



Revised 2011 Annual Report Ground Water Monitoring and Interim Action Performance Monitoring

Pasco Landfill Site Pasco, Washington

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1.0 INTRODUCTION

Environmental Partners, Inc. (EPI) has prepared this 2011 Annual Report for Ground Water Monitoring and Interim Action Performance Monitoring (2011 Annual Report) on behalf of the Industrial Waste Area Generators Group III (IWAG) of the Pasco Sanitary Landfill (PSL) site in Pasco, Washington (Site).

This Report is being submitted to the Washington State Department of Ecology (Ecology) in support of the ongoing obligations of the IWAG under Agreed Order No. DE-00TCPER-1324 (Order). This 2011 Annual Report summarizes the results of the ground water monitoring and interim action performance monitoring activities conducted in 2011 and discusses the effectiveness of the various interim actions implemented at the Site.

This 2011 Annual Report also contains the following enclosures:

- Appendix A contains the *Data Validation Report Pasco Sanitary Landfill Groundwater Monitoring October 2011 Sampling* prepared by Pyron Environmental, Inc.
- Appendix B contains borelogs for ground water monitoring wells MW-11I, MW-29I, MW-38I, MW-43I, and MW-54I, which were installed during the first quarter of 2011.
- Appendix C contains the documents satisfying the annual reporting requirements of the Order for the operation and maintenance of the soil vapor extraction (SVE) system.
- Appendix D contains the *2011 East Pasco Plume Area Well Location Survey* prepared by the City of Pasco and the *2011 Annual Institutional Controls Report* for the Site prepared by the Franklin County Planning and Building Department.
- Appendix E contains laboratory analytical data for condensate generated, treated, and disposed of during the fourth quarter of 2011, and associated hazardous waste manifests.
- Appendix F contains the documents satisfying the annual reporting requirements of the Order for the maintenance and inspection of the Industrial Waste Area covers, detention/evaporation basins and fences for Zones A, C/D, and E.
- Appendix G contains an electronic data deliverable, on compact disk, with Site data generated during the fourth quarter 2011 sampling event. The file PLF_Report_4Q11.xls contains multiple worksheets, each containing a subset of the Site data (volatile organic compounds [VOCs], semi-volatile organic compounds [SVOCs], herbicides, polychlorinated biphenyls [PCBs], metals, water quality parameters, stabilization parameters, and water level data).

1.1 Site Location

The general location of the PSL Site is depicted on Figure 1. The PSL is located approximately 1.5 miles northeast of the City of Pasco, in the southwest quarter of Section 15, the northeast quarter of Section 21, and the northwest quarter of Section 22, Township 9 North, Range 30 East, Willamette Meridian, located in Franklin County, Washington.

The PSL property occupies a 200-acre area consisting of gently rolling hills surrounded by irrigated cropland. The former municipal solid waste landfill (MSW Landfill), Industrial Waste Area (IWA), and the New Waste, Inc. (NWI) landfill are located within the PSL property. The NWI landfill is a modern and fully lined solid waste landfill located to the north of the MSW Landfill that opened on May 31, 1993 and closed in 2002. The NWI landfill is not included under the Order and is not considered further in this report.

The formal definition of the PSL Site is presented in the Order. The Site boundaries, as defined by the Order, encompass the following three distinct areas: the IWA, Former MSW Landfill Area, and the Ground Water Plume (GW) Area.

1.2 Background

The operational history and cleanup history of the PSL have been documented extensively in numerous prior reports and will be further documented in the upcoming Focused Feasibility Study (FFS) report. Additional historical background is not necessary within this 2011 Annual Report.

For the purposes of this report, the background and history discussion of the Site will begin in 2007 at the end of the Interim Action Performance Monitoring period. At the end of this period, the IWAG Group II presented the *Interim Action Performance Monitoring Report* (EPI 2007a) and an updated *Operations and Maintenance Manual for SVE, NoVOCs and Groundwater Monitoring* (EPI 2007b), which were approved by Ecology in May 2007. Ecology expressed concerns regarding several aspects of the performance of the Interim Actions. The IWAG Group II responded to those concerns through the preparation of technical memoranda presenting additional technical evaluation. However, during continued discussions between Ecology and the IWAG Group II, it became clear that additional data would be required to address Ecology's concerns and to move the Site toward a Draft Cleanup Action Plan (DCAP). A scope of work for the necessary additional actions to be performed under the Order was negotiated with Ecology. The *REVISED FINAL Work Plan for Additional Interim Actions - Phase I* (EPI 2008a) and *Addendum No. 1 – Operations and Maintenance Manual – SVE, NoVOCs and Ground Water Monitoring* (EPI 2008b) outlined the scope of work and were subsequently approved by Ecology in May of 2008.

The Phase I Additional Interim Actions (AIAs) included: (1) installation of additional wells to better characterize the vertical and spatial extent of the contaminant plume and ground water flow; (2) SVE system rehabilitation, testing and optimization; (3) evaluation of the NoVOCs™ system; (4) a geophysical survey of the Zone A area; and (5) the development of an updated Conceptual Site Model.

Findings of the Phase I Additional Interim Actions were presented to Ecology in the combined *2008 Annual Report Ground Water Monitoring and Phase I Additional Interim Actions* (EPI 2009).

Upon completion of the Phase I AIAs, the IWAG and Ecology initiated discussions for additional work. This additional work, termed the Phase II AIAs, is outlined in the:

- *Draft Final Phase II Additional Interim Actions Work Plan Volume 1 – Soil Vapor Extraction System Upgrades and Start-up Testing with Monitoring Well Installation* (Phase II Volume 1 Work Plan), dated May 14, 2010, and approved by Ecology on May 27, 2010;
- *Revised Final Phase II Additional Interim Actions Work Plan Volume 2 – Sub-Zone A Investigation, Downgradient Well Installation and Cap Maintenance* (Phase II Volume 2 Work Plan), dated January 28, 2011, and approved by Ecology on February 17, 2011;
- *Revised 100% Submittal Engineering Design Report for SVE System Upgrades – Phase II Additional Interim Actions* (EDR Report), dated July 2, 2010, and approved by Ecology on July 16, 2010;
- *Revised Addendum No. 1 – 100% Engineering Design Report for SVE System Upgrades – Phase II Additional Interim Actions* (EDR Addendum No. 1), dated March 31, 2011, and approved by Ecology on March 30, 2011; and
- *Addendum No. 2 – 100% Engineering Design Report for SVE System Upgrades – Revisions to SVE Startup Testing* (EDR Addendum No. 2), dated January 6, 2012, and approved by Ecology on January 17, 2012.

The work performed in 2010 under the Phase II AIA Work Plan, Volume 1 included installation of ground water monitoring wells through the Zone A cap, wells adjacent to the downgradient side of Zone A and along the immediately downgradient property boundary; installation of additional SVE wells; installation of soil vapor monitoring wells and probes; and upgrades to the SVE system. The work performed in 2011 under the Phase II AIA Work Plan, Volume 2 included horizontal boring and soil sampling beneath Zone A, installation of downgradient ground water monitoring wells in the intermediate depth portion of the aquifer, maintenance of the Zone A cap, additional upgrades to the SVE system, and pre-testing of the upgraded SVE system.

Findings from the Phase II AIA activities were presented to Ecology in the *Phase II Additional Interim Actions - Sub-Zone A Investigation and Downgradient Well Installation Report, Volumes I and II* (Phase II AIA Sub-Zone A Report), dated September 30, 2011.

The results of initial testing of the upgraded SVE system were shared with Ecology and formed the basis for EDR Addendum No. 2. The additional sampling activities proposed under EDR Addendum No. 2 will be completed in mid-2012 and will be presented in forthcoming reports.

2.0 OBJECTIVES

The general objective of the annual ground water monitoring and interim action performance monitoring is to periodically monitor soil vapor and ground water quality at the Site for the purpose of evaluating ongoing trends and improvements in ground water quality that may result from the Interim Actions being conducted at the Site. This 2011 Annual Report presents the data collected during 2011 and reports O&M activities completed on the Zone A SVE system.

The specific objectives of the ground water monitoring and interim action performance monitoring conducted in 2011 include:

- Evaluation of trends in ground water quality over time;
- Evaluation of the performance and effectiveness of the SVE system;
- Evaluation of cap subsidence; and
- Assessment of ground water quality relative to the Interim Actions and compliance with draft cleanup levels (dCULs).

2.1 Contaminants of Potential Concern

Contaminants of Potential Concern (COPCs) were defined in the Site *Risk Assessment/Cleanup Level Analysis* Report (PSC 1998) and were based upon the occurrence and quantification of contaminants detected in ground water during the Site investigation. The COPCs were defined as follows:

- Soil – acetone
- Ground water – acetone, benzene, hexavalent chromium, 1,2-dichloroethane (1,2-DCA), 1,1-dichloroethene (1,1-DCE), cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), tetrachloroethene (PCE), toluene, 1,1,1-trichloroethane (1,1,1-TCA), 1,1,2-trichloroethane (1,1,2-TCA), trichloroethene (TCE), and vinyl chloride (VC)

Current COPCs and indicator hazardous substances (IHSs) are under development and have been the topic of recent discussions between Ecology and the IWAG. The IHS evaluation and development process and results will be presented in the forthcoming FFS.

2.2 Draft Cleanup Levels

DCULs for the PSL Site were presented to the IWAG Group II by Ecology in a letter dated April 24, 2007. After discussion with Ecology, the IWAG Group II proposed revisions to these cleanup levels in a letter dated September 14, 2007. In a letter dated October 1, 2007, Ecology agreed to the proposed changes. Ecology also stated that the dCULs were provided in part to aid in evaluating interim system performance capabilities and remedy effectiveness, including both carcinogenic and non-carcinogenic indicators for ground water and soil, and are applicable to the entire Site. The draft Site-wide cleanup levels for ground water are shown below and will be used in this report, along with other applicable state and federal standards.

**Draft Cleanup Levels for Ground Water
 Pasco Landfill Site**

Acetone	80 µg/L
Benzene *	0.02 µg/L
1,2-Dichloroethane *	0.228 µg/L
1,1-Dichloroethene *	0.05 µg/L
cis-1,2-Dichloroethene	70 µg/L
Methylene Chloride *	1.0 µg/L
Tetrachloroethene *	0.4 µg/L
Toluene	570 µg/L
1,1,1-Trichloroethane	200 µg/L
Trichloroethene *	0.3 µg/L
Vinyl Chloride *	0.025 µg/L
Chromium VI *	40 µg/L

* = Known or suspected carcinogenic compound.

Selective ion measurement (SIM) has been used during laboratory analysis of PCE, TCE, 1,1-DCE, vinyl chloride, 1,2-DCA, and benzene to attain necessary detection limits.

The current dCULs are under review and may be modified as a component of the current FFS process. Final cleanup levels will be developed in the FFS and will be incorporated into the Cleanup Action Plan (CAP). The current dCULs are used primarily for reference and discussion purposes.

2.3 Methodology

The following sections discuss the ground water and Interim Action performance monitoring methodologies implemented at the Site.

2.3.1 Ground Water Monitoring

Ground water monitoring employed the standard operating procedures for field sampling methods presented in:

- The *Operations and Maintenance Manual – SVE, NoVOCs, and Ground Water Monitoring* (O&M Manual), prepared by EPI, dated January 31, 2007, and revised February 23, 2007 and May 25, 2007 and approved by Ecology;
- *Addendum No. 1 – Operations and Maintenance Manual – SVE, NoVOCs, and Ground Water Monitoring* (Addendum No. 1), prepared by EPI, dated January 8, 2009 and revised May 22, 2009 and approved by Ecology; and
- The *REVISED FINAL Work Plan for Additional Interim Actions – Phase I* (Phase I AIA Work Plan), dated May 5, 2009 and approved by Ecology.

As part of the quarterly ground water monitoring activities, ground water levels were measured to the nearest 0.01 foot in 66 monitoring wells during the first quarter, 73 wells during the second quarter, 72 during the third quarter, and 77 wells during the fourth quarter. Ground water levels were not measured in the residential wells because those wells were not constructed for such measurements.

Quarterly ground water samples were collected from a total of 53 wells in the first quarter, 68 during the second quarter, 59 during the third quarter, and 69 during the fourth quarter. The analytical data from 2011 quarterly sampling events are presented below. Appendix A contains the data validation report for the fourth quarter sample analysis.

Five new ground water monitoring wells, MW-11I, MW-29I, MW-38I, MW-43I and MW-54I, were installed in February and March, and first sampled in March 2011. These wells were sampled monthly from March to August 2011. After August, these wells were added to the quarterly sampling and were sampled again in October 2011. Analytical results from monthly sampling events were included in the Second and Third Quarter 2011 reports.. Second, third and fourth quarterly sampling results for these new wells are summarized below. Appendix B contains boring logs for all five new ground water monitoring wells.

As a component of the Phase I AIAs, starting in November 2007, ground water samples were also collected on a monthly basis from a subset of the monitoring wells downgradient from Zone A. This sampling has been termed the enhanced ground water sampling. Enhanced ground water sampling was performed to assess changes in ground water quality that may correlate to operation of the SVE system. This enhanced ground water sampling was conducted in the months between quarterly sampling (i.e., February, March, May, June, August, September, November, and December). Analytical results for enhanced ground water sampling events are summarized in Table 6.

With the consent of Ecology, samples collected during the monthly enhanced ground water monitoring are analyzed for VOCs only by EPA Method 8260, do not incorporate SIM analyses, and are not submitted for third-party data validation. Table 1 summarizes the wells sampled and analyses performed during each monthly and quarterly sampling event in 2011.

2.3.2 Residential Well Monitoring

Ground water samples collected from the residential wells in 2011 are summarized in Table 1. The number of wells and frequency of sampling are outlined in Addendum No. 1. The actual number of wells sampled during 2011 was dependent upon whether power was available at the well, permission was granted by the property owner, and/or the equipment was functioning. Samples collected from the residential wells were analyzed for VOCs by EPA Method 8260 and 8260-SIM.

The property owner has decommissioned the REISINGER well. A search of the Department of Ecology Water Resources website indicated that the well decommissioning was completed on November 7, 2011. Field observations during the City of Pasco Annual Well Survey confirmed that the REISINGER well has been decommissioned.

2.3.3 SVE Performance Monitoring

SVE performance monitoring was conducted in compliance with the standard operating procedures for operational and performance monitoring methods presented in the *O&M Manual* and *Addendum No. 1*. SVE performance monitoring consisted of monitoring both operational and performance parameters on a weekly basis. Operational monitoring consisted of monitoring flow rates, inlet vacuums, outlet pressures, and blower temperatures. Collection of these data allows for the calculation of operational parameters such as total system flow, piping conveyance losses and standard flow rates. These data are also used to evaluate the need for SVE well and piping cleanouts. A listing of SVE system operation and maintenance activities performed during 2011 is provided in Section 2.6.1. The SVE performance monitoring data for 2011 are presented in Appendix C.

The SVE performance monitoring includes both field and laboratory monitoring of the effluent SVE air stream. Field measurements consist of using a photoionization detector (PID) to monitor total VOCs in the SVE effluent, and using a GEM 2000 Landfill Gas Analyzer to monitor methane, carbon dioxide, oxygen, and the balance of the remaining air at each well. A carbon filter is used to prevent the VOCs from affecting methane measurements. Laboratory monitoring included collecting a grab sample of the SVE effluent from each of the individual extraction wells and from the combined flow. The samples were then submitted for laboratory analysis of VOCs using a modified EPA Method 8260. The laboratory data, along with flow rates measured during performance monitoring, are used to calculate VOC removal rates.

The upgraded SVE system components were not operated in 2011, with the exception of short periods of initial functionality testing in January, September and October 2011 and a period of pre-testing to assess their performance from October to December 2011. Those data resulted in modifications to the system and modifications to the planned testing protocol. The testing data for the upgraded SVE system is presented in EDR Addendum No. 2, which also includes the protocol for ongoing testing to be completed in mid-2012. The forthcoming report documenting the SVE system installation and testing will provide a detailed description of the testing of the upgraded SVE system and the result of that testing.

2.3.4 NoVOCsTM Performance Monitoring

The IWAG Group II proposed, and Ecology agreed, to shut down the NoVOCsTM system during the week of September 8, 2008. With Ecology's approval, and as outlined in the *Technical Methodology for NoVOCs Well Decommissioning* dated October 22, 2010, decommissioning activities began in November 2010. Decommissioning of NoVOCsTM wells NV-01, NV-02, and NV-04 was completed during the fourth quarter 2010. Decommissioning of NoVOCsTM well NV-03 was completed during the second quarter 2011. All NV-in and NV-out piezometers were decommissioned along with their parent well. The *Technical Memorandum – Summary of NoVOCs Well Decommissioning*, dated August 31, 2011, documents the decommissioning of the four NoVOCsTM wells, and was submitted to Ecology on September 7, 2011.

2.4 Findings

2.4.1 Ground Water Monitoring Elevation Data

A summary of the ground water elevation data for the quarterly ground water monitoring events is presented in Table 2.

Ground water elevation contours were developed using the site-wide ground water elevation data for January 10, April 15, July 22, and October 20, 2011. Site wide ground water elevation contours for shallow wells are presented in Figures 4 through 7. The water level elevation at 8R for July 2011 appears to be in error and was not included in the piezometric contours shown on Figure 6. The contours indicate that the general ground water flow direction is to the southwest across the PSL property with an average hydraulic gradient of approximately 0.003 feet/foot (ft/ft) as measured between monitoring wells NW-1 and MW-11S in October 2011. Wells NW-1 and MW-11S are located approximately 5,456 feet apart. The actual direction of ground water migration is best indicated by the orientation of the dissolved-phase contaminant plume. The orientation of the dissolved-phase plume indicates that ground water migration on the PSL property is southwesterly and then rotates to a southern orientation south of the PSL property.

Six well clusters immediately downgradient of Zone A on the PSL property are screened at the shallow, intermediate, and deep portions of the aquifer. Figures 8 through 11 provide a close-up of shallow ground water contours in this area. Ground water elevation contours for the intermediate wells are presented in Figures 12 through 15. The off-property ground water elevation contours incorporate the assumption, which is supported by analytical data, that intermediate depth ground water is migrating in the same general direction as the shallow ground water. Ground water elevation contours for the deep wells are presented in Figures 16 through 19. The ground water flow direction in the intermediate portion of the aquifer appears consistent with the shallow aquifer. The ground water flow direction in the deeper portion of the aquifer appears to have a slightly more westerly gradient.

Table 3 summarizes vertical gradient calculations between the shallow, intermediate, and deep portions of the aquifer. Gradients have been calculated for six well clusters near Zone A (#2R/I/D, MW-12S/I/D, MW-47S/I/D, MW-48S/I/D, MW-49S/I/D and NVM-01/I/D) and four well pairs off-property (MW-11S/I, MW-29S/I, MW-38S/I, and MW-43S/I). The calculations are based on ground water elevations and the elevations at the center of the well screens. Due to the accuracy of the water level meter and survey instruments, the vertical gradients have been rounded to the nearest thousandth.

The October 2011 vertical hydraulic gradients in the well clusters near Zone A ranged from -0.008 to 0.003 feet/foot. These data are consistent with vertical gradients calculated for prior quarterly events. The vertical gradient data indicate that only very slight vertical gradients exist in the six on-property well clusters and that these vertical gradients are unlikely to have a significant effect on the migration of dissolved-phase compounds.

The average vertical gradients in these well pairs has been calculated for the period from July 2008 (i.e., installation) through October 2011. The average gradient over that time period for the on-Site well

clusters ranged from -0.005 ft/ft to 0.002 ft/ft. As with the October 2011 data, the average vertical gradients indicate that the vertical hydraulic gradients at the Site have only a very minor potential to affect dissolved-phase contaminant migration.

