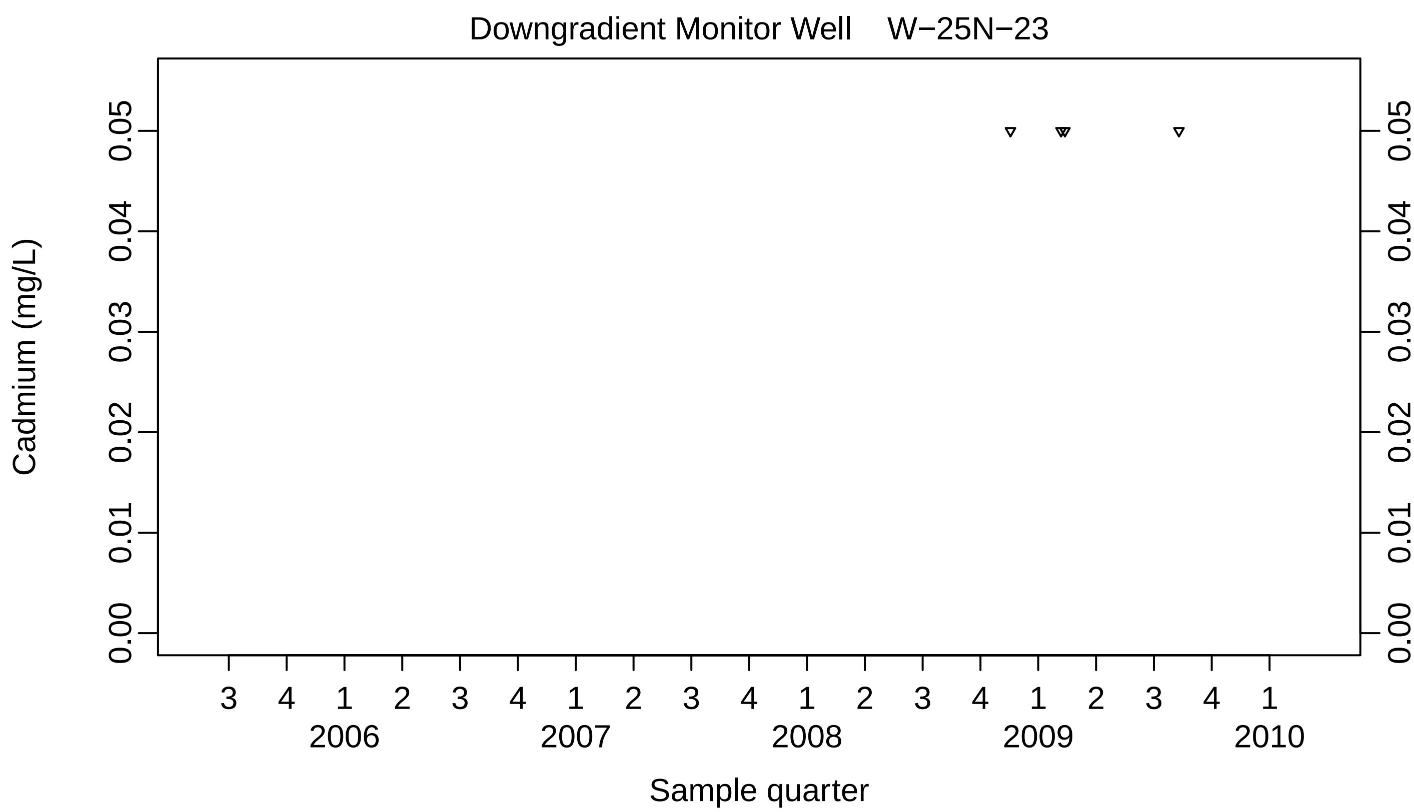
Sewage Ponds Ground Water
Cadmium (mg/L)

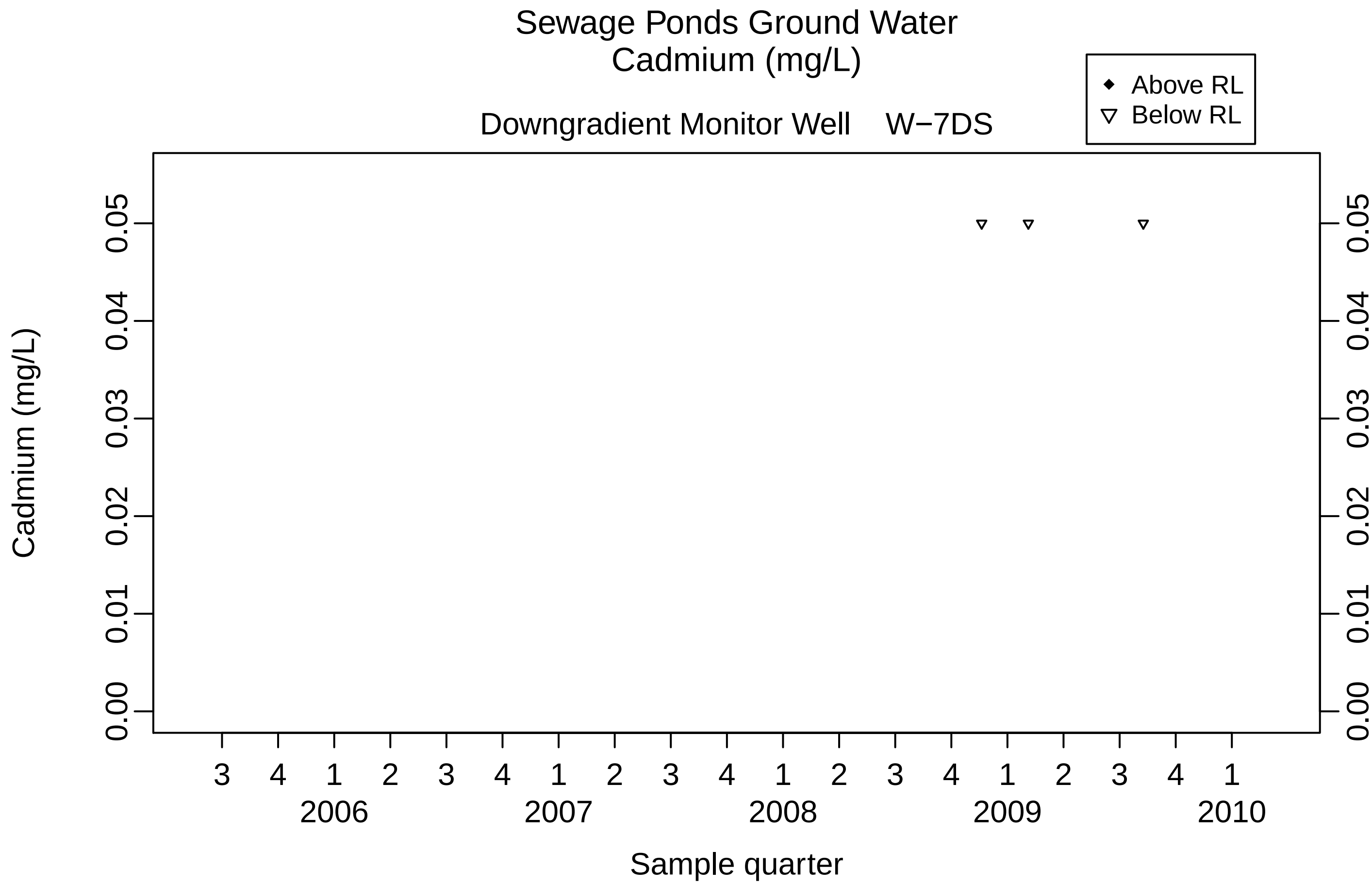




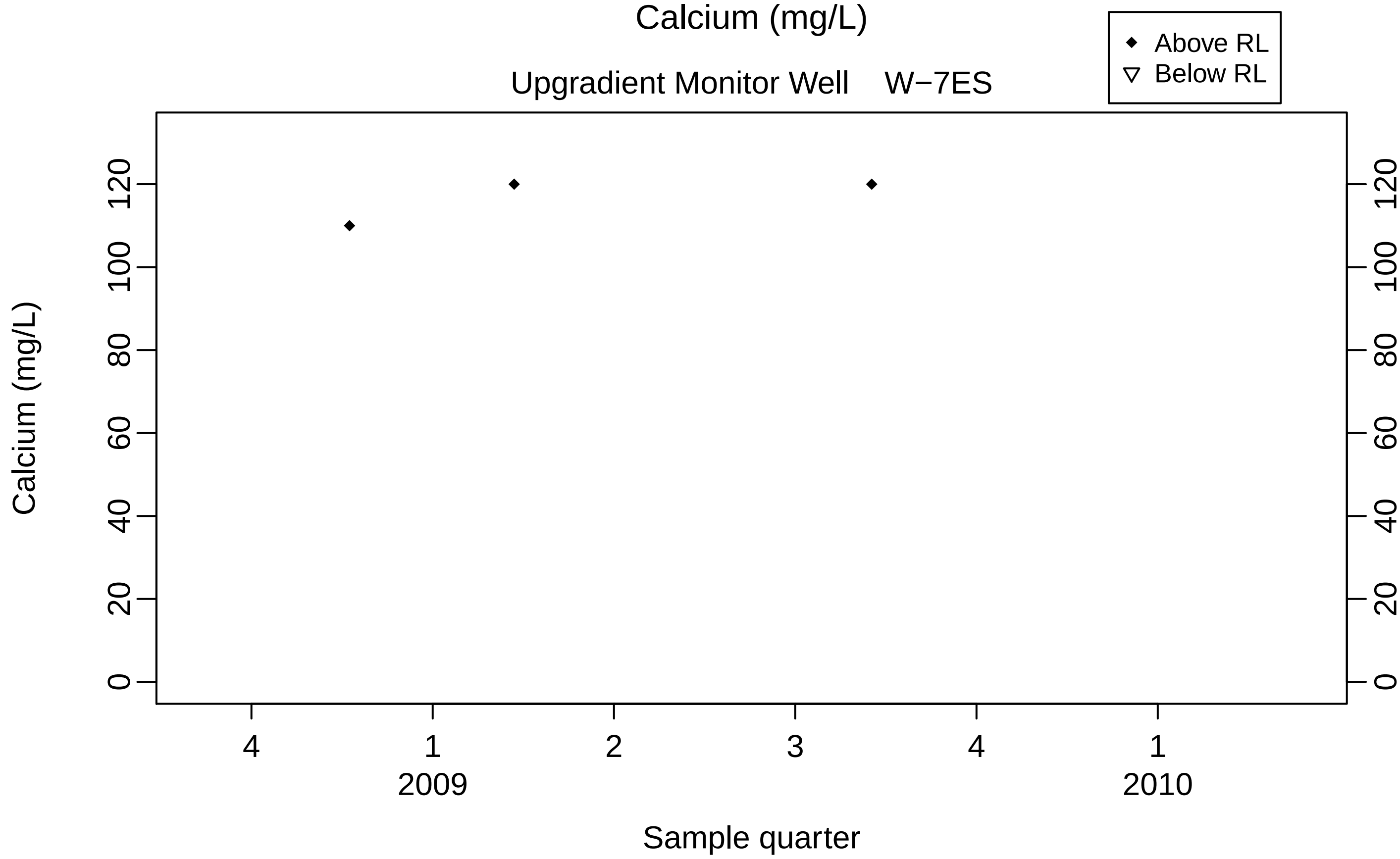
Sewage Ponds Ground Water
Cadmium (mg/L)

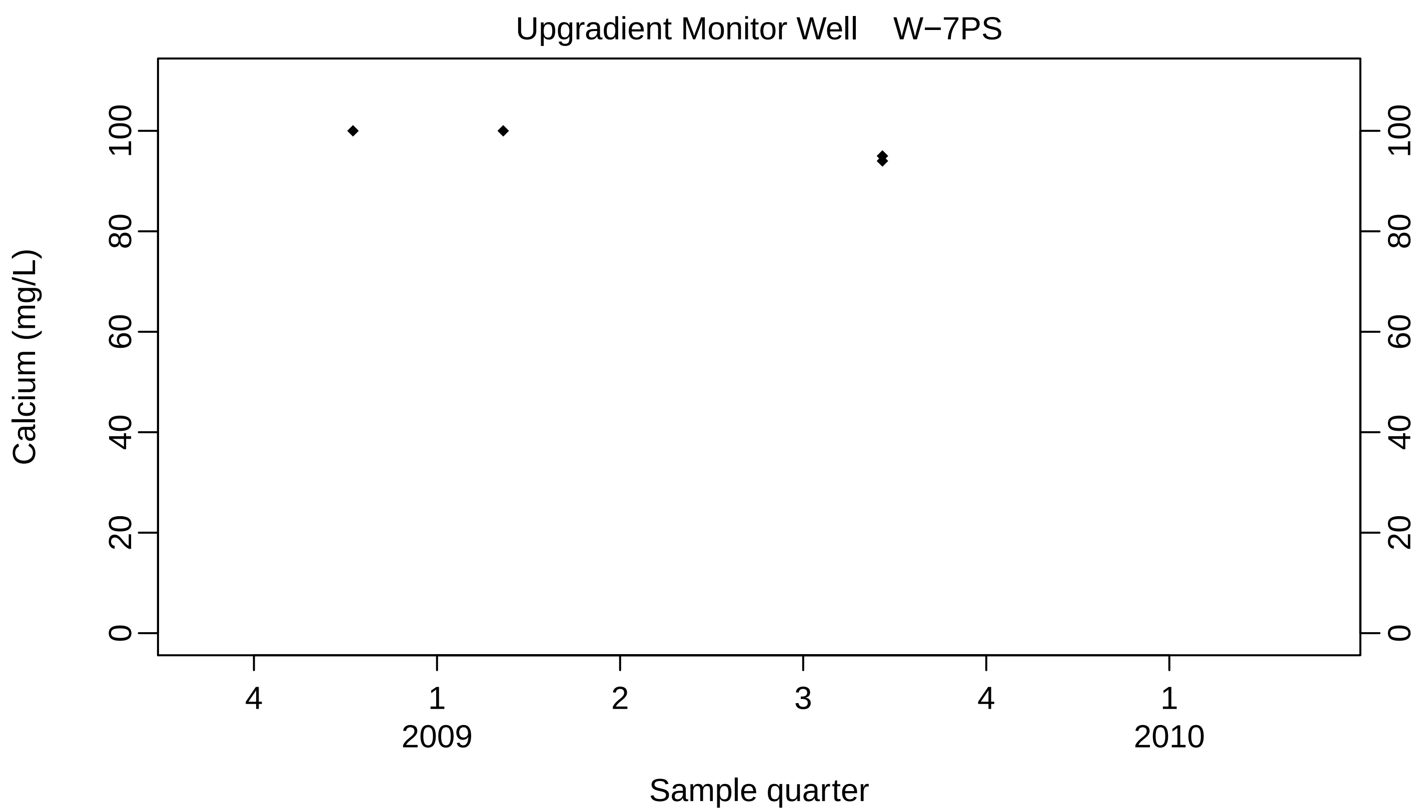




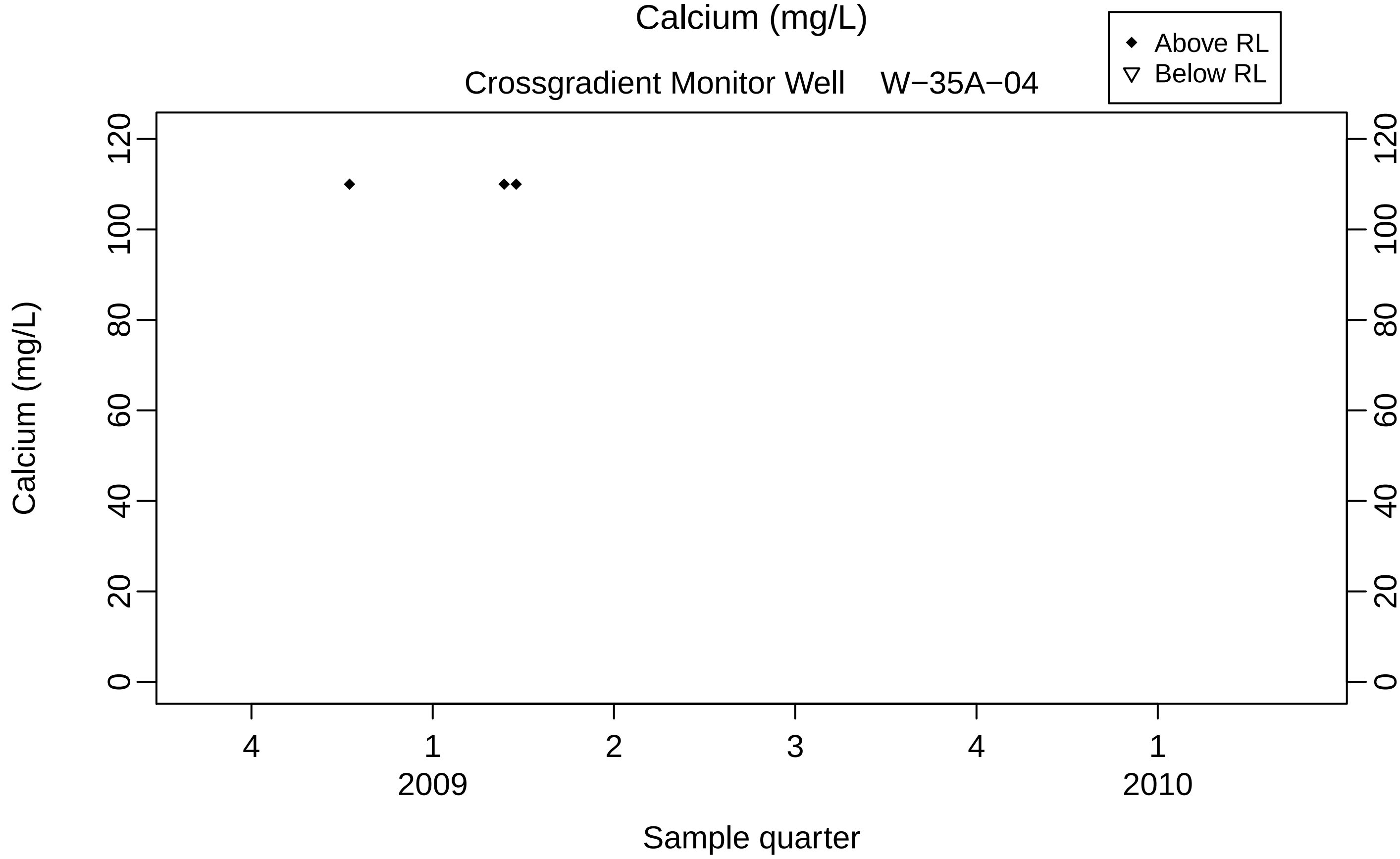

Sewage Ponds Ground Water
Cadmium (mg/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Cadmium (mg/L)
0.00
0.01
0.02
0.03
0.04
0.05
3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006
2007
2008
2009
2010
Sample quarter

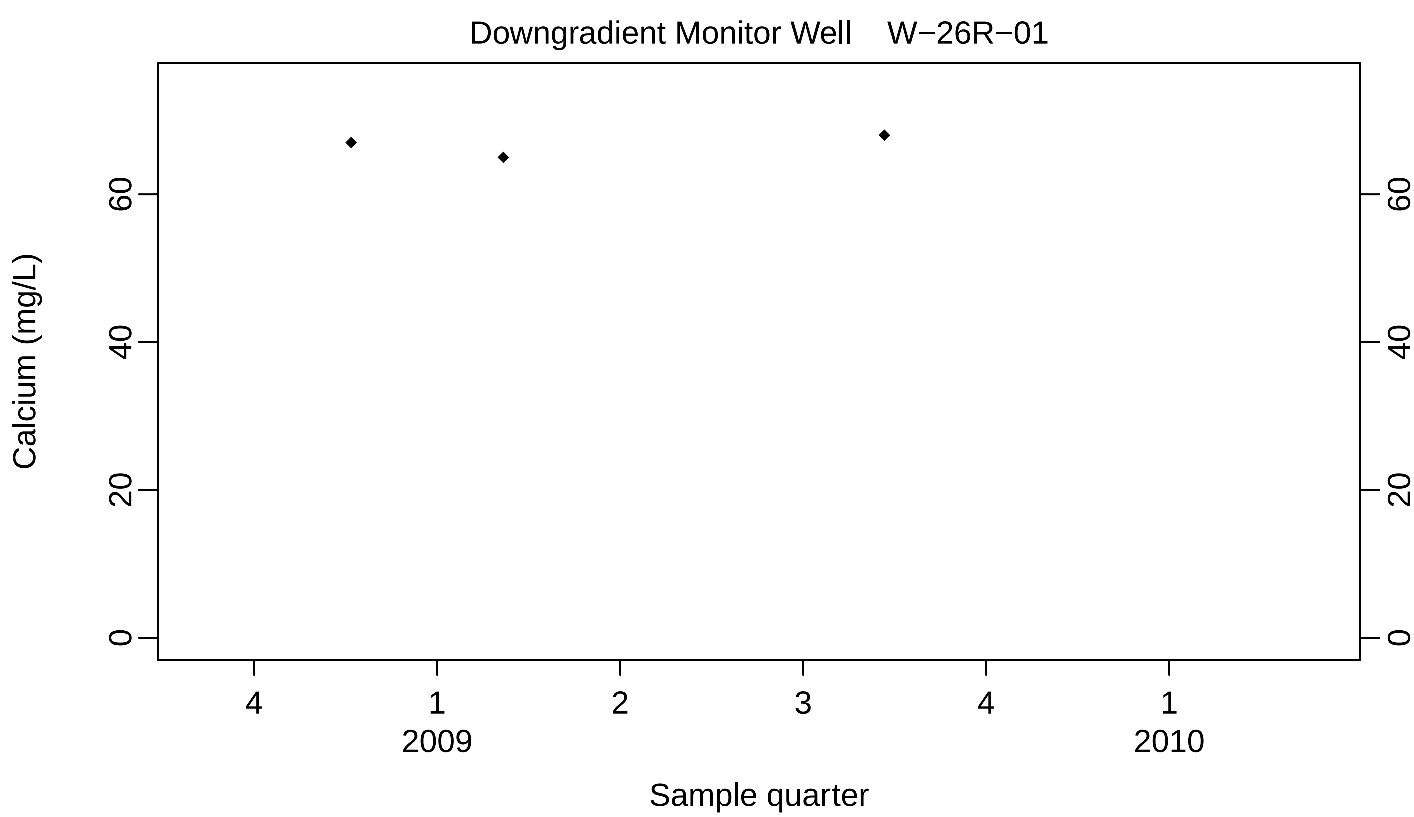
Sewage Ponds Ground Water
Calcium (mg/L)



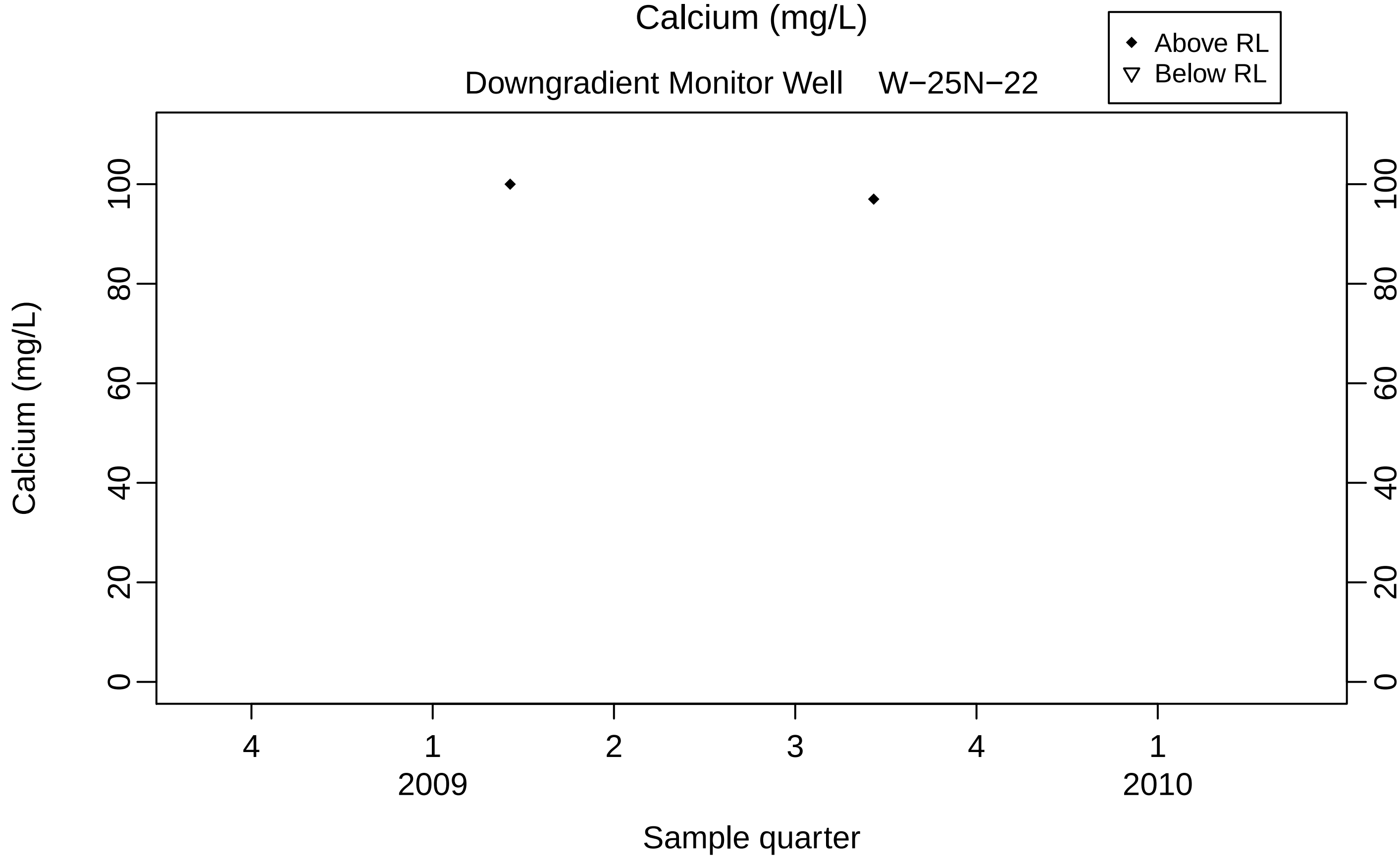


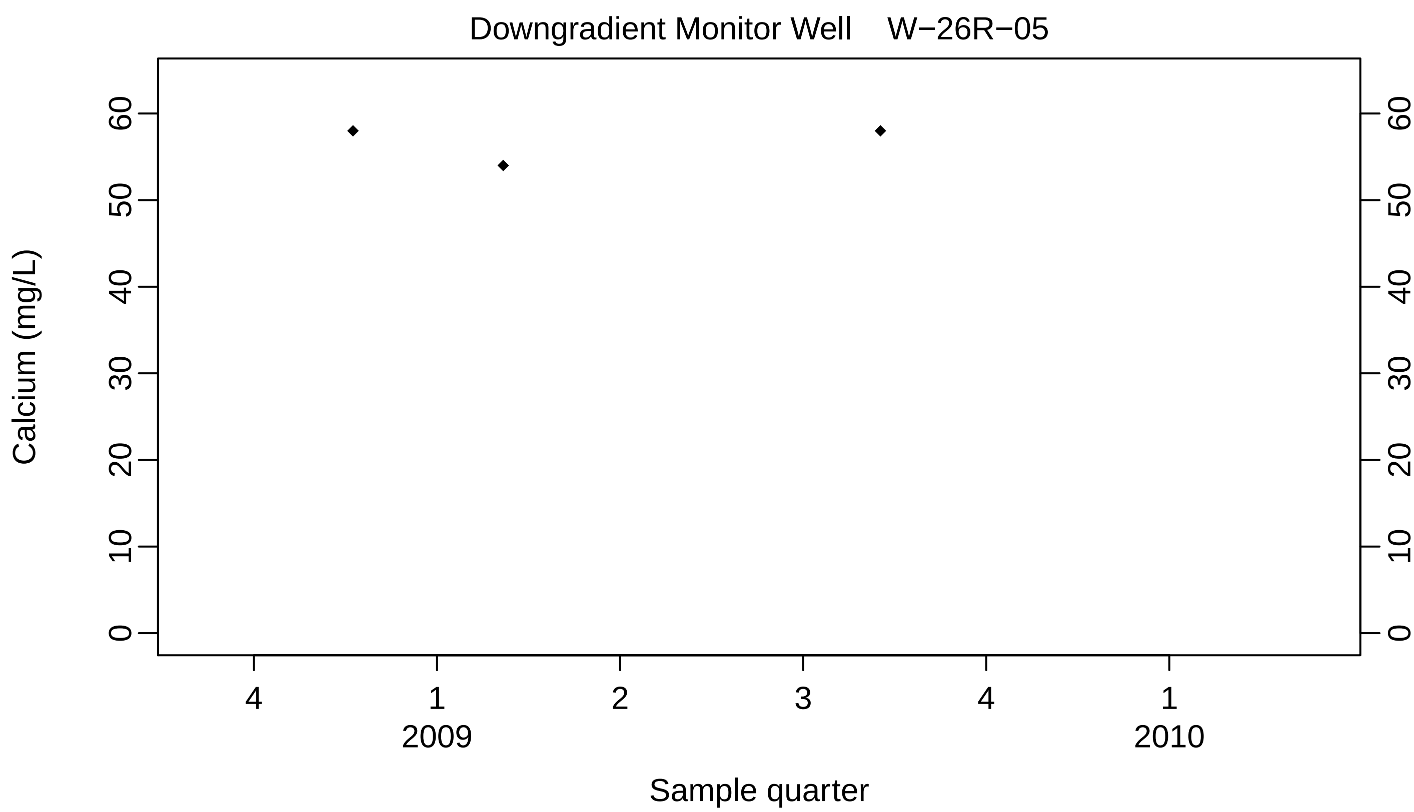
Sewage Ponds Ground Water
Calcium (mg/L)



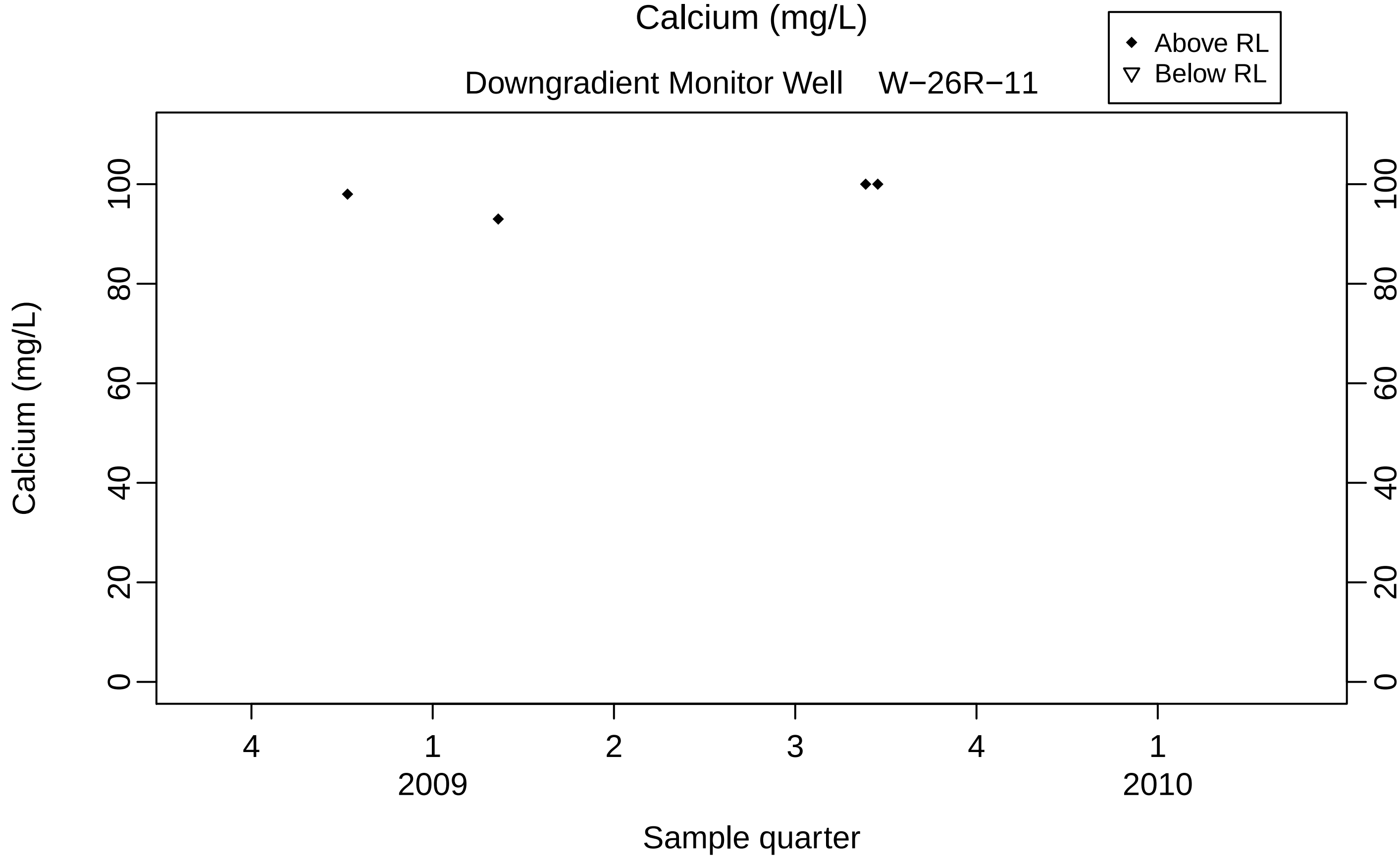


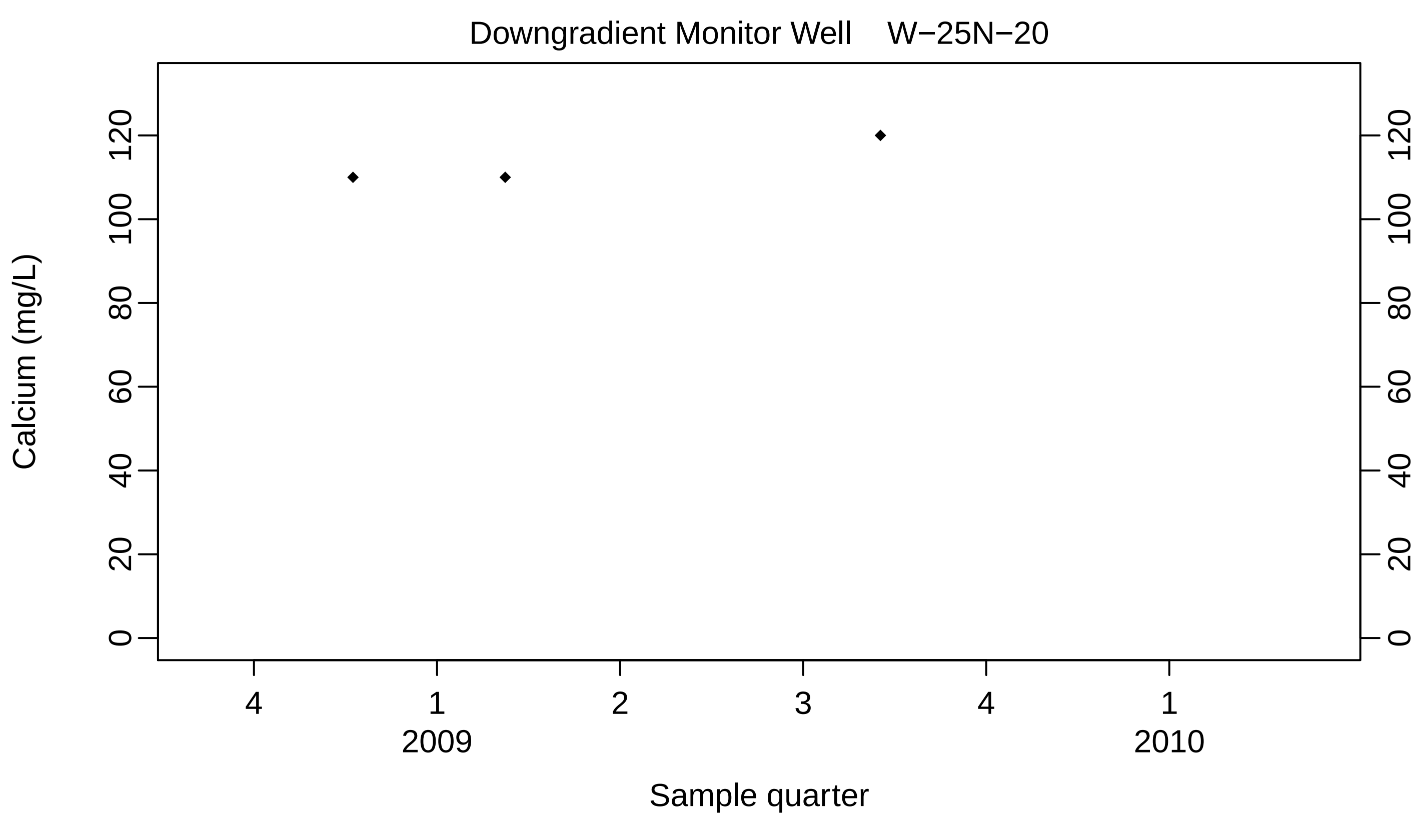
Sewage Ponds Ground Water
Calcium (mg/L)



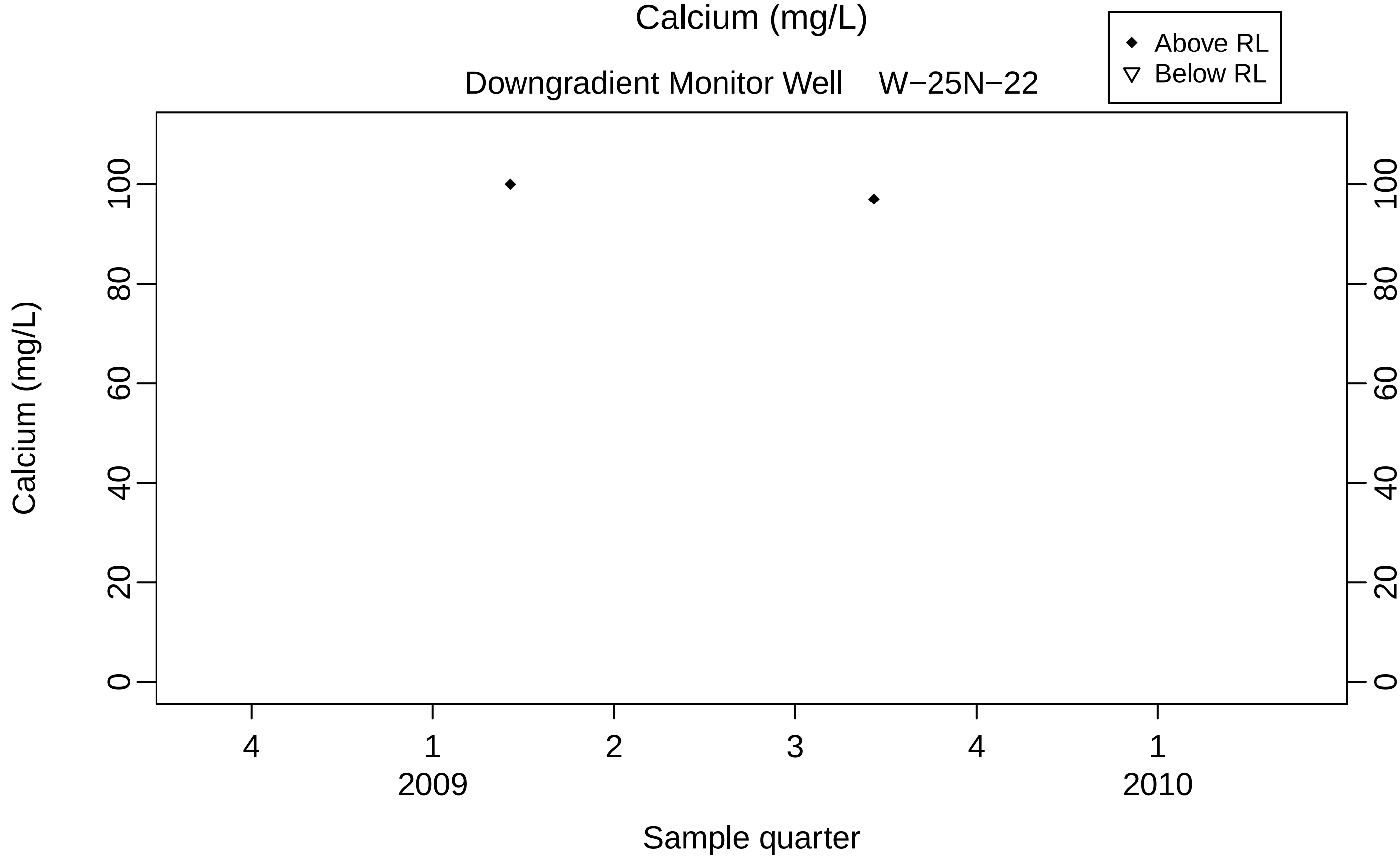


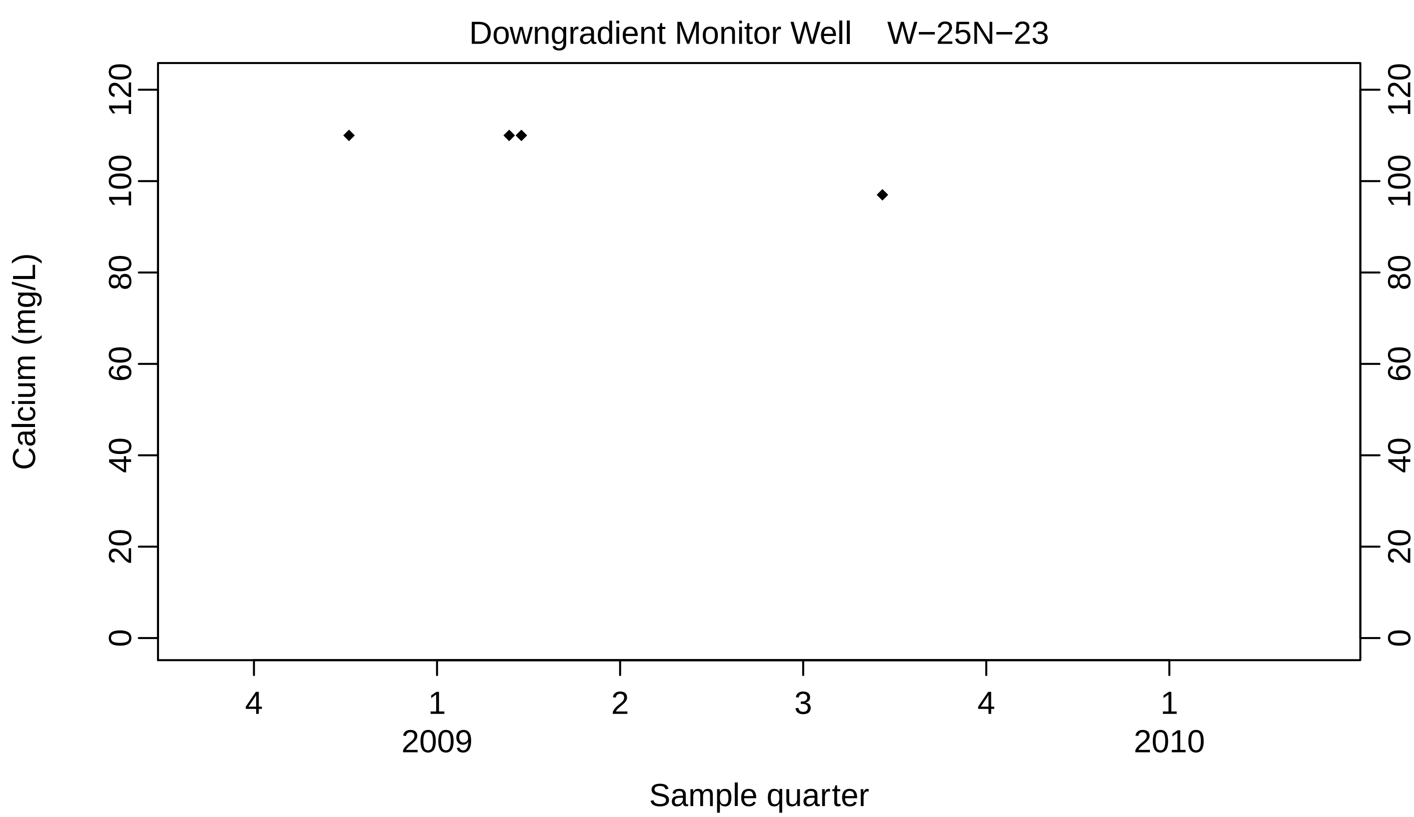
Sewage Ponds Ground Water
Calcium (mg/L)

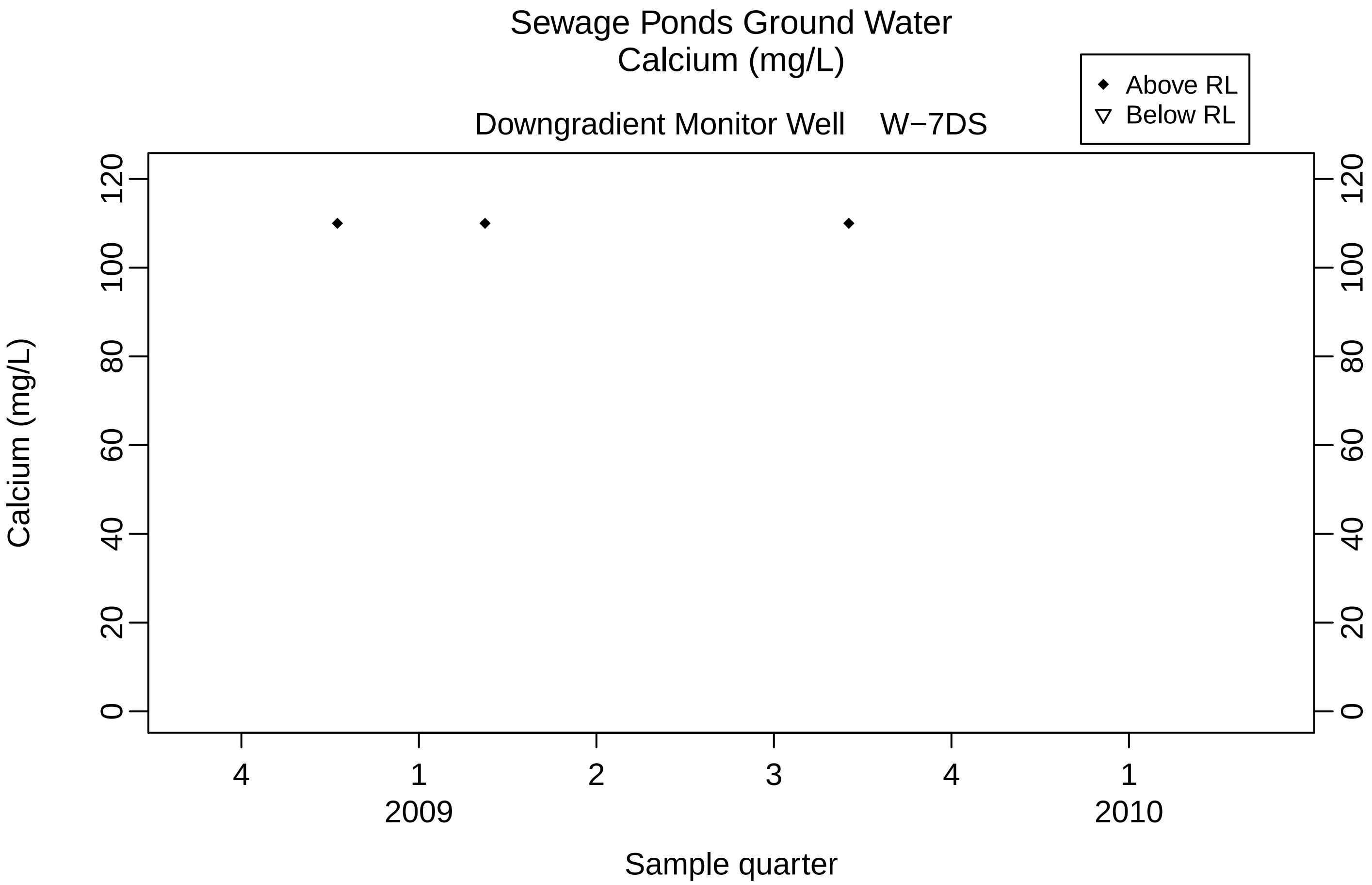


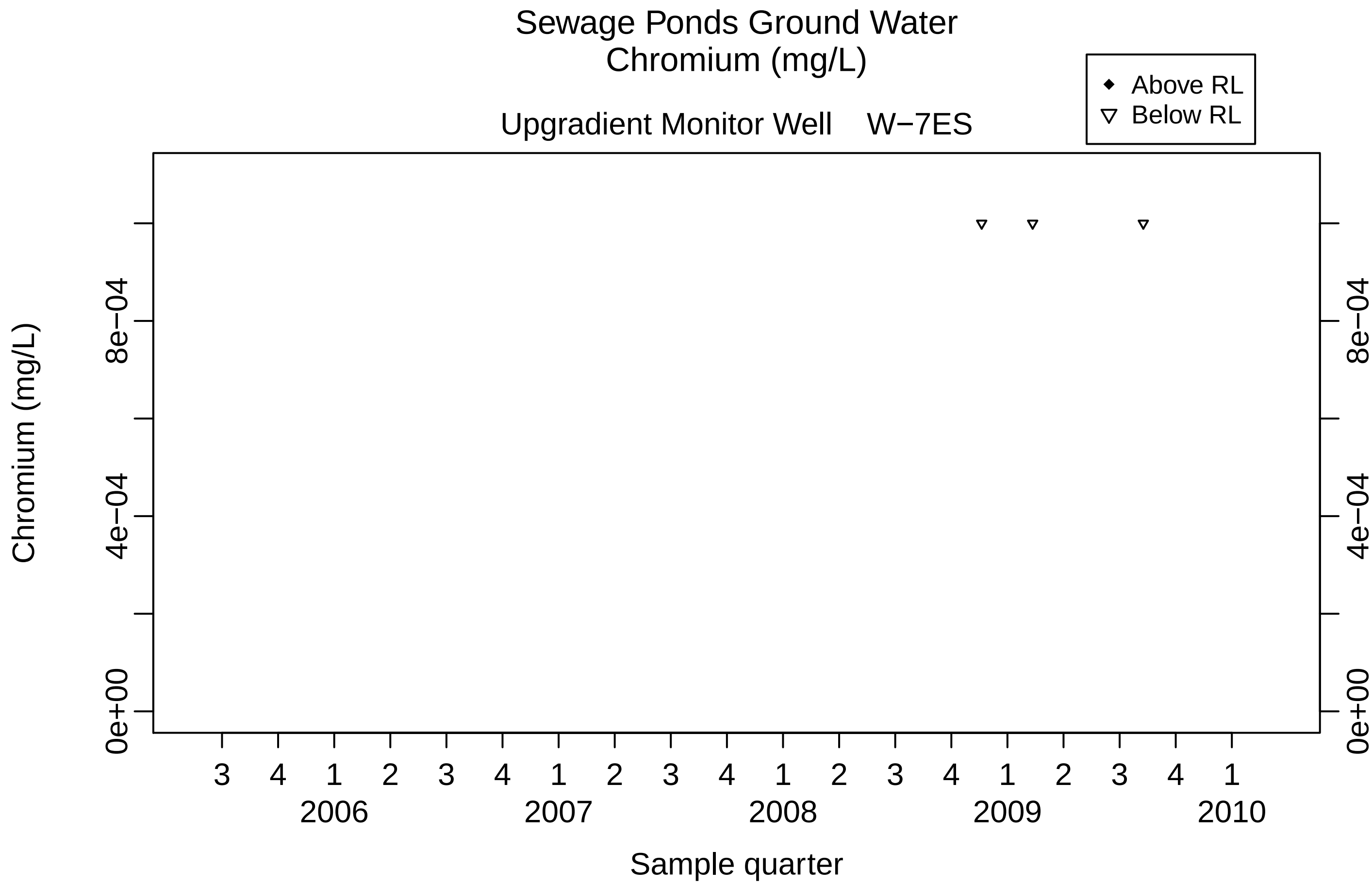


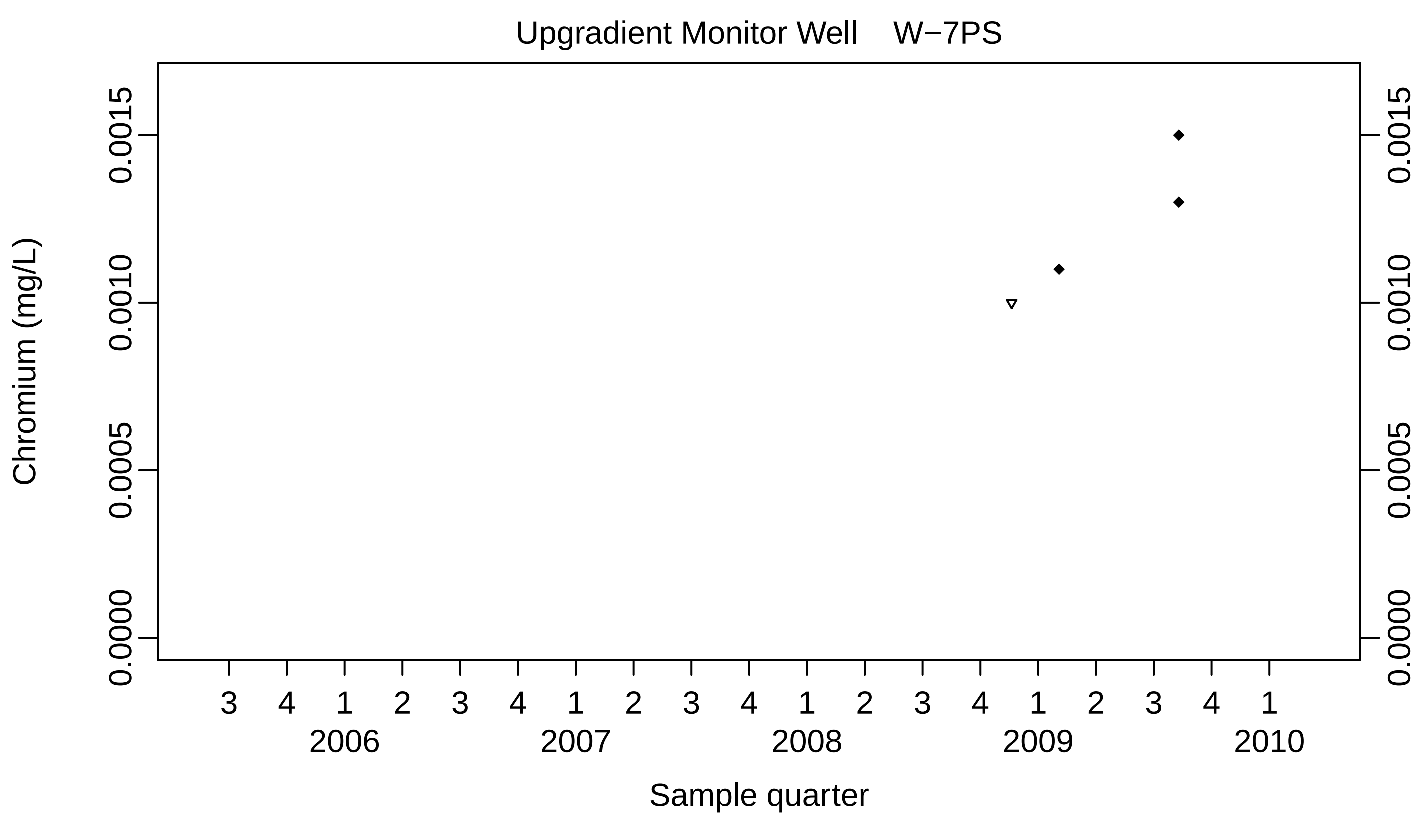
Sewage Ponds Ground Water
Calcium (mg/L)



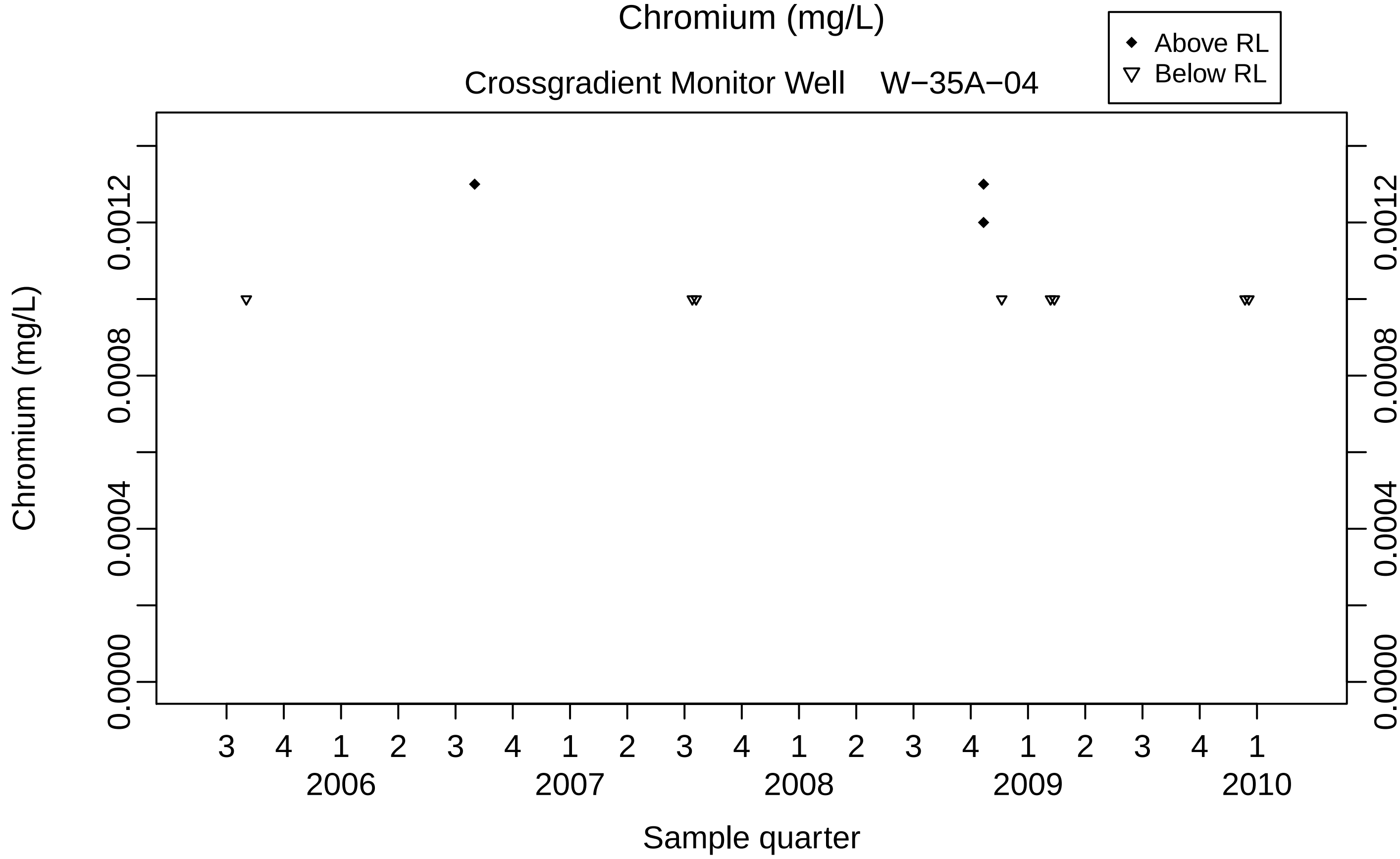


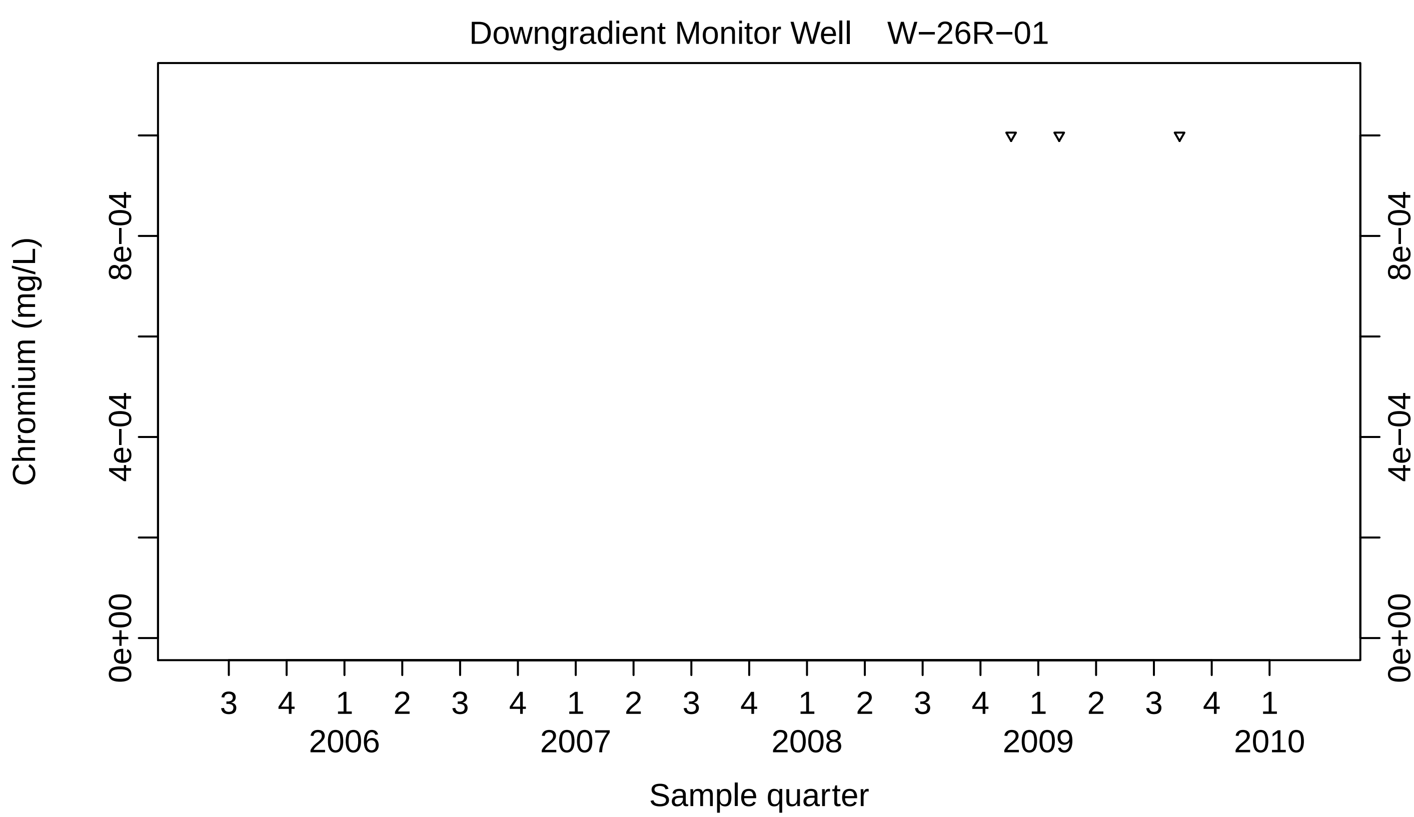

Sewage Ponds Ground Water
Calcium (mg/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Calcium (mg/L)
0
20
40
60
80
100
120
4
1
2
3
4
1
2009
2010
Sample quarter


Sewage Ponds Ground Water
Chromium (mg/L)
Above RL
Below RL
Upgradient Monitor Well W−7ES
Chromium (mg/L)
0e+00
4e−04
8e−04
3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006 2007 2008 2009 2010
Sample quarter

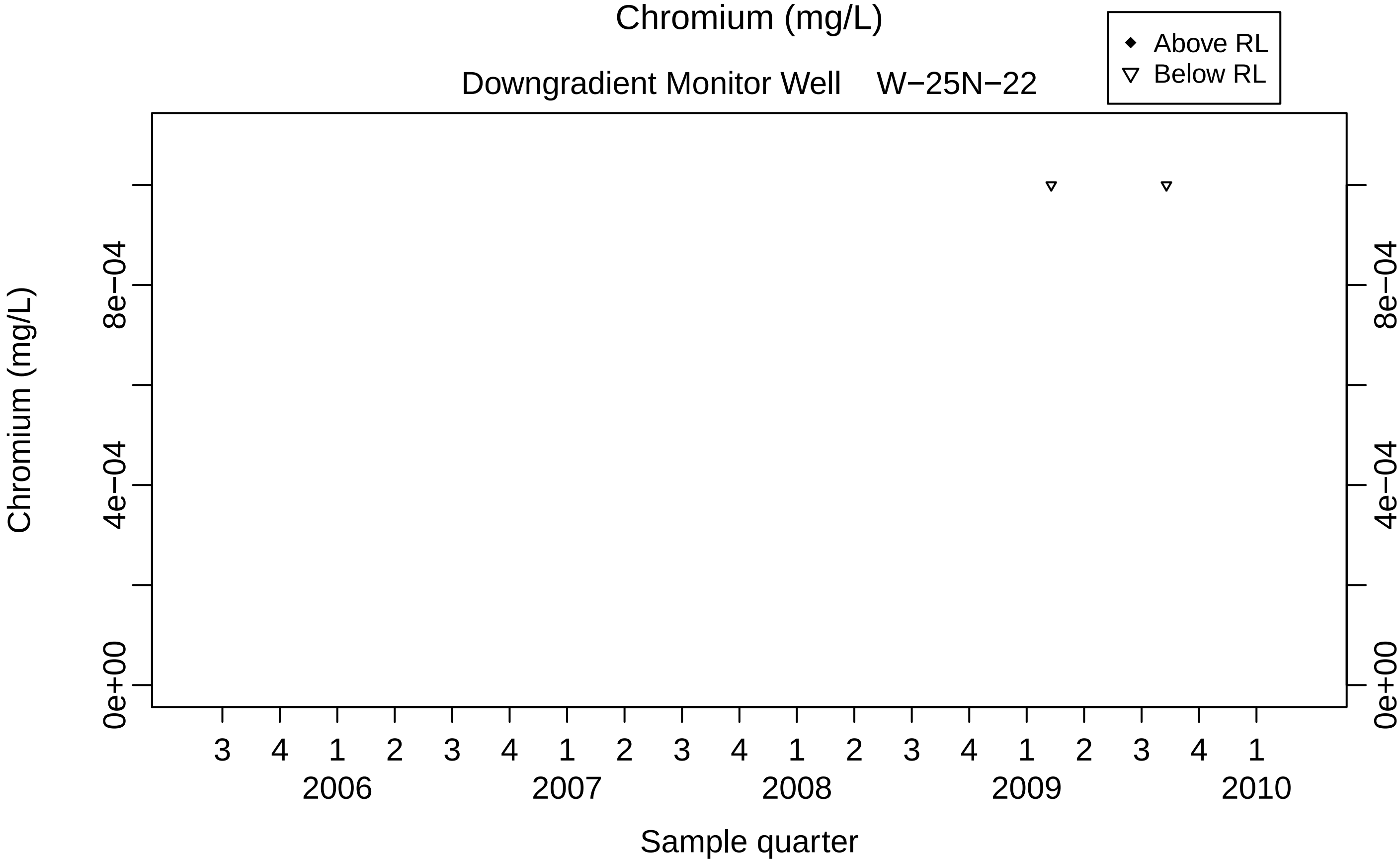

Upgradient Monitor Well W−7PS
Chromium (mg/L)
0.0000
0.0005
0.0010
0.0015
3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006 2007 2008 2009 2010
Sample quarter

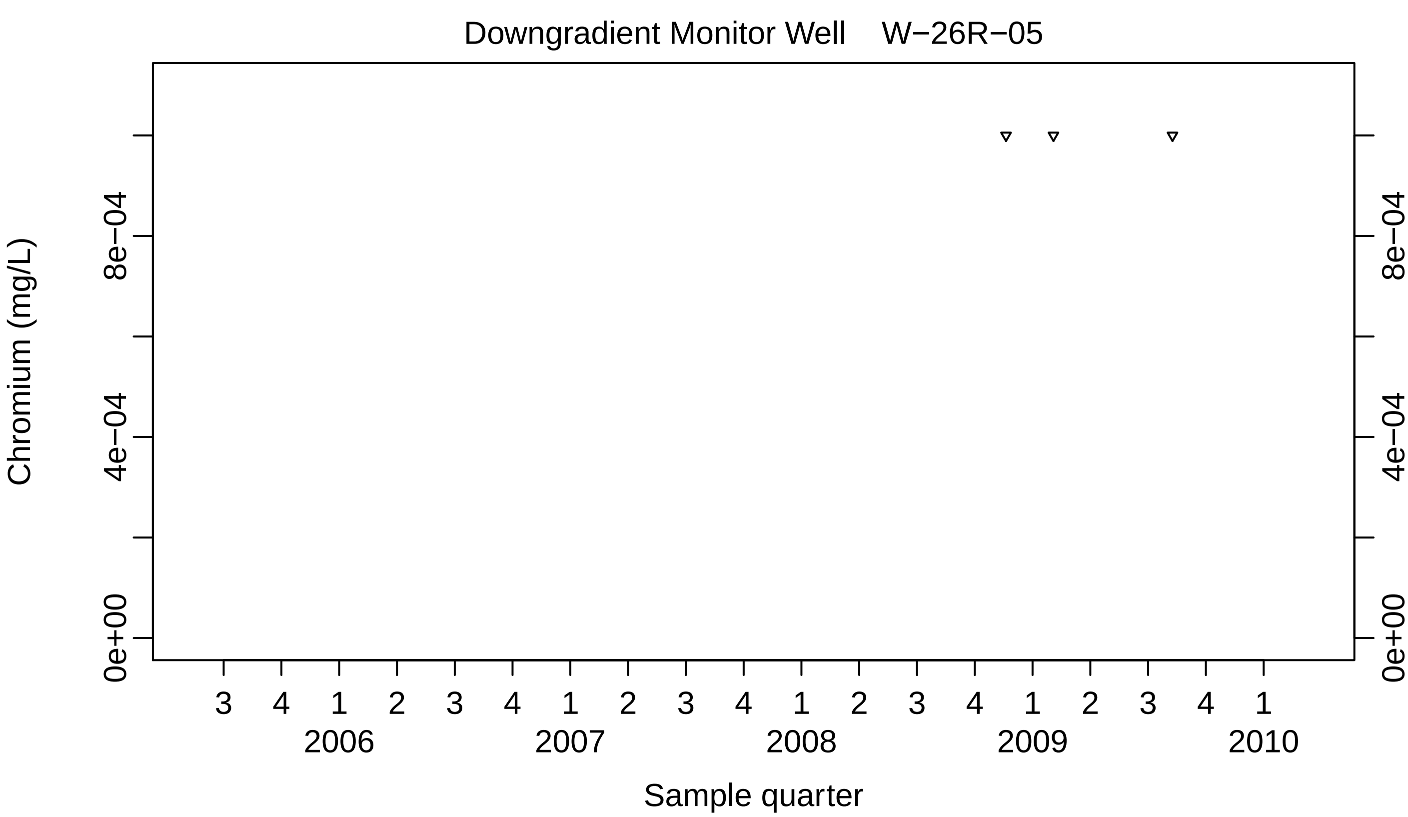
Sewage Ponds Ground Water
Chromium (mg/L)



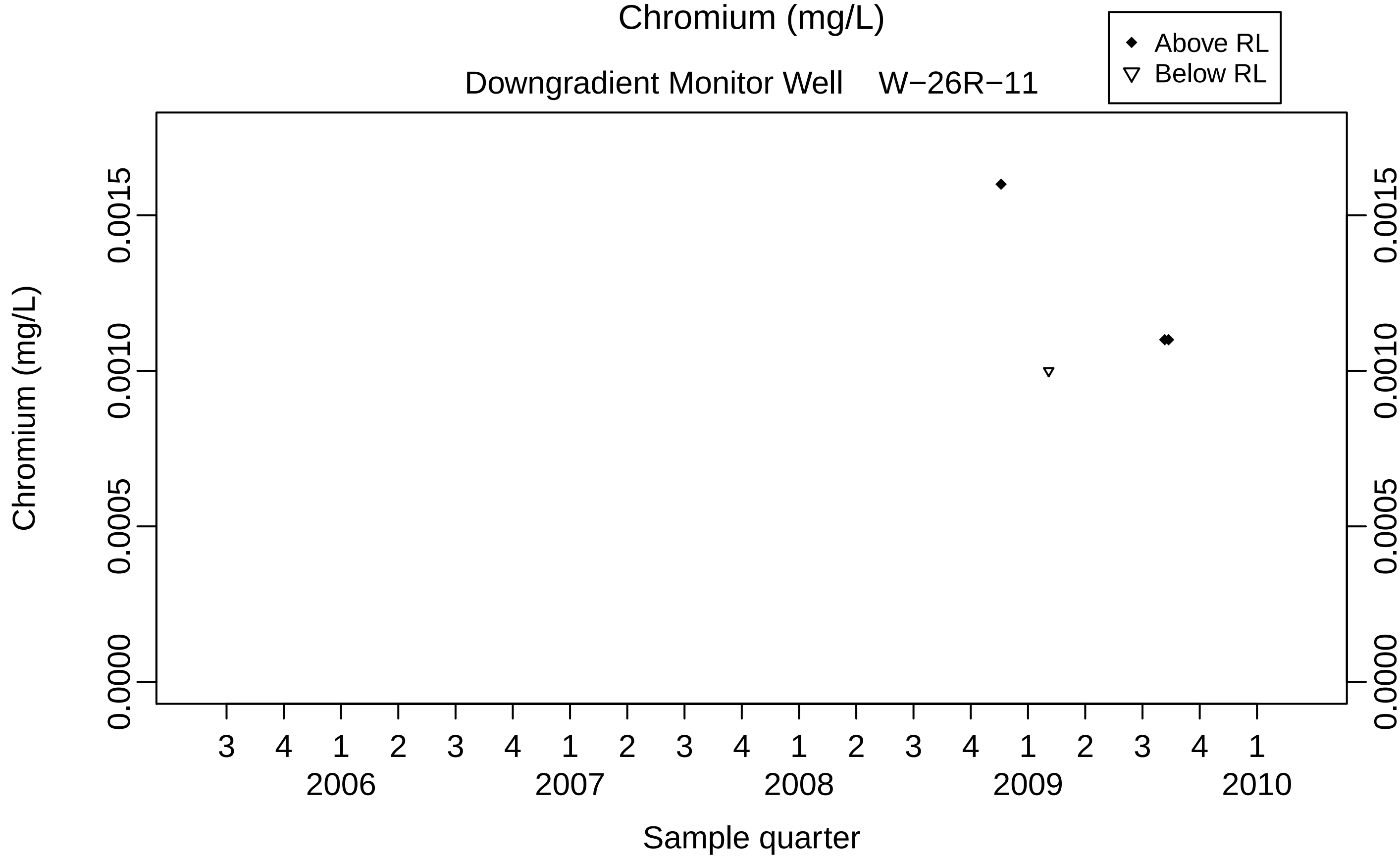


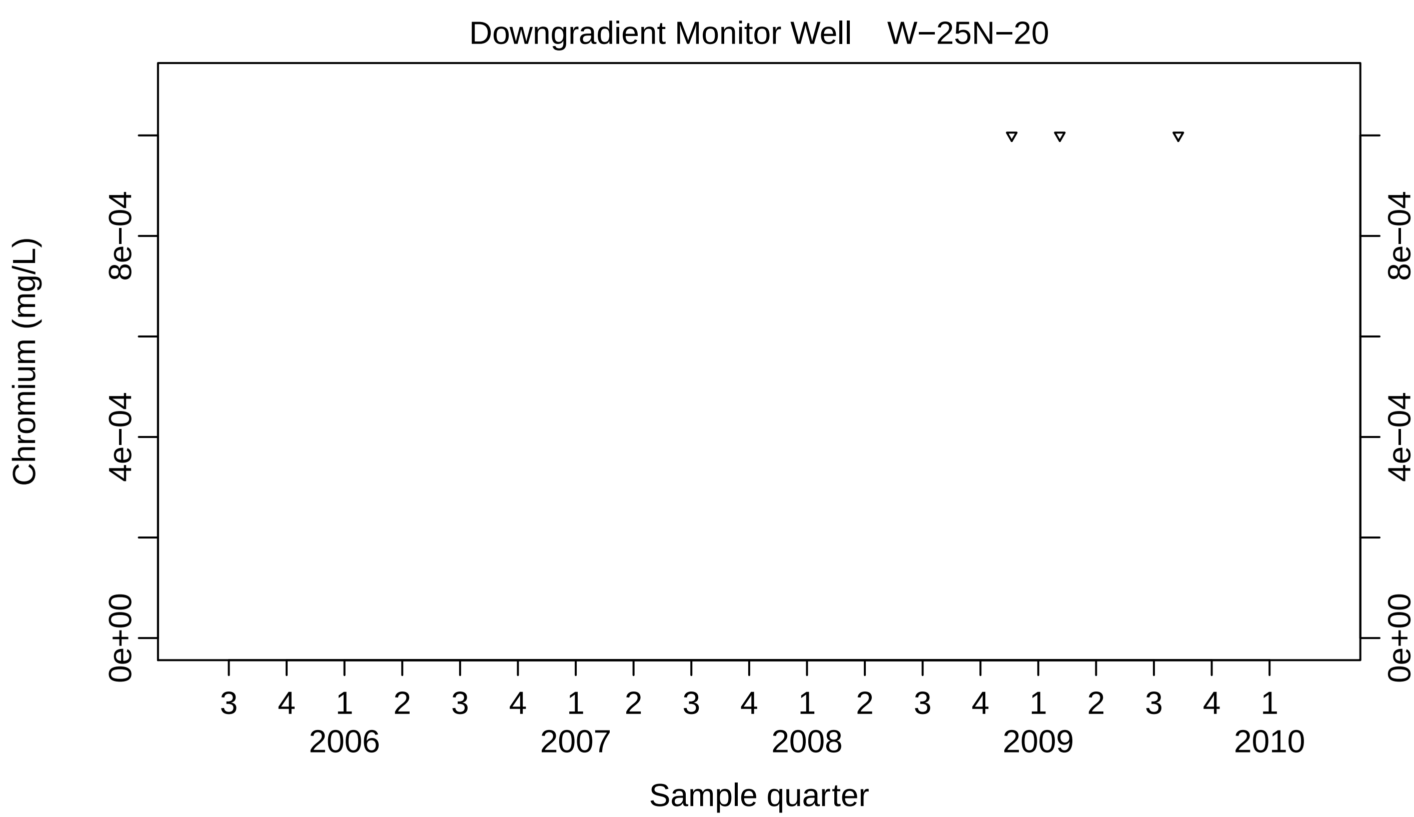
Sewage Ponds Ground Water
Chromium (mg/L)



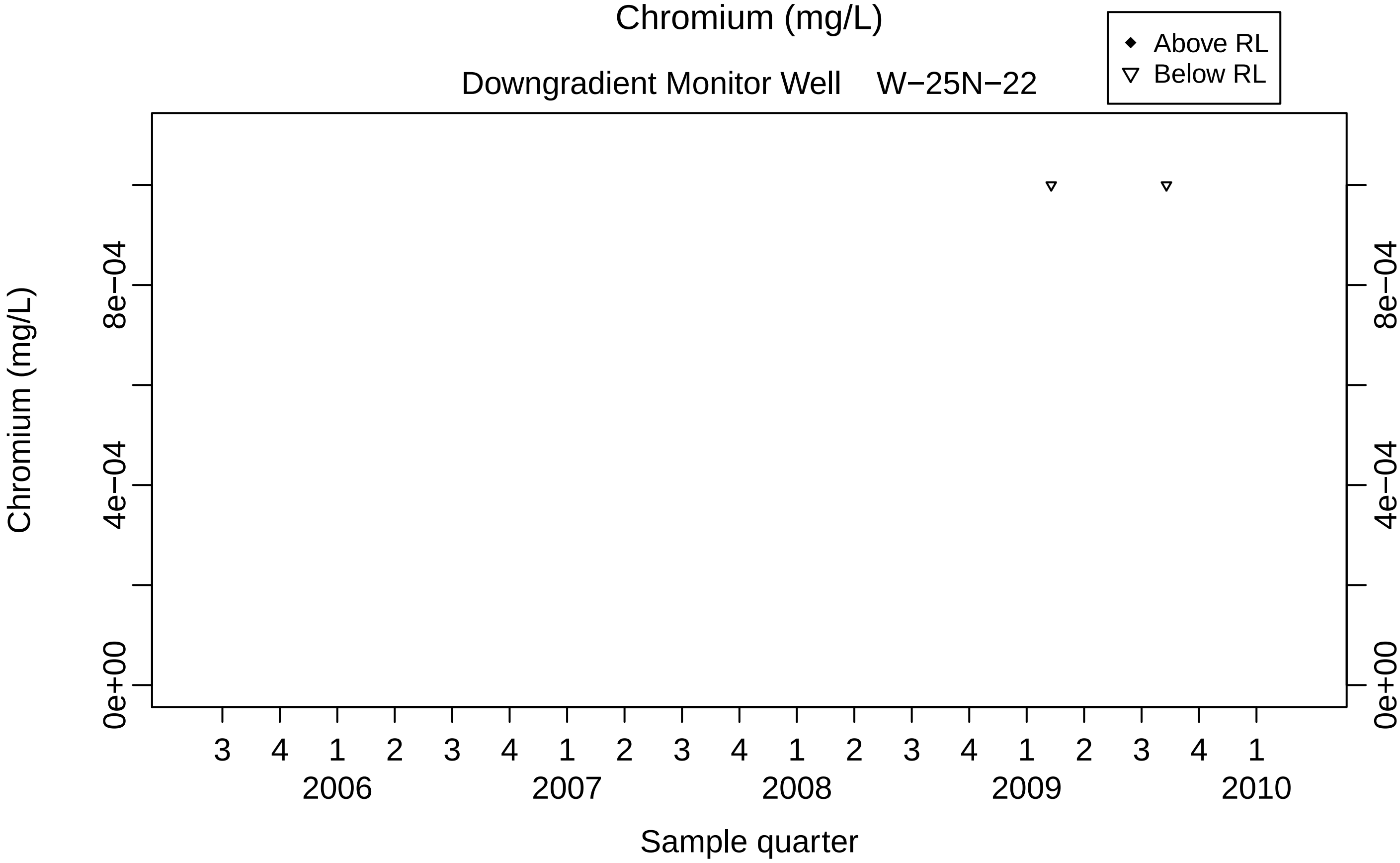


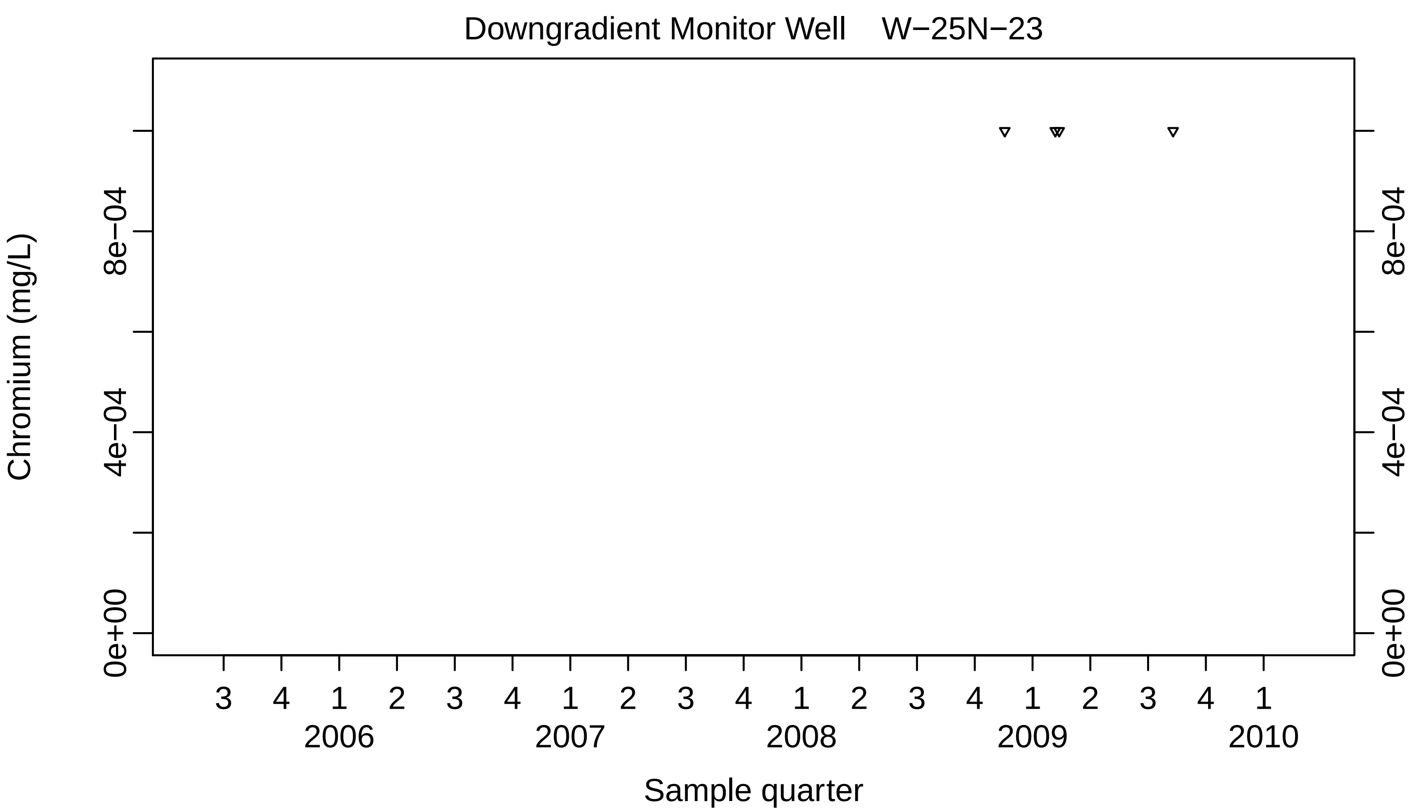
Sewage Ponds Ground Water
Chromium (mg/L)

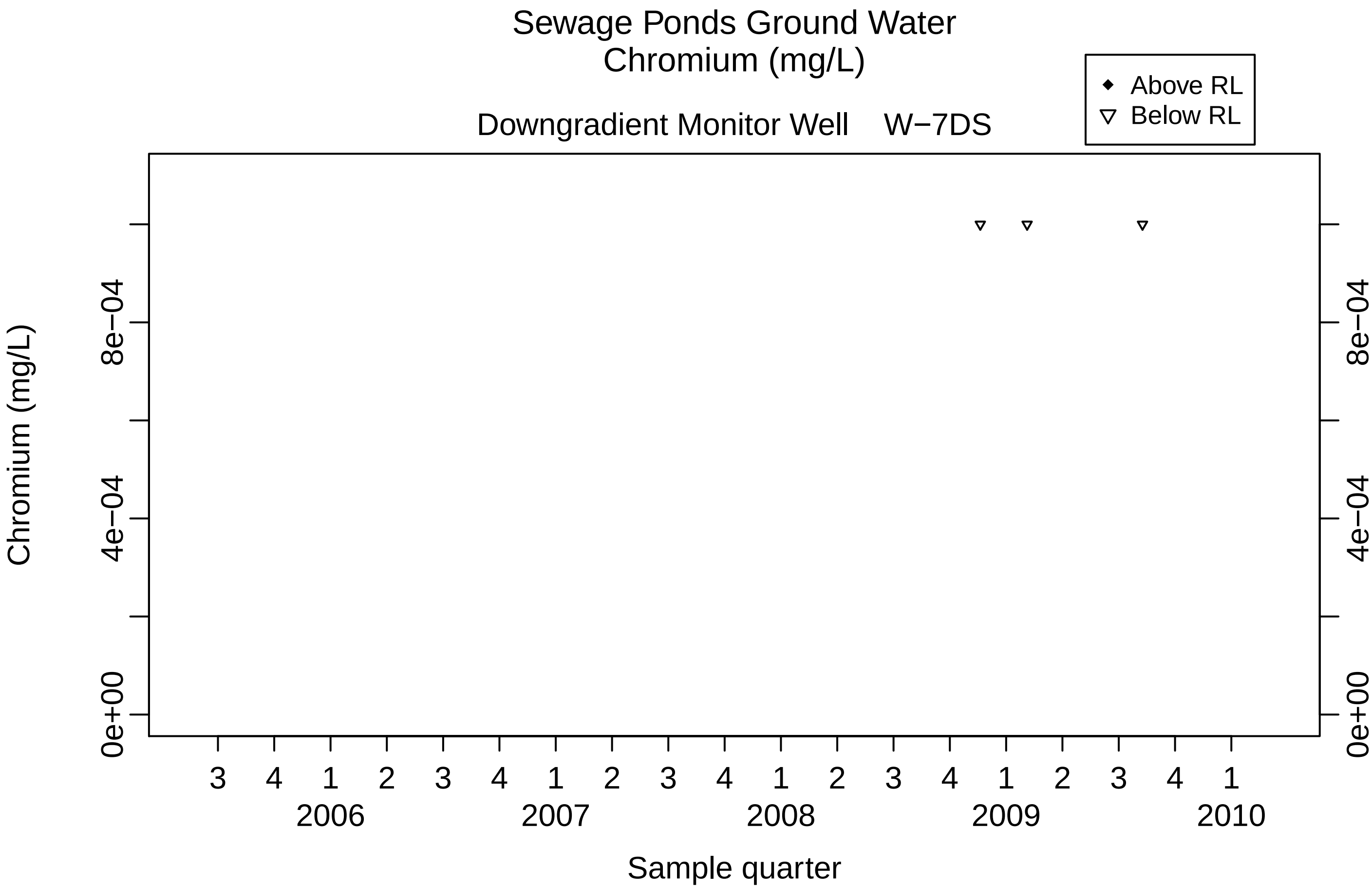




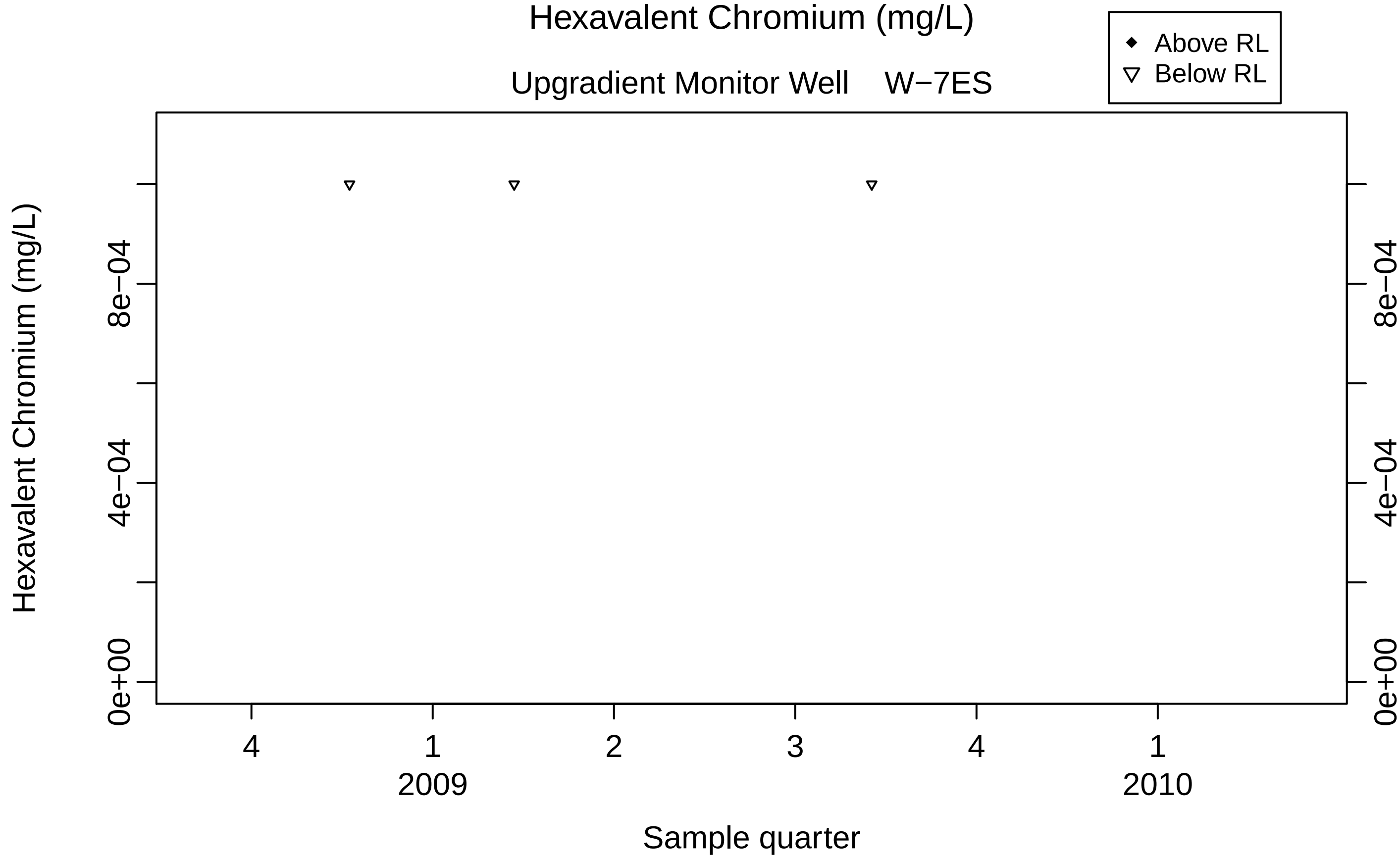
Sewage Ponds Ground Water
Chromium (mg/L)