Table 3 also evaluates the vertical gradients for the four shallow and intermediate depth well pairs installed off-property along the interpolated longitudinal axis of the dissolved-phase plume (i.e., MW-11S/I, MW-29S/I, MW-38S/I and MW-43S/I). The data are summarized from the time of installation in April 2011 to October 2011. The average vertical hydraulic gradient in these wells ranged between <0.001 ft/ft to 0.023 ft/ft. The pairs at MW-11, MW-38 and MW-43 have gradients averaging from 0.003 to <0.001 feet/feet. The gradient at the MW-29 cluster averaged 0.023 feet/feet which is the highest vertical gradient among all the on-property and off-property well pairs.

The vertical gradient results for MW-29S and MW-29I appear anomalous relative to all other Site data for shallow and intermediate depth wells. Since preparation of the original 2011 Annual Report the IWAG has resurveyed wells MW-29S and MW-29I. Tables 2 and 3 have been updated. On going ground water monitoring will continue to assess the vertical gradients at the MW-29 well cluster.

As with the on-Site wells, the vertical gradients between the shallow and intermediate depth wells in the off-property locations indicate that these gradients are likely to have only a very minor potential to affect dissolved-phase contaminant migration. The IWAG will continue to monitor these wells and assess whether vertical gradients within these wells are having an effect on contaminant distribution.

2.4.2 Ground Water Quality

Laboratory analytical results for the 2011 ground water monitoring are summarized in Tables 4 through 11. Well stabilization parameters collected during well purging are summarized in Table 12. Analytical results for natural attenuation parameters are summarized in Table 13. Section 2.4.2.1 below examines the findings according to well groupings, Section 2.4.2.2 looks at the distribution of dissolved-phase contaminants, and Section 2.4.2.3 looks at trends in concentrations over time.

2.4.2.1 Evaluation by Well Grouping

This section presents a discussion of the analytical results for the following groups of wells:

- MSW Landfill Wells,
 - Zone A,
 - Zone B,
 - Zones C and D,
 - Zone E,
- Property Boundary Wells,
- Off-Property Wells, and
- Residential Wells.

The following discussions are focused on the concentrations of COPCs in each of those groupings for which dCULs have been established and for which observed COPC concentrations exceeded a dCUL in 2011. Well locations are shown on Figure 3.

2.4.2.1.1 MSW Landfill Wells

The ground water monitoring network for the MSW Landfill consists of wells 4R, MW-15S, MW-16S, and MW-17SR. These wells were sampled for VOCs in each of the four quarters. In 2011 concentrations of PCE, TCE, and benzene exceeded Site dCULs in these four wells.

PCE was detected in 11 of 16 samples from these wells at concentrations ranging from 0.11 µg/L to 2.1 µg/L. TCE was detected in 12 of 16 samples at concentrations ranging from 0.053 µg/L to 0.69 µg/L. Benzene was detected in only 2 of 16 samples at concentrations of 0.086 µg/L and 0.13 µg/L. Analytical data for the MSW landfill wells are summarized in Table 4.

2.4.2.1.2 Zone A

The ground water monitoring network for Zone A consists of wells four shallow source zone and sentinel wells (i.e., MW-52S, MW-53S, MW-50S, and MW-47S) located immediately within and adjacent to Zone A and 22 downgradient Zone A wells completed within the shallow, intermediate, and deep portions of the aquifer between Zone A and the property boundary (i.e., 2R/I/D, EE-2, MW-12S/ID/D, MW-13S, MW-47I/D, MW-48S/I/D, MW-49S/I/D, NVM-01/I/D, NVM-02, NVM-03, and NVM-04). Zone A wells were sampled for VOCs and natural attenuation parameters. As summarized in Table 1, nine samples were analyzed for total and hexavalent chromium. SVOC, chlorophenoxy herbicide, PCB, priority pollutant metal, and total and hexavalent chromium analyses was performed on samples from wells MW-52S, MW-53S, MW-50S and MW-47S in January, and samples from MW-52S and MW-53S in April.

Within the four Zone A source and sentinel wells, concentrations of PCE, TCE, 1,1-DCE, 1,2-DCA, and benzene exceeded Site dCULs during 2011.

PCE was detected in 13 of 16 samples from these wells at concentrations ranging from 0.067 µg/L to 0.88 µg/L. TCE was detected in 16 of 16 samples at concentrations ranging from 2.1 µg/L to 22 µg/L. 1,1-DCE was detected in 4 of 16 samples at concentrations ranging from 0.026 µg/L to 0.056 µg/L. 1,2-DCA was detected in 15 of 16 samples at concentrations ranging from 0.14 µg/L to 3.0 µg/L and benzene was detected in one sample at a concentration of 0.041 µg/L. There were also detections of a number of non-chlorinated VOCs at MW-53S in the third and fourth quarters. The IWAG will continue to evaluate the presence of these compounds during future monitoring events.

Within the 22 wells downgradient of the Zone A source and sentinel wells only PCE, TCE, and 1,2-DCA were detected at a concentration exceeding a Site dCUL in 2011.

PCE was detected in 30 of the 88 samples from these wells at concentrations ranging from 0.025 µg/L to 1.0 µg/L. TCE was detected in 39 of the 88 samples from these wells at concentrations ranging from

0.024 µg/L and 21 µg/L and 1,2-DCA was detected in 18 of the 88 samples at concentrations ranging concentrations ranged from 0.058 µg/L to 3.1 µg/L. No COPCs were detected at a concentration exceeding a dCUL in 16 of these 22 wells in 2011.

While fewer COPCs were detected in the wells downgradient of Zone A, the highest TCE concentrations at the Site were consistently observed in wells MW-12S and NVM-01. TCE concentrations in MW-12S and NVM-01 were as much as an order of magnitude higher than in the source and sentinel wells. In future reports the IWAG will consider wells MW-12S and NVM-01 as sentinel wells for Zone A.

COPC were encountered less frequently and at consistently lower concentrations within the intermediate and deeper portions of the aquifer in all areas of Zone A. Among intermediate and deep wells in the vicinity of Zone A there was only one exceedance of a dCUL.

As summarized in the Final First Quarter 2011 Report, PCE was detected in two trip blanks from the January sampling. PCE detections less than five times the concentration of the associated trip blank were qualified with a "U" during the data validation process. A "U" qualifier indicates that the analyte was not detected at a concentration exceeding the reporting limit. Thirteen of the fifteen wells that received a "U" qualifier due to the trip blank detections had no PCE detected in the sample collected during the second quarter.

No SVOCs, chlorophenoxy herbicides, or PCBs were detected during 2011. No hexavalent chromium was detected in 2011 samples. Total chromium concentrations exceeded the MTCA A value in the April sample from MW-52S. Arsenic concentrations were above the MTCA Method B ground water carcinogen value but below Method A and Method B non-carcinogen values listed in Ecology's Cleanup Levels and Risk Calculations online database (CLARC database). Analytical data for the Zone A wells are summarized in Tables 4, 6 through 11, and 13.

2.4.2.1.3 Zone B

The ground water monitoring network for Zone B consists of the Zone B Sentinel well MW-26S. Well MW-26S was sampled for SVOCs and chlorophenoxy herbicides in all four quarters. No SVOCs or herbicides were detected during 2011. Analytical data for the Zone B well are summarized in Tables 7 and 8.

2.4.2.1.4 Zones C and D

The ground water monitoring network for Zones C and D consists of Sentinel well EE-7R. Well EE-7R was sampled for VOCs in all four quarters. PCE, TCE, 1,1-DCE and 1,2-DCA were the only compounds detected. The concentration of TCE in the July (0.4 µg/L) and October (0.34 µg/L) samples, and the concentration of 1,2-DCA in the July (0.23 µg/L) sample, exceeded the Site dCULs. Zone C and D analytical data are summarized in Table 4.

2.4.2.1.5 Zone E

The ground water monitoring network for Zone E consists of the Sentinel well EE-8R. Well EE-8R was sampled for VOCs and total and hexavalent chromium in all four quarters.

PCE, TCE, and chloroform were detected in samples from EE-8R. The concentration of PCE was above the dCUL in the January (0.51 µg/L) and July (0.51 µg/L) samples.

Hexavalent chromium was not detected at concentrations above the laboratory reporting limit or the draft cleanup level. Total chromium was detected in all four quarters. A dCUL has not been established for total chromium. For reference, the MTCA Method A ground water cleanup level for total chromium, when only trivalent chromium is present, is 100 µg/L. The total chromium concentrations at EE-8R exceeded the MTCA Method A CUL of 100 µg/L during the first, third and fourth quarters. The concentrations of total chromium detected in samples from EE-8R were the highest detected at the Site during those three quarters. Zone E analytical data are summarized in Tables 4 and 11.

2.4.2.1.6 Property Boundary Wells

The property boundary ground water monitoring network consists of wells 1R, MW-10S, MW-11S, MW-11I, MW-22S, MW-23S, MW-24S, and MW-51S. Wells MW-22S, MW-23S, and MW-24S are downgradient of the MSW Landfill and also serve as MSW Landfill wells. Figure 3 illustrates the locations of the property boundary wells.

Each of these wells was sampled for VOCs in all four quarters of 2011. No VOCs were detected at concentrations exceeding dCULs in any of the property boundary wells located downgradient of Zone A. The TCE concentration in well MW-11S was equal to the dCUL in the fourth quarter 2011 and was below the dCUL for the prior three quarters of 2011. In well MW-24S downgradient of the MSW landfill, the concentration of PCE in the July sample (0.45 µg/L) exceeded the dCUL. Also in MW-24S the concentrations of TCE in the January (0.34 µg/L), April (0.47µg/L), and July (0.42 µg/L) samples exceeded the dCUL.

Well MW-22S was sampled for hexavalent and total chromium in all four quarters. Hexavalent chromium was not detected at a concentration above the laboratory reporting limit or the dCUL during 2011. The detected concentrations were all below MTCA A levels. MW-22S data are summarized in Table 11.

Well MW-51S was also sampled for SVOCs, chlorophenoxy herbicides, PCBs, priority pollutant metals, total and hexavalent chromium, and natural attenuation parameters during the first quarter. No SVOCs, chlorophenoxy herbicides, or PCBs were detected during 2011. The concentration of arsenic in MW-51S was above the MTCA Method B ground water carcinogen value but below Method A and Method B non-carcinogen values listed in Ecology's Cleanup Levels and Risk Calculation (CLARC II) database. Hexavalent chromium was not detected and the total chromium detected was below the MTCA Method A total chromium CUL. Analytical data for MW-51S are summarized in Tables 4, 6 through 11, and 13.

Well 1R was also sampled for hexavalent and total chromium, and natural attenuation parameters in all four quarters. No VOCs or hexavalent chromium were detected at well 1R in any of the four samples, and the total chromium concentrations detected were all below the MTCA Method A CUL. Well 1R data are summarized in Tables 4, 11 and 13.

An additional intermediate depth well near MW-11S (i.e. MW-11I) was installed during February 2011 as part of the Phase II AIAs. The well was constructed along the inferred longitudinal axis of the plume in order to further assess the presence or absence of impacts to the intermediate portion of the aquifer at the downgradient property boundary. MW-11I was sampled for VOCs monthly from March through August, and during the second, third and fourth quarterly monitoring events. No VOCs were detected at a concentration exceeding a dCULs in MW-11I in 2011. MW-11I quarterly sampling data are summarized in Table 4.

2.4.2.1.7 Off-Property Wells

The ground water monitoring network of off-property wells consists of MW-29S/I, MW-31S, MW-33S, MW-34S, MW-46S, MW-37S, MW-38S/I, MW-40S, MW-41SR, MW-45S, MW-42S, MW-43S/I, MW-44S, and MW-54I. The shallow wells were sampled for VOCs in all four quarters. The pump in MW-42S was not working in April so no sample was collected from that well during the second quarter. The intermediate off-property wells (i.e. MW-29I, MW-38I, MW-43I and MW-54I) were installed during February and March 2011 and were sampled for VOCs monthly from March through August and during the second, third and fourth quarterly monitoring.

Concentrations of VOCs from quarterly sampling in the shallow and intermediate off-property wells are listed in Table 4. These data are organized in Table 4 based on the distance from the property boundary with MW-29S being the closest and MW-54I being the farthest from the Site. While PCE, TCE, cis-1,2-DCE, 1,2-DCA, and chloroform were detected in the off-property wells, only PCE and TCE were detected at concentrations exceeding their respective dCULs.

PCE concentrations decreased with downgradient distance from the property as did the frequency of detection. Along the inferred axis of the dissolved-phase plume, PCE was not detected at a concentration exceeding a dCUL downgradient of the property boundary.

TCE concentrations were detected in shallow and intermediate wells along the inferred axis of the dissolved-phase plume from MW-29S/I downgradient to MW-54I. The highest TCE concentrations downgradient of the Site were observed at MW-38S with decreasing concentrations in both the upgradient and downgradient directions.

Off-property well analytical data are summarized in Tables 4.

2.4.2.1.8 Residential Wells

As outlined in Addendum No. 1 – O & M Manual, all residential wells in the Groundwater Protection Area (GPA) are scheduled for sampling on a semi-annual basis. Wells that have had VOC concentrations that exceed a dCUL are sampled on a quarterly basis until such time as detected concentrations are consistently below the dCUL. If dCULs are not exceeded for four consecutive quarters, the well is moved to semi-annual sampling. Following these guidelines, at the start of 2011, two wells were scheduled for quarterly sampling. Table 1 summarizes which residential wells were sampled each quarter. Residential well data are summarized in Table 4. Table 5 summarizes the VOCs detected in samples from the residential wells. It is important to note that the IWAG did not have access to the Reisinger well in early 2011 and that well was decommissioned in late 2011.

The City of Pasco 2011 – *East Pasco Plume Area – Well Location Survey*, dated December 9, 2011, in Appendix D contains a listing of residential wells within the GPA. According to the City, the property owners for the Bradley, Lopez, Norvell2, Rada and Reisinger wells have changed since the 2010 report. Also included in Appendix D is the *Annual Institutional Controls Report*, dated January 27, 2012, for 2011 from the Franklin County Planning and Building Department, which indicates that no new drinking water wells were installed within the affected area.

During 2011, at least one VOC was detected in the West, Lopez, Norvell, or Salinas wells. The detected VOCs included PCE, TCE, 1,2-DCA and toluene. Only TCE exceeded the dCUL in a residential well in 2011 and only in the West well. No other wells contained a COPC at a concentration exceeding a dCUL.

TCE was detected in the West well in January and July at 0.31 µg/L, slightly exceeding the dCUL of 0.30 µg/L. Based on this information the West well will continue to be sampled on a quarterly basis through at least July 2012 and the remaining residential wells will be sampled on a semi-annual basis. According to the City of Pasco Well Survey, the West property is connected to the City of Pasco water supply and the well is used for irrigation purposes only.

2.4.2.2 Contaminant Distribution

This section discusses the general dissolved-phase distribution of the compounds for which dCULs have been established for the Site and for which observed concentrations exceeded a dCUL in 2011. Those compounds include PCE, TCE, 1,1-DCE, 1,2-DCA and benzene. Isoconcentration maps for each of the quarterly sampling events have been prepared for each of those compounds. The discussion below will focus on concentrations that exceeded the current dCULs for the Site in 2011

Figures 20 through 23 illustrate the distribution of dissolved-phase PCE in the shallow aquifer for the 2011 annual cycle relative to the draft cleanup level of 0.4 µg/L. These figures illustrate that the extent of PCE concentrations exceeding the dCUL in the shallow portion of the aquifer is generally limited to within the property boundary. A small portion of the areal extent of PCE exceeding dCULs appear to

have extended off-property in the area of MW-16S during all four quarters and in the area of MW-24S in July.

None of the concentrations of PCE detected in the intermediate or deep wells during 2011 exceeded the dCUL.

Figures 24 through 27 illustrate the distribution of dissolved-phase TCE in the shallow aquifer for the 2011 annual cycle relative to the dCUL of 0.3 µg/L. These figures illustrate that, within the property boundary, TCE concentrations exceeding the dCUL in the shallow portion of the aquifer are limited to: MSW wells MW-16S, 4R, MW-15S and MW-24S; Zone C and D well EE-7R; and some Zone A wells. With the exception of MW-16S and MW-24S, TCE concentrations were at or below the dCUL in the property boundary wells throughout 2011. TCE in the shallow downgradient off-property wells exceeded the dCUL only along the inferred axis of the dissolved-phase plume in wells MW-29S, MW-38S, MW-41SR, and MW-43S.

Figures 28 through 31 illustrate the distribution of dissolved-phase TCE in the intermediate portion of the aquifer for the 2011 annual cycle relative to the dCUL of 0.3 µg/L. TCE was detected variably in the intermediate portion of the aquifer at a concentration exceeding the dCUL at four (i.e., 2I, MW-29I, MW-43I, and MW-54I) of the 11 intermediate monitoring wells in 2011.

None of the concentrations of TCE detected in the deeper wells during 2011 exceeded the dCUL.

Figures 32 through 35 illustrate the distribution of dissolved-phase 1,1-DCE in the shallow aquifer for the 2011 annual cycle relative to the dCUL of 0.05 µg/L. These figures illustrate that the extent of 1,1-DCE concentrations exceeding the dCUL in the shallow aquifer was limited to the area within the property boundary during 2011. 1,1-DCE only exceeded the dCUL in the sample from MW-47S during the first quarter and the sample from NVM-01 only exceeded the dCUL during the third quarter. 1,1-DCE was not detected in any well at a concentration exceeding the dCUL during either the second or fourth quarter sampling events. 1,1-DCE was not detected in samples from the intermediate or deep portions of the aquifer during 2011.

Figures 36 through 39 illustrate the distribution of dissolved-phase 1,2-DCA in the shallow aquifer for the 2011 annual cycle relative to the dCUL of 0.228 µg/L. These figures illustrate that the extent of 1,2-DCA concentrations exceeding the dCUL in the shallow portion of the aquifer is limited to within the property boundary and to the ground water beneath and immediately downgradient of Zone A. 1,2-DCA was not detected in the intermediate and deep portions of the aquifer at a concentration exceeding the dCUL during 2011.

Figures 40 through 43 illustrate the distribution of dissolved-phase benzene in the shallow aquifer in 2011 relative to the dCUL of 0.02 µg/L. The reporting limit for benzene is also 0.02 µg/L. Benzene was detected in MW-16S in the second and third quarters and in MW-53S in the third quarter. It was not detected in any other shallow, intermediate, deep or residential wells in 2011.

Hexavalent chromium has a dCUL of 40 µg/L. Hexavalent chromium was not detected at a concentration above the dCUL in any wells during 2011.

No other COPCs were detected at concentrations exceeding a dCUL for the Site in 2011.

2.4.3 Natural Attenuation and Well Stabilization Parameters

Well stabilization parameters are collected to evaluate steady-state conditions in a well prior to sampling. Conductivity, dissolved oxygen (DO), turbidity, and pH are the primary parameters used to evaluate steady-state conditions prior to sample collection. Other parameters such as temperature and oxidation-reduction potential (ORP) are recorded during well purging.

Samples from 30 wells were analyzed for natural attenuation parameters during all four quarters of 2011 (see Table 1 for the list of specific wells). The analysis included alkalinity, ammonia, chloride, chemical oxygen demand (COD), nitrate, nitrite, sulfate total dissolved solids (TDS), total organic carbon (TOC), ferrous iron, manganese, and methane, ethane and ethane (MEE). Analytical data for natural attenuation parameters are summarized in Table 13.

The primary indicators showing evidence of biochemical degradation process occurring on the Site are DO and ORP at specific wells. Generally, Site ground water is well oxygenated with oxygen levels greater than 5 mg/L and positive ORP values. At several wells immediately downgradient of Zone A, dissolved oxygen levels are less than 4 mg/L and in some cases have negative ORP values. Those field parameters suggest that biochemical reactions are occurring in the vicinity of Zone A. This is consistent with findings presented in previous annual reports.

A more complete evaluation and quantitative demonstration of biologically mediated natural attenuation process is not currently possible due to the very low concentrations of COPCs in ground water. Prior quarterly and annual ground water monitoring reports, when COPCs concentrations have been higher and more compounds were detected, have included a quantitative assessment of natural attenuation processes. Those evaluations have indicated that there is moderate to strong evidence that biological processes are occurring within the shallow aquifer nearest Zone A.

Based on the currently available data, the primary and most useful indicators of the occurrence of biological activity in ground water are DO and ORP.

2.4.4 SVE Performance Monitoring

2.4.4.1 SVE System Performance

Since March 12, 2010 the SVE system has consisted of VEW-04 and VEW-05 as the only operating extraction wells. During September and October 2010 six additional vapor extraction wells were installed (i.e., VEW-06S/I/D and VEW-07S/I/D) as a component of the Phase II AIAs. These wells were not operational in 2011 and will be undergoing testing in the second quarter of 2012 in anticipation of

full time operation in the third quarter of 2012. Figure 44 illustrates the locations of the vapor extraction wells and vapor monitoring probes in the Zone A landfill.

During 2011, the SVE system has produced a cumulative airflow of between 450 and 625 scfm, with an average of 507 scfm, which is sent to the MSW Landfill flare for treatment by thermal oxidation.

Vapor samples were collected weekly from the individual SVE lines, VEW-04 and VEW-05, and from the conveyance piping to the flare. The combined line sample had been historically collected from within the SVE equipment skid just after the individual lines combine. Starting on January 31, 2011, the combined sample was collected at the flare inlet. Estimations of the contaminant mass removal rates are determined using weekly flow rate measurements and concentrations of VOCs detected during the weekly sampling.

In addition to laboratory testing of the air effluent samples, measurements of temperature, differential pressure, vacuum, barometric pressure, methane, carbon dioxide, oxygen, balance gas, and PID readings were collected weekly during 2011. These data are included in Appendix C.

Figure 45 illustrates the calculated, cumulative mass of VOCs removed by the SVE system through 2011. It is estimated that the SVE system has recovered a total of approximately 439,057 pounds of VOCs between May 1997 through the end of 2011. A total of approximately 32,651 pounds of VOCs were recovered by the SVE system in 2011 compared to 109,088 pounds recovered in 2010. The decrease in mass removal in 2011 relative to 2010 is attributable to the high rates of removal in 2010, which were likely associated with optimization of the SVE system to focus vapor recovery at VEW-04 and VEW-05 and a temporarily elevated mass recovery rate in those wells in early 2010. The mass recovery rate from the system has since stabilized to near the historic baseline prior to the operational changes at VEW-04 and VEW-05.

Table 14 summarizes the VOC analytical data from the VEW-04 and VEW-05 and the calculated daily removal rates for the last quarter of 2011. Table 15 summarizes the VOC analytical data collected from samples at the flare inlet (SV-FS) for the last quarter of 2011, along with the calculated daily removal rates, and the calculated total mass removed since May 1997. Table 16 summarizes the calculated mass removal rates from both individual SVE wells, a total removal rate from the two individual samples, and the calculated mass removal rate from the flare end of the conveyance line for the entire year of 2011.

Figure 46 illustrates the average daily contaminant mass removal rates from the two individual lines, the mass removal rates as a total of the individual wells, and the daily mass removal rate of VOCs from the combined manifold from August 27, 2007 through December 27, 2011. The data show that prior to the SVE optimization in November 2008, the sum total of the individual contaminant mass removal rates averaged 62 pounds per day (lbs/day) and the average removal rate calculated from the combined vapor samples averaged 61 lbs/day. After the SVE flow was shifted to only VEW-04 and VEW-05 on March 12, 2010, the average removal rates for the remainder of 2010 increased to 331 lbs/day for the sum total of the individual samples and 312 lbs/day for the combined SVE line sample. During 2011, the average removal rate for the sum of the two individual line samples was 104 lbs/day and the

combined line samples averaged 92 lbs/day. These data illustrate generally good long-term agreement between the two data sets.

The 2011 mass removal rates are very near to the historic baseline mass removal rates prior to SVE system optimization. Significant improvements to this mass removal rate are not likely with the current SVE system. It is expected that operation of the upgraded SVE system in 2012 will result in a significant increase in mass removal rates at least for some time. Some period of operation will be required before a new long-term baseline in mass recovery for the upgraded SVE system is established.

2.4.4.2 Ground Water Quality Trends

As outlined in Section 2.3.1, ground water samples were collected on a monthly basis from a subset of the monitoring wells downgradient from Zone A in order to assess changes in ground water quality that may correlate to operation of the SVE system. The 2008 and 2009 Annual Reports illustrate that soil gas conditions and ground water quality appear to be linked at the Site, and vapor-phase transport through the vadose zone to the water table is likely the primary mechanism for contaminant migration from Zone A wastes to ground water. Observations of increased SVE contaminant mass removal and improvements in ground water quality strongly suggested that an optimized SVE system will be capable of significantly interrupting the contaminant migration pathway between the Zone A wastes and ground water.

The correlation between SVE performance and ground water quality can be demonstrated by evaluating cis-1,2-DCE concentrations at MW-47S. Cis-1,2-DCE was relatively abundant at the Site prior to SVE optimization and well MW-47S is immediately downgradient of Zone A.

In August 2008, prior to SVE optimization, cis-1,2-DCE was present in MW-47S at 3,200 µg/L. After optimization, the cis-1,2-DCE concentration decreased to 620 µg/L by December 2008 and has continued to decrease to below 2.2 µg/L in 2011. Currently, cis-1,2-DCE is only sporadically detected.

Similar trends have been observed in other VOCs. Concentrations of the majority of the compounds detected in ground water samples collected from Zone A wells during the monthly enhanced ground water sampling had decreased to less than the detection limits by December 2009. This trend continued throughout 2011.

Of the currently detected COPCs with dCULs, TCE is present at the highest concentrations with a maximum concentration of 37 µg/L in well MW-50S and similar concentrations at NVM-01. While concentration trends in wells MW-47S, 52S and MW-53S are stable at < 10 µg/L, wells MW-50S and NVM-01 may be developing a marginally increasing concentration trend. This trend will be further evaluated in 2012 during testing and startup of the upgraded SVE system.

COPC concentrations in the property boundary wells downgradient of Zone A have been below the dCULs for all of 2010 and 2011.

The only COPC that exceeds a dCUL beyond the downgradient property boundary is TCE. TCE is only detected at a concentration exceeding a dCUL in the shallow and intermediate depth wells along the inferred axis of the dissolved-phase plume.

2.5 Waste Handling

SVE system condensate is generated at two locations during system operation: at the SVE equipment skid and in the conveyance line from the skid to the MSW Landfill flare. The condensate is collected at the SVE equipment skid and at the north end of the conveyance line at the MSW Landfill flare, immediately upstream of the flame arrestor. The condensate is stored in polyethylene tanks, sampled, and analyzed prior to disposal or off-site treatment.

Decontamination water from drilling, development water from new well installation, and purge water generated during routine sampling are similarly handled. Polyethylene tanks are used for storage of various liquid wastes produced during investigative activities and routine monitoring. Each tank generally contains only one type of waste at a time (i.e., SVE condensate, purge water, or development water).

Soil wastes from well installation are drummed on a boring-by-boring basis, sampled, and held until the disposal method is determined. The disposal of these wastes is performed in accordance with the O&M Manual for the Site and the Phase II Volume 1 and 2 Work Plans. Appendix E contains analytical data for samples collected from wastewater generated during the fourth quarter of 2011. Table 17 summarizes the wastes generated and disposed of during 2011.

During 2011, a total of 39,199 gallons of SVE condensate was generated at the SVE equipment skid and in the conveyance line to the MSW Landfill flare. Between December 14, 2010 and January 20, 2011, 512 gallons of condensate from the SVE conveyance line was thermally oxidized at the MSW Landfill flare. No SVE condensate has been thermally oxidized at the flare since January 20, 2011. Calbre Systems Inc. (Calbre) has managed SVE condensate and investigation derived waste (IDW) for the Site since that time.

A total of 31,837 gallons of SVE condensate was designated as hazardous waste and transported to Burlington Environmental, LLC in Kent, Washington during 2011. A total of 6,850 gallons of SVE condensate was designated as non-hazardous and transported to the City of Pasco Waste Water Treatment Plant (POTW) during 2011.

During 2011, 12,190 gallons of wastewater was generated from drilling, decontamination, well development, and purging of wells before sampling. This water was determined to be non-hazardous and was transported to the POTW.

Installation of wells and probes in Zone A during September and October 2010 generated 25,820 pounds of soil waste. During 2011, 3,500 pounds were designated as hazardous waste and transported to Chemical Waste Management of the Northwest, Inc. (CWMNW, Inc.) in Arlington, Oregon, 2,000 pounds were designated as non-regulated waste and transported to CWMNW, Inc. in

Arlington, Oregon, and 20,320 pounds were designated as non-hazardous and non-dangerous and transported to the Finley Buttes Landfill in Boardman, Oregon.

Horizontal borings underneath the Zone A landfill generated 207,460 pounds of mixed soil and drilling muds. 19,600 pounds were designated as hazardous waste. This waste was transported to CWMNW, Inc. in Arlington, Oregon, and then transferred to Clean Harbors in Grantville, Utah for incineration. 187,860 pounds were transported to Finley Buttes Landfill in Boardman, Oregon as non-hazardous waste.

Installation of the intermediate wells and decommissioning of the NoVOCs wells generated 9,740 pounds of soil waste. This soil was determined to be non-hazardous waste and was disposed by BDI Transfer (Basin Disposal) of Pasco, Washington.

2.6 Repair Reporting

2.6.1 SVE System

In mid-September 2010 work began on SVE system upgrades as part of the Phase II Volume 1 Work Plan. Six new vapor extraction wells, two vapor monitoring wells, and ten vapor monitoring probes were installed in Zone A. Vapor extraction wells VEW-01 and VMW-02D were disconnected from the system and two new lines were piped from the VEW-06 and VEW-07 clusters into the SVE skid. Initial functionality testing of the new SVE wells was performed in January 2011. Those data indicated that the intrinsic permeability of the subsurface materials adjacent to the intermediate depth well screens was sufficiently low that extraction from those wells would require modification to the blower connections. The functionality testing also indicated that VOC concentrations in the extracted vapors from several new VEW wells posed a potential explosive concern that modifications to the system were required for safety and permit compliance purposes.

Based upon those findings, additional upgrades, including running two new lines from the intermediate SVE wells to the SVE skid and automating the condensate removal process, were completed between the spring and fall of 2011. These system upgrades were documented and approved by Ecology in the EDR Addendum 1. The upgrades were further tested in October through December 2011. Based on those test results the startup testing protocol for the upgraded system was revised and approved by Ecology in EDR Addendum No. 2.

SVE operation and maintenance items for the First Quarter 2011 monitoring period included the following:

- After downhole camera inspection, SVE wells VEW-06S, VEW-06I, VEW-06D, VEW-07S, VEW-07I and VEW-07D were cleaned with a water jet and vacuumed on January 16, 2011.
- The SVE system was shutdown for approximately 5 hours on February 8, 2011 in order to inspect VEW-04 and VEW-05 with a downhole camera followed by cleaning with a water jet and vacuum.
- Routine SVE system maintenance.

The SVE system shut down during the February 8, 2011 well cleaning activities when triggered by a high temperature shutdown of the MSW flare and a subsequent thermocouple failure within the flare. After completion of well cleaning and replacement of the thermocouple, the flare and SVE system were restarted. No SVE effluent was sent to the 10,000-pound granular activated carbon (GAC) unit for treatment and the GAC retained its full treatment capacity.

SVE operation and maintenance items for the Second Quarter 2011 monitoring period included the following:

- SVE wells VEW-04 and VEW-05 were cleaned out on April 26, 2011.
- VEW-06D was inspected using a downhole camera on April 28, 2011.
- The SVE system was being upgraded as outlined in the Phase II AIA work plans and Engineering Design Reports.
- Routine SVE system maintenance

The SVE system was shutdown on seven different dates for periods ranging from 20 seconds up to four hours. These periods of shutdown were to facilitate the currently ongoing SVE system upgrade activities. The airflow from the SVE system was not diverted to carbon during the second quarter 2011 and the full granular activated carbon (GAC) sorptive capacity remained.

SVE operation and maintenance items for the Third Quarter 2011 monitoring period included the following:

- SVE wells VEW-04 and VEW-05 were inspected using a downhole camera and vacuum cleaned on July 21, 2011.
- SVE system upgrades continued as outlined in the Phase II AIA work plans and Engineering Design Reports.
- Routine SVE system maintenance.

The upgraded SVE system installation was completed on September 23, 2011 and functionality and operational testing were started on September 26. Pre-testing of the upgraded SVE system was started on October 11, 2011 and completed on December 8, 2011. The results of the SVE testing will be presented to Ecology in future documents.

The initial functionality and operational testing were conducted during normal daylight working hours. During that time, wells VEW-04 and VEW-05 were shut off and the newly installed wells were tested. At the end of each daily test, wells VEW-04 and VEW-05 were brought back on-line and operated overnight. At all times where the upgraded system was not being tested, wells VEW-04 and VEW-05 were in operation.

The SVE system air stream is directed to the landfill gas flare for destruction during normal system operation throughout the year. At the end of the third quarter and the beginning of the fourth quarter, untreated SVE vapors were unintentionally discharged to the atmosphere by the flare. The discharges occurred during several discrete, short-term periods during functionality testing and operation of the

upgraded SVE system. These discharges were the result of a malfunctioning valve at the flare. The estimated duration and quantity of untreated SVE vapors that were discharged from the flare stack were presented to Ecology in a letter from the Landfill Group dated December 1, 2011 entitled *Additional Documentation Related to Untreated SVE Vapor Discharge at the Landfill Flare-Pasco Landfill Site*. The IWAG reviewed the Landfill Group's response and concurs with the contents of the December 1, 2011 letter. The IWAG understands that the Landfill Group will further detail any discharges of untreated flare discharges in their upcoming 2011 Annual Report.

During a flare shutdown the flare programmable logic controller (PLC) sends a signal to close a valve at the flare inlet and to open a valve to the granular activated carbon (GAC) unit at the SVE system, shunting SVE effluent to the GAC unit for treatment. During the valve malfunction mentioned above, it is estimated that SVE effluent was discharged to the GAC unit for 14 hours and 52 minutes. No other SVE system effluent discharges to the GAC unit occurred during 2011. The service life for the GAC unit was calculated as approximately 24 hours during the most recent carbon change out in 2009. Based on this estimate of GAC service life, the GAC unit has about 9 hours of service life remaining.

The IWAG has proposed, and Ecology has accepted in principal, an operating condition whereby the SVE system is shutdown if the flare goes off-line for any reason or any amount of time. This would eliminate the need for the GAC unit. This concept will be formalized in the upcoming operation and maintenance manual for the SVE system.

SVE operation and maintenance items for the Fourth Quarter 2011 monitoring period included the following:

- Routine SVE system maintenance.

2.7 Zone A Landfill Cap

In response to three areas of measured subsidence on the Zone A cap, the IWAG Group II submitted to Ecology a Technical Memorandum on April 17, 2008 recommending additional investigation, which Ecology approved. Field activities initiated in May 2008 included routine topographic settlement surveying. The *Pasco Landfill Zone A Cover Evaluation (2009 Cover Evaluation)*, prepared by SCS Engineers in October 2008, and revised March 10, 2009, describes results of settlement monitoring at eight ground monuments from May 29, 2008 (the day after installation) through December 30, 2008, a period of 216 days. Three of the monuments were located in the northern settlement area; one in the middle settlement area; two in the southern settlement area; and the remaining two in the northeastern and southeastern portions of Zone A as background monitoring locations. The settlement benchmark locations were designated as SB-1 through SB-8.

The areas of settlement and existing settlement monitoring benchmarks were adjacent to planned Phase II AIA activities that included vertical well drilling and SVE system piping installation. Due to the possibility of inadvertent disturbance of the existing benchmarks during Phase II AIA drilling activities on

top of the Zone A landfill, two additional settlement benchmarks were installed in areas where inadvertent disturbance of the benchmarks was unlikely. The new benchmarks, SB-9 and SB-10, were installed on August 8, 2010. Figure 46 illustrates the locations of the Zone A subsidence benchmarks.

As part of the Phase II AIA activities, during the week of August 22, 2011, SCS Engineers (SCS) began maintenance activities to improve surface drainage and minimize potential ponding of precipitation in the subsidence areas on the Zone A cap. The *Cover Maintenance Documentation Report – Pasco Landfill Zone A*, produced by SCS Engineers and dated September 2011, summarizes the Zone A cover maintenance activities. The report was previously provided to Ecology as Attachment E to the *Draft Phase II Additional Interim Actions, Sub-Zone A Investigation and Downgradient Well Installation Report* dated September 30, 2011.

During the August cap maintenance activities, SCS installed four new settlement plates in the lowest points of settlement areas prior to the placement of any fill soil. A layer of geomembrane was then placed over the fill soil and vegetative soil was placed over the geomembrane. Each settlement plate had a length of piping welded to the center to facilitate survey measurements after the soil and geomembrane were added.

During the Zone A maintenance activities, settlement benchmarks SB-1 through SB-5 and SB-8 were necessarily destroyed leaving only settlement benchmarks SB-6, SB-7, SB-9 and SB-10. Settlement plates SP-1, SP-2, SP-3 and SP-4 were installed as replacement for the destroyed benchmarks and were surveyed on August 23, 2011. Figure 46 illustrates the locations of the four remaining benchmarks and four new plates on the Zone A cover.

This report summarizes the results of the 2011 subsidence monitoring measurements and compares those results to previous data. Table 17 lists elevation measurements for all 10 monitoring points between May 29, 2008 and December 16, 2011. Figure 48 is a graphical representation of the same measurements. Table 18 summarizes the average subsidence in inches per day for each monitoring period. Figure 49 is a graphical representation of these averages.

The monitoring data indicate the following:

- From Day 1 to Day 215, the period covered by the *Pasco Landfill Zone A Cover Evaluation*, the monuments exhibited settlement rates of 0.0001 to 0.0167 inches per day, averaging 0.0074 inches per day. SB-2 (i.e., the northernmost monument) had the highest value while SB-6 (i.e., adjacent to east detention basin) had the lowest value.
- From Day 216 to Day 804, just before the Phase II AIA work began in Zone A, the monuments exhibited settlement rates of 0.0004 to 0.0122 inches per day, averaging 0.0065 inches per day. The calculated difference in settlement rates between these two time periods is 0.0009 inches/day. That value is less than the precision of the survey instruments and is considered insignificant. The settlement rates are, therefore, essentially the same for the two time periods and the average settlement rate for the first 804 days of monitoring was about 0.007 inches/day

- From Day 804 to Day 1,296, the four remaining original monuments not removed during Phase II AIA activities exhibited settlement rates of between 0.0044 to 0.0078 inches/day, averaging 0.0056 inches per day. This calculated difference 0.0008 inches/day less than during the first 804 days for the same settlement benchmarks. As with the prior measurement periods this difference in calculated settlement rates is generally less than the accuracy of the survey instrumentation and is not considered significant. The settlement rate for these four remaining settlement benchmarks was therefore essentially consistent for the first 1,296 days of monitoring.
- From Day 813 to Day 1,296, the four new settlement plates installed within the areas of cap maintenance exhibited settlement rates of between 0.0131 and 0.0306 inches/day, with an average settlement rate of about 0.0210 inches/day. This settlement rate is higher than the established benchmarks. This increase in settlement rate is not unexpected and is attributed to the weight of the additional fill soil and natural compaction from precipitation that has occurred over recently disturbed areas. The settlement rates in the newly maintained areas will continue to be monitored on a quarterly basis to assess whether there is persistent differential settlement in the subsiding areas relative to the surrounding areas of the cap.