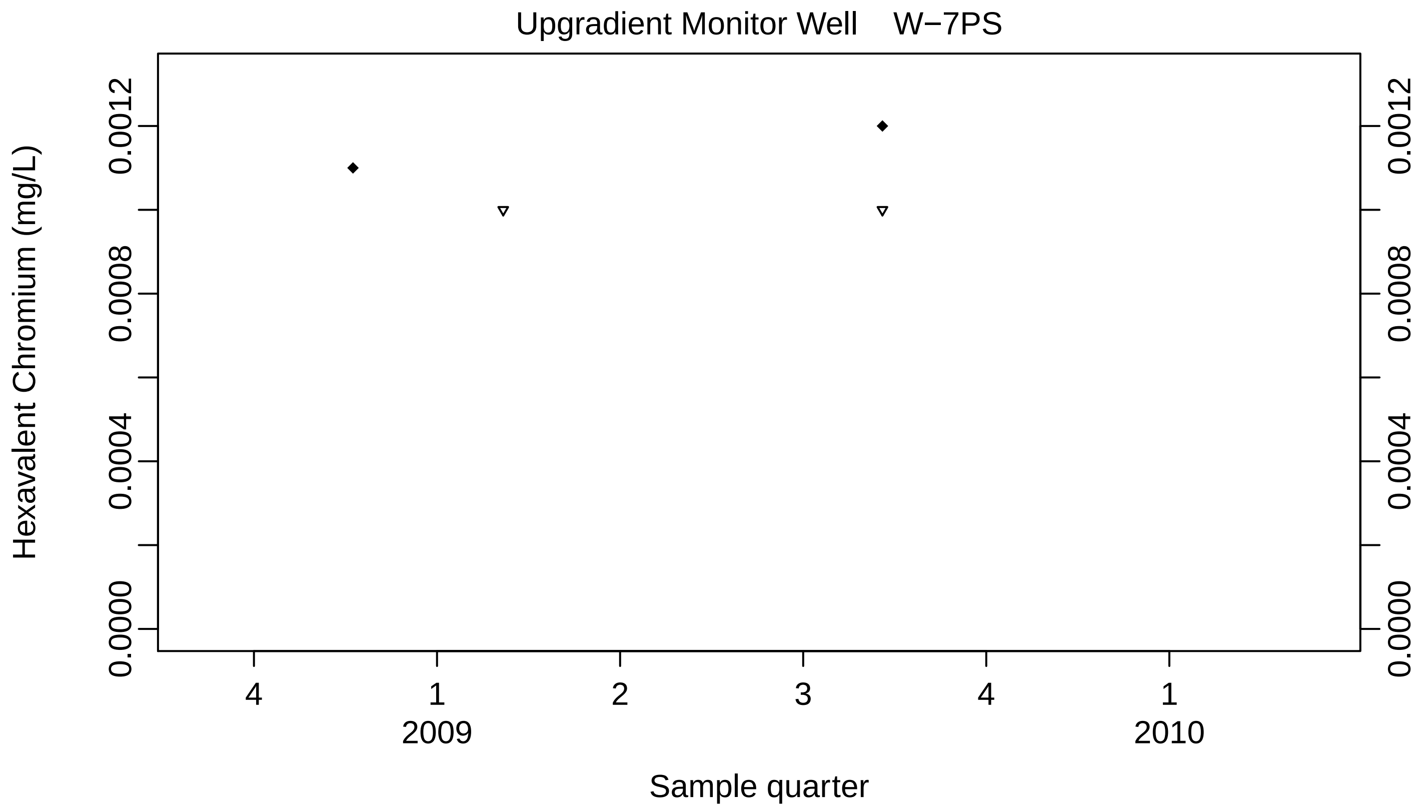




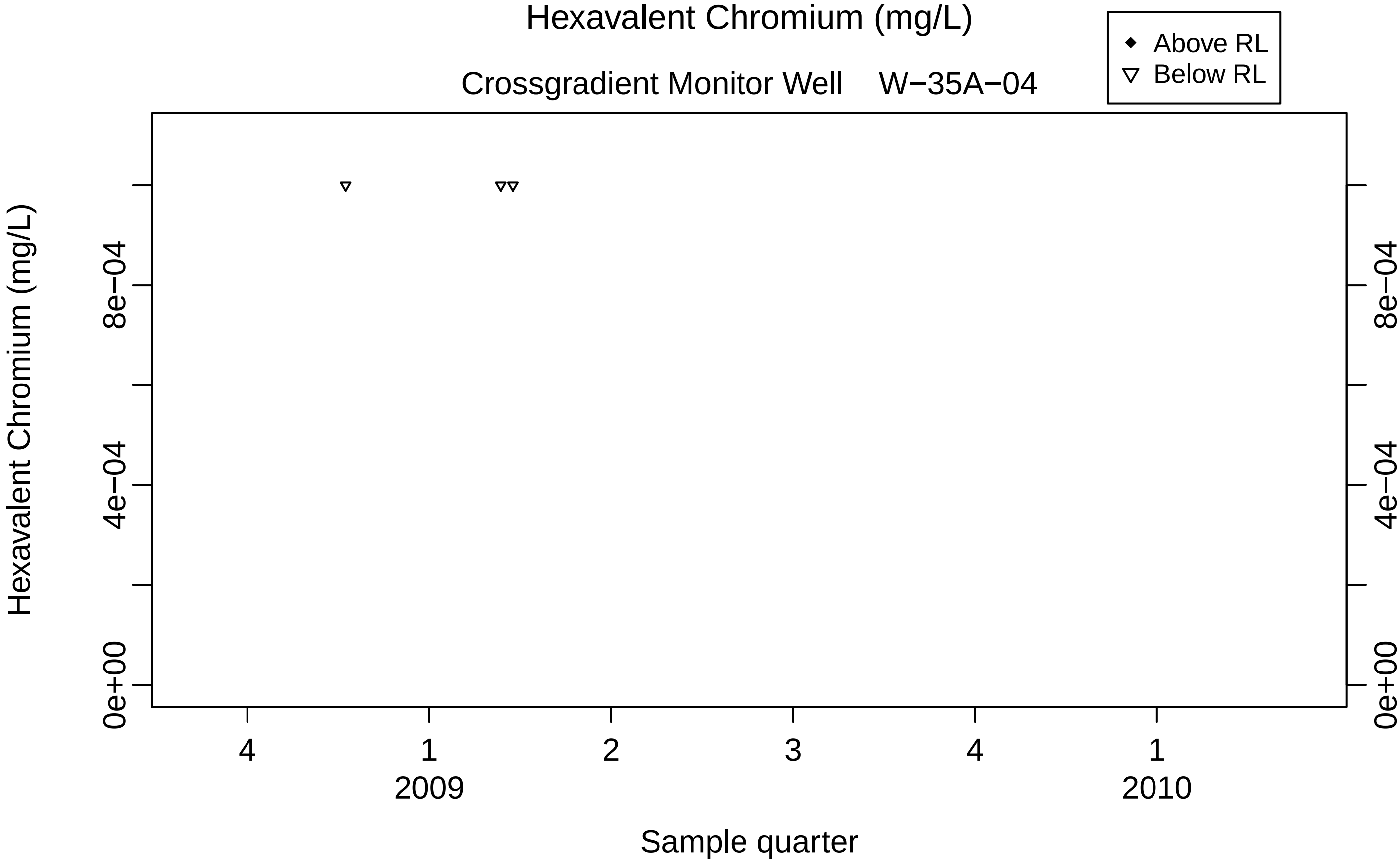

Sewage Ponds Ground Water
Chromium (mg/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Chromium (mg/L)
0e+00
4e−04
8e−04
3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006
2007
2008
2009
2010
Sample quarter

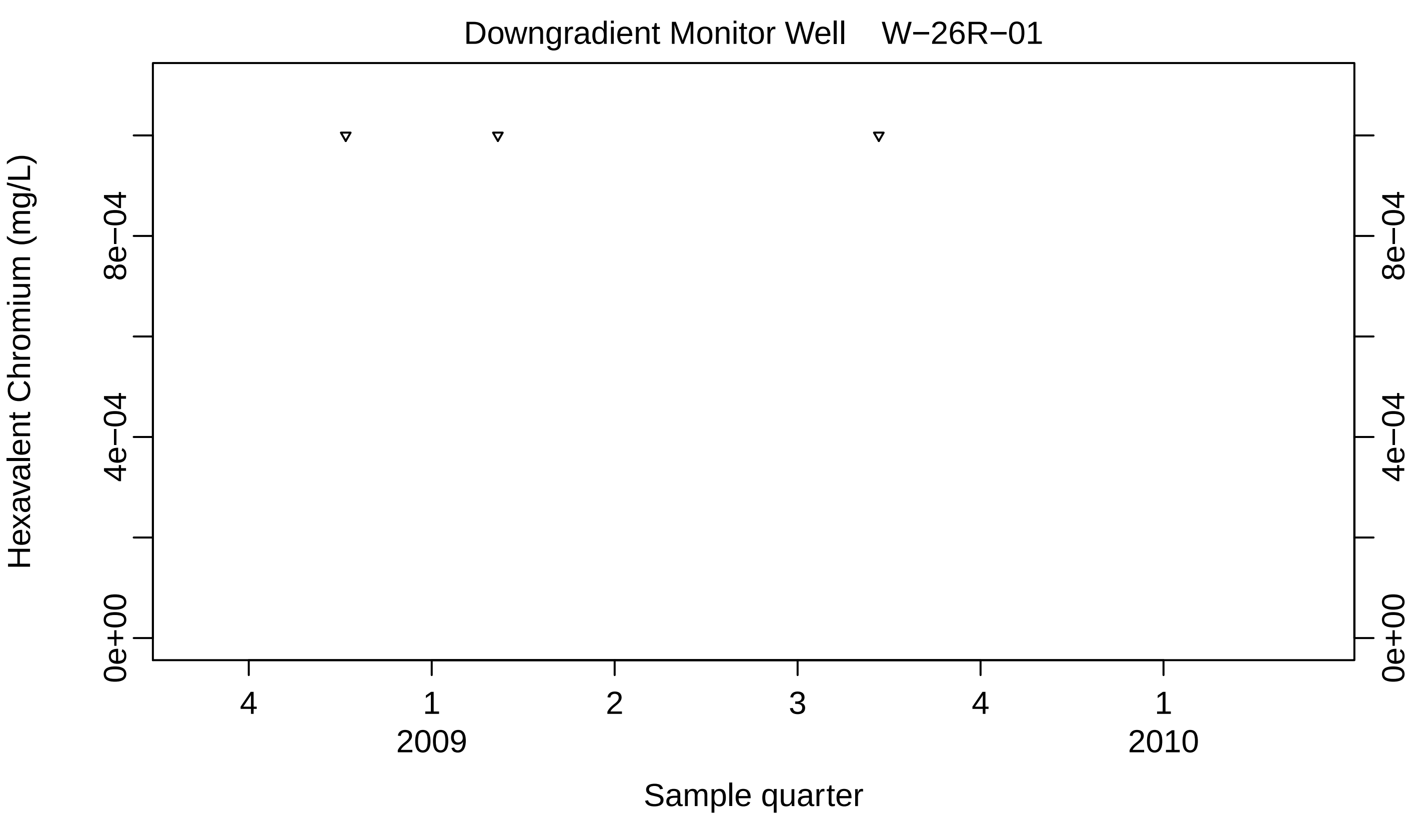
Sewage Ponds Ground Water
Hexavalent Chromium (mg/L)



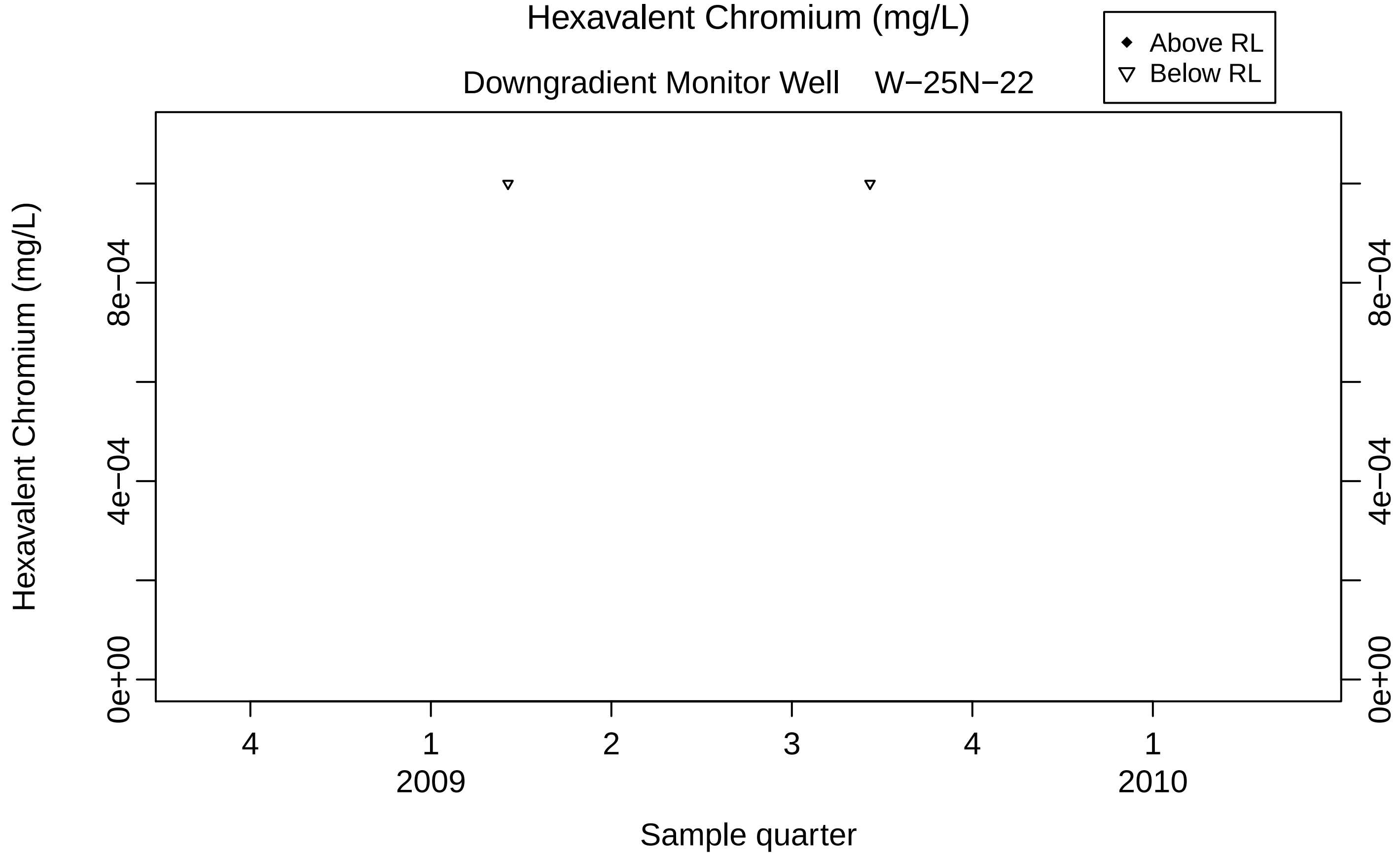


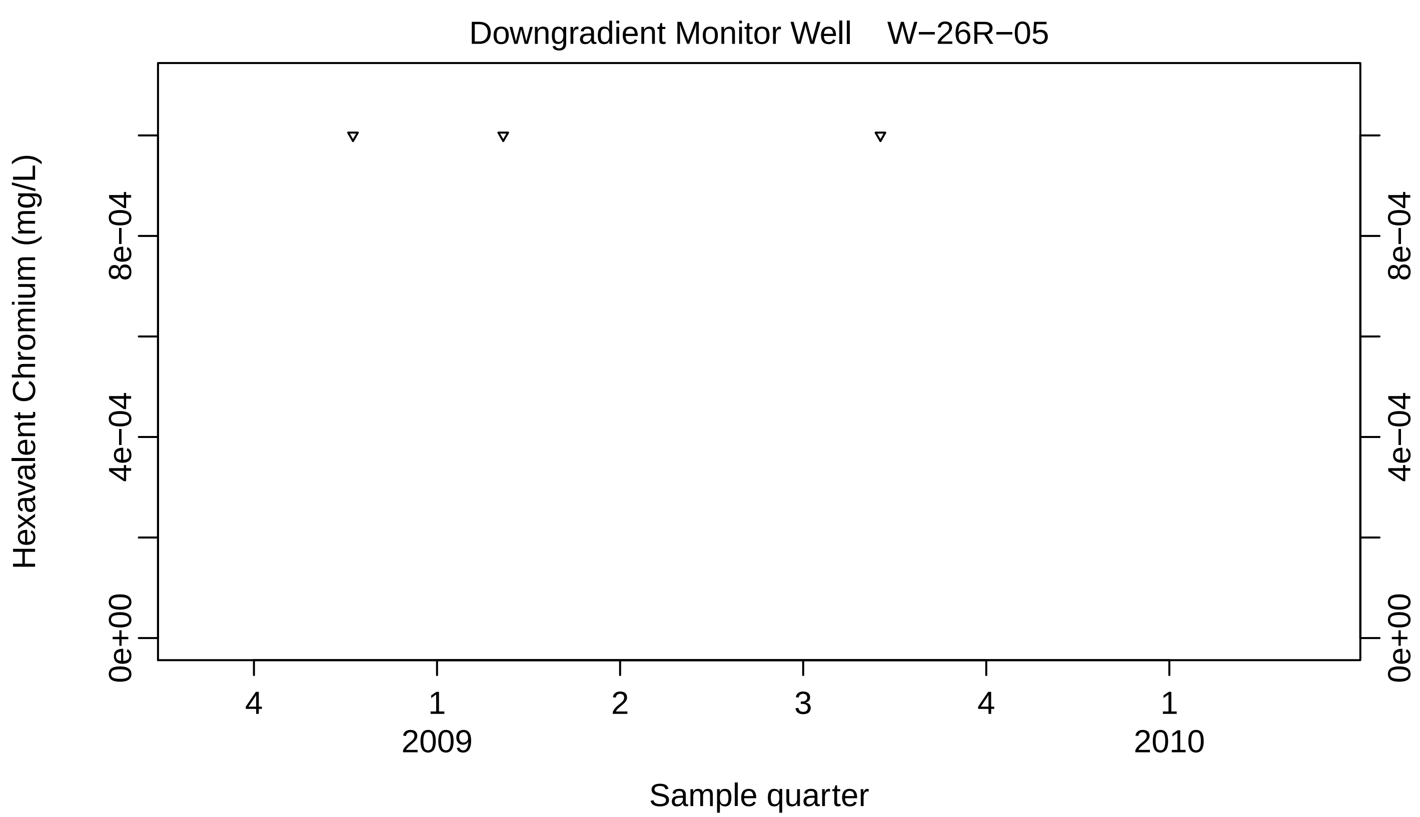
Sewage Ponds Ground Water
Hexavalent Chromium (mg/L)



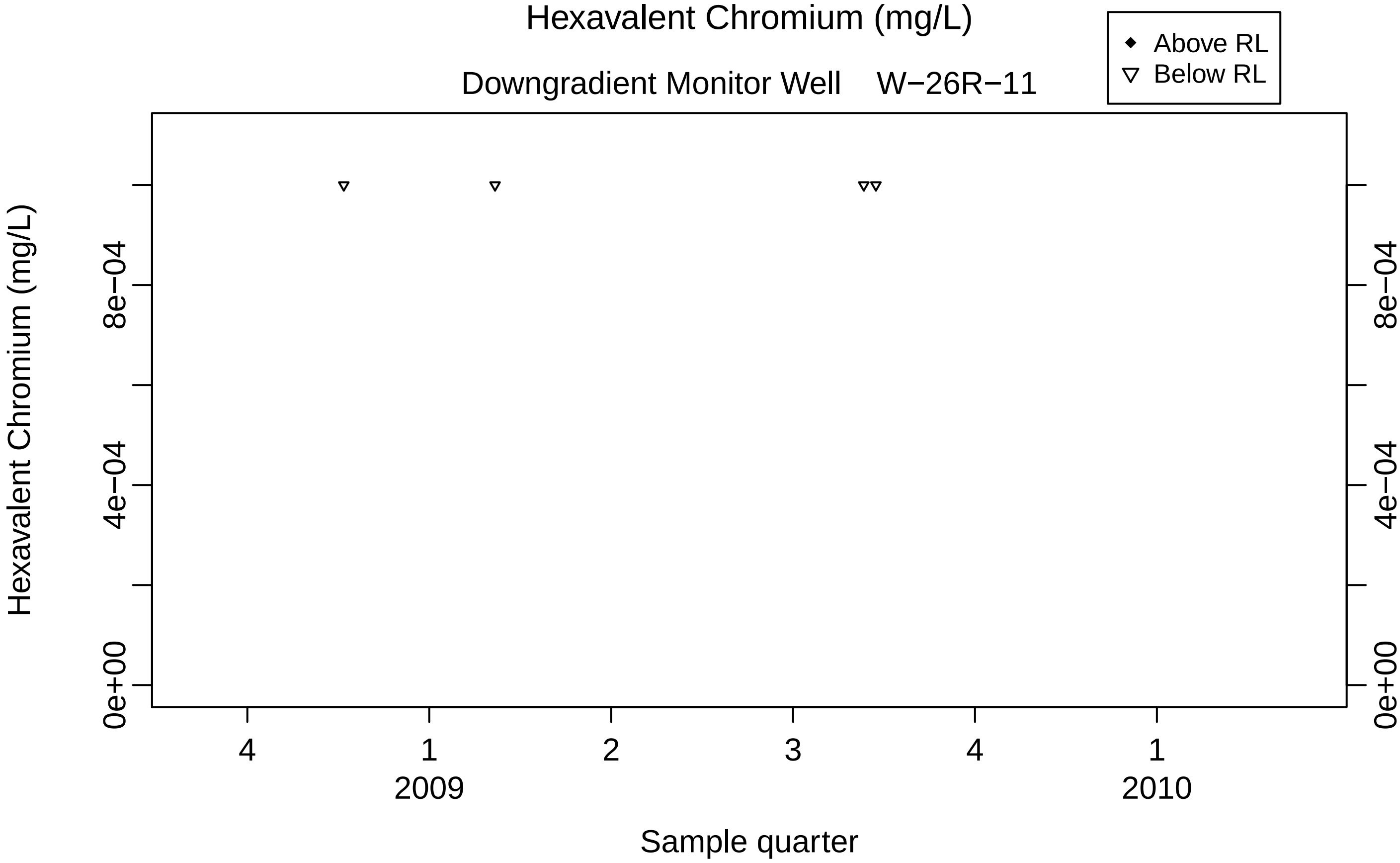


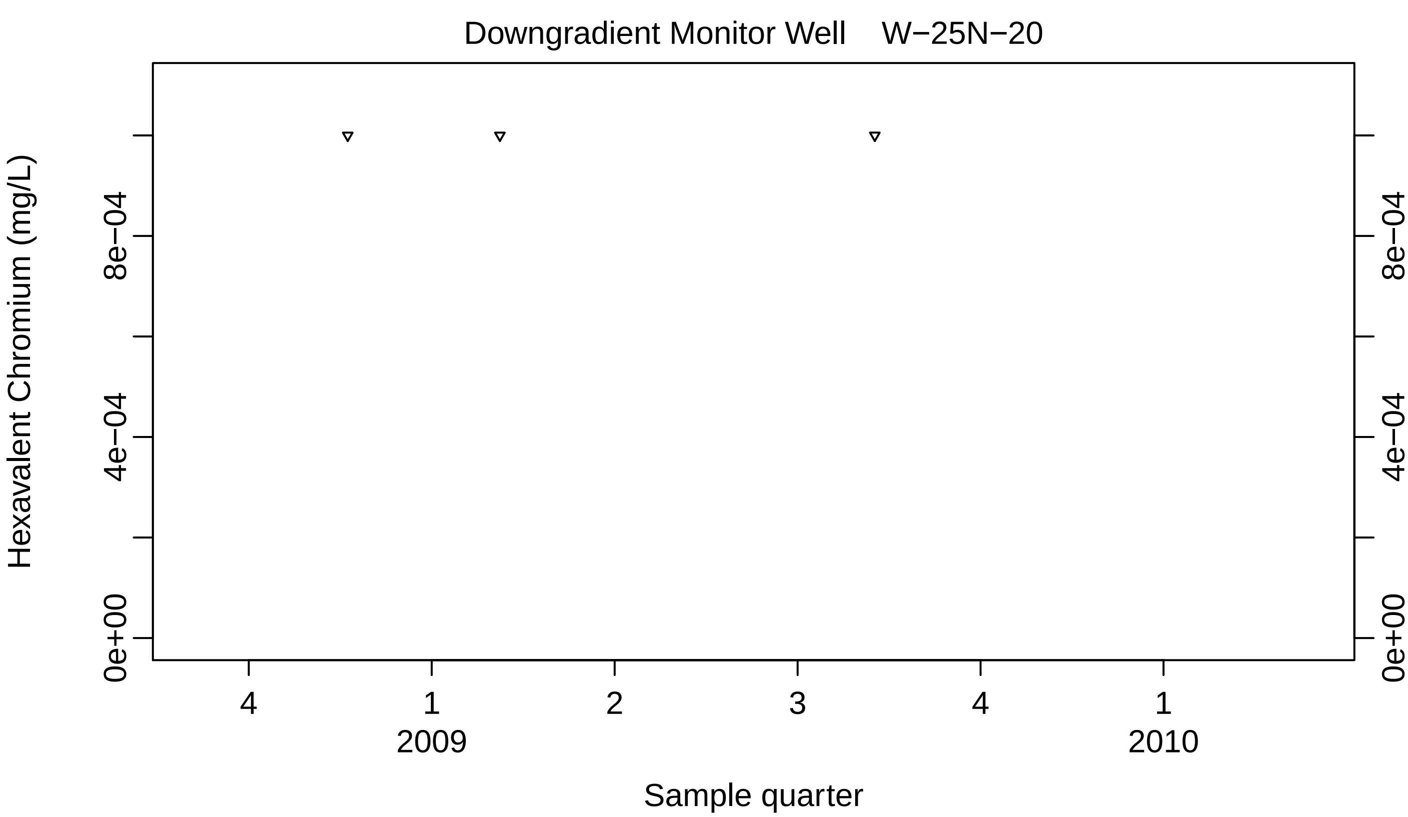
Sewage Ponds Ground Water
Hexavalent Chromium (mg/L)



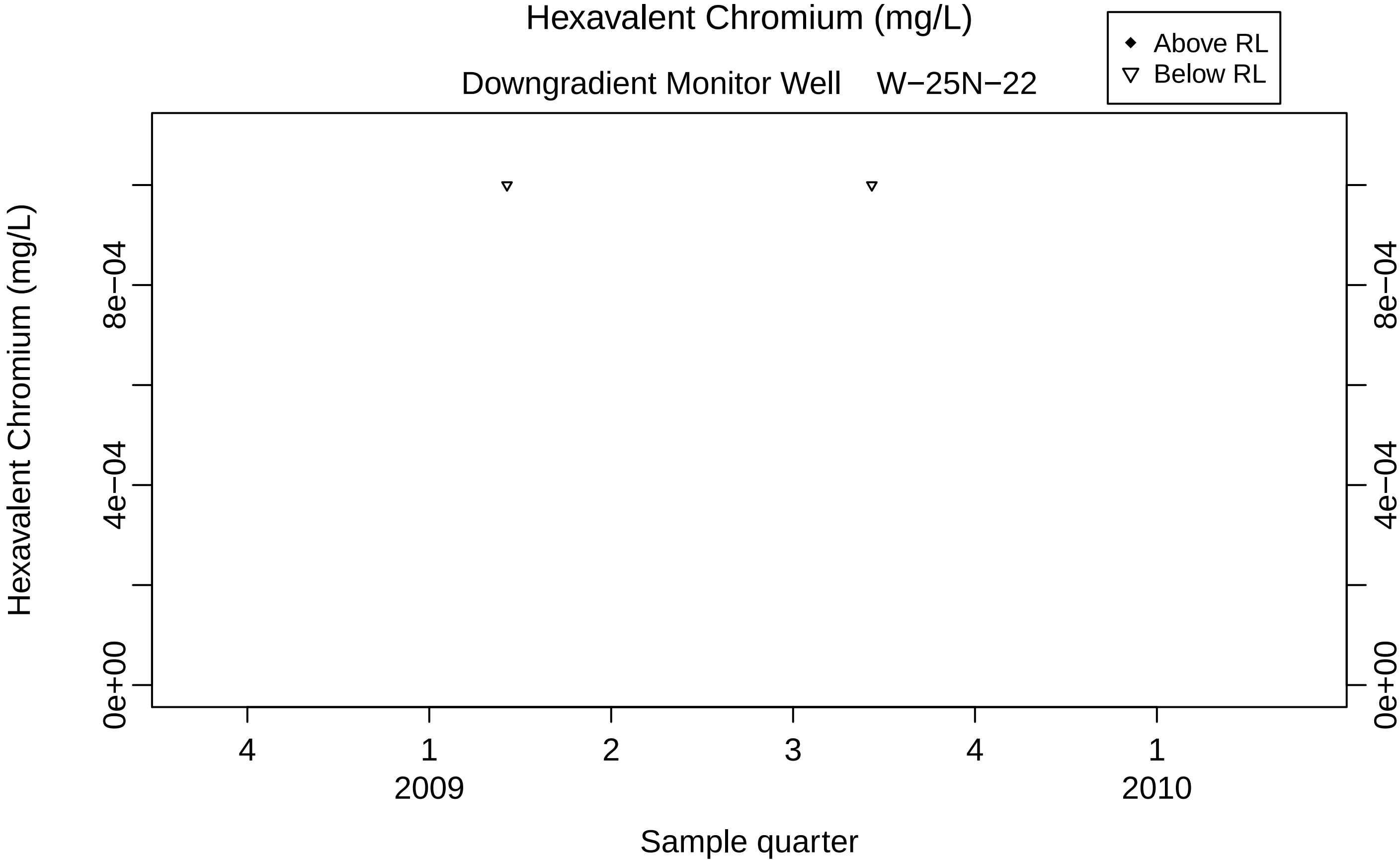


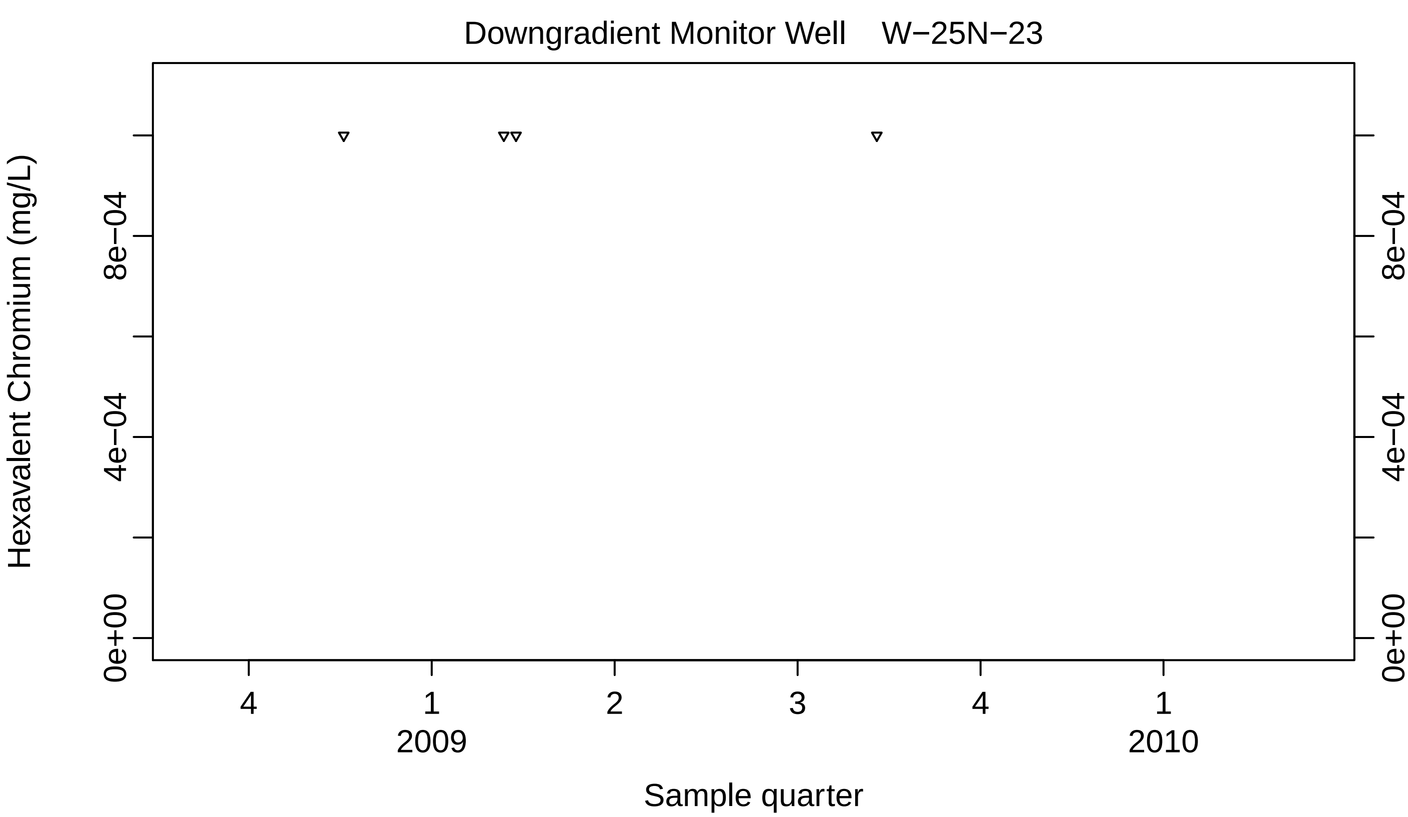
Sewage Ponds Ground Water
Hexavalent Chromium (mg/L)

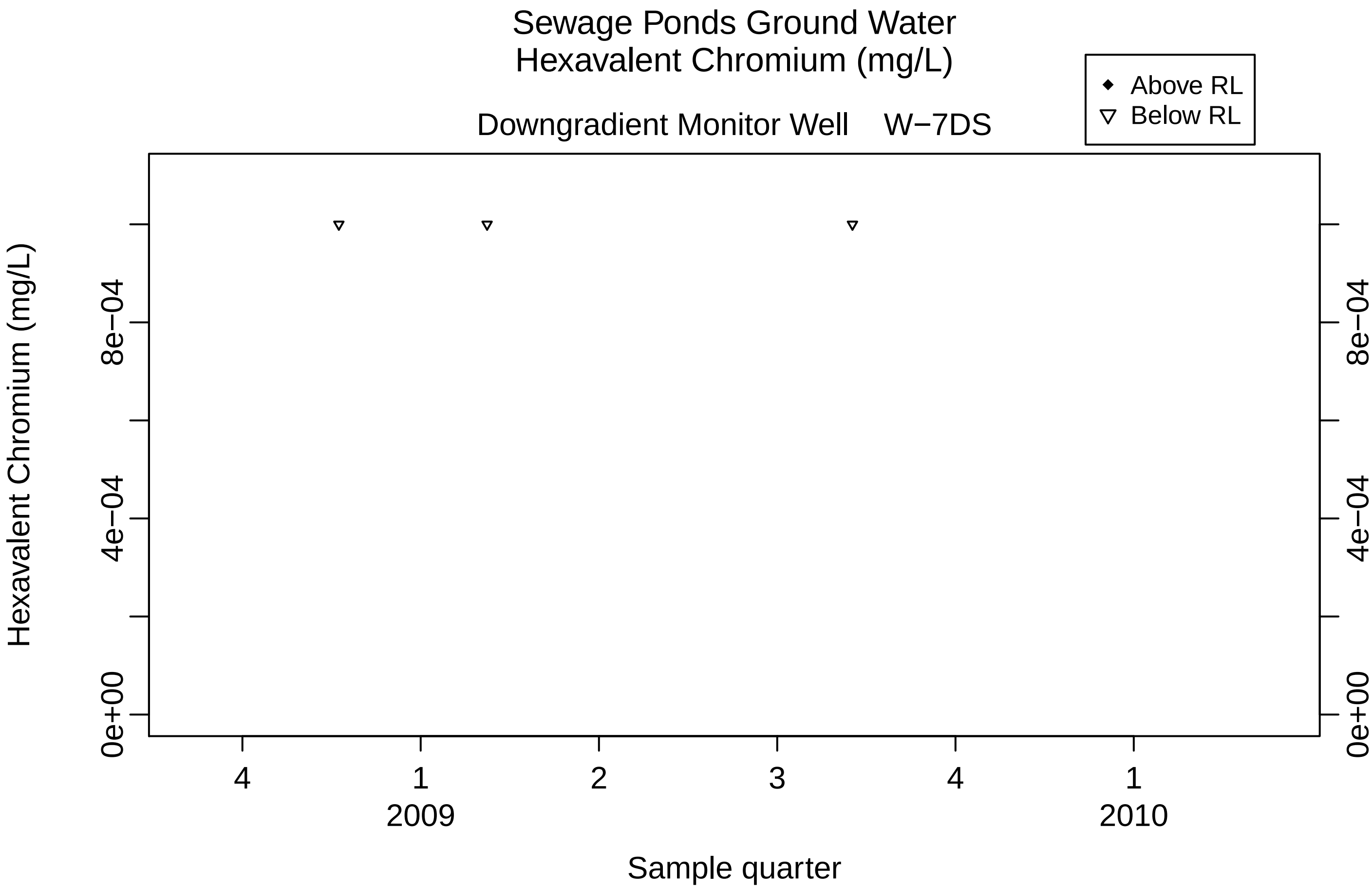




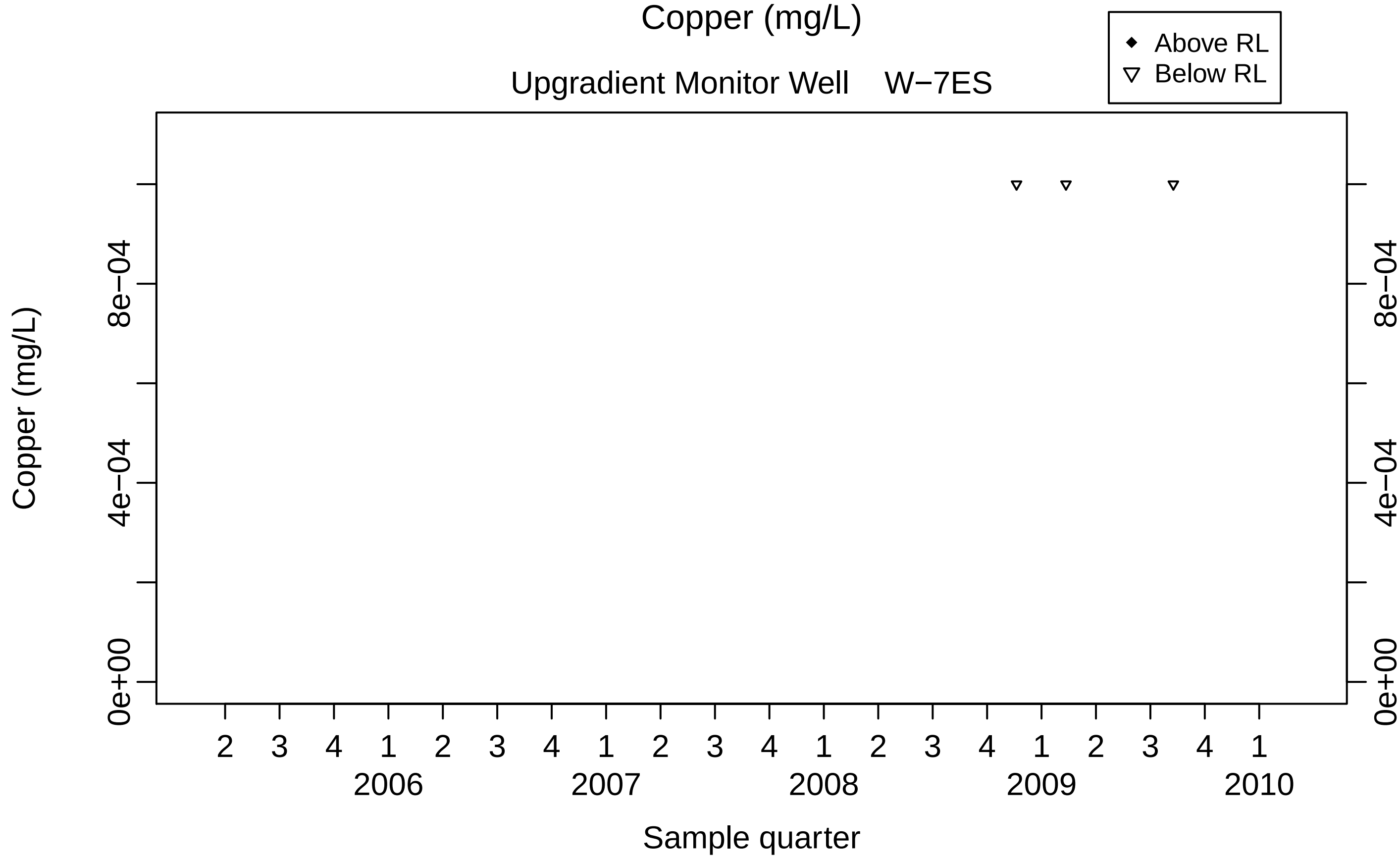
Sewage Ponds Ground Water
Hexavalent Chromium (mg/L)

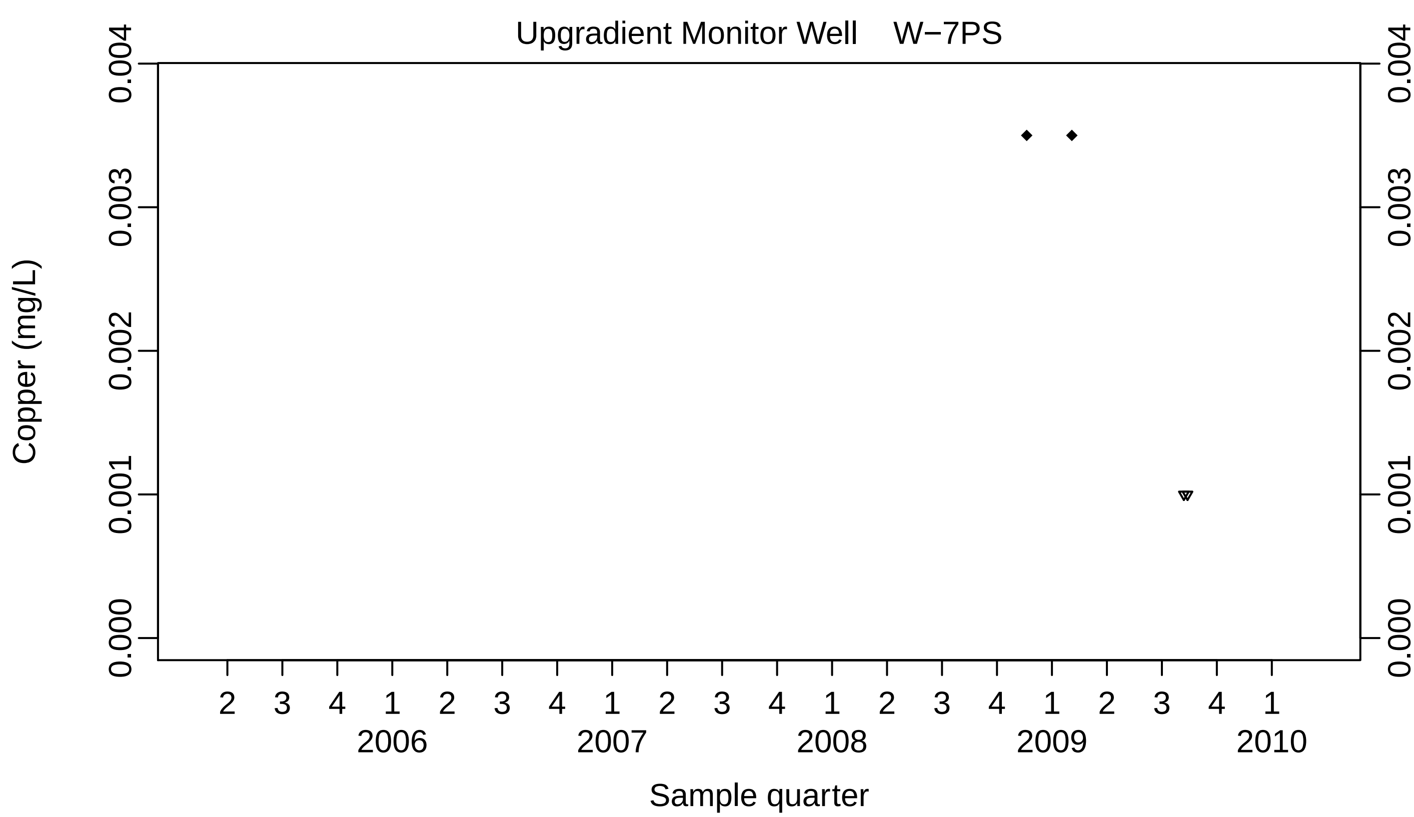




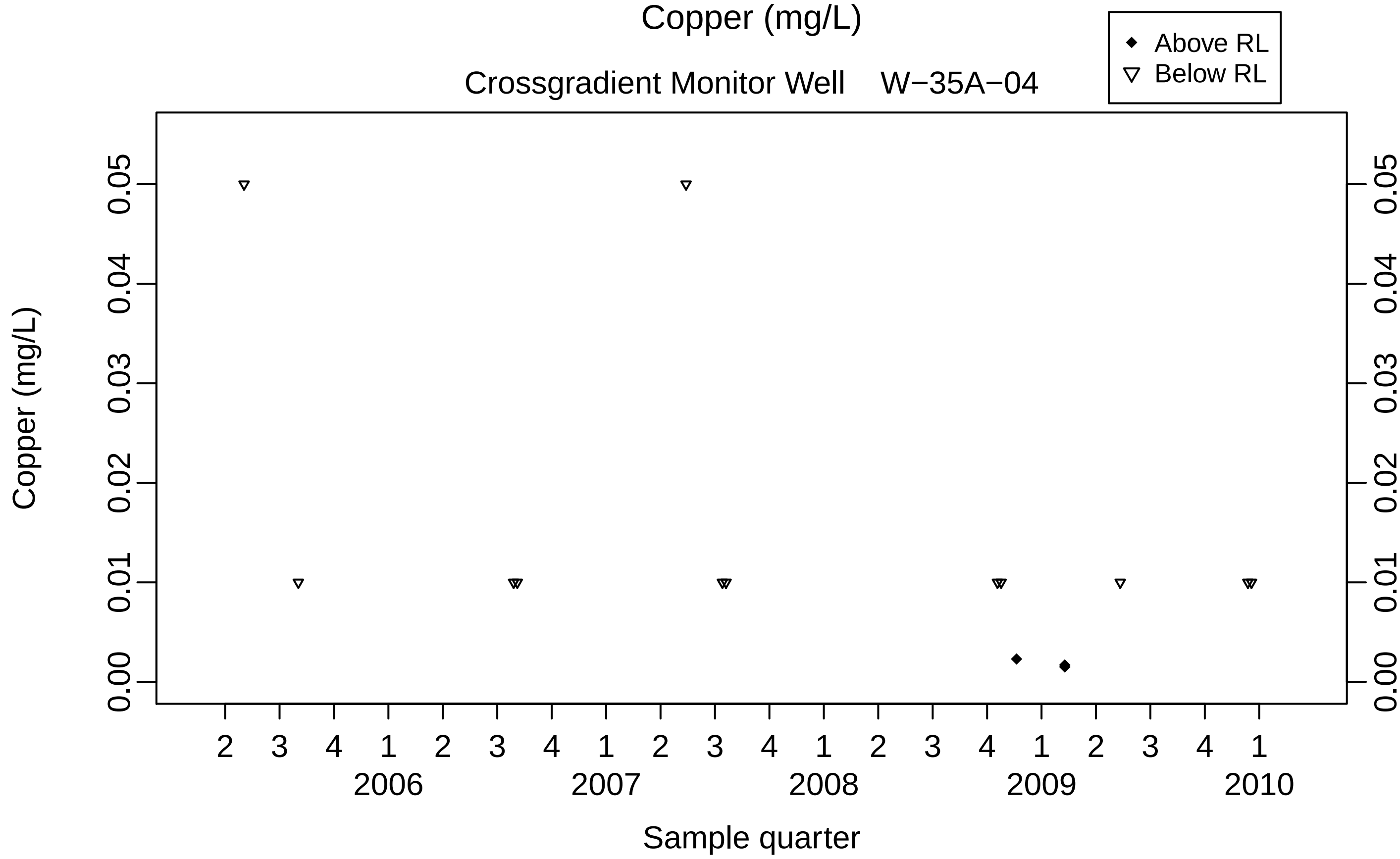

Sewage Ponds Ground Water
Hexavalent Chromium (mg/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Hexavalent Chromium (mg/L)
0e+00
4e−04
8e−04
4
1
2
3
4
1
2009
2010
Sample quarter

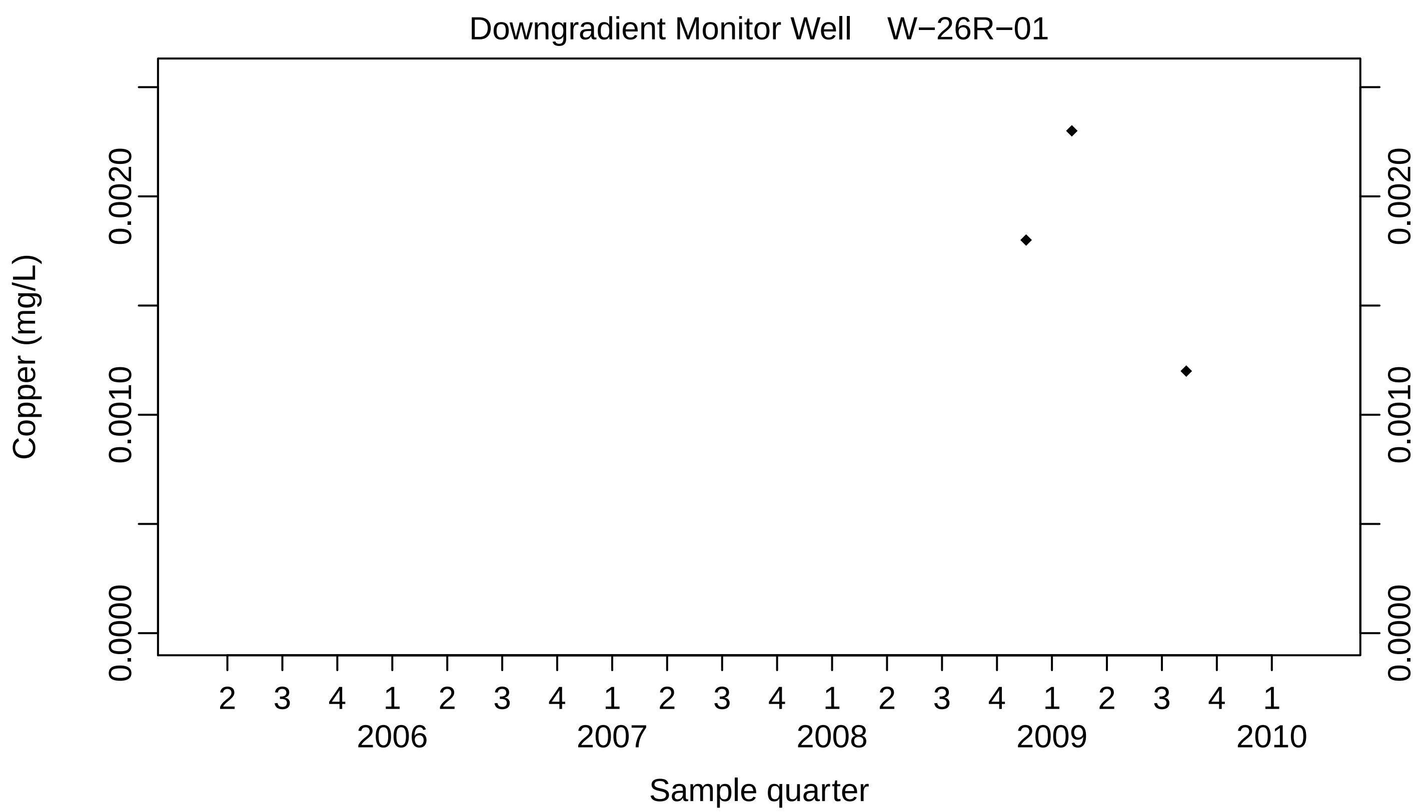
Sewage Ponds Ground Water
Copper (mg/L)

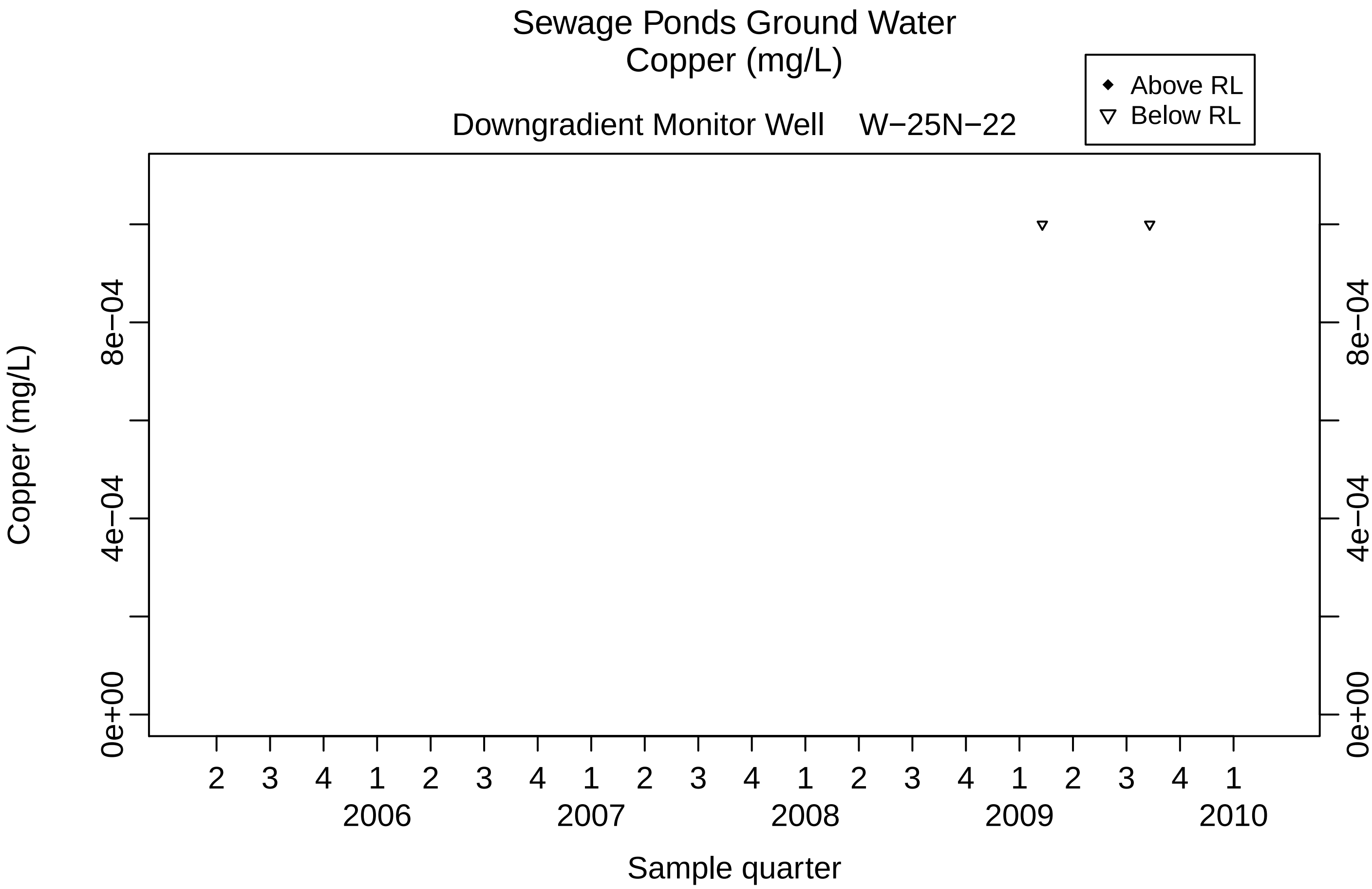


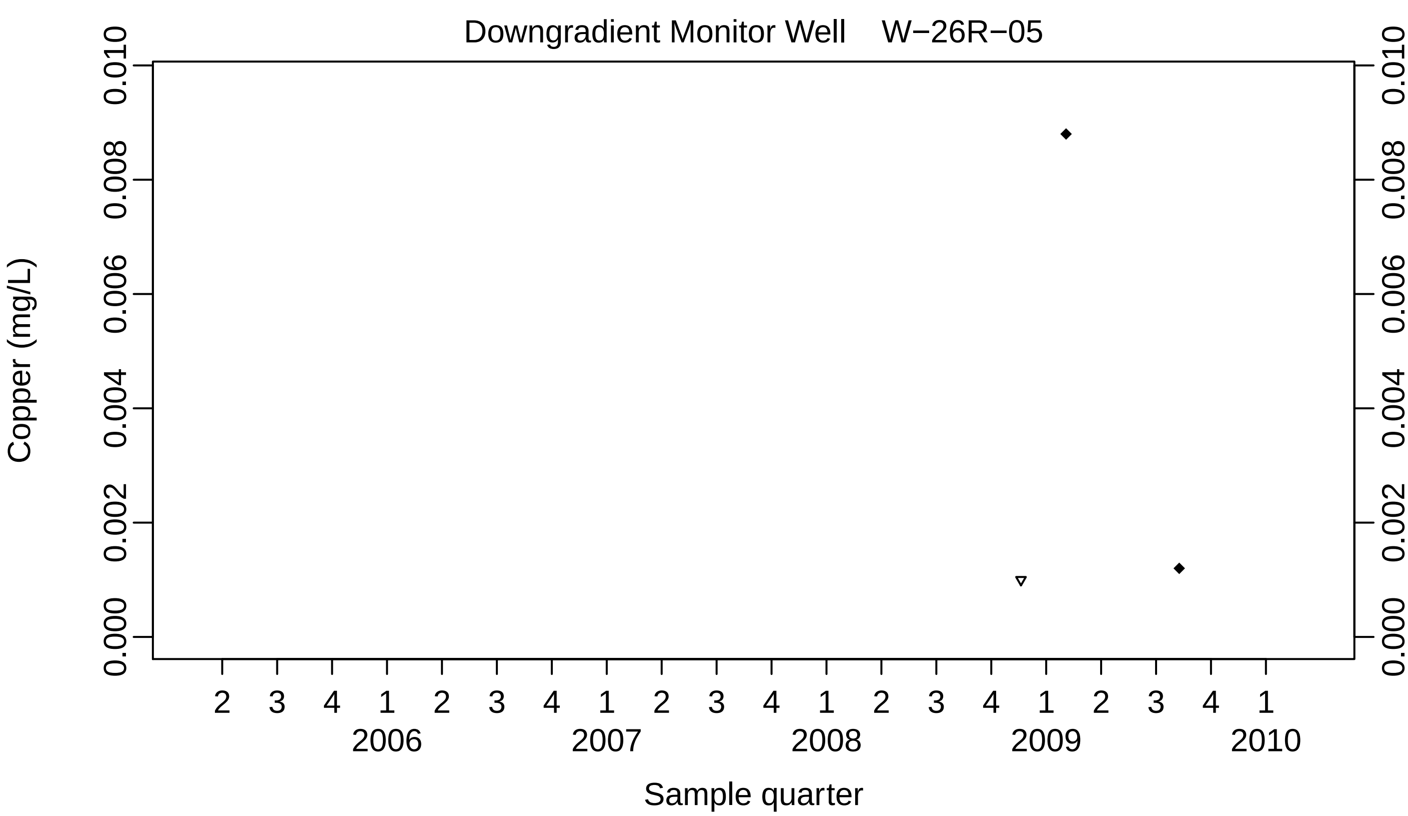


Sewage Ponds Ground Water
Copper (mg/L)

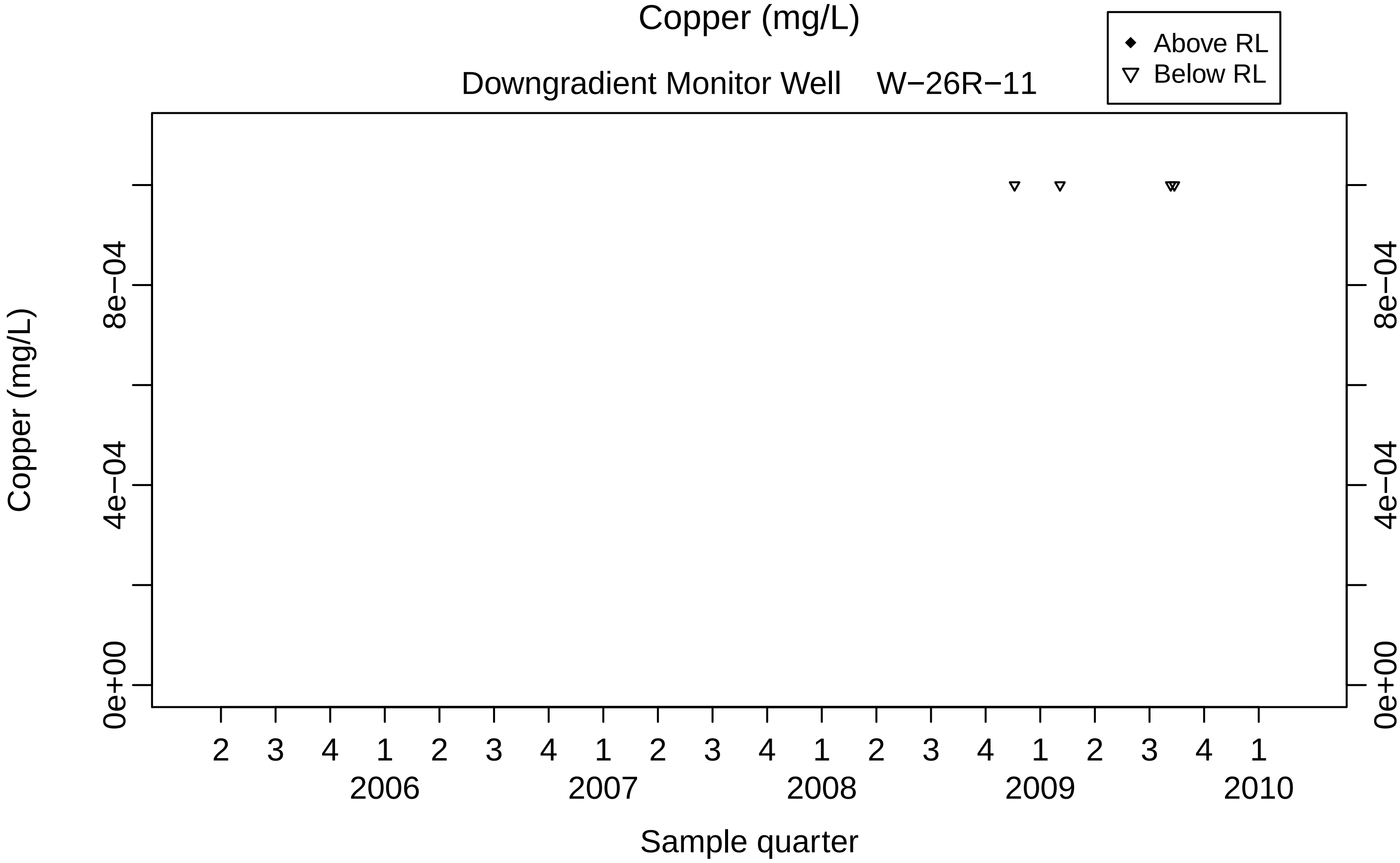


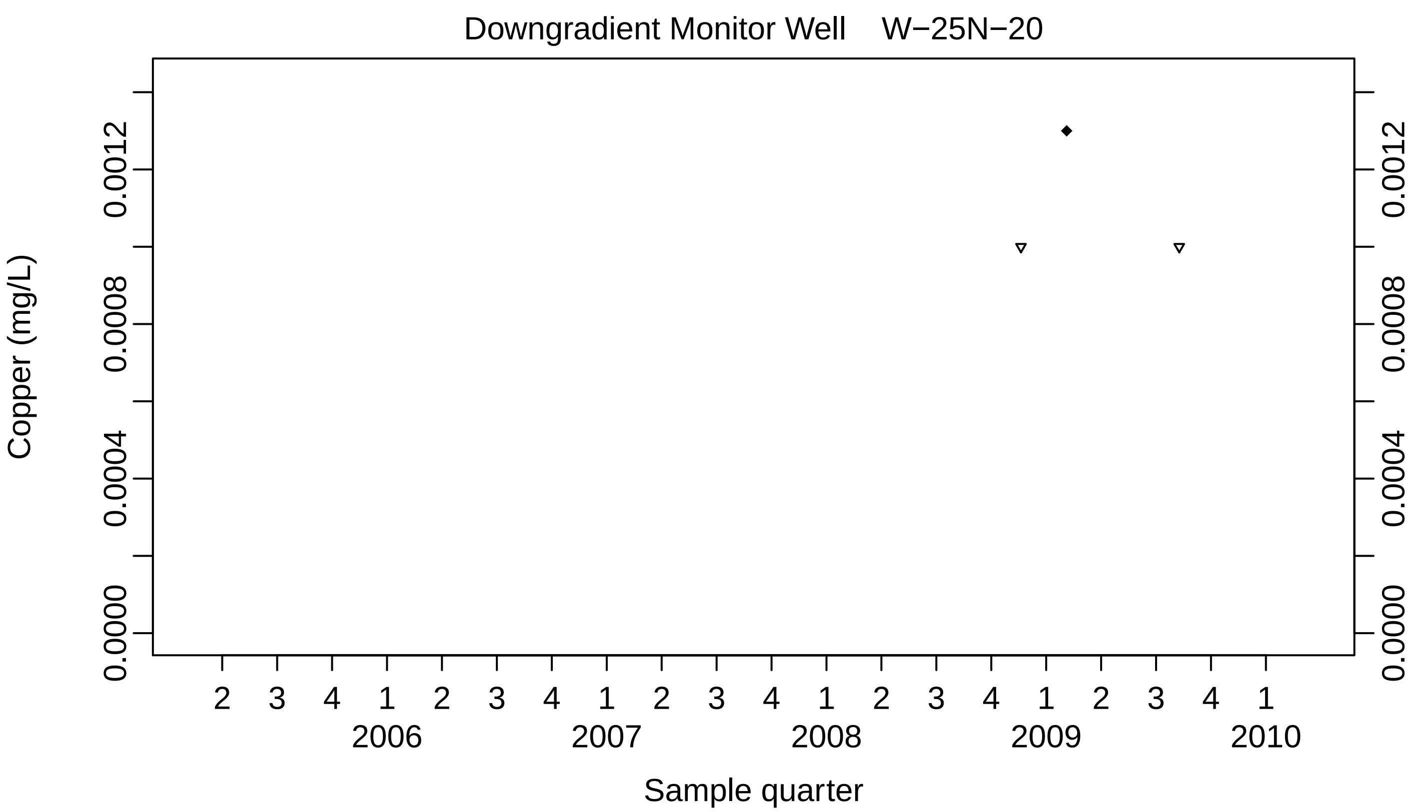



Sewage Ponds Ground Water
Copper (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−25N−22
Copper (mg/L)
0e+00
4e−04
8e−04
2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006
2007
2008
2009
2010
Sample quarter

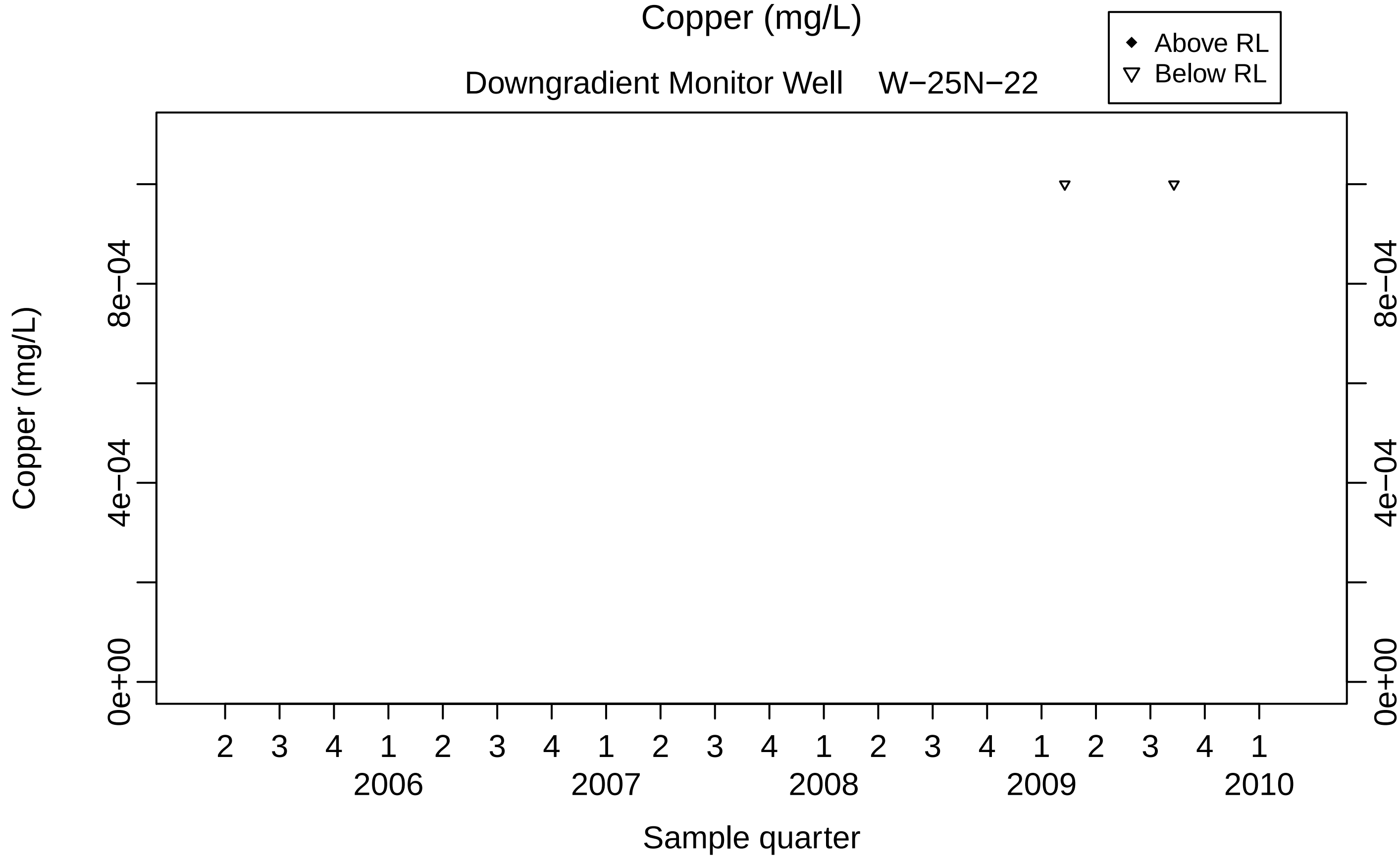

Downgradient Monitor Well W−26R−05
Copper (mg/L)
0.000
0.002
0.004
0.006
0.008
0.010
2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006
2007
2008
2009
2010
Sample quarter

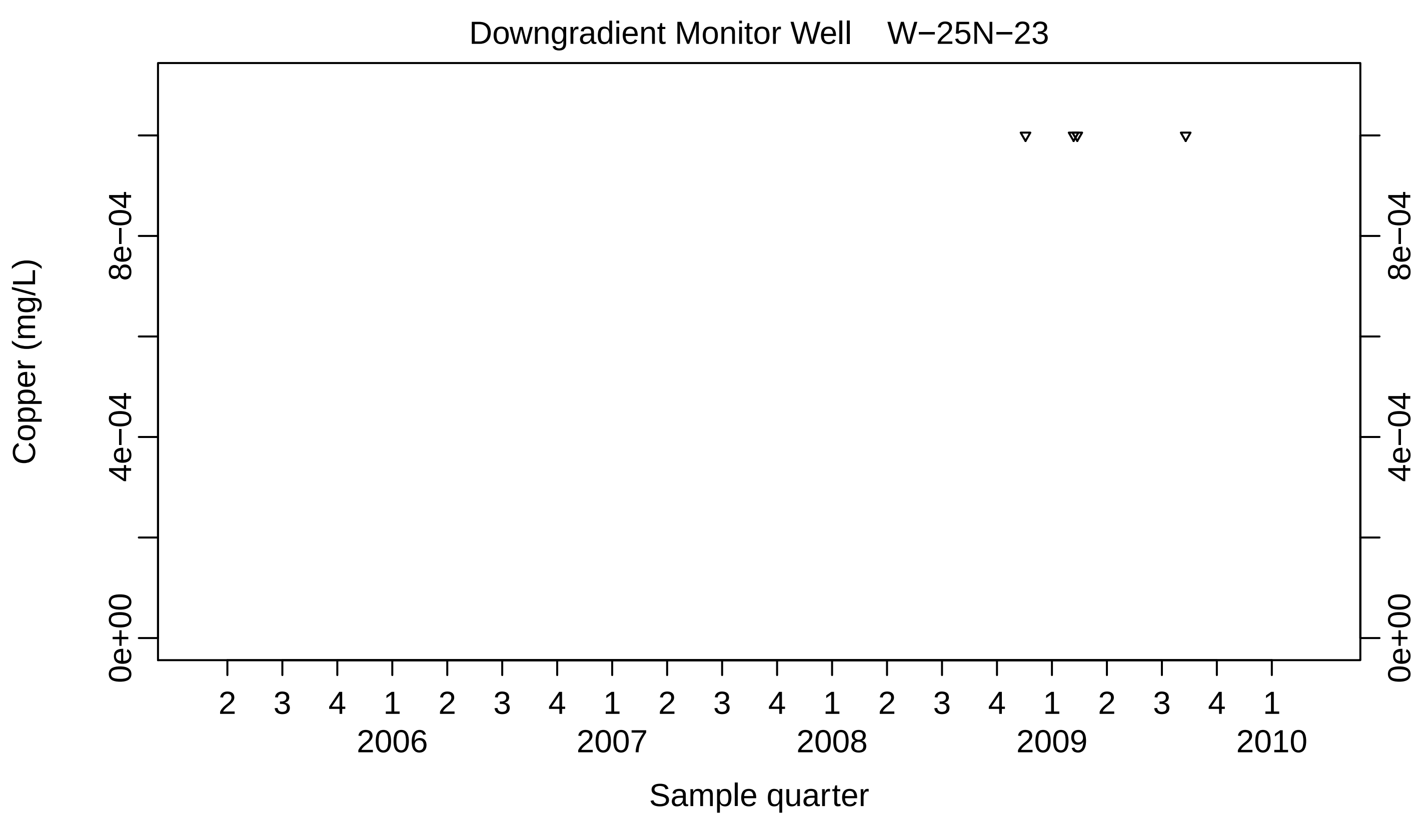
Sewage Ponds Ground Water
Copper (mg/L)

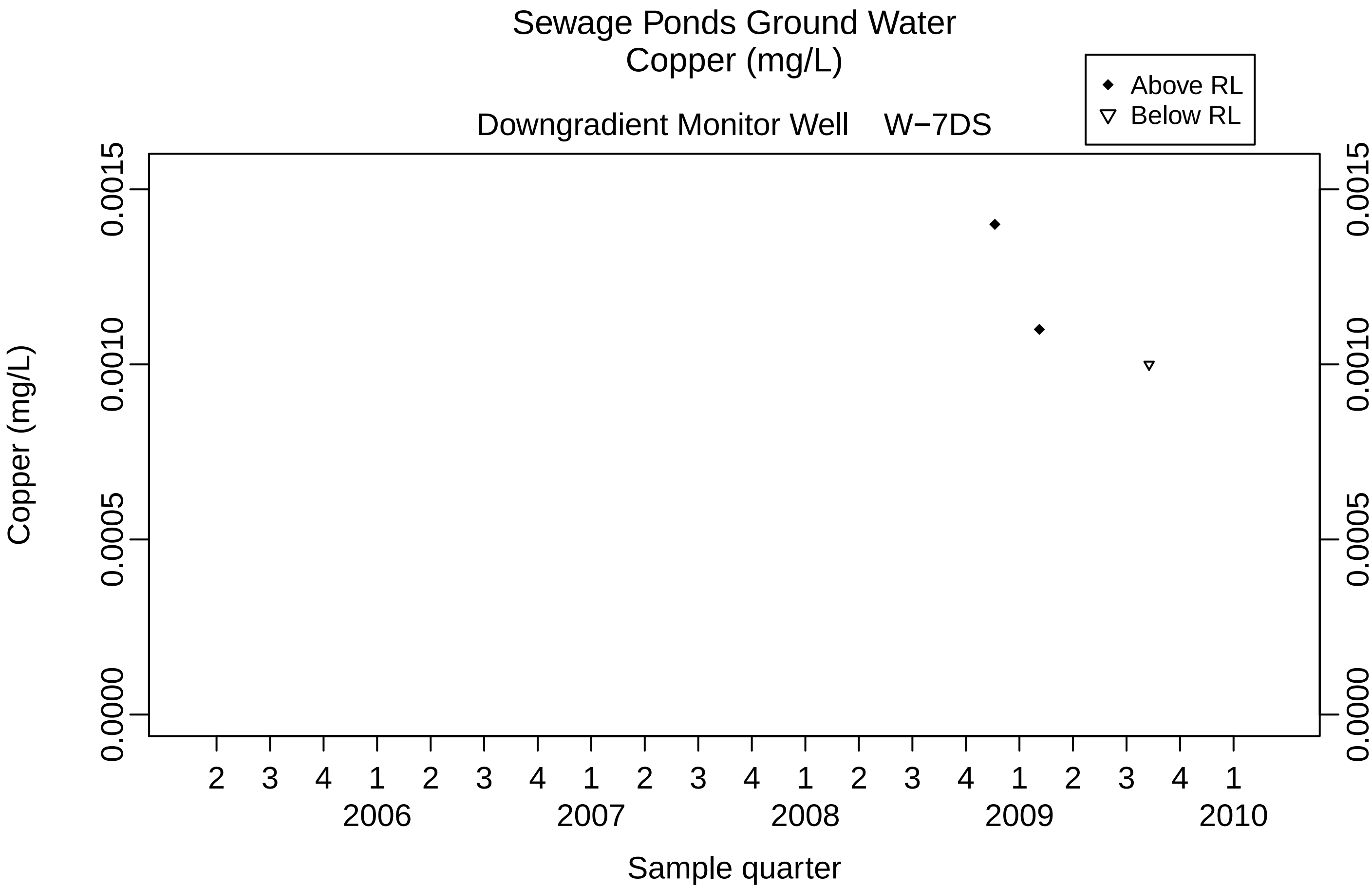




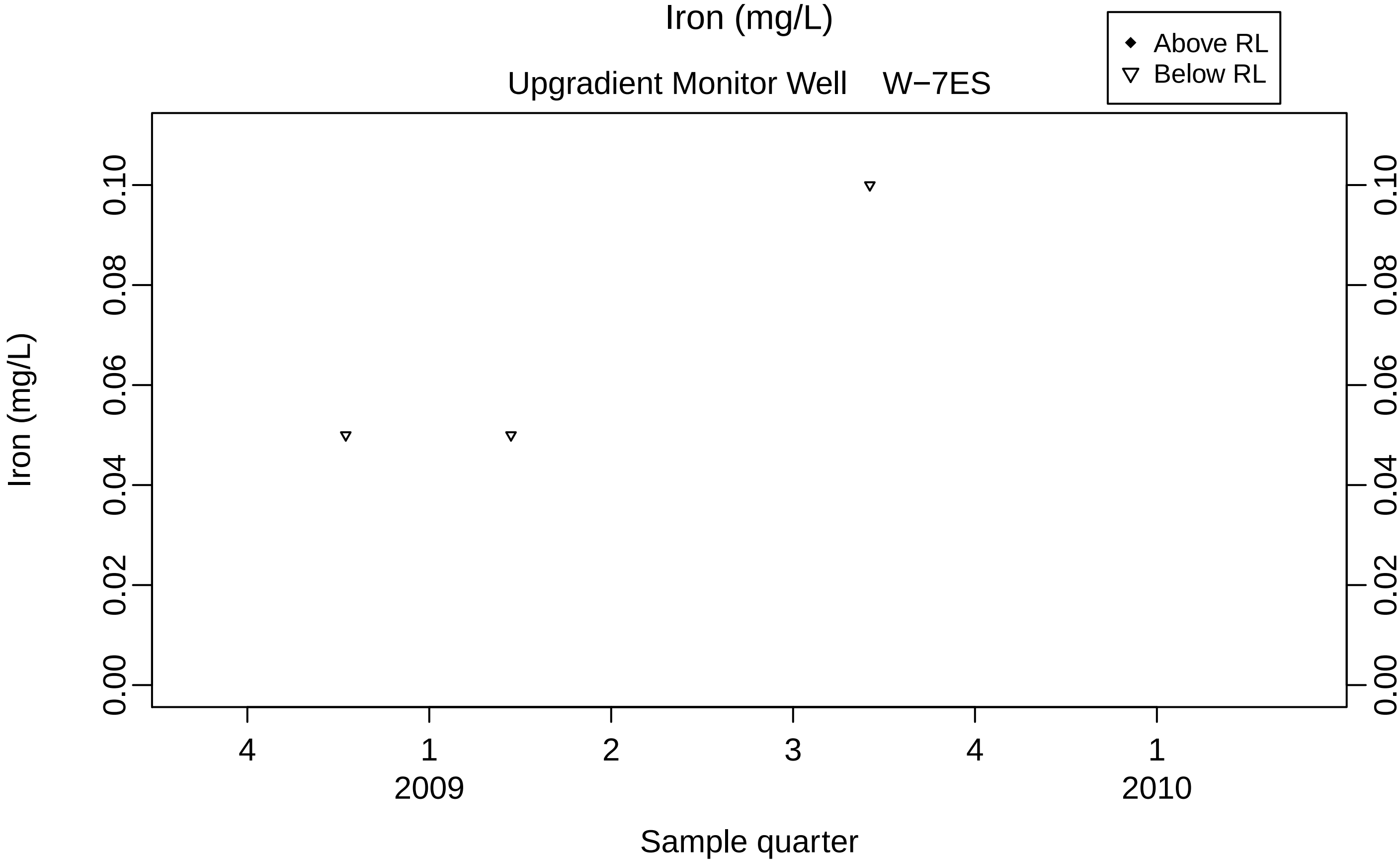
Sewage Ponds Ground Water
Copper (mg/L)

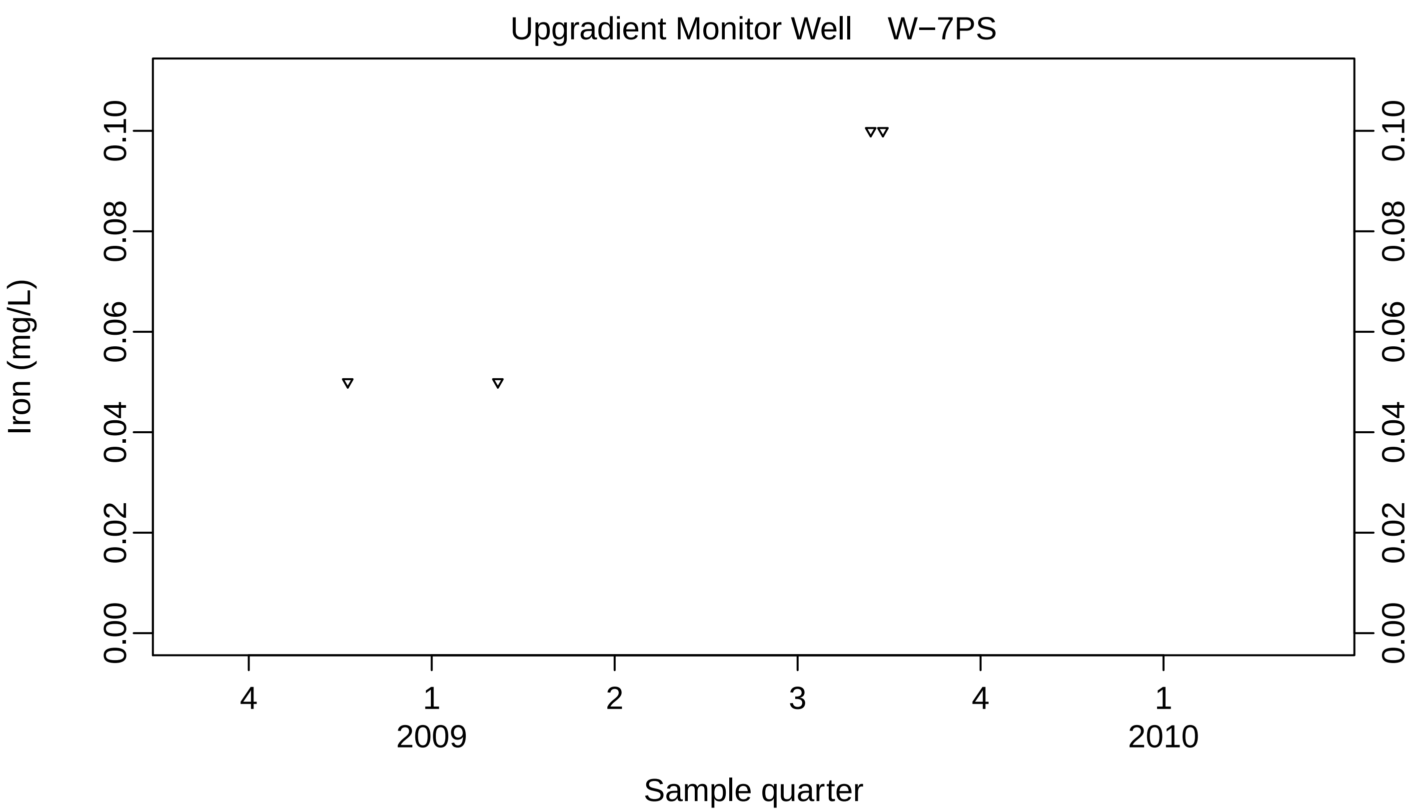




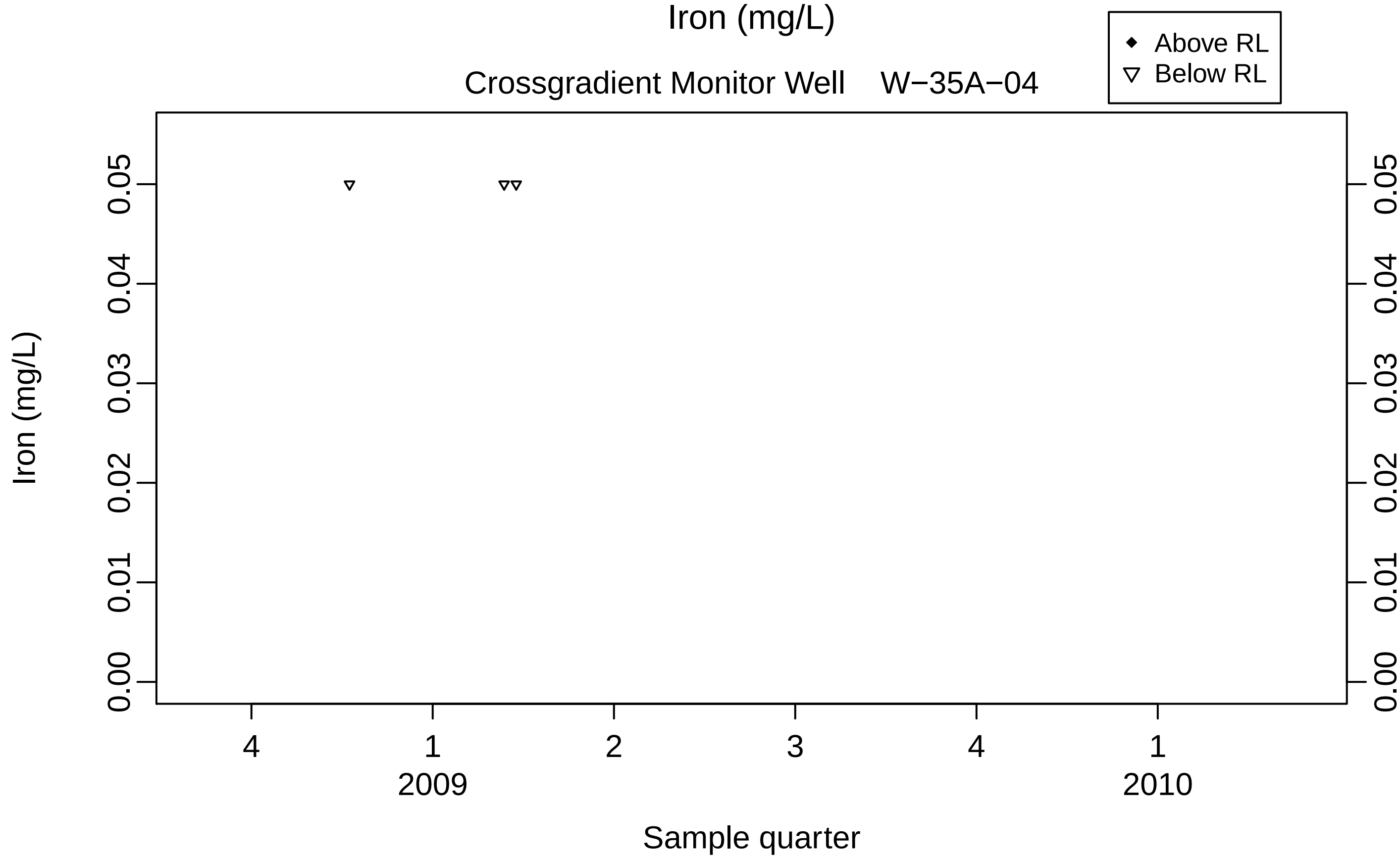

Sewage Ponds Ground Water
Copper (mg/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Copper (mg/L)
0.0000
0.0005
0.0010
0.0015
2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006
2007
2008
2009
2010
Sample quarter

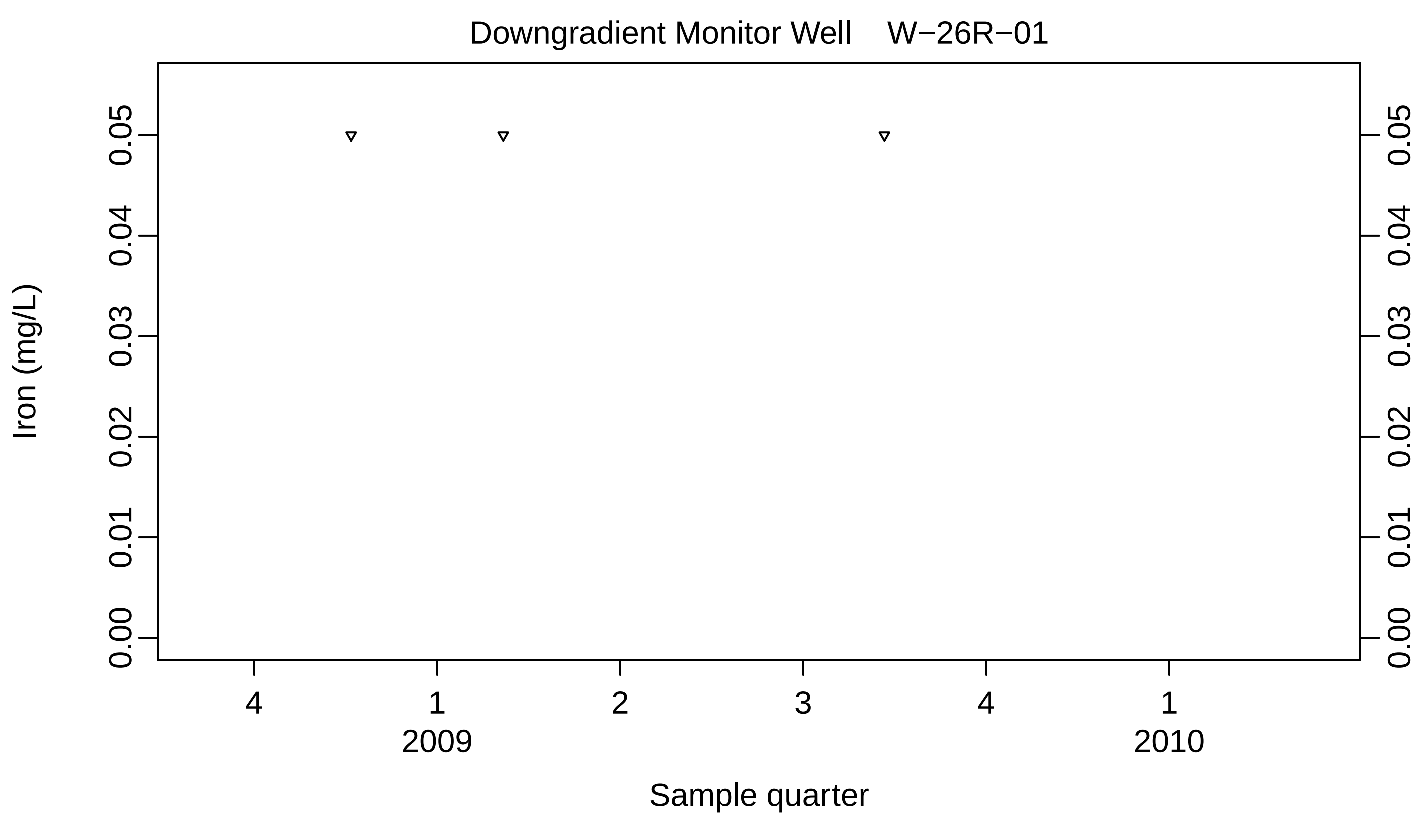
Sewage Ponds Ground Water
Iron (mg/L)



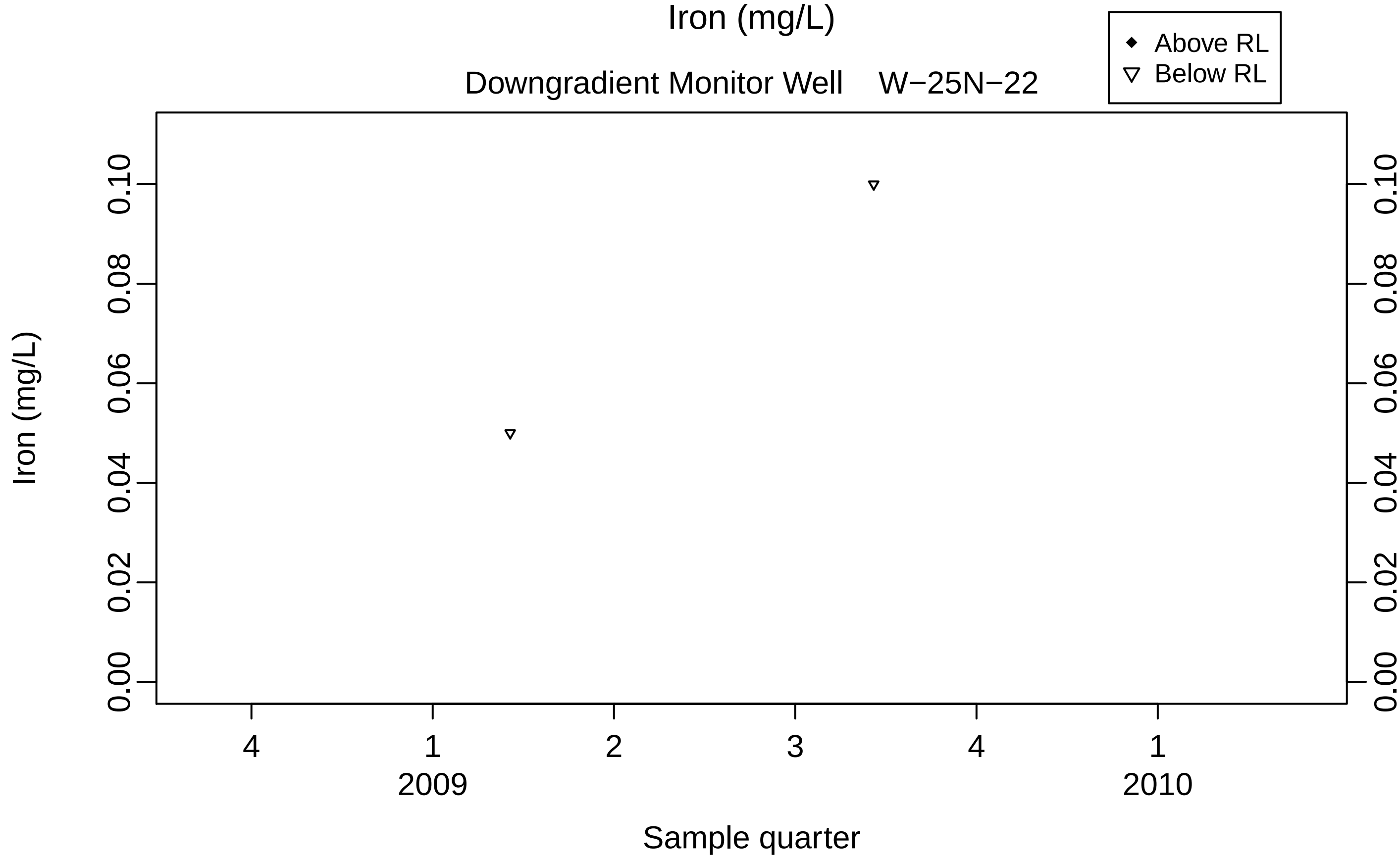


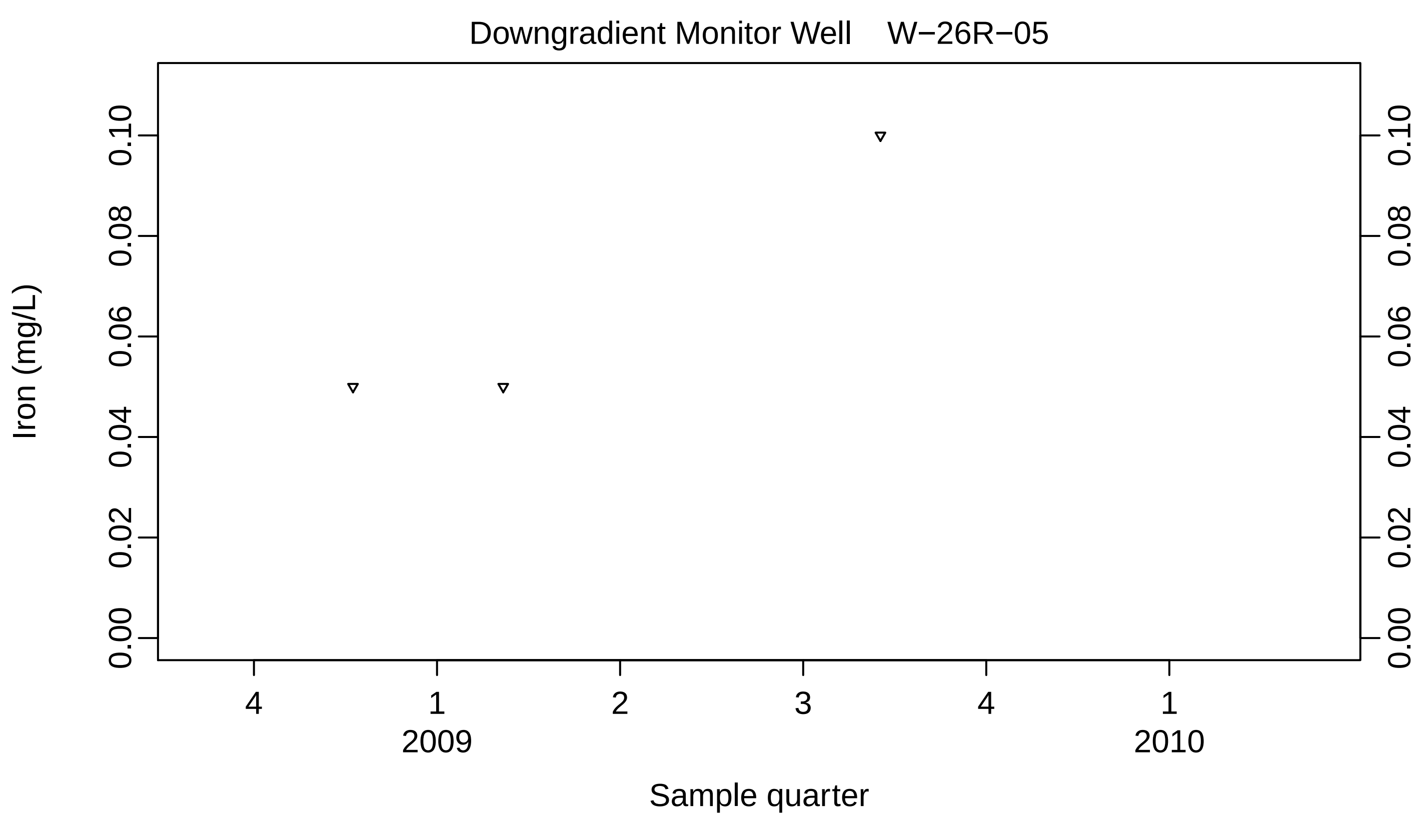
Sewage Ponds Ground Water
Iron (mg/L)



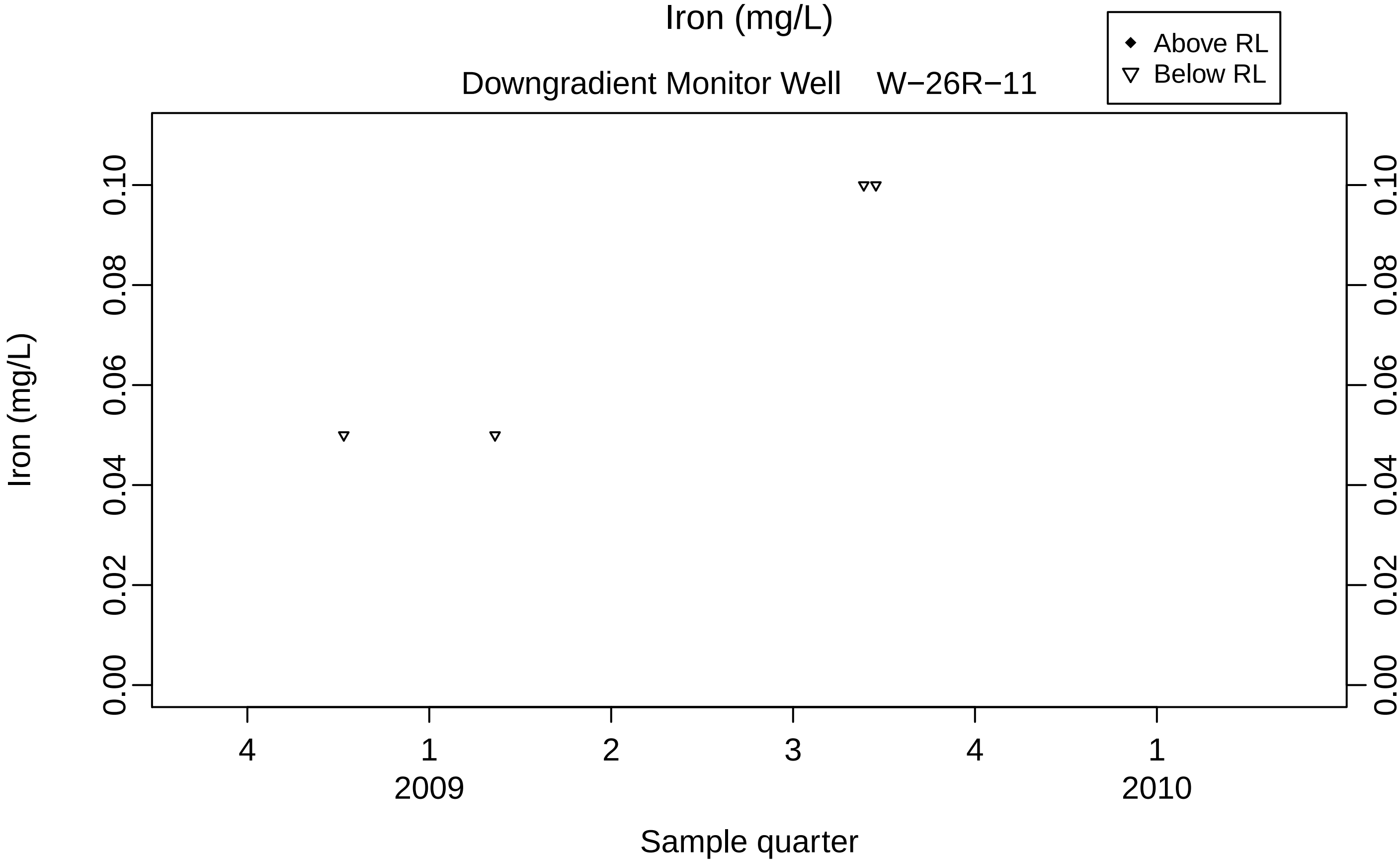


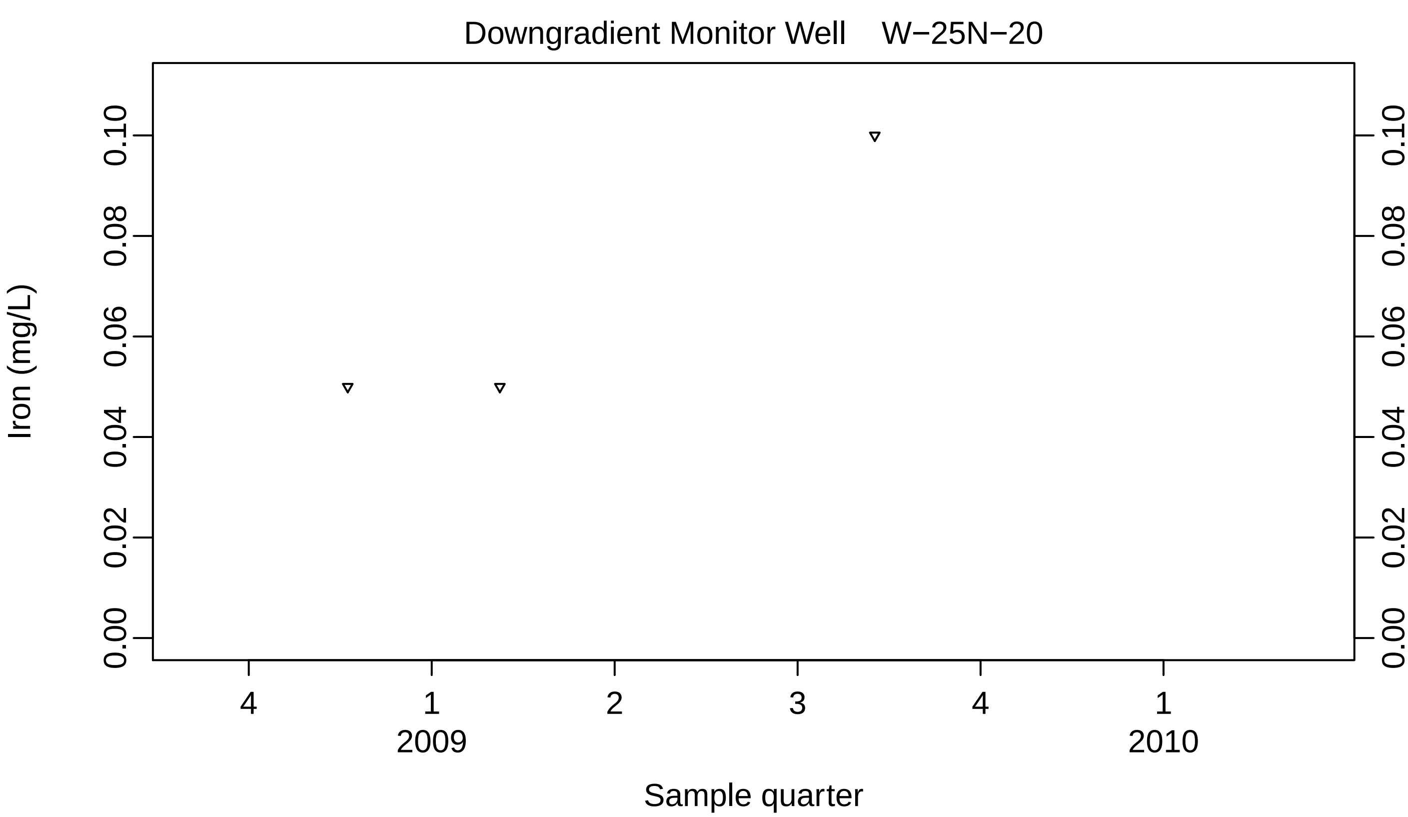
Sewage Ponds Ground Water
Iron (mg/L)

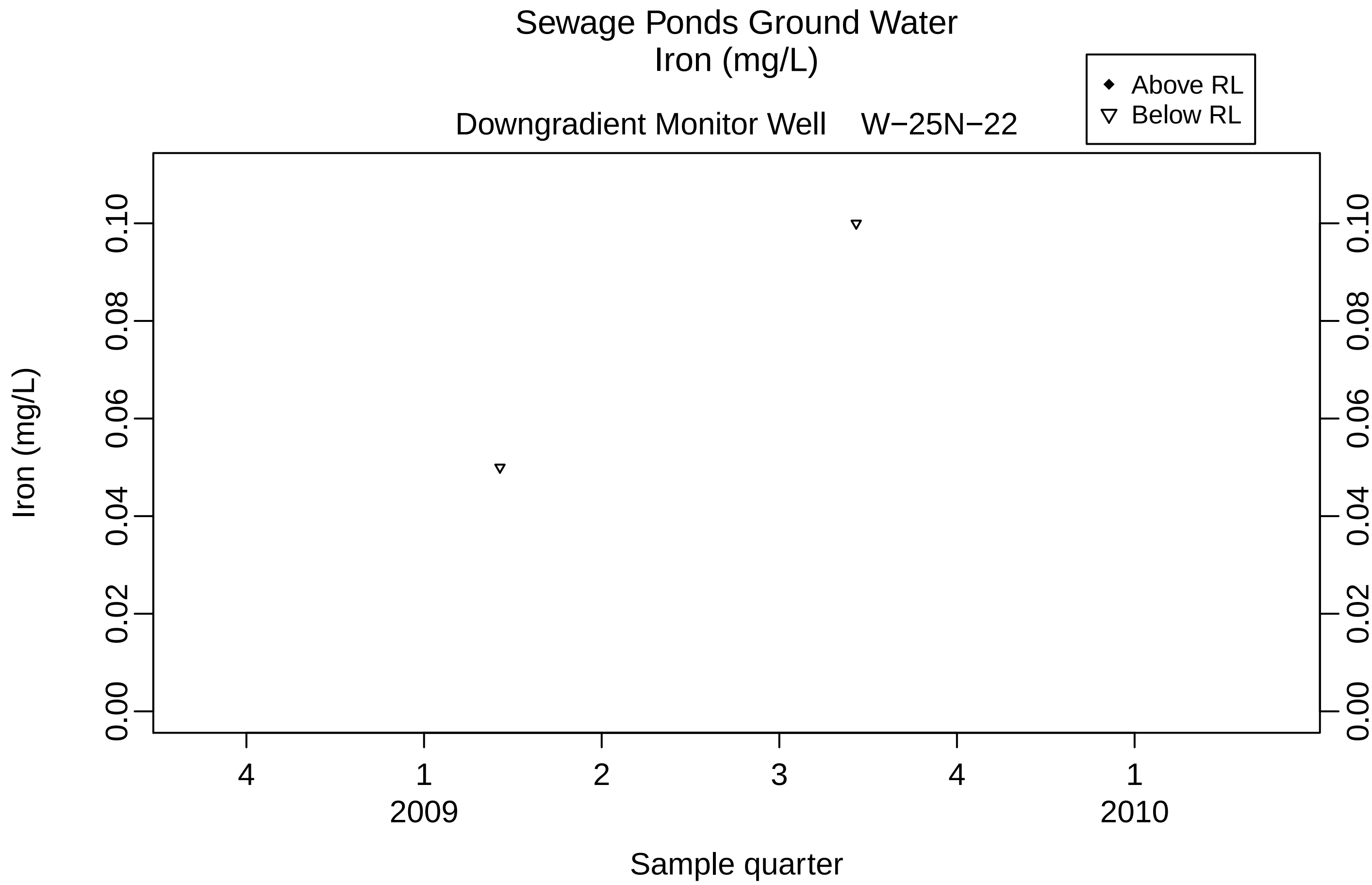


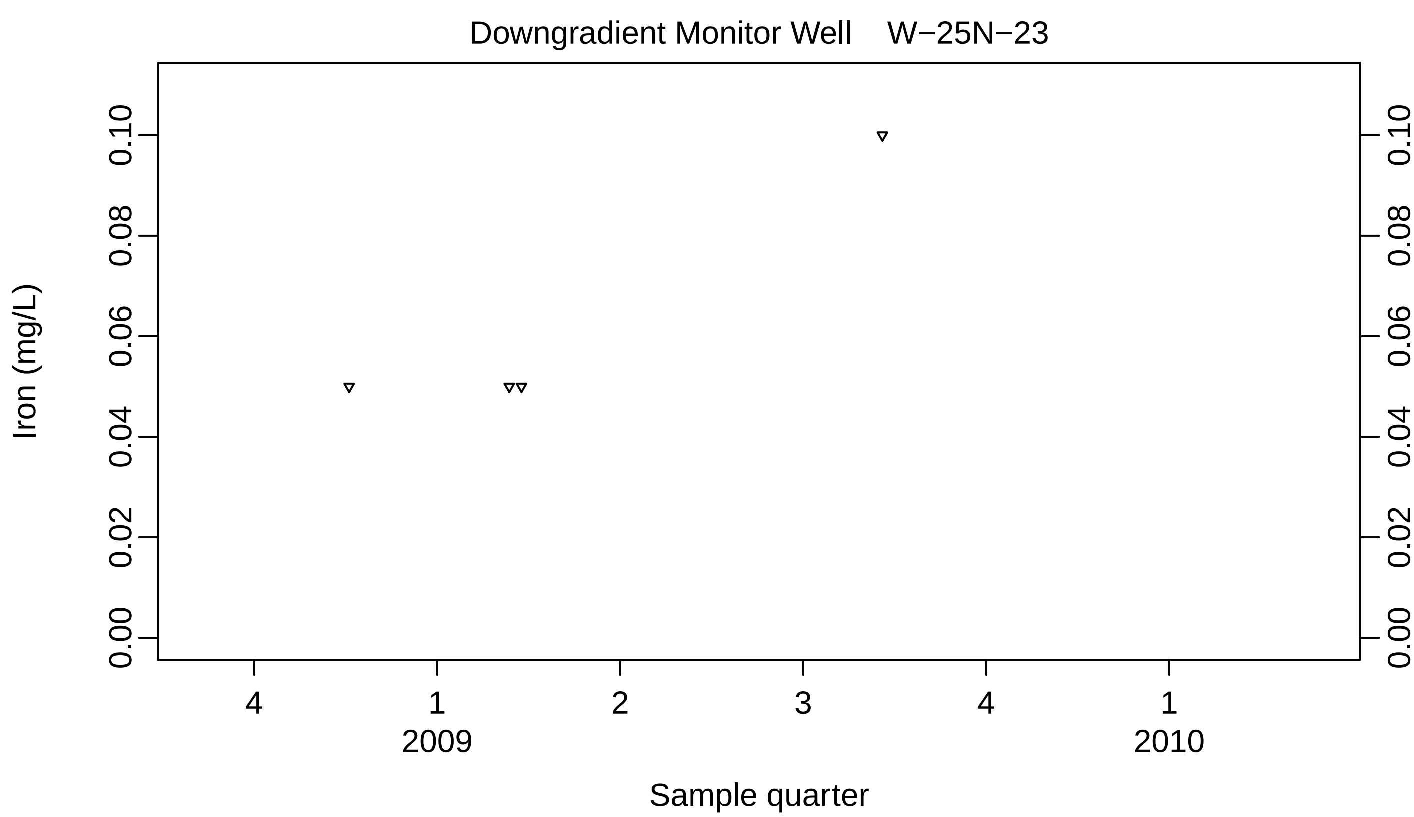


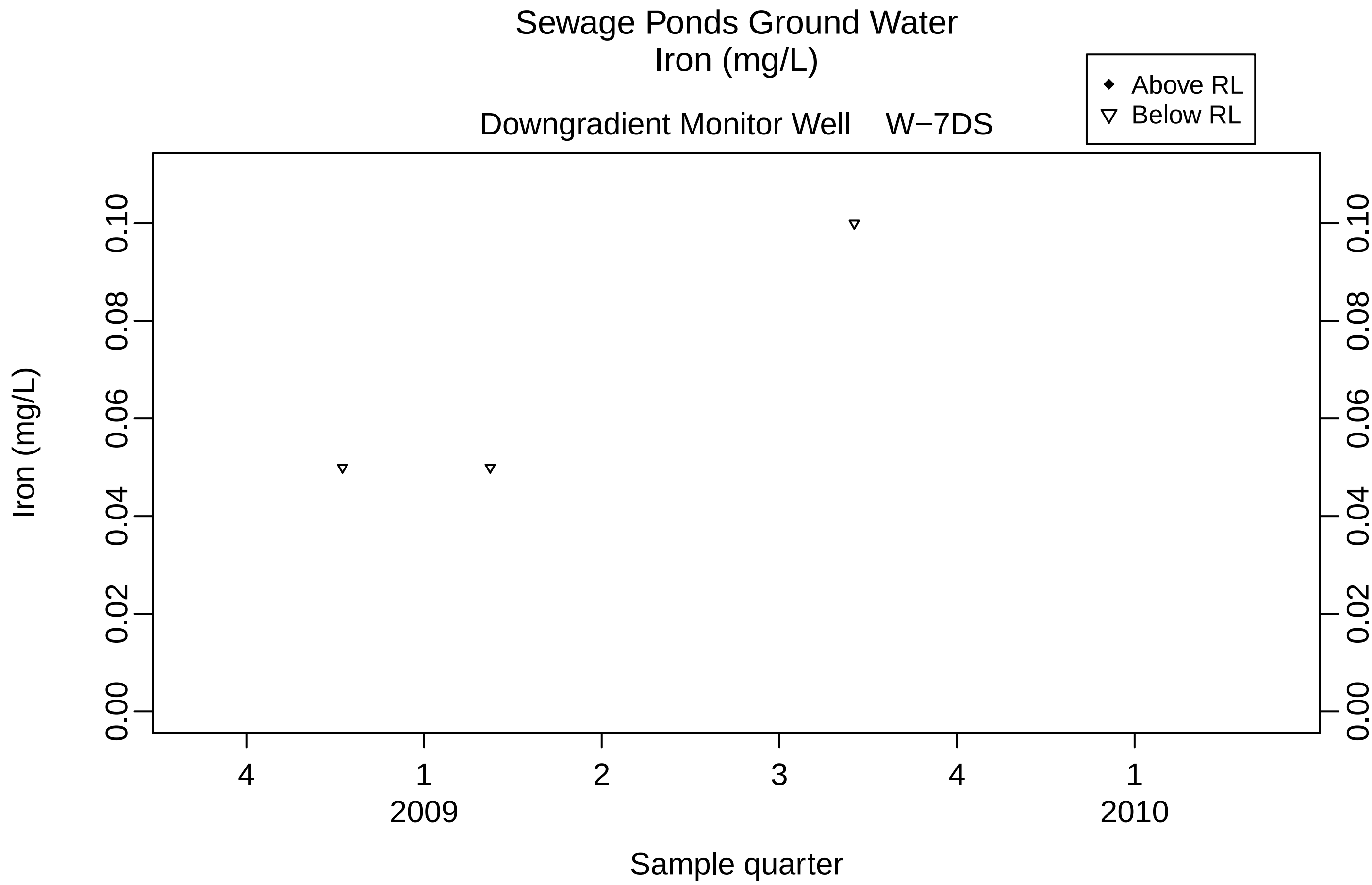
Sewage Ponds Ground Water
Iron (mg/L)



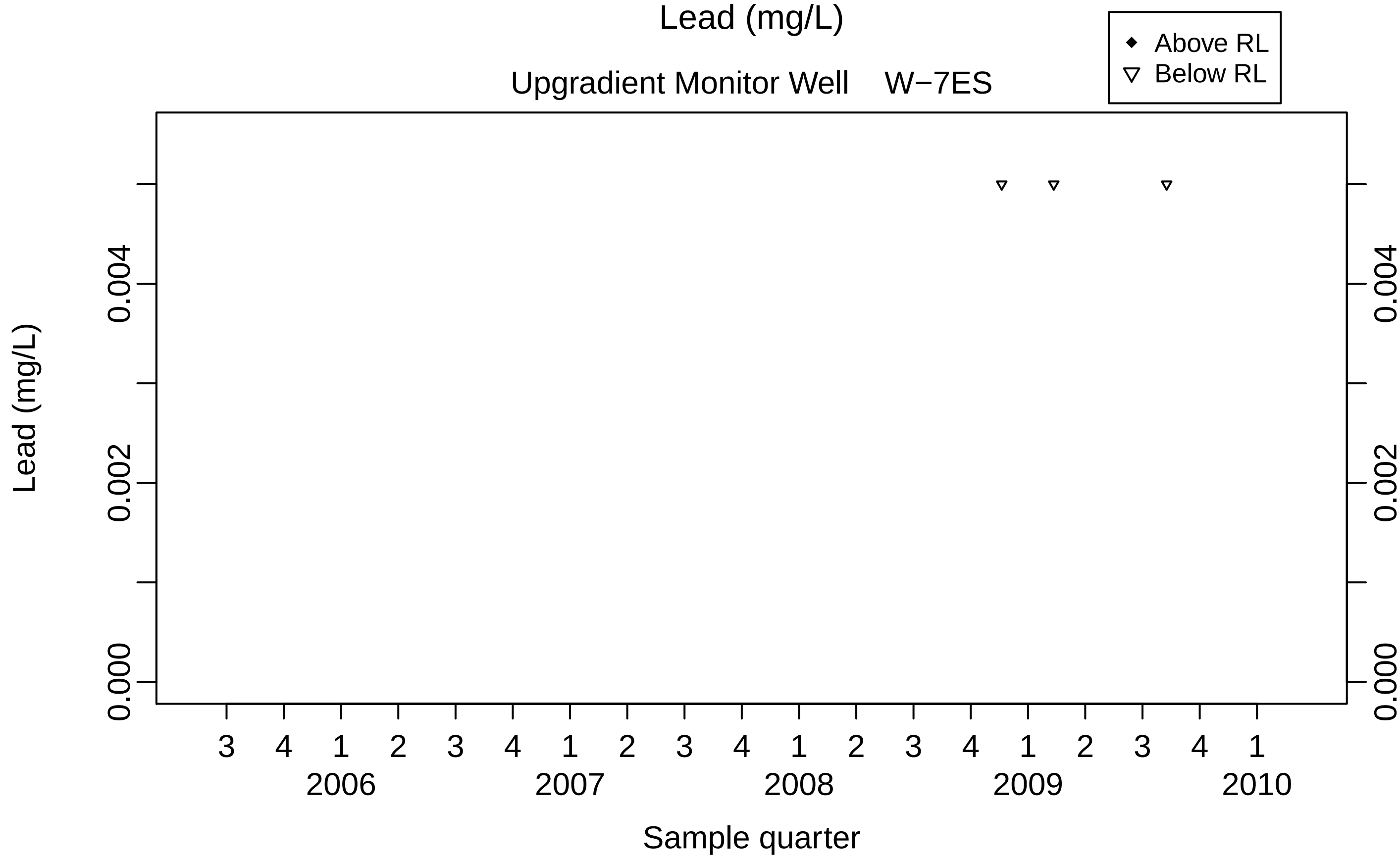


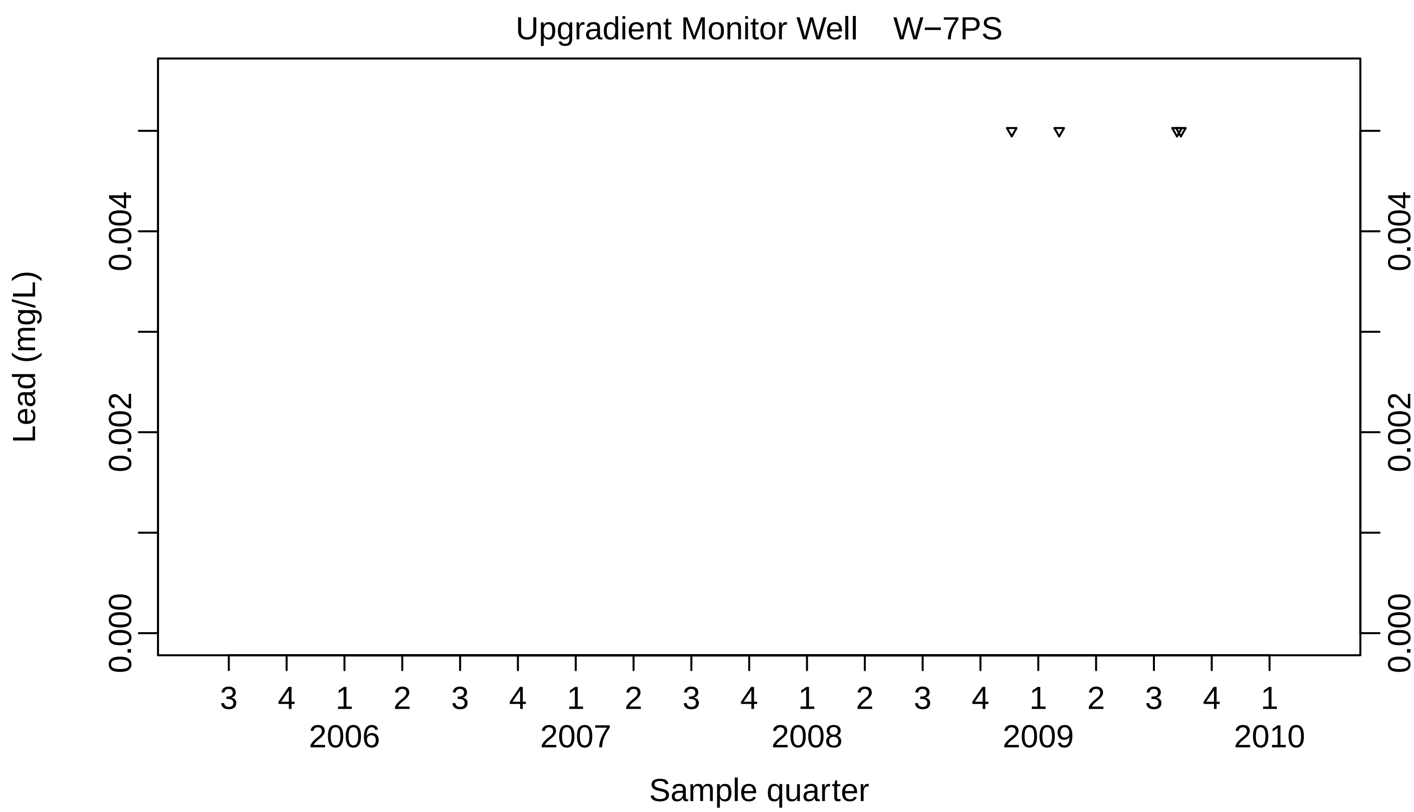

Sewage Ponds Ground Water
Iron (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−25N−22
Iron (mg/L)
0.00
0.02
0.04
0.06
0.08
0.10
4
1
2
3
4
1
2009
2010
Sample quarter


Downgradient Monitor Well W−25N−23
Iron (mg/L)
0.00
0.02
0.04
0.06
0.08
0.10
4
1
2
3
4
1
2009
2010
Sample quarter

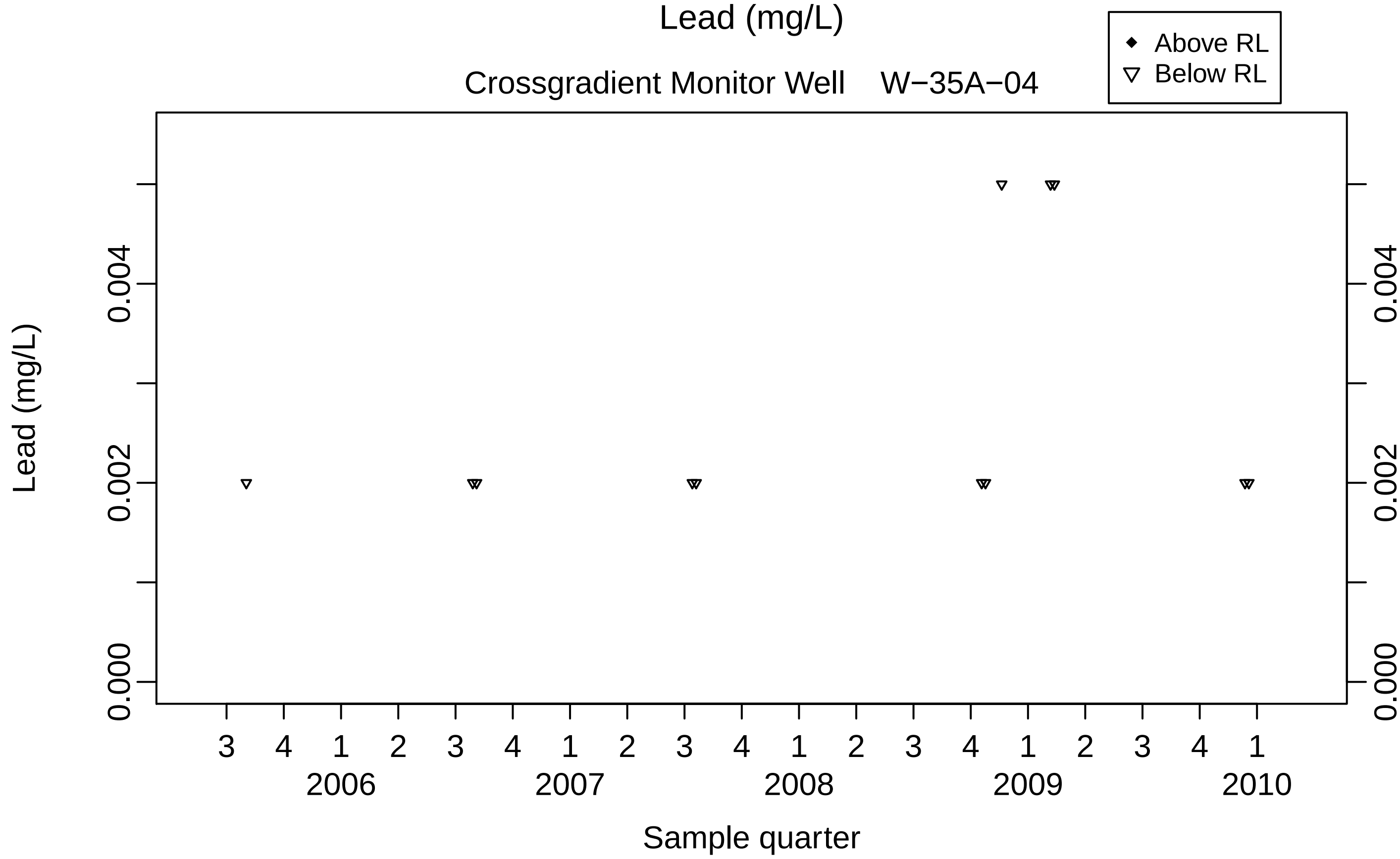

Sewage Ponds Ground Water
Iron (mg/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Iron (mg/L)
0.00
0.02
0.04
0.06
0.08
0.10
4
1
2
3
4
1
2009
2010
Sample quarter

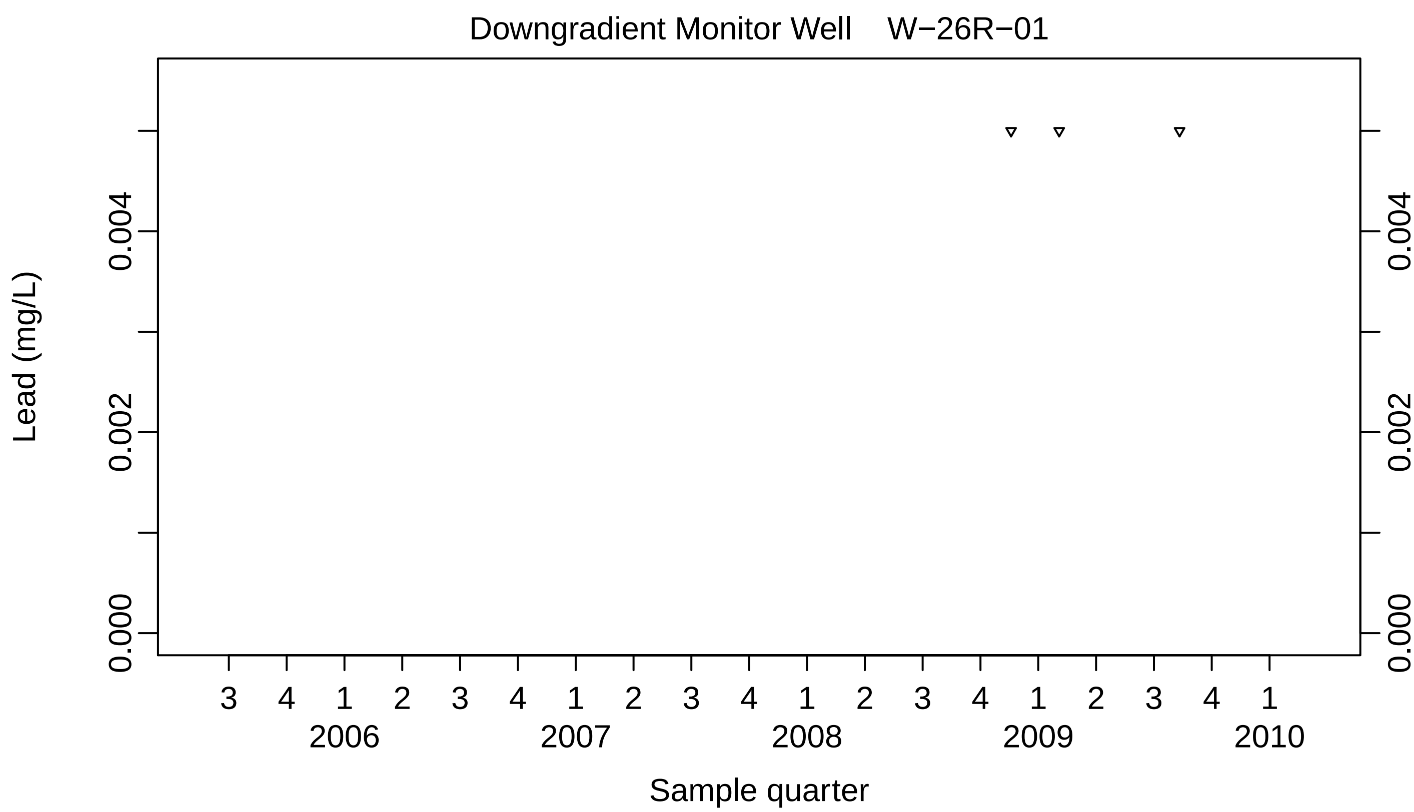
Sewage Ponds Ground Water
Lead (mg/L)



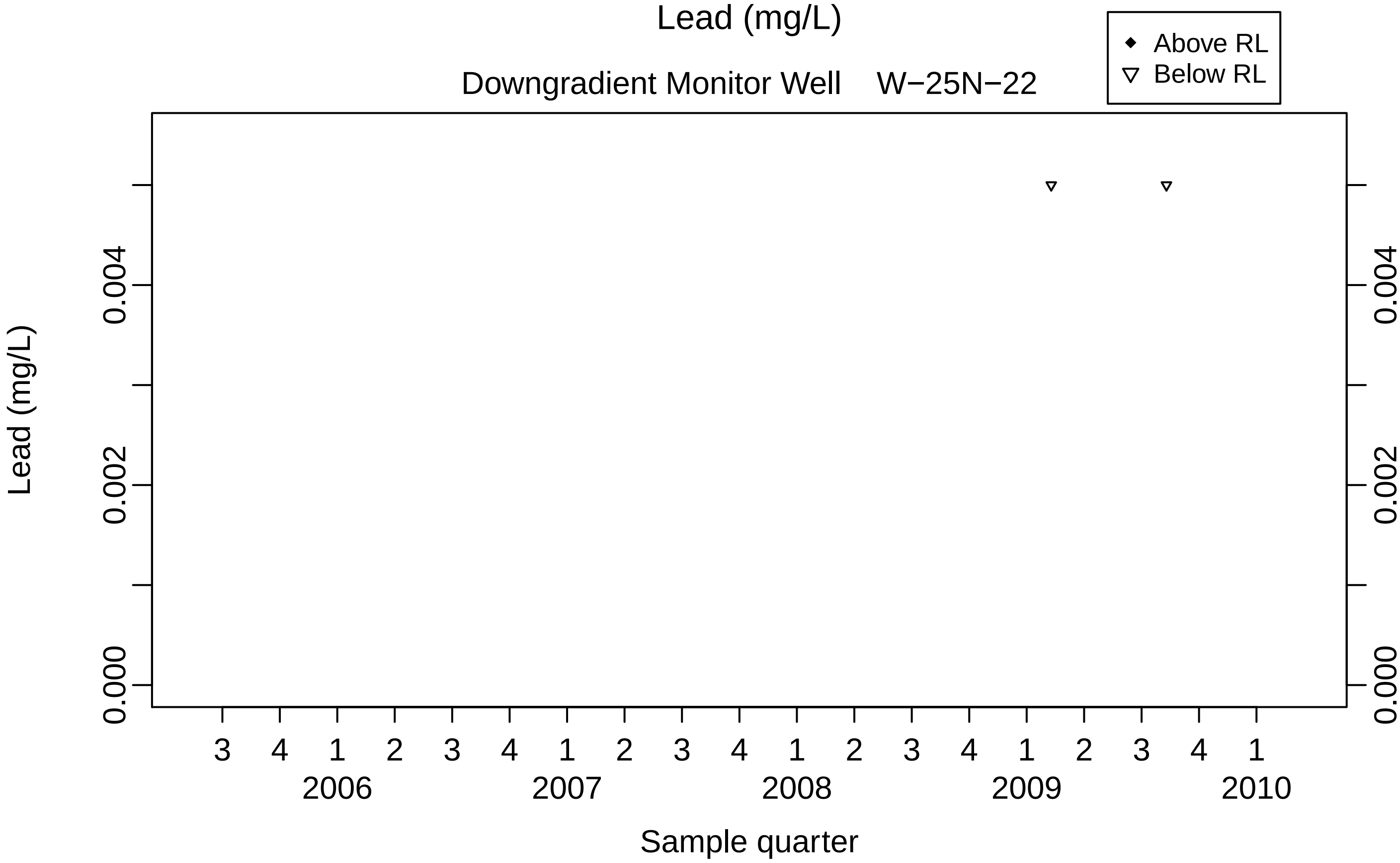


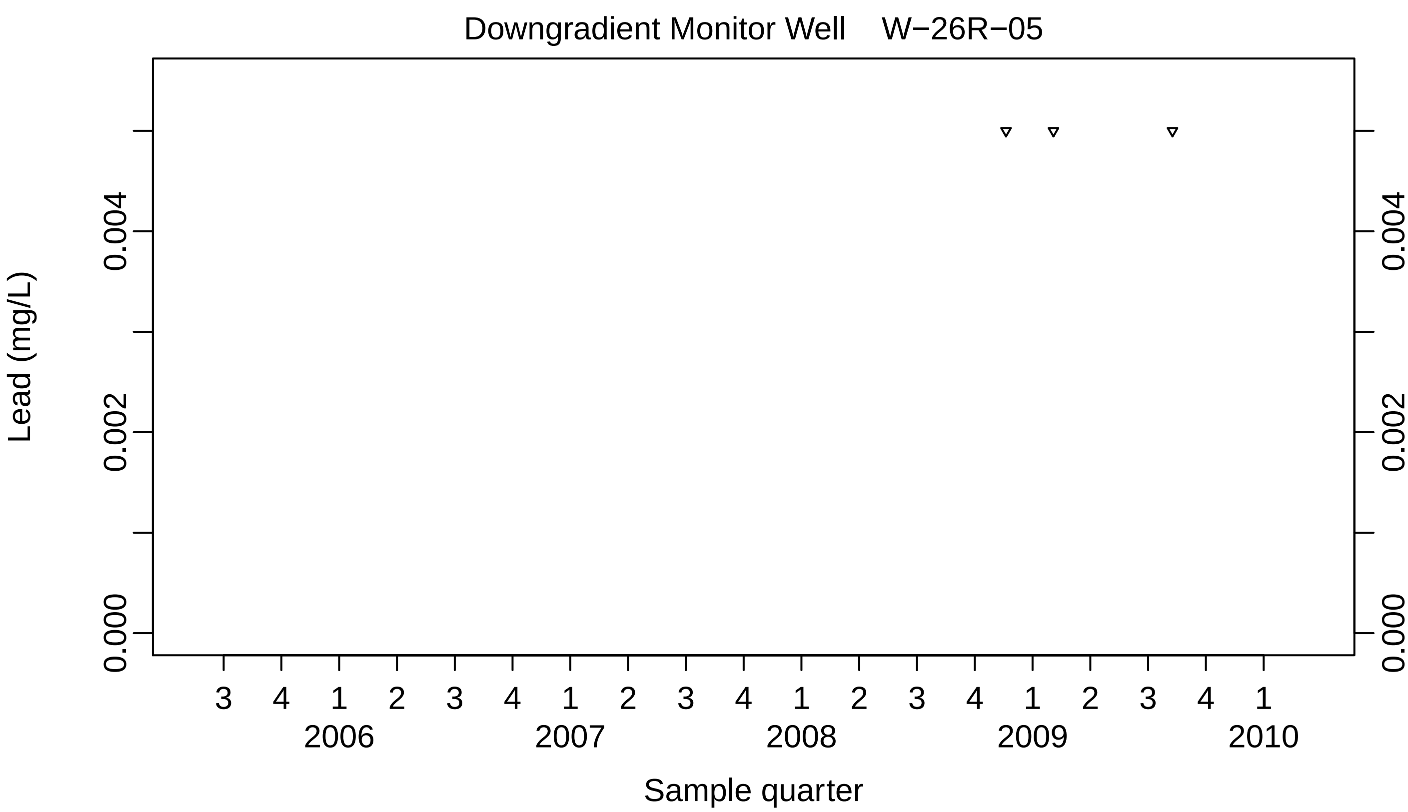
Sewage Ponds Ground Water
Lead (mg/L)



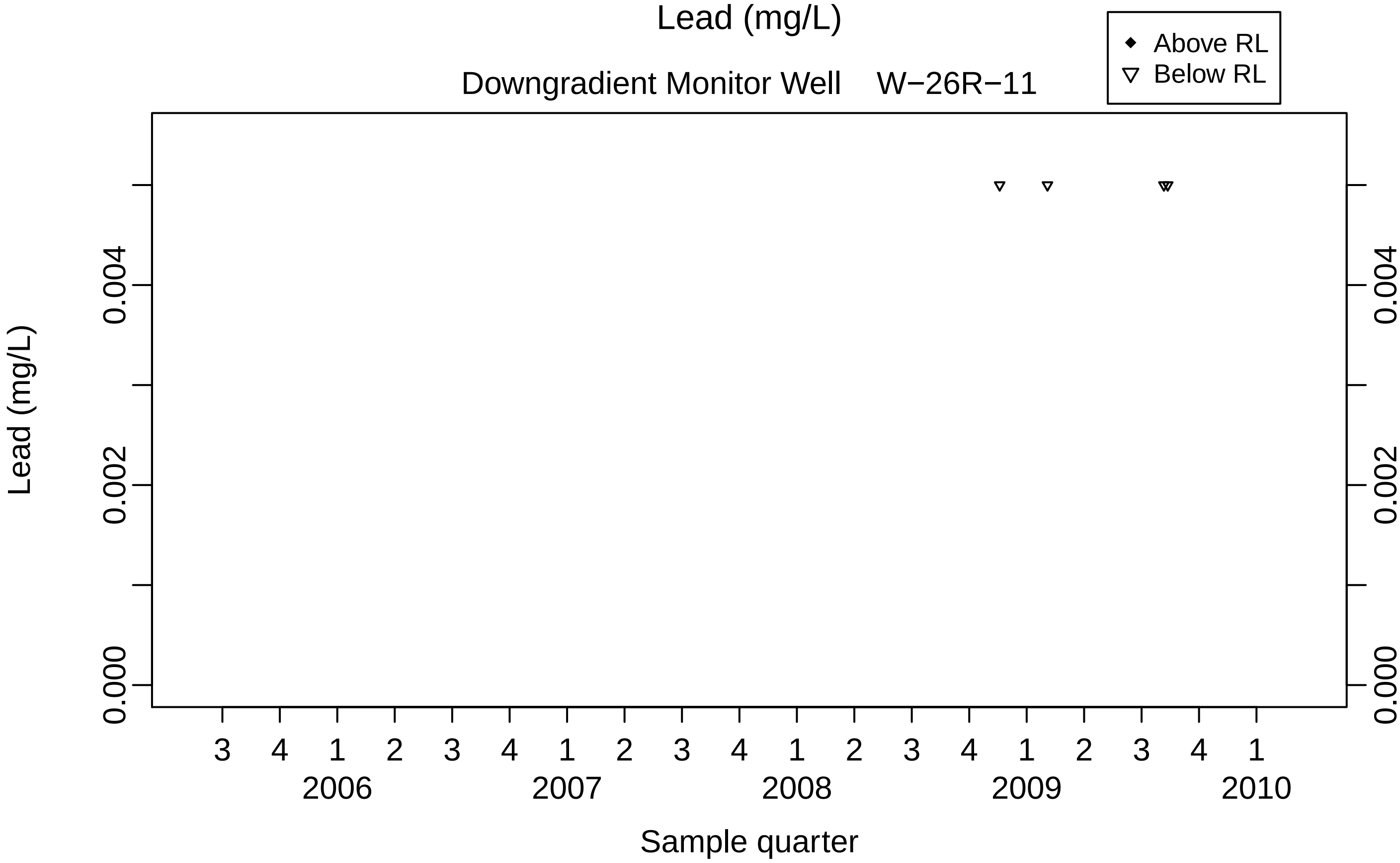


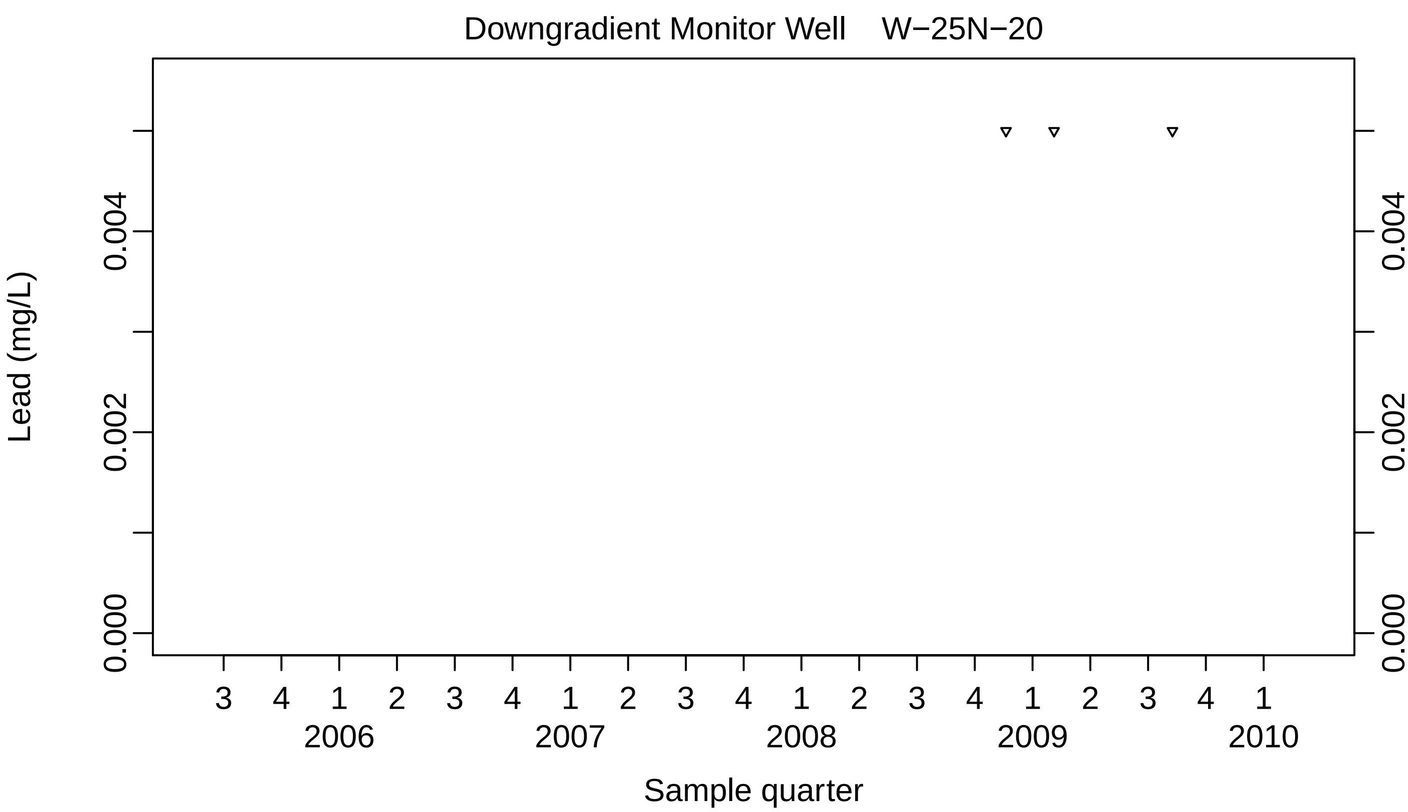
Sewage Ponds Ground Water
Lead (mg/L)



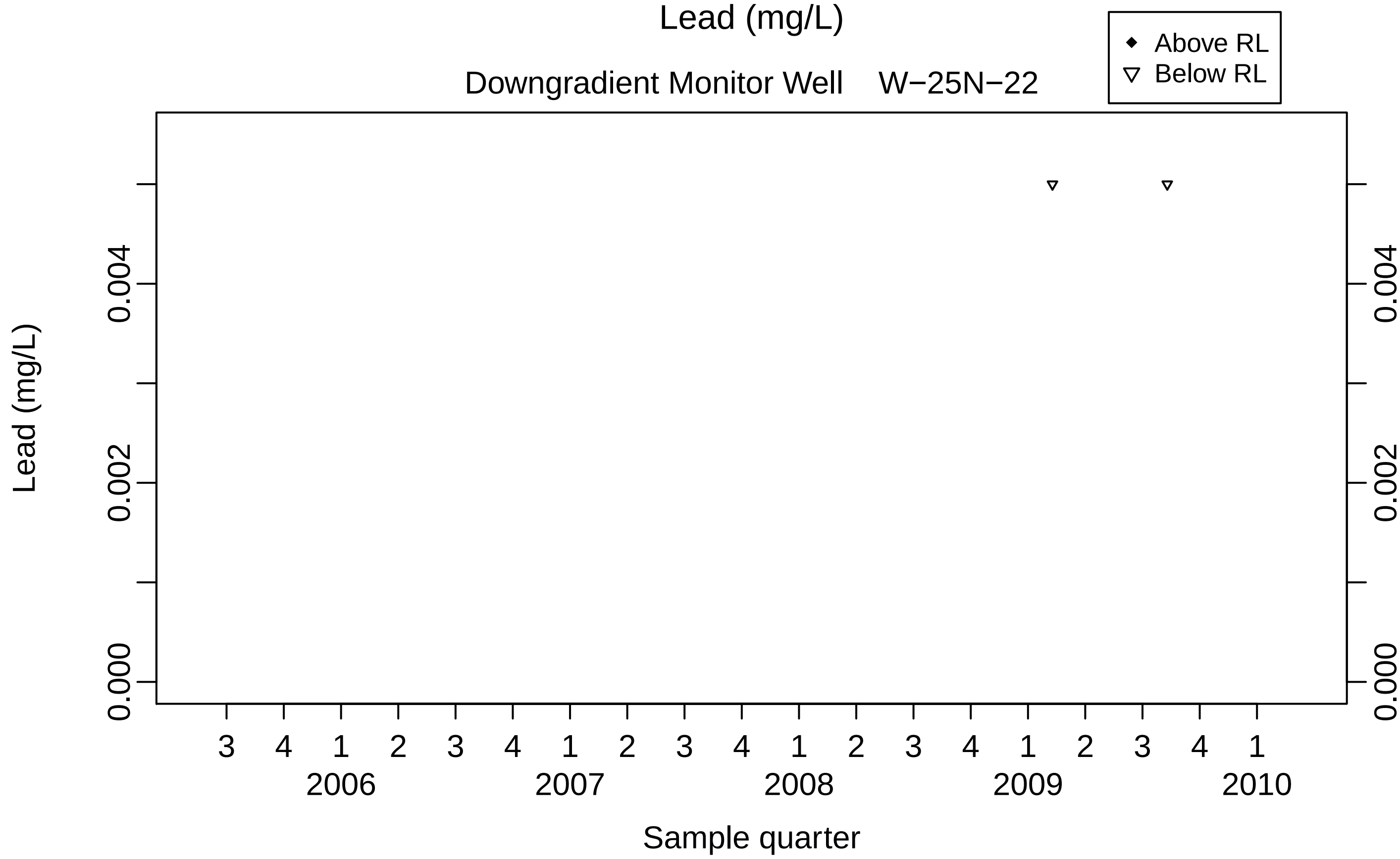


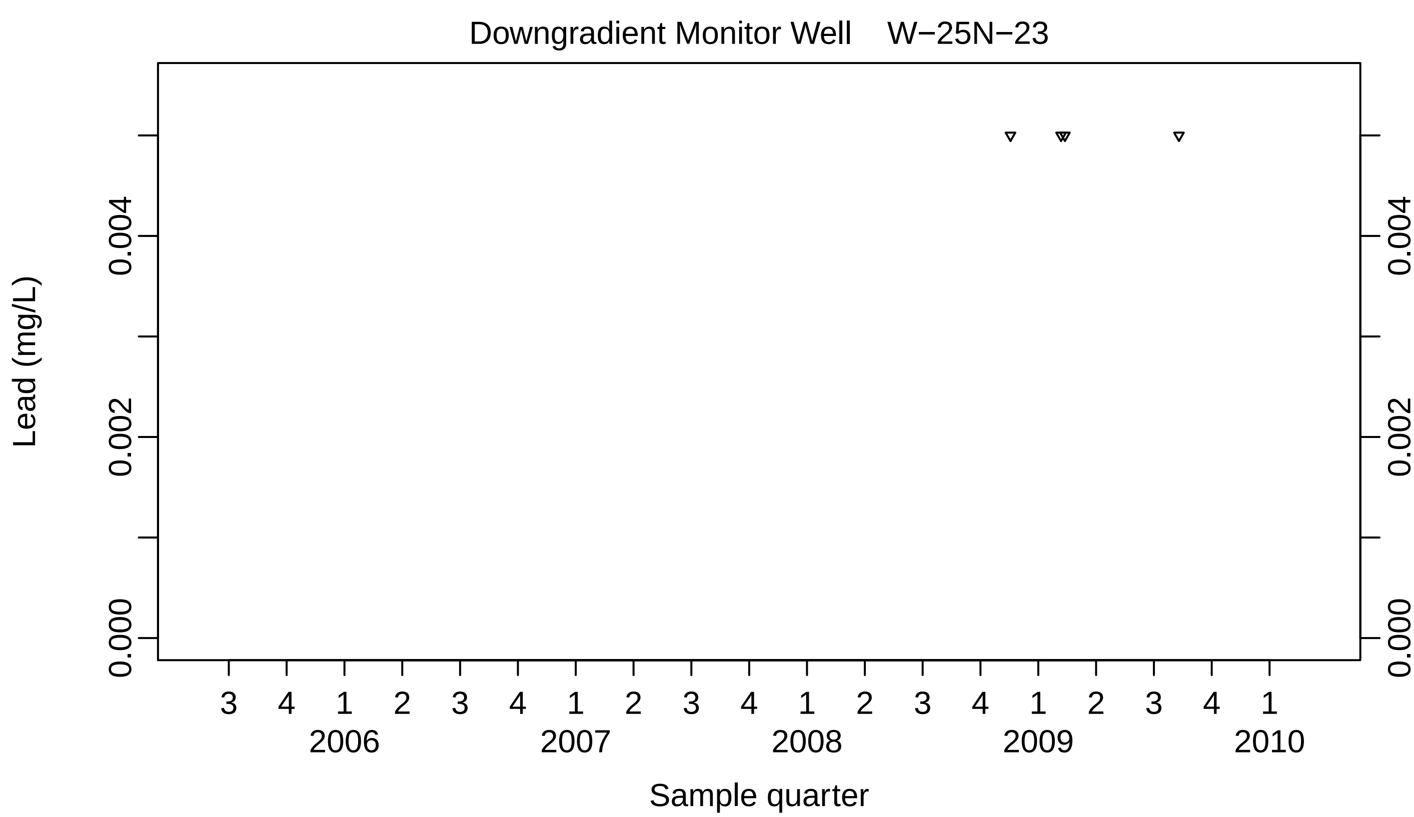
Sewage Ponds Ground Water
Lead (mg/L)

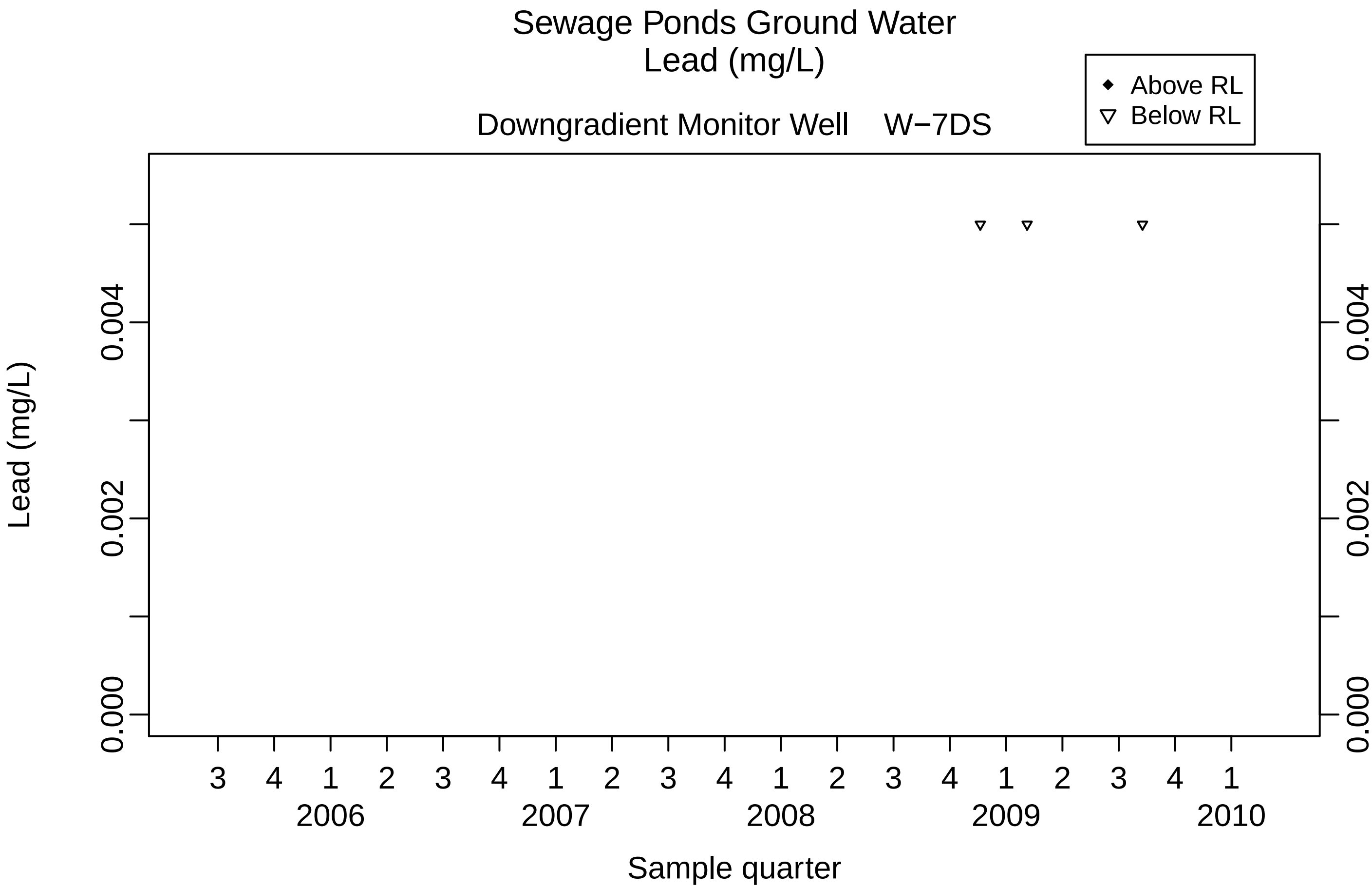




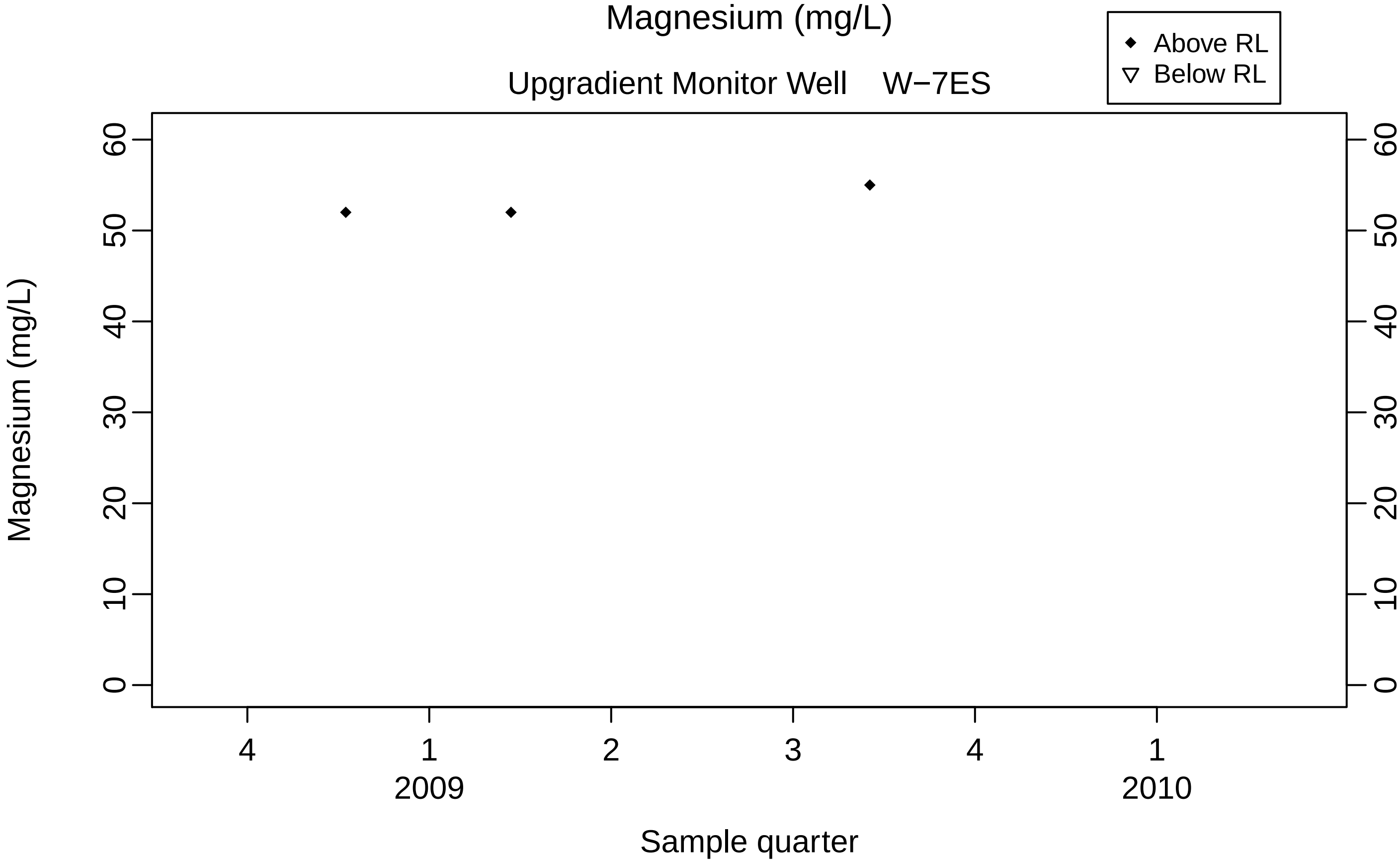
Sewage Ponds Ground Water
Lead (mg/L)

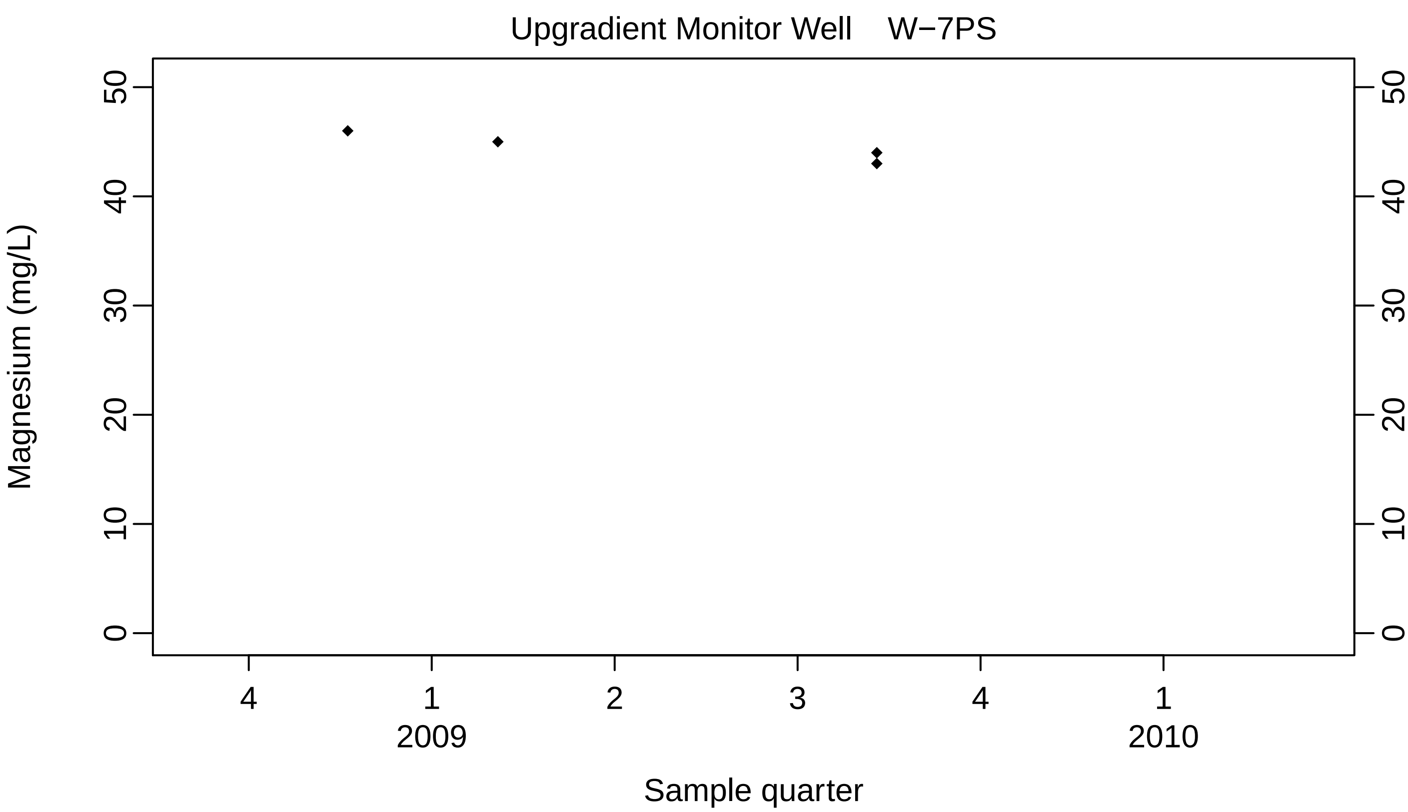


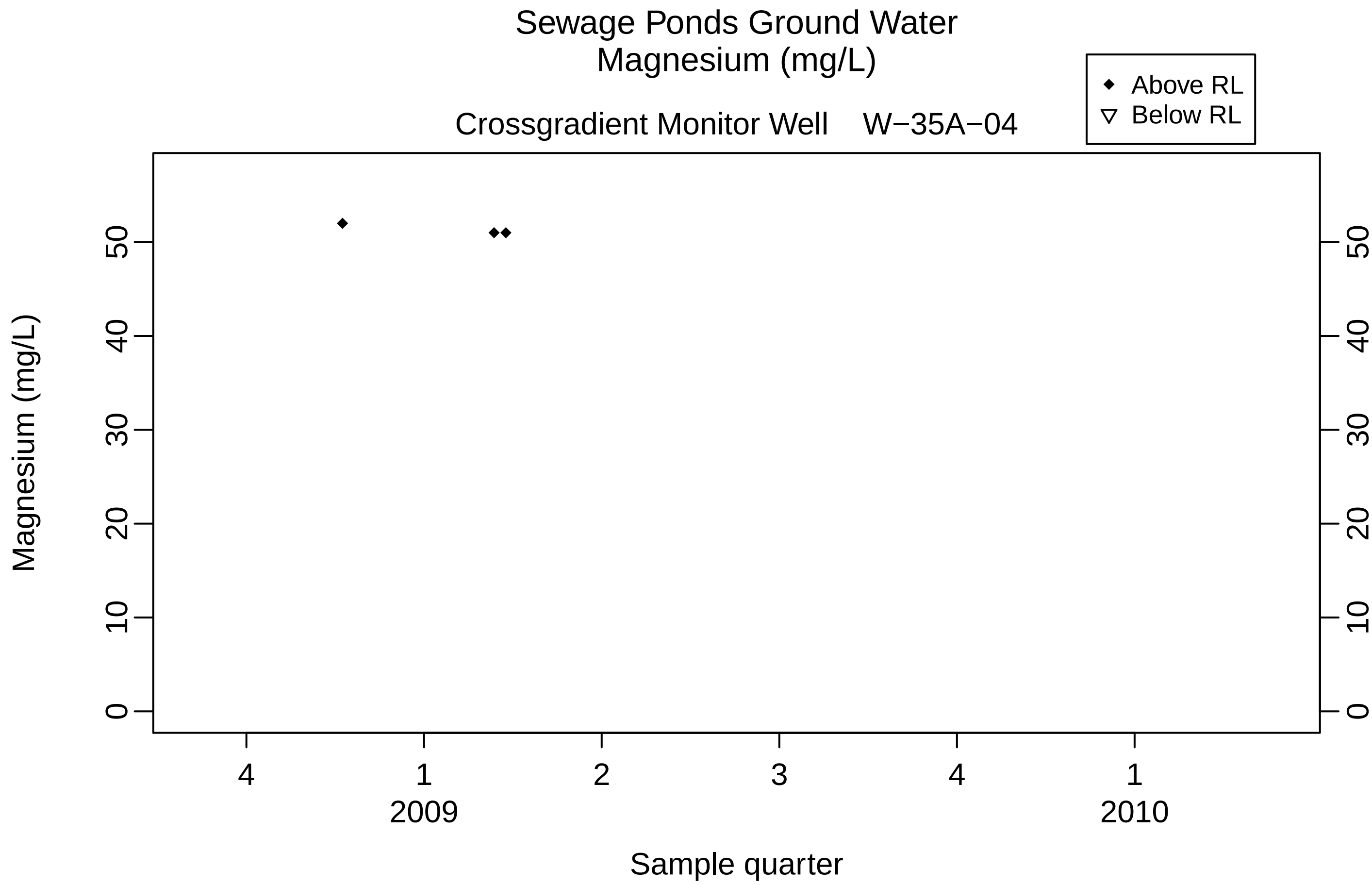


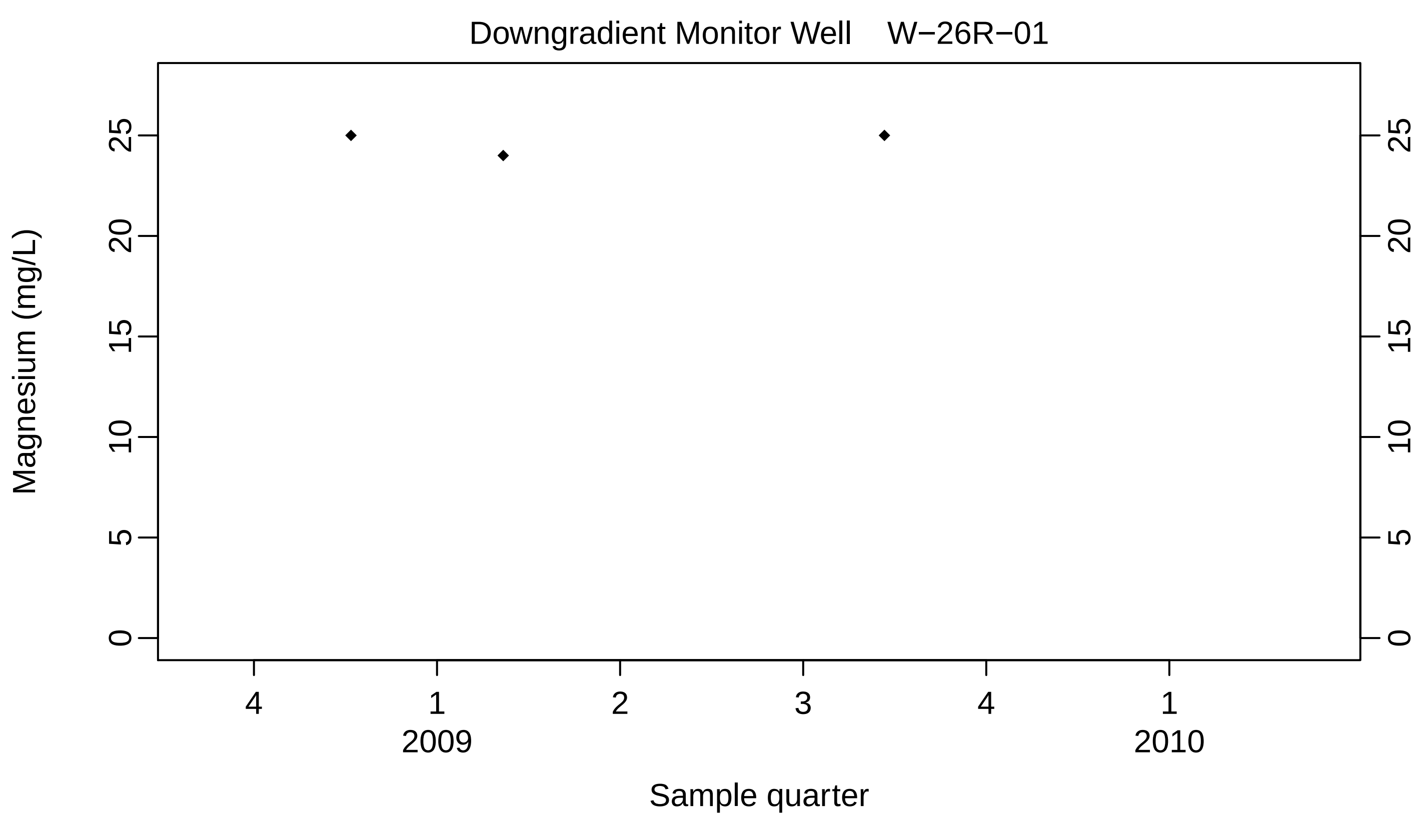

Sewage Ponds Ground Water
Lead (mg/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Lead (mg/L)
0.000
0.002
0.004
3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006
2007
2008
2009
2010
Sample quarter

Sewage Ponds Ground Water
Magnesium (mg/L)

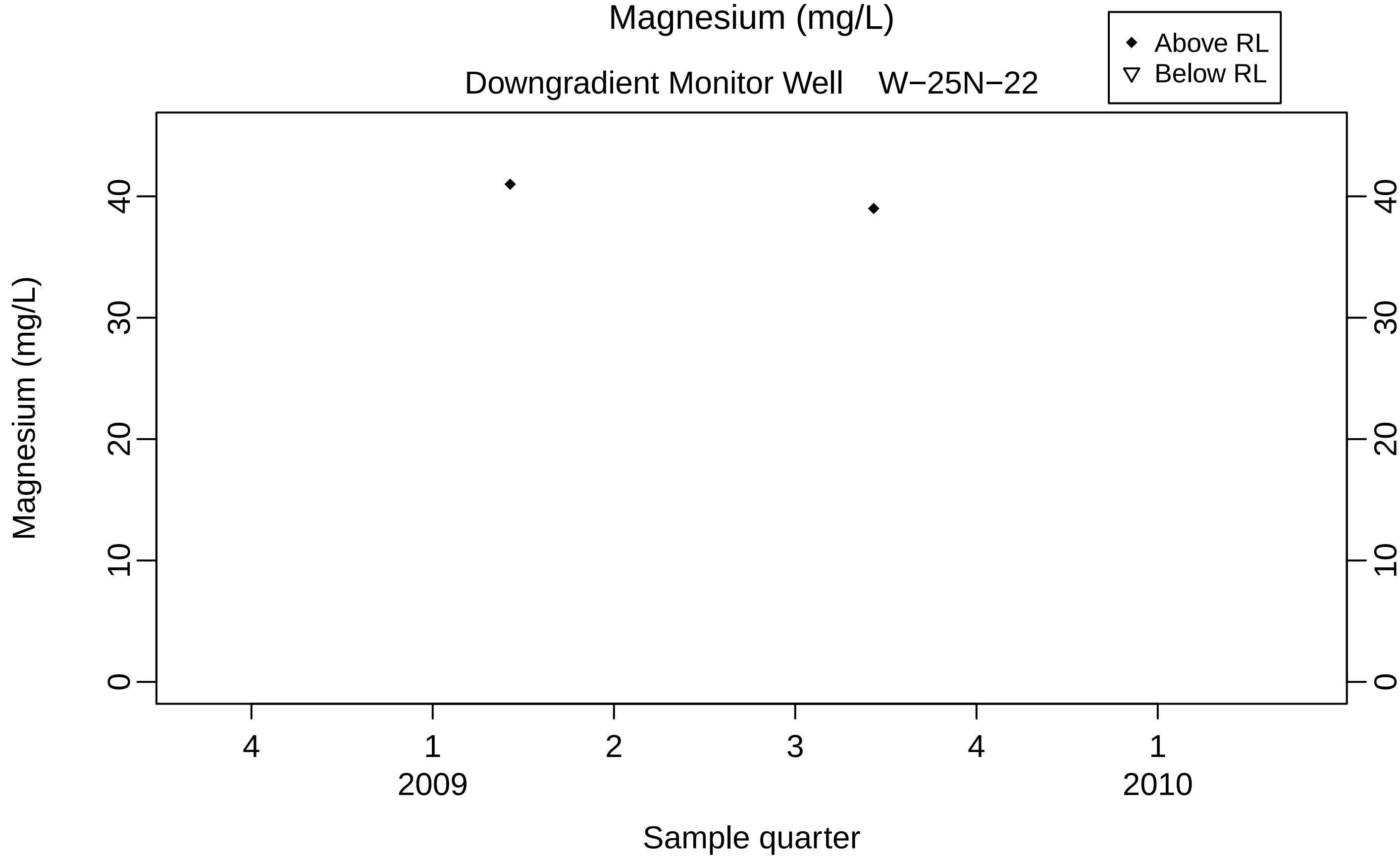


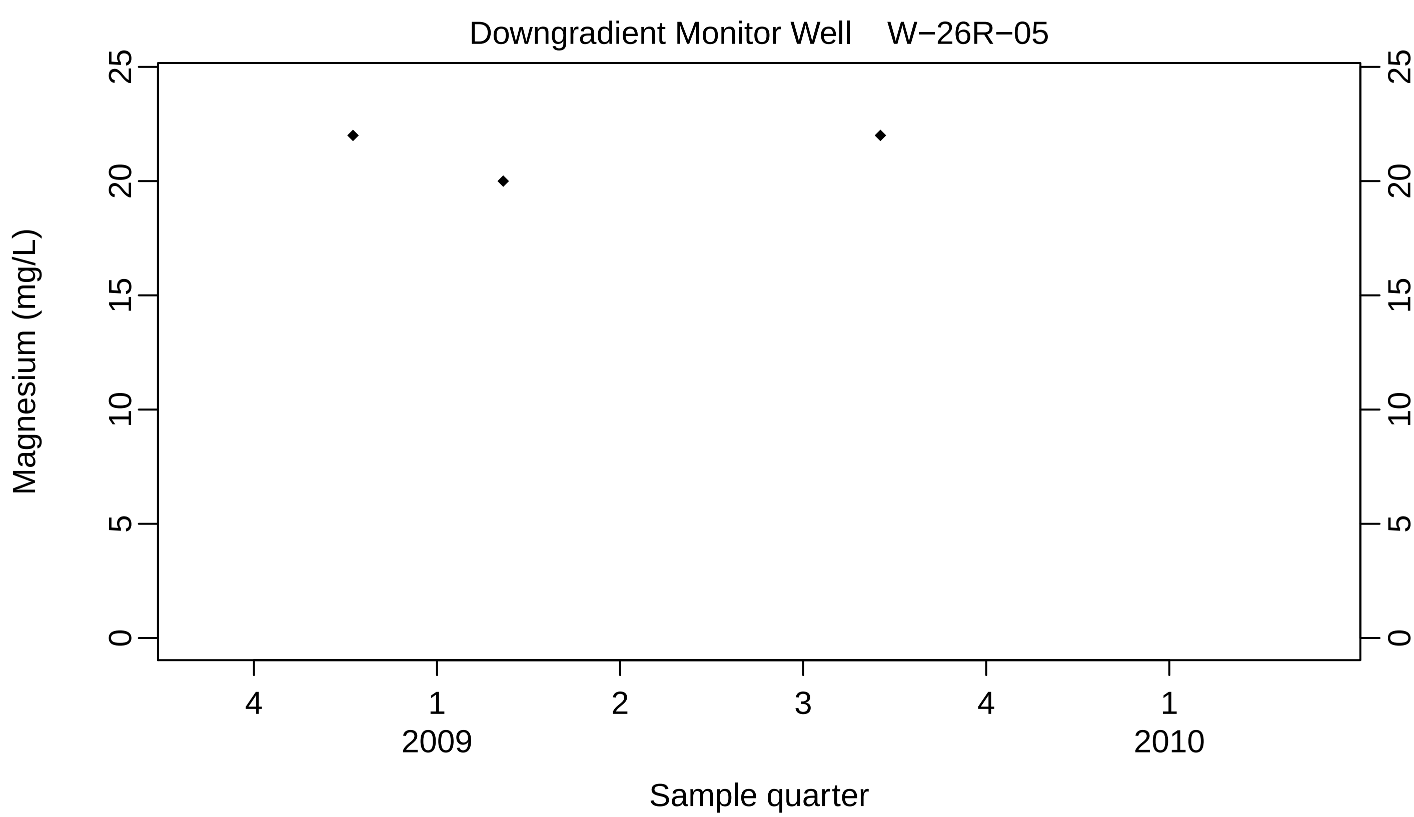



Sewage Ponds Ground Water
Magnesium (mg/L)
Above RL
Below RL
Crossgradient Monitor Well W−35A−04
Magnesium (mg/L)
0
10
20
30
40
50
4
1
2
3
4
1
2009
2010
Sample quarter