As stated in the *2009 Cover Evaluation*, "To reach the design basis 10 percent elongation limiting value at the most critical location (near SB-5), the cumulative differential settlement across a horizontal distance of 15 feet would have to reach a total of 6.87 feet vertically, which is 4.37 feet more than observed to date at the southern area location." The elevation measurement for SB-5 that was used in this calculation was 425.15 feet. The final measurement for SB-5, before Zone A cover maintenance activities destroyed the benchmark on August 11, 2011, was 424.732 feet. Therefore, SB-5 settled 0.418 feet since the measurement used in the *2009 Cover Evaluation*. Based on the settlement data collected in 2011, the long-term settlement evaluation presented in the *2009 Cover Evaluation* remains valid. There does not appear to be substantial differential settlement on the Zone A cap that presently represents a threat to the integrity of the geomembrane material. No additional studies, beyond the current settlement monitoring, have been performed or are considered necessary to evaluate the potential effects of anomalous subsurface conditions on cap settlement.

The IWAG will continue to perform quarterly subsidence monitoring for each of the benchmarks and settlement plates on the Zone A cap.

The Zone A Landfill Cover, Detention/Evaporation Basin and Fence Inspection Checklists for 2011 are presented in Appendix F along with the same checklists for Zone C/D and Zone E. The condition of Zone B is reported by Bayer Crop Science (BCS) in its reporting to Ecology.

No conditions requiring maintenance or repair were observed on the Zone C/D or E caps in 2011.

3.0 SUMMARY

The following summarizes the primary findings of the ground water monitoring and interim actions operations and maintenance in 2011:

- Concentrations of VOCs in wells at the PSL Site have continued to decrease or remain stable since January 2011. The COPC concentrations observed in ground water at the Site are generally low and throughout the majority of the Site are nearing detection limits. As expected, observed COPC concentrations in ground water nearest Zone A continue to be somewhat higher than in other areas of the Site. COPC concentrations at the property boundary wells downgradient of Zone A are currently below dCULs, however, while ground water quality in wells farther downgradient appears to be improving, TCE continues to be detected at concentrations exceeding its dCUL.
- The SVE system is currently removing contaminant mass at near its historic baseline and has been optimized for operation with wells VEW-04 and VEW-05.
- Ground water quality is unlikely to show significant further improvement until the upgraded SVE system has been operated for a period of time and can be optimized for protection of ground water quality.
- Concentrations of VOC in ground water in the MSW Landfill wells and property boundary wells immediately downgradient of the MSW Landfill indicate that the MSW Landfill continues to affect ground water quality at the Site. Ground water quality relative to the MSW Landfill is further discussed in the *Pasco Municipal Solid Waste Landfill – 2011 Fourth Quarter Report and 2011 Annual Report*.
- Settlement of the Zone A cover in 2011 continued at rates consistent with prior years. Measurements of apparent settlement within the newly maintained areas were higher than in other areas of the Zone A cap. These higher apparent rates of settlement are likely attributable to initial settlement of newly placed materials, the weight of fill material on the underlying materials, and the construction and investigation activities on the Zone A cap. Ongoing quarterly settlement monitoring in 2012 will assist in evaluating whether differential settlement is occurring in the areas of cap maintenance. The locations and installation of additional settlement plates and benchmarks on the Zone A cap are currently a topic of discussion with Ecology.

4.0 REFERENCES

FINAL DRAFT Phase I Remedial Investigation Report - Pasco Landfill - Pasco, Washington, Volumes I to IV, dated December 1993, by Burlington Environmental Inc. (Prepared for Pasco Landfill PLP Group)

Ecological Assessment - Pasco Landfill - Pasco, Washington, dated September 1997 by Phillip Services Corp. (Prepared for Pasco Landfill PLP Group)

Interim Measures Completion Report - Pasco Landfill - Pasco Washington, dated February 4, 1998, by Phillip Environmental Services Corporation. (Prepared for Pasco Landfill PLP Group)

Risk Assessment/Cleanup Level Analysis - Pasco Landfill - Pasco, Washington, dated September 1998, by Phillip Services Corp. (Prepared for Pasco Landfill PLP Group)

Feasibility Study Report - Pasco Landfill - Pasco, Washington, dated April 28, 1999, by Phillip Environmental Services Corporation. (Prepared for Pasco Landfill PLP Group)

Operations and Maintenance Manual - Landfill Gas Collection Control and Flare - Pasco Sanitary Landfill - Pasco, Washington, dated July 15, 2002, by Phillip Services Corporation. (Prepared for Pasco Landfill PLP Group)

Operations and Maintenance Manual - Landfill Caps Volumes I and II - Pasco Sanitary Landfill - Pasco, Washington, dated July 15, 2002, by Phillip Services Corporation. (Prepared for Pasco Landfill PLP Group)

Operations and Maintenance Manual - SVE, NoVOCs, and Ground Water Monitoring - Pasco Sanitary Landfill - Pasco, Washington, dated July 15, 2002, by Phillip Services Corporation. (Prepared for Pasco Landfill PLP Group)

Interim Action Performance Monitoring Report - Pasco Landfill Site - Pasco Washington, dated January 31, 2007, by Environmental Partners, Inc. (Prepared for IWAG Group II)

Operations and Maintenance Manual - SVE, NoVOCs, and Ground Water Monitoring Report - Pasco Landfill Site - Pasco Washington, dated January 31, 2007 with February 23, 2007 revisions and May 25, 2007 revisions, by Environmental Partners, Inc. (Prepared for IWAG Group II)

The REVISED FINAL Work Plan for Additional Interim Actions - Phase I, dated May 5, 2008 by Environmental Partners, Inc. (Prepared for IWAG Group II)

Addendum No. 1 - Operations and Maintenance Manual - SVE, NoVOCs and Ground Water Monitoring, dated May 22, 2008 by Environmental Partners, Inc. (Prepared for IWAG Group II)

Revised 2011 Annual Report - Ground Water Monitoring and Interim Action Performance Monitoring
Pasco Landfill Site
Pasco, Washington
EPI Project Number: 03911.2
August 20, 2012

Pasco Landfill Zone A Cover Evaluation, dated March 10, 2009 by SCS Engineers. (Prepared for Environmental Partners, Inc.)

2008 Annual Report - Ground Water Monitoring and Phase I Additional Interim Actions- Volumes 1 to 3, dated May 20, 2009, by Environmental Partners, Inc. (Prepared for IWAG Group II)

Draft Final Phase II Additional Interim Actions Work Plan Volume 1 – Soil Vapor Extraction System Upgrades and Start-up Testing with Monitoring Well, dated May 14, 2010 by Environmental Partners, Inc. (Prepared for IWAG Group II)

Revised 100% Submittal Engineering Design Report for SVE System Upgrades – Phase II Additional Interim Actions, dated July 2, 2010 by Environmental Partners, Inc. (Prepared for IWAG Group II)

Technical Methodology for NoVOCs Well Decommissioning, dated October 22, 2010 by the IWAG Group III, Environmental Partners, Inc., and Anchor QEA, LLC. (Prepared for Ecology)

Revised Final Phase II Additional Interim Actions Work Plan Volume 2 – Sub-Zone A Investigation, Downgradient Well Installation and Cap Maintenance, dated January 28, 2011 by Environmental Partners, Inc. (Prepared for IWAG Group III)

Revised Addendum No. 1 – 100% Engineering Design Report for SVE System Upgrades – Phase II Additional Interim Actions, dated March 31, 2011 by Environmental Partners, Inc. (Prepared for IWAG Group III)

Technical Memorandum – Summary of NoVOCs Well Decommissioning, dated August 31, 2011.

Cover Maintenance Documentation Report – Pasco Landfill Zone A, dated September 2011 by SCS Engineers. (Prepared for Environmental Partners, Inc.)

Phase II Additional Interim Actions - Sub-Zone A Investigation and Downgradient Well Installation Report, Volumes I and II, dated September 30, 2011 by Environmental Partners, Inc. (Prepared for IWAG Group III)

Draft Phase II Additional Interim Actions, Sub-Zone A Investigation and Downgradient Well Installation Report, dated September 30, 2011 by Environmental Partners, Inc. (Prepared for IWAG Group III)

Addendum No. 2 – 100% Engineering Design Report for SVE System Upgrades – Revisions to SVE Startup Testing, dated January 6, 2012 by Environmental Partners, Inc. (Prepared for IWAG Group III)

Tables

REVISED TABLE 2
Ground Water Elevation Data
(in feet)
2011 Annual Report
Pasco Landfill, Pasco, WA

PERIOD:1/1/11 thru 12/31/11

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WELL ID	WATER ELEVATION 1/10/11	WATER ELEVATION 4/15/11	WATER ELEVATION 7/22/11	WATER ELEVATION 10/20/11	RANGE
#9	359.32	360.91	359.56	358.30	2.61
1R	352.80	353.82	352.76	351.97	1.85
2D	353.03	354.08	352.92	352.19	1.89
2I	353.14	354.14	353.00	352.29	1.85
2R	353.00	354.02	352.88	352.15	1.87
4R	358.53	360.03	358.47	357.49	2.54
8R	357.34	358.77	354.12	356.42	4.65
EE-2	353.62	354.68	353.58	352.74	1.94
EE-6R	357.81	359.26	358.02	356.86	2.40
EE-7R	357.43	358.84	357.61	356.48	2.36
EE-8R	358.97	360.47	359.23	357.93	2.54
MW-10S	352.24	353.17	352.10	351.40	1.77
MW-11I	New Well	352.96	351.86	351.17	1.79
MW-11S	352.03	352.95	351.87	351.19	1.76
MW-12D	353.16	354.18	353.05	352.29	1.89
MW-12ID	353.16	354.18	353.06	352.29	1.89
MW-12S	353.14	354.16	353.03	352.31	1.85
MW-13S	353.47	354.54	353.37	352.64	1.90
MW-14S	354.94	356.11	355.01	354.06	2.05
MW-15S	NM	NM	353.75	353.07	0.68
MW-16S	360.16	361.75	360.15	359.09	2.66
MW-17SR	355.73	357.01	355.64	354.81	2.20
MW-18S	356.09	357.42	356.15	355.20	2.22
MW-19S	358.39	359.89	358.67	357.41	2.48
MW-20S	361.06	362.76	361.37	359.96	2.80
MW-22S	354.02	355.13	353.77	353.13	2.00
MW-23S	357.58	358.99	357.41	356.59	2.40
MW-24S	352.91	353.92	352.73	352.09	1.83
MW-25S	358.68	360.16	358.99	357.61	2.55
MW-26S	358.29	359.75	358.59	357.26	2.49
MW-27SR	359.05	360.60	359.31	358.04	2.56
MW-28S	364.11	366.38	364.78	363.22	3.16
MW-29I	New Well	351.57	350.73	349.96	1.61
MW-29S	351.40	351.44	350.62	349.87	1.57
MW-30S	350.02	350.85	349.92	349.30	1.55
MW-31S	350.34	351.13	350.35	349.68	1.45
MW-32S	350.25	351.11	350.03	349.41	1.70
MW-33S	351.01	351.89	351.14	350.23	1.66

Vertical Datum is based on NAVD 1988

The data for MW-29S and MW-29I was revised using survey measurements made during June 2012.

REVISED TABLE 2
Ground Water Elevation Data
(in feet)
2011 Annual Report
Pasco Landfill, Pasco, WA

PERIOD:1/1/11 thru 12/31/11

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WELL ID	WATER ELEVATION 1/10/11	WATER ELEVATION 4/15/11	WATER ELEVATION 7/22/11	WATER ELEVATION 10/20/11	RANGE
MW-34S	349.26	350.06	349.36	348.71	1.35
MW-36S	348.52	349.29	348.73	348.07	1.22
MW-37S	348.47	349.22	348.70	348.05	1.17
MW-38I	New Well	348.95	348.47	347.79	1.16
MW-38S	348.28	348.97	348.53	347.84	1.13
MW-40S	347.88	348.58	348.17	347.51	1.07
MW-41SR	348.27	348.74	348.33	347.63	1.11
MW-42S	347.50	348.16	347.85	347.14	1.02
MW-43I	New Well	348.27	347.85	347.19	1.08
MW-43S	347.66	348.30	347.92	347.24	1.06
MW-44S	347.58	348.22	347.84	347.17	1.05
MW-45S	348.03	348.71	348.30	347.61	1.10
MW-46S	349.68	350.46	349.90	349.05	1.41
MW-47D	353.43	354.47	353.34	352.59	1.88
MW-47I	353.38	354.47	353.32	352.56	1.91
MW-47S	353.39	354.44	353.30	352.55	1.89
MW-48D	353.65	354.71	353.59	352.78	1.93
MW-48I	353.43	354.48	353.34	352.56	1.92
MW-48S	353.46	354.51	353.39	352.61	1.90
MW-49D	352.96	353.98	352.79	352.11	1.87
MW-49I	352.70	353.70	352.52	351.87	1.83
MW-49S	352.76	353.75	352.58	351.90	1.85
MW-50S	353.71	354.73	353.57	352.79	1.94
MW-51S	352.30	353.27	352.13	351.48	1.79
MW-52S	354.16	NM	354.08	353.23	0.93
MW-53S	353.62	NM	353.57	352.77	0.85
MW-54I	New Well	346.94	346.79	346.07	0.87
NVM-01	353.36	354.40	353.25	352.51	1.89
NVM-01D	353.36	354.39	353.25	352.49	1.90
NVM-01I	353.35	354.39	353.41	352.51	1.88
NVM-02	353.30	354.37	353.20	352.45	1.92
NVM-03	353.29	354.33	353.20	352.45	1.88
NVM-04	353.06	354.09	352.93	352.23	1.86
NW-1	NM	374.10	NM	370.01	4.09
NW-2	NM	369.81	NM	366.08	3.73
NW-3	NM	367.17	NM	363.94	3.23
NW-4	NM	369.53	NM	365.96	3.57
NW-5	368.60	370.75	368.67	367.04	3.71

NM = Water level not measured.

Vertical Datum is based on NAVD 1988

The data for MW-29S and MW-29I was revised using survey measurements made during June 2012.

TABLE 3
Evaluation of Vertical Gradients
Zone A Well Clusters
Fourth Quarter 2011
Pasco Landfill, Pasco, WA

Shallow Well	Water Elevation (in feet)	Shallow to Intermediate Vertical Piezometric Gradient (in feet/feet)	Intermediate Well	Elevation at Center of Screen (in feet)	Water Elevation (in feet)	Intermediate to Deep Vertical Piezometric Gradient (in feet/feet)	Deep Well	Elevation at Center of Screen (in feet)	Water Elevation (in feet)	Shallow to Deep Vertical Piezometric Gradient (in feet/feet)
October 2011										
2R	352.15	-0.006	2I	327.50	352.29	0.003	2D	297.50	352.19	-0.001
MW-12S	352.31	0.001	MW-12ID	326.80	352.29	< 0.001	MW-12D	293.00	352.29	< 0.001
MW-47S	352.55	< 0.001	MW-47I	326.70	352.56	-0.001	MW-47D	293.40	352.59	-0.001
MW-48S	352.61	0.002	MW-48I	327.90	352.56	-0.006	MW-48D	293.30	352.78	-0.003
MW-49S	351.90	0.001	MW-49I	328.90	351.87	-0.008	MW-49D	299.50	352.11	-0.004
NVM-01	352.51	< 0.001	NVM-01I	324.10	352.51	0.001	NVM-01D	296.40	352.49	< 0.001
Average of Water Elevations and Vertical Hydraulic Gradients - July 2008 Through October 2011										
2R	352.70	-0.004	2I	327.50	352.80	0.001	2D	297.50	352.75	-0.001
MW-12S	352.84	-0.001	MW-12ID	326.80	352.86	< 0.001	MW-12D	293.00	352.85	< 0.001
MW-47S	353.13	< 0.001	MW-47I	326.70	353.11	< 0.001	MW-47D	293.40	353.14	< 0.001
MW-48S	353.17	0.001	MW-48I	327.90	353.14	-0.004	MW-48D	293.30	353.36	-0.003
MW-49S	352.44	0.002	MW-49I	328.90	352.39	-0.005	MW-49D	299.50	352.64	-0.004
NVM-01	353.08	0.001	NVM-01I	324.10	353.05	< 0.001	NVM-01D	296.40	353.03	0.001

Downward gradients follow gravity and are shown as positive numbers. Upward gradients go against gravity and are shown as negative (-) numbers. Example: If a shallow well has a lower water elevation than the cluster's intermediate well, the gradient from the shallow well to the intermediate well will be a negative number.



Shallow Well	Water Elevation (in feet)	Shallow to Intermediate Vertical Piezometric Gradient (in feet/feet)	Intermediate Well	Elevation at Center of Screen (in feet)	Water Elevation (in feet)
April 2011					
MW-11S	352.95	< 0.001	MW-11I	328.94	352.96
MW-29S	351.44	-0.007	MW-29I	331.39	351.57
MW-38S	348.97	0.001	MW-38I	333.17	348.95
MW-43S	348.30	0.001	MW-43I	327.22	348.27
July 2011					
MW-11S	351.87	< 0.001	MW-11I	328.94	351.86
MW-29S	350.62	-0.006	MW-29I	331.39	350.73
MW-38S	348.53	0.004	MW-38I	333.17	348.47
MW-43S	347.92	0.003	MW-43I	327.22	347.85
October 2011					
MW-11S	351.19	0.001	MW-11I	328.94	351.17
MW-29S	349.87	-0.005	MW-29I	331.39	349.96
MW-38S	347.84	0.003	MW-38I	333.17	347.79
MW-43S	347.24	0.002	MW-43I	327.22	347.19
Average Water Elevations and Vertical Hydraulic Gradients - April to October 2011					
MW-11	352.00	< 0.001	MW-11I	328.94	352.00
MW-29	350.64	-0.006	MW-29I	331.39	350.76
MW-38	348.45	0.003	MW-38I	333.17	348.40
MW-43	347.82	0.002	MW-43I	327.22	347.77

Notes:

Downward gradients are shown as positive numbers. Upward gradients are shown as negative (-) numbers. Wells were not installed until March 2011 therefore, no data is available for January 2011.

The data for MW29S and MW-29I was revised using survey measurements made during June 2012.