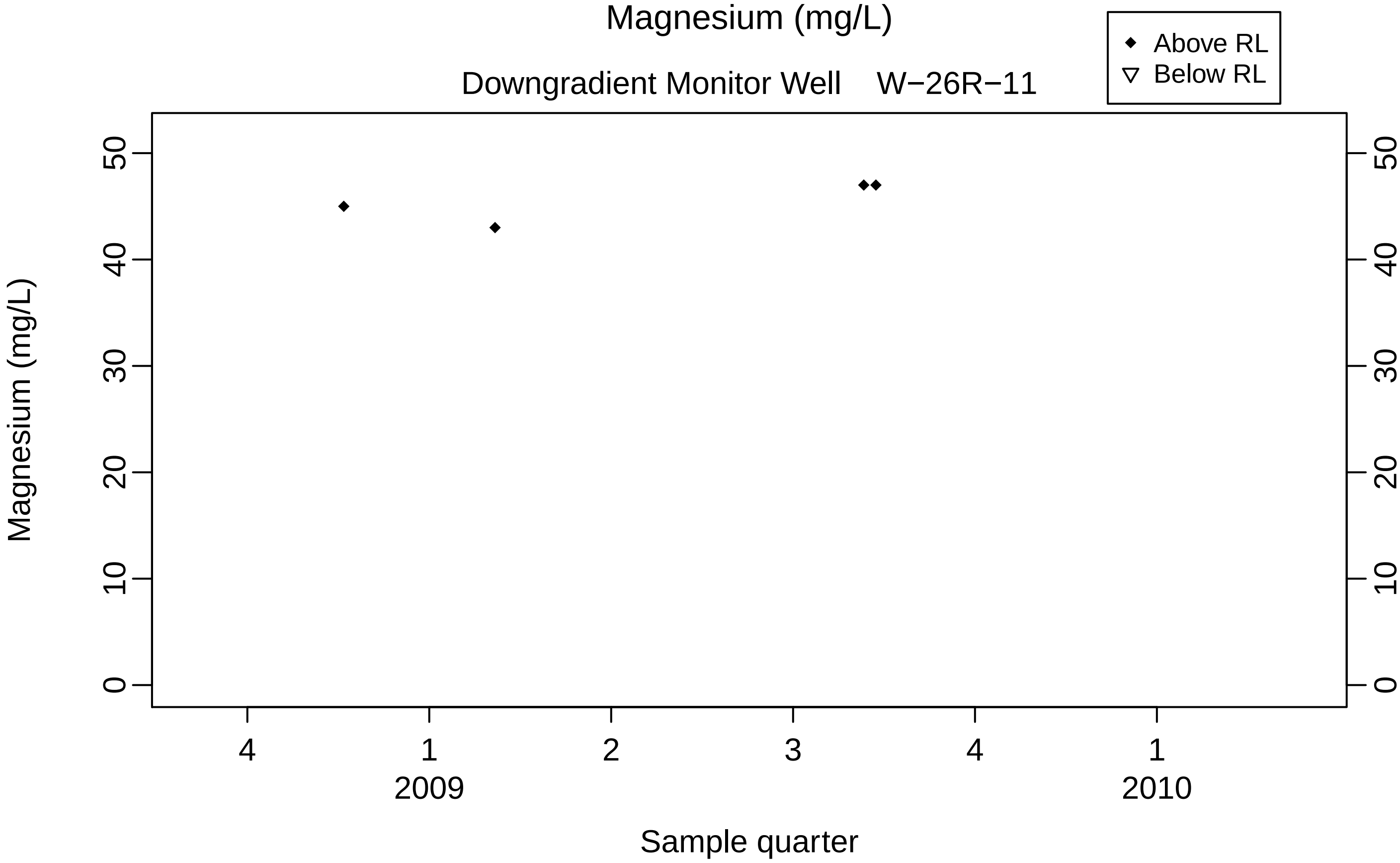

Downgradient Monitor Well W−26R−01
Magnesium (mg/L)
0
5
10
15
20
25
4
1
2
3
4
1
2009
2010
Sample quarter

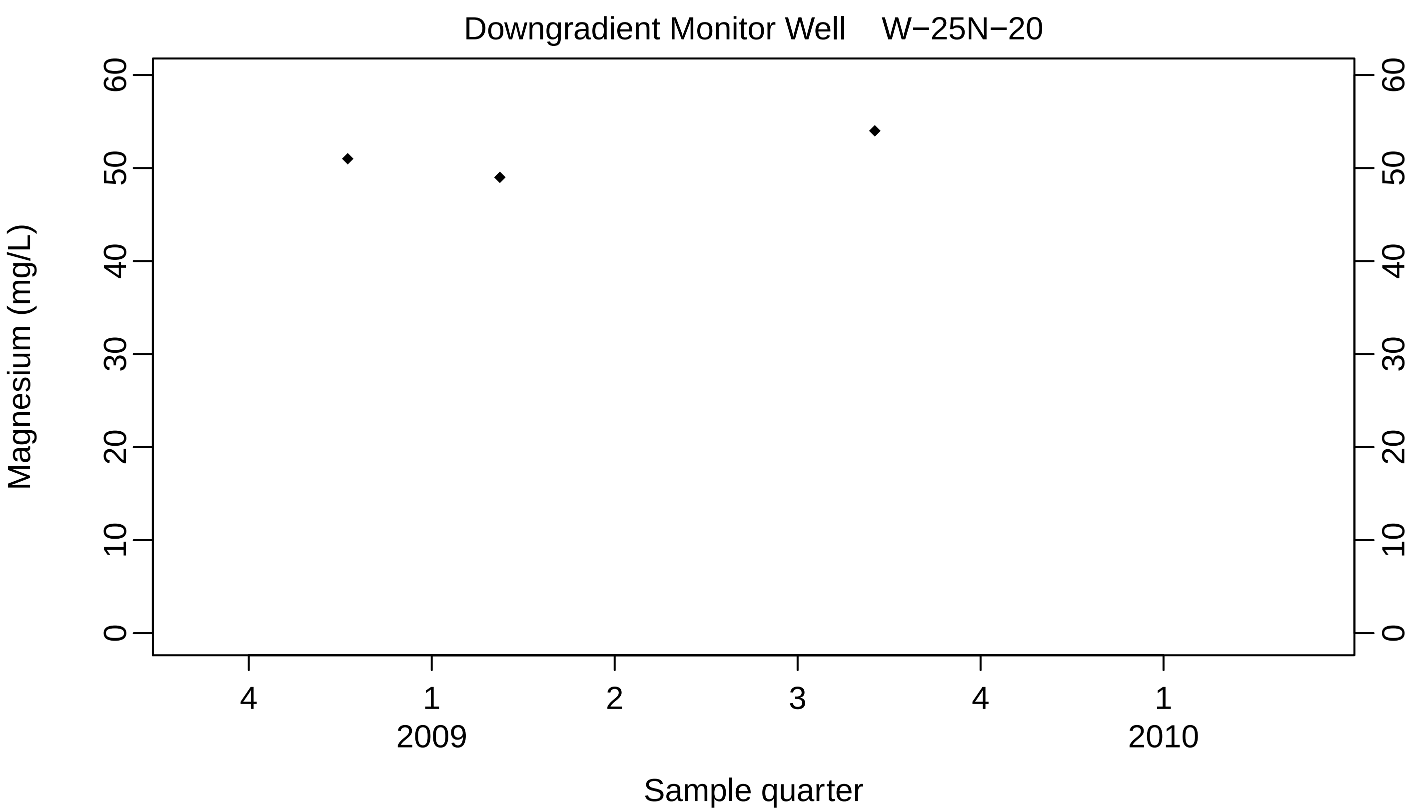
Sewage Ponds Ground Water
Magnesium (mg/L)



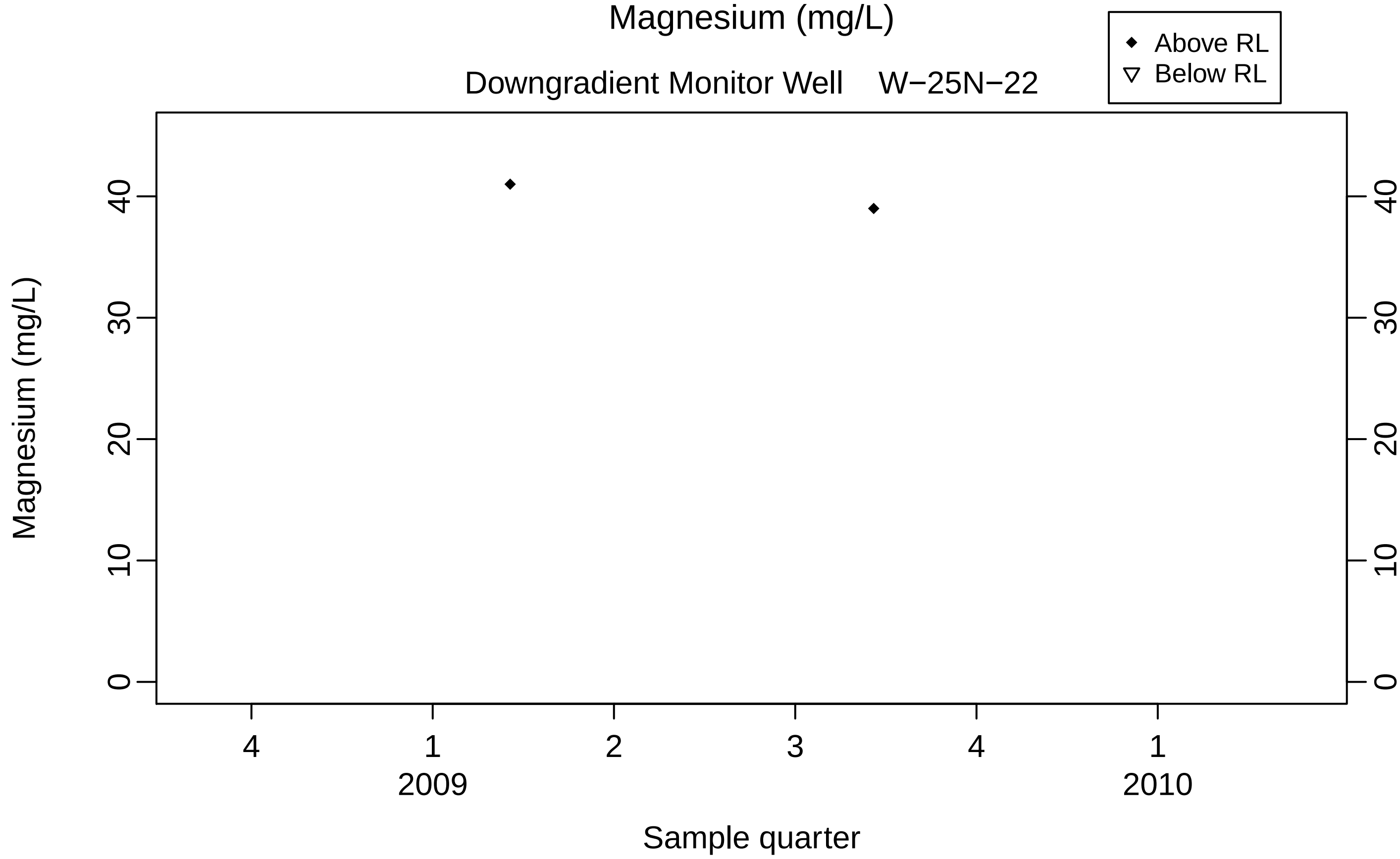


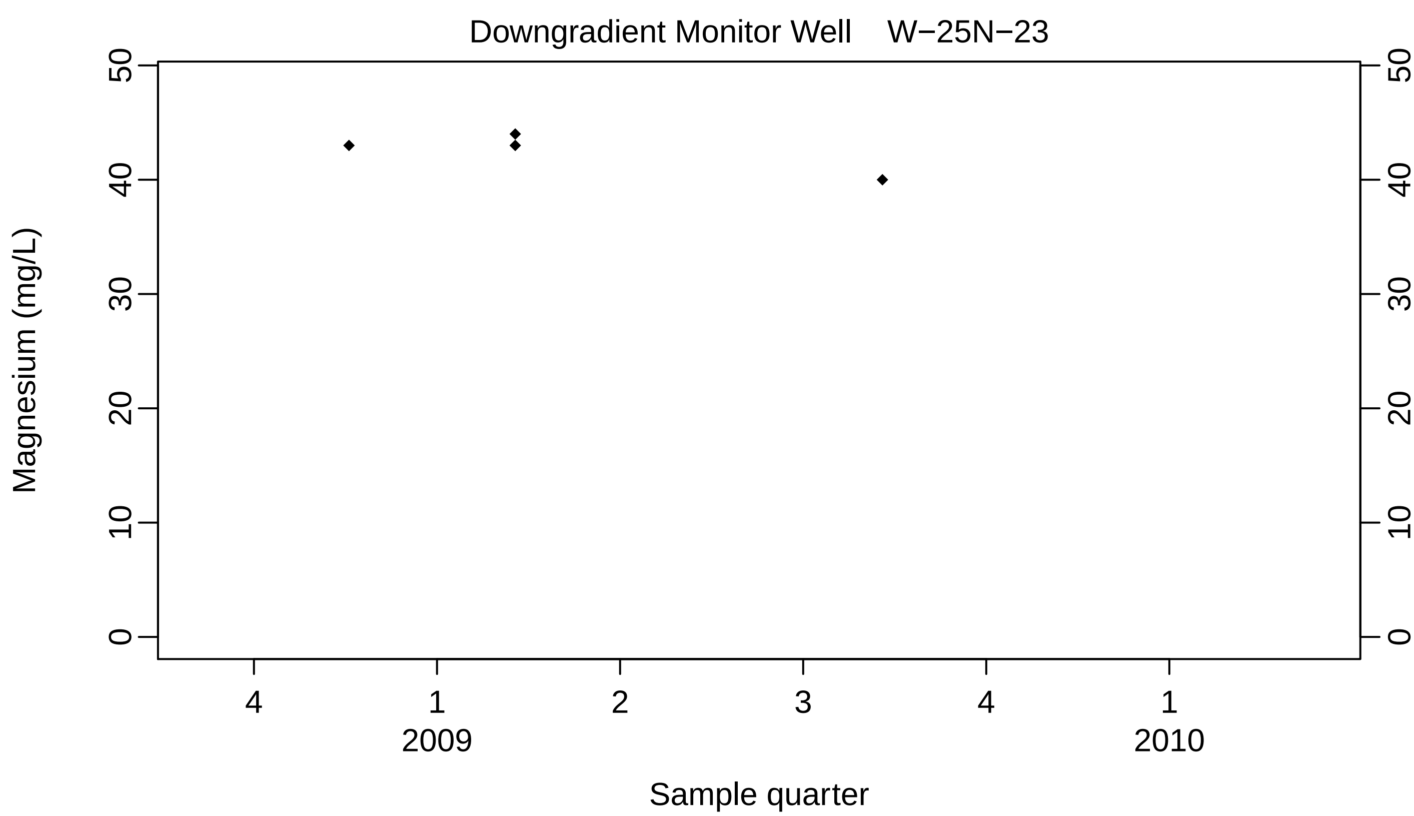
Sewage Ponds Ground Water
Magnesium (mg/L)

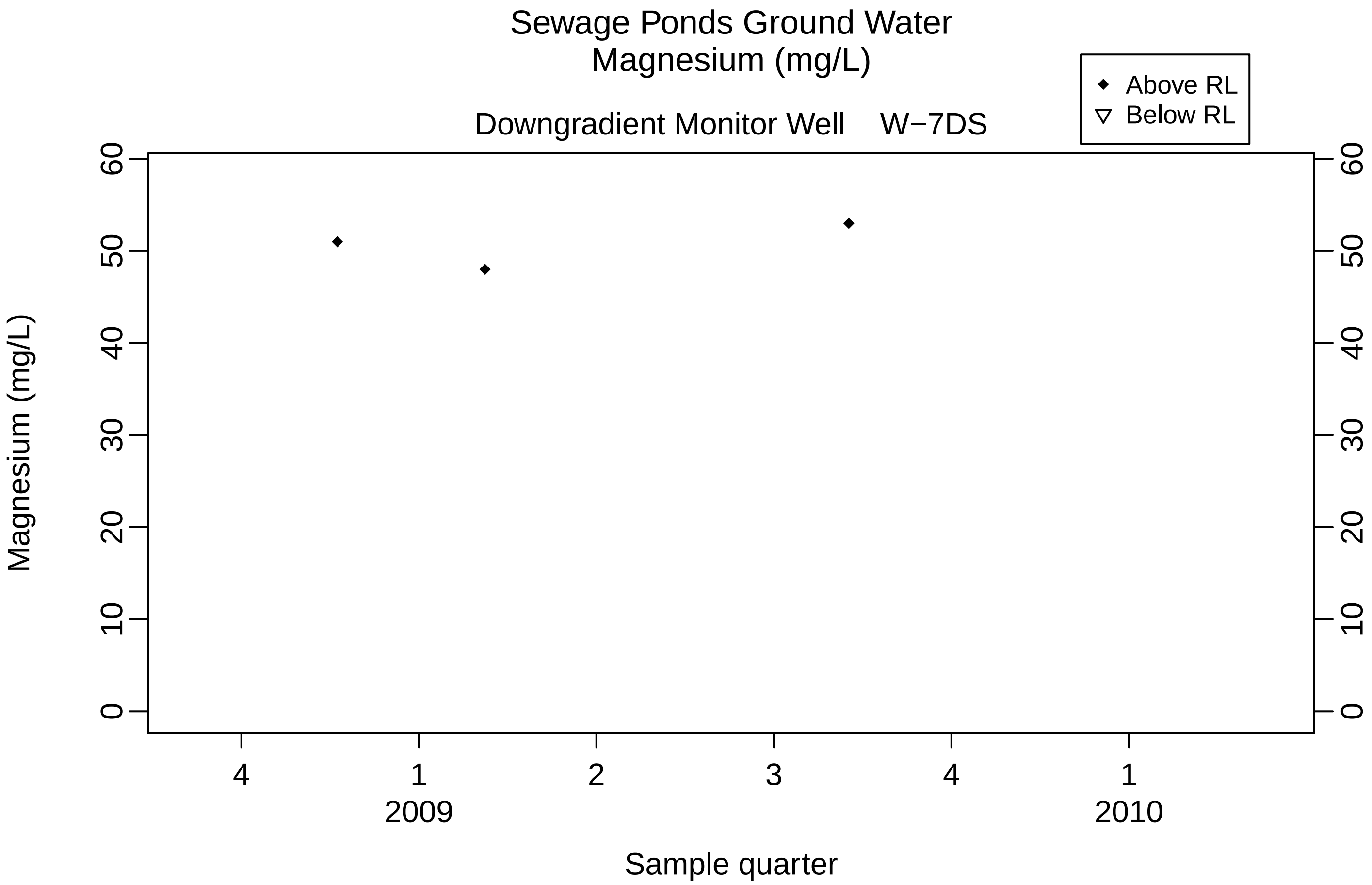




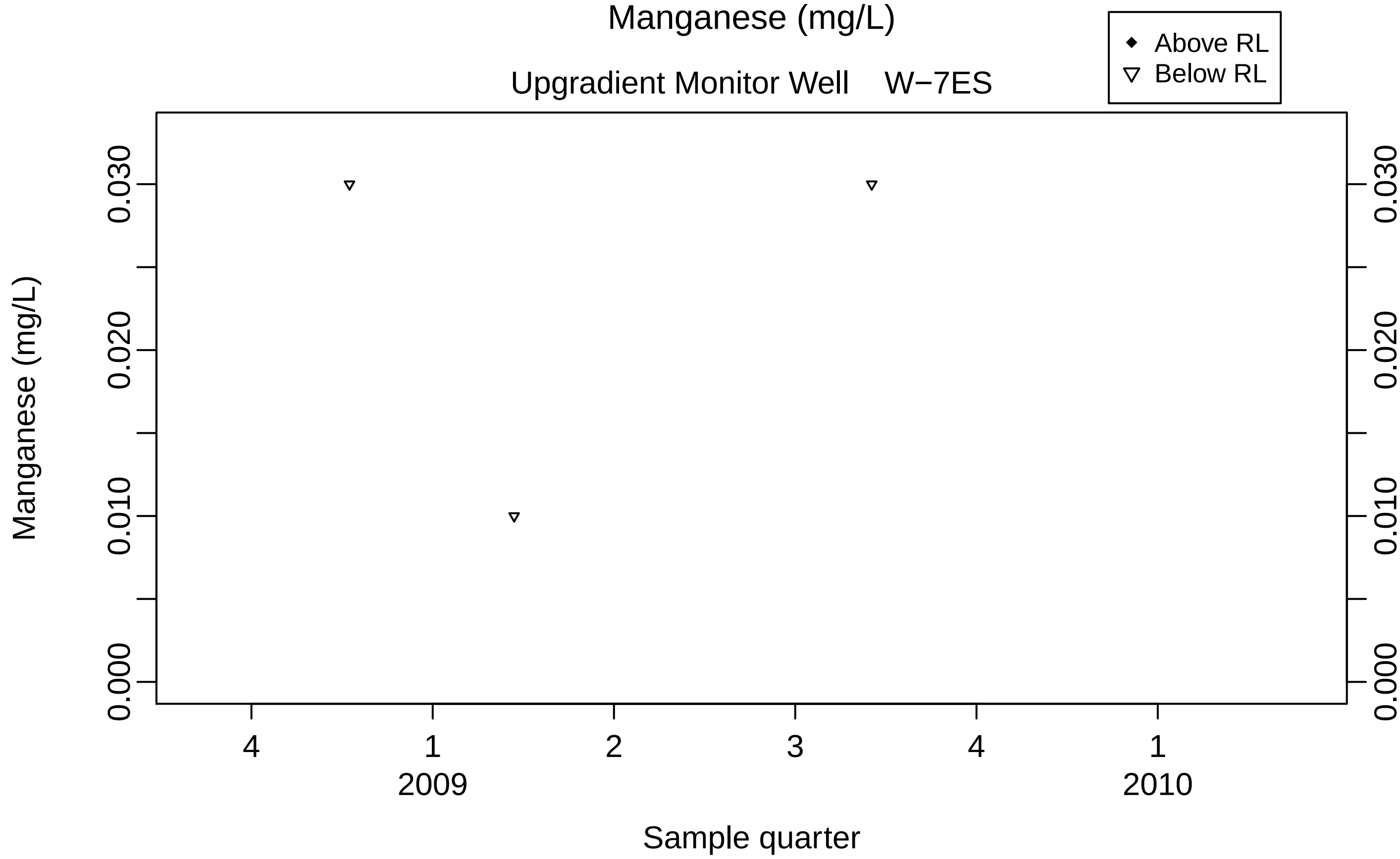
Sewage Ponds Ground Water
Magnesium (mg/L)

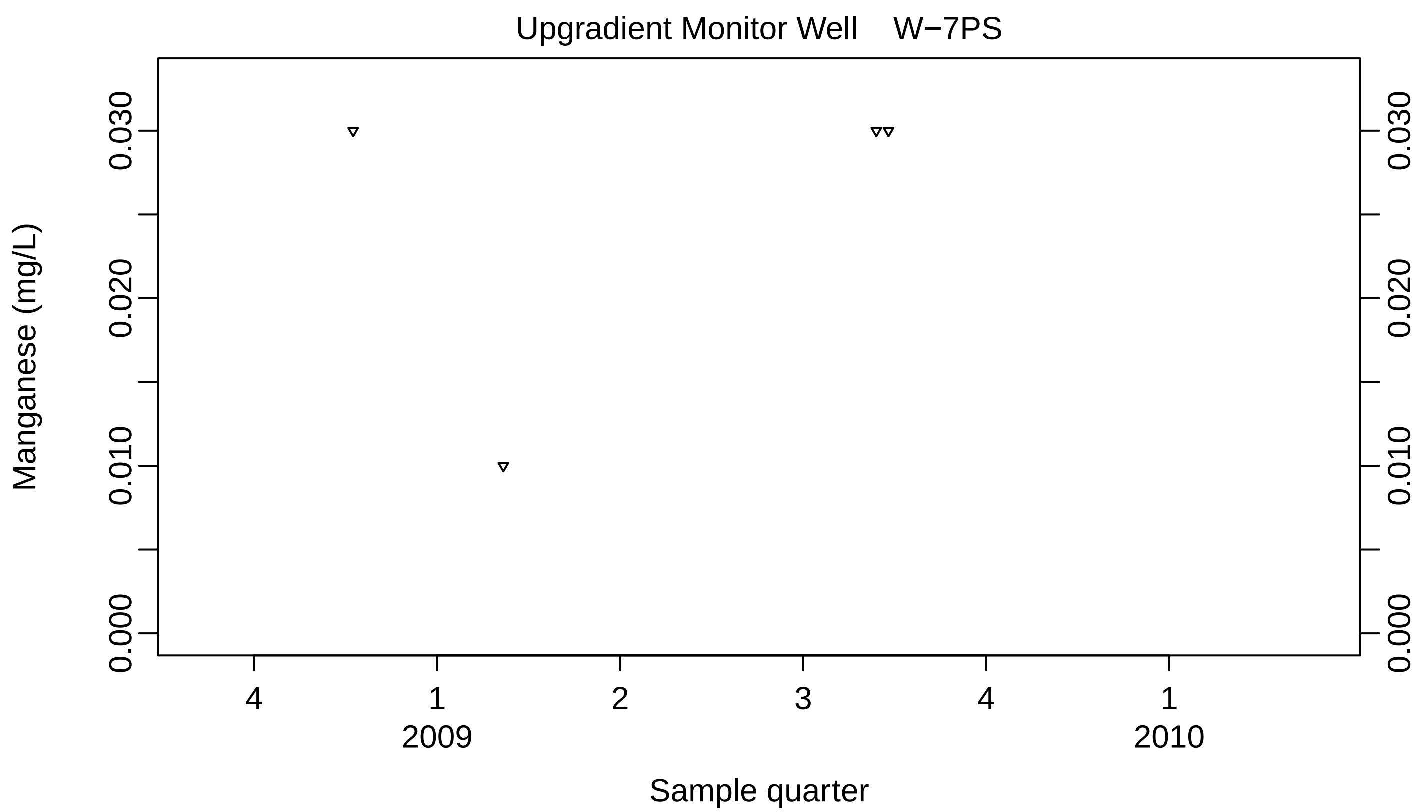




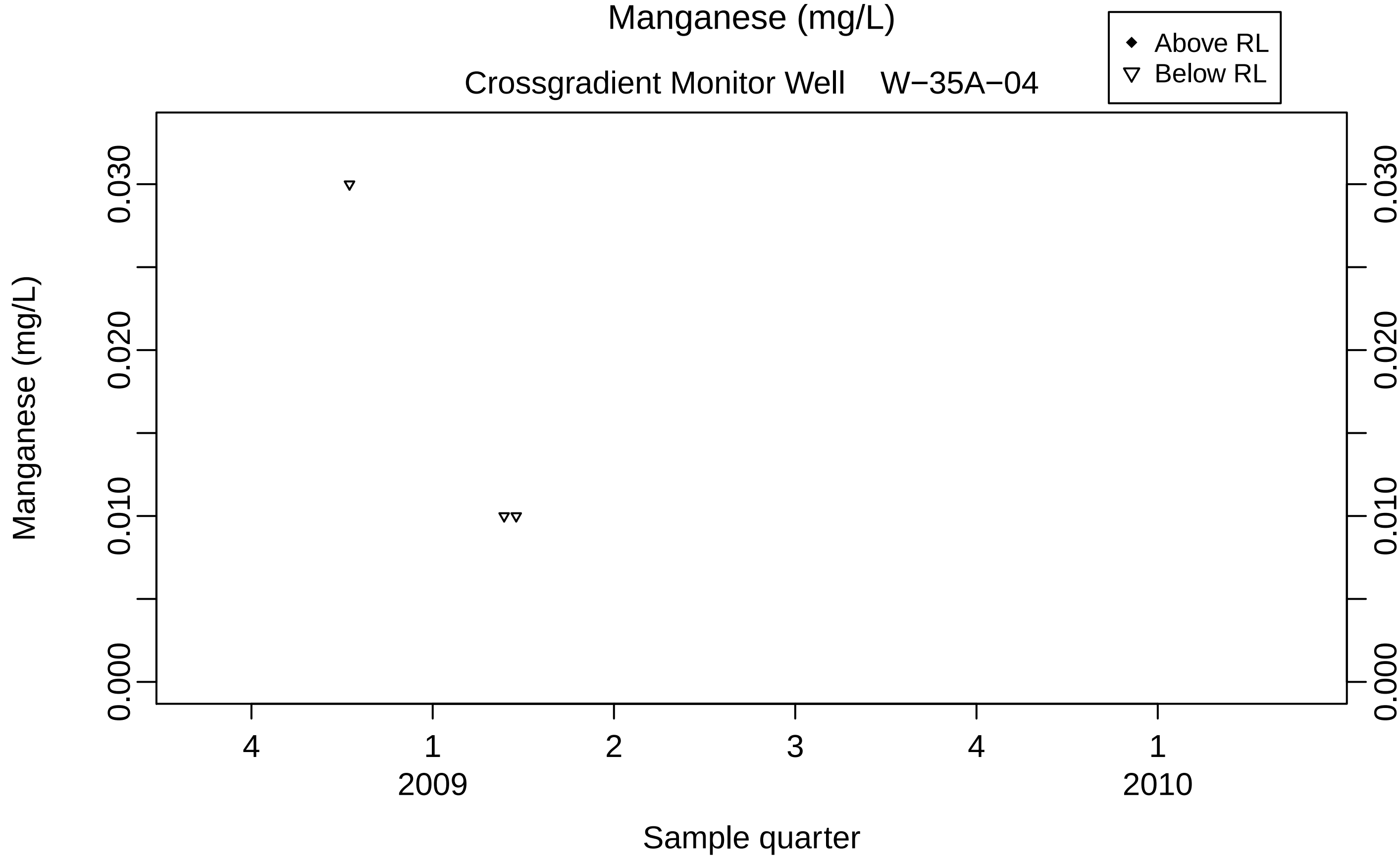

Sewage Ponds Ground Water
Magnesium (mg/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Magnesium (mg/L)
0
10
20
30
40
50
60
4
1
2
3
4
1
2009
2010
Sample quarter

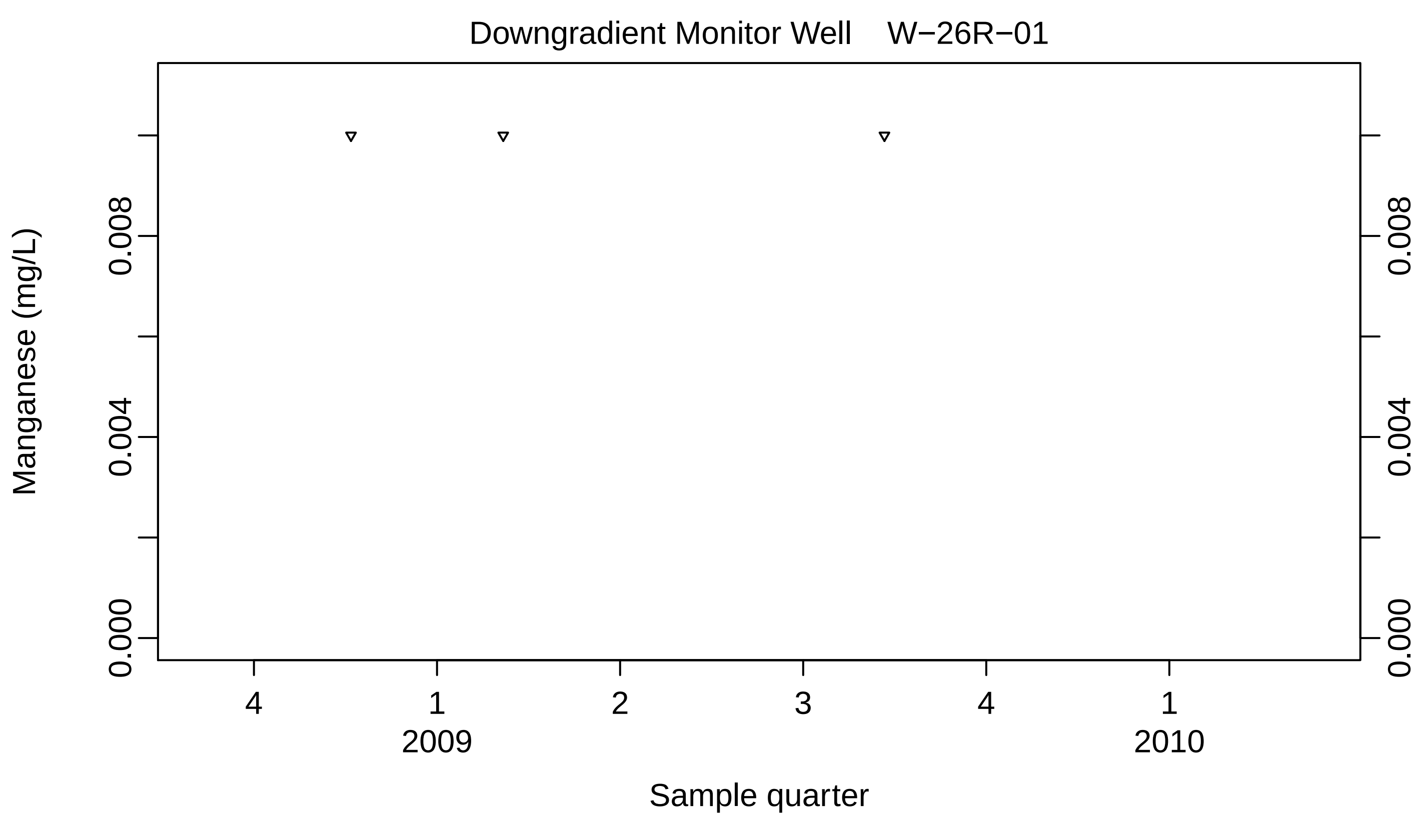
Sewage Ponds Ground Water
Manganese (mg/L)

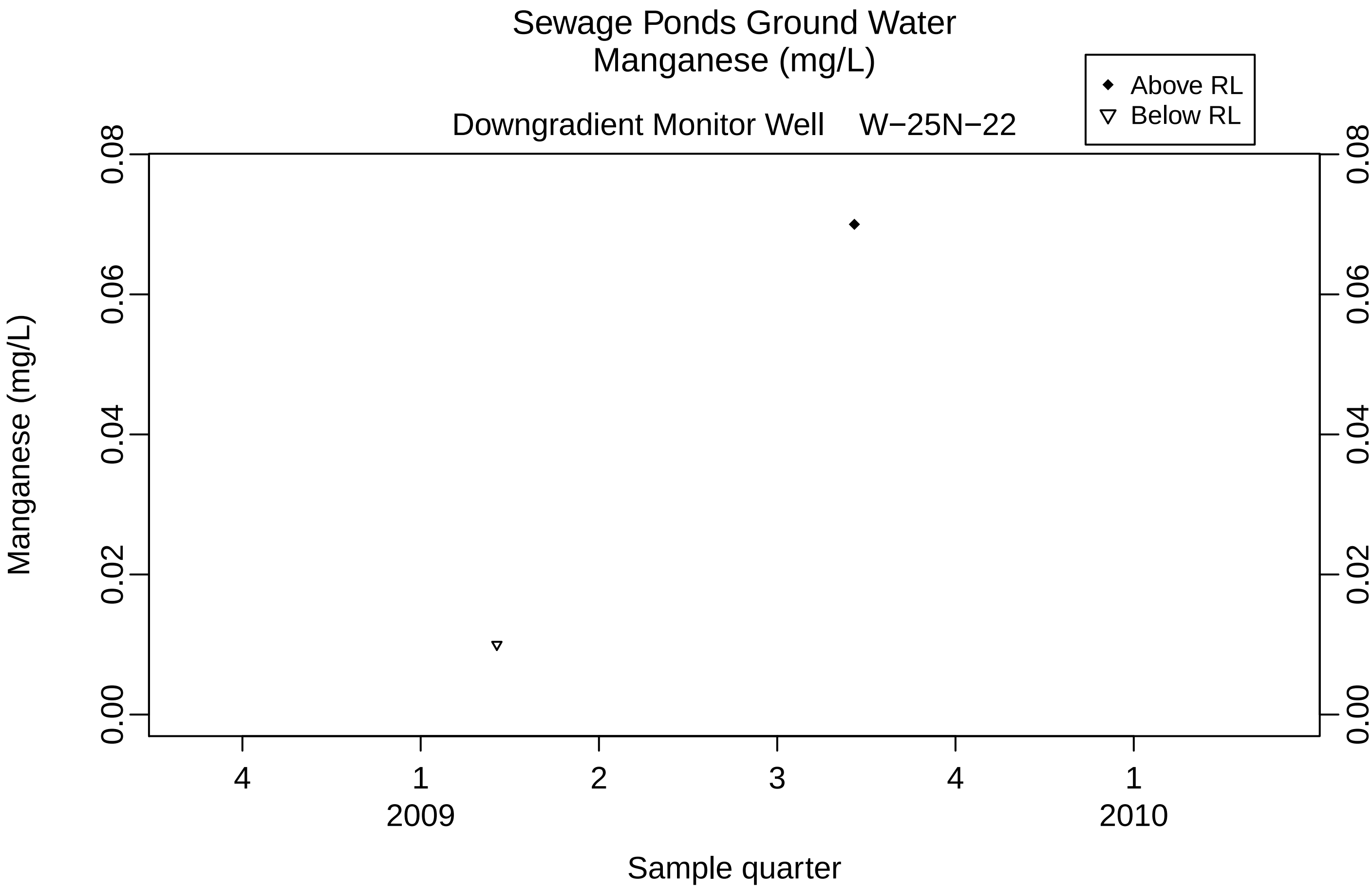


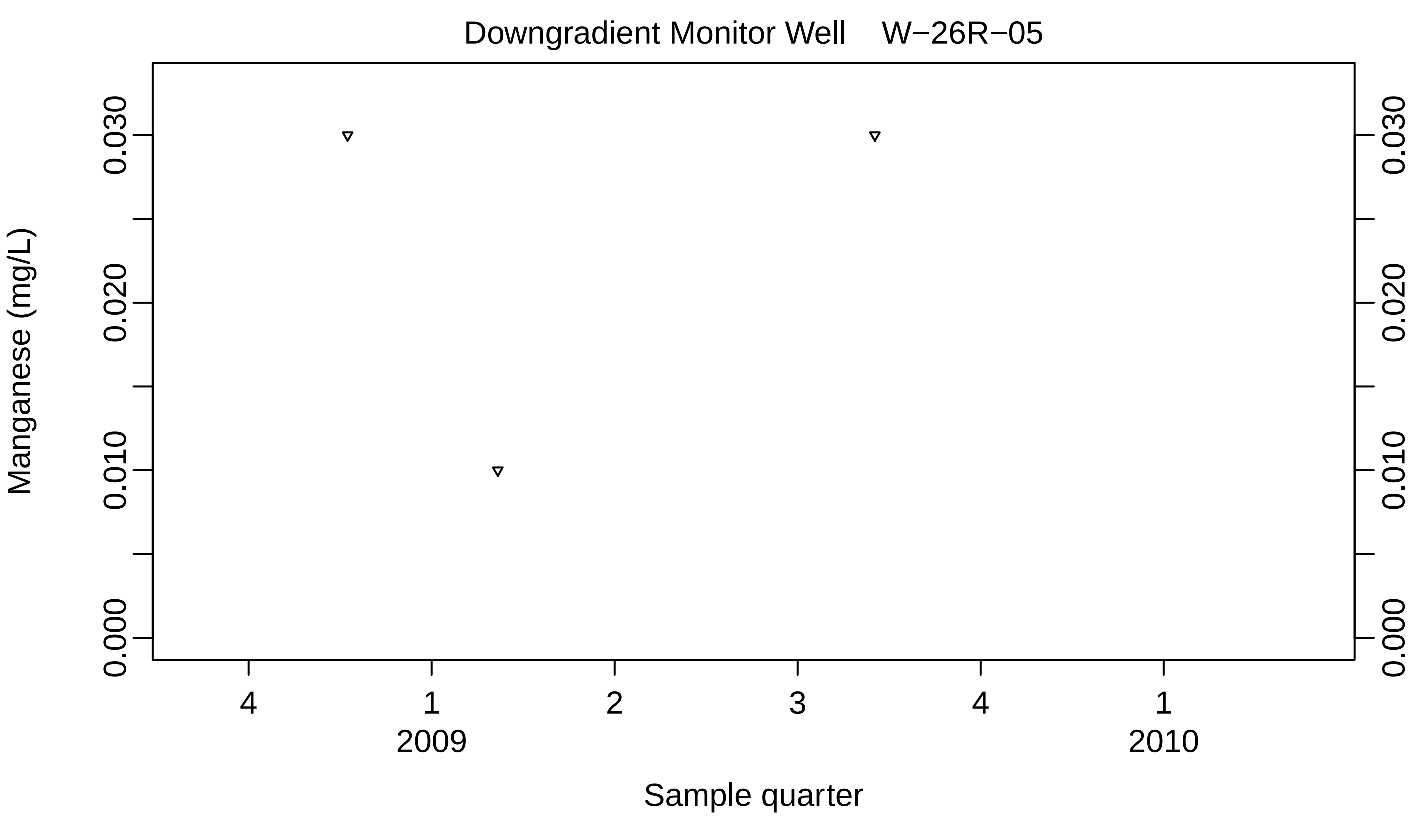


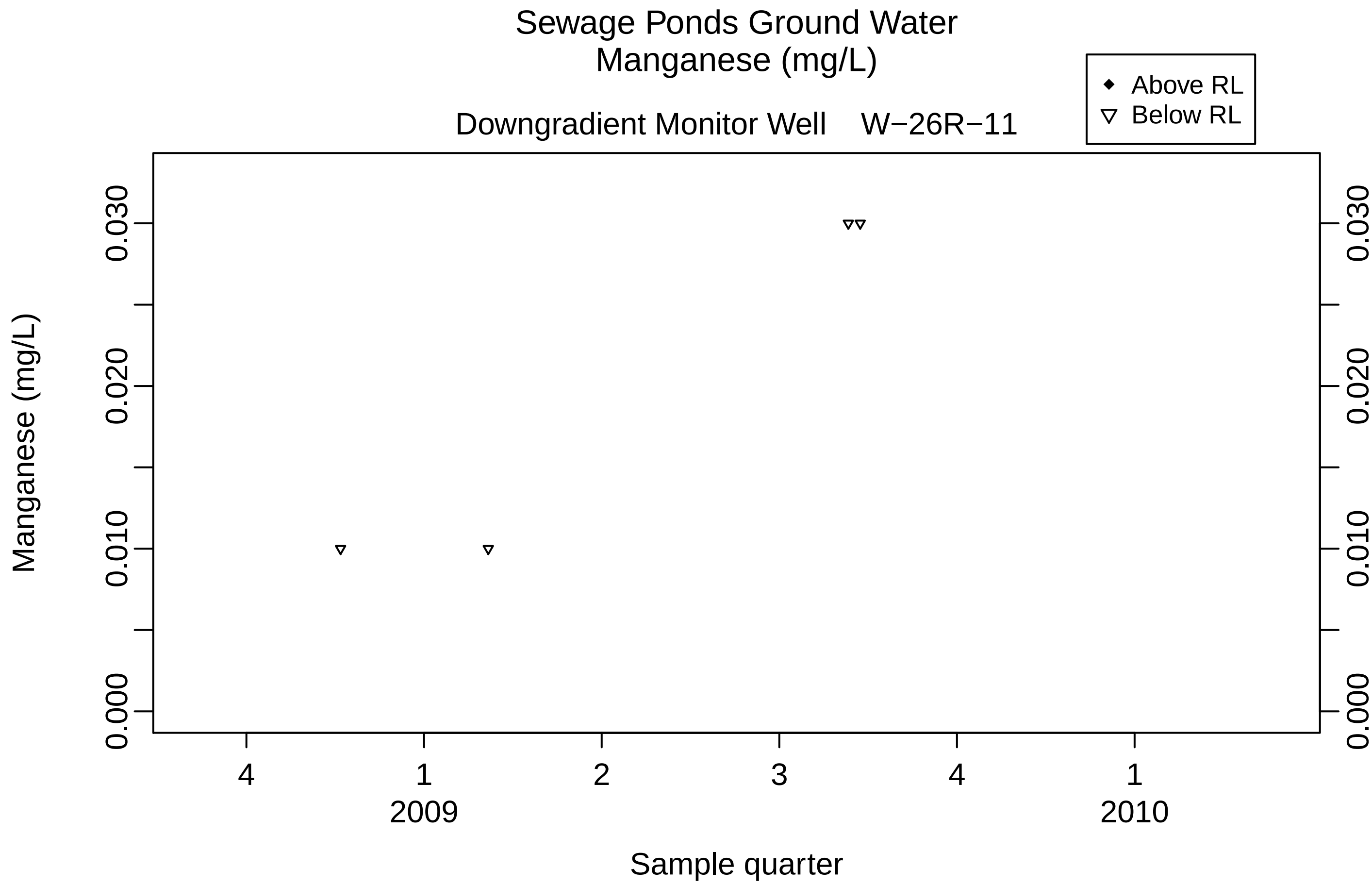
Sewage Ponds Ground Water
Manganese (mg/L)

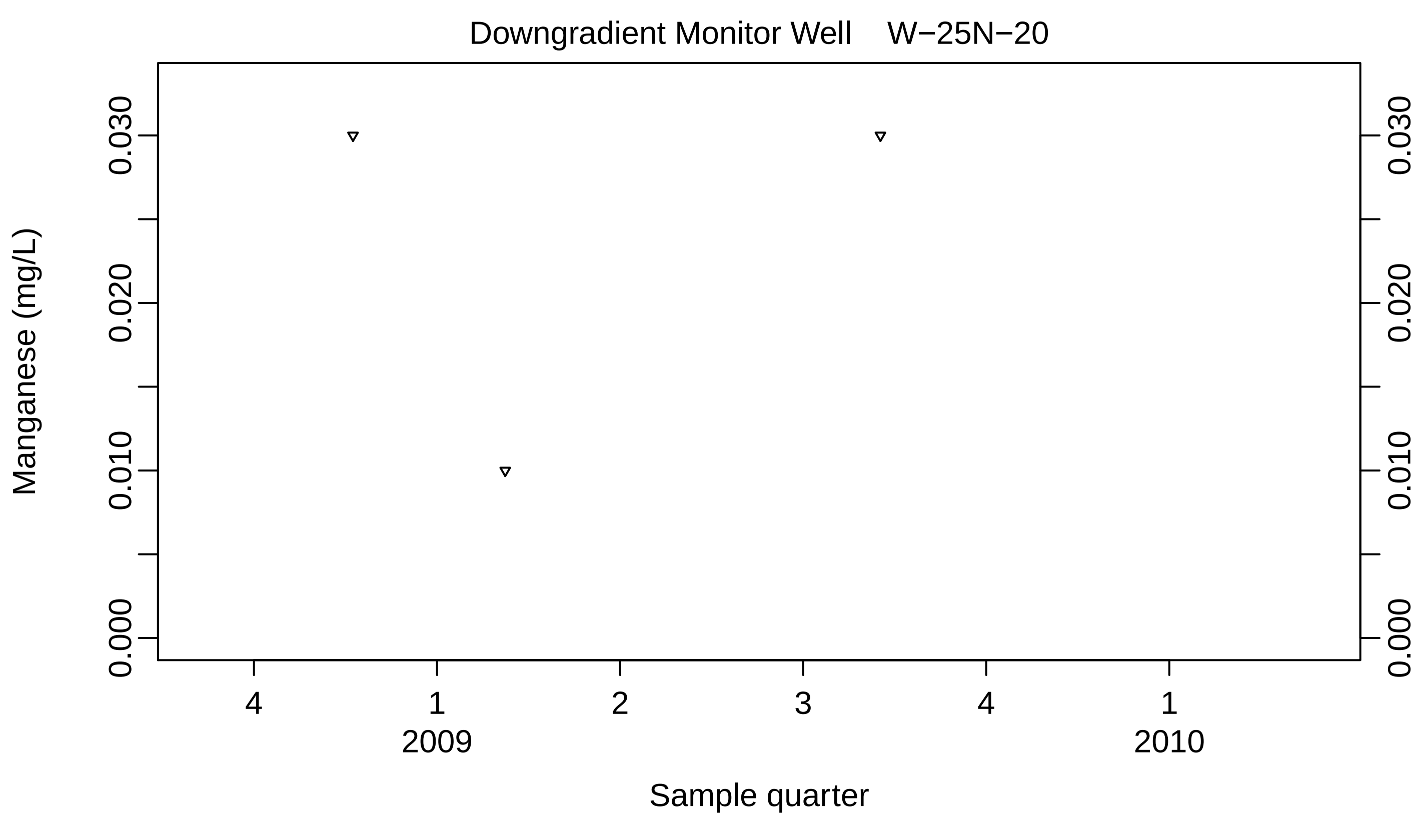




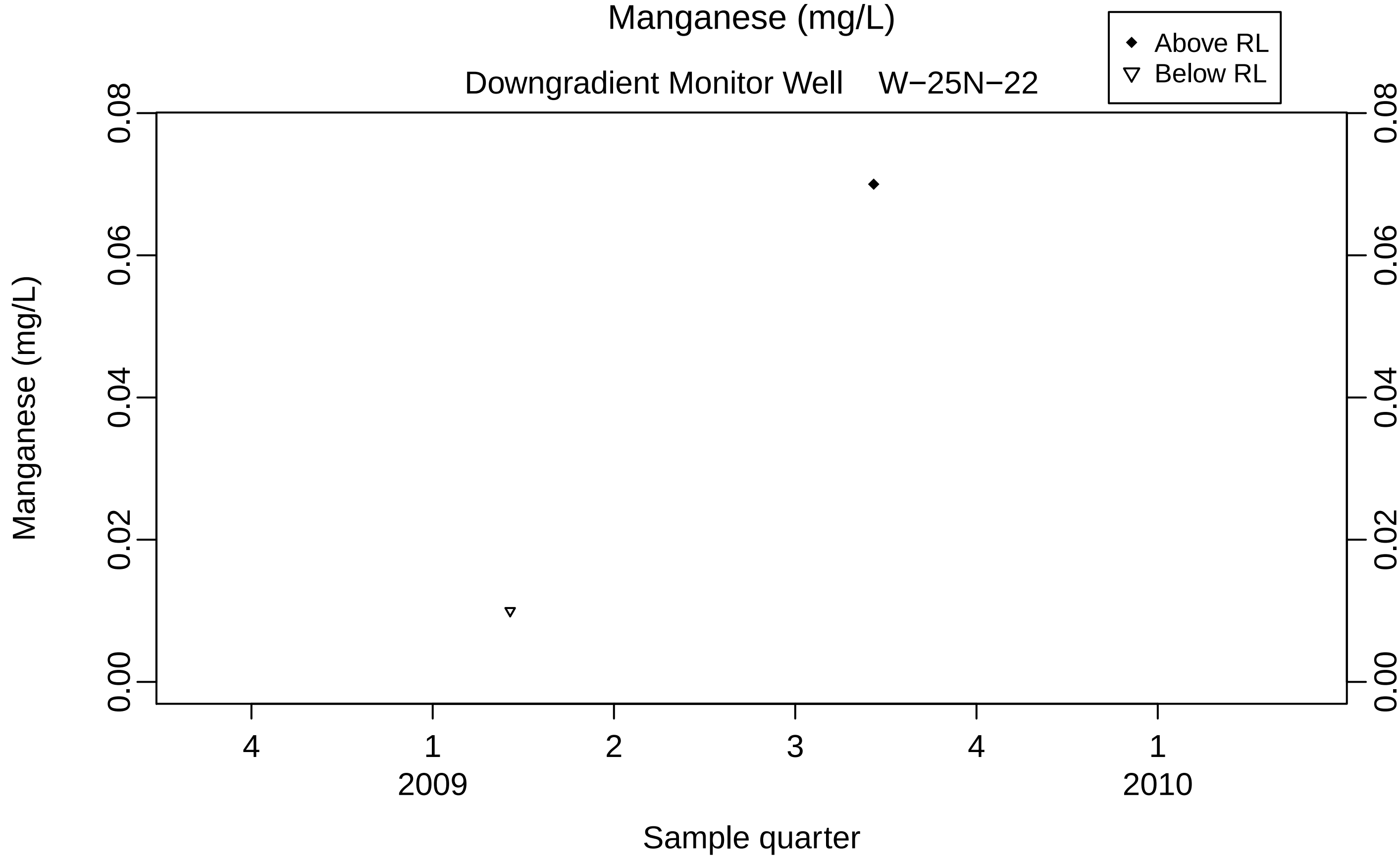

Sewage Ponds Ground Water
Manganese (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−25N−22
Manganese (mg/L)
0.00
0.02
0.04
0.06
0.08
4
1
2
3
4
1
2009
2010
Sample quarter

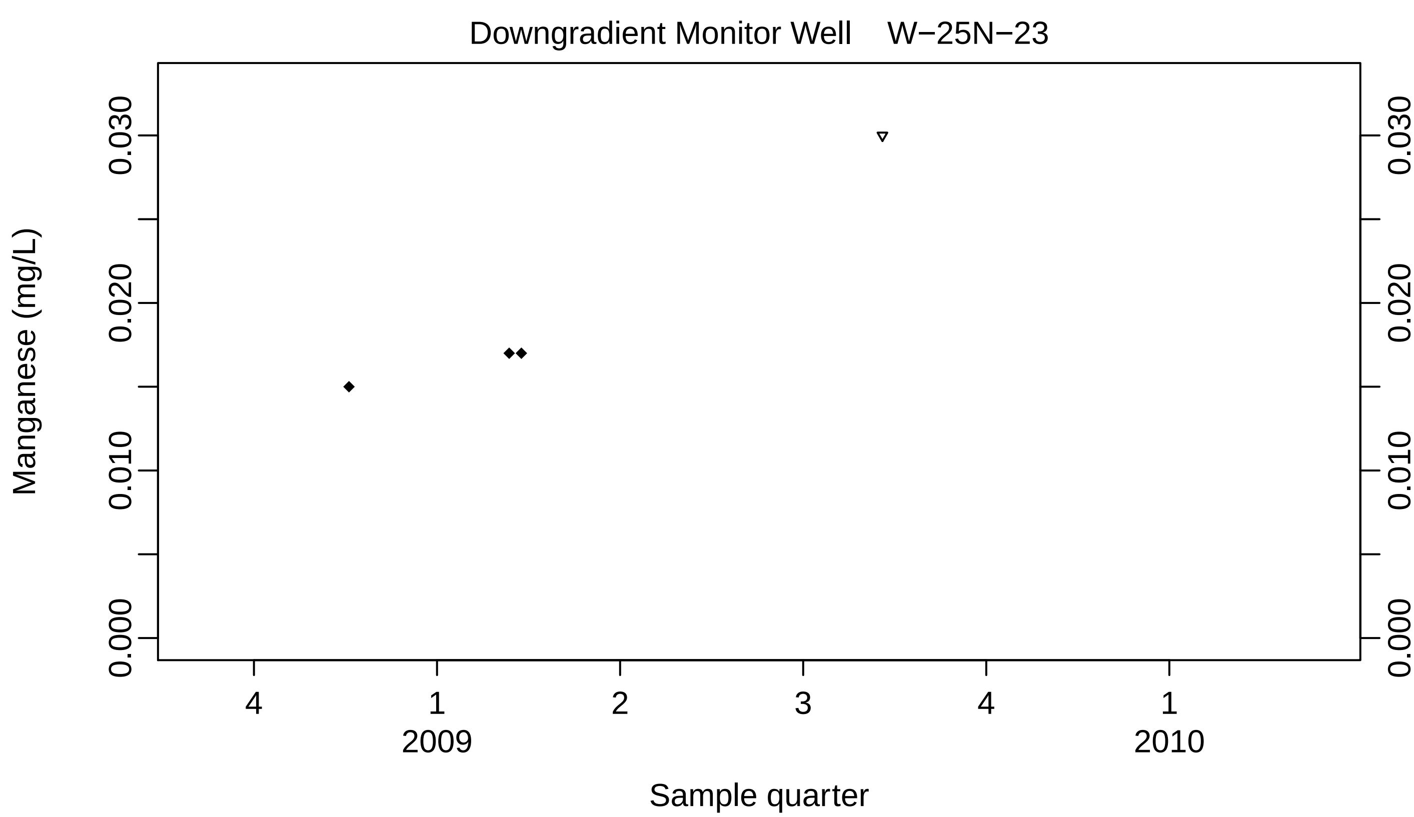

Downgradient Monitor Well W−26R−05
Manganese (mg/L)
0.000
0.010
0.020
0.030
4
1
2
3
4
1
2009
2010
Sample quarter

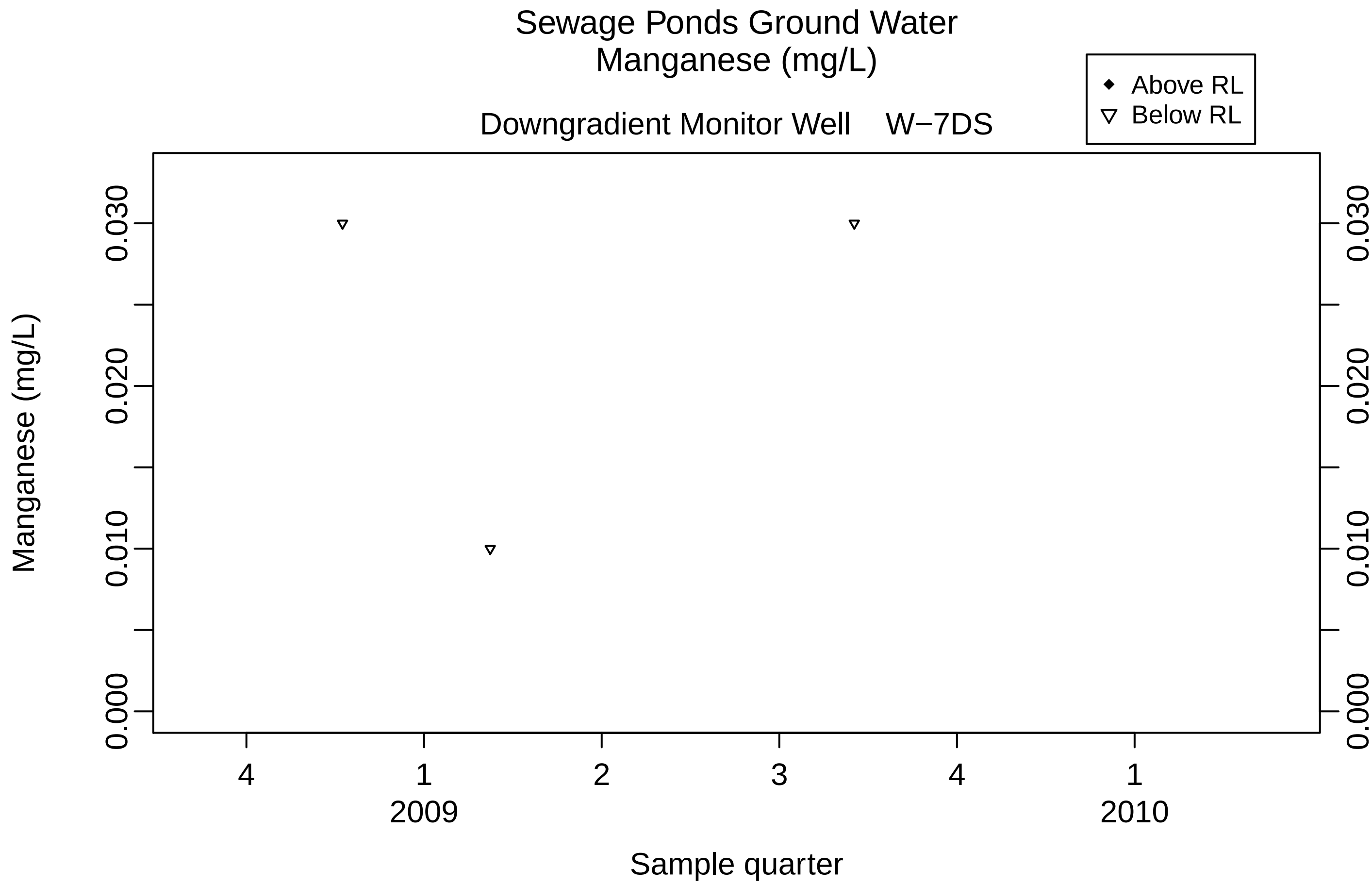

Sewage Ponds Ground Water
Manganese (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−26R−11
Manganese (mg/L)
0.000
0.010
0.020
0.030
4
1
2
3
4
1
2009
2010
Sample quarter


Downgradient Monitor Well W−25N−20
Manganese (mg/L)
0.000
0.010
0.020
0.030
4
1
2
3
4
1
2009
2010
Sample quarter

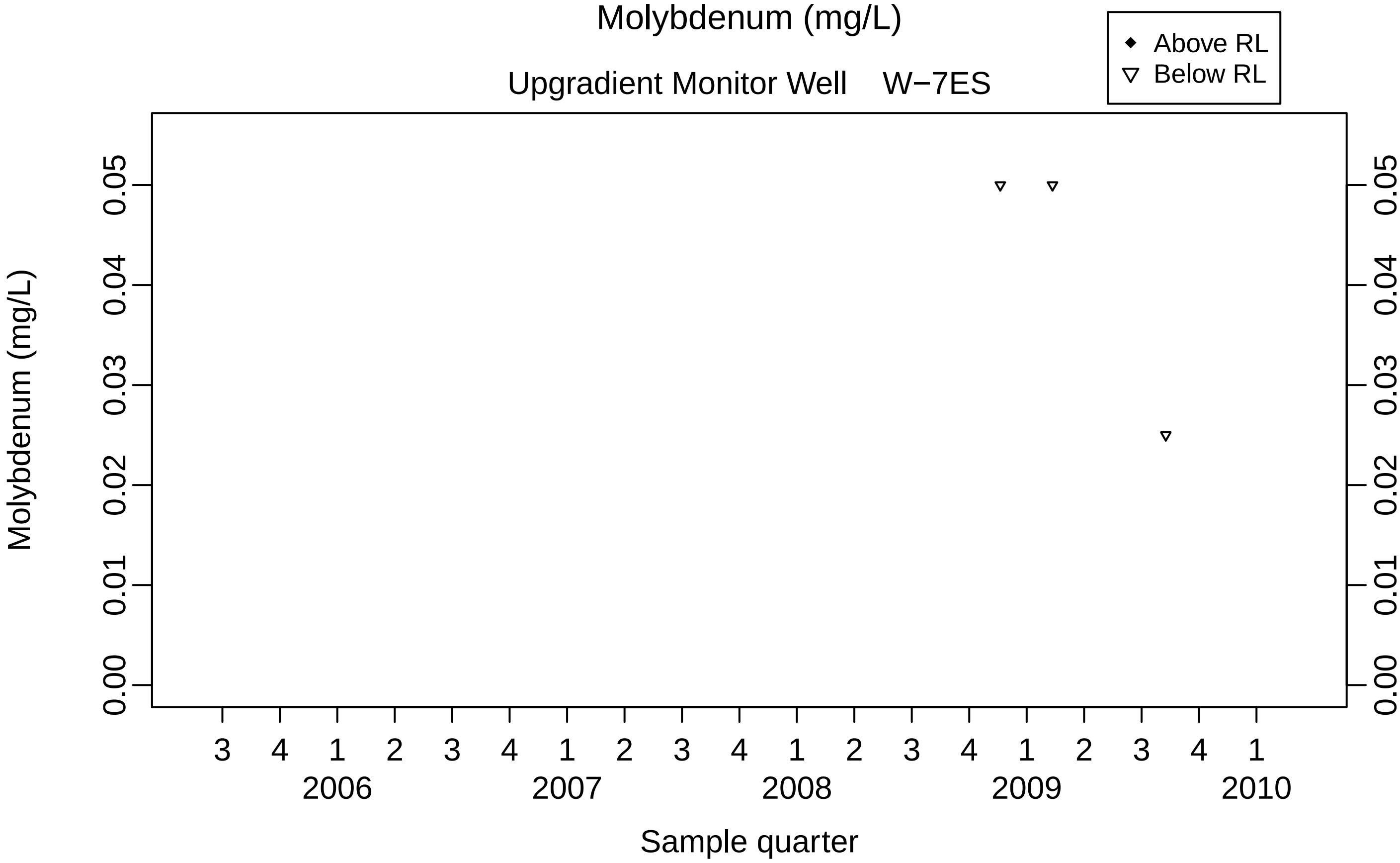
Sewage Ponds Ground Water
Manganese (mg/L)

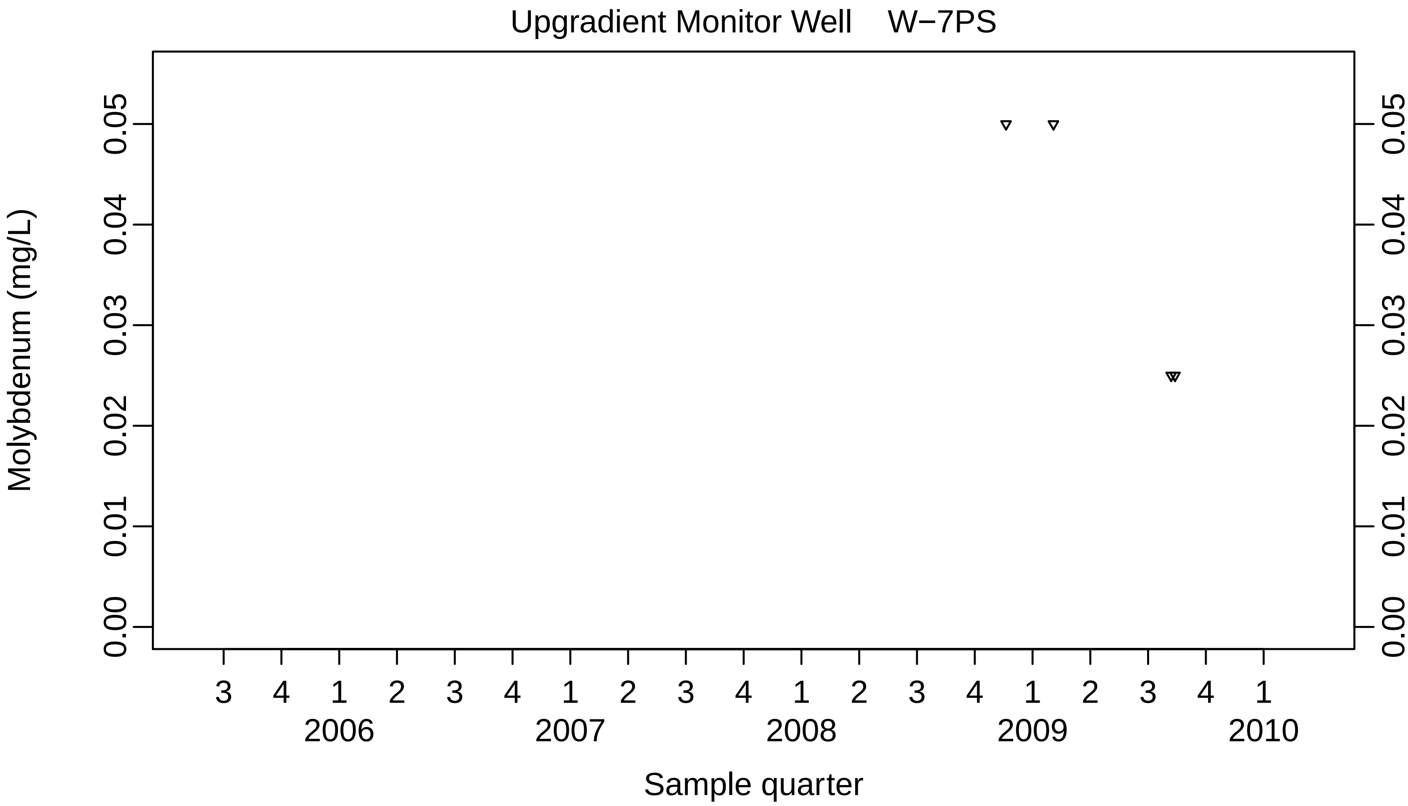


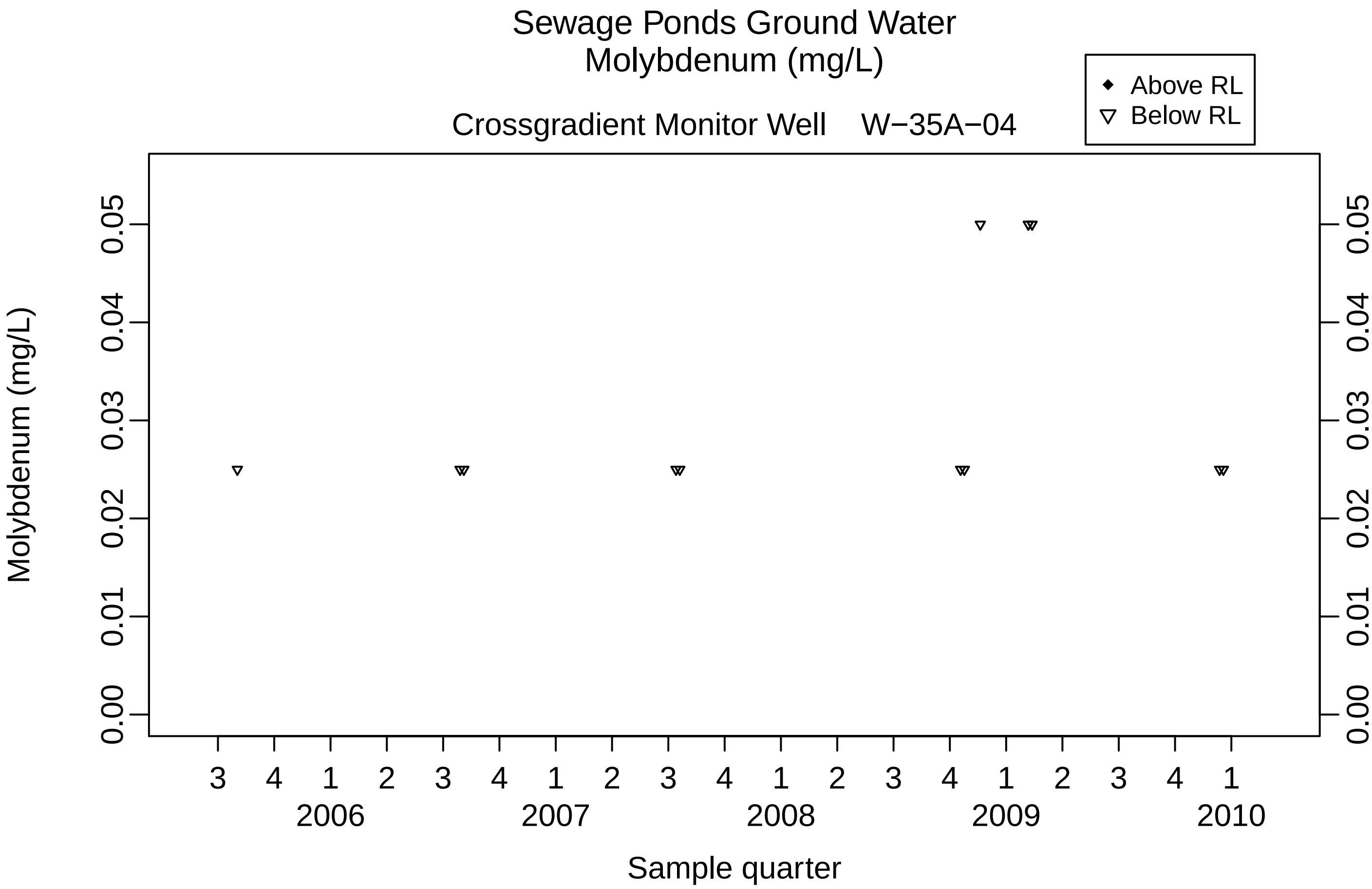


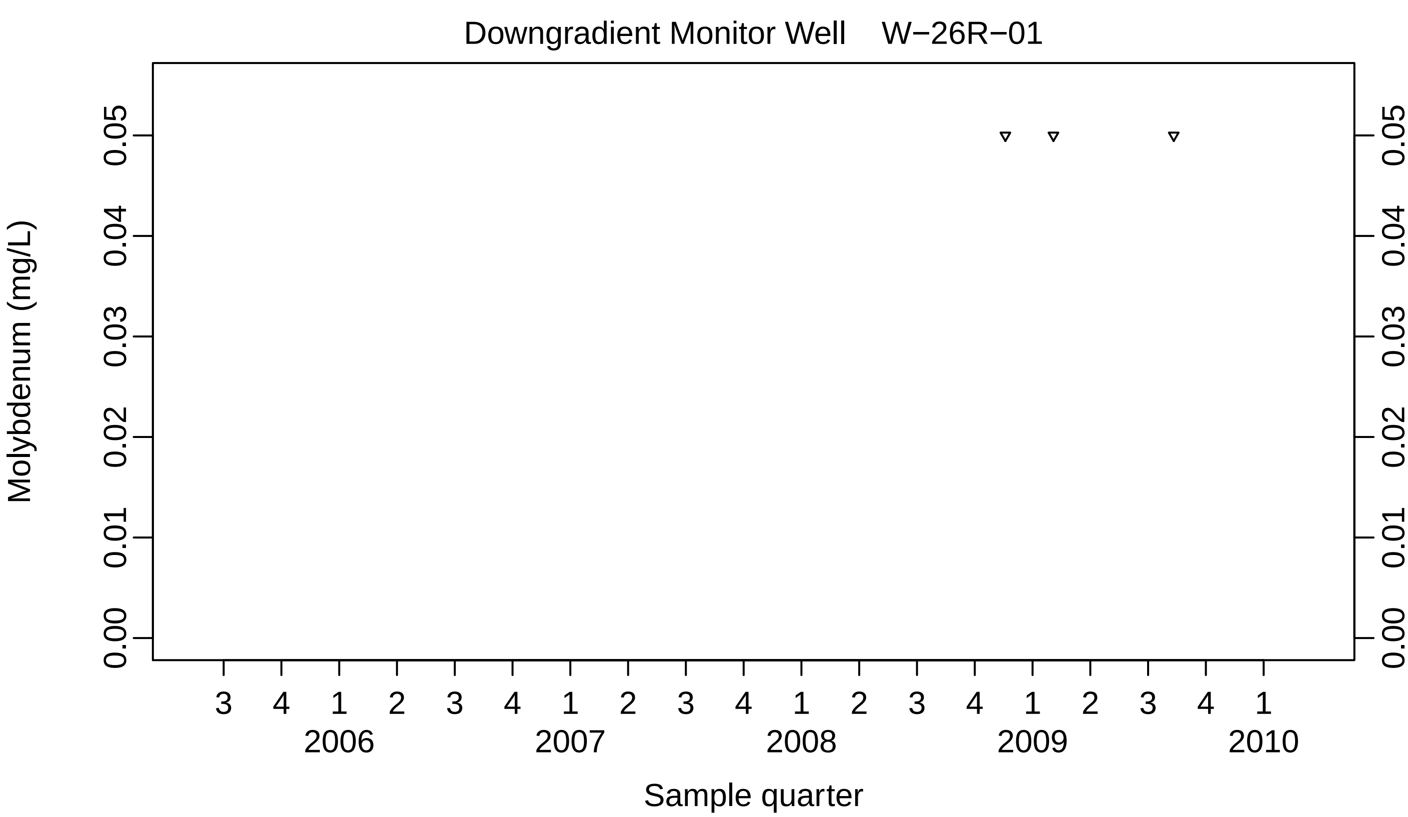

Sewage Ponds Ground Water
Manganese (mg/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Manganese (mg/L)
0.000
0.010
0.020
0.030
4
1
2
3
4
1
2009
2010
Sample quarter

Sewage Ponds Ground Water
Molybdenum (mg/L)

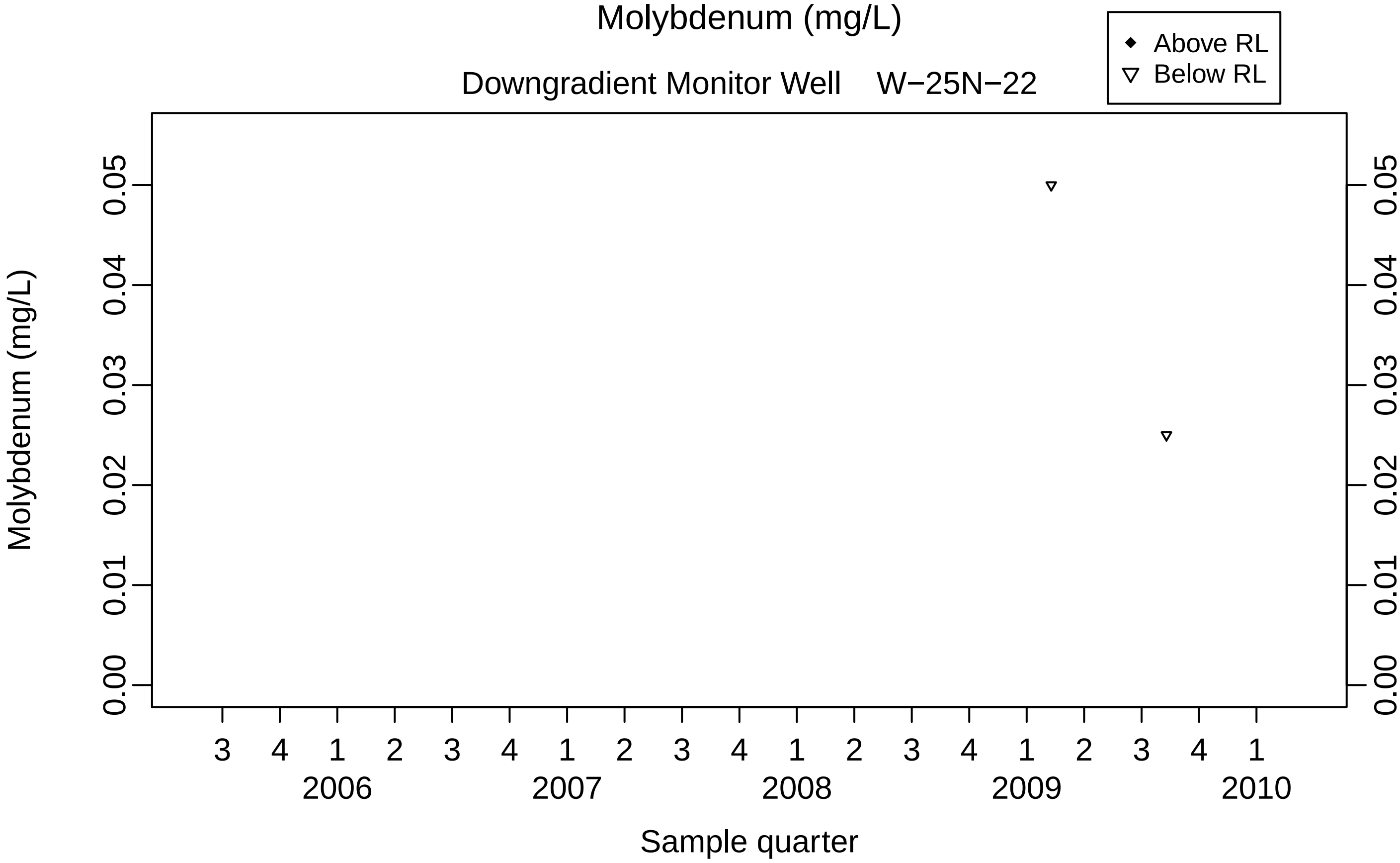


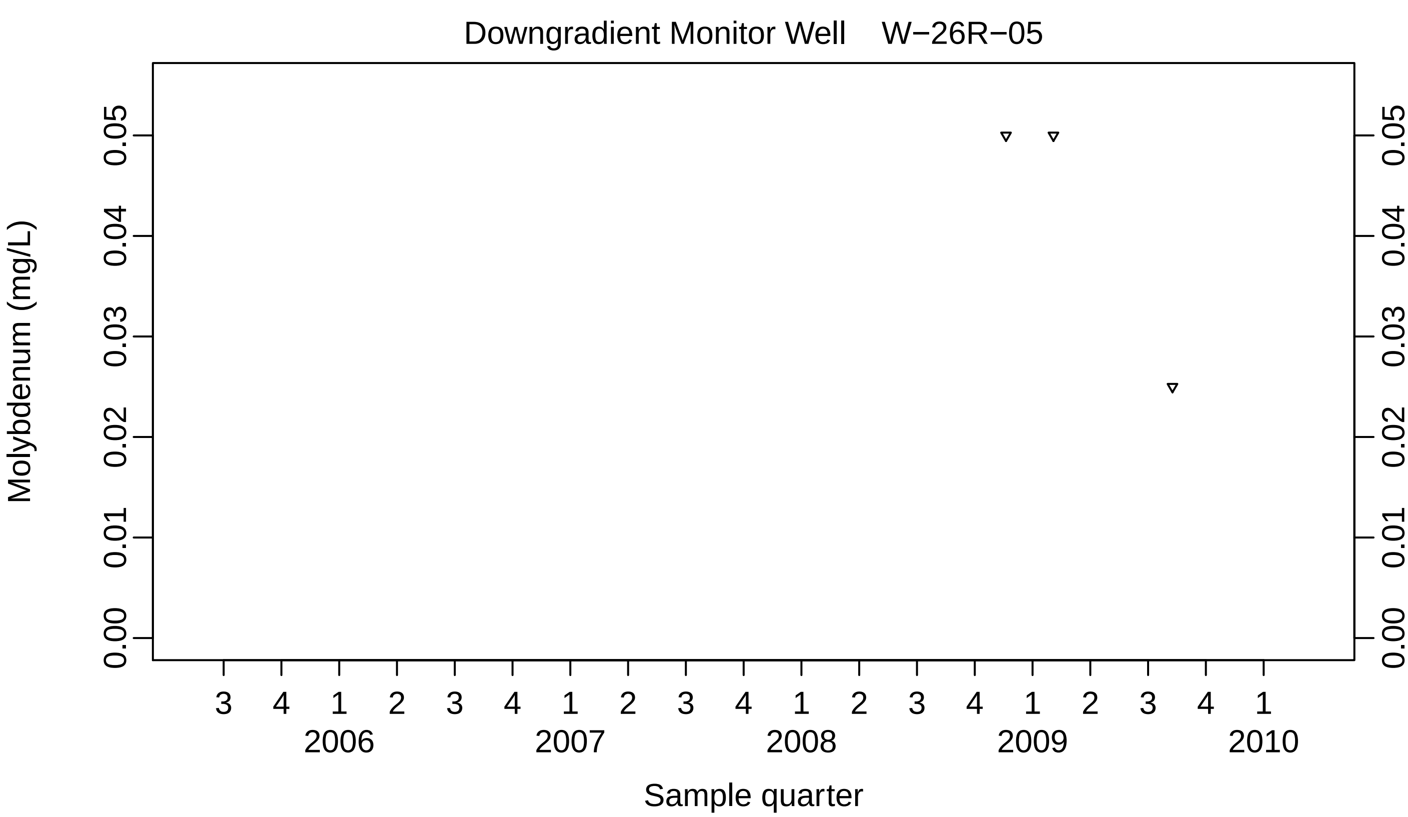



Sewage Ponds Ground Water
Molybdenum (mg/L)
Above RL
Below RL
Crossgradient Monitor Well W−35A−04
Molybdenum (mg/L)
0.00
0.01
0.02
0.03
0.04
0.05
3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006
2007
2008
2009
2010
Sample quarter

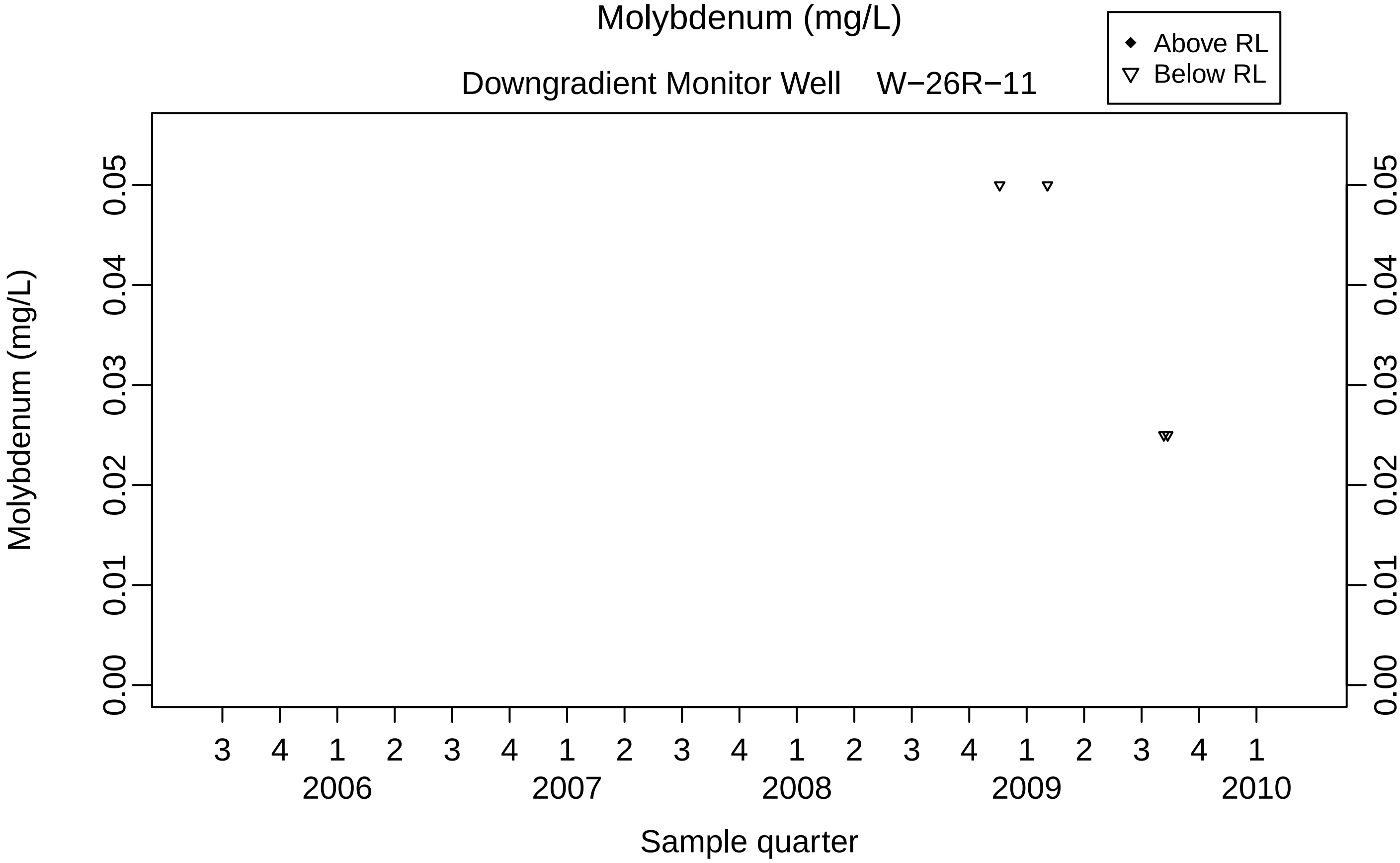

Downgradient Monitor Well W−26R−01
Molybdenum (mg/L)
0.00
0.01
0.02
0.03
0.04
0.05
3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006
2007
2008
2009
2010
Sample quarter