PERIOD: 1/1/11 thru 12/31/11 - Quarterly Data Only

Well Grouping	Well	Qtr	Chloroethenes					Chloroethanes			Chloro-methanes	Aromatic Hydrocarbons								Ketones	
			Tetra-chloro-ethene	Tri-chloro-ethene	1,1-Di-chloro-ethene	cis-1,2-Dichloro-ethene	Vinyl chloride	1,1,1-Tri-chloro-ethane	1,1-Di-chloro-ethane	1,2-Di-chloro-ethane	Chloro-form	Benzene	Ethyl-benzene	1,2,4-Tri-methyl-benzene	1,3,5-Tri-methyl-benzene	n-Propyl-benzene	Naphth-alene	Tol-uene	m,p-Xylene	o-Xylene	Methyl-isobutyl-ketone
Draft Clean-up Levels (µg/L)			0.4	0.3	0.05	70	0.025	200	-	0.228	-	0.02	-	-	-	-	570	-	-	-	
Off-Property Wells	MW-29S	1st	< 0.02 U	0.37	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	1.1	< 2 U	< 1 U	< 10 U	
		2nd	< 0.02 U	0.28 J	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	0.13	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
		3rd	0.077 J	0.56	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
		4th	< 0.02 U	0.28	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	0.034	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
	MW-29I	Mar	< 0.02 U	0.076	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
		Apr	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
		May	< 0.05 U	< 0.02 U	< 0.02 U	< 2 U	< 0.02 U	< 2 U	< 2 U	< 0.01 U	< 2 U	< 0.02 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	
		Jun	< 1 U	< 1 U	< 1 U	< 1 U	< 0.2 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
		Jul	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
		Aug	< 0.05 U	< 0.02 U	< 0.02 U	< 2 U	< 0.02 U	< 2 U	< 2 U	< 0.010 U	< 2 U	< 0.02 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4.0 U	< 2 U	< 10 U	
		Oct	0.033	0.72	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	0.091	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
		Note: MW-29I was installed during the first quarter of 2011 and was sampled monthly from March through August.																			
	MW-31S	1st	< 0.02 U	0.22	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
		2nd	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
		3rd	0.33 J	0.3	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
		4th	0.26	0.26	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
	MW-33S	1st	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
		2nd	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
		3rd	0.1	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
		4th	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
	MW-34S	1st	0.43 U	0.18	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
		2nd	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
		3rd	0.26	0.22	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
		4th	0.19	0.18	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
	MW-46S	1st	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
		2nd	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
		3rd	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
		4th	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
	MW-37S	1st	0.42 U	0.18	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
		2nd	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
		3rd	0.2	0.18	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
		4th	0.17	0.16	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
	MW-38S	1st	< 0.02 U	0.81	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	4.7	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
		2nd	< 0.02 U	0.48	0.037	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	5.8	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
		3rd	0.047	0.95	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	7.5	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
		4th	< 0.02 U	0.72	0.025	< 1 U	< 0.02 U	< 1 U	< 1 U	0.021	4.6	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
	MW-38I	Mar	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
		Apr	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
		May	< 0.05 U	< 0.02 U	< 0.02 U	< 2 U	< 0.02 U	< 2 U	< 2 U	< 0.01 U	< 2 U	< 0.02 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	
		Jun	< 1 U	< 1 U	< 1 U	< 1 U	< 0.2 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	
Jul		0.024	0.12	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U		
Aug		< 0.05 U	< 0.02 U	< 0.02 U	< 2 U	< 0.02 U	< 2 U	< 2 U	< 0.010 U	< 2 U	< 0.02 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4.0 U	< 2 U	< 10 U		
Oct		< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U		
Note: MW-38I was installed during the first quarter of 2011 and was sampled monthly from March through August.																					
MW-40S	1st	0.53 U	0.2	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U		
	2nd	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U		
	3rd	0.28	0.18	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U		
	4th	0.23	0.14	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U		
MW-41SR	1st	< 0.02 U	0.37	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	1.8	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U		
	2nd	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	1.7	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U		
	3rd	0.032	0.41	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	1.6	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U		
	4th	< 0.02 U	0.4	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	1.9	< 0.02 U	< 1 U	< 1 U	< 1							

PERIOD: 1/1/11 thru 12/31/11 - Quarterly Data Only

Well Grouping	Well	Qtr	Chloroethenes					Chloroethanes			Chloro-methanes	Aromatic Hydrocarbons								Ketones	
			Tetra-chloro-ethene	Tri-chloro-ethene	1,1-Di-chloro-ethene	cis-1,2-Dichloro-ethene	Vinyl chloride	1,1,1-Tri-chloro-ethane	1,1-Di-chloro-ethane	1,2-Di-chloro-ethane	Chloro-form	Benzene	Ethyl-benzene	1,2,4-Tri-methyl-benzene	1,3,5-Tri-methyl-benzene	n-Propyl-benzene	Naphth-alene	Tol-uene	m,p-Xylene	o-Xylene	Methy-isobutyl-ketone
Draft Clean-up Levels (µg/L)			0.4	0.3	0.05	70	0.025	200	-	0.228	-	0.02	-	-	-	-	-	570	-	-	-
Residential Wells	BRADLEY	Q2	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U
		Q4	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U
	HAND	Q2	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U
		Q4	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U
	LOPEZ	Q2	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	1.4	< 2 U	< 1 U	< 10 U
		Q4	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U
	MONTALVO	Q2	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U
		Q4	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U
	NORVELL	Q2	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U
		Q4	0.038	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U
	NORVELL2	Q2	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U
		Q4	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U
	RADA	Q2	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U
		Q4	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U
	RINDT	Q2	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U
		Q4	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U
	SALINAS	Q4	0.29	0.26	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U
	West	Q1	< 0.02 U	0.31	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U
		Q2	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U
		Q3	0.089	0.31	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U
		Q4	0.023	0.27	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	0.029	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U
	YENNEY2	Q2	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U
		Q4	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U
	YENNEY3	Q2	< 0.02 U	< 0.02 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 0.02 U	< 1 U	< 0.02 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 10 U	



Quarter	Well	Tetrachloroethene	Trichloroethene	1,2-Dichloroethane	Toluene
First Quarter 2011	WEST	< 0.02 U	0.31	< 0.02 U	< 1 U
Second Quarter 2011	LOPEZ	< 0.02 U	< 0.02 U	< 0.02 U	1.4
Third Quarter 2011	WEST	0.089	0.31	< 0.02 U	< 1 U
Fourth Quarter 2011	NORVELL	0.038	< 0.02 U	< 0.02 U	< 1 U
	SALINAS	0.29	0.26	< 0.02 U	< 1 U
	WEST	0.023	0.27	0.029	< 1 U
Draft Clean-Up Levels (µg/L)		0.40	0.30	0.228	570

Detected compounds that exceed the Draft Clean-Up Level are in **bold** lettering.

WELL	DATE	Chloroethenes					Chloroethanes			Chloro	Aromatic Hydrocarbons							Ketones		
		Tetra-chloro-ethene	Trichloro-ethene	1,1-Dichloro-ethene	cis-1,2-Dichloro-ethene	Vinyl chloride	1,1,1-Trichloro-ethane	1,1-Dichloro-ethane	1,2-Dichloro-ethane	Chloro-form	Benzene	Ethyl benzene	1,2,4-Trimethyl benzene	1,3,5-Trimethyl benzene	N-Propyl Benzene	Naphthalene	Toluene	m,p-Xylene	o-Xylene	Methyl isobutyl ketone
Draft Site Cleanup Level		0.4	0.3	0.05	70	0.025	200	-	0.228	-	0.02	-	-	-	-	570	-	-	-	-
MW-52S	01/12/11	0.16	3.6	<0.02 U	<1 U	<0.02 U	<1 U	<1 U	0.27	<1 U	<0.02 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	02/17/11	<1 U	5.7	<1 U	<1 U	<0.2 U	<1 U	1.3	1.2	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	03/16/11	<1 U	6.7	<1 U	<1 U	<0.2 U	<1 U	1.2	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	04/20/11	0.067	10	<0.02 U	<1 U	<0.02 U	<1 U	1.4	0.74	<1 U	<0.02 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	05/19/11	<1 U	12	<1 U	<1 U	<0.2 U	1.2	2	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	06/15/11	<1 U	6.3	<1 U	<1 U	<0.2 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	07/26/11	0.17	2.1	<0.02 U	<1 U	<0.02 U	<1 U	<1 U	0.19	<1 U	<0.02 U	<1 U	<1 U	<1 U	<1 U	<1 U	3	<2 U	<1 U	<10 U
	08/25/11	<1 U	1.6	<1 U	<1 U	<0.2 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	1.8	<2 U	<1 U	<10 U
	09/30/11	<1 U	2.5	<1 U	<1 U	<0.2 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	2.2	<2 U	<1 U	<10 U
	10/24/11	<0.02 U	0.96	<0.02 U	<1 U	<0.02 U	<1 U	<1 U	<0.02 U	<1 U	<0.02 U	<1 U	<1 U	<1 U	<1 U	<1 U	2.4	<2 U	<1 U	<10 U
	11/14/11	<0.02 U	1.3	<0.02 U	<1 U	<0.02 U	<1 U	<1 U	<0.02 U	<1 U	<0.02 U	<1 U	<1 U	<1 U	<1 U	<1 U	2.8	2.1	<1 U	<10 U
	12/19/11	<1 U	2.9	<1 U	<1 U	<0.2 U	<1 U	<1 U	<1 U	<1 U	<1 U	2.1	<1 U	<1 U	<1 U	<1 U	20	6	1.5	<10 U
MW-53S	01/12/11	0.24	8.6	<0.02 U	<1 U	<0.02 U	<1 U	1.4	1	<1 U	<0.02 U	<1 U	<1 U	<1 U	<1 U	<1 U	3.5	<2 U	<1 U	<10 U
	02/17/11	<1 U	7.6	<1 U	<1 U	<0.2 U	<1 U	2.8	2.5	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	23	8.9	2.2	<10 U
	03/16/11	<1 U	6.6	<1 U	<1 U	<0.2 U	<1 U	1	1.4	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	5.9	2.6	<1 U	<10 U
	04/20/11	<0.02 U	10	<0.02 U	<1 U	<0.02 U	<1 U	1.2	1.5	<1 U	<0.02 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	05/19/11	<1 U	9.2	<1 U	<1 U	<0.2 U	<1 U	1.5	1.6	<1 U	<1 U	1.4	<1 U	<1 U	<1 U	<1 U	7.8	4.2	1.1	<10 U
	06/15/11	<1 U	4.5	<1 U	<1 U	<0.2 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	8.5	2.5	<1 U	<10 U
	07/26/11	0.68	3.9	<0.02 U	<1 U	<0.02 U	<1 U	<1 U	0.22	<1 U	0.041	17	5.4	2.5	1.6	<1 U	52	53	18	11
	08/25/11	<1 U	8.8	<1 U	<1 U	<0.2 U	<1 U	<1 U	1.3	<1 U	<1 U	14	4.2	2.1	1.2	<1 U	89	51	16	<10 U
	09/30/11	<1 U	7.5	<1 U	<1 U	<0.2 U	<1 U	<1 U	1.2	<1 U	<1 U	10	2.6	1.3	<1 U	<1 U	150	35	12	17
	10/24/11	0.46	3.9	<0.02 U	<1 U	<0.02 U	<1 U	<1 U	0.99	<1 U	<0.02 U	6.1	3.8	1.8	<1 U	<1 U	17	21	7.5	<10 U
	11/14/11	0.47	2.8	<0.02 U	<1 U	<0.02 U	<1 U	<1 U	0.87	<1 U	<0.02 U	5.1	3.5	1.6	<1 U	<1 U	11	19	6.3	<10 U
	12/19/11	<1 U	3.8	<1 U	<1 U	<0.2 U	<1 U	<1 U	<1 U	<1 U	<1 U	18	10	4.3	2.2	1.1	60	63	22	<10 U
MW-50S	01/12/11	0.55	13	0.036	1.4	<0.02 U	<1 U	2	1.3	<1 U	<0.02 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	02/17/11	<1 U	11	<1 U	1.2	<0.2 U	<1 U	2.1	1.1	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	03/15/11	<1 U	16	<1 U	1.7	<0.2 U	<1 U	3.6	3.2	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	04/19/11	0.54	9.7	<0.02 U	<1 U	<0.02 U	<1 U	1.4	0.58	<1 U	<0.02 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	05/19/11	<1 U	14	<1 U	<1 U	<0.2 U	1.3	2	<1 U	1.1	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	06/15/11	<1 U	10	<1 U	<1 U	<0.2 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	07/26/11	0.51	5.7	<0.02 U	<1 U	<0.02 U	<1 U	<1 U	0.14	<1 U	<0.02 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	08/25/11	<1 U	16	<1 U	<1 U	<0.2 U	1.4	1.8	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	09/30/11	<1 U	20	<1 U	<1 U	<0.2 U	1.5	3.1	1	1.1	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	10/25/11	0.88	22	0.039	1.1	<0.02 U	1.7	4.1	3	1.1	<0.02 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	11/17/11	<1 U	23	<1 U	<1 U	<0.2 U	1.7	4.1	3.7	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	12/20/11	<1 U	37	<1 U	1.4	<0.2 U	2.3	6.5	4.5	2.1	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
MW-13S	01/11/11	0.075	0.26	<0.02 U	<1 U	<0.02 U	<1 U	<1 U	<0.02 U	<1 U	<0.02 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	02/16/11	<1 U	<1 U	<1 U	<1 U	<0.2 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	03/14/11	<1 U	<1 U	<1 U	<1 U	<0.2 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	04/18/11	<0.02 U	<0.02 U	<0.02 U	<1 U	<0.02 U	<1 U	<1 U	<0.02 U	<1 U	<0.02 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	05/18/11	<1 U	<1 U	<1 U	<1 U	<0.2 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	06/14/11	<1 U	<1 U	<1 U	<1 U	<0.2 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	07/25/11	<0.02 U	<0.02 U	<0.02 U	<1 U	<0.02 U	<1 U	<1 U	<0.02 U	<1 U	<0.02 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	08/24/11	<1 U	<1 U	<1 U	<1 U	<0.2 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	09/29/11	<1 U	<1 U	<1 U	<1 U	<0.2 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	10/25/11	<0.02 U	0.2	<0.02 U	<1 U	<0.02 U	<1 U	<1 U	<0.02 U	<1 U	<0.02 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	11/16/11	<1 U	<1 U	<1 U	<1 U	<0.2 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	12/19/11	<1 U	<1 U	<1 U	<1 U	<0.2 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
MW-47S	01/12/11	0.26	8.4	0.056	2.1	<0.02 U	<1 U	1.5	1	<1 U	<0.02 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	02/17/11	<1 U	13	<1 U	2.5	<0.2 U	<1 U	2.4	1.4	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	03/15/11	<1 U	4.2	<1 U	1.6	<0.2 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	04/19/11	<0.02 U	2.4	<0.02 U	1.5	<0.02 U	<1 U	<1 U	0.34	<1 U	<0.02 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	05/19/11	<1 U	2.8	<1 U	1.4	<0.2 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	06/15/11	<1 U	3.8	<1 U	1.1	<0.2 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<10 U
	07/26/11	0.22	5.3																	

TABLE 7
Semi-Volatile Organic Compounds in Ground Water
(in micrograms per liter)
2011 Annual Report
Pasco Landfill, Pasco, WA

PERIOD: 1/1/11 thru 12/31/11

SEMI-VOLATILE ORGANIC COMPOUND	1/12/11						4/20/11			7/27/11	10/26/11
	MW-26S	MW-47S	MW-50S	MW-51S	MW-52S	MW-53S	MW-26S	MW-52S	MW-53S	MW-26S	MW-26S
1,2,4-Trichlorobenzene	< 10 U	R	R	R	R	R	< 10 U	R	R	< 10 U	< 10 U
1,2-Dichlorobenzene	< 10 U	R	R	R	R	R	< 10 U	R	R	< 10 U	< 10 U
1,3-Dichlorobenzene	< 10 U	R	R	R	R	R	< 10 U	R	R	< 10 U	< 10 U
1,4-Dichlorobenzene	< 10 U	R	R	R	R	R	< 10 U	R	R	< 10 U	< 10 U
2,4,5-Trichlorophenol	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2,4,6-Trichlorophenol	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2,4-Dichlorophenol	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2,4-Dimethylphenol	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2,4-Dinitrophenol	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U
2,4-Dinitrotoluene	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2,6-Dinitrotoluene	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Chloronaphthalene	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Chlorophenol	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Methylnaphthalene	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Methylphenol	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Nitroaniline	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Nitrophenol	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
3,3'-Dichlorobenzidine	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
4,6-Dinitro-2-methylphenol	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
4-Bromophenyl phenyl ether	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
4-Chloro-3-methylphenol	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
4-Chloroaniline	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 UJ
4-Chlorophenyl phenyl ether	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
4-Nitroaniline	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 UJ
4-Nitrophenol	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Acenaphthene	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Acenaphthylene	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Aniline	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Anthracene	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Benz[a]anthracene	< 10 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Benzo(a)pyrene	< 10 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Benzo(b)fluoranthene	< 10 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Benzo(ghi)perylene	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Benzo(k)fluoranthene	< 10 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Benzoic acid	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U
Benzyl alcohol	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 UJ	< 10 UJ	< 10 UJ	< 10 U	< 10 U
Bis(2-chloroethoxy)methane	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Bis(2-chloroethyl)ether	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Bis(2-chloroisopropyl) ether	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Bis(2-Ethylhexyl) phthalate	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
Butyl benzyl phthalate	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Chrysene	< 10 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Dibenz[a,h]anthracene	< 10 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Dibenzofuran	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Dibutyl phthalate	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Diethyl phthalate	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Dimethyl phthalate	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Di-n-octyl phthalate	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Fluoranthene	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Fluorene	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Hexachlorobenzene	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Hexachlorobutadiene	< 10 U	R	R	R	R	R	< 10 U	R	R	< 10 U	< 10 U
Hexachlorocyclopentadiene	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 UJ	< 10 UJ	< 10 UJ	< 10 U	< 10 U

TABLE 7
Semi-Volatile Organic Compounds in Ground Water
(in micrograms per liter)
2011 Annual Report
Pasco Landfill, Pasco, WA

PERIOD: 1/1/11 thru 12/31/11

SEMI-VOLATILE ORGANIC COMPOUND	1/12/11						4/20/11			7/27/11	10/26/11
	MW-26S	MW-47S	MW-50S	MW-51S	MW-52S	MW-53S	MW-26S	MW-52S	MW-53S	MW-26S	MW-26S
Hexachloroethane	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Indeno(1,2,3-cd)pyrene	< 10 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Isophorone	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 UJ	< 10 UJ	< 10 UJ	< 10 U	< 10 U
m,p-Cresol (2:1 ratio)	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
m-Nitroanaline	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Naphthalene	< 10 U	R	R	R	R	R	< 10 U	R	R	< 10 U	< 10 U
Nitrobenzene	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
N-Nitrosodi-n-propylamine	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
N-Nitrosodiphenylamine	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
o-Cresol	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Pentachlorophenol	R	R	R	R	R	R	R	R	R	R	R
Phenanthrene	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 UJ
Phenol	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Pyrene	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U

Notes:

Results of SVOC analysis for 1,2,4-trichlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, hexachlorobutadiene, and naphthalene were refused during the data validation process in favor of the results from VOC analysis.

Results from SVOC analysis of pentachlorophenol were refused during the data validation process in favor of the results from herbicide analysis.