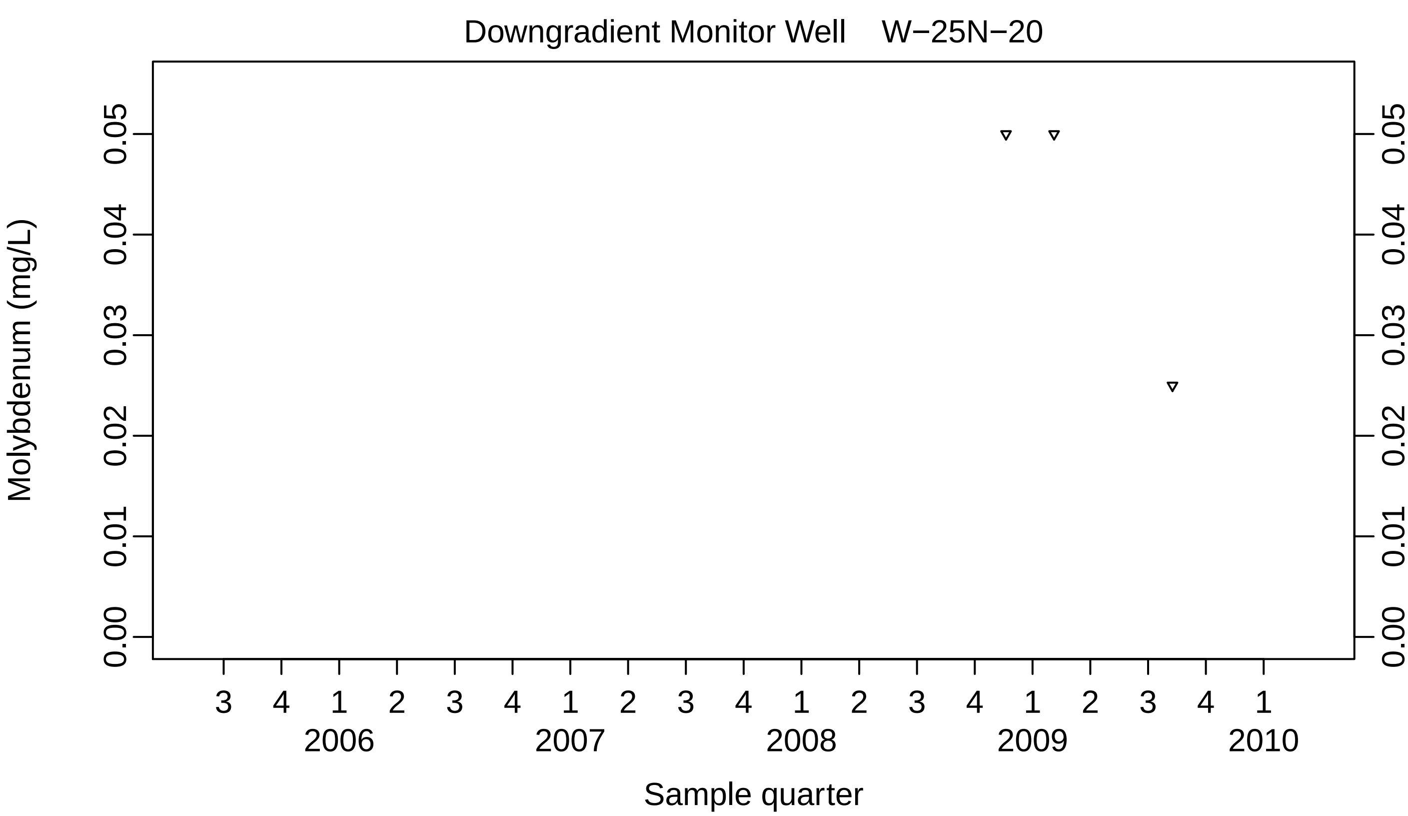
Sewage Ponds Ground Water
Molybdenum (mg/L)





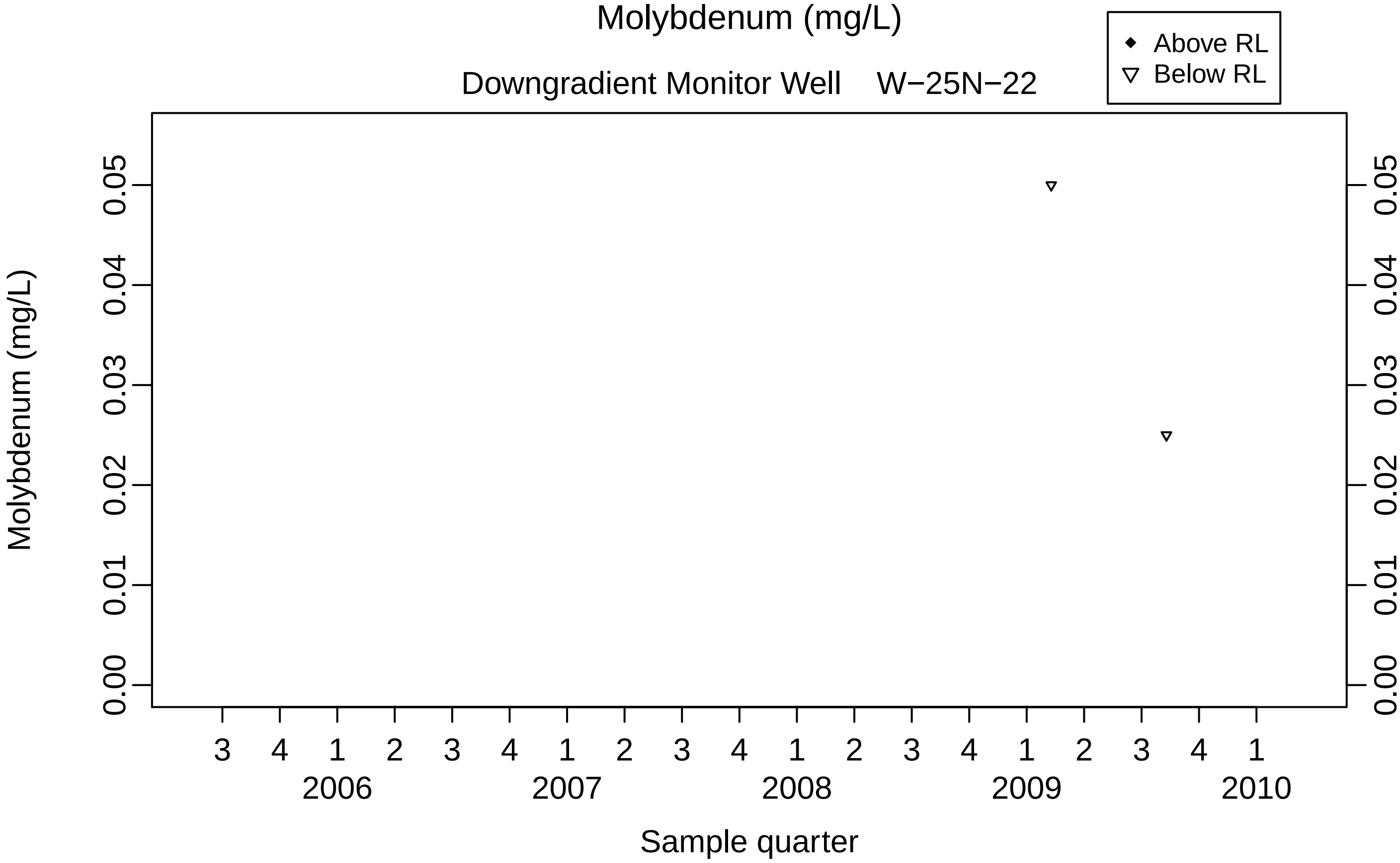
Sewage Ponds Ground Water
Molybdenum (mg/L)



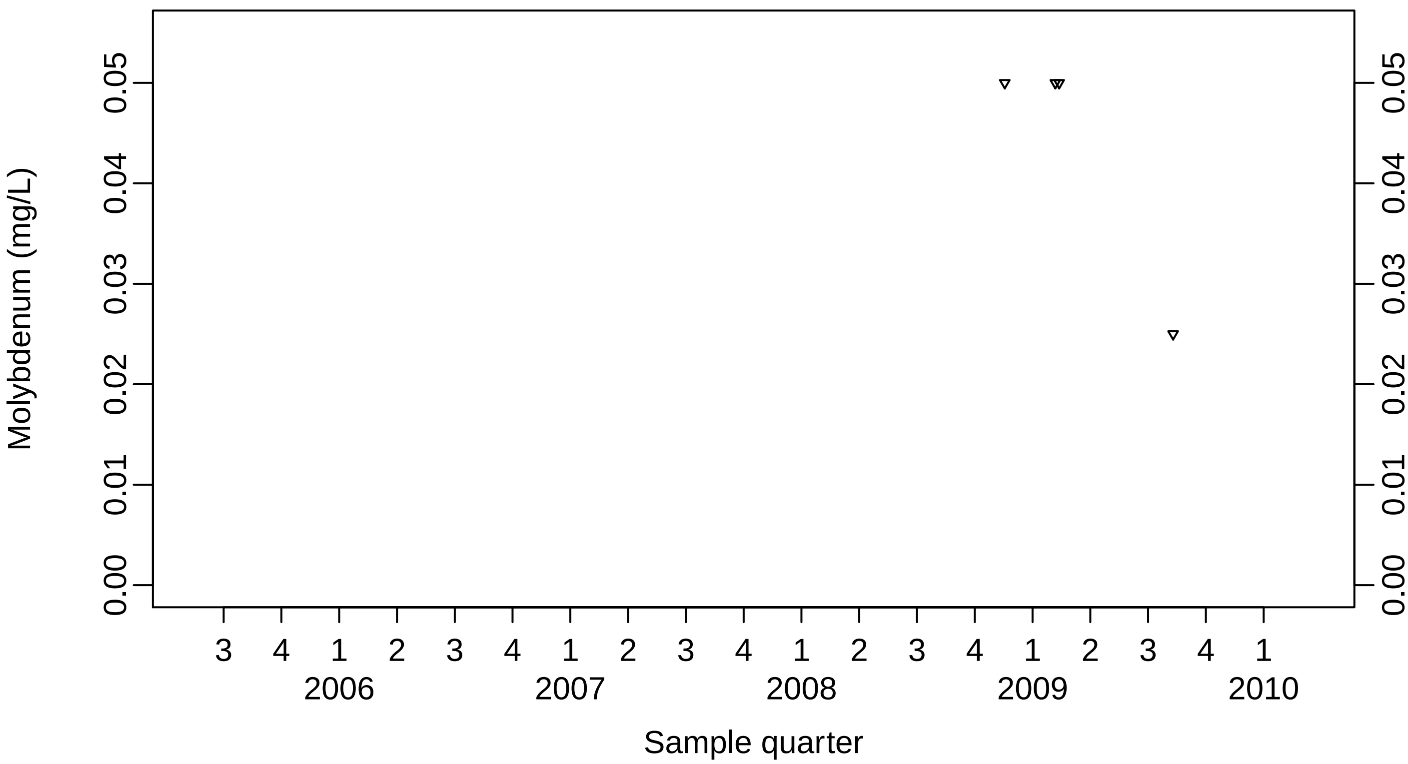


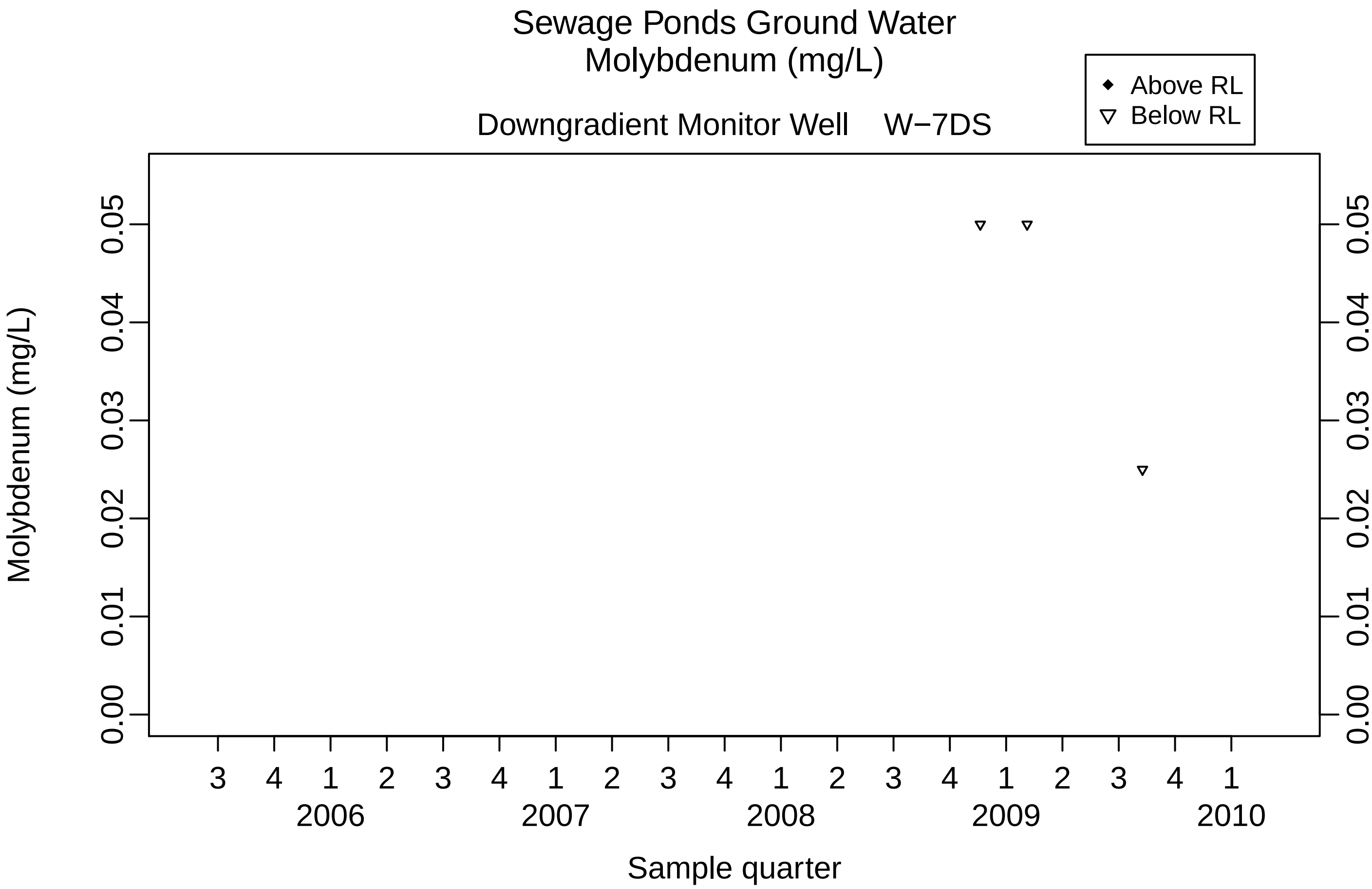
Sewage Ponds Ground Water
Molybdenum (mg/L)

Downgradient Monitor Well W−25N−22

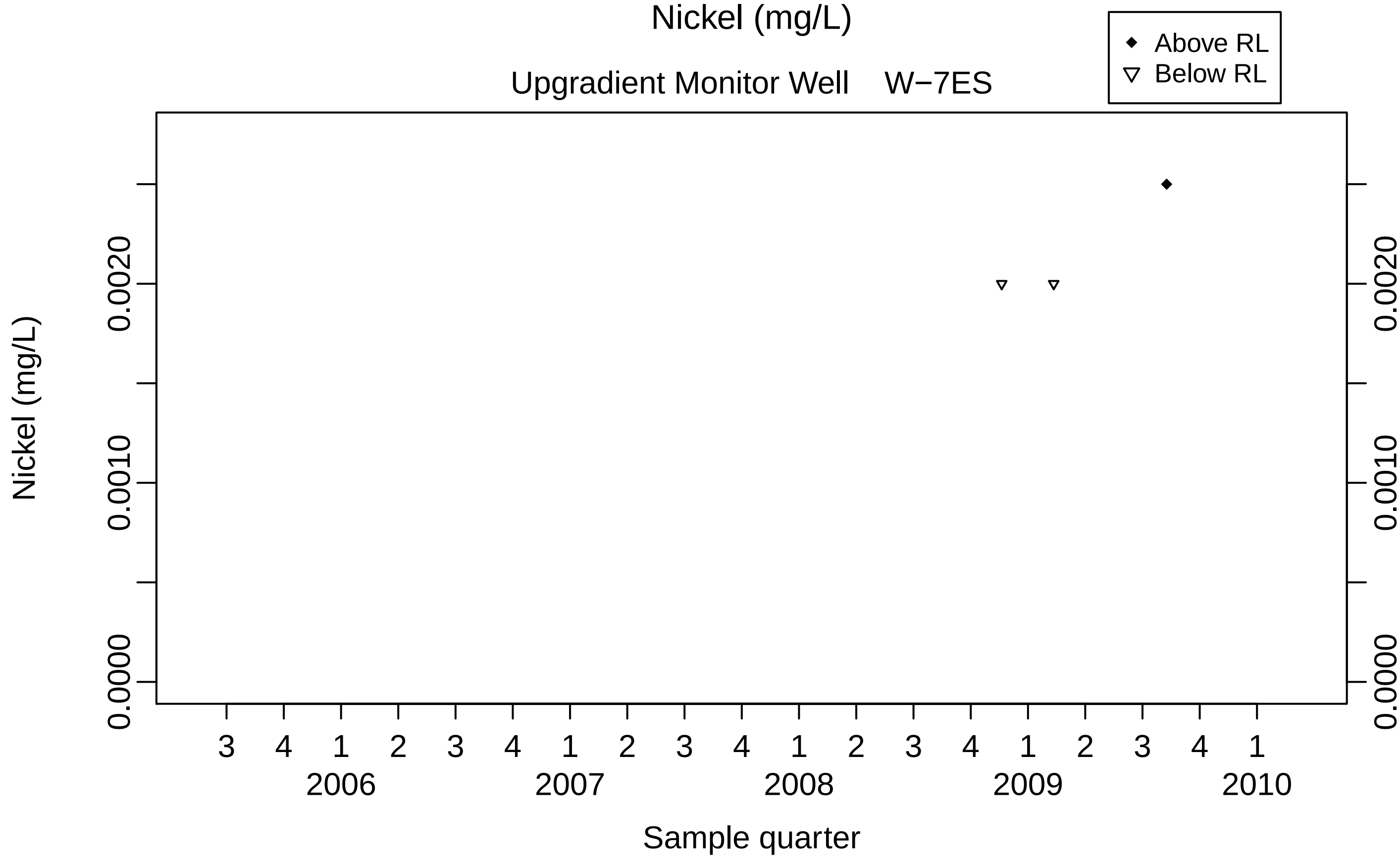


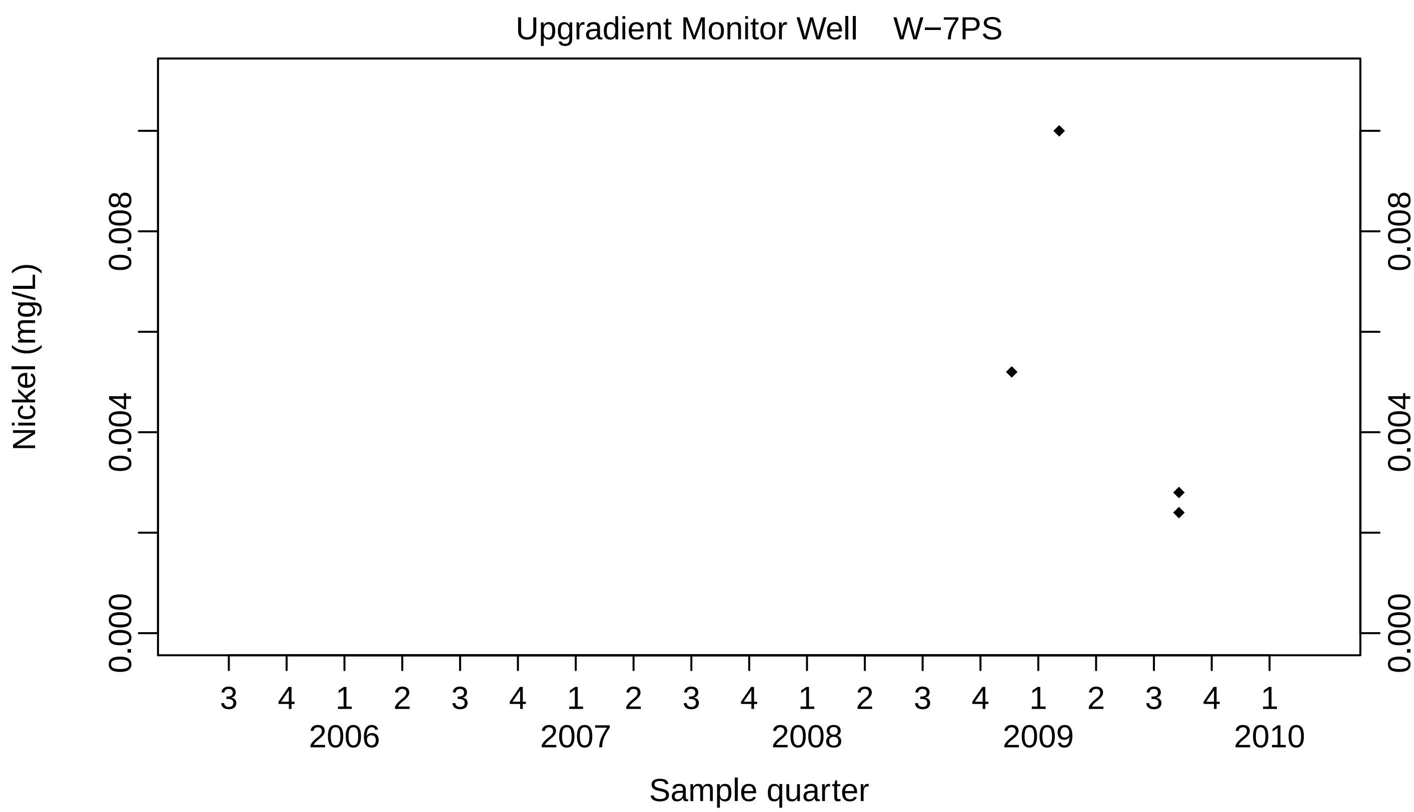
Downgradient Monitor Well W−25N−23



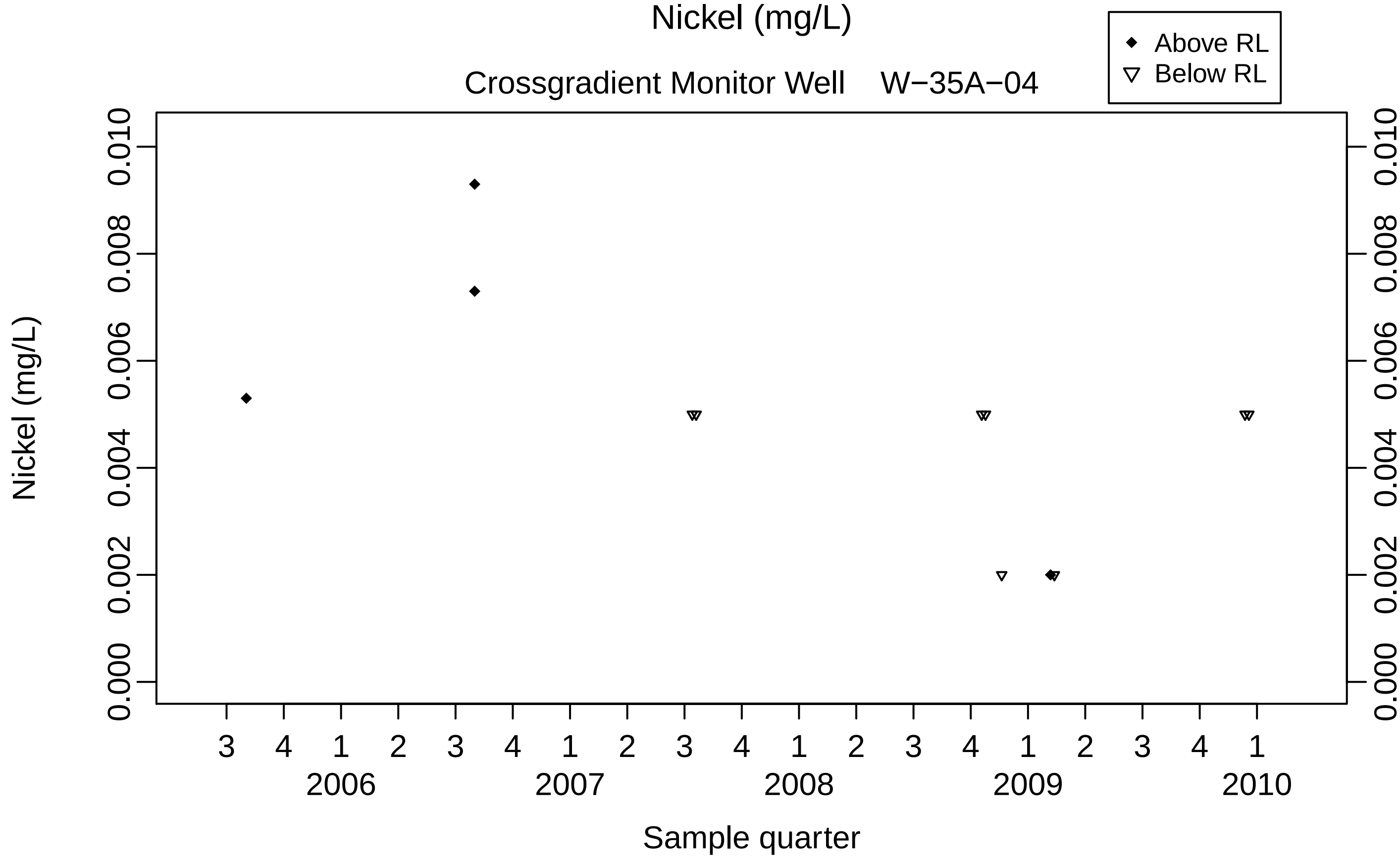

Sewage Ponds Ground Water
Molybdenum (mg/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Molybdenum (mg/L)
0.00
0.01
0.02
0.03
0.04
0.05
3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006
2007
2008
2009
2010
Sample quarter

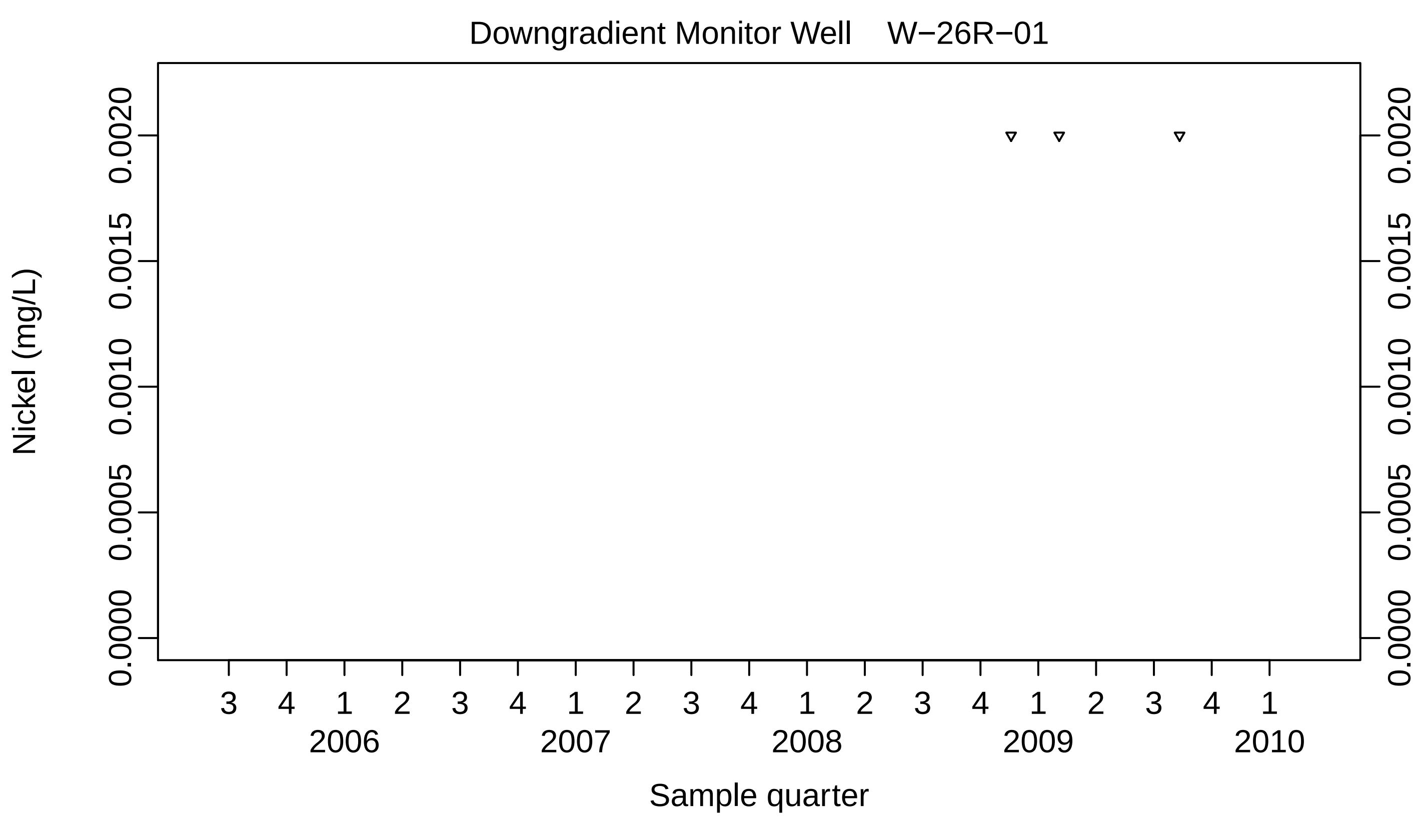
Sewage Ponds Ground Water
Nickel (mg/L)



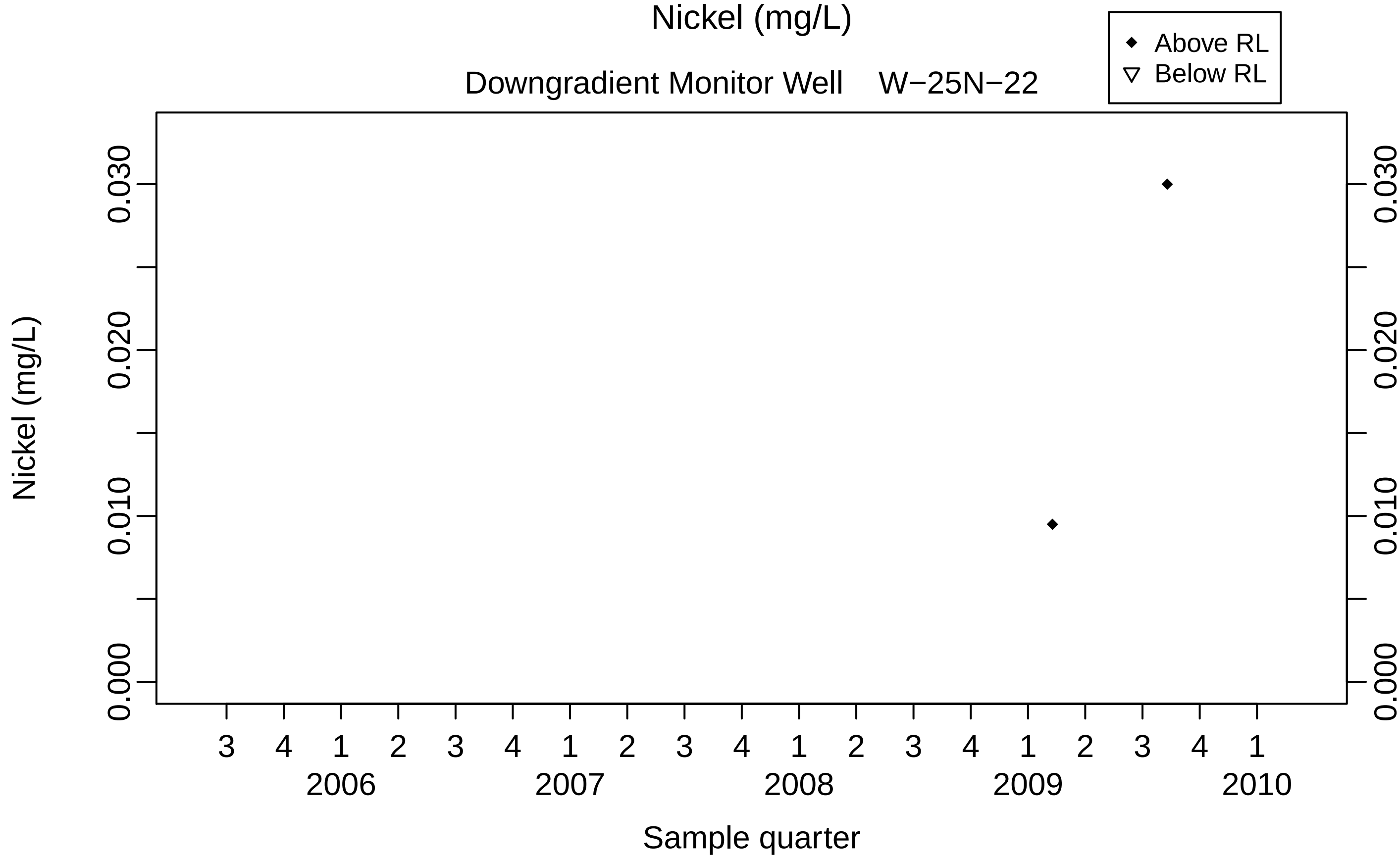


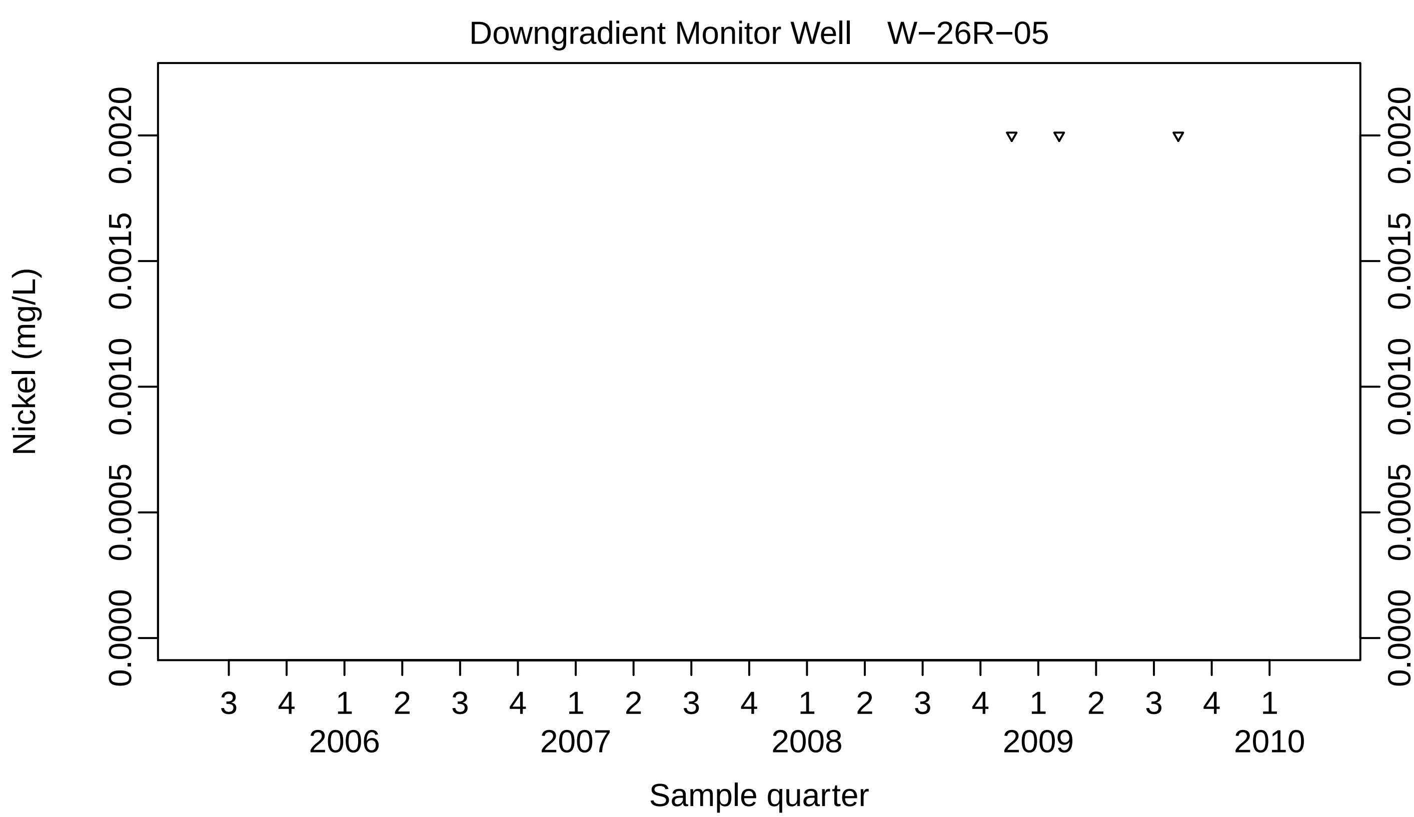
Sewage Ponds Ground Water
Nickel (mg/L)

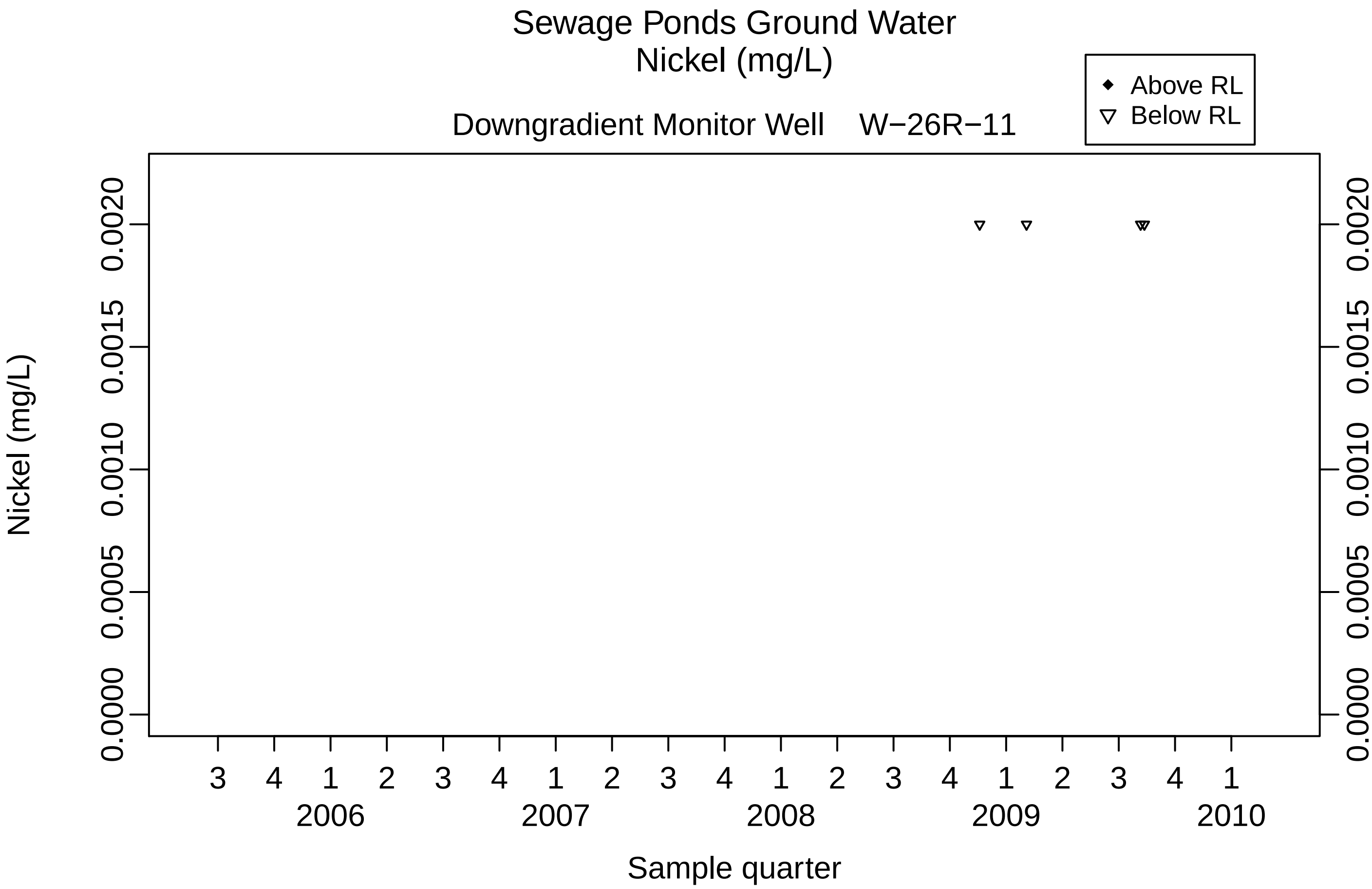


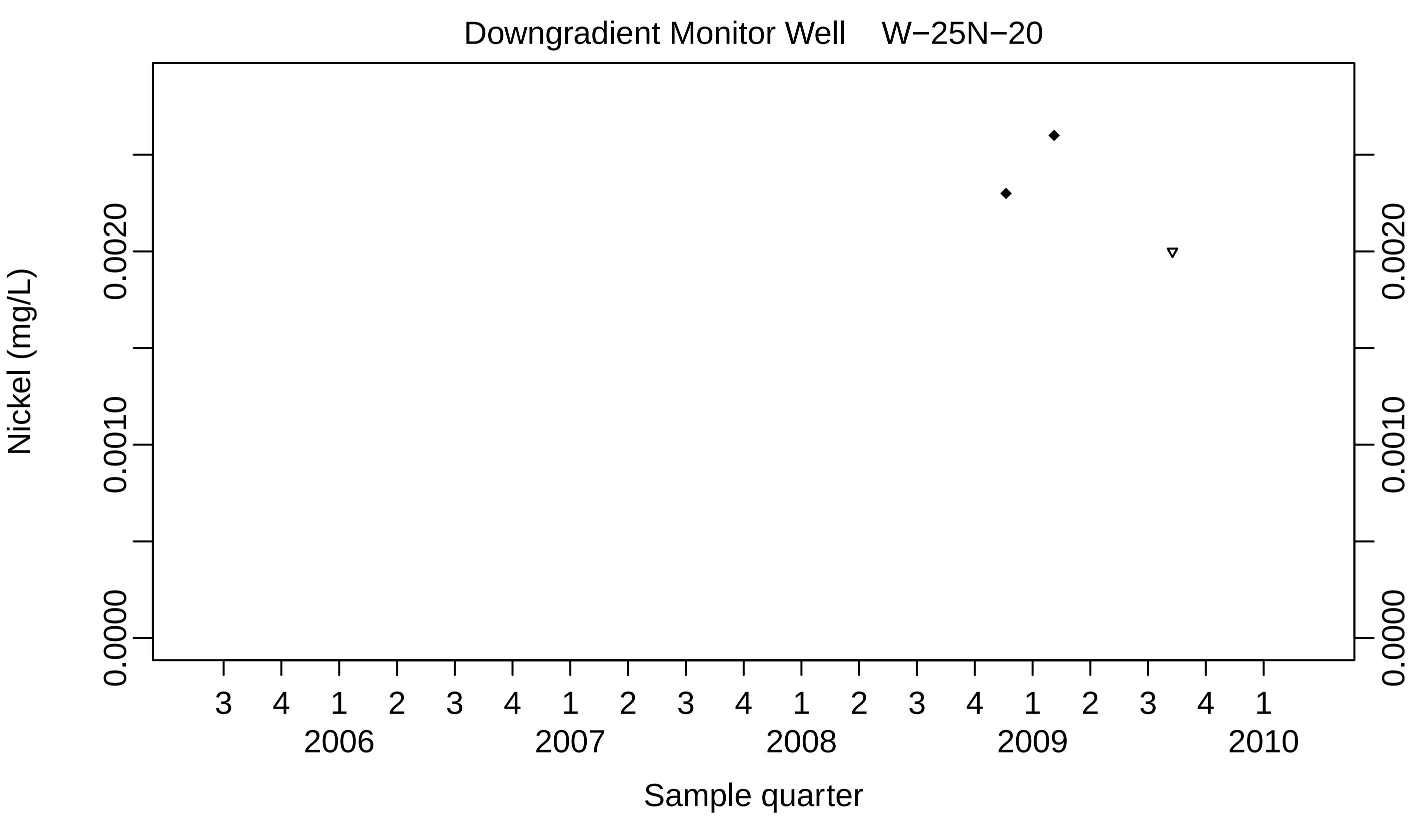


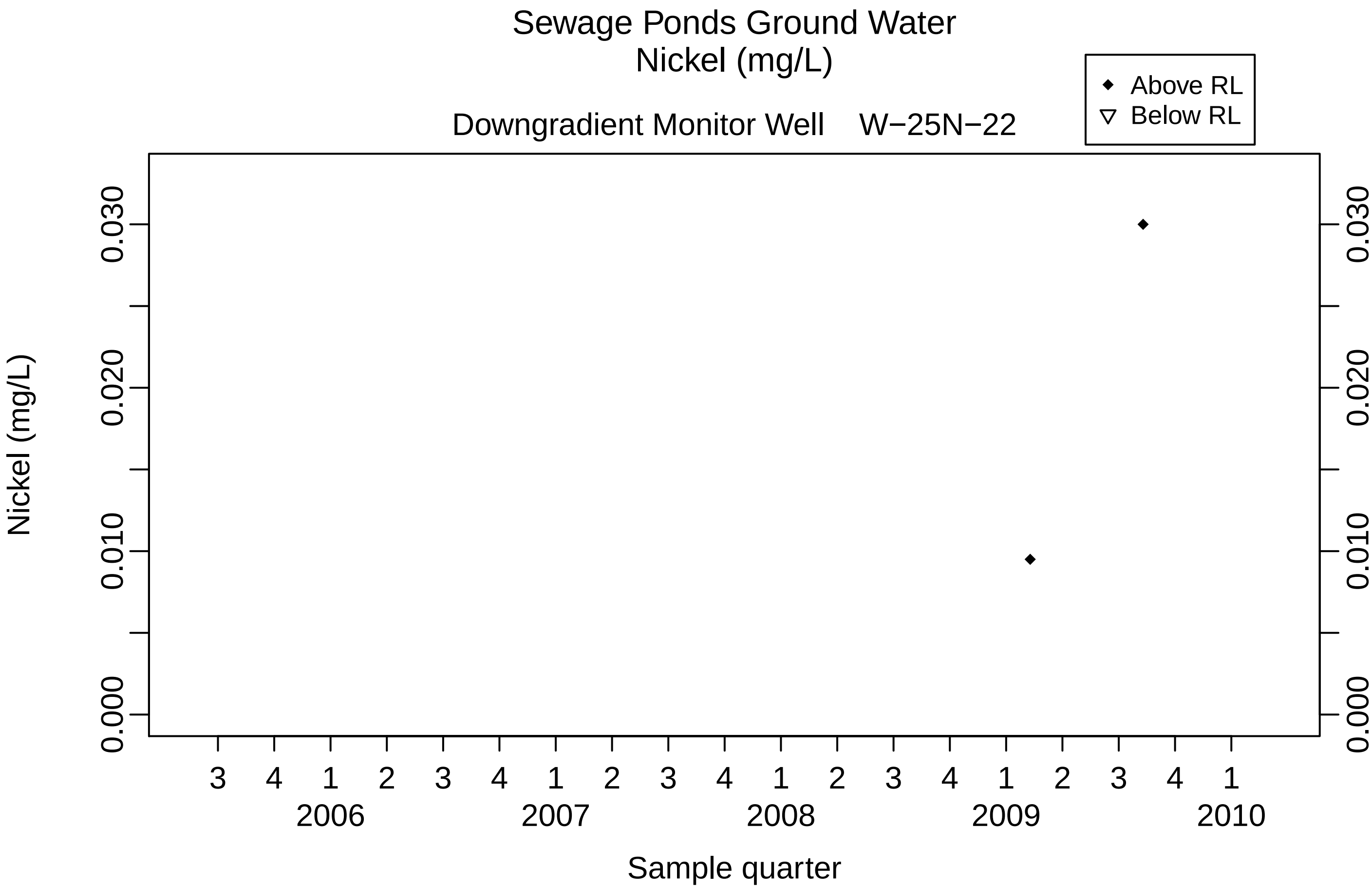
Sewage Ponds Ground Water
Nickel (mg/L)

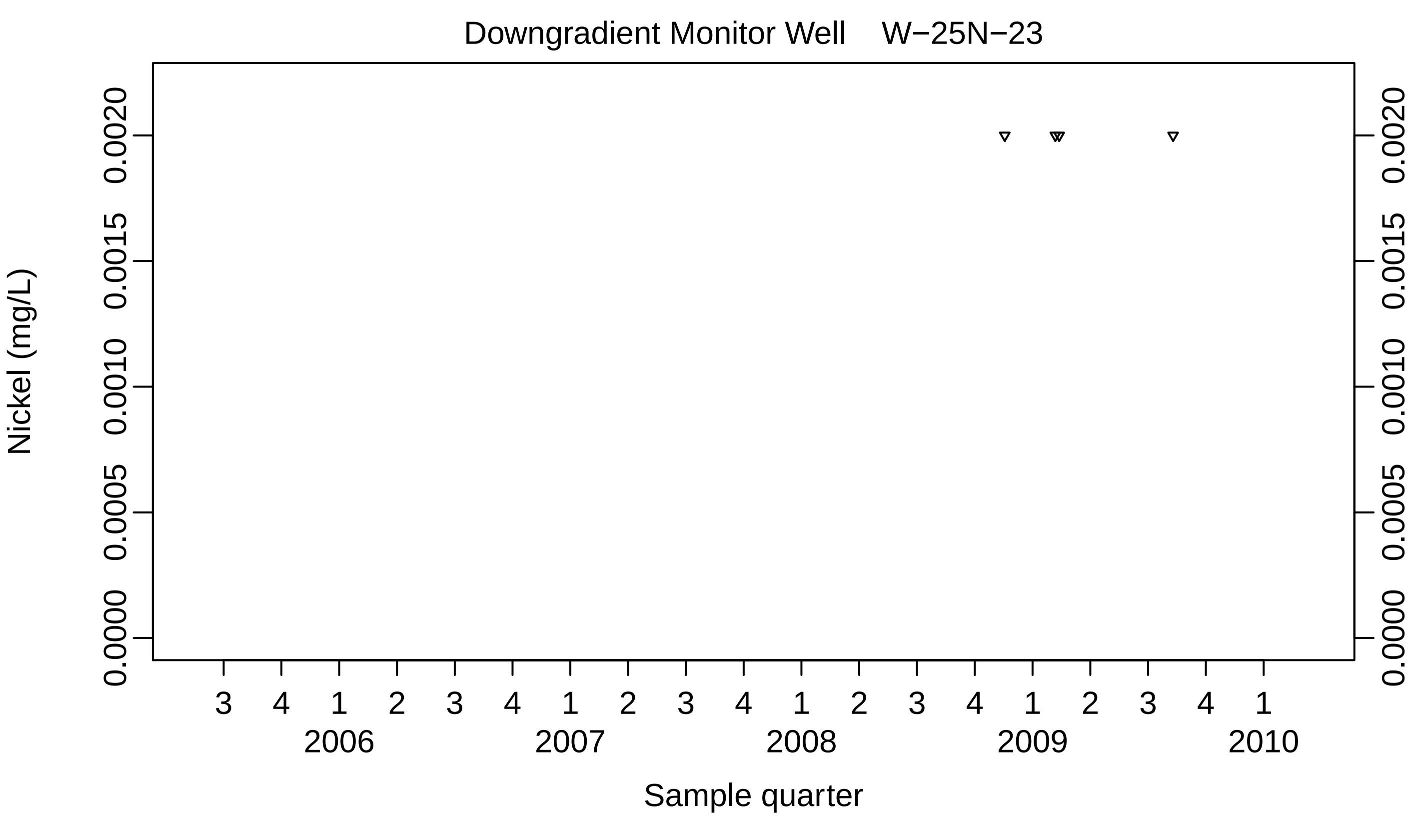


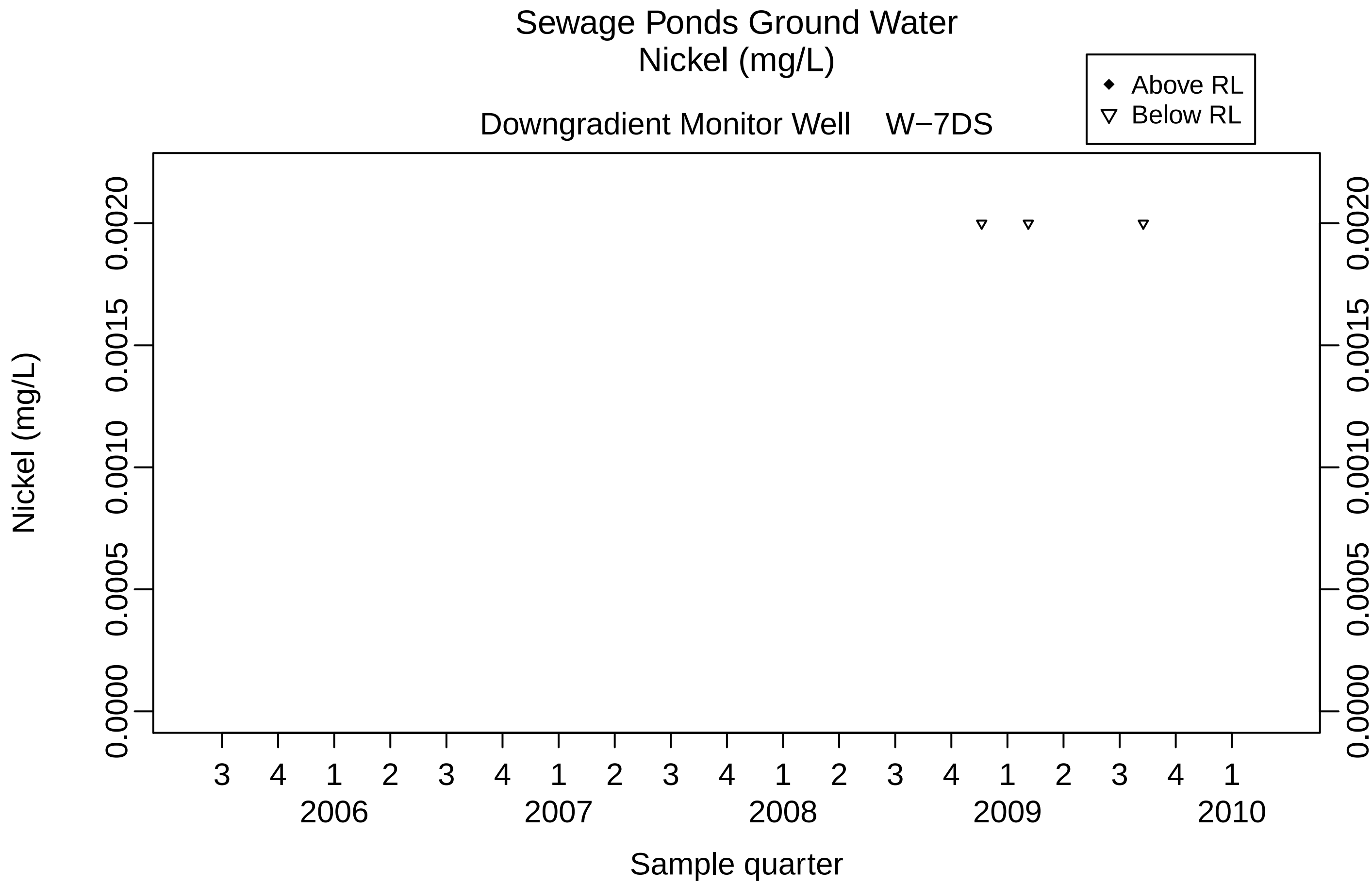



Sewage Ponds Ground Water
Nickel (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−26R−11
Nickel (mg/L)
0.0000
0.0005
0.0010
0.0015
0.0020
3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006 2007 2008 2009 2010
Sample quarter

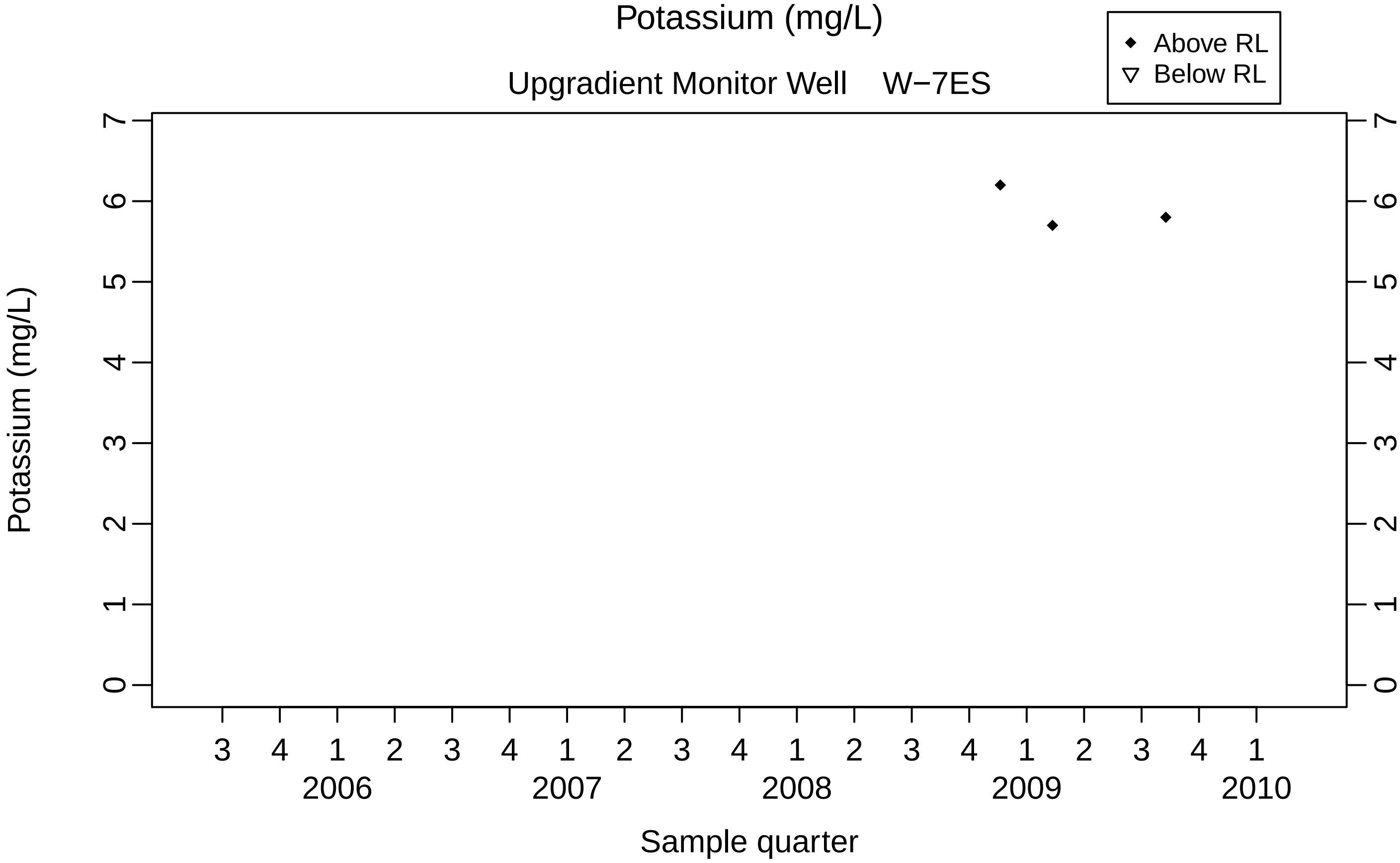

Downgradient Monitor Well W−25N−20
Nickel (mg/L)
0.0000
0.0010
0.0020
3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006 2007 2008 2009 2010
Sample quarter

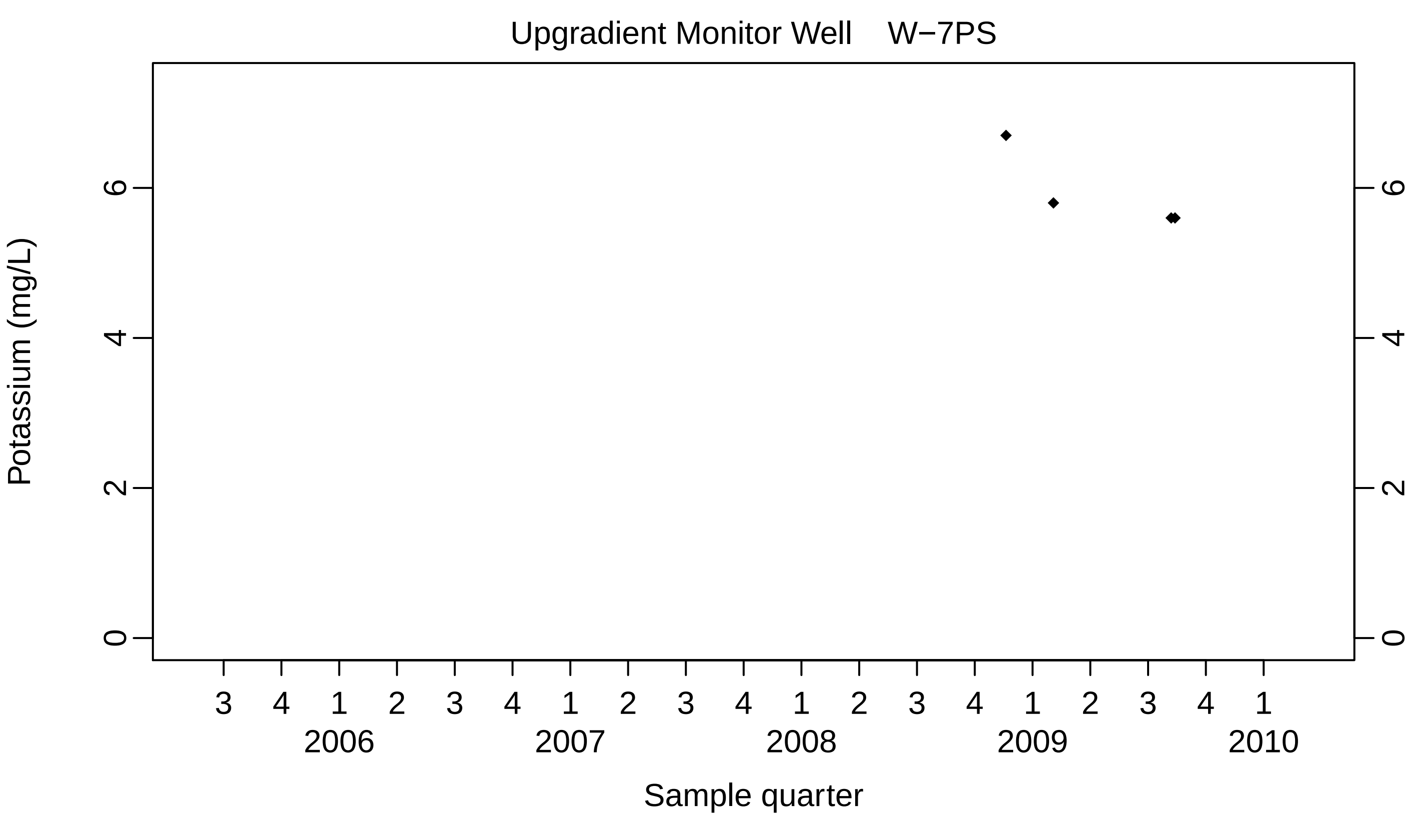

Sewage Ponds Ground Water
Nickel (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−25N−22
Nickel (mg/L)
0.000
0.010
0.020
0.030
3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006 2007 2008 2009 2010
Sample quarter

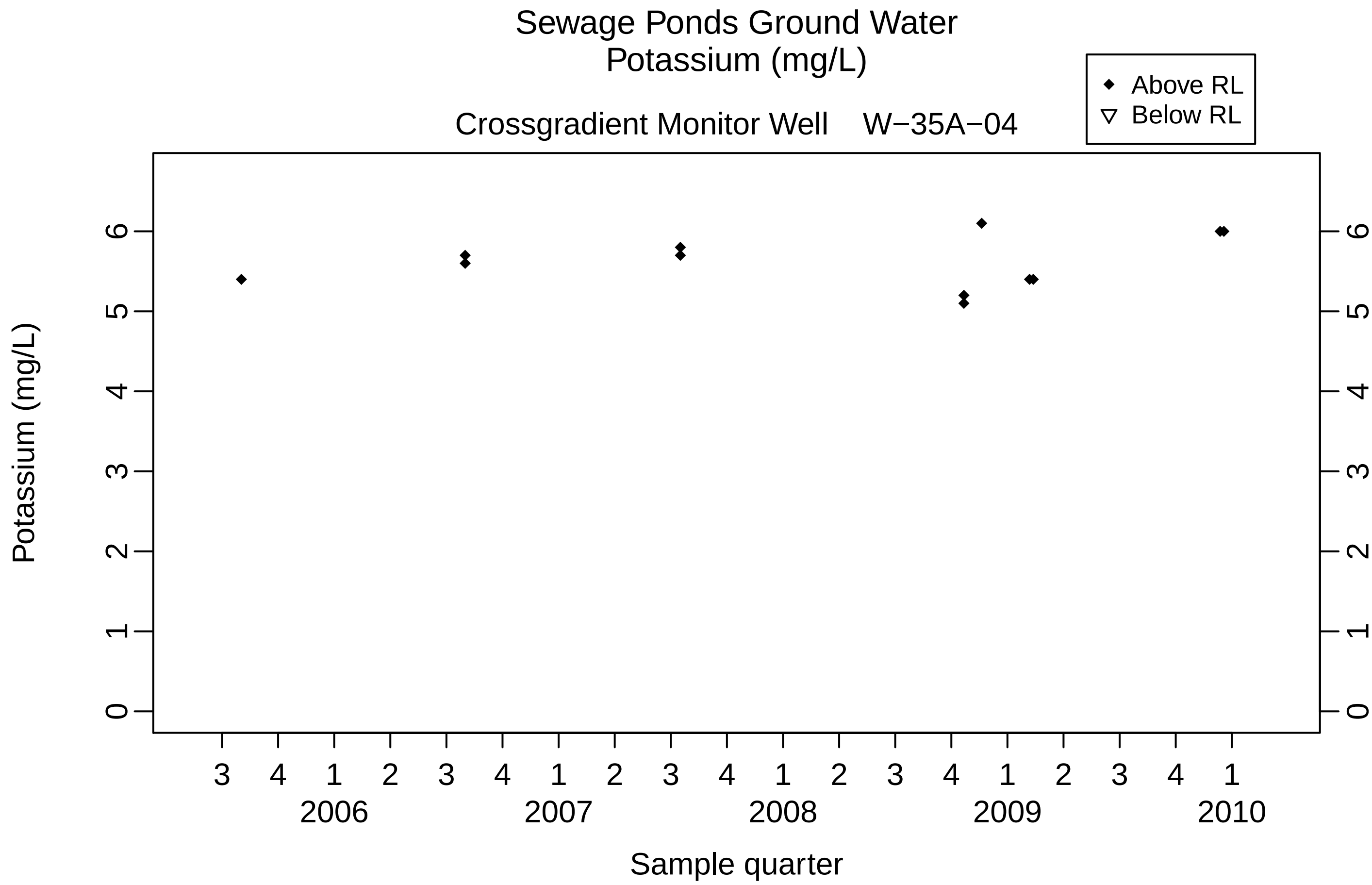

Downgradient Monitor Well W−25N−23
Nickel (mg/L)
0.0000
0.0005
0.0010
0.0015
0.0020
3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006 2007 2008 2009 2010
Sample quarter

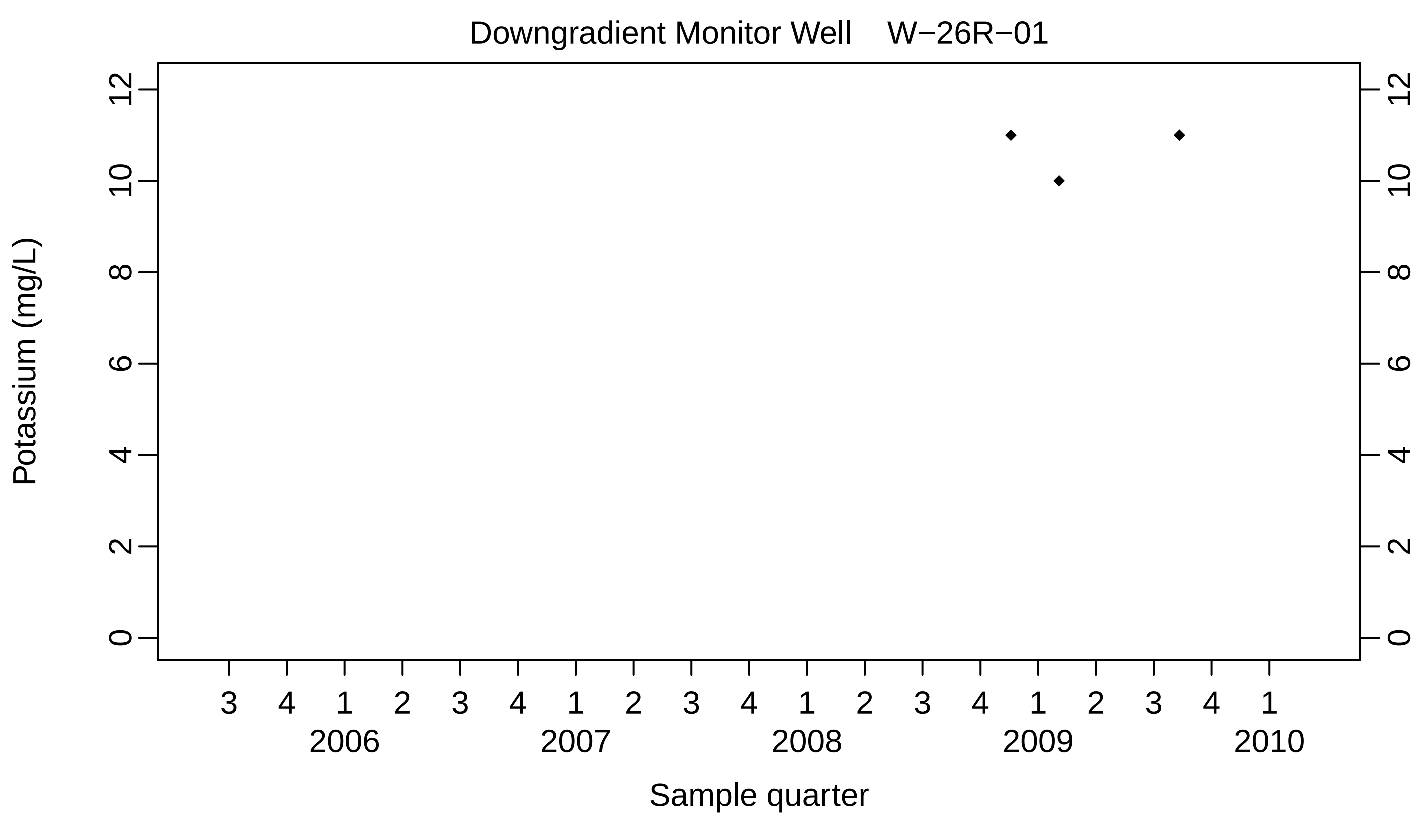

Sewage Ponds Ground Water
Nickel (mg/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Nickel (mg/L)
0.0000
0.0005
0.0010
0.0015
0.0020
3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006
2007
2008
2009
2010
Sample quarter

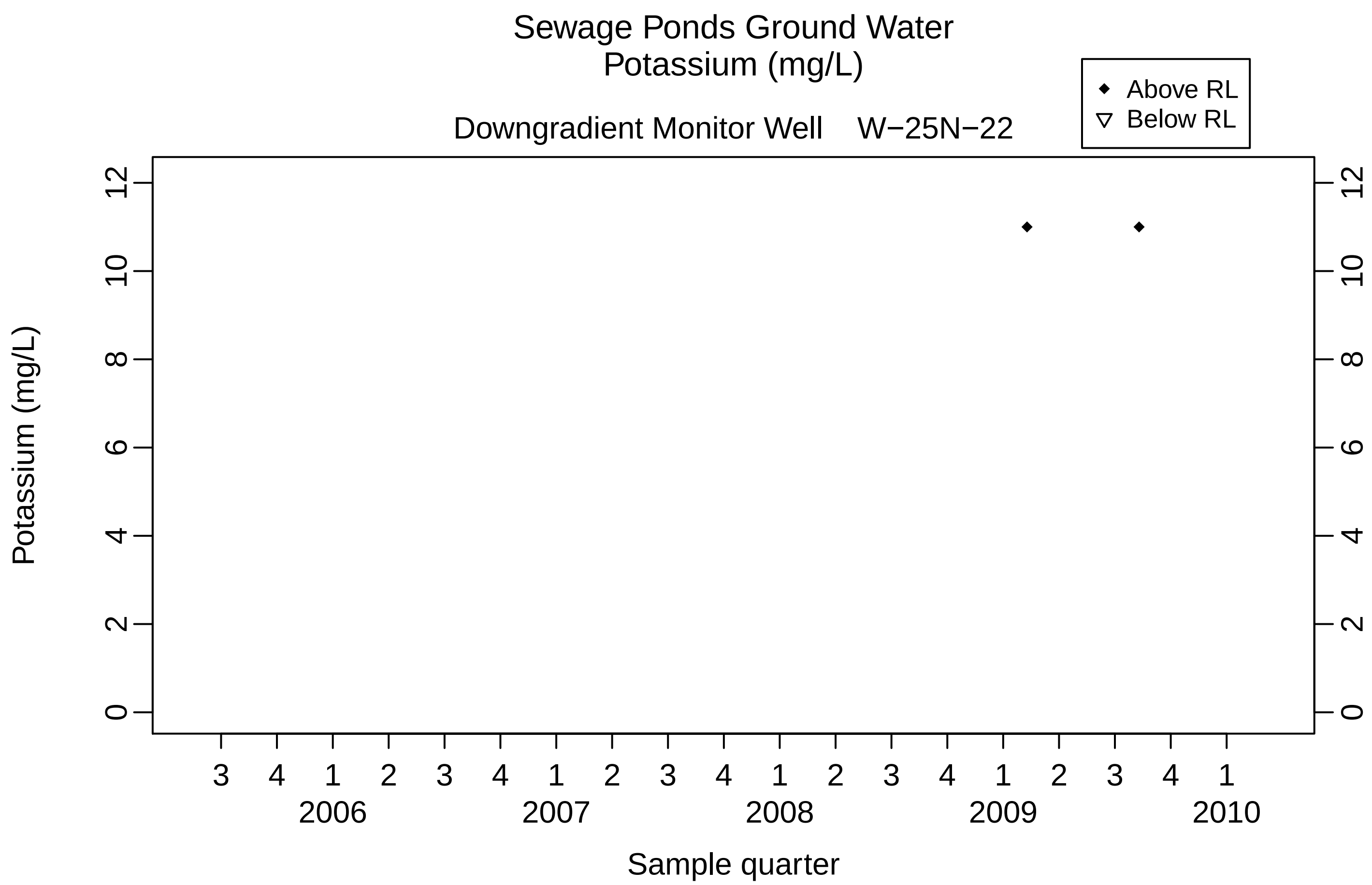
Sewage Ponds Ground Water
Potassium (mg/L)

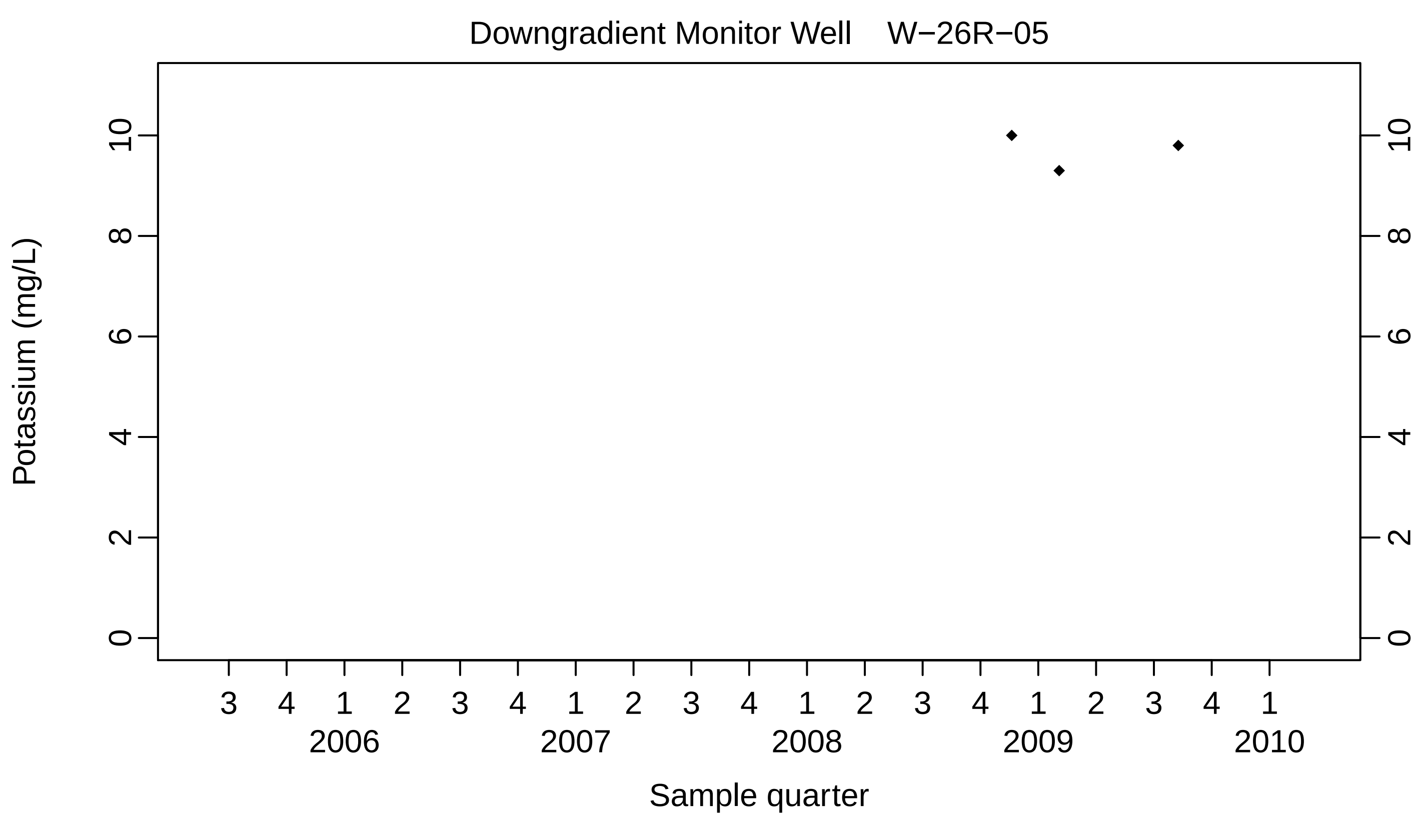




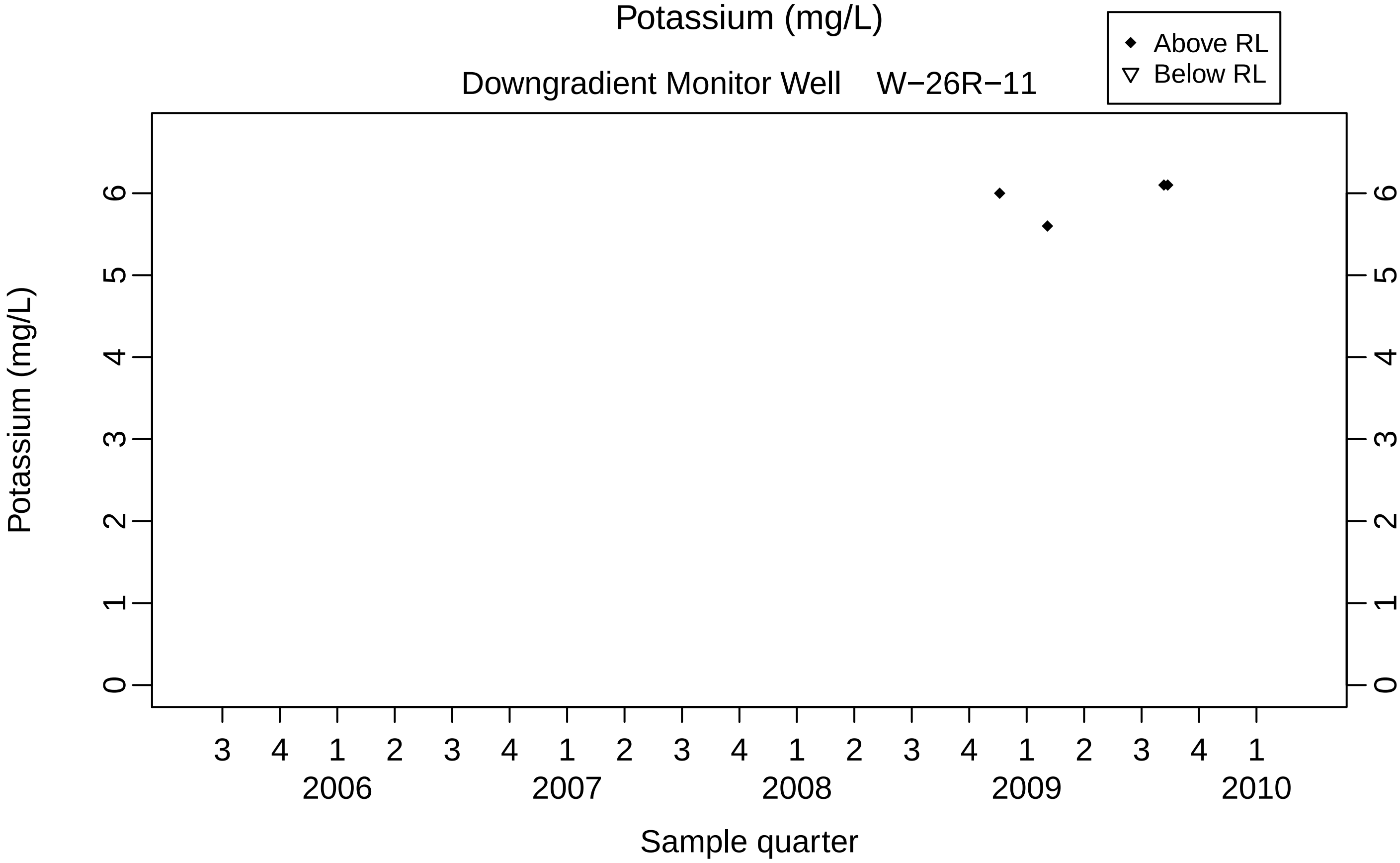

Sewage Ponds Ground Water
Potassium (mg/L)
Above RL
Below RL
Crossgradient Monitor Well W−35A−04
Potassium (mg/L)
0
1
2
3
4
5
6
3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006
2007
2008
2009
2010
Sample quarter

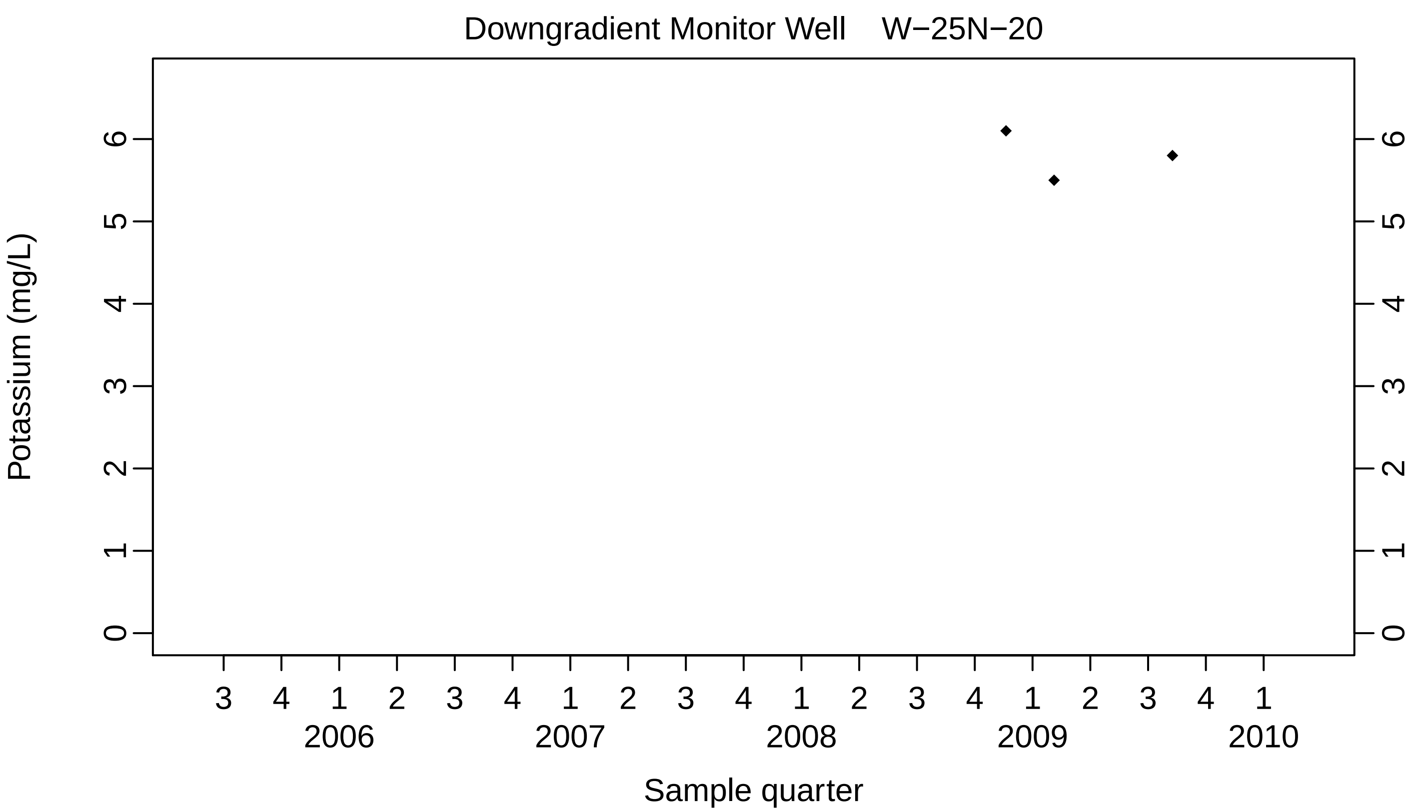

Downgradient Monitor Well W−26R−01
Potassium (mg/L)
0
2
4
6
8
10
12
3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006
2007
2008
2009
2010
Sample quarter


Sewage Ponds Ground Water
Potassium (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−25N−22
Potassium (mg/L)
0
2
4
6
8
10
12
3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006
2007
2008
2009
2010
Sample quarter

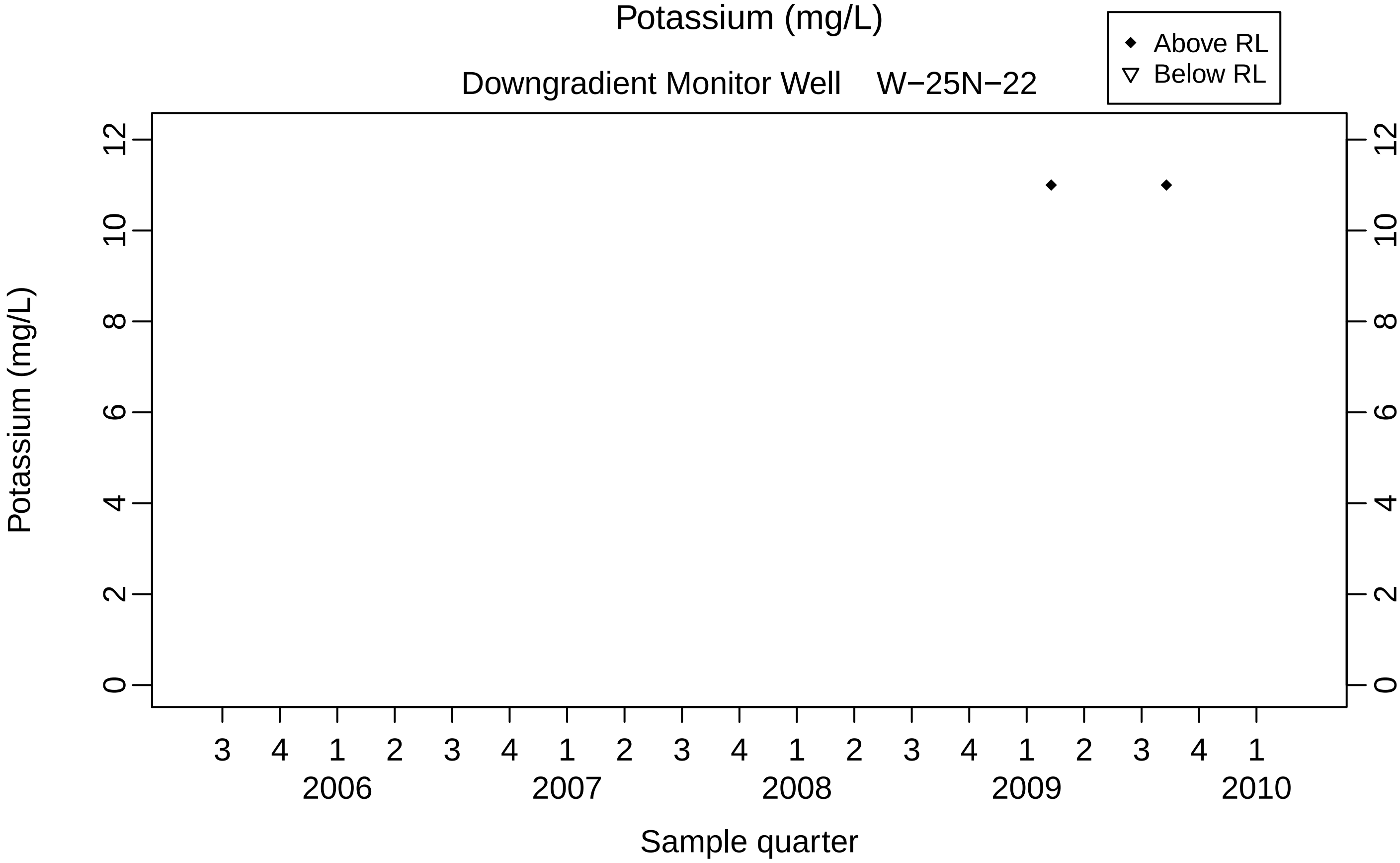

Downgradient Monitor Well W−26R−05
Potassium (mg/L)
0
2
4
6
8
10
3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006
2007
2008
2009
2010
Sample quarter