TABLE 8
Chlorinated Herbicides in Ground Water
(in micrograms per liter)
2011 Annual Report
Pasco Landfill, Pasco, WA

PERIOD: 1/1/11 thru 12/31/11

HERBICIDE	01/12/11						04/20/11			07/27/11	10/26/11
	MW-26S	MW-47S	MW-50S	MW-51S	MW-52S	MW-53S	MW-26S	MW-52S	MW-53S	MW-26S	MW-26S
2,4,5-T	< 0.24 U	< 0.24 U	< 0.24 U	< 0.24 U	< 0.24 U	< 0.24 U	< 0.024 U	< 0.024 U	< 0.024 U	< 0.24 U	< 0.25 U
2,4-D	< 0.24 U	< 0.24 U	< 0.24 U	< 0.24 U	< 0.24 U	< 0.24 U	< 0.024 U	< 0.024 U	< 0.024 U	< 0.24 U	< 0.25 U
2,4-DB	< 0.24 U	< 0.24 U	< 0.24 U	< 0.24 U	< 0.24 U	< 0.24 U	< 0.024 U	< 0.024 U	< 0.024 U	< 0.24 U	< 0.25 U
4-Nitrophenol	< 0.24 U	< 0.24 U	< 0.24 U	< 0.24 U	< 0.24 U	< 0.24 U	< 0.024 U	< 0.024 U	< 0.024 U	< 0.24 U	< 0.25 U
Dalapon	< 0.38 U	< 0.38 U	< 0.38 U	< 0.38 U	< 0.38 U	< 0.38 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.38 U	< 0.4 U
Dicamba	< 0.24 U	< 0.24 U	< 0.24 U	< 0.24 U	< 0.24 U	< 0.24 U	< 0.024 U	< 0.024 U	< 0.024 U	< 0.24 U	< 0.25 U
Dichlorprop	< 0.24 U	< 0.24 U	< 0.24 U	< 0.24 U	< 0.24 U	< 0.24 U	< 0.024 U	< 0.024 U	< 0.024 U	< 0.24 U	< 0.25 U
Dinoseb	< 0.24 U	< 0.24 U	< 0.24 U	< 0.24 U	< 0.24 U	< 0.24 U	< 0.024 U	< 0.024 U	< 0.024 U	< 0.24 U	< 0.25 U
MCPA	< 0.24 U	< 0.24 U	< 0.24 U	< 0.24 U	< 0.24 U	< 0.24 U	< 0.024 U	< 0.024 U	< 0.024 U	< 0.24 U	< 0.25 U
MCPP	< 0.24 U	< 0.24 U	< 0.24 U	< 0.24 U	< 0.24 U	< 0.24 U	< 0.024 U	< 0.024 U	< 0.024 U	< 0.24 U	< 0.25 U
Pentachlorophenol	< 0.24 U	< 0.24 U	< 0.24 U	< 0.24 U	< 0.24 U	< 0.24 U	< 0.024 U	< 0.024 U	< 0.024 U	< 0.24 U	< 0.25 U
Silvex	< 0.24 U	< 0.24 U	< 0.24 U	< 0.24 U	< 0.24 U	< 0.24 U	< 0.024 U	< 0.024 U	< 0.024 U	< 0.24 U	< 0.25 U

TABLE 9
 Polychlorinated Biphenyls in Ground Water
 (in micrograms per liter)
 2011 Annual Report
 Pasco Landfill, Pasco, WA

PERIOD: 1/1/11 thru 12/31/11

PCB	01/12/11					4/20/11	
	MW-47S	MW-50S	MW-51S	MW-52S	MW-53S	MW-52S	MW-53S
PCB-1016	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.10 UJ	< 0.10 UJ
PCB-1221	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.10 UJ	< 0.10 UJ
PCB-1232	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.10 UJ	< 0.10 UJ
PCB-1242	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.10 UJ	< 0.10 UJ
PCB-1248	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.10 UJ	< 0.10 UJ
PCB-1254	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.10 UJ	< 0.10 UJ
PCB-1260	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.10 UJ	< 0.10 UJ
PCB-1268	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.10 UJ	< 0.10 UJ

**Priority Pollutant Metals in Ground Water
(in micrograms per liter)
2011 Annual Report**
PERIOD: 1/1/11 thru 12/31/11
Pasco Landfill, Pasco, WA
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METAL	01/12/11					04/20/11	
	MW-47S	MW-50S	MW-51S	MW-52S	MW-53S	MW-52S	MW-53S
Antimony	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
Arsenic	3.6	3	4.6	3.7	4	3.8	4.4
Beryllium	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
Cadmium	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.1 U	< 0.1 U
Chromium	< 1 U	< 1 U	4.2	< 1 U	< 1 U	85	4
Copper	0.8	1	3.4	1.1	1.6	2.6	2.2
Lead	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 0.1 U	< 0.1 U
Mercury	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
Nickel	1.1	2.4	3	1	2.4	5	3.3
Selenium	0.7	< 0.5 U	< 2 U	< 2 U	< 2 U	1.2	< 2 U
Silver	< 0.2 UJ	< 0.2 UJ	< 0.2 UJ	< 0.2 UJ	< 0.2 UJ	< 0.2 U	< 0.2 U
Thallium	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
Zinc	< 4 U	< 4 U	< 4 U	< 4 U	< 4 U	< 4 U	< 4 U

TABLE 11
Chromium in Ground Water
(in micrograms per liter)
2011 Annual Report
Pasco Landfill, Pasco, WA

PERIOD: 1/1/11 thru 12/31/11

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Well	First Quarter		Second Quarter		Third Quarter		Fourth Quarter	
	Total Chromium	Hexavalent Chromium	Total Chromium	Hexavalent Chromium	Total Chromium	Hexavalent Chromium	Total Chromium	Hexavalent Chromium
1R	4.7	< 10 U	1	< 10 U	2	< 10 U	3 J	< 10 U
EE-2	8	< 10 U	3	< 10 U	3	< 10 U	22.3 J	< 10 U
EE-8R	290	< 10 U	69	< 10 U	277	< 10 U	127	< 10 U
MW-12S	1 U	< 10 U	< 1 U	< 10 U	1	< 10 U	2.1	< 10 U
MW-13S	2	< 10 U	2.9	< 10 U	0.7	< 10 U	1.4	< 10 U
MW-22S	4	< 10 U	2	< 10 U	2.2	< 10 U	2.4	< 10 U
MW-47S	1 U	< 10 U	NS	NS	NS	NS	NS	NS
MW-50S	1 U	< 10 U	NS	NS	NS	NS	NS	NS
MW-51S	4.2	< 10 U	NS	NS	NS	NS	NS	NS
MW-52S	1 U	< 10 U	85	< 10 U	13	< 10 U	1	< 10 U
MW-53S	1 U	< 10 U	4	< 10 U	47	< 10 U	1.5	< 10 U
NVM-01	1 U	< 10 U	< 0.5 U	< 10 U	< 0.5 U	< 10 U	0.7 J	< 10 U
NVM-02	14	< 10 U	1.2	< 10 U	4.1	< 10 U	2	< 10 U
NVM-03	4	< 10 U	< 0.5 U	< 10 U	0.5	< 10 U	6	< 10 U
NVM-04	2	< 10 U	3	< 10 U	1.1	< 10 U	1.3	< 10 U

NS = Not sampled

Note: The Site draft cleanup level for hexavalent chromium is 40 µg/L.

TABLE 12
Well Stabilization Parameters
2011 Annual Report
Pasco Landfill, Pasco, WA

PERIOD: 1/1/11 thru 12/31/11

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SITE	DATE	Dissolved Oxygen (mg/l)	Oxidation Reduction Potential (mV)	pH	Specific Conductivity (mS/m)	Temperature (Degrees Celcius)	Turbidity (NTU)
1R	1/12/11	9.28	121	7.62	51.6	17.63	0.37
	4/18/11	12.50	29	7.68	52.3	18.04	0.17
	7/27/11	8.33	-3	7.51	53.5	20.40	0.00
	10/25/11	7.18	124	7.66	48.4	17.76	0.10
2D	1/11/11	7.75	152	7.57	51.4	16.99	0.10
	4/18/11	11.93	72	7.58	51.0	17.71	0.36
	7/25/11	7.32	105	7.39	53.5	20.33	0.00
	10/24/11	7.18	165	7.48	52.0	19.02	0.34
2I	1/11/11	7.68	142	7.47	52.5	17.29	0.13
	4/18/11	11.77	65	7.48	52.6	18.45	0.19
	7/25/11	7.62	91	7.31	54.6	20.29	0.00
	10/24/11	7.31	162	7.37	53.6	18.93	0.44
2R	1/11/11	7.80	126	7.59	52.8	17.34	0.09
	4/18/11	12.12	52	7.60	52.9	18.48	0.21
	7/25/11	7.09	74	7.43	55.2	21.89	0.00
	10/24/11	7.57	105	7.48	53.5	18.99	0.49
4R	1/13/11	5.74	114	7.16	64.9	16.19	0.98
	4/20/11	7.31	62	7.15	63.7	16.49	1.10
	7/27/11	6.05	43	6.89	68.5	18.06	0.21
	10/27/11	5.74	106	6.94	71.2	18.73	0.54
EE-2	1/12/11	9.01	79	7.73	47.3	14.43	0.11
	4/18/11	12.18	40	7.73	51.5	17.93	0.23
	7/26/11	11.46	35	7.58	56.5	22.15	0.10
	10/25/11	8.37	110	7.67	48.2	16.14	0.57
EE-7R	1/12/11	8.72	81	7.51	52.6	17.68	0.16
	4/20/11	12.70	36	7.50	52.7	17.86	0.06
	7/27/11	8.27	12	7.35	55.8	20.64	0.00
	10/26/11	7.85	122	7.45	52.0	18.41	0.62
EE-8R	1/12/11	8.66	88	7.31	60.9	17.17	3.02
	4/20/11	11.74	54	7.30	76.0	18.06	2.81
	7/27/11	7.62	32	7.18	70.0	20.50	5.65
	10/26/11	7.16	84	7.36	53.8	18.77	3.00
MW-10S	1/12/11	9.21	74	7.65	52.6	17.12	1.14
	4/19/11	10.68	31	7.67	53.0	17.29	0.14
	7/27/11	8.43	-9	7.51	56.1	20.81	0.59
	10/26/11	8.55	81	7.61	51.6	17.24	0.93
MW-11I	4/20/11	13.72	4	7.63	52.2	15.17	0.07
	7/27/11	8.37	17	7.42	54.1	20.81	0.00
	10/26/11	7.91	82	7.55	49.0	17.05	0.00
MW-11S	1/12/11	8.56	81	7.50	53.5	17.38	1.91
	4/20/11	13.89	24	7.56	54.1	15.33	0.64
	7/27/11	7.91	16	7.37	56.0	20.94	0.00
	10/26/11	7.85	92	7.48	51.8	17.67	2.11
MW-12D	1/11/11	7.87	101	7.68	50.6	15.57	0.04
	4/19/11	10.65	28	7.66	50.8	16.59	0.01
	7/26/11	10.49	28	7.50	52.6	19.86	0.00
	10/25/11	8.45	123	7.62	46.7	14.04	0.07
MW-12ID	1/11/11	7.61	95	7.67	51.7	17.10	1.42
	4/19/11	10.86	28	7.65	51.2	16.63	0.06
	7/26/11	10.91	37	7.50	53.1	20.07	0.00
	10/25/11	8.86	128	7.62	47.0	14.16	0.14
MW-12S	1/11/11	5.93	83	7.48	56.0	18.87	0.38
	4/19/11	6.70	39	7.41	63.3	18.81	0.11
	7/26/11	7.54	42	7.29	57.5	20.04	0.00
	10/25/11	5.63	94	7.43	53.8	17.94	0.14
MW-13S	1/11/11	7.52	108	7.54	54.5	18.63	0.13
	4/18/11	11.68	52	7.58	53.8	18.90	0.03
	7/25/11	6.94	85	7.41	56.6	23.02	0.00
	10/25/11	8.88	137	7.49	48.5	14.17	0.17
MW-15S	1/13/11	8.54	71	7.24	64.0	12.51	9.29
	4/20/11	10.14	25	7.27	68.5	17.81	1.08
	7/27/11	6.55	7	6.99	78.4	19.64	1.03
	10/26/11	7.06	69	6.99	63.9	15.07	1.36

TABLE 12
Well Stabilization Parameters
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PERIOD: 1/1/11 thru 12/31/11

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SITE	DATE	Dissolved Oxygen (mg/l)	Oxidation Reduction Potential (mV)	pH	Specific Conductivity (mS/m)	Temperature (Degrees Celcius)	Turbidity (NTU)
MW-16S	1/13/11	3.74	77	6.99	67.3	16.77	0.00
	4/20/11	2.81	29	7.05	65.4	17.83	0.49
	7/27/11	5.84	6	6.84	71.7	21.30	0.00
	10/26/11	3.58	75	6.98	59.8	18.33	0.73
MW-17SR	1/13/11	9.33	95	7.70	52.2	17.72	0.00
	4/20/11	12.31	42	7.66	51.4	17.44	0.00
	7/27/11	9.03	17	7.42	52.4	18.53	0.00
	10/27/11	11.03	112	7.47	52.6	17.83	0.20
MW-22S	1/12/11	8.56	54	7.62	52.1	17.19	0.69
	4/19/11	10.01	24	7.60	51.9	17.85	0.45
	7/27/11	8.96	-3	7.42	53.7	18.70	0.28
	10/26/11	7.85	83	7.55	50.6	17.65	0.43
MW-23S	1/13/11	8.78	95	7.59	50.3	17.36	0.02
	4/20/11	11.74	35	7.59	51.3	18.08	0.07
	7/27/11	7.67	20	7.30	56.2	18.73	0.00
	10/27/11	9.65	79	7.34	56.8	17.83	0.48
MW-24S	1/13/11	8.95	96	7.59	56.8	17.10	0.00
	4/20/11	12.09	51	7.56	58.9	18.29	0.09
	7/27/11	8.13	20	7.31	62.2	19.85	0.00
	10/26/11	8.29	124	7.18	54.1	16.96	0.03
MW-26S	1/12/11	8.95	107	7.75	51.3	17.38	0.15
	4/20/11	14.95	72	7.75	49.7	15.65	0.00
	7/27/11	7.95	40	7.58	54.3	22.37	0.00
	10/26/11	8.81	146	7.70	48.5	17.34	0.20
MW-29I	4/20/11	11.52	2	7.70	55.0	19.00	0.09
	7/27/11	8.63	11	7.37	55.6	20.05	0.08
	10/26/11	10.11	76	7.49	53.8	14.55	0.86
MW-29S	1/14/11	6.08	-64	7.90	54.0	17.68	9.64
	4/20/11	12.12	12	7.62	60.0	19.05	0.92
	7/27/11	9.32	57	7.29	63.5	20.71	0.48
	10/26/11	9.92	87	7.50	50.9	14.15	0.18
MW-31S	1/14/11	10.72	87	7.49	55.1	17.98	0.00
	4/20/11	12.19	32	7.56	55.6	18.45	0.06
	7/27/11	8.83	20	7.28	56.4	19.61	0.00
	10/26/11	10.11	61	7.34	52.2	14.00	1.22
MW-33S	1/14/11	11.13	58	7.62	55.7	17.42	0.00
	4/20/11	12.89	30	7.65	57.3	18.36	0.18
	7/27/11	9.23	17	7.34	62.2	19.25	0.00
	10/26/11	10.32	95	7.45	55.7	14.36	0.01
MW-34S	1/13/11	9.81	90	7.62	55.8	17.02	0.00
	4/21/11	11.90	37	7.44	52.8	17.77	0.03
	7/28/11	8.25	16	7.27	56.2	18.99	0.00
	10/27/11	11.18	94	7.34	55.9	17.76	0.03
MW-37S	1/13/11	11.14	70	7.64	56.3	15.30	0.00
	4/21/11	12.42	30	7.40	53.9	17.88	0.17
	7/28/11	7.77	11	7.22	56.7	19.54	0.00
	10/27/11	11.30	61	7.36	56.4	18.26	1.39
MW-38I	4/21/11	11.33	-18	7.66	54.0	19.11	0.48
	7/28/11	6.85	-14	7.52	57.3	21.58	0.04
	10/26/11	8.38	99	7.59	52.8	18.25	0.25
MW-38S	1/13/11	11.36	85	7.92	44.4	18.78	0.00
	4/21/11	13.95	12	7.78	41.8	19.07	0.28
	7/28/11	8.63	-1	7.66	40.5	21.60	0.25
	10/26/11	10.16	108	7.70	40.8	18.41	0.50
MW-40S	1/13/11	9.84	76	7.75	57.3	18.04	0.06
	4/21/11	12.01	27	7.57	54.5	18.16	0.19
	7/28/11	8.49	13	7.42	57.7	19.27	0.00
	10/27/11	13.81	90	7.46	57.5	15.82	0.05
MW-41SR	1/13/11	10.64	101	7.82	47.0	19.10	0.21
	4/21/11	13.13	26	7.66	46.0	18.71	0.46
	7/28/11	8.15	20	7.52	48.2	21.60	0.40
	10/27/11	13.10	102	7.51	48.1	18.62	3.89

TABLE 12
Well Stabilization Parameters
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PERIOD: 1/1/11 thru 12/31/11

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SITE	DATE	Dissolved Oxygen (mg/l)	Oxidation Reduction Potential (mV)	pH	Specific Conductivity (mS/m)	Temperature (Degrees Celcius)	Turbidity (NTU)
MW-42S	1/13/11	10.71	86	7.71	59.9	17.96	0.15
	7/28/11	8.70	-34	7.38	63.4	20.22	2.40
	10/27/11	14.31	50	7.40	59.2	15.98	0.01
MW-43I	4/21/11	11.56	5	7.59	52.8	18.21	0.22
	7/28/11	7.30	-5	7.45	56.9	20.56	0.01
	10/27/11	11.37	95	7.37	56.0	17.68	0.11
MW-43S	1/13/11	10.06	78	7.76	58.5	17.96	0.00
	4/21/11	11.51	15	7.58	54.5	18.66	0.19
	7/28/11	7.30	-1	7.46	58.8	20.89	0.00
	10/27/11	11.76	82	7.40	58.6	18.17	0.15
MW-44S	1/13/11	9.50	51	7.70	66.6	19.20	0.01
	4/21/11	11.62	1	7.53	61.9	18.77	0.53
	7/28/11	7.74	-8	7.40	66.0	20.59	0.00
	10/27/11	13.07	58	7.36	68.1	16.61	0.42
MW-45S	1/13/11	8.80	68	7.68	60.2	18.67	0.01
	4/21/11	11.22	11	7.52	58.7	17.66	0.00
	7/28/11	6.70	2	7.38	62.5	21.72	0.11
	10/27/11	10.75	90	7.38	60.5	18.11	0.17
MW-46S	1/14/11	10.18	114	7.42	60.3	18.44	0.00
	4/21/11	9.84	-9	7.45	57.8	18.14	0.81
	7/28/11	6.06	-2	7.32	62.0	22.59	0.00
	10/26/11	8.04	105	7.39	52.5	18.09	0.00
MW-47D	1/11/11	7.69	116	7.73	51.4	16.71	0.08
	4/19/11	10.06	42	7.75	51.7	17.93	0.13
	7/26/11	10.53	47	7.60	54.1	20.59	0.00
	10/25/11	7.02	112	7.71	47.7	17.56	1.05
MW-47I	1/11/11	7.56	134	7.62	52.4	17.26	0.12
	4/19/11	9.96	57	7.65	52.9	18.32	0.05
	7/26/11	10.21	61	7.52	54.8	21.55	0.00
	10/25/11	7.18	157	7.61	48.4	17.76	0.18
MW-47S	1/12/11	2.86	-80	7.21	58.3	19.03	1.66
	4/19/11	4.02	-109	7.21	66.4	19.88	0.72
	7/26/11	4.00	-139	7.09	69.3	22.20	0.82
	10/25/11	2.41	-106	7.18	54.5	19.61	1.24
MW-48D	1/11/11	7.73	113	7.75	51.0	16.41	0.18
	4/18/11	12.36	49	7.76	51.1	17.26	0.39
	7/26/11	11.48	46	7.61	53.2	18.80	0.13
	10/25/11	7.75	115	7.71	47.3	16.25	0.37
MW-48I	1/11/11	8.12	99	7.69	51.5	16.68	0.23
	4/18/11	11.93	40	7.71	51.7	17.63	0.20
	7/26/11	10.96	26	7.56	53.7	19.46	0.67
	10/25/11	7.65	120	7.66	47.9	16.55	0.18
MW-48S	1/11/11	8.00	98	7.64	53.6	17.29	0.13
	4/18/11	12.30	44	7.65	53.5	18.64	0.08
	7/26/11	11.61	37	7.52	55.4	20.41	0.09
	10/25/11	8.08	116	7.62	48.8	16.99	0.08
MW-49D	1/12/11	8.61	107	7.66	50.1	16.64	0.04
	4/19/11	10.11	61	7.60	50.4	17.12	0.00
	7/26/11	10.80	161	7.33	52.6	19.45	0.00
	10/25/11	7.25	200	7.41	46.7	17.28	0.06
MW-49I	1/12/11	8.52	106	7.62	51.6	17.33	0.18
	4/19/11	10.50	61	7.57	51.8	17.62	0.02
	7/26/11	12.31	105	7.38	53.8	19.30	0.00
	10/25/11	8.95	175	7.47	47.0	14.26	0.02
MW-49S	1/12/11	1.73	47	7.39	56.1	17.72	0.27
	4/19/11	3.73	15	7.32	65.1	17.75	0.15
	7/26/11	1.84	12	7.14	63.2	20.42	0.00
	10/25/11	1.71	66	7.23	60.5	14.00	0.16
MW-50S	1/12/11	1.20	-78	7.19	61.9	20.99	1.19
	4/19/11	1.63	-101	7.15	80.0	21.71	0.38
	7/26/11	3.12	-131	7.04	90.7	24.79	0.15
	10/25/11	0.85	-87	7.22	59.1	19.11	0.24