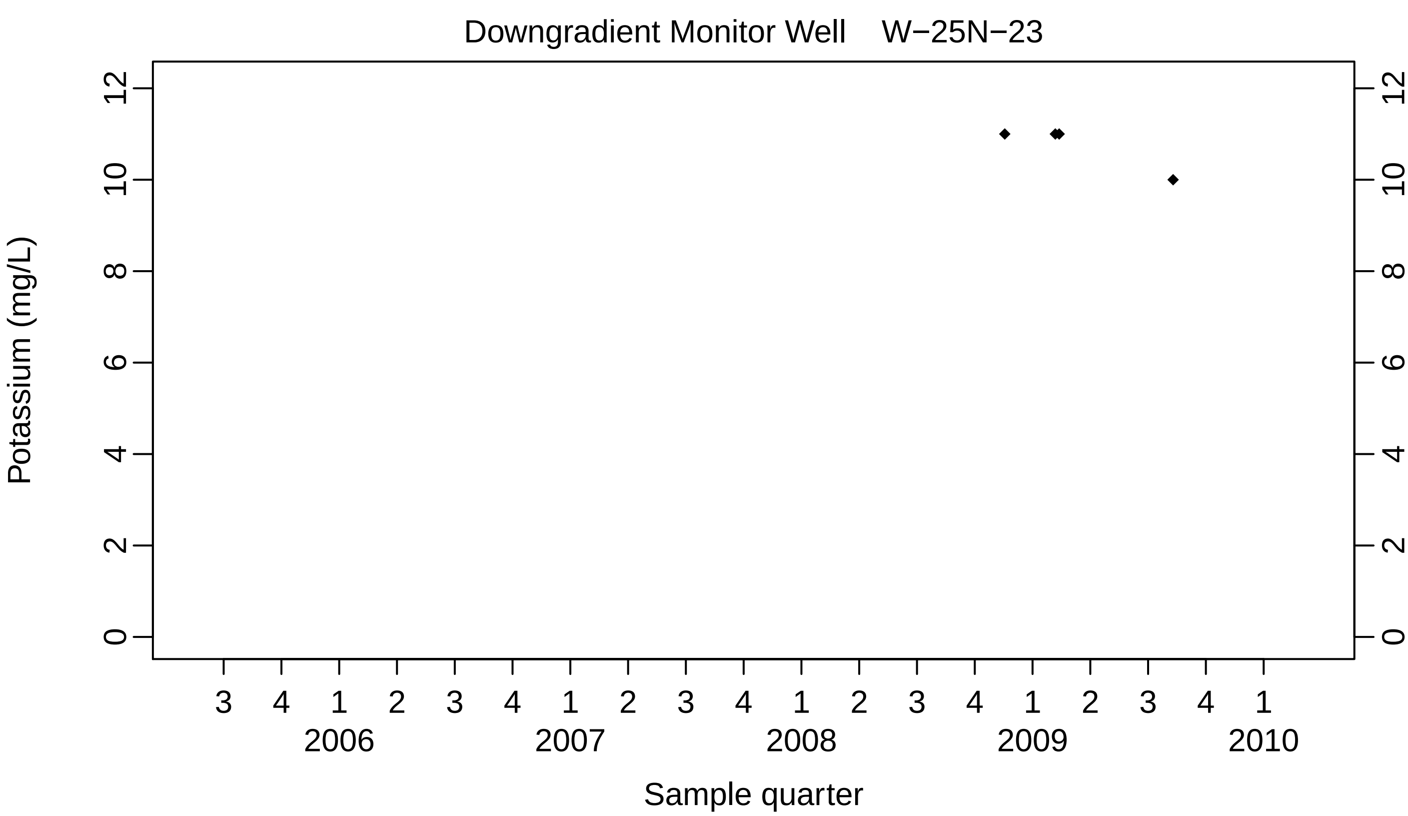
Sewage Ponds Ground Water
Potassium (mg/L)

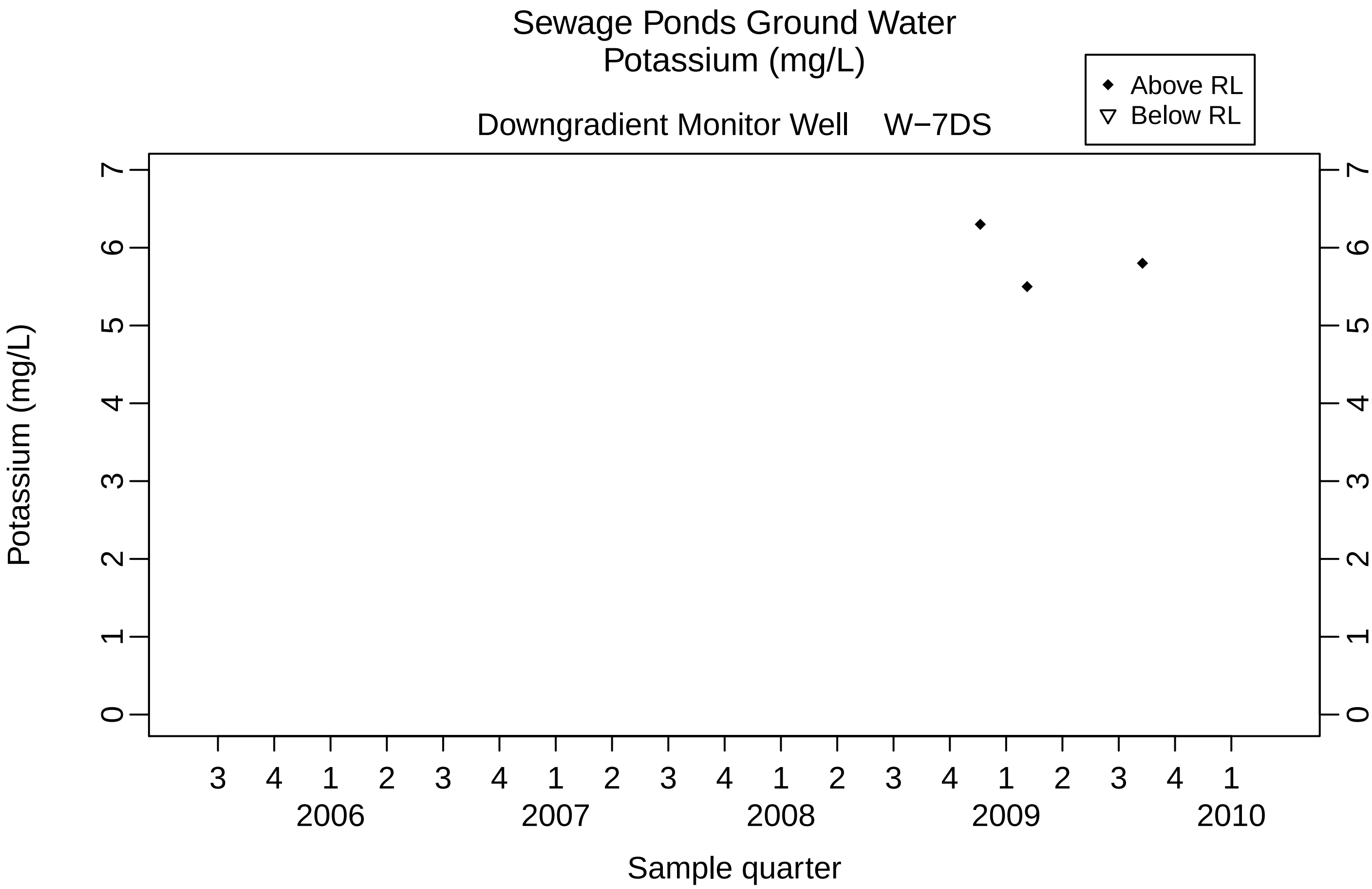




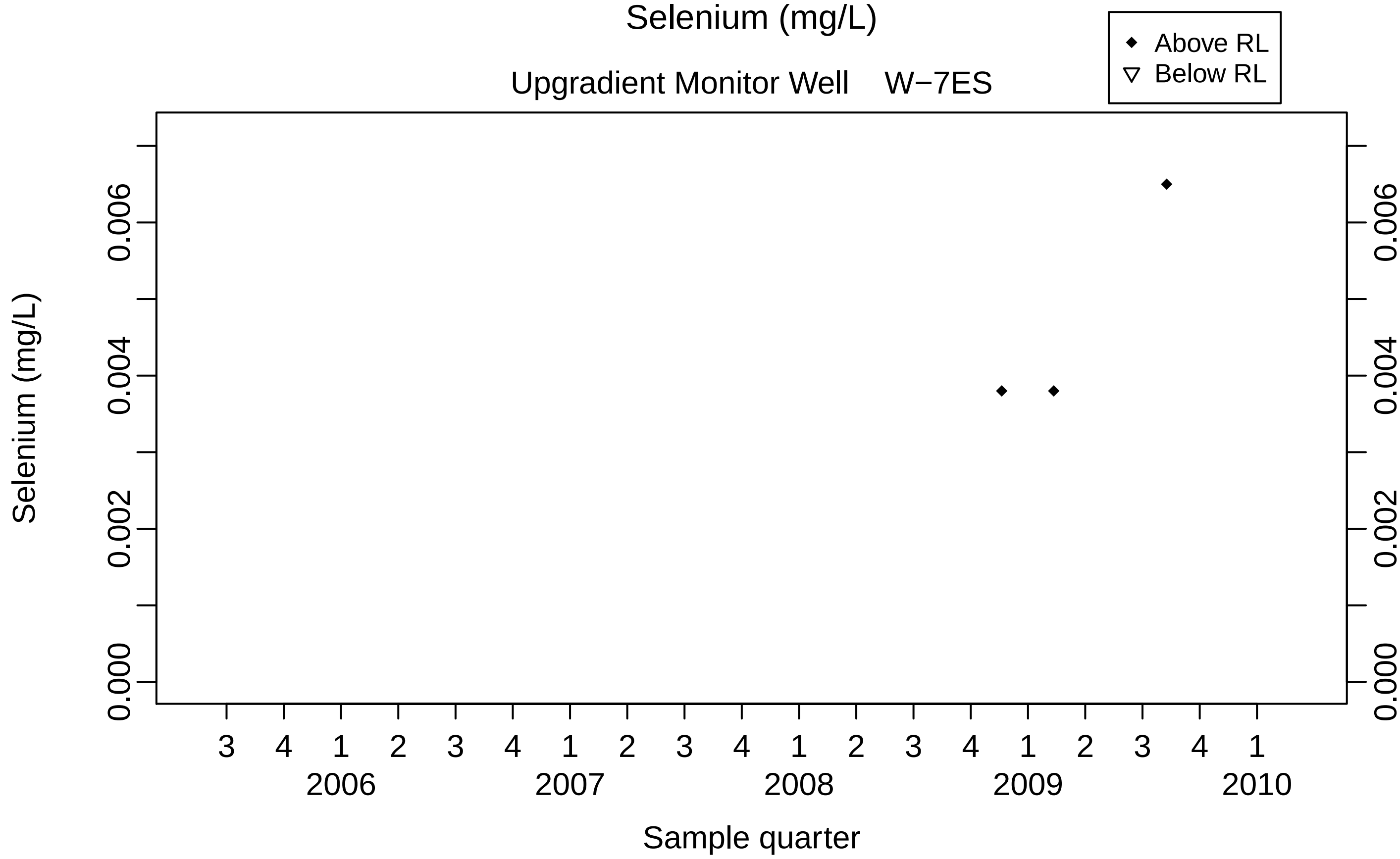
Sewage Ponds Ground Water
Potassium (mg/L)

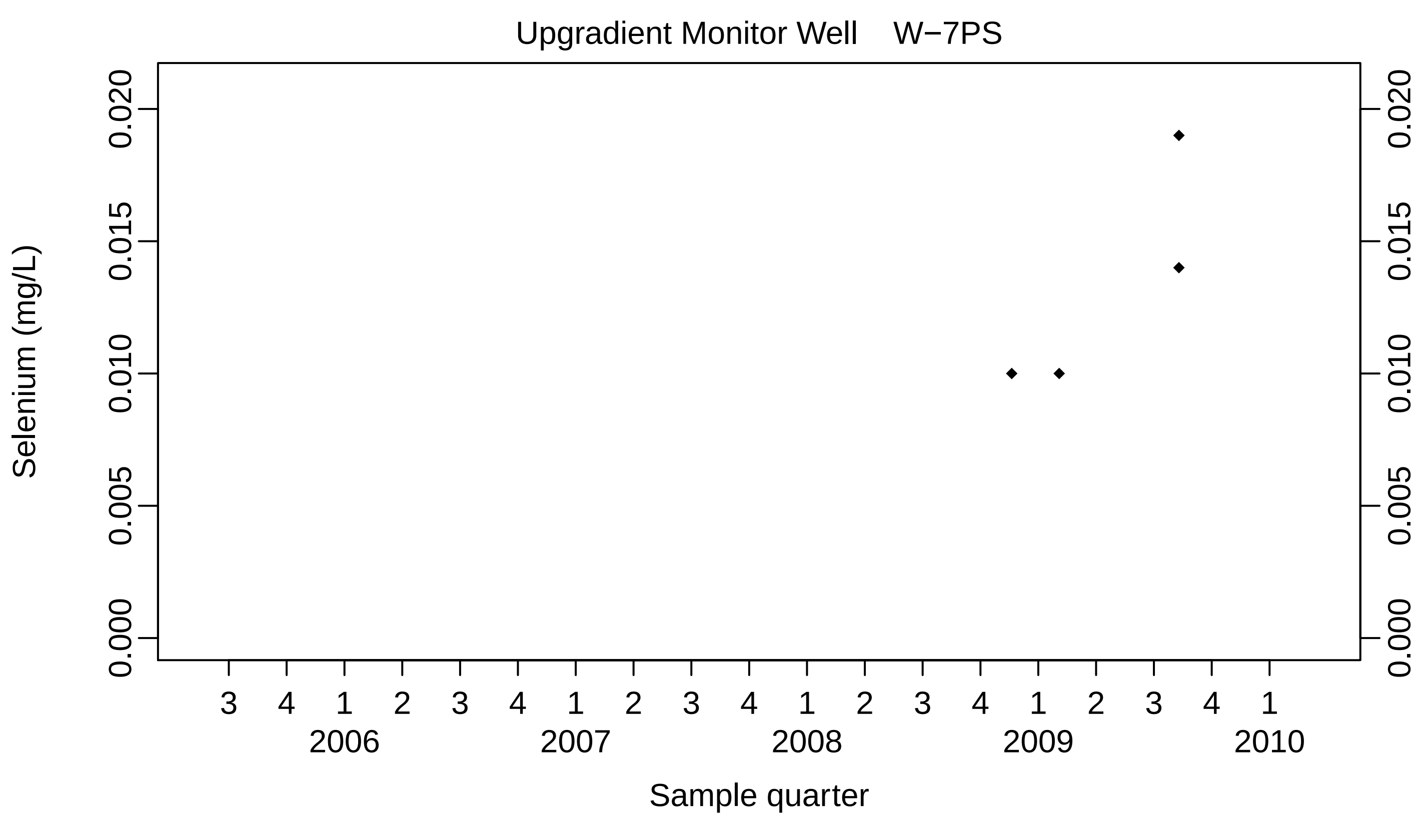




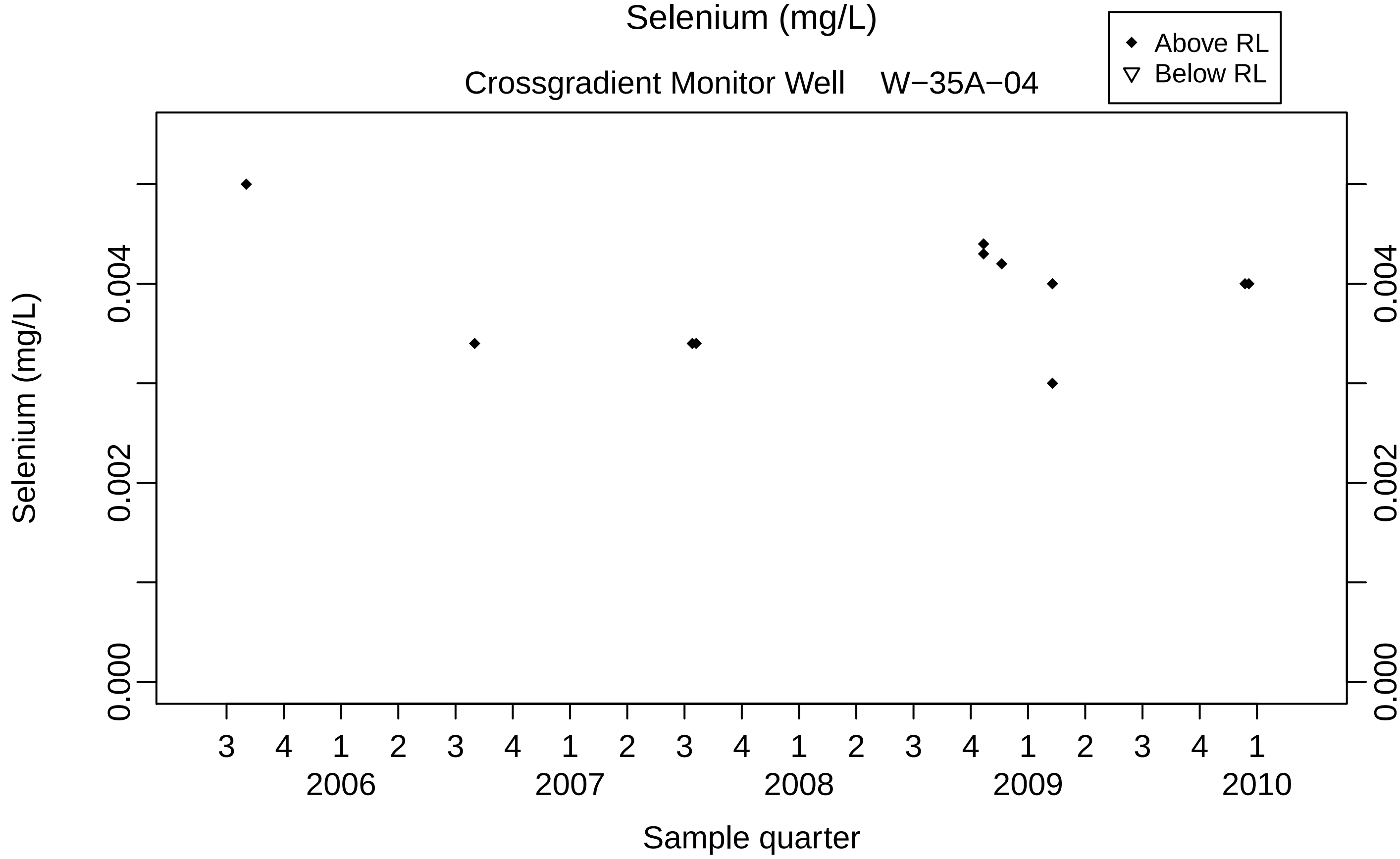

Sewage Ponds Ground Water
Potassium (mg/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Potassium (mg/L)
0
1
2
3
4
5
6
7
3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006
2007
2008
2009
2010
Sample quarter

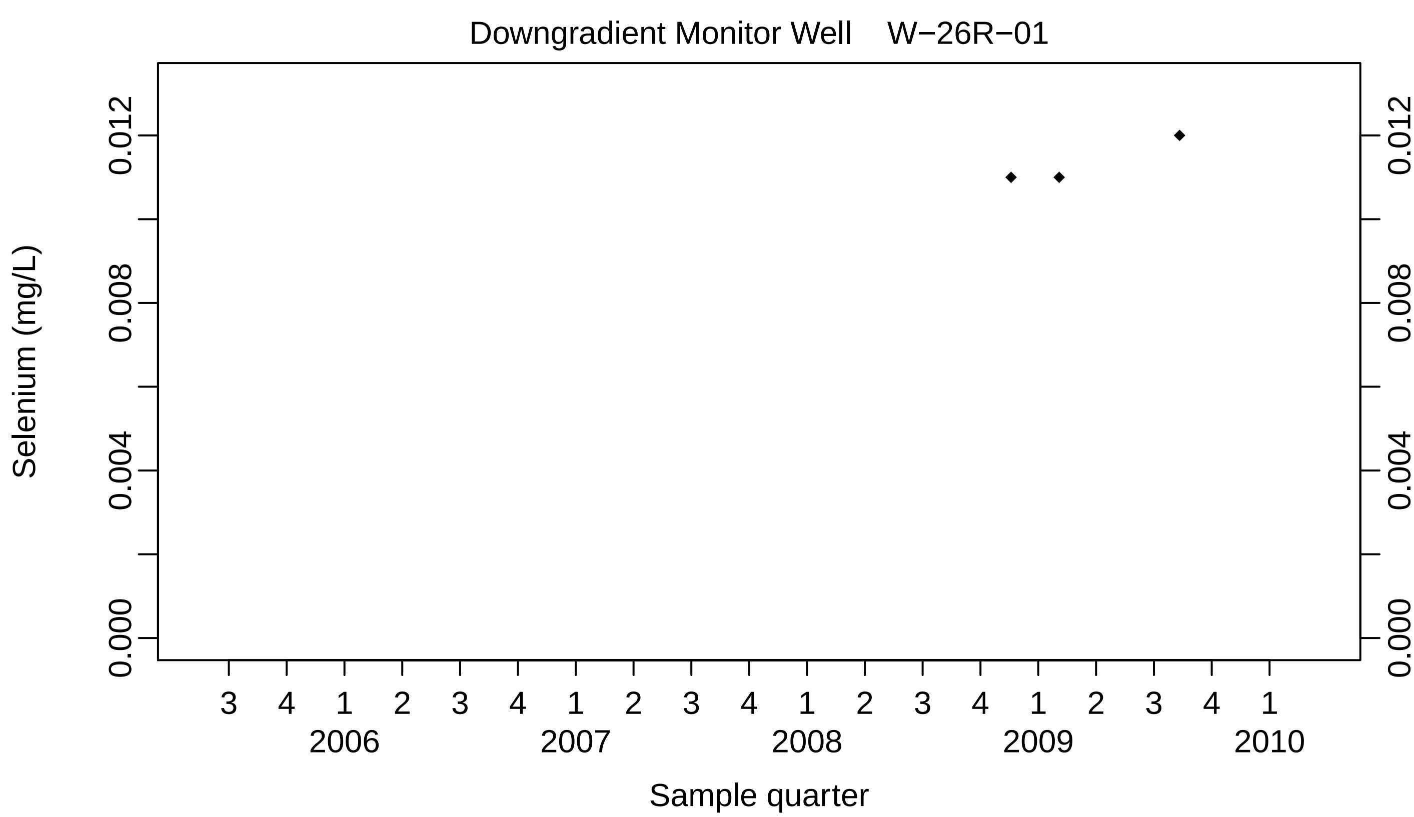
Sewage Ponds Ground Water
Selenium (mg/L)

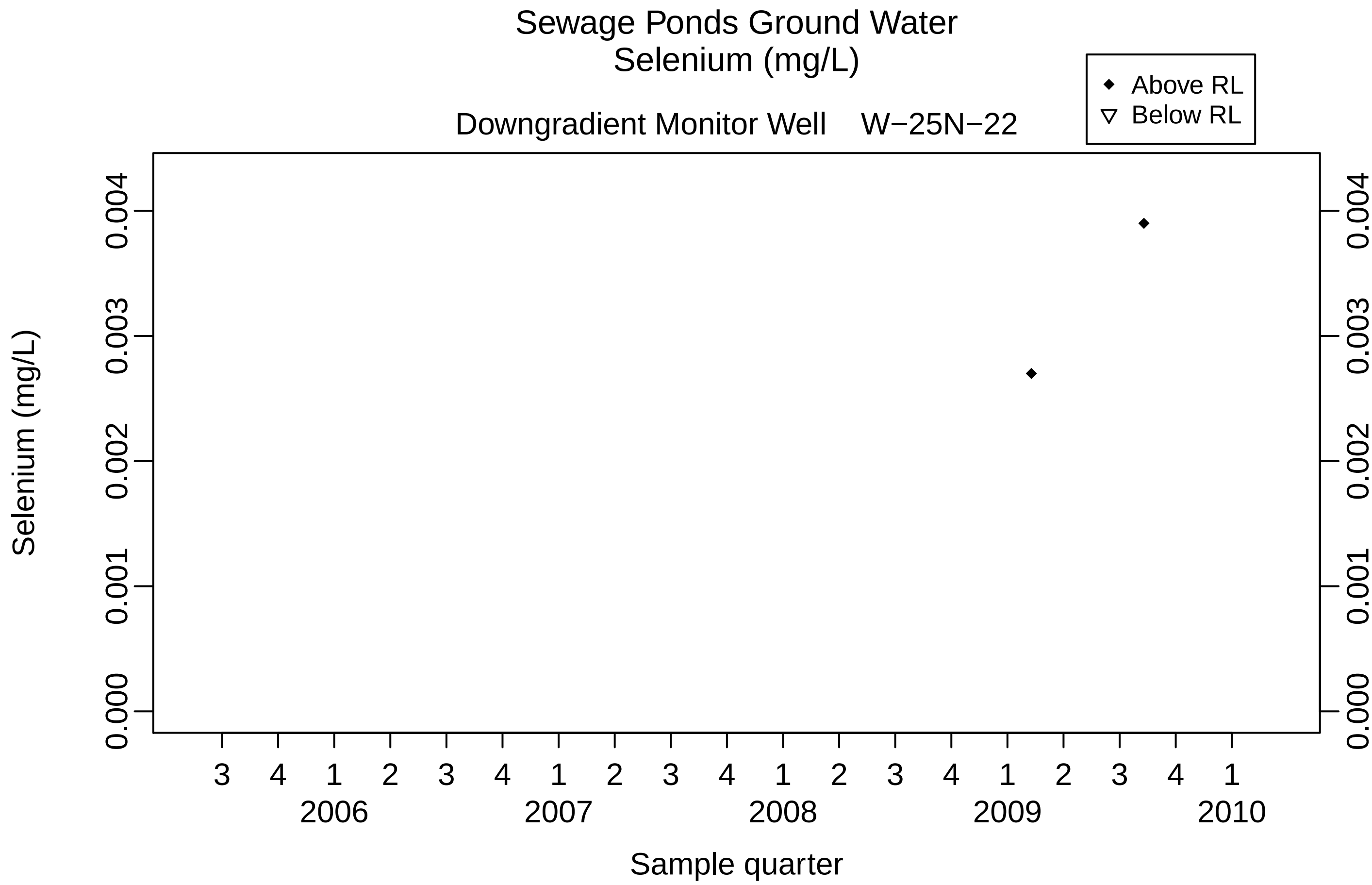


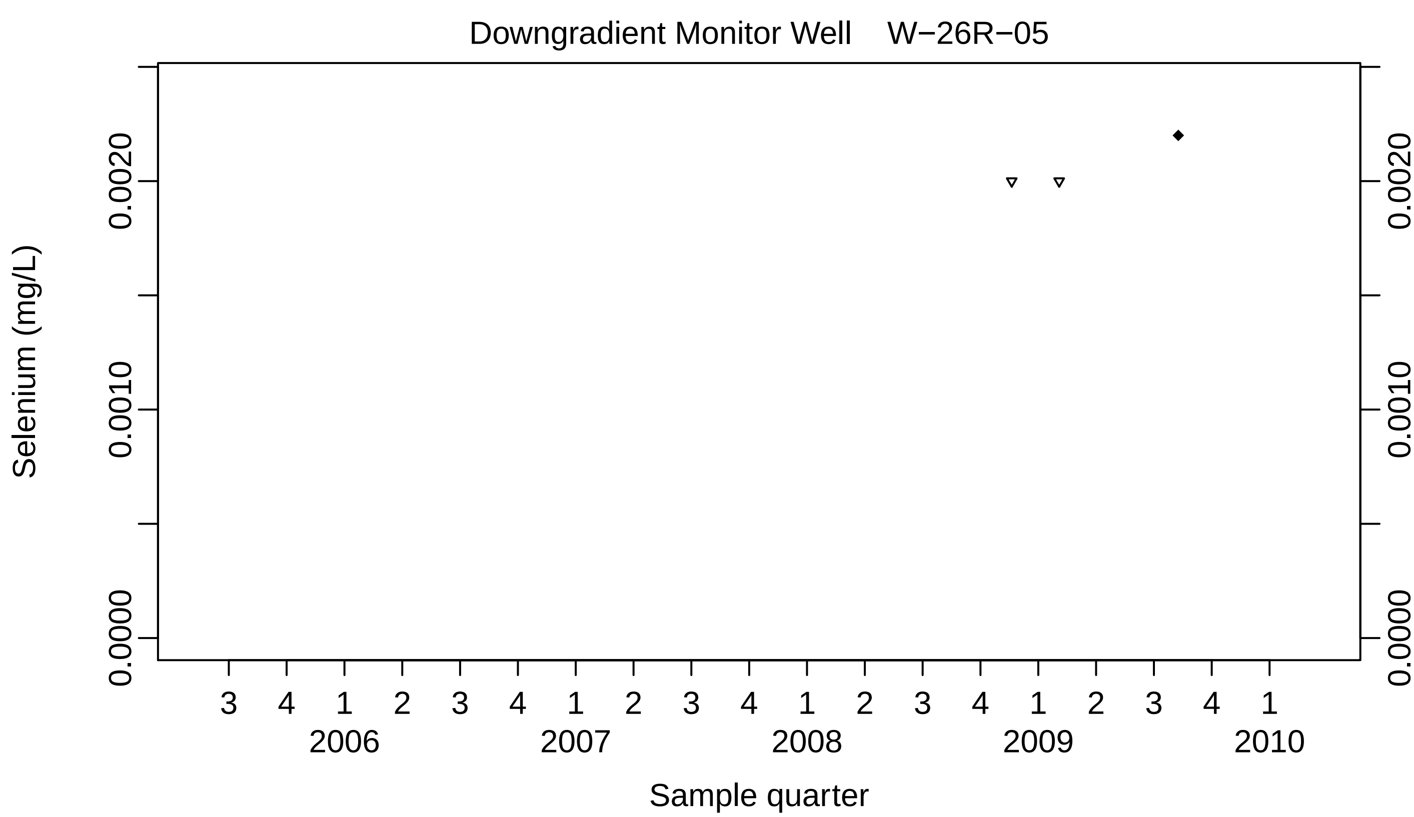


Sewage Ponds Ground Water
Selenium (mg/L)

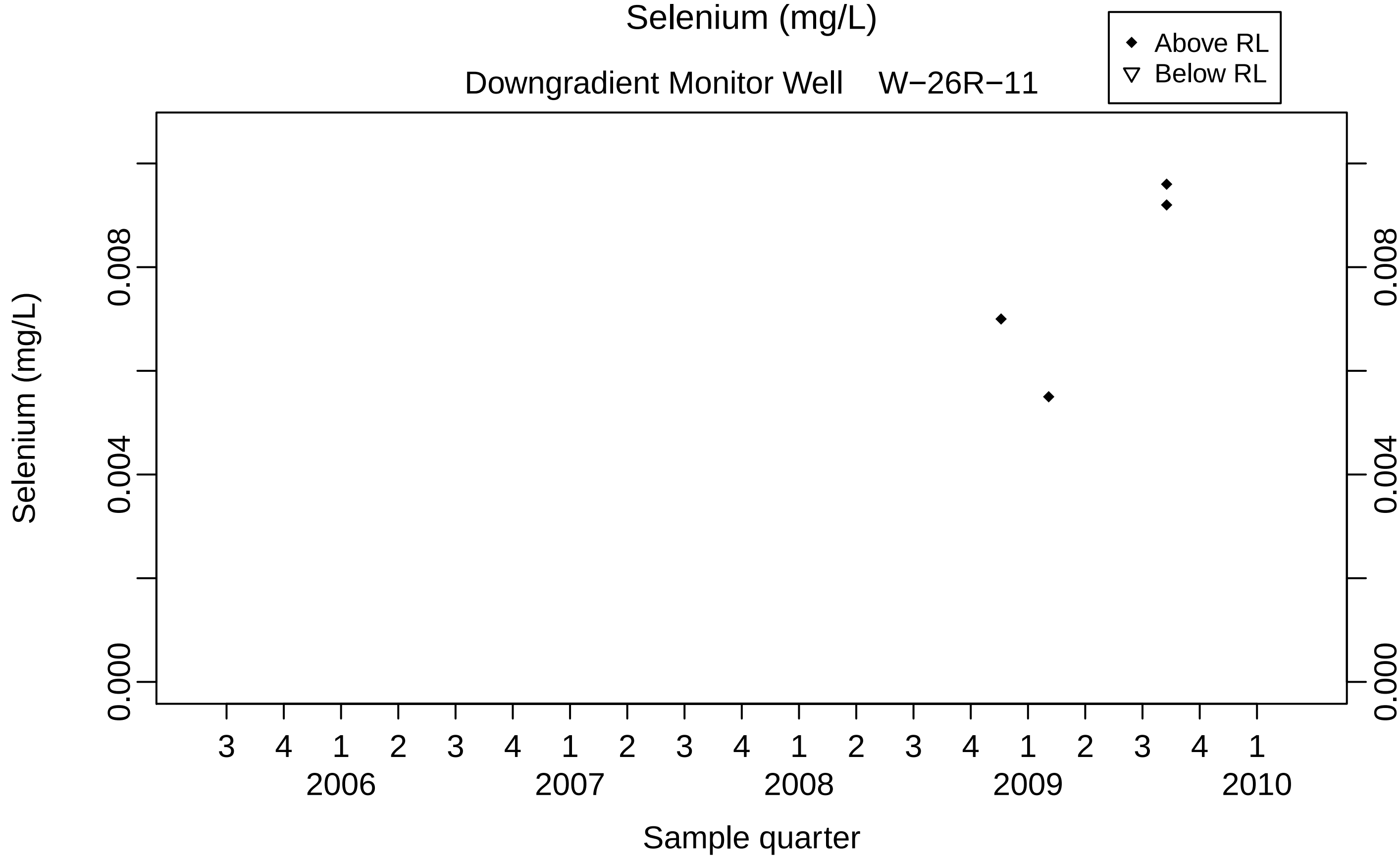


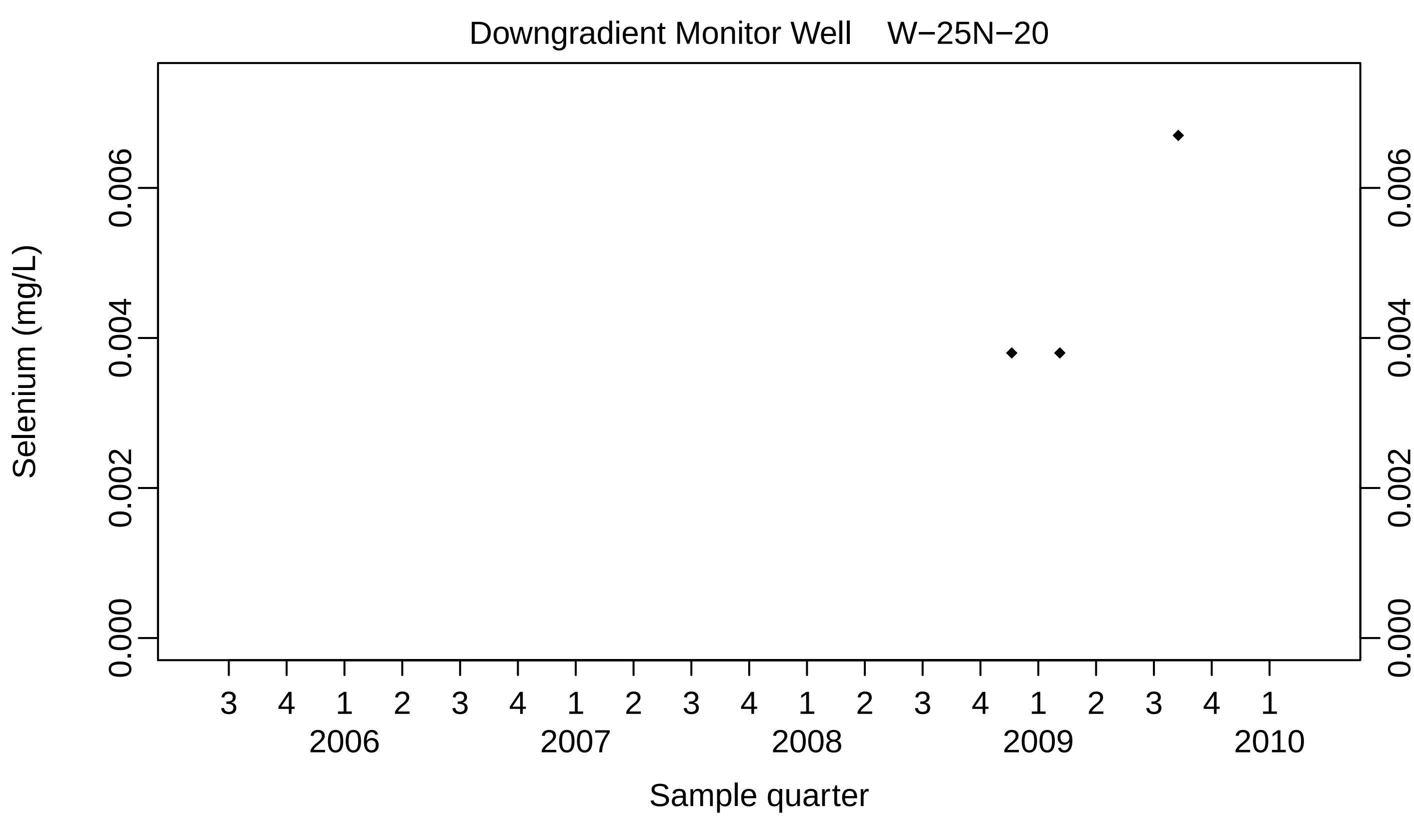



Sewage Ponds Ground Water
Selenium (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−25N−22
Selenium (mg/L)
0.000
0.001
0.002
0.003
0.004
3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006 2007 2008 2009 2010
Sample quarter

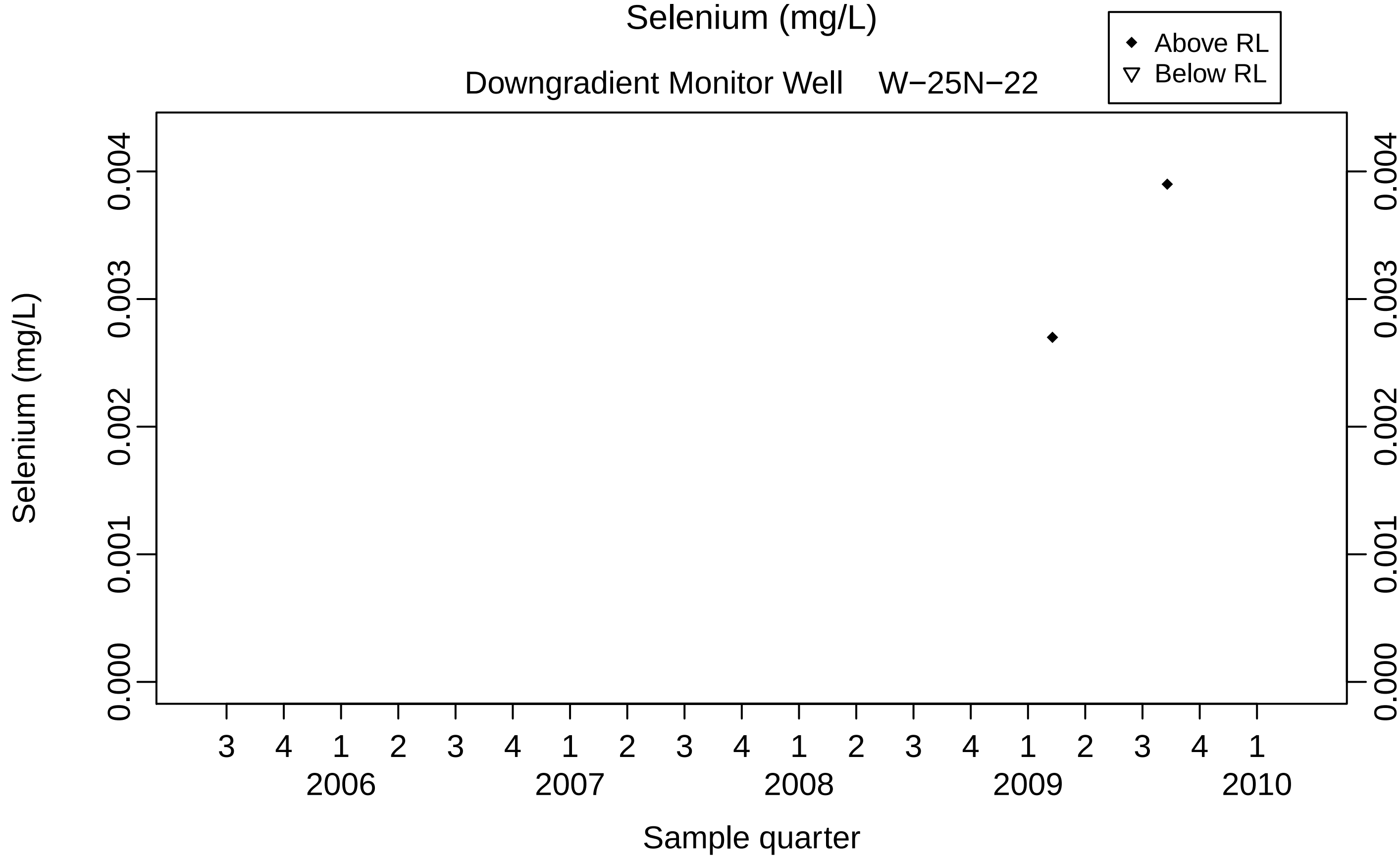

Downgradient Monitor Well W−26R−05
Selenium (mg/L)
0.0000
0.0010
0.0020
3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006 2007 2008 2009 2010
Sample quarter

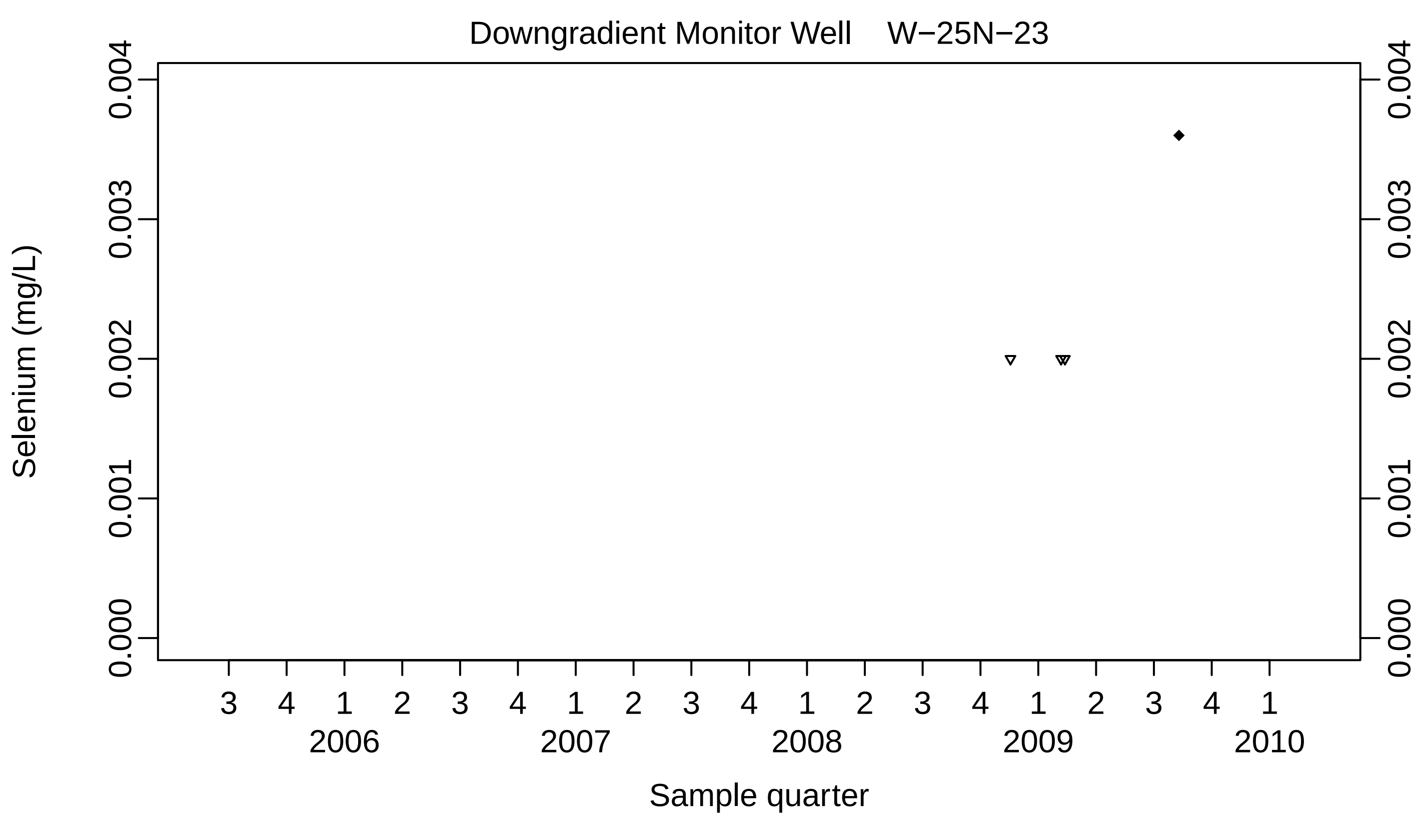
Sewage Ponds Ground Water
Selenium (mg/L)

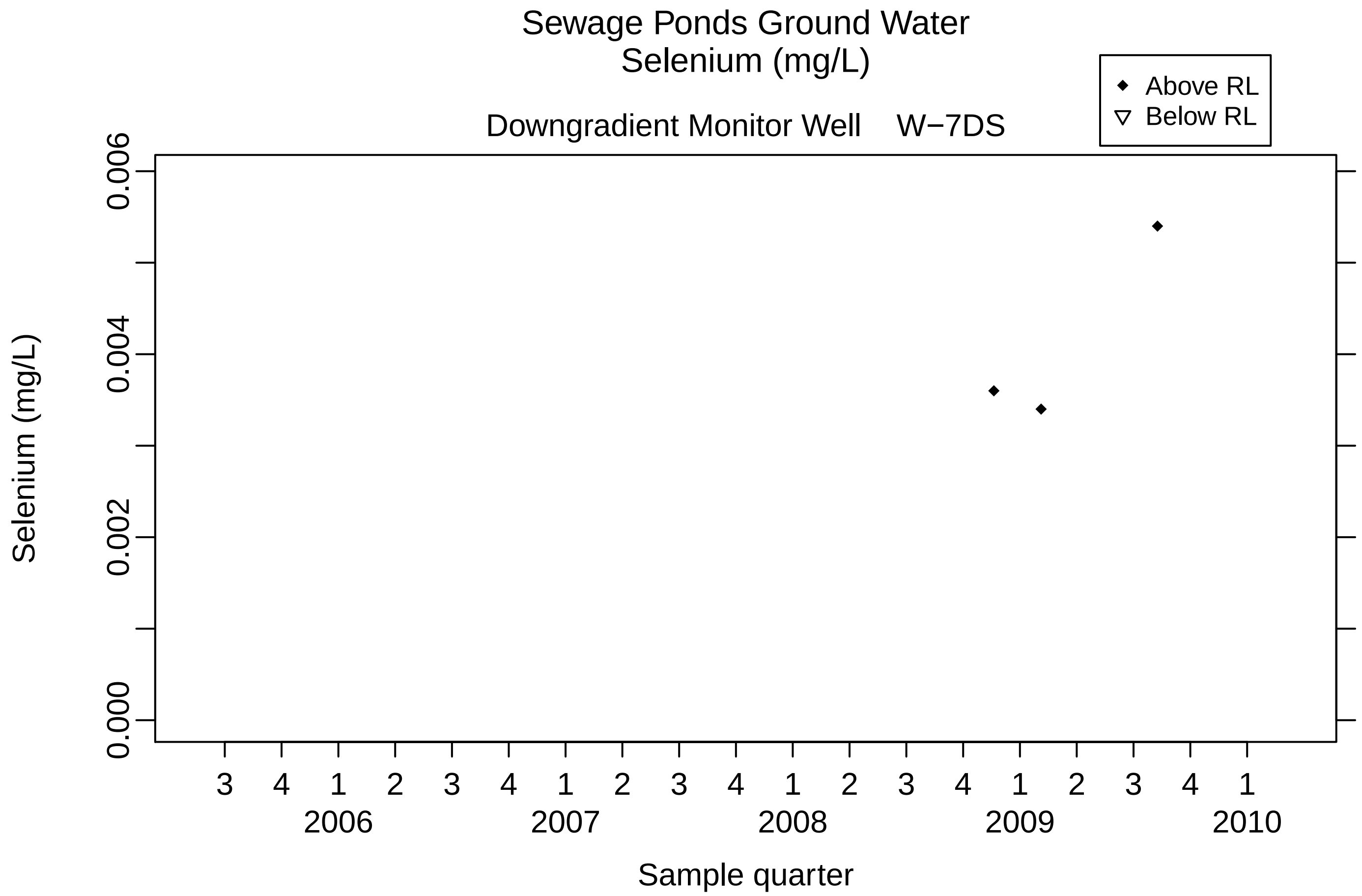




Sewage Ponds Ground Water
Selenium (mg/L)

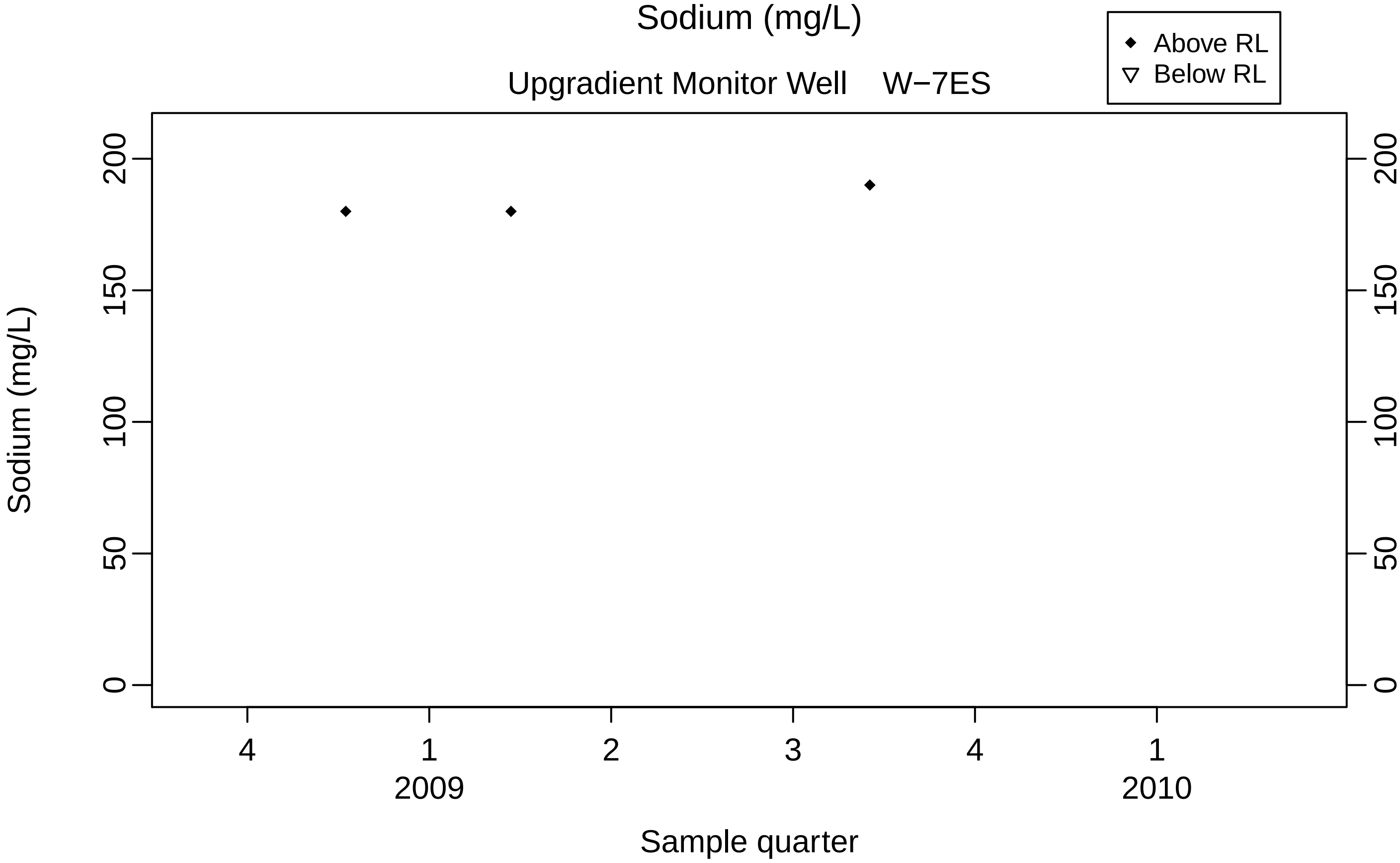




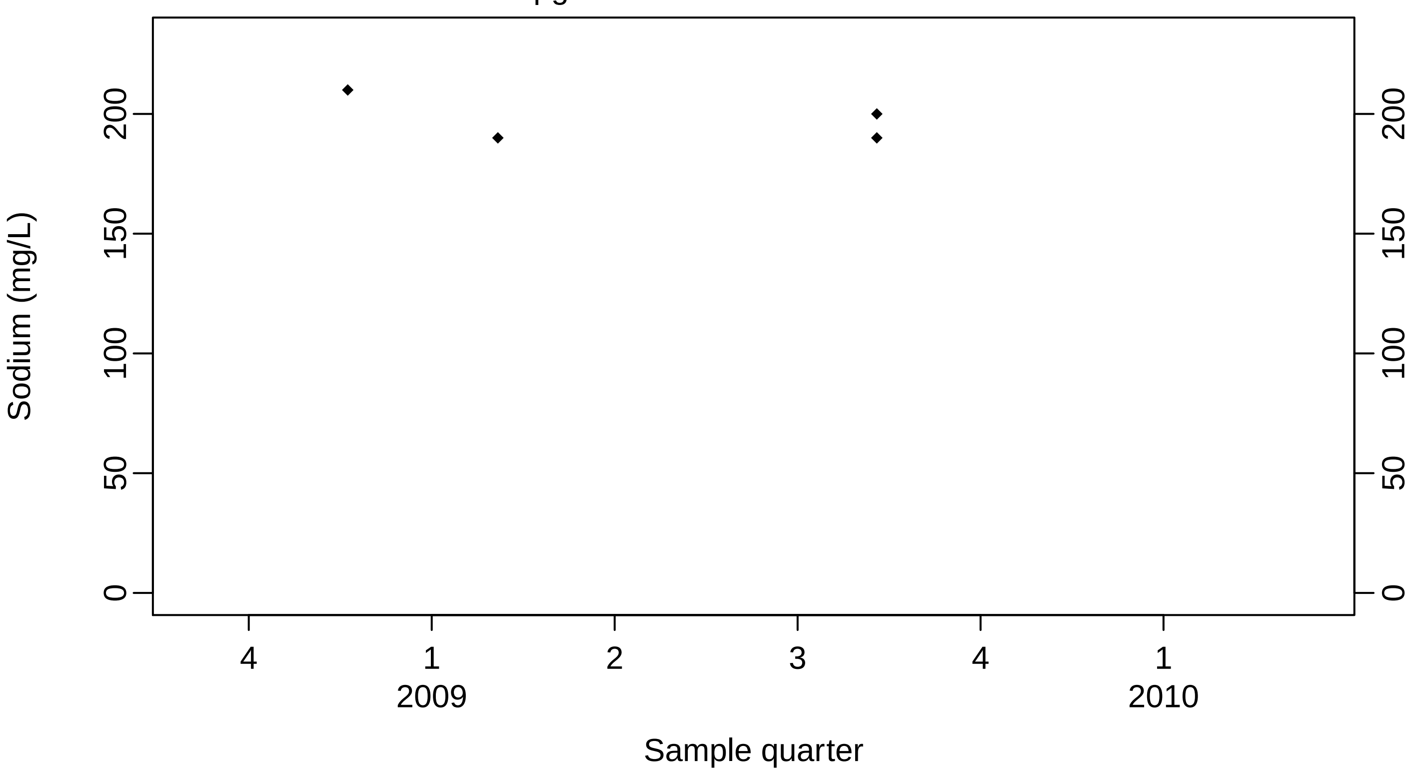

Sewage Ponds Ground Water
Selenium (mg/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Selenium (mg/L)
0.000
0.002
0.004
0.006
3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006
2007
2008
2009
2010
Sample quarter

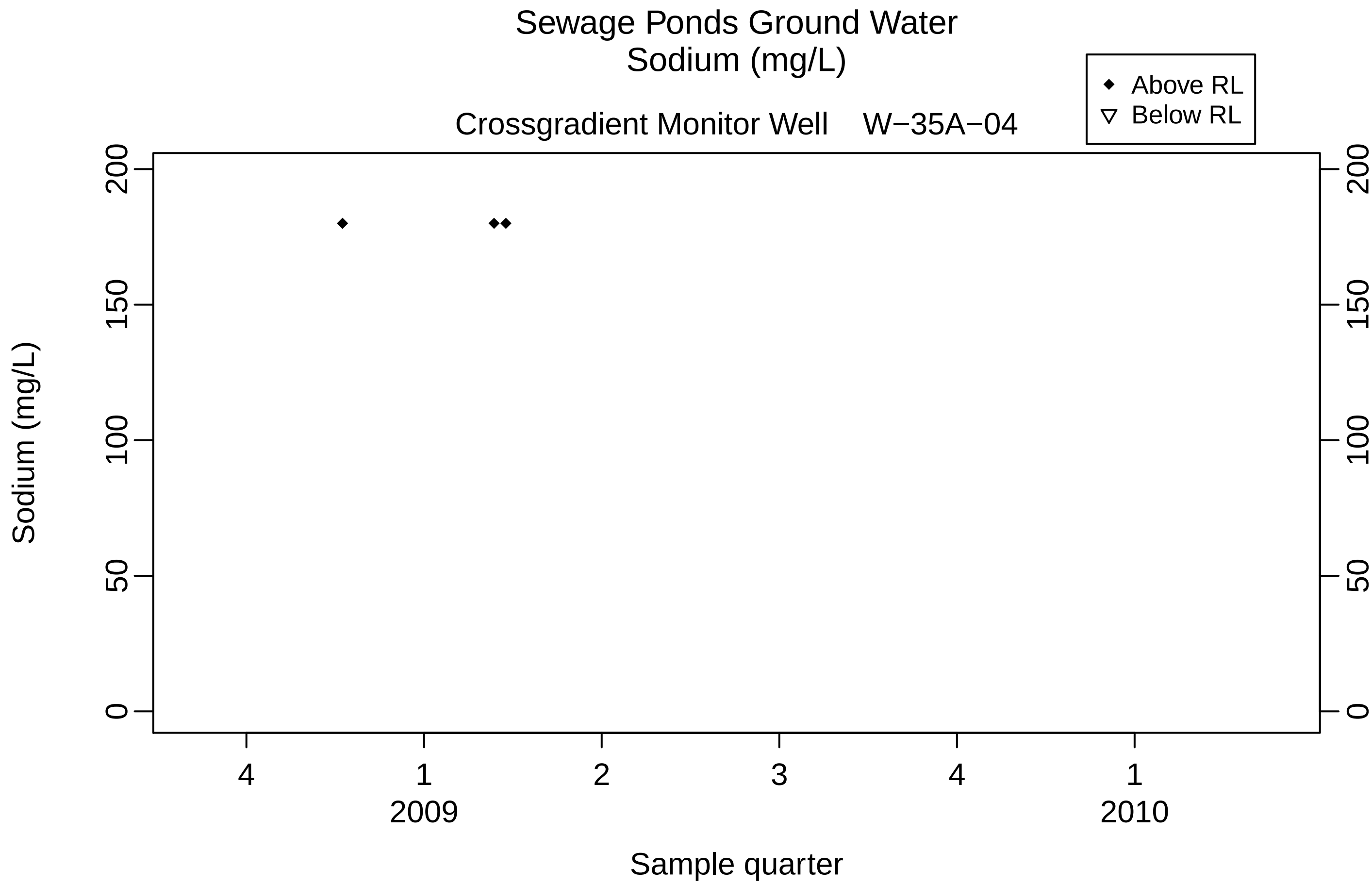
Sewage Ponds Ground Water
Sodium (mg/L)

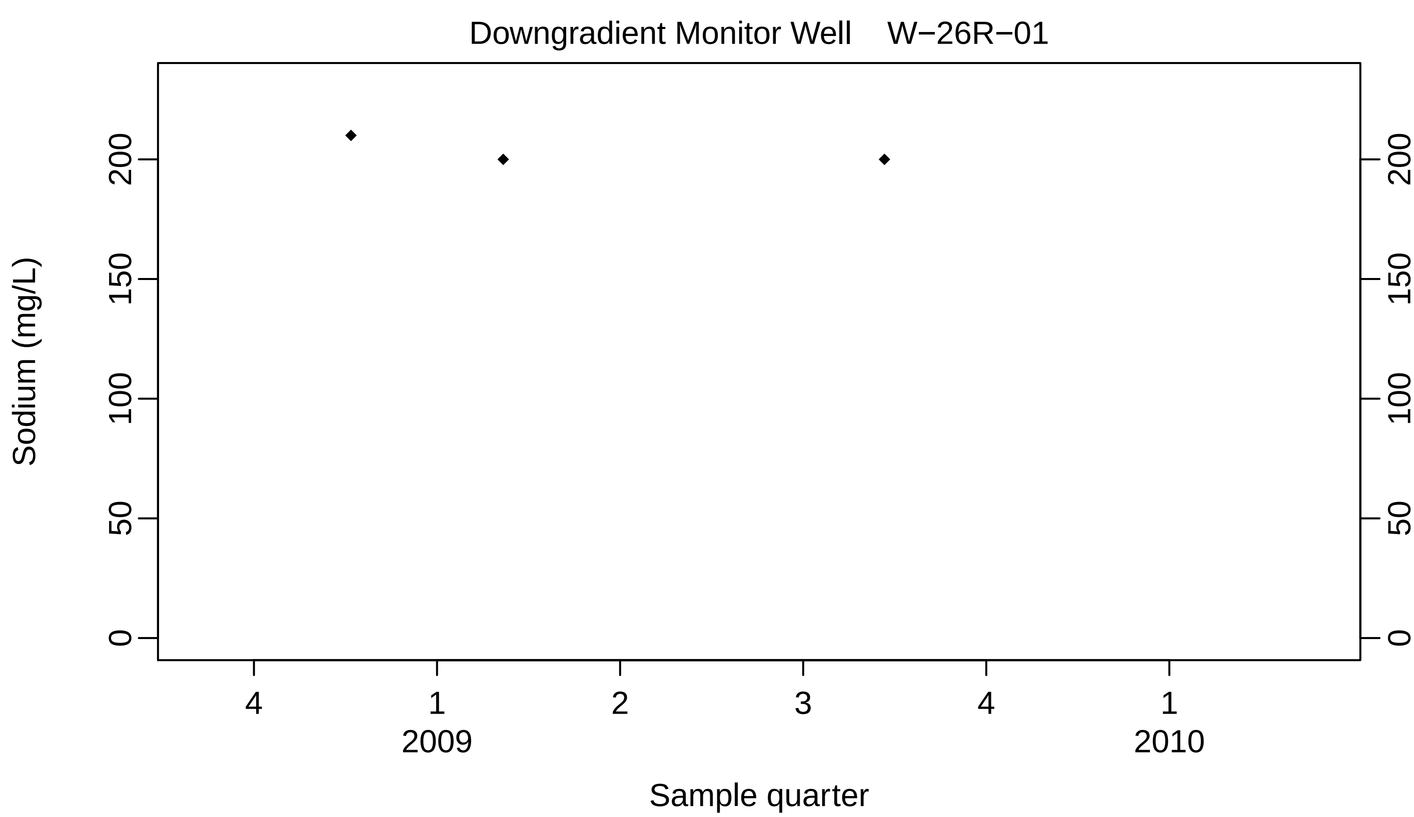
Upgradient Monitor Well W−7ES



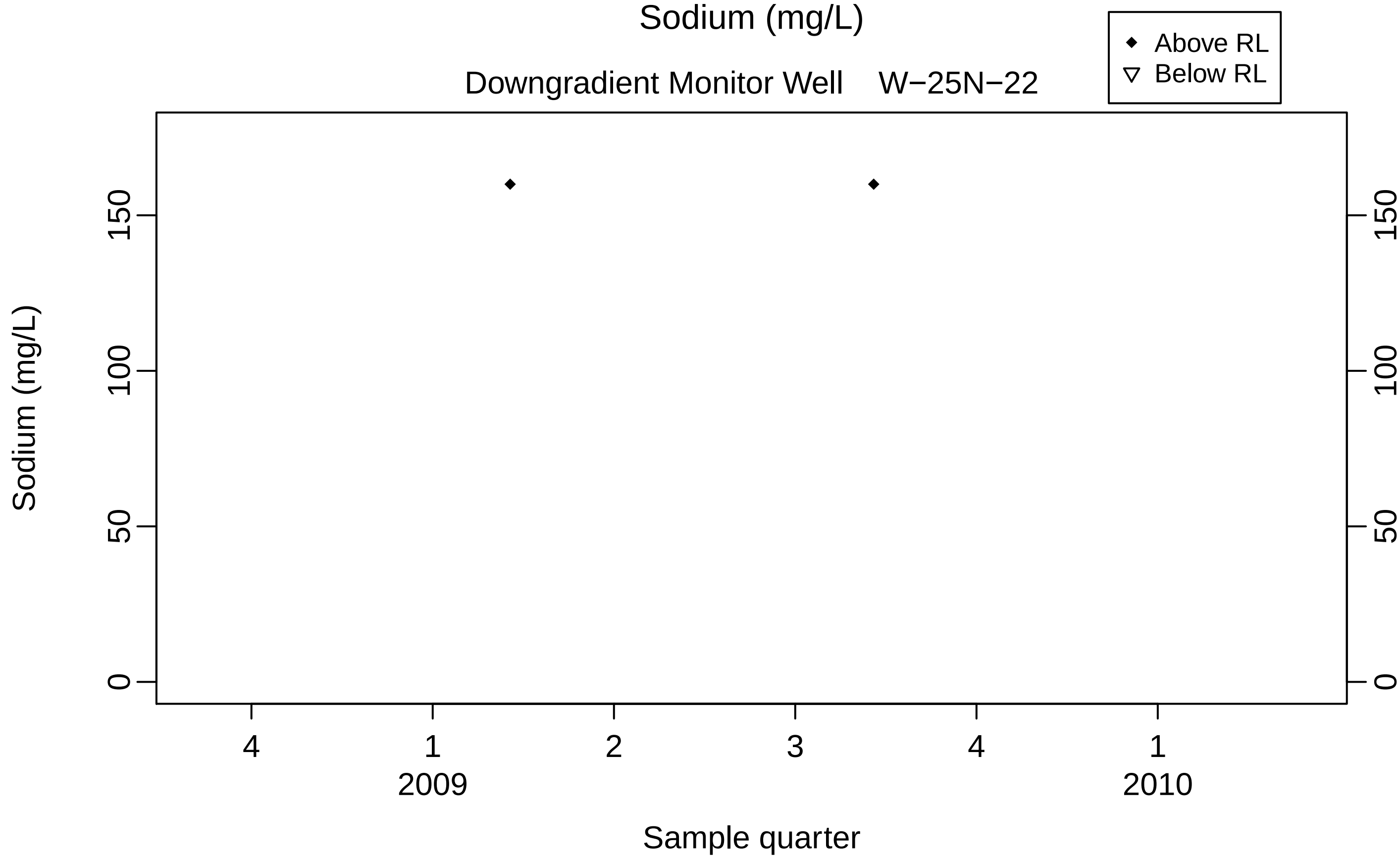
Upgradient Monitor Well W−7PS

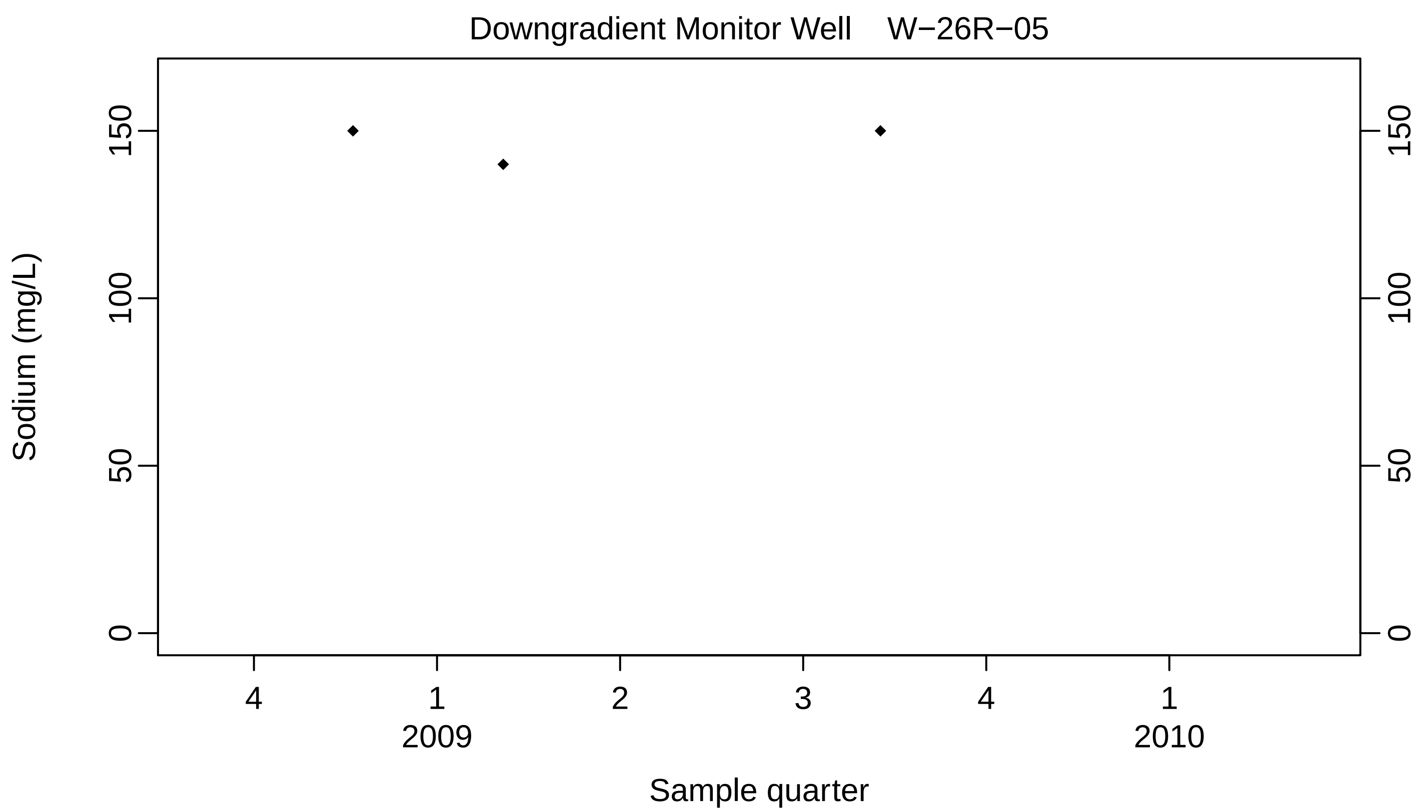


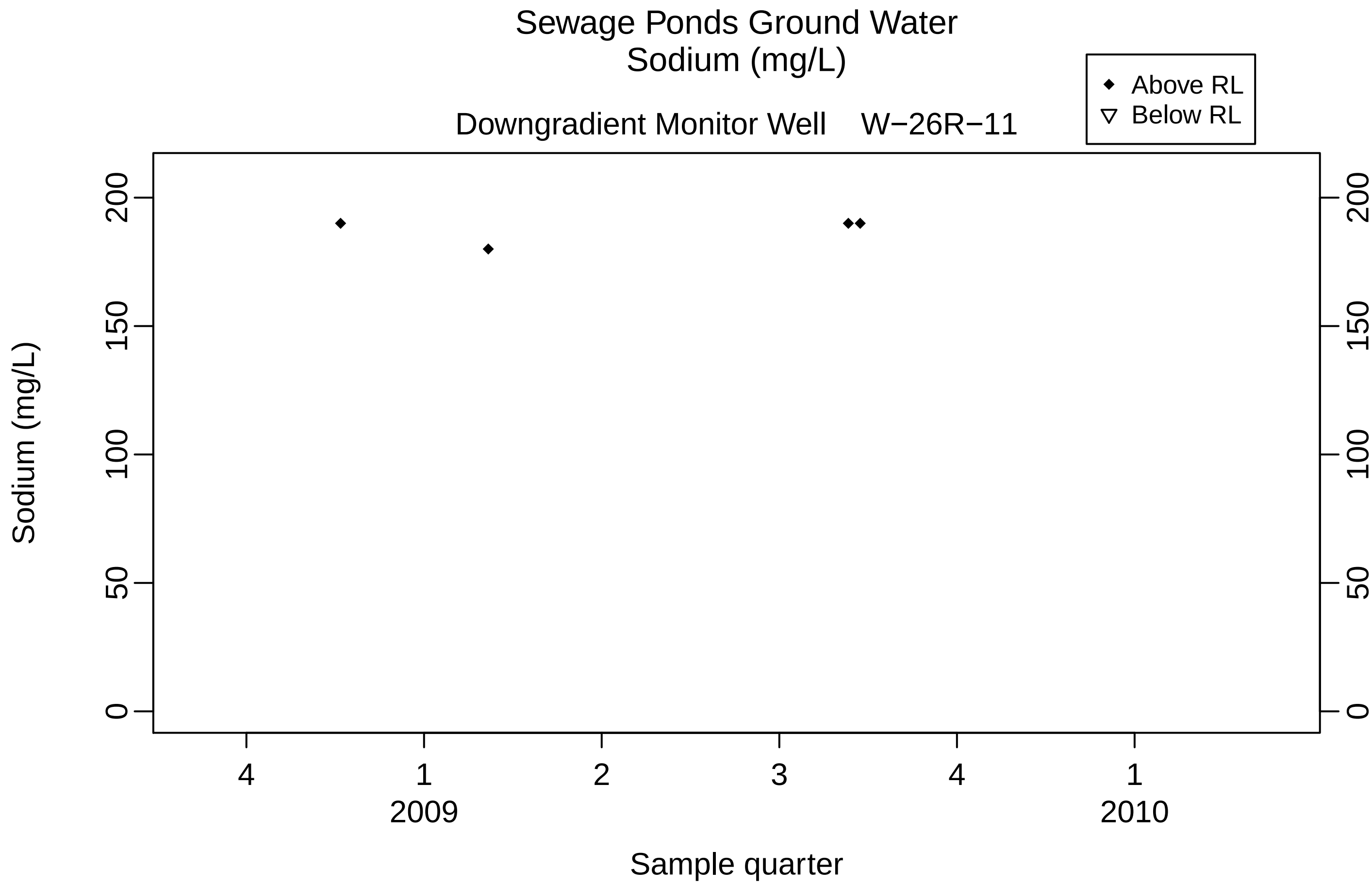

Sewage Ponds Ground Water
Sodium (mg/L)
Above RL
Below RL
Crossgradient Monitor Well W−35A−04
Sodium (mg/L)
0
50
100
150
200
4
1
2
3
4
1
2009
2010
Sample quarter

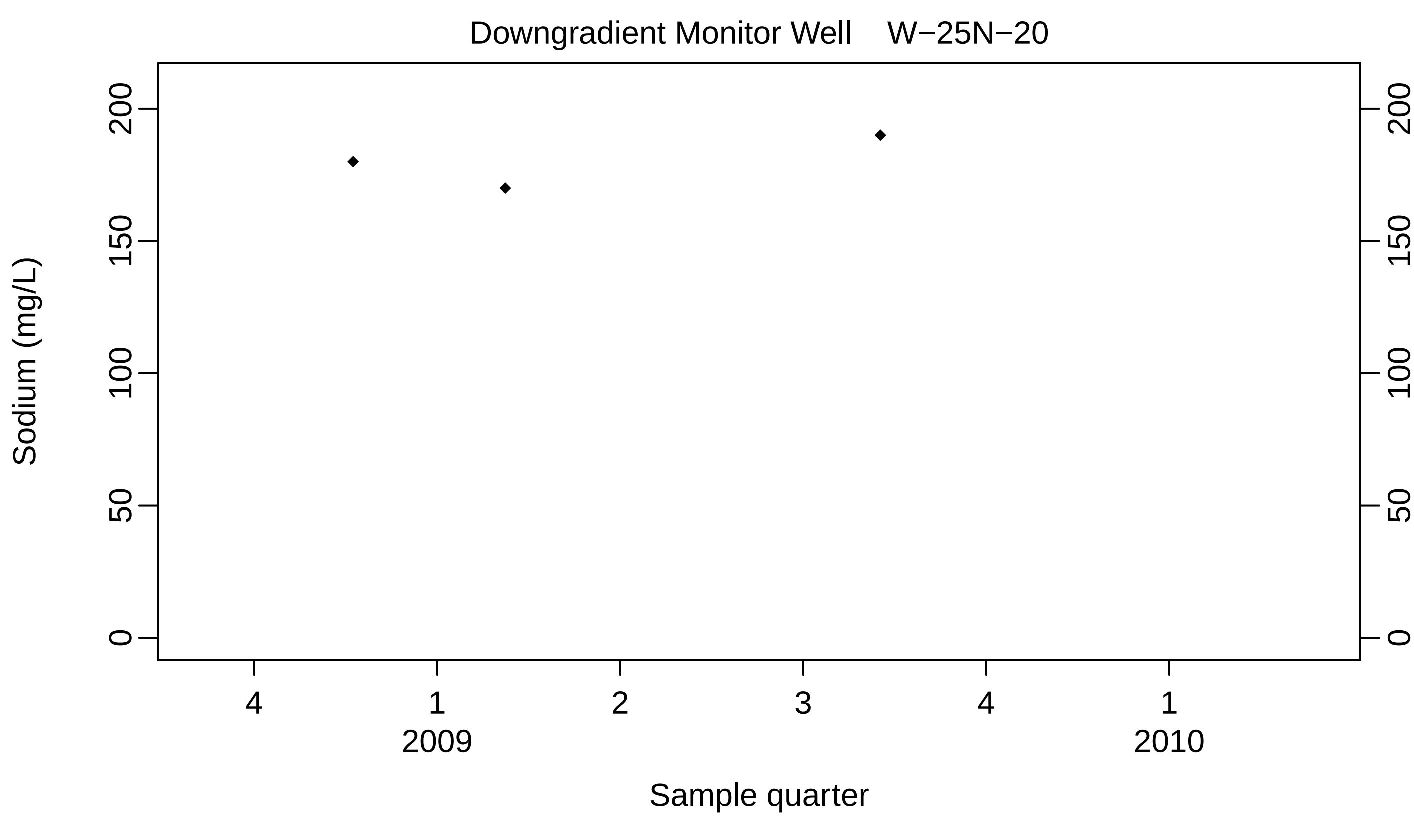

Downgradient Monitor Well W−26R−01
Sodium (mg/L)
0
50
100
150
200
4
1
2
3
4
1
2009
2010
Sample quarter

Sewage Ponds Ground Water
Sodium (mg/L)

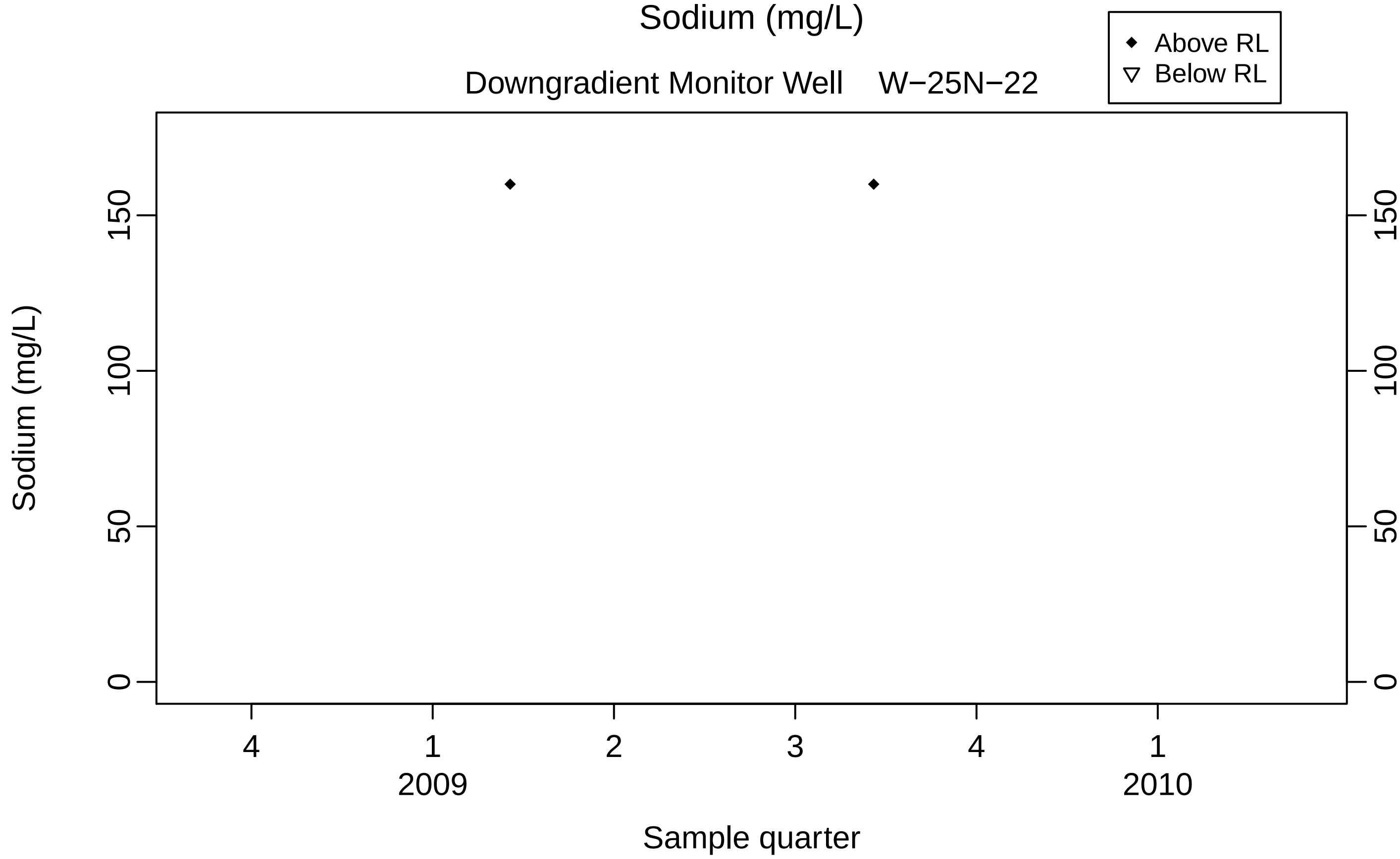


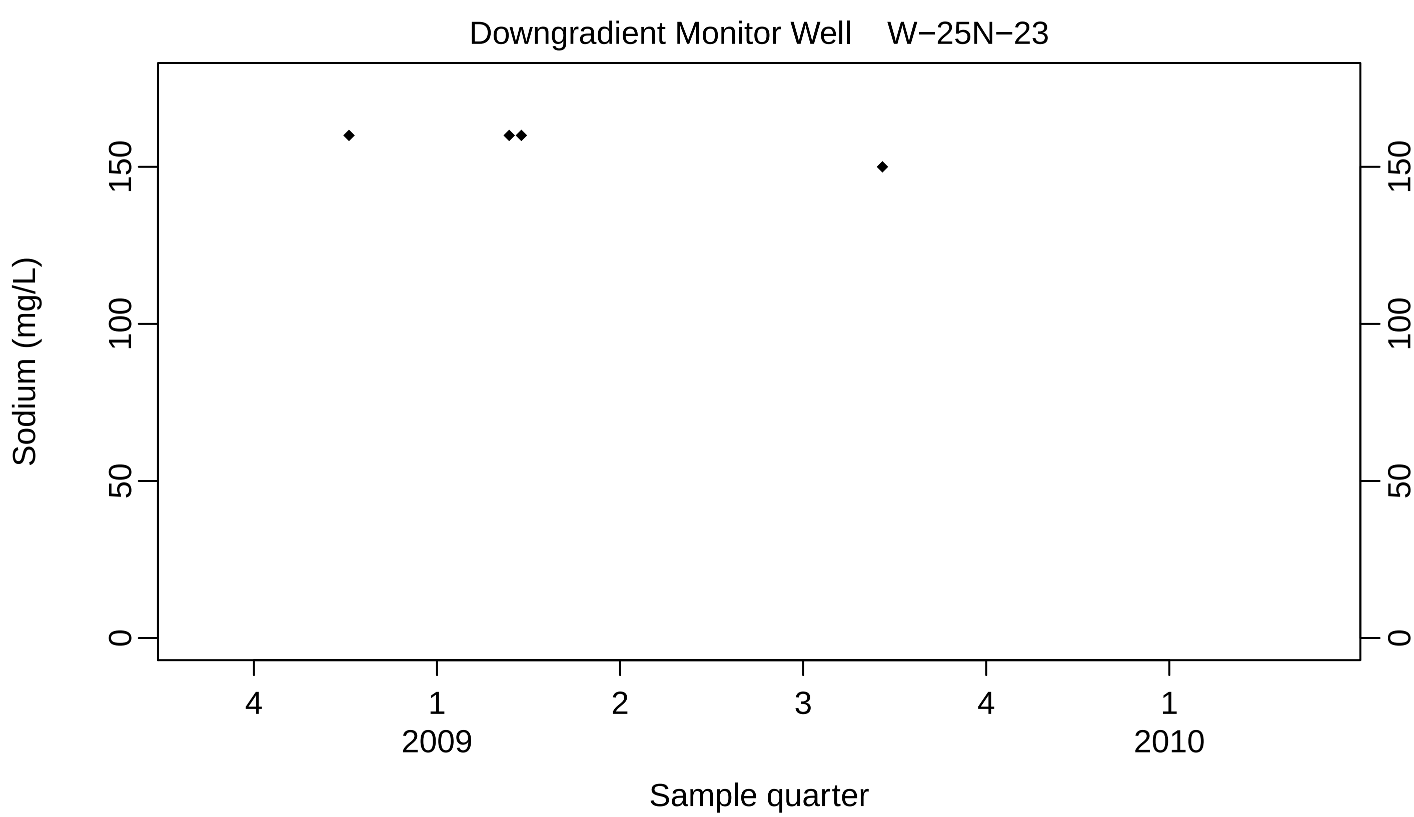


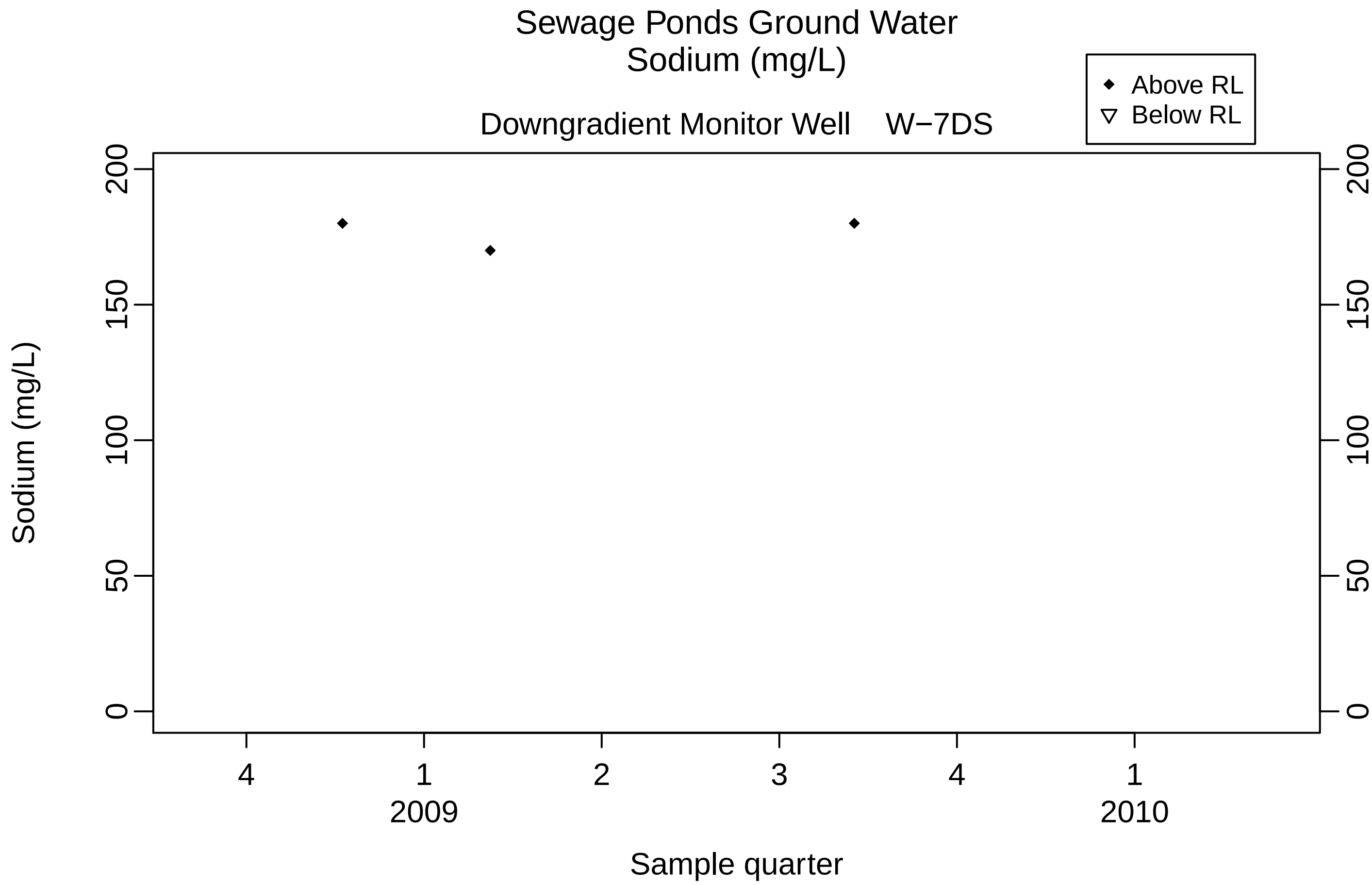

Sewage Ponds Ground Water
Sodium (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−26R−11
Sodium (mg/L)
0
50
100
150
200
4
1
2
3
4
1
2009
2010
Sample quarter


Downgradient Monitor Well W−25N−20
Sodium (mg/L)
0
50
100
150
200
4
1
2
3
4
1
2009
2010
Sample quarter

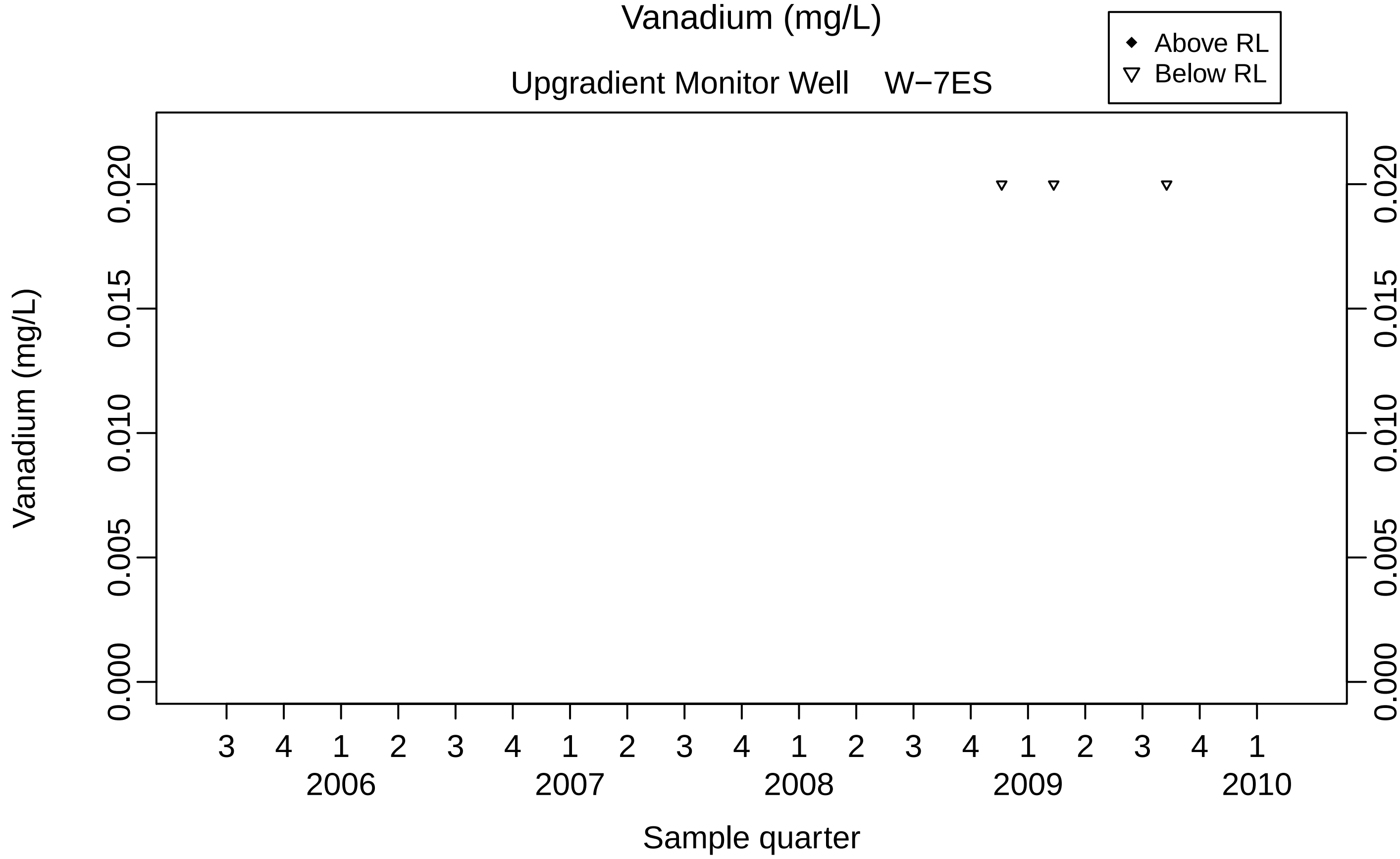
Sewage Ponds Ground Water
Sodium (mg/L)

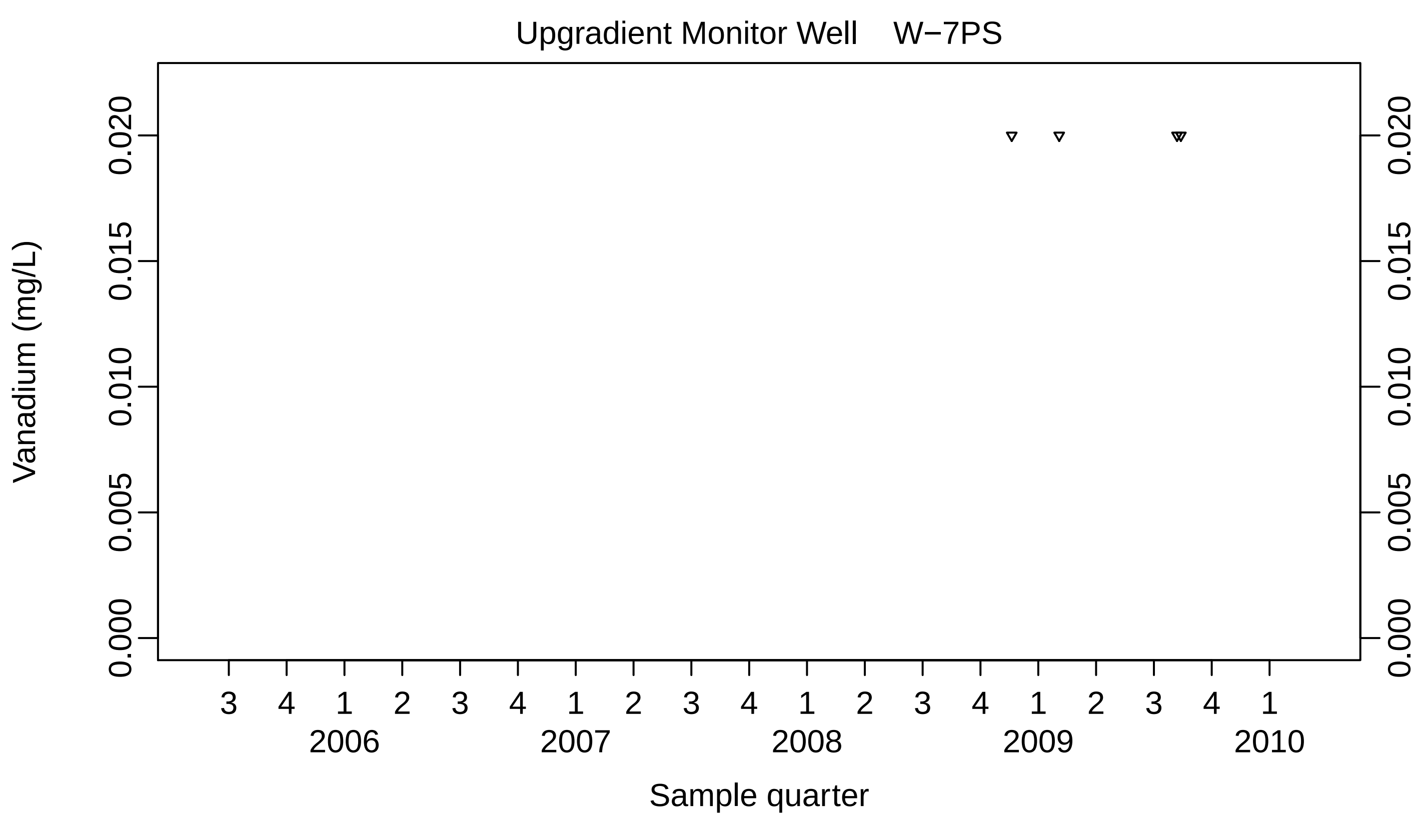




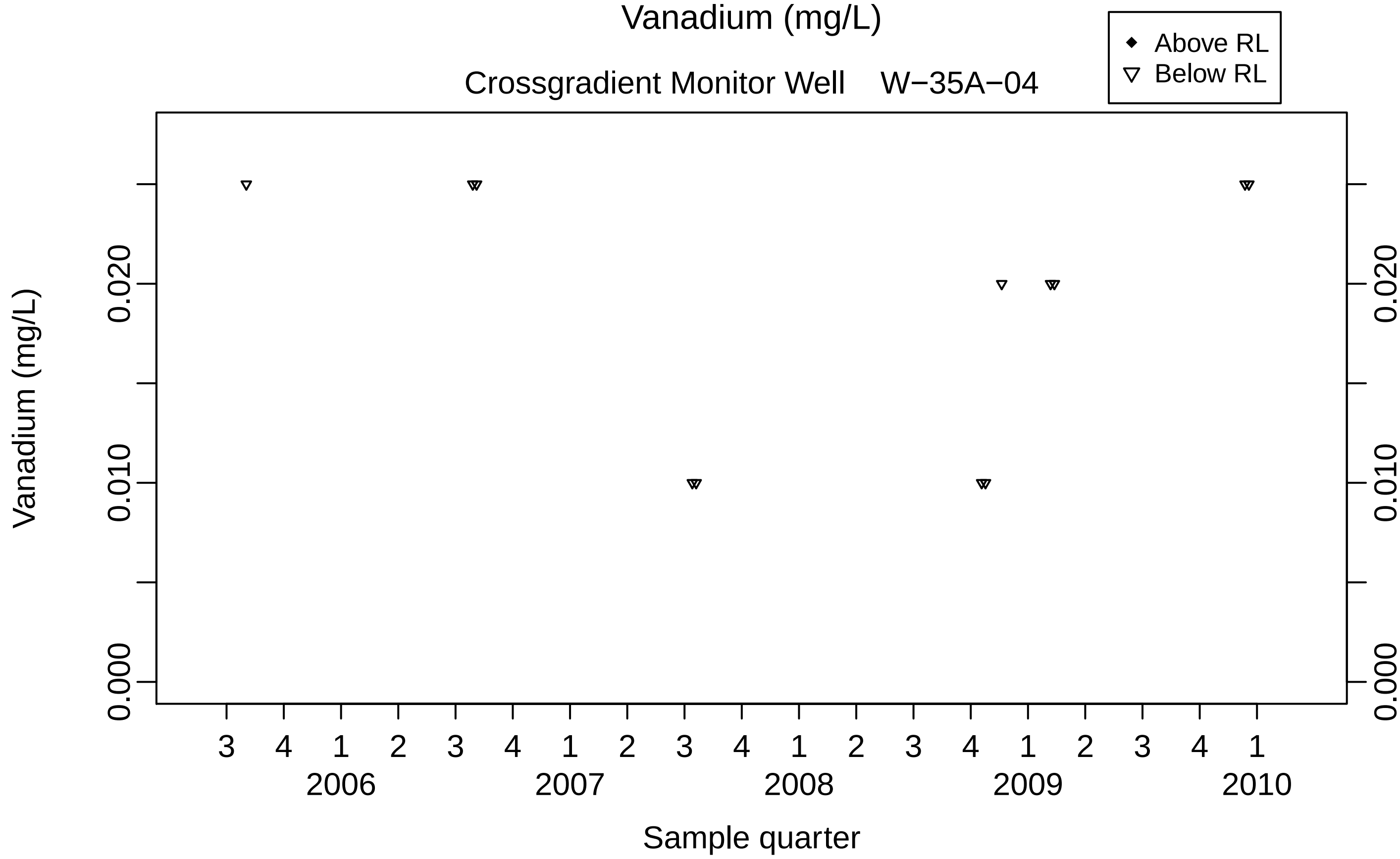

Sewage Ponds Ground Water
Sodium (mg/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Sodium (mg/L)
0
50
100
150
200
4
1
2
3
4
1
2009
2010
Sample quarter

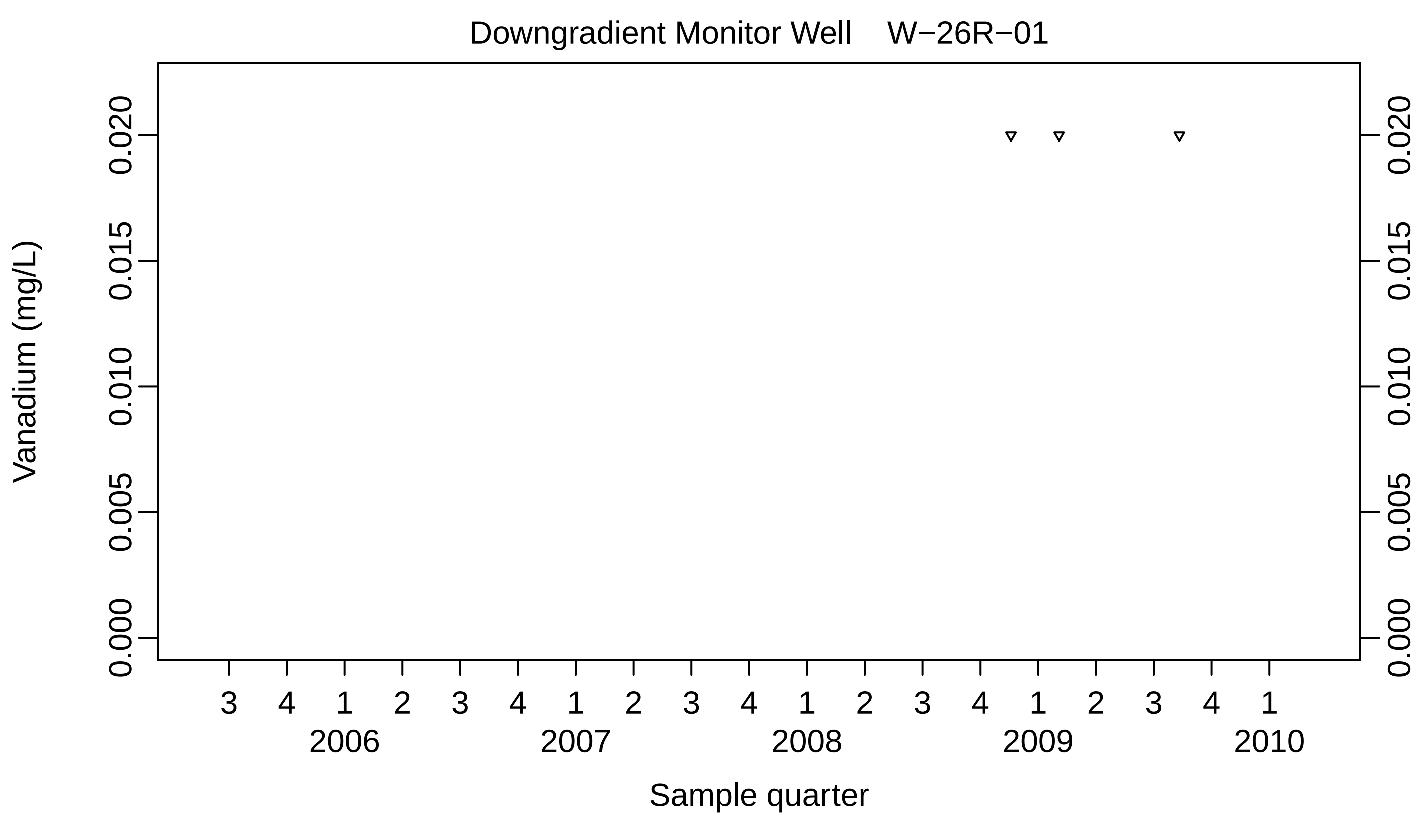
Sewage Ponds Ground Water
Vanadium (mg/L)



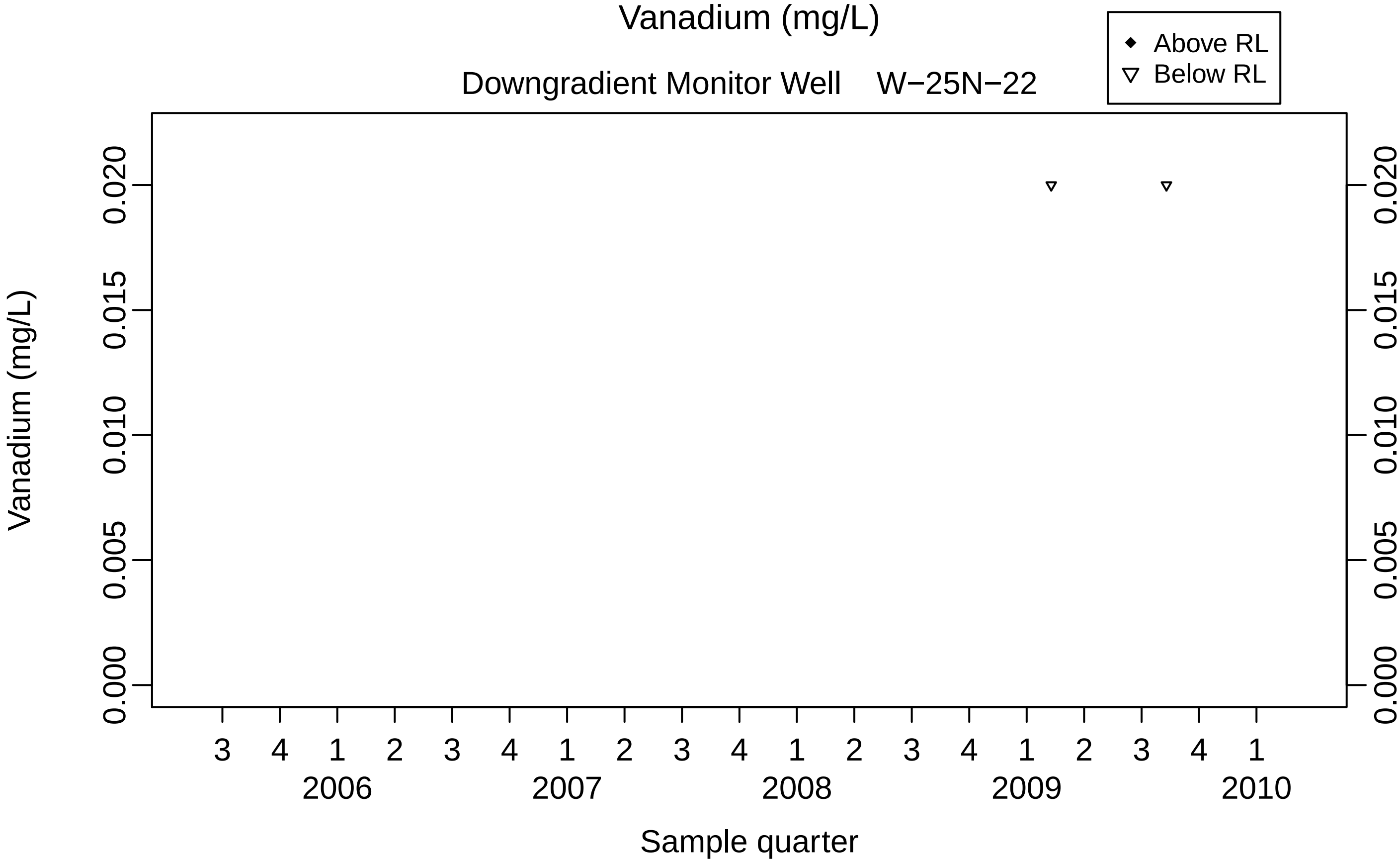


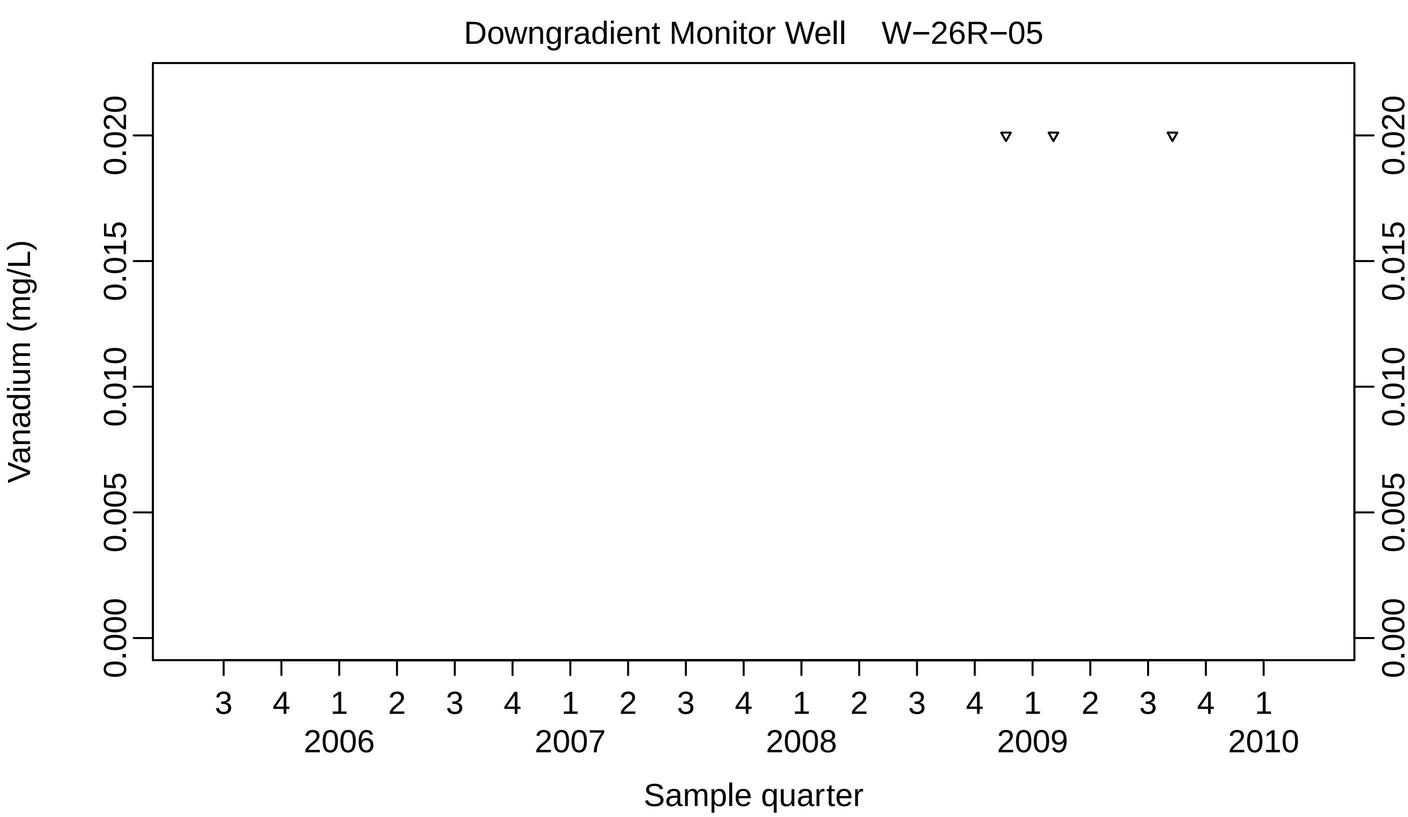
Sewage Ponds Ground Water
Vanadium (mg/L)



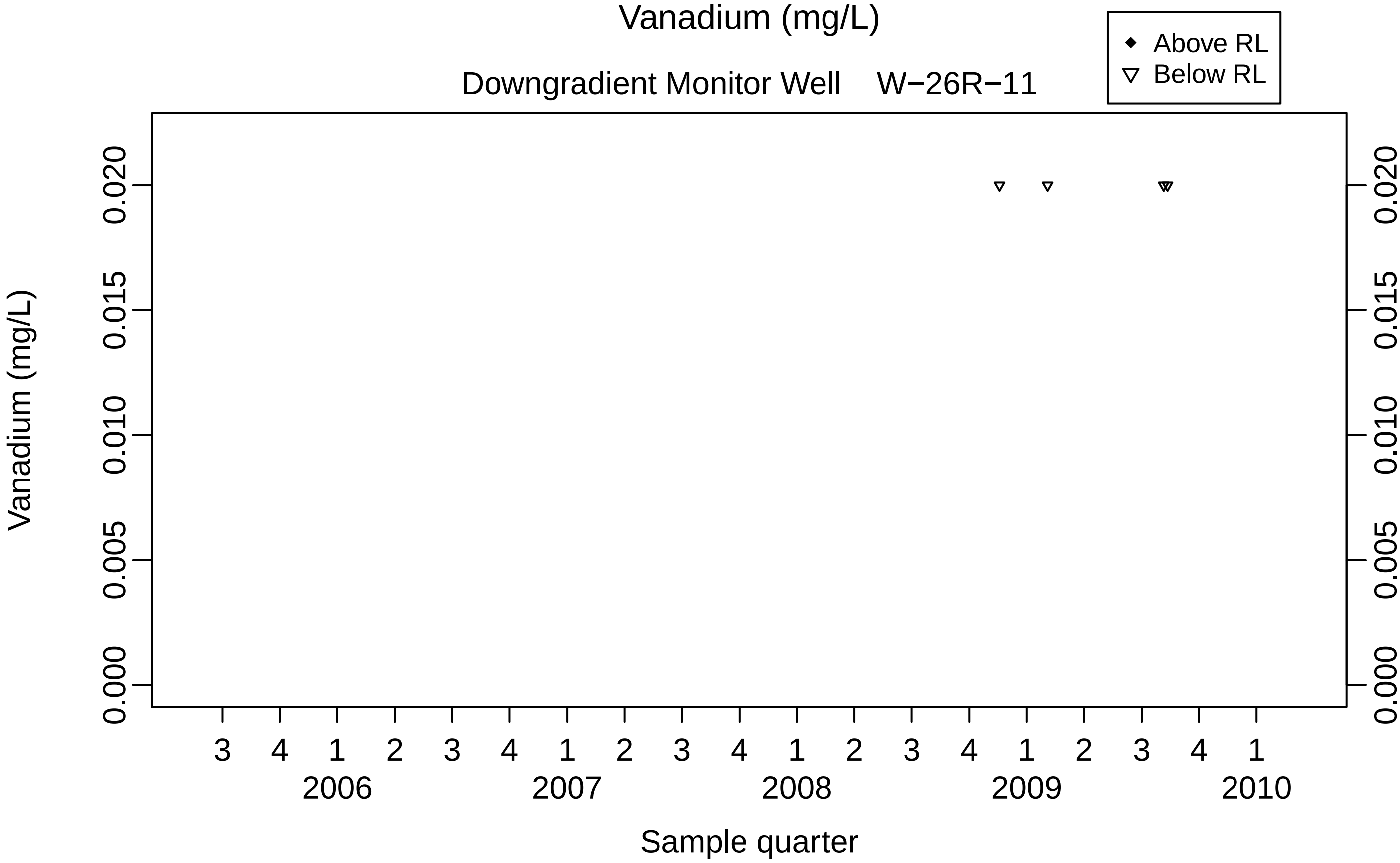


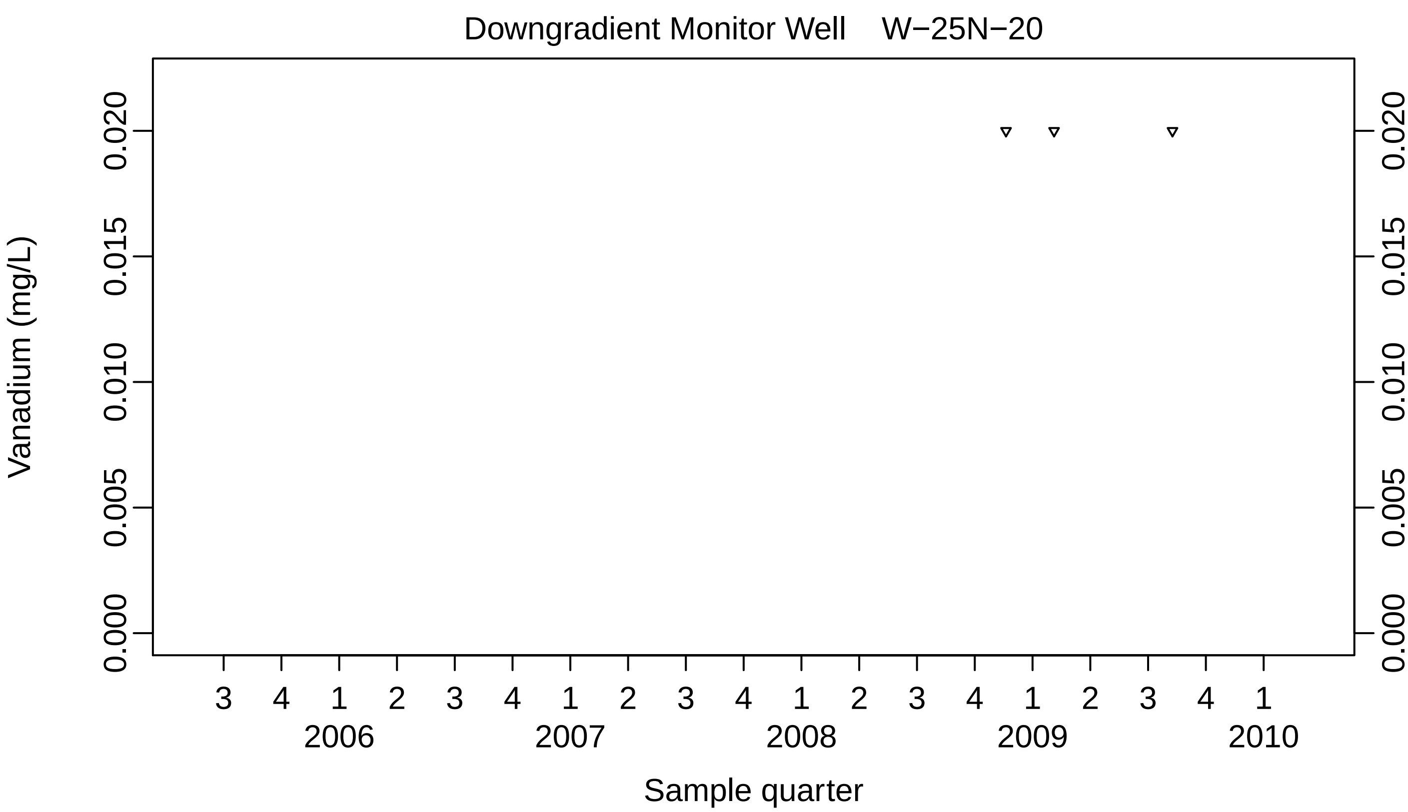
Sewage Ponds Ground Water
Vanadium (mg/L)



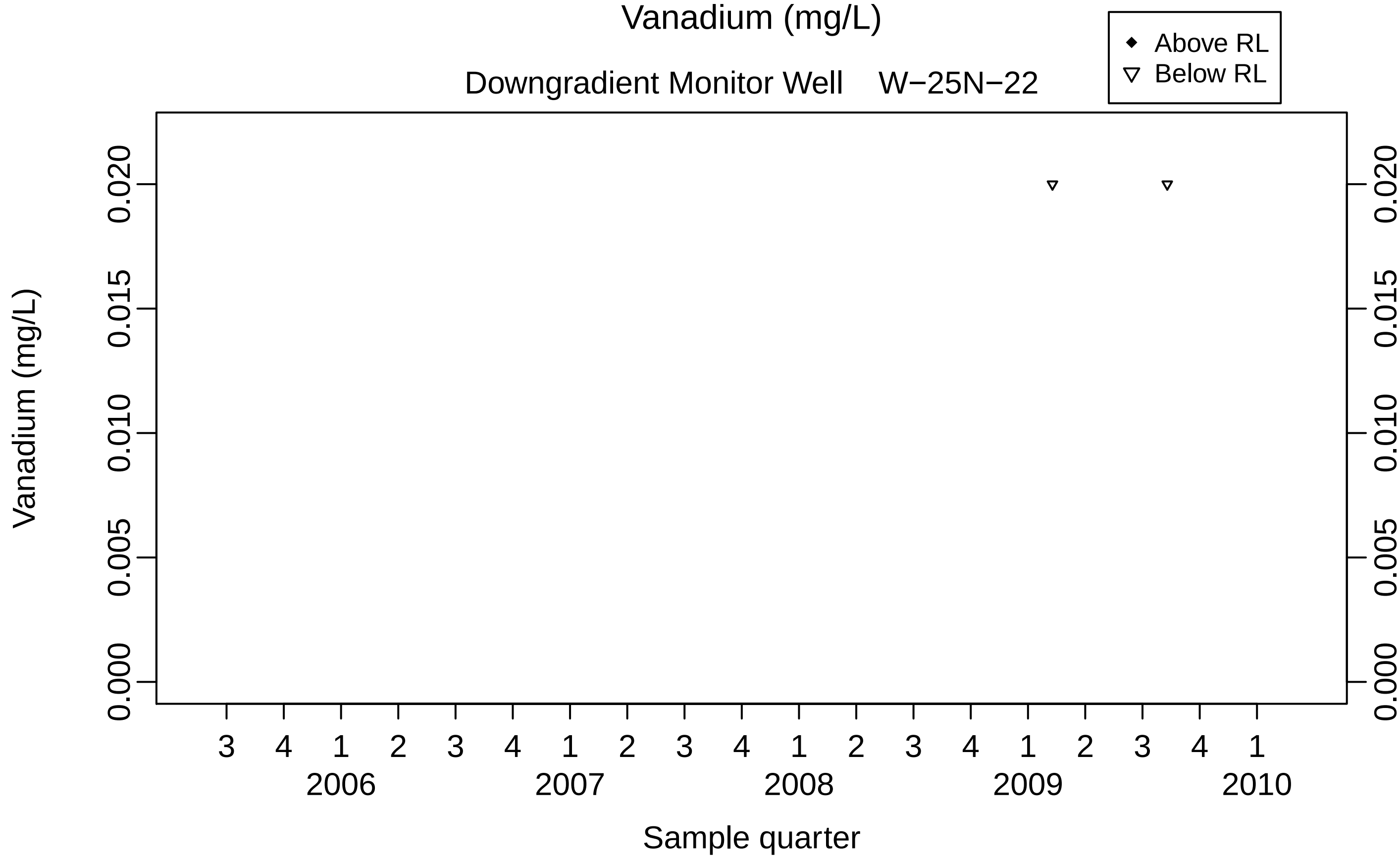


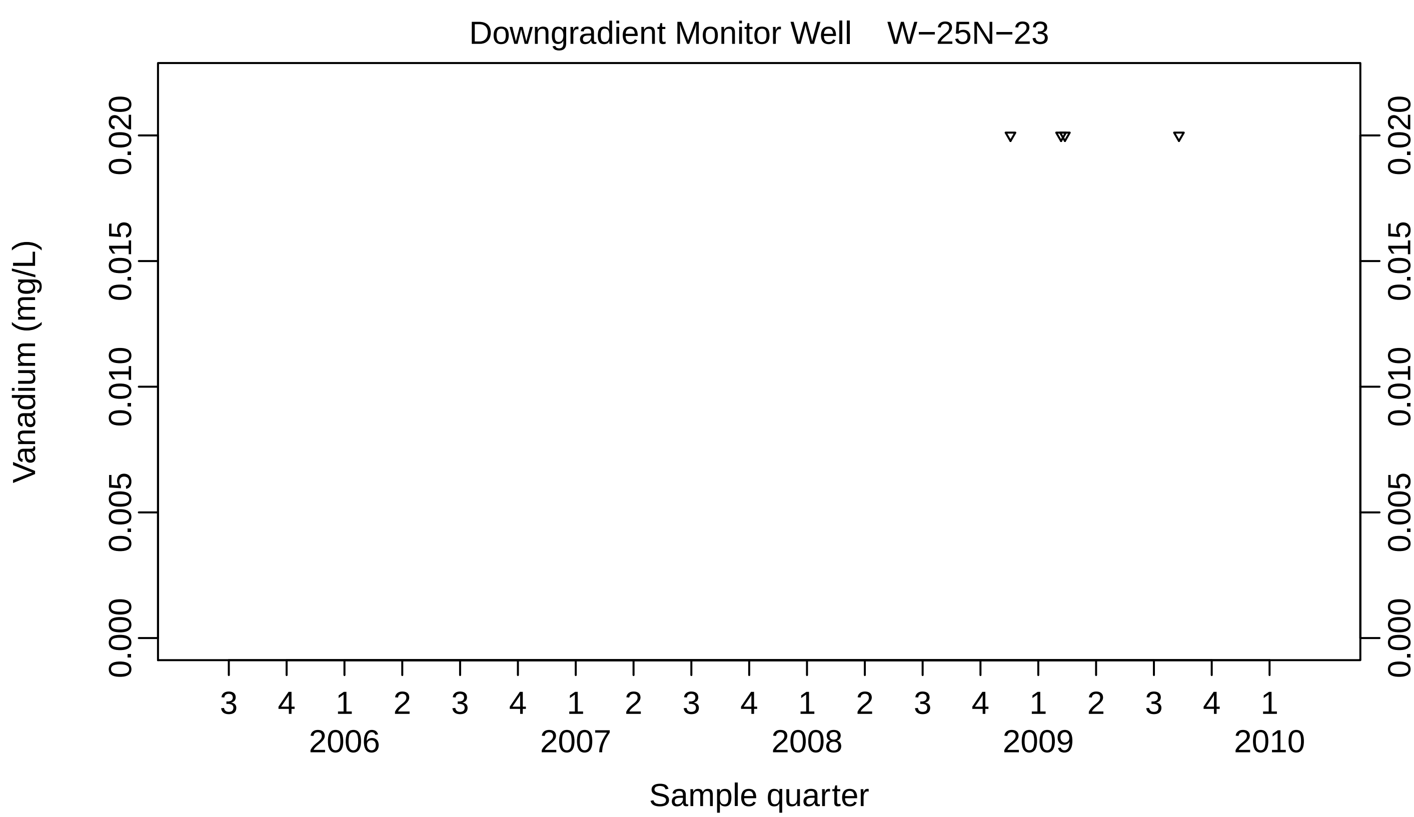
Sewage Ponds Ground Water
Vanadium (mg/L)

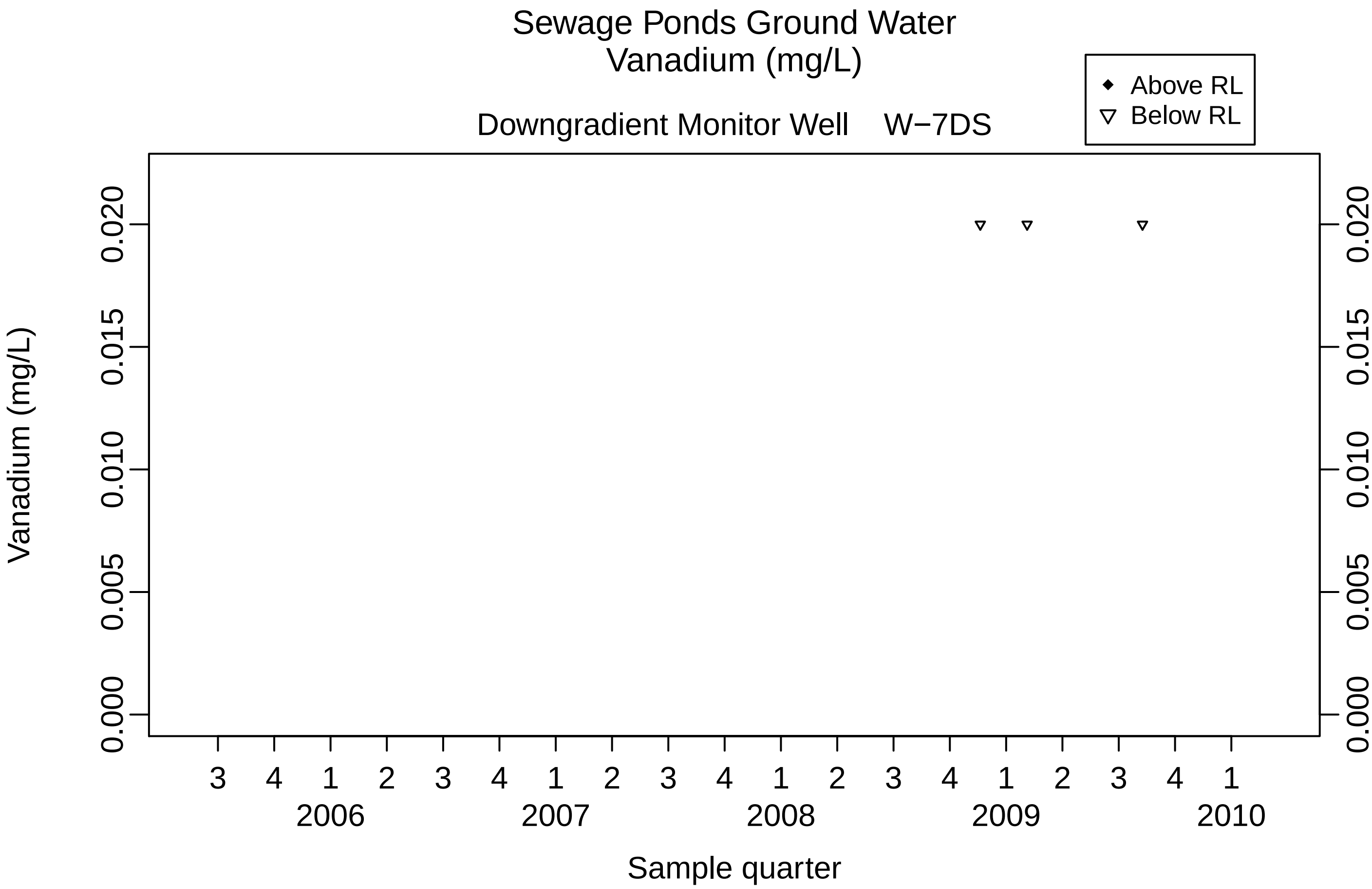


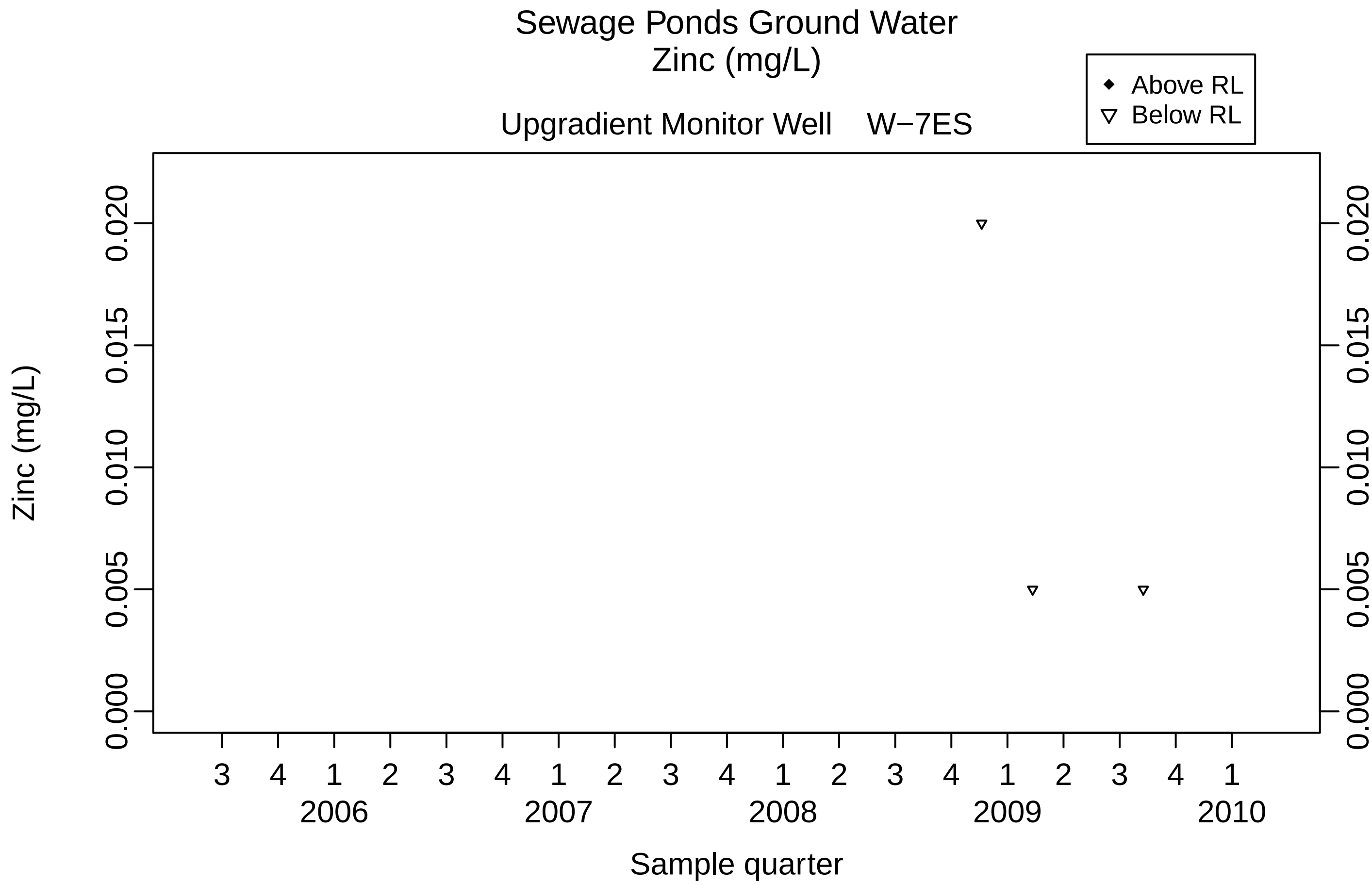


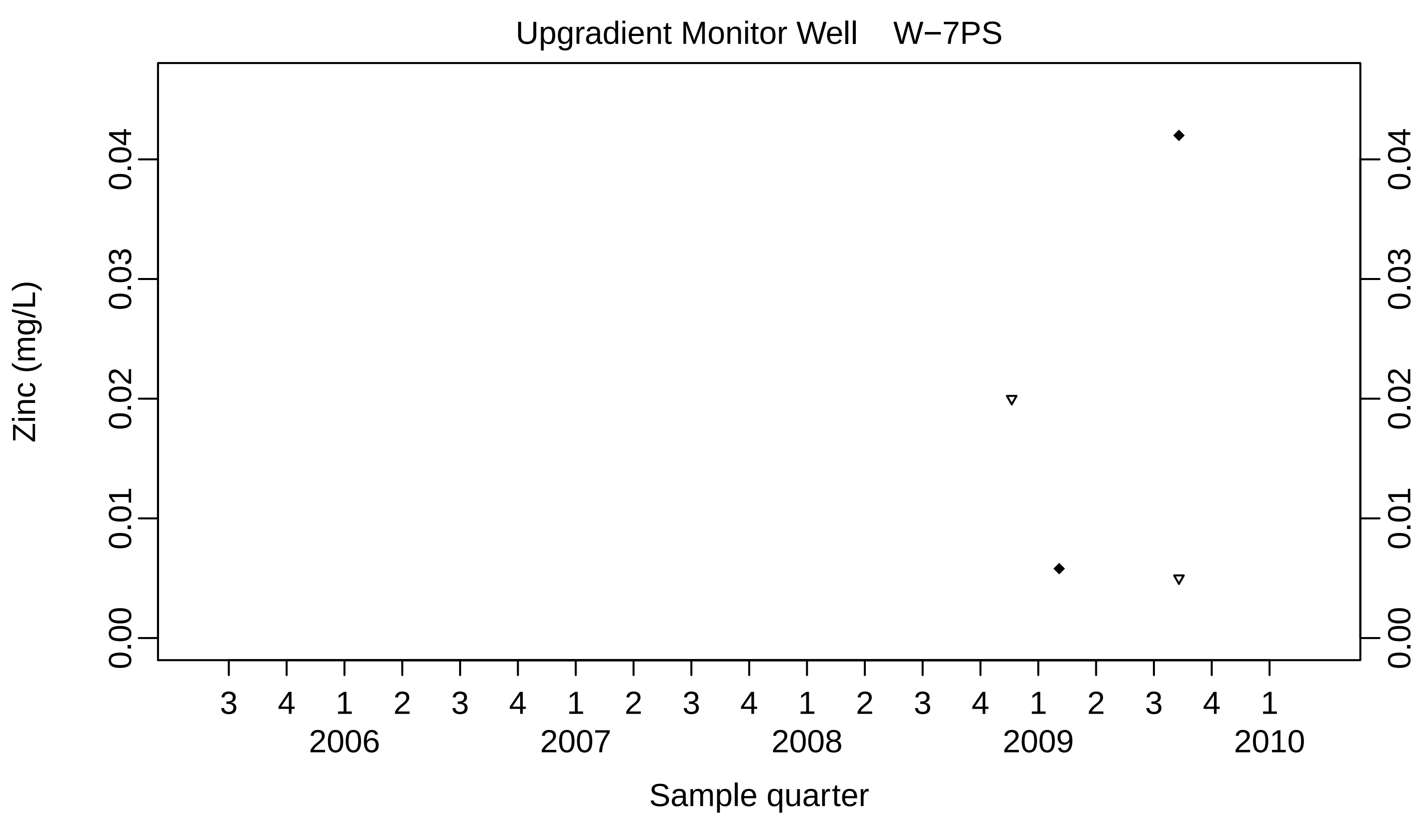
Sewage Ponds Ground Water
Vanadium (mg/L)



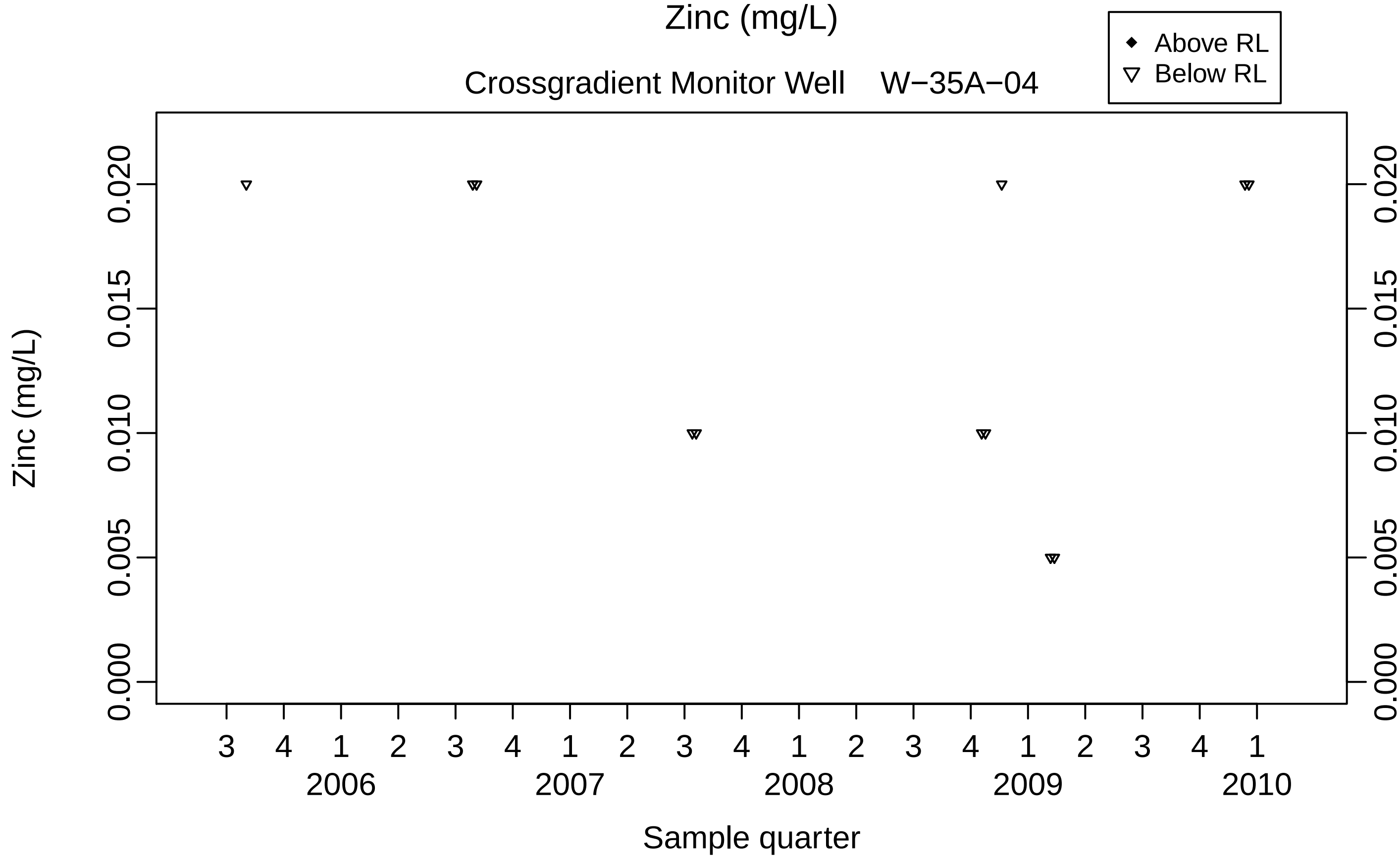


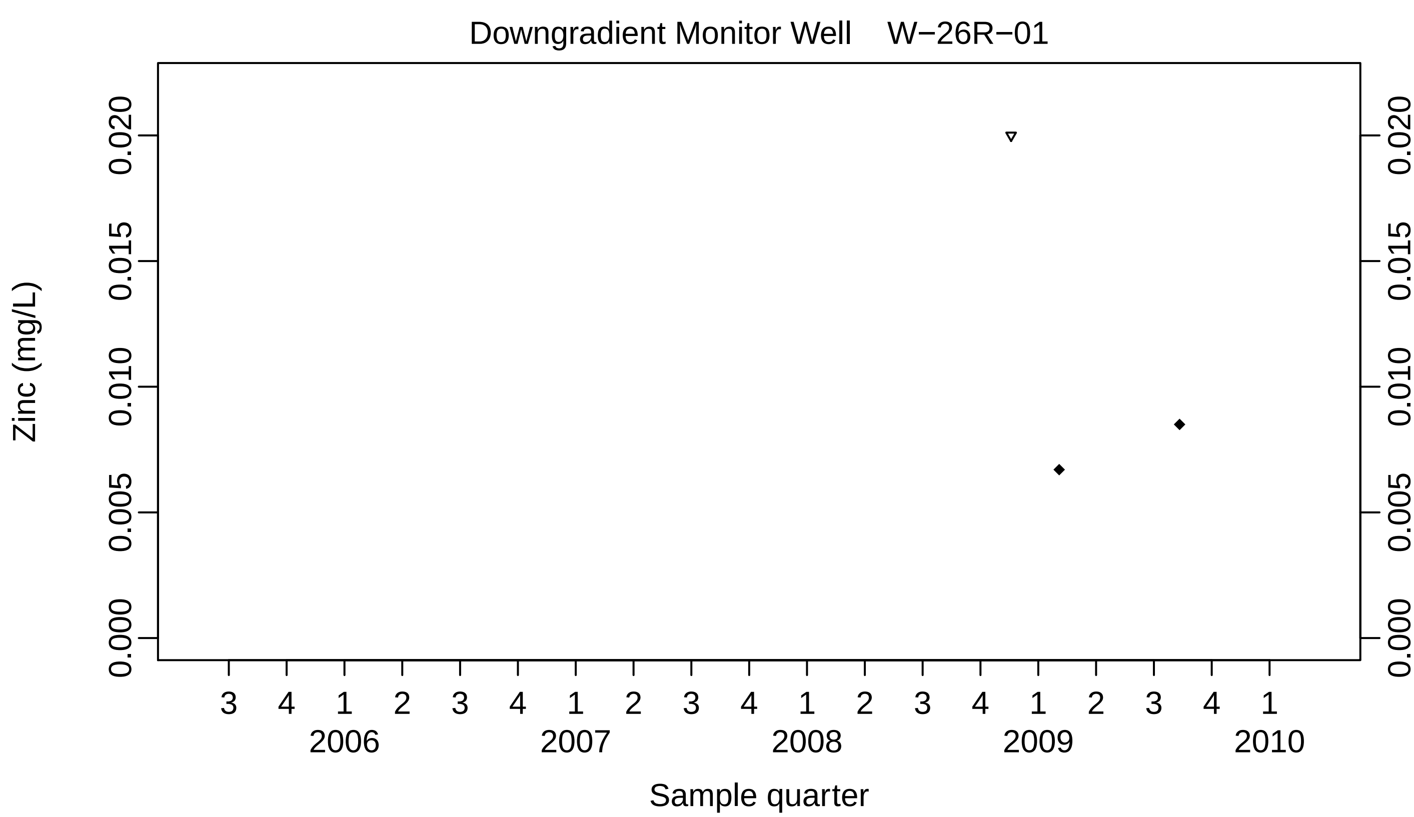

Sewage Ponds Ground Water
Vanadium (mg/L)
Downgradient Monitor Well W−7DS
Above RL
Below RL
Vanadium (mg/L)
0.000
0.005
0.010
0.015
0.020
3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006
2007
2008
2009
2010
Sample quarter


Sewage Ponds Ground Water
Zinc (mg/L)
Above RL
Below RL
Upgradient Monitor Well W−7ES
Zinc (mg/L)
0.000
0.005
0.010
0.015
0.020
3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006
2007
2008
2009
2010
Sample quarter

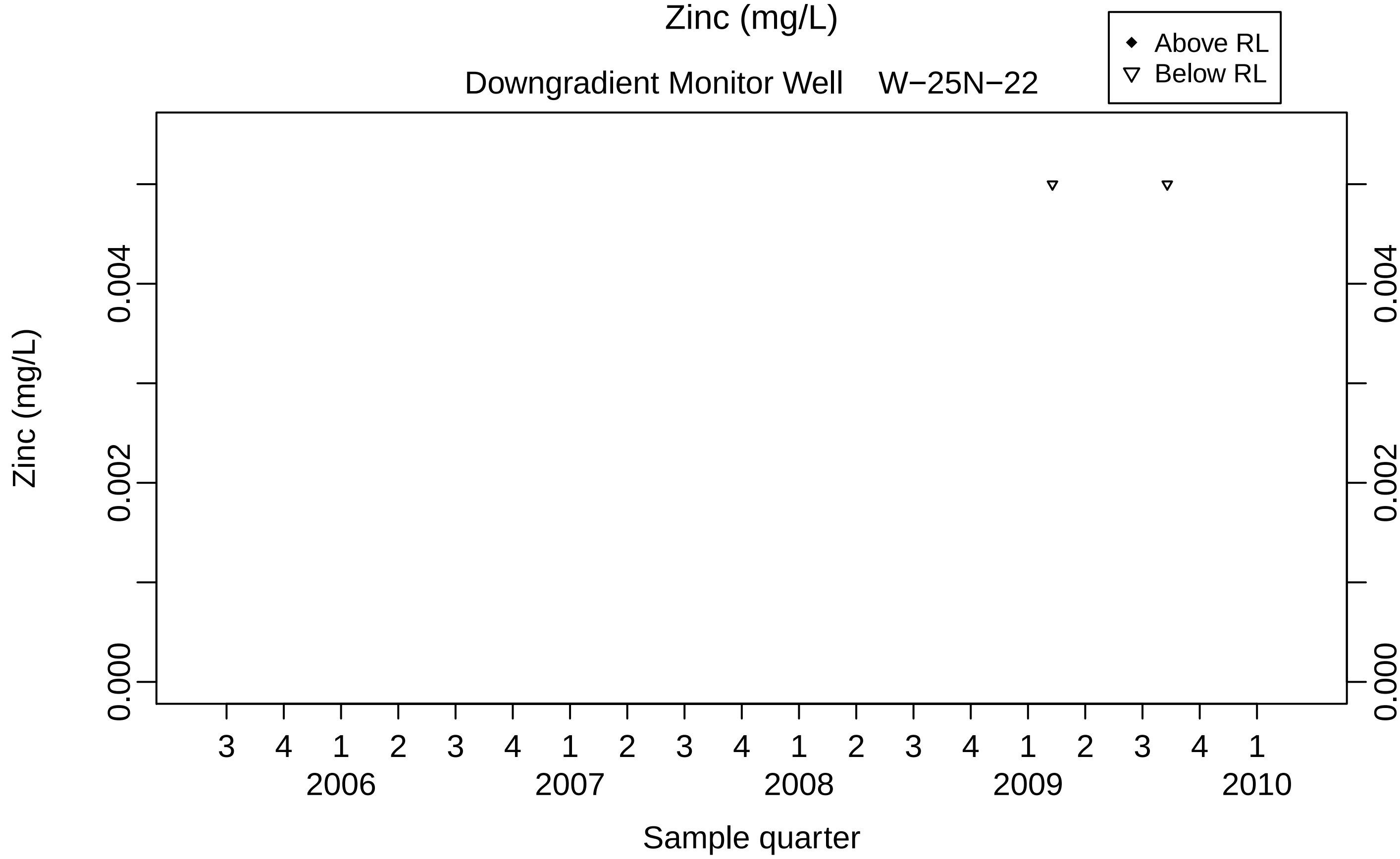

Upgradient Monitor Well W−7PS
Zinc (mg/L)
0.00
0.01
0.02
0.03
0.04
3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006
2007
2008
2009
2010
Sample quarter

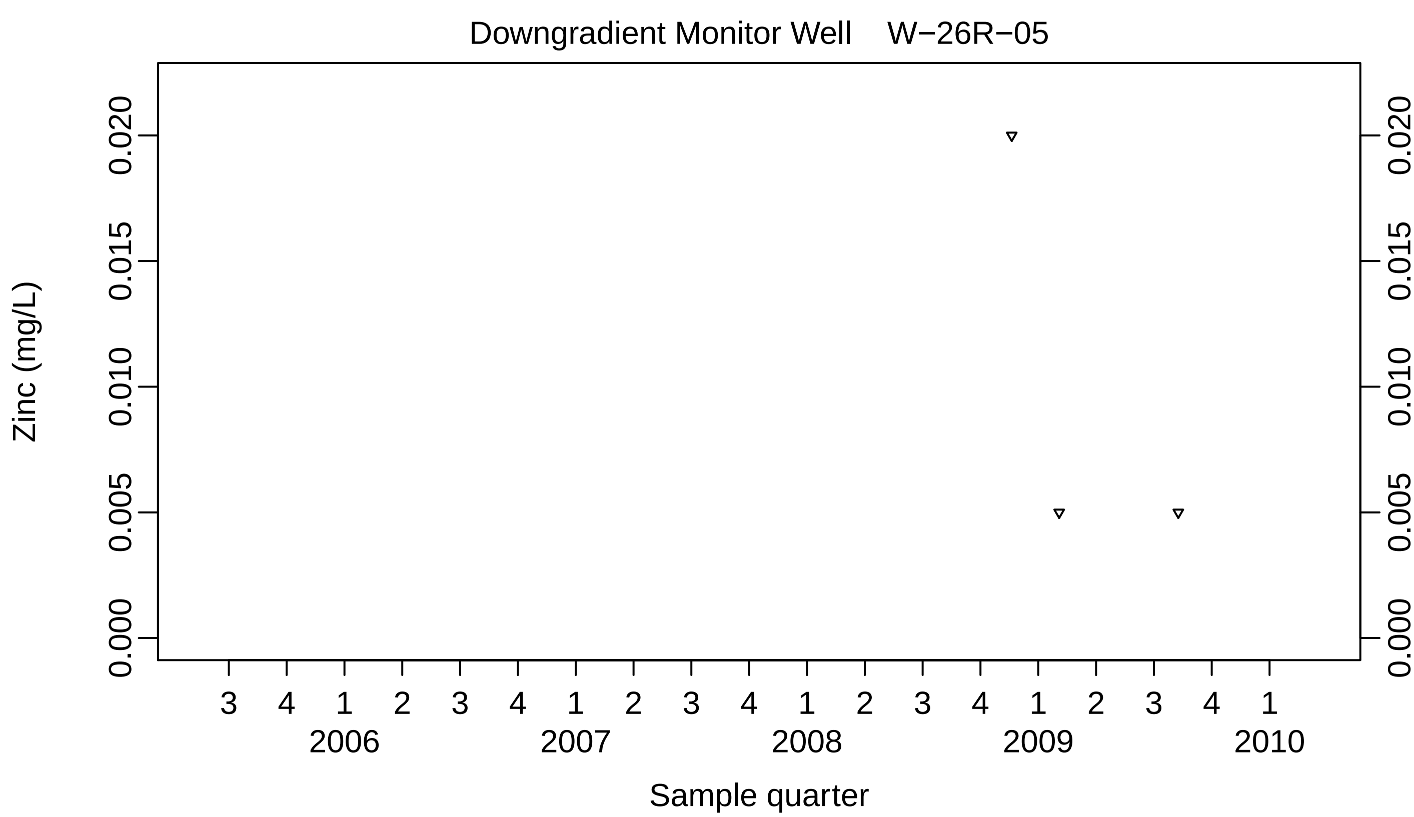
Sewage Ponds Ground Water
Zinc (mg/L)



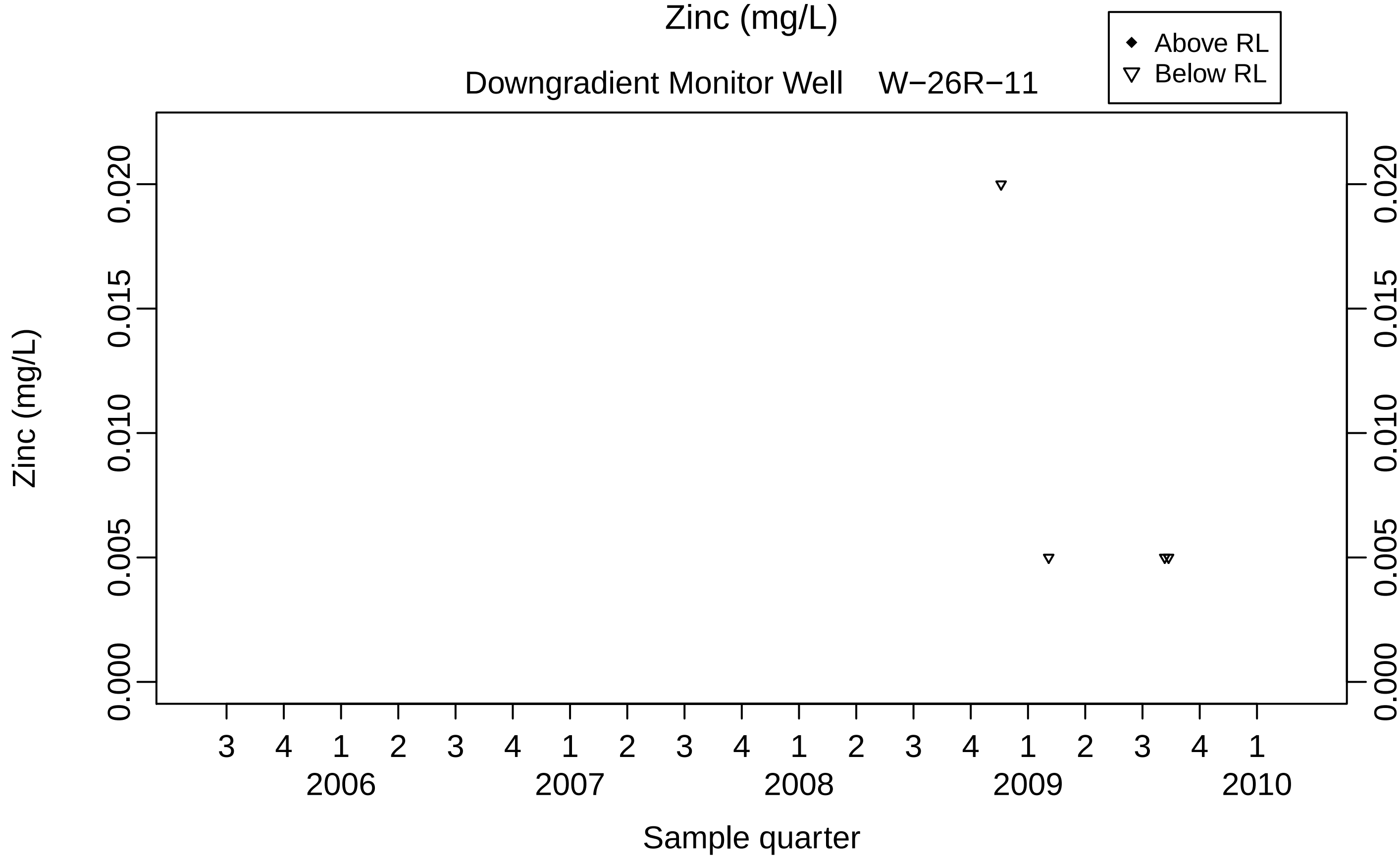


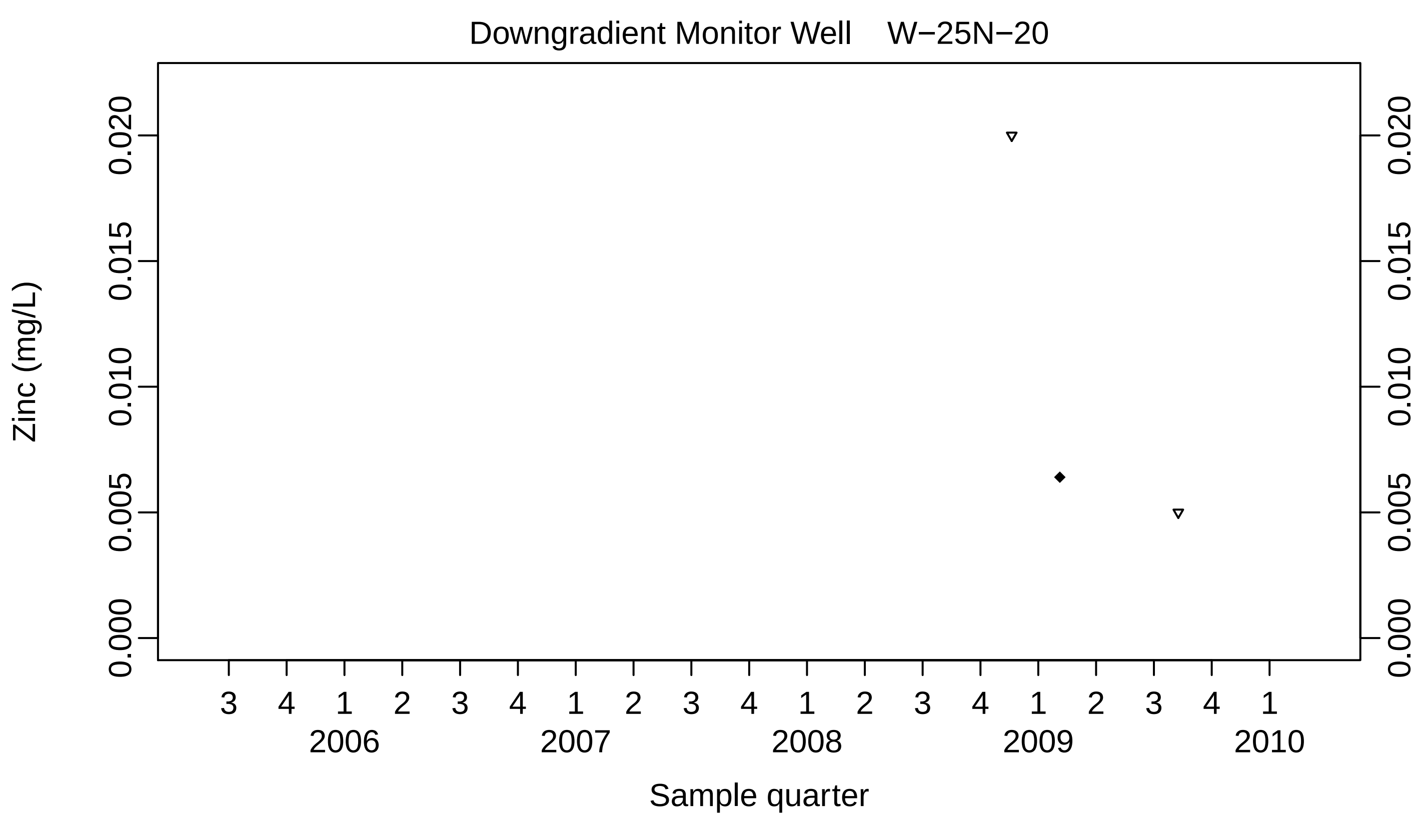
Sewage Ponds Ground Water
Zinc (mg/L)

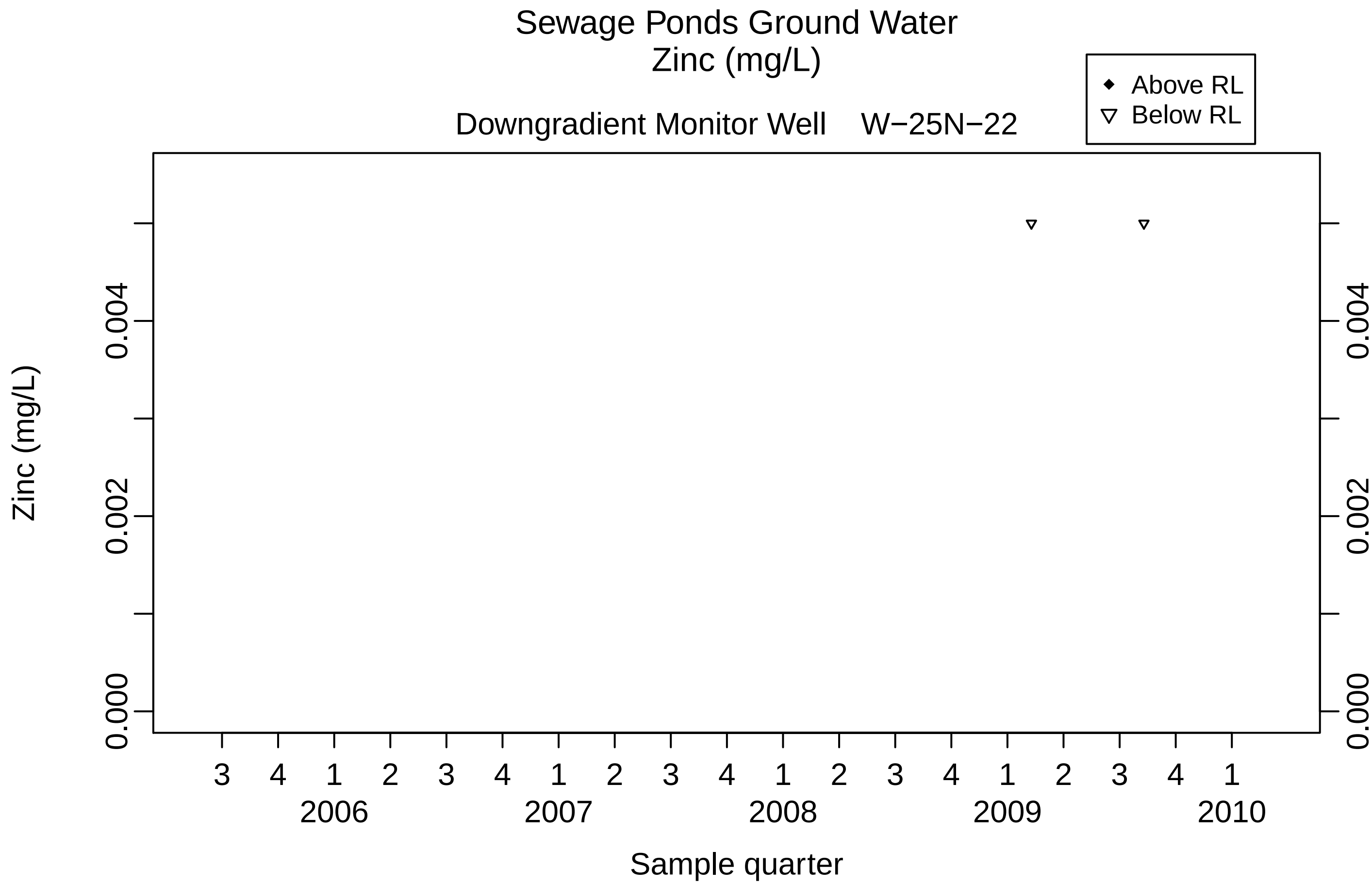


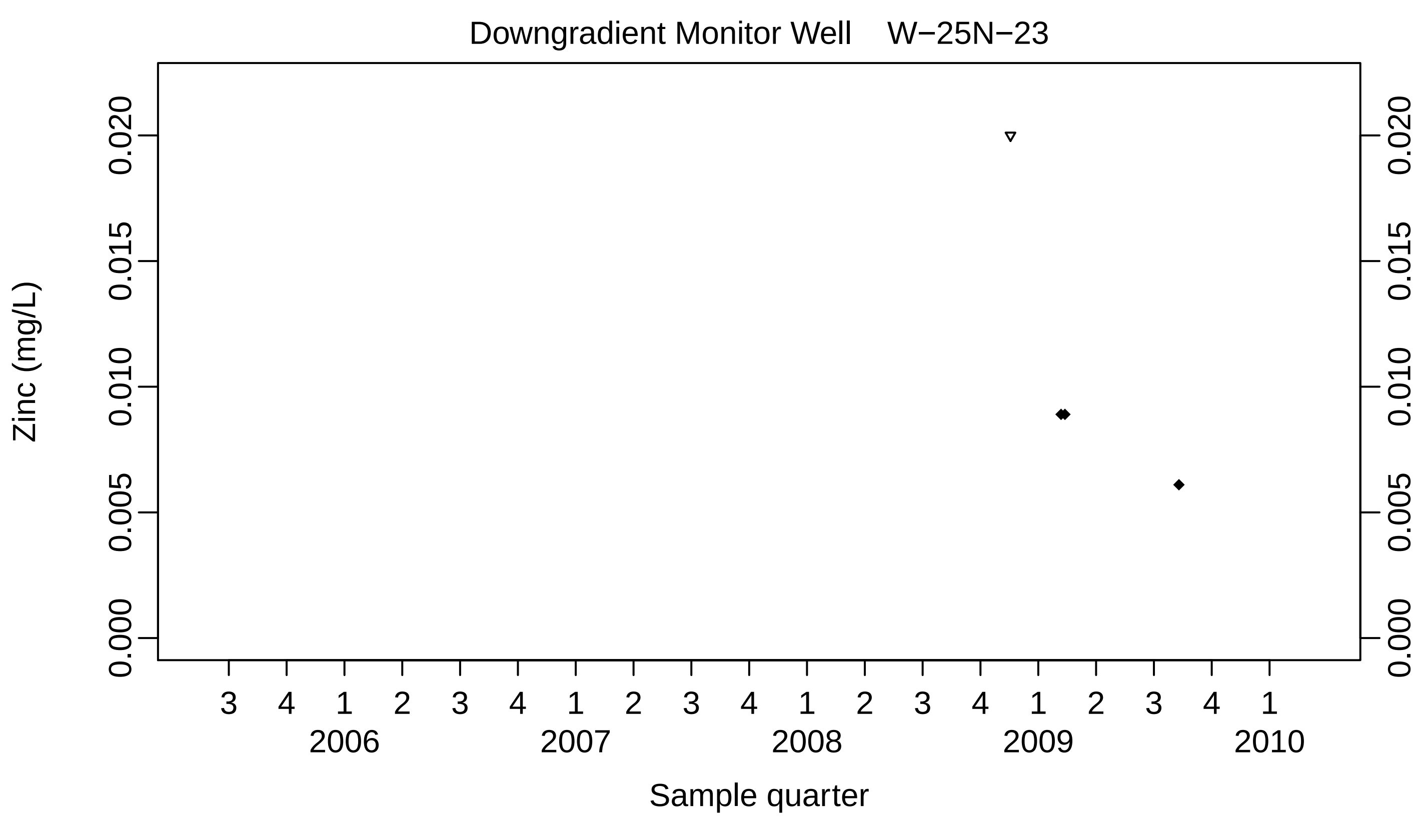


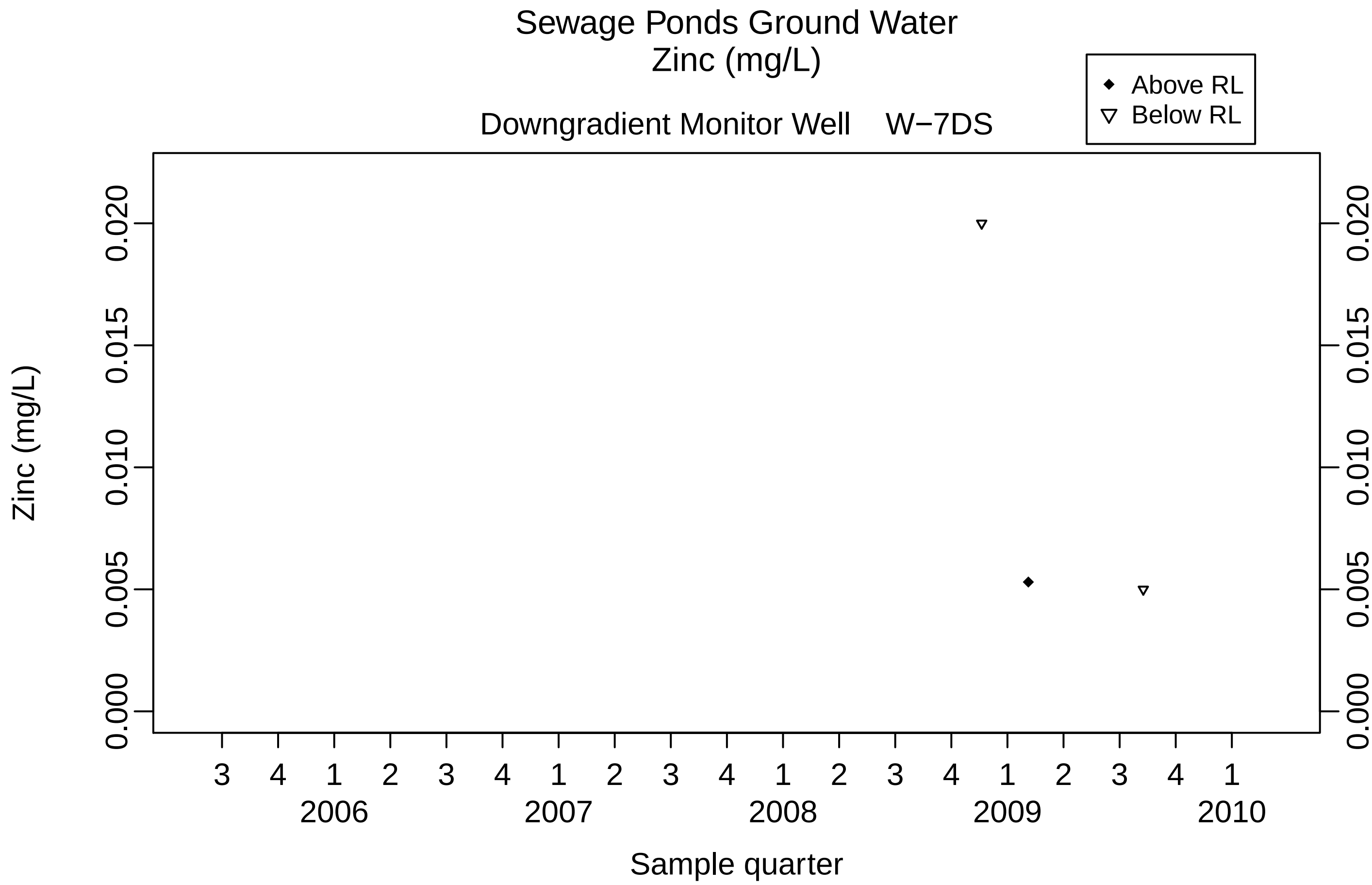
Sewage Ponds Ground Water
Zinc (mg/L)






Sewage Ponds Ground Water
Zinc (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−25N−22
Zinc (mg/L)
0.000
0.002
0.004
3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006
2007
2008
2009
2010
Sample quarter


Downgradient Monitor Well W−25N−23
Zinc (mg/L)
0.000
0.005
0.010
0.015
0.020
3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006
2007
2008
2009
2010
Sample quarter


Sewage Ponds Ground Water
Zinc (mg/L)
Above RL
Below RL
Downgradient Monitor Well W−7DS
Zinc (mg/L)
0.000
0.005
0.010
0.015
0.020
3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
2006
2007
2008
2009
2010
Sample quarter

Appendix B

Septic Systems Groundwater Monitoring Networks for Buildings 812, 834, 850, and 899

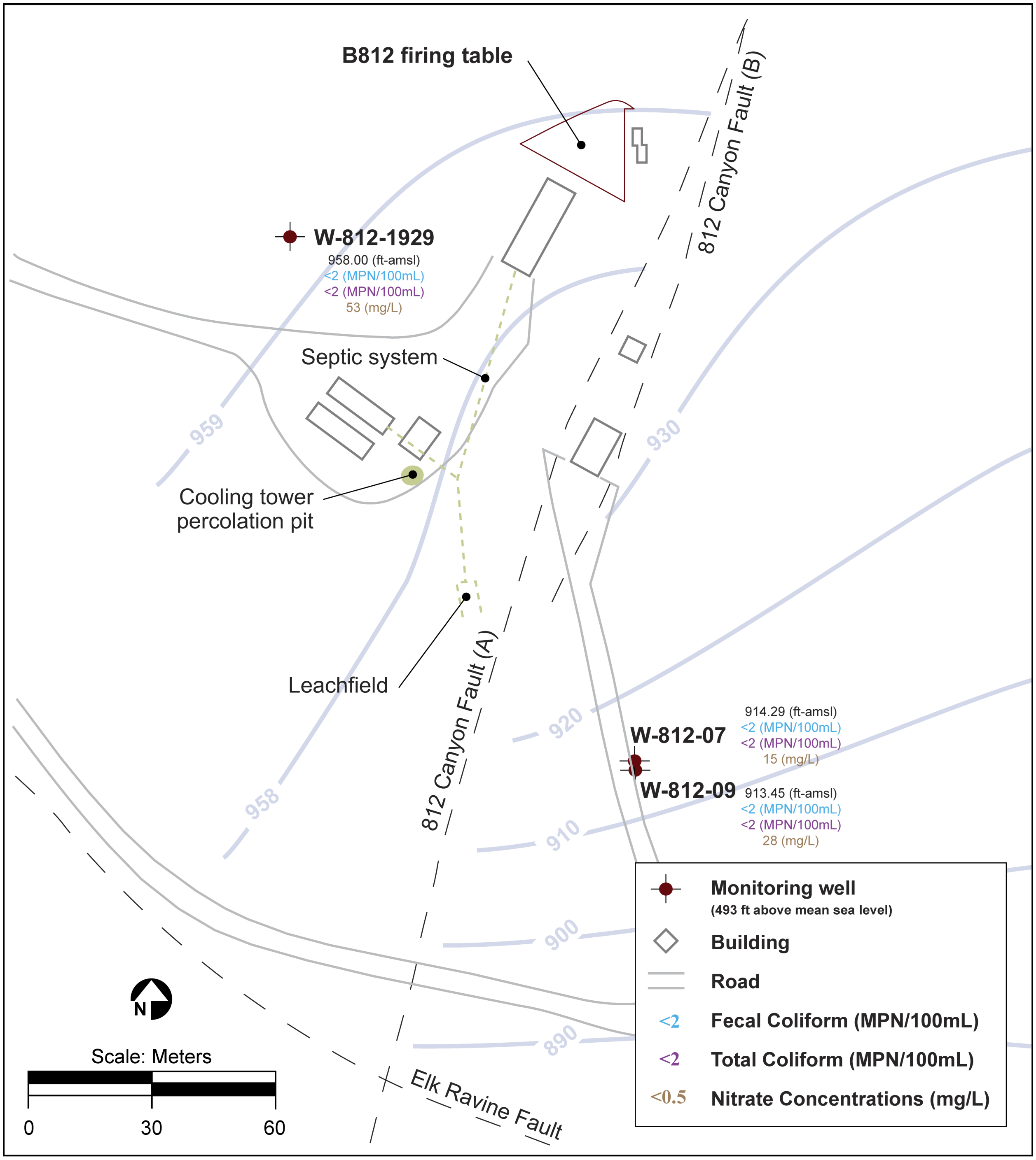


Figure B.1. Building 812 ground water elevation contour map and the second semester sampling results for the septic system monitoring wells in the first hydrostratigraphic unit.

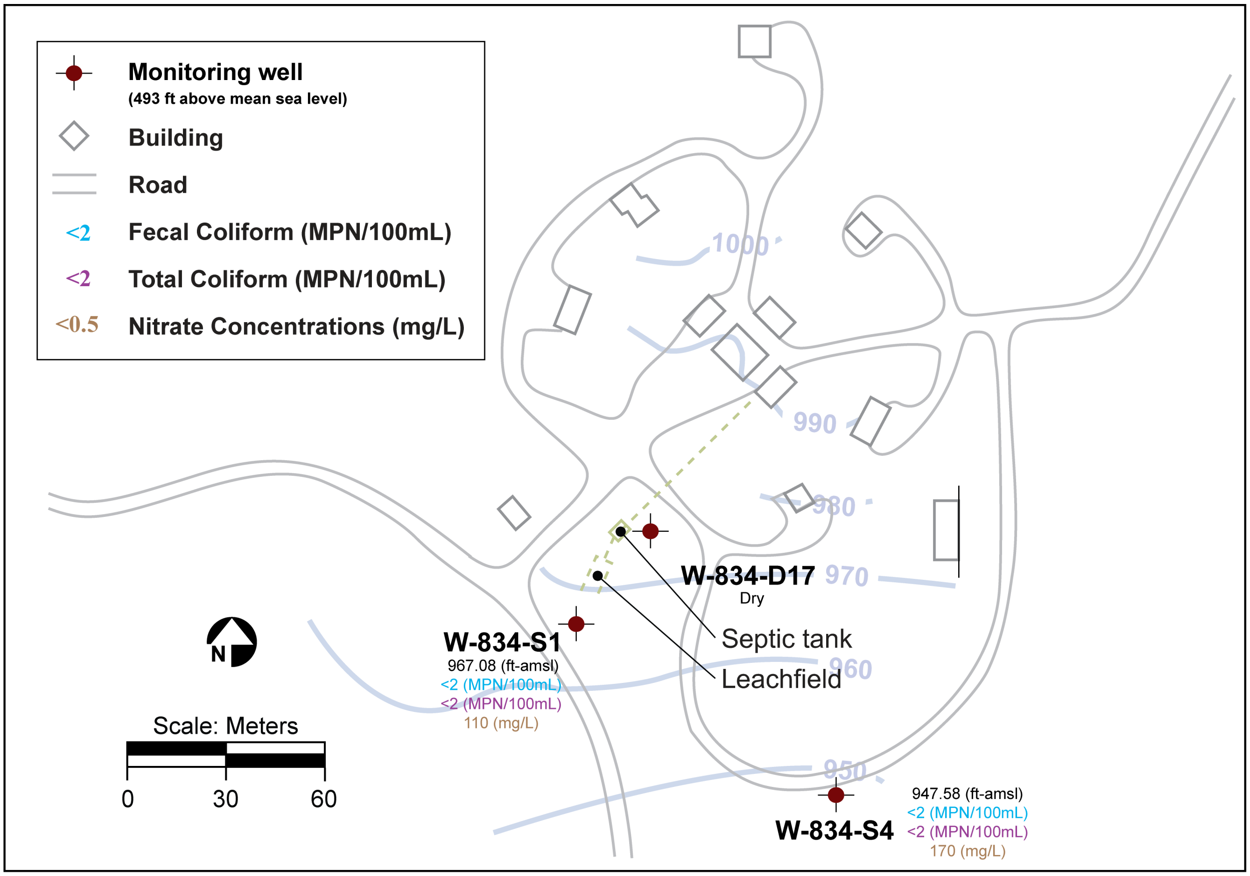


Figure B.2. Building 834 ground water elevation contour map and the second semester sampling results for the septic system monitoring wells in the first hydrostratigraphic unit.