TABLE 12
Well Stabilization Parameters
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Pasco Landfill, Pasco, WA

PERIOD: 1/1/11 thru 12/31/11

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SITE	DATE	Dissolved Oxygen (mg/l)	Oxidation Reduction Potential (mV)	pH	Specific Conductivity (mS/m)	Temperature (Degrees Celcius)	Turbidity (NTU)
MW-51S	1/12/11	8.88	90	7.62	51.6	17.10	0.25
	4/19/11	10.71	30	7.53	51.6	17.42	0.00
	7/27/11	7.84	-17	7.47	54.1	21.18	0.00
	10/26/11	8.25	98	7.58	49.9	17.37	0.33
MW-52S	1/12/11	8.41	96	7.63	55.7	19.31	0.05
	4/20/11	13.16	63	7.57	60.9	16.88	0.81
	7/26/11	9.48	35	7.52	58.2	24.11	0.00
	10/24/11	7.43	177	7.50	57.2	20.87	0.34
MW-53S	1/12/11	7.32	89	7.50	59.5	21.48	0.36
	4/20/11	12.52	86	7.43	63.5	18.02	0.20
	7/26/11	9.60	-9	7.37	60.0	23.90	0.17
	10/24/11	7.51	161	7.22	62.2	21.50	0.40
MW-54I	4/21/11	10.97	20	7.57	56.3	18.28	0.18
	7/28/11	7.22	12	7.43	59.7	19.97	0.00
	10/27/11	11.17	153	7.28	59.8	17.85	0.12
NVM-01	1/11/11	1.32	90	7.28	57.9	19.54	0.07
	4/19/11	2.02	48	7.30	62.8	20.15	0.10
	7/26/11	2.59	57	7.10	74.9	21.69	0.00
	10/25/11	0.91	35	7.27	55.5	19.40	0.31
NVM-01D	1/11/11	7.72	120	7.68	51.7	17.19	0.07
	4/19/11	10.29	41	7.71	51.8	18.22	0.36
	7/26/11	11.22	31	7.53	53.5	19.76	0.16
	10/25/11	8.00	120	7.66	47.8	16.26	1.15
NVM-01I	1/11/11	7.36	109	7.66	52.7	17.73	0.20
	4/19/11	10.03	35	7.69	52.9	18.70	0.05
	7/26/11	11.02	32	7.53	54.1	19.92	0.00
	10/25/11	7.36	130	7.65	48.8	17.16	0.09
NVM-02	1/11/11	6.90	125	7.48	54.3	18.53	5.53
	4/18/11	10.32	58	7.50	54.4	19.17	0.08
	7/25/11	6.43	90	7.32	57.9	21.09	0.03
	10/24/11	6.98	146	7.39	54.7	19.28	0.22
NVM-03	1/11/11	2.45	177	7.30	58.2	19.67	0.80
	4/18/11	4.06	75	7.35	55.0	19.85	1.82
	7/25/11	1.60	130	7.11	68.0	23.77	1.25
	10/24/11	2.43	170	7.18	57.4	19.65	1.91
NVM-04	1/11/11	7.57	185	7.49	56.0	19.14	0.14
	4/18/11	12.25	74	7.49	54.8	19.02	0.26
	7/25/11	7.66	119	7.27	57.8	20.97	0.00
	10/24/11	7.29	155	7.40	55.8	19.65	0.37
BRADLEY	4/22/11	10.63	100	7.36	58.7	16.44	0.12
	10/27/11	9.10	178	7.31	59.6	16.09	0.36
HAND	4/22/11	6.82	4	7.49	56.0	16.50	0.02
	10/28/11	4.38	102	7.34	56.2	15.76	0.26
LOPEZ	4/21/11	5.89	-63	7.60	54.0	17.24	4.14
	10/27/11	4.52	-46	7.48	57.7	17.72	50.80
MONTALVO	4/22/11	11.22	44	7.48	58.1	16.29	0.01
	10/28/11	7.49	150	7.32	57.8	14.03	0.53
NORVELL	4/22/11	10.77	52	7.45	56.7	16.43	0.06
	10/27/11	11.09	117	7.38	58.0	16.17	0.13
NORVELL2	4/22/11	10.74	57	7.47	56.4	16.28	0.09
	10/27/11	11.38	164	7.38	57.7	16.22	0.07
RADA	4/22/11	11.48	14	7.45	55.6	15.91	0.18
	10/28/11	7.83	139	7.25	57.1	15.63	0.45
RINDT	4/22/11	11.34	11	7.67	51.9	16.14	2.49
	10/28/11	6.82	76	7.49	51.7	15.46	9.09
SALINAS	10/28/11	2.82	25	7.46	51.0	14.65	3.82
WEST	1/14/11	7.64	16	7.99	40.0	12.05	17.70
	4/22/11	8.79	-29	7.90	41.7	13.88	30.60
	7/28/11	4.32	-42	7.66	50.3	16.56	9.84
	10/27/11	7.17	52	7.61	47.9	15.57	18.20
YENNEY2	4/22/11	10.82	-7	7.51	53.3	16.02	14.50
	10/28/11	7.62	68	7.22	53.9	15.84	3.62
YENNEY3	4/22/11	12.28	-12	7.56	51.4	15.89	2.57

TABLE 13
Natural Attenuation Parameters in Ground Water
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Pasco Landfill, Pasco, WA

PERIOD: 1/1/2011 thru 12/31/2011

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SITE	DATE	Nitrate (as N) (mg/l)	Nitrite (as N) (mg/l)	Ammonia (as N) (mg/l)	Sulfate (mg/l)	Ferrous Iron (mg/l)	Manganese (µg/l)	Chemical Oxygen Demand (mg/l)	Total Dissolved Solids (mg/l)	Ethene (mg/l)	Ethane (mg/l)	Methane (mg/l)	Total Alkalinity (mg/l)	Bicarbon- onate (mg/l)	Chloride (mg/l)	Total Organic Carbon (mg/l)
1R	1/12/11	10.9	< 0.1 U	0.032	67.5	< 0.04 U	< 0.5 U	8.82	383	< 0.01 U	< 0.01 U	0.08	190	190	24.1	< 1.5 U
	4/18/11	10.2	< 0.1 U	< 0.01 U	60.6	< 0.04 U	< 0.5 U	< 5 U	379	< 0.01 U	< 0.01 U	< 0.01 U	189	189	21.3	1.57
	7/27/11	9.7	< 0.1 U	0.031	55.5	< 0.04 U	< 0.5 U	< 5 U	376	< 0.01 U	< 0.01 U	< 0.01 U	187	187	21.9	< 1.5 U
	10/25/11	9.7	< 0.1 U	0.019	59.0	< 0.04 U	< 0.5 U	< 5 U	403	< 0.01 U	< 0.01 U	< 0.01 U	191	191	24.0	< 1.5 U
2D	1/11/11	10.5	< 0.1 U	0.02	68.3	< 0.04 U	< 1 U	< 5 U	386	< 0.01 U	< 0.01 U	< 0.01 U	185	185	27.4	< 1.5 U
	4/18/11	9.1	< 0.1 U	0.047	60.1	< 0.04 U	< 1 U	< 5 U	351	< 0.01 U	< 0.01 U	< 0.01 U	184	184	22.4	1.55
	7/25/11	9.4	< 0.1 U	< 0.01 U	59.1	< 0.04 U	< 0.5 U	< 5 U	374	< 0.01 U	< 0.01 U	< 0.01 U	194	194	22.2	< 1.5 U
	10/24/11	8.9	< 0.1 U	0.018	61.0	< 0.04 U	< 0.5 U	< 5 U	401	< 0.01 U	< 0.01 U	< 0.01 U	187	187	23.6	< 1.5 U
2I	1/11/11	10.5	< 0.1 U	0.023	68.3	< 0.04 U	< 0.5 U	< 5 U	406	< 0.01 U	< 0.01 U	< 0.01 U	187	187	26.3	< 1.5 U
	4/18/11	9.8	< 0.1 U	0.02	61.0	< 0.04 U	< 1 U	5.86	394	< 0.01 U	< 0.01 U	< 0.01 U	186	186	22.2	1.59
	7/25/11	9.7	< 0.1 U	< 0.01 U	59.2	< 0.04 U	< 0.5 U	< 5 U	391	< 0.01 U	< 0.01 U	< 0.01 U	197	197	24.0	< 1.5 U
	10/24/11	9.3	< 0.1 U	0.012	61.1	< 0.04 U	< 0.5 U	< 5 U	398	< 0.01 U	< 0.01 U	< 0.01 U	188	188	24.1	< 1.5 U
2R	1/11/11	10.9	< 0.1 U	0.022	68.3	< 0.04 U	< 1 U	< 5 U	394	< 0.01 U	< 0.01 U	< 0.01 U	187	187	27.2	< 1.5 U
	4/18/11	10.1	< 0.1 U	< 0.01 U	60.6	< 0.04 U	< 1 U	8.68	391	< 0.01 U	< 0.01 U	< 0.01 U	186	186	22.5	1.64
	7/25/11	9.8	< 0.1 U	< 0.01 U	57.9	< 0.04 U	< 0.5 U	< 5 U	397	< 0.01 U	< 0.01 U	< 0.01 U	197	197	23.2	< 1.5 U
	10/24/11	9.3	< 0.1 U	0.024	60.2	< 0.04 U	< 0.5 U	7.57	398	< 0.01 U	< 0.01 U	< 0.01 U	191	191	23.8	< 1.5 U
EE-2	1/12/11	9.9 J	< 0.1 U	0.03	66.4	< 0.04 U	< 1 U	< 5 U	396	< 0.01 U	< 0.01 U	< 0.01 U	192	192	24.3	2.14
	4/18/11	10.0	< 0.1 U	0.016	59.3	< 0.04 U	< 1 U	36.2	364	< 0.01 U	< 0.01 U	< 0.01 U	187	187	21.0	1.84
	7/26/11	9.5	< 0.1 U	< 0.01 U	57.5	< 0.04 U	< 0.5 U	< 5 U	379	< 0.01 U	< 0.01 U	< 0.01 U	197	197	21.8	< 1.5 U
	10/25/11	9.2	< 0.1 U	0.012	54.1	< 0.04 U	1.8	5.71	392	< 0.01 U	< 0.01 U	< 0.01 U	198	198	23.3	< 1.5 U
MW-10S	1/12/11	11.2	< 0.1 U	0.053	68.1	< 0.04 U	1.2	13.7	385	< 0.01 U	< 0.01 U	< 0.01 U	193	193	25.7	1.51
	4/19/11	9.8	< 0.1 U	0.026	62.4	< 0.04 U	< 1 U	8.68	374	< 0.01 U	< 0.01 U	< 0.01 U	188	188	25.6	1.52
	7/27/11	10.2	< 0.1 U	0.034	57.2	< 0.04 U	1.1	< 5 U	395	< 0.01 U	< 0.01 U	< 0.01 U	187	187	24.0	< 1.5 U
	10/26/11	11.3	< 0.1 U	0.014	61.5	< 0.04 U	< 0.5 U	< 5 U	385	< 0.01 U	< 0.01 U	< 0.01 U	196	196	23.8	1.54
MW-11S	1/12/11	11.1	< 0.1 U	0.024	71.2	< 0.04 U	3.6	11.8	411	< 0.01 U	< 0.01 U	< 0.01 U	190	190	27.3	1.63
	4/20/11	10.9	< 0.1 U	0.014	65.6	< 0.04 U	< 1 U	< 5 U	408	< 0.01 U	< 0.01 U	< 0.01 U	196	196	24.0	1.59
	7/27/11	10.2	< 0.1 U	0.042	59.4	< 0.04 U	< 0.5 U	< 5 U	406	< 0.01 U	< 0.01 U	< 0.01 U	187	187	23.5	< 1.5 U
	10/26/11	10.6	< 0.1 U	0.022	64.5	< 0.04 U	0.5	6.02	394	< 0.01 U	< 0.01 U	< 0.01 U	196	196	25.1	1.67
MW-12S	1/11/11	13.5	< 0.1 U	0.028	70.1	< 0.04 U	< 1 U	< 5 U	415	< 0.01 U	< 0.01 U	< 0.01 U	193	193	27.7	1.87
	4/19/11	9.5	< 0.1 U	< 0.01 U	85.5	< 0.04 U	< 1 U	< 5 U	415	< 0.01 U	< 0.01 U	< 0.01 U	199	199	36.4	2.09
	7/26/11	8.9	< 0.1 U	0.012	61.3	< 0.04 U	< 0.5 U	< 5.00 R	424	< 0.01 U	< 0.01 U	< 0.01 U	203	203	24.2	< 1.5 U
	10/25/11	6.4	< 0.1 U	0.014	73.4	< 0.04 U	< 0.5 U	< 5 U	443	< 0.01 U	< 0.01 U	< 0.01 U	217	217	27.8	< 1.5 U
MW-12ID	1/11/11	10.7	< 0.1 U	< 0.01 U	67.9	< 0.04 U	< 1 U	< 5 U	379	< 0.01 U	< 0.01 U	< 0.01 U	190	190	26.2	< 1.5 U
	4/19/11	9.3	< 0.1 U	0.029	60.5	< 0.04 U	< 0.5 U	< 5 U	371	< 0.01 U	< 0.01 U	< 0.01 U	187	187	23.3	< 1.5 U
	7/26/11	9.7	< 0.1 U	0.018	56.5	< 0.04 U	< 0.5 U	< 5 U	393	< 0.01 U	< 0.01 U	< 0.01 U	196	196	22.4	< 1.5 U
	10/25/11	9.3	< 0.1 U	0.014	59.1	< 0.04 U	0.6	< 5 U	391	< 0.01 U	< 0.01 U	< 0.01 U	194	194	24.1	< 1.5 U

TABLE 13
Natural Attenuation Parameters in Ground Water
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SITE	DATE	Nitrate (as N) (mg/l)	Nitrite (as N) (mg/l)	Ammonia (as N) (mg/l)	Sulfate (mg/l)	Ferrous Iron (mg/l)	Manganese (µg/l)	Chemical Oxygen Demand (mg/l)	Total Dissolved Solids (mg/l)	Ethene (mg/l)	Ethane (mg/l)	Methane (mg/l)	Total Alkalinity (mg/l)	Bicarbon- onate (mg/l)	Chloride (mg/l)	Total Organic Carbon (mg/l)
MW-12D	1/11/11	10.4	< 0.1 U	0.021	67.6	< 0.04 U	1.6	8.16	367	< 0.01 U	< 0.01 U	< 0.01 U	186	186	26.4	1.83
	4/19/11	8.7	< 0.1 U	0.023	61.1	< 0.04 U	< 1 U	5.24	349	< 0.01 U	< 0.01 U	< 0.01 U	185	185	24.8	1.56
	7/26/11	9.2	< 0.1 U	0.024	57.0	< 0.04 U	0.8	< 5 U	395	< 0.01 U	< 0.01 U	< 0.01 U	196	196	23.8	< 1.5 U
	10/25/11	9.1	< 0.1 U	0.018	60.1	< 0.04 U	< 0.5 U	5.71	371	< 0.01 U	< 0.01 U	< 0.01 U	191	191	23.4	< 1.5 U
MW-13S	1/11/11	11.0	< 0.1 U	0.013	66.9	< 0.04 U	< 1 U	5.55	405	< 0.01 U	< 0.01 U	< 0.01 U	186	186	25.6	1.57
	4/18/11	10.3	< 0.1 U	< 0.01 U	61.1	< 0.04 U	< 0.5 U	< 5 U	388	< 0.01 U	< 0.01 U	< 0.01 U	188	188	23.2	1.63
	7/25/11	9.5	< 0.1 U	0.02	57.6	< 0.04 U	< 0.5 U	< 5 U	390	< 0.01 U	< 0.01 U	< 0.01 U	199	199	24.2	< 1.5 U
	10/25/11	9.4	< 0.1 U	0.019	60.0	< 0.04 U	< 0.5 U	< 5 U	384	< 0.01 U	< 0.01 U	< 0.01 U	196	196	22.9	< 1.5 U
MW-47S	1/12/11	3.1	< 0.1 U	0.033	92.5	1.24	831	5.06	431	< 0.01 U	< 0.01 U	< 0.01 U	200	200	36.7	2.14
	4/19/11	3.9	< 0.1 U	0.028	91.3	1.12	686	< 5 U	448	< 0.01 U	< 0.01 U	< 0.01 U	197	197	58.2	2.09
	7/26/11	4.6	< 0.1 U	0.036	93.1	0.949	618	< 5 U	468	< 0.01 U	< 0.01 U	< 0.01 U	211	211	47.4	1.66
	10/25/11	3.2	< 0.1 U	0.023	80.6	1.08	567	73.8	429	< 0.01 U	< 0.01 U	< 0.01 U	208	208	29.1	< 1.5 U
MW-47I	1/11/11	10.9	< 0.1 U	0.015	67.7	< 0.04 U	< 1 U	< 5 U	403	< 0.01 U	< 0.01 U	< 0.01 U	188	188	26.6	< 1.5 U
	4/19/11	9.9	< 0.1 U	< 0.01 U	61.0	< 0.04 U	1.0	5.55	314	< 0.01 U	< 0.01 U	< 0.01 U	195	195	23.7	< 1.5 U
	7/26/11	9.4	< 0.1 U	< 0.01 U	58.0	< 0.04 U	1.3	< 50 U	379	< 0.01 U	< 0.01 U	< 0.01 U	196	196	23.9	< 1.5 U
	10/25/11	9.2	< 0.1 U	0.022	54.9	< 0.04 U	2.8	5.71	401	< 0.01 U	< 0.01 U	< 0.01 U	190	190	21.6	< 1.5 U
MW-47D	1/11/11	10.4	< 0.1 U	0.037	67.1	< 0.04 U	< 1 U	6.21	381	< 0.01 U	< 0.01 U	< 0.01 U	185	185	27.6	< 1.5 U
	4/19/11	9.4	< 0.1 U	< 0.01 U	61.3	< 0.04 U	< 0.5 U	< 5 U	358	< 0.01 U	< 0.01 U	< 0.01 U	191	191	24.5	< 1.5 U
	7/26/11	9.2	< 0.1 U	< 0.01 U	58.4	< 0.04 U	< 0.5 U	< 5 U	383	< 0.01 U	< 0.01 U	< 0.01 U	174	174	24.0	< 1.5 U
	10/25/11	9.0	< 0.1 U	0.024	57.5	< 0.04 U	1.0	< 5 U	397	< 0.01 U	< 0.01 U	< 0.01 U	190	190	22.4	< 1.5 U
MW-48S	1/11/11	11.0	< 0.1 U	0.025	67.6	< 0.04 U	< 0.5 U	< 5 U	383	< 0.01 U	< 0.01 U	< 0.01 U	195	195	27.0	1.53
	4/18/11	10.2	< 0.1 U	0.016	59.4	< 0.04 U	< 1 U	10.2	372	< 0.01 U	< 0.01 U	< 0.01 U	190	190	21.8	1.64
	7/26/11	10.0	< 0.1 U	< 0.01 U	59.0	< 0.04 U	< 0.5 U	< 5 U	384	< 0.01 U	< 0.01 U	< 0.01 U	197	197	23.2	< 1.5 U
	10/25/11	9.6	< 0.1 U	0.02	59.5	< 0.04 U	0.6	< 5 U	386	< 0.01 U	< 0.01 U	< 0.01 U	194	194	24.8	< 1.5 U
MW-48I	1/11/11	10.6	< 0.1 U	0.031	66.4	< 0.04 U	< 0.5 U	7.19	371	< 0.01 U	< 0.01 U	< 0.01 U	186	186	26.2	< 1.5 U
	4/18/11	9.8	< 0.1 U	0.012	59.3	< 0.04 U	< 0.5 U	< 5 U	313	< 0.01 U	< 0.01 U	< 0.01 U	188	188	22.2	1.52
	7/26/11	9.7	< 0.1 U	< 0.01 U	58.2	< 0.04 U	< 0.5 U	< 5 U	385	< 0.01 U	< 0.01 U	< 0.01 U	198	198	23.3	< 1.5 U
	10/25/11	9.6	< 0.1 U	0.019	60.2	< 0.04 U	< 0.5 U	< 5 U	410	< 0.01 U	< 0.01 U	< 0.01 U	191	191	24.8	< 1.5 U
MW-48D	1/11/11	10.6	< 0.1 U	0.028	67.9	< 0.04 U	0.7	6.21	388	< 0.01 U	< 0.01 U	< 0.01 U	186	186	26.3	< 1.5 U
	4/18/11	9.5	< 0.1 U	< 0.01 U	59.5	< 0.04 U	0.6	< 5 U	335	< 0.01 U	< 0.01 U	< 0.01 U	187	187	22.4	< 1.5 U
	7/26/11	9.4	< 0.1 U	0.013	58.3	< 0.04 U	0.6	< 5 U	390	< 0.01 U	< 0.01 U	< 0.01 U	194	194	23.6	< 1.5 U
	10/25/11	9.5	< 0.1 U	0.013	60.7	< 0.04 U	< 0.5 U	5.4	413	< 0.01 U	< 0.01 U	< 0.01 U	192	192	24.4	< 1.5 U
MW-49S	1/12/11	6.3	0.1	0.012	77.2	< 0.04 U	12.0	< 5 U	443	< 0.01 U	< 0.01 U	0.26	211	211	35.3	1.81
	4/19/11	4.5	< 0.1 U	< 0.01 U	94.7	< 0.04 U	13.0	< 5 U	470	< 0.01 U	< 0.01 U	0.79	225	225	44.2	2.13
	7/26/11	4.0	0.2	< 0.01 U	80.1	< 0.04 U	12.2	< 5 U	459	< 0.01 U	< 0.01 U	0.12	218	218	40.9	1.74
	10/25/11	2.5	0.2	0.018	96.9	< 0.04 U	23.8	6.02	498	< 0.01 U	< 0.01 U	< 0.01 U	218	218	53.9	2.04