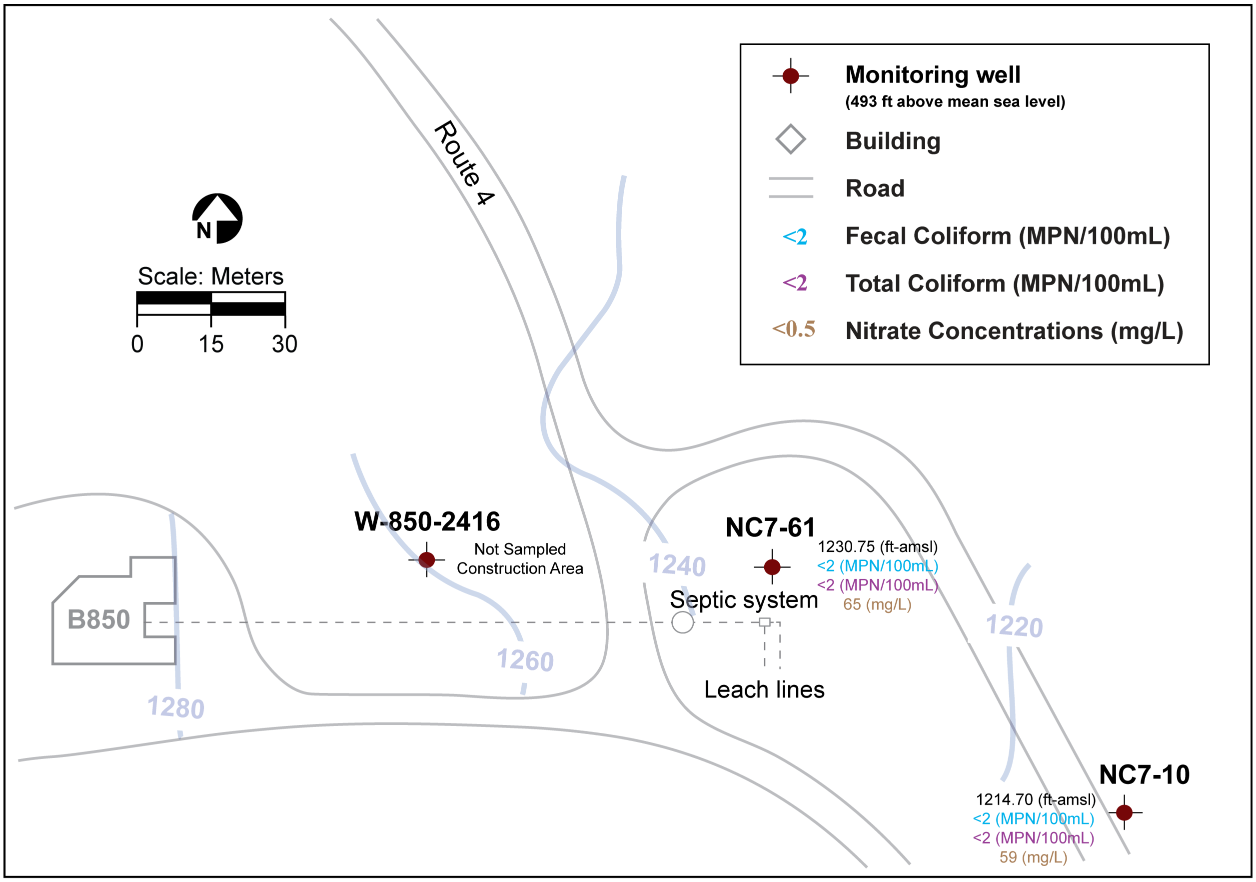


Figure B.3. Building 850 ground water elevation contour map and the second semester sampling results for the septic system monitoring wells in the first hydrostratigraphic unit.

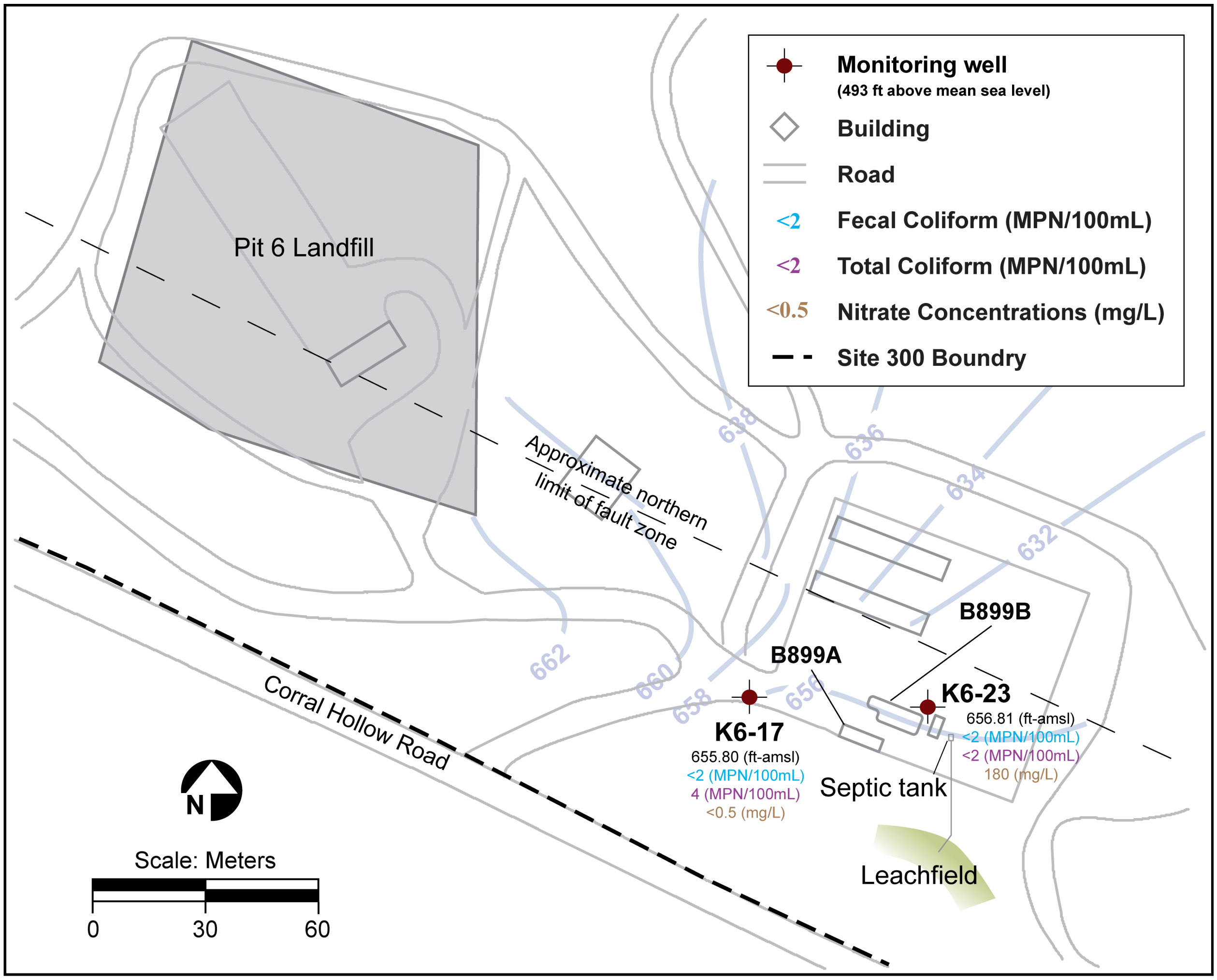


Figure B.4. Building 899 ground water elevation contour map and the second semester sampling results for the septic system monitoring wells in the first hydrostratigraphic unit.

Table B.1. Summary of septic system well specifications.

Well	HSU	Easting	Northing	Ground surface elevation	Measuring point elevation	Screen top elevation	Screen bottom elevation	Bentonite top elevation	Filter pack top elevation	Well bottom elevation
W-812-07	$Tnsc_0$	1,703,364	422,917	938.46	940.46	905.46	895.46	911.46	908.46	894.56
W-812-09	$Tnsc_0$	1,703,365	422,910	937.90	939.90	915.60	910.60	921.90	918.90	909.80
W-812-1929	$Tnbs_1$/$Tnbs_0$	1,703,062	423,376	1010.57	1012.57	946.57	936.57	956.07	950.57	935.77
W-834-S1	Tpsg	1,709,791	418,987	999.08	1002.08	971.58	966.58	NA	981.08	966.58
W-834-S4	Tpsg	1,710,077	418,788	1024.67	1026.67	978.67	943.67	985.97	984.17	941.17
W-834-D17	Tpsg	1,709,874	419,083	1015.25	1017.22	988.75	984.00	995.05	993.05	983.65
NC7-61	Qal-WBR & $Tnbs_1$/$Tnbs_0$	1,696,229	426,487	1276.40	1279.37	1230.30	1225.30	1239.90	1236.90	1224.90
NC7-10	Qal-WBR	1,696,489	426,308	1223.33	1226.30	1218.33	1208.33	NA	1221.33	1208.33
W-850-2416	$Tnsc_0$	1,695,971	426,490	1298.76	1301.90	1224.76	1214.76	1235.76	1228.76	1214.26
K6-23	Qt-$Tnbs_1$	1,698,977	414,437	679.64	680.98	660.34	655.34	669.84	664.14	655.34
K6-17	Qt-$Tnbs_1$	1,698,806	414,446	675.41	678.71	663.41	643.41	668.41	666.41	643.41

NA = Not applicable.

All Ground Water Sampling Data

Target Sample Date: 05-Aug-2009 Month: Norm Qtr: 3 Norm Year: 2009 WGMD

WELL ID: W-812-1929 AREA INFO: S300/EWFA/812

DATE: 05-Aug-2009 LOG BOOK (DOCUMENT CONTROL) #: AA17141

PURGE METHOD/SAMPLE METHOD: RF ~~TD~~ / GRBA CONTAMINANT PRESENT:

SCREENED INTERVAL: 66.30 - 76.30 INTAKE DEPTH: 0.00

DEPTH OF CASING: 77.10 CASING DIAMETER: 5.00

DEPTH TO WATER: 56.14 VOLUME FACTOR: 1.020

WATER IN CASING (ft): 20.96 CASING VOL (Gal/Time): 21.4 x 3 = 64.2 Gal

TIME PUMP ON: 0843 INITIAL FLOW RATE (Q=GPM): 2.0

TIME PUMP OFF: 0931 MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
0853		21.4	1	7.87	23.9	798.2	101	1	58.38
0903		42.8	2	7.82	23.1	800.1	76	1	58.74
0913		64.2	3	7.86	23.2	800.5	56	1	58.79
0915				7.87	23.1	800.0	52		
0917				7.85	23.1	800.3	52		

METER SERIAL # CALIBRATED
pH : 6205114 YES/NO
SC : YES/NO
mV : YES/NO
H2O: YES/NO

SAMPLER /EMPLOYER: silva90
PROJECT: 3MRPGTR 3GIV
SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-812-1929 / 3YES TIME COLLECTED: 0931

PROJECT	/ ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
3MRPGTR	CALTEST	E300.0:NO3	1	250 mL Polyethylene
3GIV	LLNLICPMS	MS:UISO	1	1L PLASTIC
3MRPGTR	FGLSTK	SM9221:SHO	1	250 mL Sterilized Polyethylene

Wl

All Ground Water Sampling Data

Target Sample Date: **04-Aug-2009** Month: Norm Qtr: **3** Norm Year: **2009**

WGMD

WELL ID: **W-812-07** AREA INFO: **S300/EWFA/812**

DATE: **04-Aug-2009** LOG BOOK (DOCUMENT CONTROL) #: **AA17140**

PURGE METHOD/SAMPLE METHOD: **PB / GRBA** CONTAMINANT PRESENT: **ND**

SCREENED INTERVAL: **35.30 - 45.30** INTAKE DEPTH: **0.00**

DEPTH OF CASING: **46.20** CASING DIAMETER: **5.00**

DEPTH TO WATER: 24.00 VOLUME FACTOR: **1.020**

WATER IN CASING (ft): 22.20 CASING VOL (Gal/Time): 22.6 X 3.0 = 67.8 Gal

TIME PUMP ON: — INITIAL FLOW RATE (Q=GPM):

TIME PUMP OFF: — MEASURED BY: FLOW METER / GRAD CYL / BUCKET / OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
0827		23.0	1	7.80	22.4	1328	-92	1	D.O.
		24.							
1046				7.84	22.6	1354	-97	1	31.27

METER	SERIAL #	CALIBRATED
pH :	6205114	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER /EMPLOYER: **silva90**
PROJECT: **3MRP 3GIV**
SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: **W-812-68Y** QC LAB(S): **FGLSTK, LLNLICPMS, CALTEST** SAMPLE TIME: 1120

SAMPLE ID (VERIFY): W-812-07 / DOBA TIME COLLECTED: 1049

PROJECT	/ ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
3MRP	CALTEST	E300.0:NO3	1	250 mL Polyethylene
3GIV	CALTEST	E300.0:PERC	1	250 mL Polyethylene
3GIV	CALTEST	E601	3	40 mL Glass VOA vial
3GIV	CALTEST	E8330LOW	2	1L Amber Glass
3GIV	LLNLICPMS	MS:UISO	1	1L PLASTIC
3MRP	FGLSTK	SM9221:SHO	1	250 mL Sterilized Polyethylene

Dried out well, Allowed to recover before Sampling SM9221:SHO, Sampled other Samples as (GRBA)

NOTE:
Purge rate/time: N/A since est_sus_flow = 0
Purge Volume: 0 gal.

Revision: 01/30/2009

All Ground Water Sampling Data

WGMD

Target Sample Date: 05-Aug-2009 Month: Norm Qtr: 3 Norm Year: 2009

WELL ID: W-812-09 AREA INFO: S300/EWFA/812

DATE: 05-Aug-2009 LOG BOOK (DOCUMENT CONTROL) #: AA17141

PURGE METHOD/SAMPLE METHOD: PB / GRBA CONTAMINANT PRESENT: ND

SCREENED INTERVAL: 24.60 - 29.60 INTAKE DEPTH: 0.00

DEPTH OF CASING: 30.40 CASING DIAMETER: 5.00

DEPTH TO WATER: 24.93 VOLUME FACTOR: 1.020

WATER IN CASING (ft): ~~[illegible]~~ 5.47 CASING VOL (Gal/Time): ~~9.7 Gal~~ 5.5 x 300 = 21.5 x 300 = 29.1 Gal

TIME PUMP ON: — INITIAL FLOW RATE (Q=GPM):

TIME PUMP OFF: — MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
0832		5.5	1	8.32	21.5	1143	81	1	29.86

METER	SERIAL #	CALIBRATED
pH :	620514	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER /EMPLOYER: silva90

PROJECT: 3MRP 3GIV

SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W812-09 TIME COLLECTED: 1021

PROJECT	/ ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
3MRP	CALTEST	E300.0:NO3	1	250 mL Polyethylene
3GIV	CALTEST	E300.0:PERC	1	250 mL Polyethylene
3GIV	CALTEST	E601	3	40 mL Glass VOA vial
3GIV	CALTEST	E8330LOW	2	1L Amber Glass
3GIV	EBERLINE	E906	1	250mL GLASS-AMBER
3GIV	LLNLICPMS	MS:UISO	1	1L PLASTIC
3MRP	FGLSTK	SM9221:SHO	1	250 mL Sterilized Polyethylene

Dried out after first (CV) Allowed to recharge
Prior to Sampling for SM9221:SHO.

NOTE:
Purge rate/time: N/A since est_sus_flow = 0
Purge Volume: 0 gal.

Revision: 01/30/2009

All Ground Water Sampling Data

DRY

Target Sample Date: **06-Aug-2009** Month: Norm Qtr: 3 Norm Year: 2009

WGMD

WELL ID: **W-834-D17** AREA INFO: **8300/834/834CORR**

DATE: **06-Aug-2009** LOG BOOK (DOCUMENT CONTROL) #: **AA18044**

PURGE METHOD/SAMPLE METHOD: **PB / GRBA** CONTAMINANT PRESENT: ***TCE-3700**

SCREENED INTERVAL: **28.77 - 33.52** INTAKE DEPTH: **0.00**

DEPTH OF CASING: **33.87** CASING DIAMETER: **5.00**

DEPTH TO WATER: DRY VOLUME FACTOR: **1.020**

WATER IN CASING (ft): CASING VOL (Gal/Time): —

TIME PUMP ON: — INITIAL FLOW RATE (Q=GPM): —

TIME PUMP OFF: — MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
						DRY			

METER	SERIAL #	CALIBRATED
pH :	604347	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER /EMPLOYER: **ulrech1**

PROJECT: **3CMP 3MRP**

SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: **834FB** QC LAB(S): **FGLSTK, BCLABS-BAK** QC SAMPLE TIME:

SAMPLE ID (VERIFY): W-834-D-17 TIME COLLECTED:

PROJECT /	ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
3MRP	BCLABS-BAK	E300.0:NO3	1	250 mL Polyethylene
3CMP	BCLABS-BAK	E601	3	40 mL Glass VOA vial
3MRP	FGLSTK	SM9221:SHO	1	250 mL Sterilized Polyethylene

DRY

NOTE:
Purge rate/time: N/A since est_sus_flow = 0
Purge Volume: 0 gal.

Revision: 01/30/2009

All Ground Water Sampling Data

Target Sample Date: 04-Aug-2009 Month: Norm Qtr: 3 Norm Year: 2009

WELL ID: W-834-S1 AREA INFO: S300/834/834DOWNGD

DATE: 04-Aug-2009 LOG BOOK (DOCUMENT CONTROL) #: TAL026

PURGE METHOD/SAMPLE METHOD: PB / GRAP CONTAMINANT PRESENT: TCE-18000/NO3-130

SCREENED INTERVAL: 30.80 - 35.80 INTAKE DEPTH: 0.00

DEPTH OF CASING: 37.00 CASING DIAMETER: 3.00

DEPTH TO WATER: — VOLUME FACTOR: 0.367

WATER IN CASING (ft): — CASING VOL (Gal/Time): —

TIME PUMP ON: — INITIAL FLOW RATE (Q=GPM): —

TIME PUMP OFF: — MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1000	—	—	—	7.63	21.0	1351	111	0	—

METER	SERIAL #	CALIBRATED
pH :	660883	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER /EMPLOYER: trammell1

PROJECT: 3GIVGTR 3MRPGTR 3CMPGTR

SAMPLE PRESERVATION/AMT of REAGENT: —

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): W-834-S1 TIME COLLECTED: 1000

PROJECT	/ ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
3MRPGTR	BCLABS-BAK	E300.0:NO3	1	250 mL Polyethylene
3CMPGTR	BCLABS-BAK	E601	3	40 mL Glass VOA vial
3MRPGTR	FGLSTK	SM9221:SHO	1	250 mL Sterilized Polyethyle
3GIVGTR	BCLABS-BAK	TBOS	3	1L Amber glass

NOTE:
Purge rate/time: N/A since est_sus_flow = 0
Purge Volume: 2.4000001 gal.
Revision: 01/30/2009

All Ground Water Sampling Data

WGMD

Target Sample Date: 04-Aug-2009 Month: Norm Qtr: 3 Norm Year: 2009

WELL ID: W-834-S4 AREA INFO: S300/834/834DOWNGD

DATE: 04-Aug-2009 LOG BOOK (DOCUMENT CONTROL) #: AA18042

PURGE METHOD/SAMPLE METHOD: PB / GRBA CONTAMINANT PRESENT: TCE-1.5

SCREENED INTERVAL: 48.30 - 83.30 INTAKE DEPTH: 0.00

DEPTH OF CASING: 83.60 CASING DIAMETER: 4.50

DEPTH TO WATER: 78.52 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 5.08 CASING VOL (Gal/Time): 5.08' x .826 = 4.19

TIME PUMP ON: — INITIAL FLOW RATE (Q=GPM): —

TIME PUMP OFF: MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
0955	–	4.2	1	7.76	21.0	2721	123	1	81.10
1020	–	8.4	2	7.79	21.3	2701	152	1	83.12
1029	–	9.2	2.2	7.77	21.4	2674	115	1	83.40
				DRY-OUT					
1115	–	9.3		7.80	22.9	2700	91	1	83.15
				DRY OUT					

METER SERIAL # CALIBRATED
pH : 604347 YES/NO
SC : YES/NO
mV : YES/NO
H2O: YES/NO

SAMPLER /EMPLOYER: ulrech1
PROJECT: 3CMP 3MRP
SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: W-834-S4 QC LAB(S): BCLABS-BAK, CALTEST QC SAMPLE TIME:

SAMPLE ID (VERIFY): W-834-S4 TIME COLLECTED: 1116

PROJECT /	ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
3MRP	BCLABS-BAK	E300.0:NO3	1	250 mL Polyethylene
3CMP	BCLABS-BAK	E601	3	40 mL Glass VOA vial
3MRP	FGLSTK	SM9221:SHO	1	250 mL Sterilized Polyethylene
3CMP	BCLABS-BAK	TBOS	3	1L Amber glass

NOTE:
Purge rate/time: N/A since est_sus_flow = 0
Purge Volume: 5.69999981 gal.
Revision: 01/30/2009

All Ground Water Sampling Data

Target Sample Date: **06-Aug-2009** Month: Norm Qtr: 3 Norm Year: 2009

WGMD

WELL ID: **NC7-10** AREA INFO: **S300/EWFA/850**

DATE: **06-Aug-2009** LOG BOOK (DOCUMENT CONTROL) #: **AA17142**

PURGE METHOD/SAMPLE METHOD: **PB / GRBA** CONTAMINANT PRESENT: **3H>1000pCi/L**

SCREENED INTERVAL: **7.97 - 17.97** INTAKE DEPTH: **0.00**

DEPTH OF CASING: **17.97** CASING DIAMETER: **2.00**

DEPTH TO WATER: 11.19 VOLUME FACTOR: **0.163**

WATER IN CASING (ft): 6.78 CASING VOL (Gal/Time): 1.1 x 3cv = 3.3 Gal

TIME PUMP ON: — INITIAL FLOW RATE (Q=GPM):

TIME PUMP OFF: — MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1100			1	7.53	21.6	747.4	72	\	
1104		1.1	1	7.48	20.3	741.5	55	\	11.27
1107		2.2	2	7.66	20.5	743.6	81		11.39
1112		3.3	3	7.45	20.7	741.7	64	|	11.44

METER SERIAL # CALIBRATED
pH : 6205114 YES/NO
SC : YES/NO
mV : YES/NO
H2O: YES/NO

SAMPLER /EMPLOYER: **silva90**
PROJECT: **3MRP 3GIV**
SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: **850FB** QC LAB(S): **FGLSTK, CALTEST** QC SAMPLE TIME: 1121

SAMPLE ID (VERIFY): NC7-10 / GRBA TIME COLLECTED: 1121

PROJECT /	ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
3MRP	CALTEST	E300.0:NO3	1	250 mL Polyethylene
3GIV	CALTEST	E300.0:PERC	1	250 mL Polyethylene
3MRP	FGLSTK	SM9221:SHO	1	250 mL Sterilized Polyethylene

Sampled NO3 & Perc as GRBA. Sampled SM9221 a
SUBA,

NOTE:
Purge rate/time: N/A since est_sus_flow = 0
Purge Volume: 5 gal.
Revision: 01/30/2009

All Ground Water Sampling Data

WGMD

Target Sample Date: **06-Aug-2009** Month: Norm Qtr: **3** Norm Year: **2009**

WELL ID: **NC7-61** AREA INFO: **S300/EWFA/850**

DATE: **06-Aug-2009** LOG BOOK (DOCUMENT CONTROL) #: **AA17142**

PURGE METHOD/SAMPLE METHOD: **PB / GRBA** CONTAMINANT PRESENT: **RDX-6/3H>1000pCi/L/NO3-97**

SCREENED INTERVAL: **49.07 - 54.07** INTAKE DEPTH: **0.00**

DEPTH OF CASING: **54.47** CASING DIAMETER: **4.50**

DEPTH TO WATER: 48.52 VOLUME FACTOR: **0.826**

WATER IN CASING (ft): 5.95 CASING VOL (Gal/Time): 4.9

TIME PUMP ON: — INITIAL FLOW RATE (Q=GPM):

TIME PUMP OFF: — MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
1018		~~6.5~~ 5.0	1	7.41	19.5	798.3	68	\	DO
1053		5		7.39	19.8	798.6	46	|	53.70

METER SERIAL # CALIBRATED
pH : 620511/ YES/NO
SC : YES/NO
mV : YES/NO
H2O: YES/NO

SAMPLER /EMPLOYER: **silva90**
PROJECT: **3EMG 3MRP**
SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: **NC7-89Y** QC LAB(S): **FGLSTK, BCLABS-BAK** QC SAMPLE TIME: 1027

SAMPLE ID (VERIFY): NC7-61/ TIME COLLECTED: 1053

PROJECT	/ ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
3MRP	BCLABS-BAK	E300.0:NO3	1	250 mL Polyethylene
3EMG	BCLABS-BAK	E300.0:PERC	1	250 mL Polyethylene
3MRP	FGLSTK	SM9221:SHO	1	250 mL Sterilized Polyethylene

Sampled NO3 & PERC as grba,
Dried out well then sampled SM9221:SHO

All Ground Water Sampling Data

WAMC

Target Sample Date: **06-Aug-2009** Month: Norm Qtr: **3** Norm Year: **2009**

WELL ID: **K6-17** AREA INFO: **S300/PIT6/PIT6**

DATE: **06-Aug-2009** LOG BOOK (DOCUMENT CONTROL) #: **AA17142**

PURGE METHOD/SAMPLE METHOD: **WW / GRBA** CONTAMINANT PRESENT: **TCE-1.1**

SCREENED INTERVAL: **15.30 - 35.30** PUMP INTAKE DEPTH: **33.00**

DEPTH OF CASING: **37.30** CASING DIAMETER: **4.50**

DEPTH TO WATER: 24.24 VOLUME FACTOR: **0.826**

WATER IN CASING (ft): 13.06 CASING VOL (Gal/Time): 10.8

TIME PUMP ON: 0846 INITIAL FLOW RATE (Q=GPM):

TIME PUMP OFF: MEASURED BY: FLOW METER/ GRAD CYL. / BUCKET / OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
0909		11	1	7.21	21.0	1756	71	1	33.61
0917		13.5		~~7.49~~	~~20.7~~				D.0
0946				7.49	20.7	1762	50		31.62

METER	SERIAL #	CALIBRATED
pH :	6105114	YES/NO
SC :		YES/NO
mV :		YES/NO
H2O:		YES/NO

SAMPLER /EMPLOYER: **silva90**
PROJECT: **3CMP 3MRP**
SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: **K6-95Y** QC LAB(**FGLSTK, EBERLINE, BCLABS-BAK**) SAMPLE TIME: 1017

SAMPLE ID (VERIFY): K6-17 / DOBP TIME COLLECTED: 0948

PROJECT /	ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
3MRP	BCLABS-BAK	E300.0:NO3	1	250 mL Polyethylene
3CMP	BCLABS-BAK	E300.0:PERC	1	250 mL Polyethylene
3CMP	BCLABS-BAK	E601	3	40 mL Glass VOA vial
3CMP	EBERLINE	E906	1	250mL GLASS-AMBER
3MRP	FGLSTK	SM9221:SHO	1	250 mL Sterilized Polyethylene

Sampled as GRBA, Dried out well and allowed to recharge before Sampling SM9221:SHO

All Ground Water Sampling Data

Target Sample Date: 06-Aug-2009 Month: Norm Qtr: 3 Norm Year: 2009

WBWD

WELL ID: K6-23 AREA INFO: S300/PIT6/PIT6

DATE: 06-Aug-2009 LOG BOOK (DOCUMENT CONTROL) #: AA17142

PURGE METHOD/SAMPLE METHOD: PB / GRBA CONTAMINANT PRESENT: ND

SCREENED INTERVAL: 20.94 - 25.94 INTAKE DEPTH: 0.00

DEPTH OF CASING: 25.94 CASING DIAMETER: 4.50

DEPTH TO WATER: 22.54 VOLUME FACTOR: 0.826

WATER IN CASING (ft): 3.4 CASING VOL (Gal/Time): 2.8

TIME PUMP ON: — INITIAL FLOW RATE (Q=GPM):

TIME PUMP OFF: — MEASURED BY: FLOW METER/ GRAD CYL./ BUCKET/ OTHER

TIME	Q	GAL PURGED	VOLUMES	pH	TEMP C	SC	mV	OG	DTW
0836		2.5		6.78	21.2	8629	61	1	DQ.
0932				6.82	21.0	7293	57		24.87

METER SERIAL # CALIBRATED

pH : 6205114 YES/NO

SC : YES/NO

mV : YES/NO

H2O: YES/NO

SAMPLER /EMPLOYER: silva90

PROJECT: 3CMP 3MRP

SAMPLE PRESERVATION/AMT of REAGENT: NA

QC SAMPLE ID: — QC LAB(S): — QC SAMPLE TIME: —

SAMPLE ID (VERIFY): K6-23 / GRBA TIME COLLECTED: 0932

PROJECT /	ANALYTICAL LAB	/REQUESTED ANALYSIS/	QUANTITY	/TYPE OF CONTAINERS
3MRP	BCLABS-BAK	E300.0:NO3	1	250 mL Polyethylene
3CMP	BCLABS-BAK	E601	3	40 mL Glass VOA vial
3CMP	EBERLINE	E906	1	250mL GLASS-AMBER
3MRP	FGLSTK	SM9221:SHO	1	250 mL Sterilized Polyethylene

Sampled as GRBA. Then Dried out well and allowed to recover to Sample SM9221:SHO.

NOTE:
Purge rate/time: N/A since est_sus_flow = 0
Purge Volume: 2.2 gal.

Revision: 01/30/2009

Appendix C

Mechanical Equipment Room and Cooling Tower Percolation Pit Inspection Forms

Mechanical Equipment Percolation Pits Inspection Checklists

Quarterly/Monthly Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148

Date 1-20-2009 Inspector Mack Krauter Building Number 806

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 1-20-09

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148

Date 4/29/09 Inspector MARK KRAUSS Building Number 806

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature Robert Boston Date 4-29-09

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148

Date 1/12/09 Inspector A. Fontes Building Number 827A

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 1·12·09

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148

Date 1/12/09 Inspector A. Fontes Building Number 827C

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature Patrick J. Gallagher Date 1·12·09

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148

Date 1/12/09 Inspector A. Fontes Building Number 827D

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 1-12-09

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148

Date 1/12/09 Inspector A. Fontes Building Number 827E

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature ______________ Date 1/12/09

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148

Date 4/1/09 Inspector Aaron T. Fontes Building Number 827A

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature Patrick J. Gallagher Date 4·1·09

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148

Date 4/1/09 Inspector Aaron T. Fontes Building Number 827C

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 4/1/09

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148

Date 4/1/09 Inspector Aaron T. Fontes Building Number 827D

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	2" of water.
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 4-1-09

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148

Date 4/1/09 Inspector Aaron T. Fontes Building Number 827E

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 4/1/09

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148

Date 5/27/09 Inspector A. Fontes Building Number 827A

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 6.1.09

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148

Date 5/27/09 Inspector A. Fontes Building Number 827C

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 6/1/09

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A.
Waste Discharge Requirements Order Number R5-2008-0148

Date 5/27/09 Inspector A. Fontes Building Number 827D

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature Patrick A. Gallegher Date 6·1·09

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148

Date 5/27/09 Inspector A. Fontes Building Number 827E

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 6-1-09

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148

Date 8/12/09 Inspector Aaron T. Fontes Building Number 827A

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature _[signature]_ Date 8/12/09

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148

Date 8/12/09 Inspector Aaron T. Fontes Building Number 827C

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 8/12/09

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148

Date 8/12/09 Inspector Aaron T. Fontes Building Number 827D

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 8-12-09

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148

Date 8/12/09 Inspector Aaron T. Fontes Building Number 827E

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 8/12/09

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148

Date 11/11/09 Inspector Aaron T. Fontes Building Number 827A

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 11·11·09

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148

Date 11/11/09 Inspector Aaron T. Fontes Building Number 827C

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 11-11-09

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148

Date 11/11/09 Inspector Aaron T. Fontes Building Number 827D

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	4" of water
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 11/11/09

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148

Date 11/11/09 Inspector Aaron T. Fontes Building Number 827E

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 11-11-2009

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148

Date 12/16/09 Inspector Aaron T. Fontes Building Number 827A

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 12/16/09

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148

Date 12/16/09 Inspector Aaron T. Fontes Building Number 827 C

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	1"
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 12/16/09

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148

Date 12/16/09 Inspector Aaron T. Fontes Building Number 827 D

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	3"
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 12-16-09

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Percolation Pit Inspection Checklist*
For Buildings 827A, 827C, 827D, 827E and 806A
Waste Discharge Requirements Order Number R5-2008-0148

Date 12/16/09 Inspector Aaron T. Fontes Building Number 827E

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature [signature] Date 12/16/09

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Cooling Tower Inspection Checklists

Quarterly/Monthly Cooling Tower Inspection Checklist*
For Buildings 801, 809, 812, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148

Date 1-28-09 Inspector D. Landrum Building Number 801

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature ____________________ Date __________

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Cooling Tower Inspection Checklist*
For Buildings 801, 809, 812, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148

Date 4-21-09 Inspector D. Lavoran Building Number 801

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature ______________________ Date __________

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Cooling Tower Inspection Checklist*
For Buildings 801, 809, 812, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148

Date 7-29-09 Inspector D. Landram Building Number 801

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature __________ Date __________

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Cooling Tower Inspection Checklist*
For Buildings 801, 809, 812, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148

Date 1-28-09 Inspector D. LANDRUM Building Number 809

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature ______________________ Date ____________

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Cooling Tower Inspection Checklist*
For Buildings 801, 809, 812, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148

Date 4-22-09 Inspector D. Laudrun Building Number 809

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature ______________________ Date ____________

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Cooling Tower Inspection Checklist*
For Buildings 801, 809, 812, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148

Date 7-29-09 Inspector D. Langham Building Number 809

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature ______________________ Date ____________

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Cooling Tower Inspection Checklist*
For Buildings 801, 809, 812, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148

Date 1-28-09 Inspector D. Laudaum Building Number 812

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature ______________________ Date __________

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Cooling Tower Inspection Checklist*
For Buildings 801, 809, 812, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148

Date 4-21-09 Inspector D. Lavorgna Building Number 812

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature ______________________ Date ____________

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Cooling Tower Inspection Checklist*
For Buildings 801, 809, 812, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148

Date 7-29-09 Inspector D. Landrum Building Number 812

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature ______________________ Date ____________

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Cooling Tower Inspection Checklist*
For Buildings 801, 809, 812, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148

Date 1-28-09 Inspector D. LANDRUM Building Number 817

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature ________________ Date ________

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Cooling Tower Inspection Checklist*
For Buildings 801, 809, 812, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148

Date 4-22-09 Inspector D. Landayan Building Number 817-A

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature ______________________ Date ______________

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Cooling Tower Inspection Checklist*
For Buildings 801, 809, 812, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148

Date 7-29-09 Inspector D. Larsen Building Number 817-A

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature ____________________ Date ____________

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Cooling Tower Inspection Checklist*
For Buildings 801, 809, 812, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148

Date 1-28-09 Inspector D. Landreth Building Number 826

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature ____________________ Date ____________

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Cooling Tower Inspection Checklist*
For Buildings 801, 809, 812, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148

Date 4-22-09 Inspector D. Larsen Building Number 826

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No ✓	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No ✓	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No ✓	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No ✓	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature ______________________ Date ____________

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Cooling Tower Inspection Checklist*
For Buildings 801, 809, 812, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148

Date 7-29-09 Inspector D. Landram Building Number 826

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature ______________________ Date ____________

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Cooling Tower Inspection Checklist*
For Buildings 801, 809, 812, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148

Date 1-28-09 Inspector D. LANDRUM Building Number 827-A

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature ______________________ Date ____________

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Cooling Tower Inspection Checklist*
For Buildings 801, 809, 812, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148

Date 4-22-09 Inspector D. Langum Building Number 827A

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No ✓	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No ✓	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No ✓	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No ✓	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature ____________________ Date ____________

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Cooling Tower Inspection Checklist*
For Buildings 801, 809, 812, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148

Date 7-29-09 Inspector D. Laroga Building Number 827-A

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature ______________________ Date ____________

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Cooling Tower Inspection Checklist*
For Buildings 801, 809, 812, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148

Date 1-28-09 Inspector D. LAVORUM Building Number 851

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature ______________________ Date ____________

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Quarterly/Monthly Cooling Tower Inspection Checklist*
For Buildings 801, 809, 812, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148

Date 4-21-09 Inspector D. LAUDRUM Building Number 851

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature ______________________ Date ____________

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Cooling Tower Inspection Checklist*
For Buildings 801, 809, 812, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148

Date 4-22-09 Inspector D. LAUDAUM Building Number 851

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature ______________________ Date ____________

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

Quarterly/Monthly Cooling Tower Inspection Checklist*
For Buildings 801, 809, 812, 817A, 826, 827A, and 851
Waste Discharge Requirements Order Number R5-2008-0148

Date 7-27-05 Inspector D. Laudera Building Number 851

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.

Send a completed copy to the attention of Richard Blake, PRAD (L-627), EPD.

Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the EDO and PRAD (2-9910) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to monthly until no water is noted		
4. Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		

Supervisor's Signature ______________________ Date ______________

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Waste Discharge Requirements Order Number R5-2008-0148.

WATER DEPARTMENT

Date: 12-16-09

BLDG	Perk Pit Yes	Standing Water No	T.D.S 2200	T.D.S PPM 2200	Treat 125.00- 225.00	Remarks	Oz. of Treatment
~~850~~							
851 # 1		✓	567	710	93.78	~~wet land/~~	64 oz
~~851# 2~~							
801		✓	466	~~9[illegible]~~ 700	96.41		Make up 900656 Blow Down 513350
~~802~~							
~~812~~							
809		NO		ACCESS			
817		"		"	"	"	
825		Down	For	pump	Repair		
826		✓	421	500	8.816		64 oz.
827 # 1		✓	519	500	5.477		64 oz
827# 2		✓	508	500	12.95	~~wet land/~~	64 oz
~~836A~~							~~Make up ____ Blow Down ____~~
~~836D~~							~~Make up ____ Blow Down ____~~
~~865~~						~~wet land/~~	

WATER DEPARTMENT

Date: 12-9-09

BLDG	Perk Pit Yes	Standing Water No	T.D.S 2200	T.D.S PPM 2200	Treat 125.00- 225.00	Remarks	Oz. of Treatment
~~850~~							
851 # 1		✓	599	700	40.05	~~wet~~ land/	64 oz.
~~851# 2~~							
801		✓	563	800	37.76		Make up 8993699 Blow Down 5123042
~~802~~							
~~812~~							
809			Boiler Repair No Access.				
817		✓	579	610	17.53		64 oz.
825			Down For Repair				
826		✓	521	500	70.71		64 oz.
827 # 1		✓	630	500	18.34		64 oz.
827# 2		✓	690	505	15.13	~~wet~~ land/	64 oz.
~~836A~~							~~Make up~~ ~~Blow Down~~
~~836D~~							~~Make up~~ ~~Blow Down~~
~~865~~						wet land/	

WATER DEPARTMENT

Date: 12-2-09

BLDG	Perk Pit Yes	Standing Water No	T.D.S 2200	T.D.S PPM 2200	Treat 125.00-225.00	Remarks	Oz. of Treatment
~~850~~							
851 # 1		✓	724	5000+	0.00 ~~5000+~~	~~wet land/~~	64 oz
~~851# 2~~							
801		NO	ACCESS				Make up ___ Blow Down ___
~~802~~							
~~812~~							
809		✓	~~525~~	900	9.444		64 oz.
817		✓	1485	1200	128.80	B.D. plugged	64 oz.
825			Down For Repair				
826	✓	✓	502	490	21.06		64 oz.
827 # 1		✓	643	610	7.199		64 oz.
827# 2		✓	585	800	10.02	~~wet land/~~	64 oz.
~~836A~~							~~Make up ___ Blow Down ___~~
~~836D~~							~~Make up ___ Blow Down ___~~
~~865~~						~~wet land/~~	

WATER DEPARTMENT

Date: 11-18-09

BLDG	Perk Pit Yes	Standing Water No	T.D.S 2200	T.D.S PPM 2200	Treat 125.00- 225.00	Remarks	Oz. of Treatment
~~850~~							
851 # 1		NEW	TOWER	BEING	INSTALLED	~~wet land/~~	
~~851# 2~~			GONE	ONE	TOWER ~~AT~~		
801		✓	565	700	110.10		Make up 5895005/ Blow Down 5090501
~~802~~							
~~812~~							
809		✓	503	700	99.109		64oz
817		✓	544	600	10.09		64 oz
825		DOWN	FOR	REPAIR			
826		✓	493	510	0.00		64 oz.
827 # 1		✓	566	610	37.10		64 oz.
827# 2		✓	553	600	25.25	~~wet land/~~	64 oz.
~~836A~~							~~Make up ____ Blow Down ____~~
~~836D~~							~~Make up ____ Blow Down ____~~
~~865~~						~~wet land/~~	

WATER DEPARTMENT

Date: 11-4-09

BLDG	Perk Pit Yes	Standing Water No	T.D.S 2200	T.D.S PPM 2200	Treat 125.00- 225.00	Remarks	Oz. of Treatment
~~850~~							
851 # 1		Down For	Cooling Tower		Replacement	~~wet land/~~	
~~851# 2~~							
801		✓	645	800	25.25		Make up 88175 89 Blow Down 5067439
~~802~~							
~~812~~							
809		✓	632	600	4.542		64oz.
817		✓	660	510	0.899		64oz
825		Down	For	pump	Repair		
826		✓	618	510	5.935		64oz
827 # 1		Down	For	Repair			
827# 2		✓	718	700	44.17	~~wet land/~~	64oz.
~~836A~~							~~Make up~~ ~~Blow Down~~
~~836D~~							~~Make up~~ ~~Blow Down~~
~~865~~						~~wet land/~~	

WATER DEPARTMENT

Date: 10-28-09

BLDG	Perk Pit Yes	Standing Water No	T.D.S 2200	T.D.S PPM 2200	Treat 125.00- 225.00	Remarks	Oz. of Treatment
~~850~~							
851 # 1		NO	ACCESS			~~wet land/~~	
~~851# 2~~							
801		✓	619	800	48.33		Make up 88988839 Blow Down 5055219
~~802~~							
~~812~~							
809		✓	601	700	15.62		64 oz.
817		✓	611	600	7.544		64oz.
825		DOWN	FOR	pump	Repair.		
826		✓	551	500	12.19		64 oz.
827 # 1		Down	For	Repair			
827# 2		✓ ~~Down~~	655 ~~For~~	650 ~~Repair~~	66.27	~~wet land/~~	64oz.
~~836A~~							~~Make up~~ ~~Blow Down~~
~~836D~~							~~Make up~~ ~~Blow Down~~
~~865~~						~~wet land/~~	

WATER DEPARTMENT

Date: 10-14-09

BLDG	Perk Pit Yes	Standing Water No	T.D.S 2200	T.D.S PPM 2200	Treat 125.00- 225.00	Remarks	Oz. of Treatment
~~850~~						BD plugged	FEED plugged
851 # 1		✓	970	2200	0.06	~~wet land/~~	0.00
~~851# 2~~		SHUT	DOWN				
801		✓	948	900	35.27	2 GALS.	Make up 8862371 Blow Down 5030273
~~802~~							
~~812~~							
809			3101	2800	0.0	BD plugged	64 oz.
817		✓	1148	4849	119.11	~~FEED~~ BD plugged	64 oz.
825		✓	710	1100	5.215	FEED plugged	64 oz
826		✓	706	800	45.62	FEED plugged	64 oz.
827 # 1		✓	831	590	0.00	FEED plugged	64 oz.
827# 2		✓	1035	995	3,101	wet land/	64 oz.
~~836A~~							~~Make up 5862371~~ ~~Blow Down 5630273~~
~~836D~~							~~Make up~~ ~~Blow Down~~
~~865~~						~~wet land/~~	

Appendix D

Cooling Tower Blow Down Effluent Monitoring Network with Discharges to Percolation Pits (Bldgs. 801, 809, 812, 817A, 826, 827A, and 851) and Septic Systems (Bldgs. 802, 825, 830, 833/835, 834A, and 850)

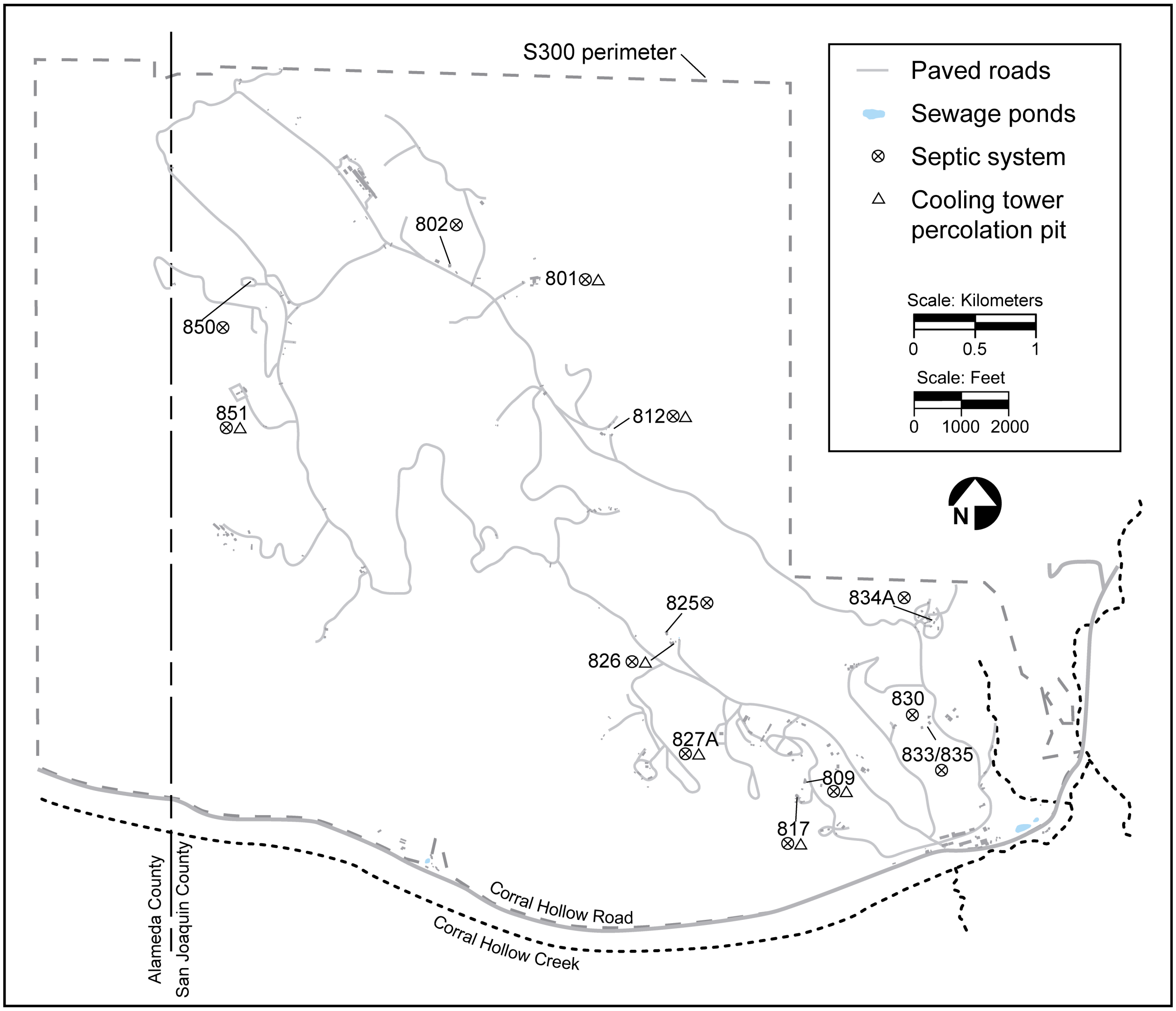

Figure D.1. Location of Site 300 cooling towers.

Table D.1. Site 300 cooling tower wastewater monitoring network 2009 annual anions data summary.

Building	Well	Date	Sodium (mg/L)	Chloride (mg/L)	Nitrate (as NO3) (mg/L)	Sulfate (mg/L)	Fluoride (mg/L)
B801	3-801ACT01-TW	Apr 29	440	170	2.4	350	0.49
B801	3-801ACT01-TW	Oct 27	400	150	0.60	310	0.67
B809	3-809ACT01-TW	Apr 29	250	93	1.0	200	0.24
B809	3-809ACT01-TW	Oct 27	280	110	<0.5	230	0.69
B812	3-812AFCT01-TW	Apr 29	300	110	1.5	240	0.34
B817	3-817ACT01-TW	Apr 29	310	110	1.2	240	0.30
B817	3-817ACT01-TW	Oct 27	250	91	<0.5	200	0.32
B825	3-825ACT01-TW	Apr 29	240	89	1.2	190	0.44
B825	3-825ACT01-TW	Nov 3	220	82	<0.5	180	0.30
B826	3-826FCT01-TW	Apr 29	260	93	2.0	200	0.46
B826	3-826FCT01-TW	Oct 27	230	84	<0.5	180	0.29
B827	3-827ACT01-TW	Apr 29	240	90	1.9	190	0.42
B827	3-827ACT01-TW	Oct 27	410	140	<0.5	300	0.58
B851	3-851BFCT01-TW	Apr 29	270	100	2.0	210	0.43
B851	3-851BFCT01-TW	Oct 27	280	110	<0.5	220	0.37
B851	3-851BFCT02P-TW	Apr 29	240	89	1.2	180	0.42

Table D.2. Site 300 cooling tower wastewater monitoring network 2009 annual metals analysis data summary.

Analyte	Date	3-801 ACT01-TW	3-809 ACT01-TW	3-812 AFCT01-TW	3-817 ACT01-TW	3-825 ACT01-TW	3-826 FCT01-TW	3-827 ACT01-TW	3-851 BFCT01-TW	3-851 BFCT02P-TW
Aluminum (µg/L)	Apr 29	<50	<50	<50	<50	<50	<50	<50	<50	<50
	Oct 27	<50	<50	[A]	<50	-	<50	110	<50	[B]
	Nov 3	-	-	[A]	-	<50	-	-	-	[B]
Arsenic (µg/L)	Apr 29	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Oct 27	<2	<2	[A]	<2	-	<2	<2	<2	[B]
	Nov 3	-	-	[A]	-	<2	-	-	-	[B]
Barium (µg/L)	Apr 29	<25	<25	<25	<25	<25	<25	<25	<25	<25
	Oct 27	<25	<25	[A]	<25	-	<25	<25	<25	[B]
	Nov 3	-	-	[A]	-	<25	-	-	-	[B]
Boron (µg/L)	Apr 29	1900	1100	1300	1300	1000	1100	1000	1100	1000
	Oct 27	1700	1200	[A]	1000	-	1000	1700	1200	[B]
	Nov 3	-	-	[A]	-	930	-	-	-	[B]
Cadmium (µg/L)	Apr 29	<50	<50	<50	<50	<50	<50	<50	<50	<50
	Oct 27	<50	<50	[A]	<50	-	<50	<50	<50	[B]
	Nov 3	-	-	[A]	-	<50	-	-	-	[B]
Calcium (µg/L)	Apr 29	18000	8300	11000	9700	8000	8000	8700	15000	14000
	Oct 27	19000	11000	[A]	9800	-	9400	16000	22000	[B]
	Nov 3	-	-	[A]	-	8200	-	-	-	[B]
Chromium (µg/L)	Apr 29	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Oct 27	<1	<1	[A]	<1	-	<1	<1	<1	[B]
	Nov 3	-	-	[A]	-	<1	-	-	-	[B]

A dash (-) denotes analysis not required.

Continued

Table D.2. Site 300 cooling tower wastewater monitoring network 2009 annual metals analysis data summary.

Analyte	Date	3-801 ACT01-TW	3-809 ACT01-TW	3-812 AFCT01-TW	3-817 ACT01-TW	3-825 ACT01-TW	3-826 FCT01-TW	3-827 ACT01-TW	3-851 BFCT01-TW	3-851 BFCT02P-TW
Chromium (VI) (µg/L)	Apr 29	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Oct 27	<1	<1	[A]	<1	-	<1	<1	<1	[B]
	Nov 3	-	-	[A]	-	<1	-	-	-	[B]
Copper (µg/L)	Apr 29	3.4	22	14	18	19	6.9	10	250	29
	Oct 27	4.3	580	[A]	15	-	850	7.5	7.2	[B]
	Nov 3	-	-	[A]	-	42	-	-	-	[B]
Iron (µg/L)	Apr 29	<100	<100	150	140	<100	600	<100	890	140
	Oct 27	<100	<100	[A]	<100	-	120	200	140	[B]
	Nov 3	-	-	[A]	-	710	-	-	-	[B]
Lead (µg/L)	Apr 29	<5	<5	<5	<5	<5	<5	<5	30	<5
	Oct 27	<5	<5	[A]	<5	-	<5	<5	<5	[B]
	Nov 3	-	-	[A]	-	45	-	-	-	[B]
Magnesium (µg/L)	Apr 29	<500	<500	<500	<500	<500	510	<500	<500	<500
	Oct 27	<500	720	[A]	<500	-	<500	<500	<500	[B]
	Nov 3	-	-	[A]	-	<500	-	-	-	[B]
Manganese (µg/L)	Apr 29	<30	<30	<30	<30	<30	<30	<30	<30	<30
	Oct 27	<30	<30	[A]	<30	-	<30	<30	<30	[B]
	Nov 3	-	-	[A]	-	<30	-	-	-	[B]
Molybdenum (µg/L)	Apr 29	39	<25	27	26	<25	<25	<25	<25	<25
	Oct 27	36	26	[A]	<25	-	<25	35	25	[B]
	Nov 3	-	-	[A]	-	<25	-	-	-	[B]

A dash (-) denotes analysis not required.

Continued

Table D.2. Site 300 cooling tower wastewater monitoring network 2009 annual metals analysis data summary.

Analyte	Date	3-801 ACT01-TW	3-809 ACT01-TW	3-812 AFCT01-TW	3-817 ACT01-TW	3-825 ACT01-TW	3-826 FCT01-TW	3-827 ACT01-TW	3-851 BFCT01-TW	3-851 BFCT02P-TW
Nickel (µg/L)	Apr 29	<2	2.2	<2	<2	<2	<2	<2	<2	<2
	Oct 27	<2	<2	A	<2	-	<2	<2	<2	B
	Nov 3	-	-	A	-	6.9	-	-	-	B
Potassium (µg/L)	Apr 29	17000	9400	11000	12000	8900	10000	9100	10000	9000
	Oct 27	14000	10000	A	8800	-	8400	14000	9700	B
	Nov 3	-	-	A	-	8000	-	-	-	B
Selenium (µg/L)	Apr 29	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Oct 27	<2	<2	A	<2	-	<2	<2	<2	B
	Nov 3	-	-	A	-	<2	-	-	-	B
Vanadium (µg/L)	Apr 29	<20	<20	<20	<20	<20	<20	<20	<20	<20
	Oct 27	<20	<20	A	<20	-	<20	<20	<20	B
	Nov 3	-	-	A	-	<20	-	-	-	B
Zinc (µg/L)	Apr 29	42	35	69	73	100	70	46	570	77
	Oct 27	25	44	A	25	-	76	36	24	B
	Nov 3	-	-	A	-	320	-	-	-	B

A dash (-) denotes analysis not required.

A Location 3-812AFCT01-TW was not sampled second semester because the cooling tower was removed from service.

B The cooling tower at Building 851 (3-851BFCT02P-TW) was not sampled during the second semester because the cooling tower was down for repairs and replacement during the time of scheduled sampling events. Due to miscommunication, a resample was inadvertently missed.

Concluded

Table D.3. Site 300 cooling tower wastewater monitoring network 2009 annual physical characteristics data summary.

Building	Well	Date	pH	Specific Conductance (µmhos/cm)	Total Alkalinity (as CaCO3) (mg/L)	Total dissolved solids (TDS) (mg/L)	Total Hardness (as CaCO3) (mg/L)	Total Phosphorus (as PO4) (mg/L)
B801	3-801ACT01-TW	Apr 29	9.1	1830	390	1400	47	1.0
B801	3-801ACT01-TW	Oct 27	9.1	1770	380	1300	49	1.2
B809	3-809ACT01-TW	Apr 29	8.6	1060	230	760	23	0.49
B809	3-809ACT01-TW	Oct 27	8.8	1270	260	900	31	0.62
B812	3-812AFCT01-TW	Apr 29	8.7	1270	270	910	30	1.3
B817	3-817ACT01-TW	Apr 29	8.7	1300	280	970	26	0.55
B817	3-817ACT01-TW	Oct 27	8.7	1100	230	760	26	1.1
B825	3-825ACT01-TW	Apr 29	8.5	1040	220	760	22	0.42
B825	3-825ACT01-TW	Nov 3	8.2	1020	210	700	22	0.67
B826	3-826FCT01-TW	Apr 29	8.7	1090	240	810	22	0.24
B826	3-826FCT01-TW	Oct 27	8.6	1030	210	710	25	0.15
B827	3-827ACT01-TW	Apr 29	8.5	1050	220	750	23	0.62
B827	3-827ACT01-TW	Oct 27	9.1	1620	360	1200	43	1.2
B851	3-851BFCT01-TW	Apr 29	8.7	1160	250	840	38	0.49
B851	3-851BFCT01-TW	Oct 27	8.9	1250	270	920	56	0.44
B851	3-851BFCT02P-TW	Apr 29	8.6	1030	220	750	35	0.20

Table D.4. Site 300 cooling tower wastewater monitoring network 2009 annual QA data summary.

Constituent	Units	3-801ACT01-TW Apr 29 Routine	3-801ACT01-TW Apr 29 Duplicate	3-809ACT01-TW Oct 27 Routine	3-809ACT01-TW Oct 27 Duplicate
pH	Units	9.1	9.1	8.8	8.9
Specific Conductance	µmhos/cm	1830	1830	1270	1300
Aluminum	µg/L	<50	<50	<50	16
Arsenic	µg/L	<2	<2	<2	<0.5
Barium	µg/L	<25	<25	<25	18
Boron	µg/L	1900	1800	1200	1100
Cadmium	µg/L	<50	<50	<50	<0.1
Calcium	µg/L	18000	18000	11000	11000
Chromium	µg/L	<1	<1	<1	<0.5
Chromium (VI)	µg/L	<1	<1	<1	<2
Copper	µg/L	3.4	3.3	580	560
Iron	µg/L	<100	<100	<100	80
Lead	µg/L	<5	<5	<5	0.97
Magnesium	µg/L	<500	<500	720	700
Manganese	µg/L	<30	<30	<30	2.4
Molybdenum	µg/L	39	39	26	23
Nickel	µg/L	<2	<2	<2	<0.5
Potassium	µg/L	17000	17000	10000	16000
Selenium	µg/L	<2	<2	<2	<1
Vanadium	µg/L	<20	<20	<20	<2
Zinc	µg/L	42	42	44	330
Sodium	mg/L	440	440	280	260
Chloride	mg/L	170	160	110	100
Nitrate (as NO3)	mg/L	2.4	2.3	<0.5	<0.5
Sulfate	mg/L	350	340	230	210
Fluoride	mg/L	0.49	0.41	0.69	0.18
Total Alk (as CaCO3)	mg/L	390	390	260	280
TDS	mg/L	1400	1400	900	860
Total Hardness (as CaCO3)	mg/L	47	47	31	35
Total phosphorus (as PO4)	mg/L	1.0	1.0	0.62	<1

FIELD TRACKING FORM
Semi-Annual SITE 300 Cooling Towers

Special Instructions: Should be sampled in early April and October.
See back of form for additional access information

*Allow cooling tower to flush for 30 seconds prior to collecting sample.
**For Caltest (DUP) sample use 1 x Liter Poly + 1 x 500 mL poly w/H2SO4

LAB	CoC#	Ship It #
BC Labs	47059	
Caltest	47066	

pH meter calibrated on: 10/26/09
Specific Conductance meter calibrated on: 10/26/09

Sample Date: 10/27/09

Location Indentifier	Location DUP taken -year/quarter	Arrival/Sample Time	Initials	Field Measurments: pH	Field Measurments: Specific Conductance	BC Labs: S3METALS 500mL Poly	BC Labs: S3ANIONS 1 x 500ml Poly	BC Labs: ** S3WETCHEM 1000mL Poly	Comments
3-801ACT01-TW	2009/2nd	0920	KB, CF	9.18	1764 uS				
3-809ACT01-TW	2009/4th	1030	KB, cf	8.79	1308 uS				
3-812AFCT01-TW*	2008/4th	OFFLINE							
3-817ACT01-TW		1035	KB, cf	8.90	1139 uS				
3-825ACT01-TW	NOT WORKING	955 KB							
3-826FCT01-TW		1005	KB, CF	8.63	1047 uS				
3-851BFCT01-TW		0900	KB, CF	8.93	1273 uS				
3-851BFCT02P-TW		OFFLINE							
3-827ACT01-TW		1015	KB, cf	9.11	1085 uS				
Duplicate of 3-809ACT01-TW to be sent to Caltest Labs									
3-B9900-01-TW									

☑ Copy to Analyst, Allen Grayson.

☑ Copy of CoC given to TRR

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Chain of Custody

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Document Control #: 47059
Requester/LLNL Analyst: A. Grayson
Organization / Sampler: EPD / brunckhorst2
PCI Project #: 32424
PCI Task #: 1.3.2.2.5.7
Fax/Email #1: swanson15@llnl.gov
DMT Additional Copies:

Analytical Lab : BCLABS-BAK
TAT: 20d
Analytical Lab Log #:
Project/Network: COOLTOWER
LLNL Acct #: 3297-47
Release #: UNICARD
Fax/Email #2:

Additional Instructions:

Sample ID	Sampled Date/Time	Matrix	Cont. Type	Cont. Count	Study Area	Req. Analysis	Analysis Detail	Lab Instructions
3-801ACT01-01-TW	10/27/2009 09:20	TW	P	1	COOLTOWER	S3ANIONS	ALL	
3-801ACT01-01-TW	10/01/2009 00:00	TW	P	0	COOLTOWER	S3METALS	ALL	
3-801ACT01-01-TW	10/27/2009 09:20	TW	P	1	COOLTOWER	S3METALS	TOTAL	
3-801ACT01-01-TW	10/27/2009 09:20	TW	P	1	COOLTOWER	S3WETCHEM	ALL	
3-809ACT01-01-TW	10/27/2009 10:30	TW	P	1	COOLTOWER	S3ANIONS	ALL	
3-809ACT01-01-TW	10/01/2009 00:00	TW	P	0	COOLTOWER	S3METALS	ALL	
3-809ACT01-01-TW	10/27/2009 10:30	TW	P	1	COOLTOWER	S3METALS	TOTAL	
3-809ACT01-01-TW	10/27/2009 10:30	TW	P	1	COOLTOWER	S3WETCHEM	ALL	
3-817ACT01-01-TW	10/27/2009 10:35	TW	P	1	COOLTOWER	S3ANIONS	ALL	
3-817ACT01-01-TW	10/01/2009 00:00	TW	P	0	COOLTOWER	S3METALS	ALL	
3-817ACT01-01-TW	10/27/2009 10:35	TW	P	1	COOLTOWER	S3METALS	TOTAL	
3-817ACT01-01-TW	10/27/2009 10:35	TW	P	1	COOLTOWER	S3WETCHEM	ALL	
3-826FCT01-01-TW	10/27/2009 10:05	TW	P	1	COOLTOWER	S3ANIONS	ALL	
3-826FCT01-01-TW	10/01/2009 00:00	TW	P	0	COOLTOWER	S3METALS	ALL	
3-826FCT01-01-TW	10/27/2009 10:05	TW	P	1	COOLTOWER	S3METALS	TOTAL	
3-826FCT01-01-TW	10/27/2009 10:05	TW	P	1	COOLTOWER	S3WETCHEM	ALL	
3-827ACT01-01-TW	10/27/2009 10:15	TW	P	1	COOLTOWER	S3ANIONS	ALL	
3-827ACT01-01-TW	10/01/2009 00:00	TW	P	0	COOLTOWER	S3METALS	ALL	
3-827ACT01-01-TW	10/27/2009 10:15	TW	P	1	COOLTOWER	S3METALS	TOTAL	
3-827ACT01-01-TW	10/27/2009 10:15	TW	P	1	COOLTOWER	S3WETCHEM	ALL	
3-851BFCT01-01-TW	10/27/2009 09:00	TW	P	1	COOLTOWER	S3ANIONS	ALL	
3-851BFCT01-01-TW	10/01/2009 00:00	TW	P	0	COOLTOWER	S3METALS	ALL	
3-851BFCT01-01-TW	10/27/2009 09:00	TW	P	1	COOLTOWER	S3METALS	TOTAL	
3-851BFCT01-01-TW	10/27/2009 09:00	TW	P	1	COOLTOWER	S3WETCHEM	ALL	

Relinquished Signature	Company	Date	Time	Received Signature	Company	Date	Time
1 Saul Bruckhorst	LLNL/EPD	10/27/2009		2			
2				3			
3				4			
4				5			

Revision Printed: 03/18/2009/14/12/21

Signature Order - 1: Sampler, 2: Courier, 3: Lab, 4: Analyst, 5: DMT

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Document Control #: 47066
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PCI Task #: 1.3.2.2.5.7
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DMT Additional Copies:

Analytical Lab : CALTEST
TAT: 20d
Analytical Lab Log #:
Project/Network: COOLTOWER
LLNL Acct #: 3297-47
Release #: UNICARD
Fax/Email #2:

Additional Instructions:

Sample ID	Sampled Date/Time	Matrix	Cont. Type	Cont. Count	Study Area	Req. Analysis	Analysis Detail	Lab Instructions
3-B9900-01-TW	10/27/2009 10:30	TW	P	0	COOLTOWER	S3METALS	ALL	
3-B9900-01-TW	10/27/2009 10:30	TW	P	1	COOLTOWER	S3METALS	TOTAL	
3-B9900-01-TW	10/27/2009 10:30	TW	P	2	COOLTOWER	S3WETCHEM	ALL	Pre acidify 500 poly W/H2So4
3-B9900-01-TW	10/27/2009 10:30	TW	P	1	COOLTOWER	S3ANIONS	ALL	

Relinquished Signature	Company	Date	Time	Received Signature	Company	Date	Time
1 [signature]	LLNL/EPD	10/27/2009		2			
2				3			
3				4			
4				5			

FIELD TRACKING FORM
Semi-Annual SITE 300 Cooling Towers

Special Instructions: Should be sampled in early April and October.
See back of form for additional access information

*Allow cooling tower to flush for 30 seconds prior to collecting sample.
**For Caltest (DUP) sample use 1 x Liter Poly + 1 x 500 mL poly w/H2SO4

LAB	CoC#	Ship It #
BC Labs	47349	130080
Caltest		

pH meter calibrated on: 11/3/09
Specific Conductance meter calibrated on: 11/3/09

Sample Date: 11/3/09

Location Indentifier	Location DUP taken -year/quarter	Arrival/Sample Time	Initials	Field Measurments: pH	Field Measurments: Specific Conductance	BC Labs: S3METALS 500mL Poly	BC Labs: S3ANIONS 1 x 500ml Poly	BC Labs: ** S3WETCHEM 1000mL Poly
3-801ACT01-TW	2009/2nd							
3-809ACT01-TW	2009/4th							
3-812AFCT01-TW*	2008/4th							
3-817ACT01-TW								
3-825ACT01-TW		0900	KS	8.74	1057µs	✓	✓	✓
3-826FCT01-TW								
3-851BFCT01-TW								
3-851BFCT02P-TW								
3-827ACT01-TW								
Duplicate of 3-809ACT01-TW								
3-B9900-01-TW								

Comments

Cooling tower was NOT operating at the time the Sample was collected. Sample matrix consisted of residual cooling tower water.

Sample was collected from a valve located near the bottom of the cooling tower.

☑ Copy to Analyst, Allen Grayson.

☑ Copy of CoC given to TRR

Revised 10/14/09

Chain of Custody

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Document Control #: 47349
Requester/LLNL Analyst: A. Grayson
Organization / Sampler: EPD / brunckhorst2
PCI Project #: 32424
PCI Task #: 1.3.2.2.5.7
Fax/Email #1: swanson15@llnl.gov
DMT Additional Copies:

Analytical Lab : BCLABS-BAK
TAT: 20d
Analytical Lab Log #:
Project/Network: COOLTOWER
LLNL Acct #: 3297-47
Release #: UNICARD
Fax/Email #2:

Additional Instructions:

Sample ID	Sampled Date/Time	Matrix	Cont. Type	Cont. Count	Study Area	Req. Analysis	Analysis Detail	Lab Instructions
3-825ACT01-01-TW	11/03/2009 09:00	TW	P	1	COOLTOWER	S3ANIONS	ALL	
3-825ACT01-01-TW	10/01/2009 00:00	TW	P	0	COOLTOWER	S3METALS	ALL	
3-825ACT01-01-TW	11/03/2009 09:00	TW	P	1	COOLTOWER	S3METALS	TOTAL	
3-825ACT01-01-TW	11/03/2009 09:00	TW	P	1	COOLTOWER	S3WETCHEM	ALL	

Relinquished Signature	Company	Date	Time	Received Signature	Company	Date	Time
1 [signature]	LLNL/EPD	11/3/2009		2			
2				3			
3				4			
4				5			

Appendix E

Mechanical Equipment Discharge Effluent Monitoring for Buildings 806A and 827A, 827C, 827D, and 827E

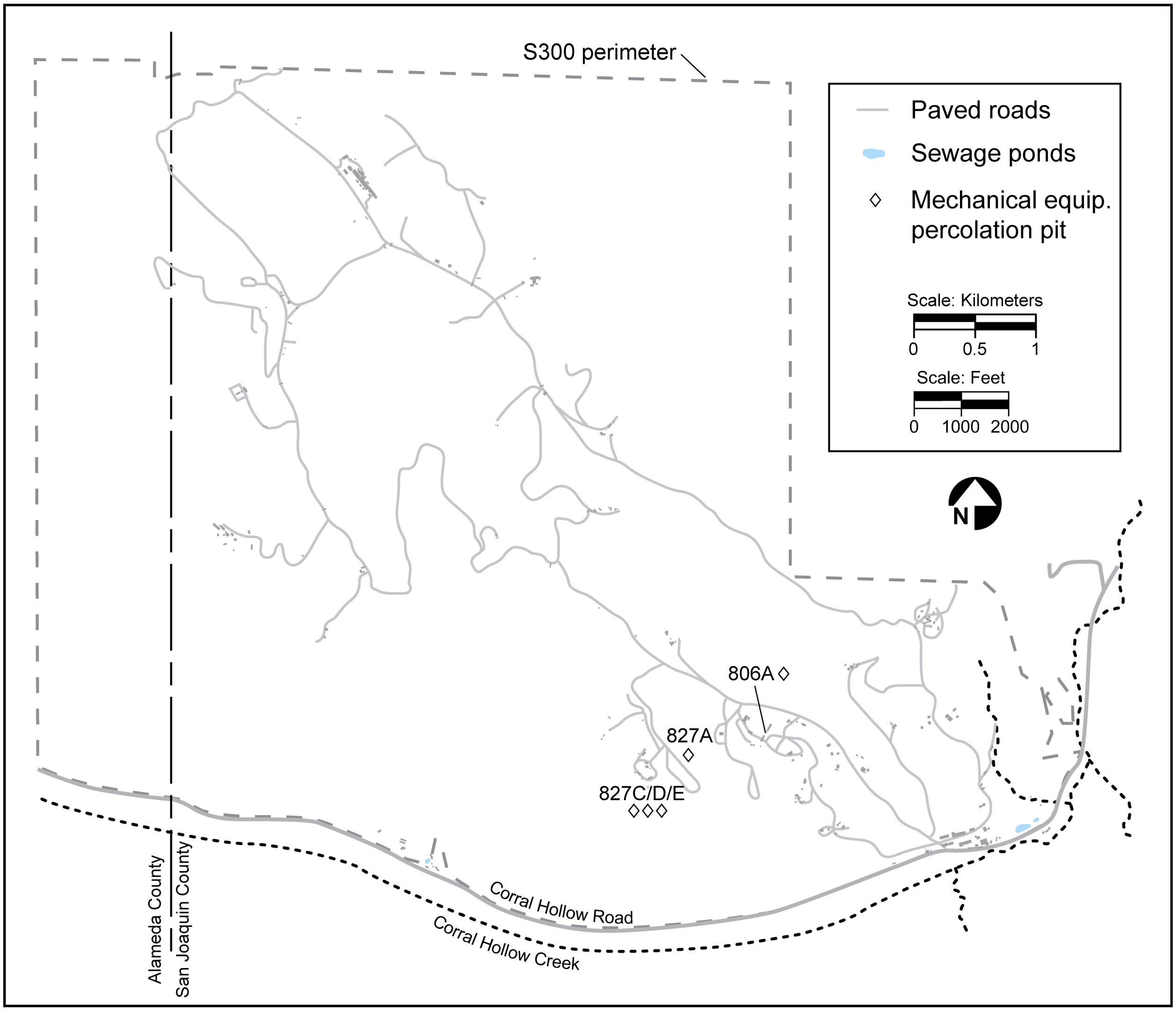

Figure E.1. Location of mechanical equipment wastewater percolation pits.

Table E.1. Site 300 mechanical equipment discharge effluent monitoring 2009 annual anions data summary.

Well	Date	Sulfate (mg/L)	Chloride (mg/L)	Nitrate (as NO3) (mg/L)	Fluoride (mg/L)
B806A	Feb 3	180	85	<0.44	0.33
B806A	May 7	180	89	0.55	0.42
B806A	Oct 22	180	83	<0.5	0.23
B827A	Feb 3	210	100	<0.44	0.37
B827A	Feb 3 DUP	210	100	<0.44	0.37
B827A	May 7	240	120	0.67	0.57
B827A	Oct 22	210	99	<0.5	0.28
B827C	Feb 3	180	84	<0.44	0.31
B827C	May 7	200	100	<0.5	0.42
B827C	May 7 DUP	200	100	<0.5	0.42
B827C	Oct 22	240	110	<0.5	0.32
B827D	Feb 3	100	45	<0.44	0.16
B827D	May 7	450	230	<1	1.1
B827D	Oct 22	110	170	<0.5	0.19
B827D	Oct 22 DUP	240	110	<0.5	0.29
B827E	Feb 3	190	86	<0.44	0.33
B827E	May 7	190	94	<0.5	0.44
B827E	Oct 22	180	85	<0.5	0.24

Table E.2. Site 300 mechanical equipment discharge effluent monitoring 2009 annual metals data summary.

Analyte	Date	B806A	B827A	B827A DUP	B827C	B827C DUP	B827D	B827D DUP	B827E
Aluminum (mg/L)	Feb 3	<0.05	<0.05	<0.05	<0.05	-	<0.05	-	<0.05
	May 7	<0.05	<0.05	-	<0.05	<0.05	<0.05	-	<0.05
	Oct 22	<0.05	<0.05	-	<0.05	-	<0.05	<0.05	<0.05
Arsenic (mg/L)	Feb 3	<0.002	<0.002	<0.002	<0.002	-	<0.002	-	<0.002
	May 7	<0.002	<0.002	-	<0.002	<0.002	<0.002	-	<0.002
	Oct 22	<0.002	<0.002	-	<0.002	-	<0.002	<0.002	<0.002
Barium (mg/L)	Feb 3	<0.025	<0.025	<0.025	<0.025	-	<0.025	-	<0.025
	May 7	<0.025	<0.025	-	<0.025	<0.025	<0.025	-	<0.025
	Oct 22	<0.025	<0.025	-	<0.025	-	<0.025	<0.025	<0.025
Boron (mg/L)	Feb 3	0.96	1.1	1.2	0.98	-	0.61	-	1.0
	May 7	0.89	1.1	-	0.95	1.0	2.1	-	0.89
	Oct 22	0.99	1.2	-	1.2	-	0.61	1.2	0.95
Cadmium (mg/L)	Feb 3	<0.05	<0.05	<0.05	<0.05	-	<0.05	-	<0.05
	May 7	<0.05	<0.05	-	<0.05	<0.05	<0.05	-	<0.05
	Oct 22	<0.05	<0.05	-	<0.05	-	<0.05	<0.05	<0.05
Chromium (mg/L)	Feb 3	<0.001	<0.001	<0.001	<0.001	-	0.0063	-	<0.001
	May 7	<0.001	<0.001	-	0.0031	0.0029	0.012	-	<0.001
	Oct 22	<0.001	<0.001	-	0.0095	-	0.0022	0.0091	<0.001
Hexavalent Chromium (mg/L)	Feb 3	<0.001	<0.001	<0.001	<0.001	-	<0.001	-	<0.001
	May 7	<0.001	<0.001	-	<0.001	<0.001	<0.001	-	<0.001
	Oct 22	<0.001	<0.001	-	<0.001	-	<0.001	<0.001	<0.001
Copper (mg/L)	Feb 3	0.016	0.011	0.062	0.010	-	7.7	-	0.015
	May 7	0.097	0.018	-	1.2	1.2	7.9	-	0.018
	Oct 22	0.48	0.016	-	22	-	4.2	19	0.10
Iron (mg/L)	Feb 3	<0.1	<0.1	<0.1	0.22	-	2.1	-	0.92
	May 7	<0.1	<0.1	-	8.8	9.0	19	-	2.6
	Oct 22	0.13	0.25	-	77	-	2.1	71	0.44
Lead (mg/L)	Feb 3	<0.005	<0.005	<0.005	<0.005	-	0.24	-	<0.005
	May 7	<0.005	<0.005	-	0.016	0.016	0.11	-	<0.005
	Oct 22	0.011	<0.005	-	0.16	-	0.045	0.15	<0.005

A dash (-) denotes analysis not required.

Continued

Table E.2. Site 300 mechanical equipment discharge effluent monitoring 2009 annual metals data summary.

Analyte	Date	B806A	B827A	B827A DUP	B827C	B827C DUP	B827D	B827D DUP	B827E
Manganese (mg/L)	Feb 3	<0.03	<0.03	<0.03	<0.03	-	0.059	-	<0.03
	May 7	<0.03	<0.03	-	0.12	0.13	0.15	-	0.038
	Oct 22	<0.03	<0.03	-	1.5	-	0.037	1.4	<0.03
Molybdenum (mg/L)	Feb 3	<0.025	0.031	0.027	<0.025	-	<0.025	-	<0.025
	May 7	<0.025	0.025	-	<0.025	0.026	0.049	-	<0.025
	Oct 22	<0.025	0.025	-	0.034	-	<0.025	0.033	<0.025
Nickel (mg/L)	Feb 3	<0.002	<0.002	<0.002	<0.002	-	0.23	-	<0.002
	May 7	0.0033	<0.002	-	0.037	0.031	0.12	-	<0.002
	Oct 22	<0.002	<0.002	-	0.21	-	0.057	0.22	<0.002
Selenium (mg/L)	Feb 3	<0.002	<0.002	<0.002	<0.002	-	<0.002	-	<0.002
	May 7	<0.002	<0.002	-	<0.002	<0.002	<0.002	-	<0.002
	Oct 22	<0.002	<0.002	-	<0.002	-	<0.002	<0.002	<0.002
Sodium (mg/L)	Feb 3	220	260	260	220	-	150	-	250
	May 7	220	280	-	240	250	570	-	240
	Oct 22	230	280	-	330	-	230	320	230
Vanadium (mg/L)	Feb 3	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02
	May 7	<0.02	<0.02	-	<0.02	<0.02	<0.02	-	<0.02
	Oct 22	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.02
Zinc (mg/L)	Feb 3	0.034	0.045	<0.02	0.024	-	0.27	-	0.035
	May 7	0.025	0.045	-	0.067	0.072	0.23	-	0.081
	Oct 22	<0.02	0.044	-	0.77	-	0.20	0.86	0.052
Calcium (mg/L)	Feb 3	7.8	9.5	9.9	10	-	<0.5	-	6.0
	May 7	7.4	10	-	5.9	6.2	0.82	-	9.6
	Oct 22	8.0	12	-	<0.5	-	2.8	<0.5	5.4
Magnesium (mg/L)	Feb 3	<0.5	<0.5	<0.5	<0.5	-	0.54	-	<0.5
	May 7	<0.5	<0.5	-	<0.5	<0.5	1.6	-	<0.5
	Oct 22	<0.5	<0.5	-	<0.5	-	<0.5	<0.5	<0.5
Potassium (mg/L)	Feb 3	7.9	9.0	9.3	7.3	-	5.3	-	6.8
	May 7	8.1	10	-	9.0	9.4	23	-	8.1
	Oct 22	8.2	10	-	16	-	3.0	15	6.0

A dash (-) denotes analysis not required.

Concluded

Table E.3. Site 300 mechanical equipment discharge effluent monitoring 2009 annual physical data.

Well	Date	Specific Conductance (µmhos/cm)	Total dissolved solids (mg/L)	Total Alkalinity (as CaCO3) (mg/L)	Total Phosphorus (as PO4) (mg/L)	pH	Total Hardness (as CaCO3) (mg/L)
B806A	Feb 3	980	680	210	<0.15	8.2	21
B806A	May 7	1000	720	210	0.23	8.2	20
B806A	Oct 22	1000	690	210	<0.15	8.2	21
B827A	Feb 3	1100	790	240	0.47	8.7	25
B827A	Feb 3 DUP	1100	790	240	0.55	8.6	26
B827A	May 7	1400	960	270	0.53	8.7	27
B827A	Oct 22	1200	780	250	0.47	8.7	30
B827C	Feb 3	950	660	200	<0.15	9.3	27
B827C	May 7	1100	830	230	1.8	9.6	15
B827C	May 7 DUP	1200	700	230	1.8	9.6	16
B827C	Oct 22	1400	910	300	4.6	10	1.6
B827D	Feb 3	590	400	130	2.2	7.2	2.8
B827D	May 7	2500	1800	520	9.8	10	8.8
B827D	Oct 22	1100	640	150	2.3	7.4	7.5
B827D	Oct 22 DUP	1400	880	300	4.5	10	1.4
B827E	Feb 3	1000	690	220	<0.15	8.5	16
B827E	May 7	1100	790	240	<0.15	9.0	24
B827E	Oct 22	1000	650	200	<0.15	9.1	14

FIELD TRACKING FORM
Semi-Annual Site 300 Mechanical Equipment Room Discharge

Special Instructions: Should be sampled in early April and October.
See back of form for additional access information

*For Caltest (DUP) sample use 1 x Liter Poly + 1 x 500 mL poly w/H2SO4

LAB	CoC#	Ship It #
BC Labs	47067	
Caltest		

pH meter calibrated on: 10/21/09
Specific Conductance meter calibrated on: 10/21/09

Sample Date: 10/22/09

				Field Meas		BC Labs			Comments
	Location Indentifier	Arrival/Sample Time	Initials	pH	Specific Conductance	S3METALS 500mL Poly	S3ANIONS 1 x 500ml Poly	* S3WETCHEM 1000mL Poly	827E Boiler not running — SAMPLE PORT PLUGGED. MAY-09 UNDER REPAIR. 827C Boiler NO. BHPSE01 Rust colored water coming from boiler
	3-B827A-01-OW	1040		8.46	~~1085µS~~ 1212µS				
1020	3-B827C-01-OW	1020		10.28	1485µS				
1000	3-B827D-01-OW	1000		7.55	1091µS				
0940	3-B827E-01-OW	0940		9.04	1047µS				
0920	3-B806A-01-OW	0920		8.49	1085 µS				
	Duplicate of 3-B827~~D~~C-OW								
	3-B9900-OW	1020							

☑ Copy to Analyst, Allen Grayson.

☑ Copy of CoC given to TRR

Revised 10/14/09

Chain of Couistody

EPD: EMAD/PRAD/ESPD Lawrence Livermore National Laboratory P.O. Box 808 L-629 Livermore, CA 94551

Work Authorized By: EPD
TRR Approver:
Project Info:

Access/COC #: 47067
Document Control #: 47067
Requester/LLNL Analyst: A. Grayson
Organization / Sampler: EPD / brunckhorst2
PCI Project #: 32424
PCI Task #: 1.3.2.2.5.7
Fax/Email #1: swanson15@llnl.gov
DMT Additional Copies:

Analytical Lab : BCLABS-BAK
TAT: 20d
Analytical Lab Log #:
Project/Network: MECHEQUIPMNTRMS
LLNL Acct #: 3297-90
Release #: UNICARD
Fax/Email #2:

Additional Instructions:

Sample ID	Sampled Date/Time	Matrix	Cont. Type	Cont. Count	Study Area	Req. Analysis	Analysis Detail	Lab Instructions
3-B806A-01-OW	10/22/2009 09:20	AQ	P	1	MECHEQUIPM	S3ANIONS	ALL	
3-B806A-01-OW	10/22/2009 09:20	AQ	P	0	MECHEQUIPM	S3METALS	ALL	
3-B806A-01-OW	10/22/2009 09:20	AQ	P	1	MECHEQUIPM	S3METALS	TOTAL	
3-B806A-01-OW	10/22/2009 09:20	AQ	P	1	MECHEQUIPM	S3WETCHEM	ALL	
3-B827A-01-OW	10/22/2009 10:40	AQ	P	1	MECHEQUIPM	S3ANIONS	ALL	
3-B827A-01-OW	10/22/2009 10:40	AQ	P	0	MECHEQUIPM	S3METALS	ALL	
3-B827A-01-OW	10/22/2009 10:40	AQ	P	1	MECHEQUIPM	S3METALS	TOTAL	
3-B827A-01-OW	10/22/2009 10:40	AQ	P	1	MECHEQUIPM	S3WETCHEM	ALL	
3-B827C-01-OW	10/22/2009 10:20	AQ	P	1	MECHEQUIPM	S3ANIONS	ALL	
3-B827C-01-OW	10/22/2009 10:20	AQ	P	0	MECHEQUIPM	S3METALS	ALL	
3-B827C-01-OW	10/22/2009 10:20	AQ	P	1	MECHEQUIPM	S3METALS	TOTAL	
3-B827C-01-OW	10/22/2009 10:20	AQ	P	1	MECHEQUIPM	S3WETCHEM	ALL	
3-B827D-01-OW	10/22/2009 10:00	AQ	P	1	MECHEQUIPM	S3ANIONS	ALL	
3-B827D-01-OW	10/22/2009 10:00	AQ	P	0	MECHEQUIPM	S3METALS	ALL	
3-B827D-01-OW	10/22/2009 10:00	AQ	P	1	MECHEQUIPM	S3METALS	TOTAL	
3-B827D-01-OW	10/22/2009 10:00	AQ	P	1	MECHEQUIPM	S3WETCHEM	ALL	
3-B827E-01-OW	10/22/2009 09:40	AQ	P	1	MECHEQUIPM	S3ANIONS	ALL	
3-B827E-01-OW	10/22/2009 09:40	AQ	P	0	MECHEQUIPM	S3METALS	ALL	
3-B827E-01-OW	10/22/2009 09:40	AQ	P	1	MECHEQUIPM	S3METALS	TOTAL	
3-B827E-01-OW	10/22/2009 09:40	AQ	P	1	MECHEQUIPM	S3WETCHEM	ALL	
3-B9900-01-OW	10/22/2009 10:20	AQ	P	1	SPECIAL	S3ANIONS	ALL	
3-B9900-01-OW	10/22/2009 10:20	AQ	P	1	SPECIAL	S3METALS	ALL	
3-B9900-01-OW	10/22/2009 10:20	AQ	P	0	SPECIAL	S3METALS	TOTAL	
3-B9900-01-OW	10/22/2009 10:20	AQ	P	1	SPECIAL	S3WETCHEM	ALL	

Relinquished Signature	Company	Date	Time	Received Signature	Company	Date	Time
1 [signature]	LLNL/EPD	10/22/2009	1545	2			
2				3			
3				4			
4				5			

Revision Printed: 03/18/2009/14/12/21 Signature Order - 1: Sampler, 2: Courier, 3: Lab, 4: Analyst, 5: DMT

Environmental Protection Department, **Lawrence Livermore National Laboratory**
P.O. Box 808, L-627, Livermore, California 94551

What This Is

Lawrence Livermore National Laboratory (LLNL) Experimental Test Site (Site 300) Compliance Monitoring Report for Waste Discharge Requirements (WDR) Order No. R5-2008-0148 Annual/Second Semester Report 2009

1. Driver, purpose and required content

This required monitoring report presents results of wastewater and ground water analyses permitted by WDR R5-2008-0148 that was adopted in September 2008. This report meets the semiannual and annual reporting requirements and monitoring summary required in the WDR Monitoring and Reporting Program (MRP). The monitoring networks covered under the terms and conditions of this Permit include the sewage evaporation and percolation ponds, septic systems, cooling tower discharges and other low-threat discharges located at Site 300. This report summarizes (first and second semester) 2009 monitoring data.

2. Issues and commitments made in the document

Data are presented in both graphical and tabular form to indicate compliance with the terms and conditions of the WDR. Monitoring data show all 2009 analytical results for discharges from the prescribed monitoring networks were in compliance with WDR conditions.

This report is required to be prepared under the supervision of a California Professional Geologist or Professional Engineer and must be signed by the professional. More details of all sampling activities, including field-sampling logs, ground water contour maps, and details of well construction are new requirements under this revised MRP No. R5-2008-0148.

Following detailed discussion with EPD staff, Susan Timm, of the CVRWQCB (now retired from the CVRWQCB) issued a revised MRP under this Permit. This revision takes into account various issues that developed when implementing these networks. The CVRWQCB is currently in the process of re-issuing the WDR and is expected to finalize the WDR during the March 2010 CVRWQCB Executive Board meeting. All permit conditions were met, except for missing third and fourth quarter percolation pit inspections at B806. This occurred due to a scheduling error, which has been corrected. The cooling tower at Building 851 (3-851BFCT02P-TW) was not sampled during the second semester because the cooling tower was down for repairs and replacement during the time of scheduled sampling events. Due to miscommunication, a resample was inadvertently missed.

3. Due date

This report is due at the Central Valley Regional Water Quality Control Board on **March 1, 2010,** to satisfy the requirements of No. R5-2008-0148.

4. Technical reviewers

This document was sent for technical review to Zafer Demir, Don MacQueen, and Karen Folks. The comments received were incorporated.

5. Name and phone number of who to contact with questions

If you have any questions about this letter, please contact either Allen Grayson at 2-2300 or Karen Folks at x2-2367.

PRAD10:047 / EPDAI10-061 – BS/AG:lh

ENVIRONMENT, SAFETY & HEALTH

Environmental Protection Department

Permits and Regulatory Affairs Division

Action Item(s) ES&H # ________ EPD # AI10-061	Due: 03/01/10	Document ID # PRAD10:047

LLNL Experimental Test Site 300, Annual/Second Semester 2009 Compliance Monitoring Report for Waste Discharge Requirements R5-2008-0148

Document Name

Ms. Kathryn Dominic, Central Valley Regional Water Quality Control Board

Submitted To

February 22, 2010

Processing Due Date

Allen Grayson	2/22/2010
Allen Grayson, Environmental Scientist	Date Signed
Richard S Blake	2/23/10
Richard Blake, Water Resources Program Leader	Date Signed
Sav Mancieri	2/23/10
Sav Mancieri, Division Leader	Date Signed
see attached	
Ray Chin, S-300 P.E. Maintenance & Operations	Date Signed
see attached	
Leslie Ferry, S-300 Restoration Project Leader (ERD)	Date Signed
see attached	
John E. Scott, S-300 Site Manager	Date Signed

CMG 2/26/10

Document to be signed by: Bruce Schultz, Acting Department Head

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Contact Loni Hoellwarth @ 4-5664 for pick-up/coordination. Thank you.

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Environmental Protection Department
Permits and Regulatory Affairs Division

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ES&H # ________ EPD # AI10-061		PRAD10:047

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Document Name

Ms. Kathryn Dominic, Central Valley Regional Water Quality Control Board
Submitted To

February 22, 2010
Processing Due Date

Allen Grayson — 2/22/2010
Allen Grayson, Environmental Scientist — Date Signed

concurrent review
Richard Blake, Water Resources Program Leader — Date Signed

concurrent review
Sav Mancieri, Division Leader — Date Signed

2/25/10
Ray Chin, S-300 P.E. Maintenance & Operations — Date Signed

concurrent review
Leslie Ferry, S-300 Restoration Project Leader (ERD) — Date Signed

concurrent review
John E. Scott, S-300 Site Manager — Date Signed

Document to be signed by: Bruce Schultz, Acting Department Head

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concurrent review	
John E. Scott, S-300 Site Manager	Date Signed

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concurrent review
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concurrent review
Leslie Ferry, S-300 Restoration Project Leader (ERD) — Date Signed

John E. Scott — KF with changes — 2/25/10
John E. Scott, S-300 Site Manager — Date Signed

Document to be signed by: Bruce Schultz, Acting Department Head

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