TABLE 13
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SITE	DATE	Nitrate (as N) (mg/l)	Nitrite (as N) (mg/l)	Ammonia (as N) (mg/l)	Sulfate (mg/l)	Ferrous Iron (mg/l)	Manganese (µg/l)	Chemical Oxygen Demand (mg/l)	Total Dissolved Solids (mg/l)	Ethene (mg/l)	Ethane (mg/l)	Methane (mg/l)	Total Alkalinity (mg/l)	Bicarbon- onate (mg/l)	Chloride (mg/l)	Total Organic Carbon (mg/l)
MW-49I	1/12/11	11.3	< 0.1 U	0.057	67.3	< 0.04 U	< 1 U	6.86	397	< 0.01 U	< 0.01 U	< 0.01 U	190	190	25.1	1.64
	4/19/11	9.6	< 0.1 U	0.027	62.1	< 0.04 U	< 2 U	< 5 U	349	< 0.01 U	< 0.01 U	< 0.01 U	185	185	24.4	< 1.5 U
	7/26/11	9.6	< 0.1 U	0.015	57.8	< 0.04 U	< 0.5 U	< 5 U	391	< 0.01 U	< 0.01 U	< 0.01 U	196	196	23.5	< 1.5 U
	10/25/11	9.4	< 0.1 U	0.013	60.1	< 0.04 U	< 0.5 U	< 5 U	386	< 0.01 U	< 0.01 U	< 0.01 U	188	188	24.5	< 1.5 U
MW-49D	1/12/11	10.1	< 0.1 U	0.015	66.4	< 0.04 U	< 1 U	8.49	374	< 0.01 U	< 0.01 U	< 0.01 U	190	190	26.8	< 1.5 U
	4/19/11	8.7	< 0.1 U	0.013	61.5	< 0.04 U	< 2 U	< 5 U	385	< 0.01 U	< 0.01 U	< 0.01 U	184	184	24.3	< 1.5 U
	7/26/11	9.0	< 0.1 U	0.021	57.7	< 0.04 U	0.5	< 5 U	399	< 0.01 U	< 0.01 U	< 0.01 U	193	193	23.6	< 1.5 U
	10/25/11	8.9	< 0.1 U	0.015	62.1	< 0.04 U	0.7	5.4	390	< 0.01 U	< 0.01 U	< 0.01 U	186	186	23.2	< 1.5 U
MW-50S	1/12/11	0.1	0.1	0.056	87.3	0.406	1870	6.06	430	< 0.01 U	< 0.01 U	< 0.01 U	217	217	41.6	1.74
	4/19/11	2.5	0.6	0.061	86.3	0.099	2590	6.8	484	< 0.01 U	< 0.01 U	< 0.01 U	232	232	80.0	2.11
	7/26/11	1.2	2.1	0.086	95.4	< 0.04 U	2980	< 5 U	552	< 0.01 U	< 0.01 U	< 0.01 U	247	247	85.2	2.49
	10/25/11	2.6	1.3	0.042	70.7	< 0.04 U	1850	9.44	421	< 0.01 U	< 0.01 U	< 0.01 U	226	226	37.3	1.75
MW-51S	1/12/11	11	< 0.1 U	0.027	67.2	< 0.04 U	1.2	8.49	382	< 0.01 U	< 0.01 U	< 0.01 U	191	191	25.1	< 1.5 U
	4/19/11	9.6	< 0.1 U	0.014	60.8	< 0.04 U	< 2 U	< 5 U	386	< 0.01 U	< 0.01 U	< 0.01 U	188	188	23.4	1.63
	7/27/11	9.3	< 0.1 U	0.028	54.6	< 0.04 U	0.9	< 5 U	374	< 0.01 U	< 0.01 U	< 0.01 U	191	191	22.7	< 1.5 U
	10/26/11	9.9	< 0.1 U	0.033	58.1	< 0.04 U	< 0.5 U	< 5 U	387	< 0.01 U	< 0.01 U	< 0.01 U	195	195	23.2	1.54
MW-52S	1/12/11	10.3 J	< 0.1 U	0.015	68.4	< 0.04 U	< 1 U	< 5 U	368	< 0.01 U	< 0.01 U	< 0.01 U	194	194	38.4	< 1.5 U
	4/20/11	10.8	< 0.1 U	0.011	70.1	< 0.04 U	19.0	< 5 U	413	< 0.01 U	< 0.01 U	< 0.01 U	215	215	28.4	1.76
	7/26/11	9.6	< 0.1 U	0.023	57.6	< 0.04 U	10.6	< 5 U	381	< 0.01 U	< 0.01 U	< 0.01 U	199	199	23.5	< 1.5 U
	10/24/11	9.2	< 0.1 U	0.01	59.3	< 0.04 U	1.7	< 5 U	409	< 0.01 U	< 0.01 U	< 0.01 U	190	190	25.7	< 1.5 U
MW-53S	1/12/11	10 J	< 0.1 U	0.033	69.8	< 0.04 U	34	5.09	397	< 0.01 U	< 0.01 U	< 0.01 U	200	200	30.2	2.01
	4/20/11	10.3	< 0.1 U	< 0.01 U	73.5	< 0.04 U	101	5.55	441	< 0.01 U	< 0.01 U	< 0.01 U	212	212	29.1	2.23
	7/26/11	9.7	< 0.1 U	0.051	58.7	< 0.04 U	533	< 5 U	386	< 0.01 U	< 0.01 U	< 0.01 U	199	199	22.6	< 1.5 U
	10/24/11	9.5	< 0.1 U	0.04	60.0	< 0.04 U	19.4 J	5.09	437	< 0.01 U	< 0.01 U	< 0.01 U	205	205	24.6	1.51
NVM-01	1/11/11	4.6	0.5	0.024	82.9	< 0.04 U	501	7.19	416	< 0.01 U	< 0.01 U	< 0.01 U	210	210	26.1	1.56
	4/19/11	5.0	0.3	0.025	80.5	< 0.04 U	559	< 5 U	406	< 0.01 U	< 0.01 U	< 0.01 U	212	212	35.0	2.15
	7/26/11	5.7	< 0.1 U	0.047	95.2	< 0.04 U	771	< 5 U	516	< 0.01 U	< 0.01 U	< 0.01 U	232	232	46.9	1.86
	10/25/11	5.3	0.3	0.027	71.0	< 0.04 U	486	8.2	436	< 0.01 U	< 0.01 U	< 0.01 U	226	226	23.5	1.53
NVM-01I	1/11/11	10.2	< 0.1 U	0.029	64.5	< 0.04 U	< 1 U	5.23	397	< 0.01 U	< 0.01 U	< 0.01 U	187	187	26.4	< 1.5 U
	4/19/11	9.4	< 0.1 U	0.013	59.5	< 0.04 U	< 0.5 U	< 5 U	359	< 0.01 U	< 0.01 U	< 0.01 U	190	190	23.8	< 1.5 U
	7/26/11	9.3	< 0.1 U	0.015	55.4	< 0.04 U	< 0.5 U	< 5 U	397	< 0.01 U	< 0.01 U	< 0.01 U	197	197	23.3	< 1.5 U
	10/25/11	9.2	< 0.1 U	0.017	55.9	< 0.04 U	< 0.5 U	< 5 U	391	< 0.01 U	< 0.01 U	< 0.01 U	193	193	24.8	< 1.5 U
NVM-01D	1/11/11	10.3	< 0.1 U	0.013	67.6	< 0.04 U	0.7	< 5 U	387	< 0.01 U	< 0.01 U	< 0.01 U	185	185	26.9	< 1.5 U
	4/19/11	9.1	< 0.1 U	0.036	60.9	< 0.04 U	< 1 U	< 5 U	342	< 0.01 U	< 0.01 U	< 0.01 U	189	189	23.9	< 1.5 U
	7/26/11	9.0	< 0.1 U	< 0.01 U	56.1	< 0.04 U	1.0	< 5 U	385	< 0.01 U	< 0.01 U	< 0.01 U	193	193	24.8	< 1.5 U
	10/25/11	9.0	< 0.1 U	< 0.01 U	53.1	< 0.04 U	1.2	6.95	395	< 0.01 U	< 0.01 U	< 0.01 U	184	184	21.1	< 1.5 U

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SITE	DATE	Nitrate (as N) (mg/l)	Nitrite (as N) (mg/l)	Ammonia (as N) (mg/l)	Sulfate (mg/l)	Ferrous Iron (mg/l)	Manganese (µg/l)	Chemical Oxygen Demand (mg/l)	Total Dissolved Solids (mg/l)	Ethene (mg/l)	Ethane (mg/l)	Methane (mg/l)	Total Alkalinity (mg/l)	Bicarb- onate (mg/l)	Chloride (mg/l)	Total Organic Carbon (mg/l)
NVM-02	1/11/11	9.9	< 0.1 U	0.014	70.9	0.251	1620	< 5 U	398	< 0.01 U	< 0.01 U	< 0.01 U	190	190	28.9	1.80
	4/18/11	8.9	< 0.1 U	< 0.01 U	64.2	< 0.04 U	50.6	5.86	360	< 0.01 U	< 0.01 U	< 0.01 U	189	189	24.6	1.79
	7/25/11	8.7	< 0.1 U	0.018	64.0	< 0.04 U	537	< 5 U	407	< 0.01 U	< 0.01 U	< 0.01 U	199	199	27.0	< 1.5 U
	10/24/11	8.6	< 0.1 U	0.017	63.2	< 0.04 U	16.4 J	< 5 U	401	< 0.01 U	< 0.01 U	< 0.01 U	191	191	25.7	< 1.5 U
NVM-03	1/11/11	6.7	0.5	0.054	79.4	< 0.04 U	4540	< 5 U	419	< 0.01 U	< 0.01 U	0.07	200	200	30.4	1.69
	4/18/11	7.9	0.5	0.017	65.7	< 0.04 U	1790	< 5 U	372	< 0.01 U	< 0.01 U	< 0.01 U	188	188	24.1	1.87
	7/25/11	2.4	0.4	< 0.01 U	92.0	< 0.04 U	1820	< 5 U	473	< 0.01 U	< 0.01 U	< 0.01 U	204	204	55.9	1.83
	10/24/11	6.9	0.3	0.01	71.9	0.161	8410 J	< 5 U	409	< 0.01 U	< 0.01 U	< 0.01 U	193	193	31.1	1.62
NVM-04	1/11/11	11.1	< 0.1 U	0.018	70.2	< 0.04 U	< 1 U	< 5 U	422	< 0.01 U	< 0.01 U	< 0.01 U	184	184	27.6	1.80
	4/18/11	10.4	< 0.1 U	0.032	61.6	< 0.04 U	< 1 U	7.43	347	< 0.01 U	< 0.01 U	< 0.01 U	187	187	24.1	1.72
	7/25/11	10.0	< 0.1 U	< 0.01 U	62.3	< 0.04 U	< 0.5 U	< 5 U	416	< 0.01 U	< 0.01 U	< 0.01 U	199	199	25.7	1.57
	10/24/11	9.7	< 0.1 U	0.018	63.1	< 0.04 U	< 0.5 U	< 5 U	411	< 0.01 U	< 0.01 U	< 0.01 U	192	192	26.2	1.69

PERIOD: 1/1/2011 - 12/31/2011

Compound (ug/L)	VEW-04	VEW-05	VEW-04	VEW-05	VEW-04	VEW-05	VEW-04	VEW-05	VEW-04	VEW-05
	10/3/11	10/3/11	11/21/11	11/21/11	11/30/11	11/30/11	12/5/11	12/5/11	12/12/11	12/12/11
Acetone	100	420	33	78	100	320	130	310	140	330
Benzene	0.5	2.1	0.4	1.8	0.43	2.6	0.66	3.3	0.72	2.6
Bromobenzene	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
Bromochloromethane	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
Bromodichloromethane	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
Bromoform	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
Bromomethane	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
2-Butanone	130	430	58	380	110	300	130	360	140	330
N-Butylbenzene	< 0.20 U	0.51	< 0.20 U	0.72	< 0.20 U	0.63	0.27	0.6	0.33	0.67
S-Butylbenzene	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
T-Butylbenzene	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
Carbon Disulfide	< 0.20 U	0.23	< 0.20 U	0.73	< 0.20 U	0.4	< 0.20 U	0.36	< 0.20 U	0.43
Carbon Tetrachloride	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
Chlorobenzene	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	0.27	< 0.20 U	0.31	< 0.20 U	0.35
Chloroethane	< 0.20 U	0.64	< 0.20 U	< 0.20 U	< 0.20 U	0.35	< 0.20 U	0.42	< 0.20 U	0.51
Chloroform	1.1	2.7	1.2	2.8	0.88	2.4	1.2	2.5	1.2	3.4
Chloromethane	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
2-Chlorotoluene	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
4-Chlorotoluene	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
Dibromochloromethane	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
1,2-Dibromo 3-Chloropr	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dibromoethane	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
Dibromomethane	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
1,2-Dichlorobenzene	< 0.20 U	0.39	< 0.20 U	0.47	< 0.20 U	0.54	< 0.20 U	0.48	< 0.20 U	0.58
1,3-Dichlorobenzene	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
1,4-Dichlorobenzene	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
1,1-Dichloroethane	8	17	5.4	6.6	5.2	9.9	8.1	11	8.3	15
1,2-Dichloroethane	2.8	16	1.4	9.2	1.7	11	2.2	11	2.3	13
1,1-Dichloroethene	0.38	0.65	0.45	0.53	0.33	0.6	0.54	0.67	0.63	0.85
cis-1,2-Dichloroethene	1	4.7	0.59	2.7	0.72	3.6	1	4.2	1.2	5.1
trans-1,2-Dichloroethen	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
2,2-Dichloropropane	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
1,2-Dichloropropane	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
1,3-Dichloropropane	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
1,1-Dichloropropene	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
cis-1,3-Dichloropropene	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
trans-1,3-Dichloropropene	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
Ethylbenzene	31	74	43	80	37	95	39	100	39	85
Hexachlorobutadiene	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
2-Hexanone	< 1.0 U	9.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.5	< 1.0 U	3.6
Isopropylbenzene	0.67	2.8	1.5	4.9	0.79	4.1	1.4	4.6	1.5	5.1
p-Isopropyltoluene	< 0.20 U	0.5	0.24	1	< 0.20 U	0.63	< 0.20 U	0.68	0.23	0.68
4-Methyl-2-Pentanone	87	210	59	310	74	170	82	180	77	150
Methylene Chloride	22	74	13	31	14	52	20	63	26	73
Naphthalene	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
N-Propylbenzene	1.4	5.4	2.8	7.7	1.6	7.8	2.9	7.8	3	8.1
Styrene	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
1,1,1,2-Tetrachloroethar	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
1,1,2,2-Tetrachloroethar	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
Tetrachloroethylene	3.6	15	7.9	23	4.8	22	8.4	24	8.7	23
Toluene	360	1,000	520	1,100	300	850	390	1,200	380	980
1,2,3-Trichlorobenzene	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
1,2,4-Trichlorobenzene	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
1,1,1-Trichloroethane	9	21	12	12	6.7	12	11	13	12	16
1,1,2-Trichloroethane	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
Trichloroethene	79	210	59	130	64	150	70	180	71	140
Trichlorofluoromethane	0.46	2.6	< 0.20 U	0.62	< 0.20 U	0.92	0.33	1.1	0.32	1.4
1,2,3-Trichloropropane	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
1,2,4-Trimethylbenzene	5	15	14	19	6.1	20	10	22	10	19
1,3,5-Trimethylbenzene	3.6	9.5	7.4	13	4.2	13	7.3	13	7	13
Vinyl Chloride	< 0.020 U	0.32	< 0.020 U	0.06	0.059	0.23	0.11	0.28	0.14	0.4
m+p Xylene	99	200	150	340	130	290	130	310	130	260
o-Xylene	26	55	43	64	33	74	35	80	34	66
Total [X]	971.51	2,799.34	1,033.28	2,619.83	895.51	2,413.97	1,081.41	2,907.80	1,094.57	2,546.77
Flow rate (scfm) [Y]	231	219	229	313	227	306	224	300	227	290
Removal Rate (lbs/day)	20.18	55.13	21.28	73.74	18.28	66.42	21.78	78.44	22.34	66.41

Notes: EPA Method 8260
Removal Rate (lbs/day) = [X] µg/L x 28.32 x [Y] ft³/min x 0.002205 lbs/gm / 1,000,000 µg/gm x 1440 min/day

Table 14
Individual SVE Well Vapor
2011 Annual Report
Pasco Landfill, Pasco, WA

Compound (ug/L)	VEW-04	VEW-05	VEW-04	VEW-05
	12/19/11	12/19/11	12/26/11	12/26/11
Acetone	89	380	89	370
Benzene	0.54	3.1	0.59	2.4
Bromobenzene	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
Bromochloromethane	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
Bromodichloromethane	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
Bromoform	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
Bromomethane	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
2-Butanone	89	290	89	340
N-Butylbenzene	0.22	0.43	0.21	0.41
S-Butylbenzene	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
T-Butylbenzene	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
Carbon Disulfide	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
Carbon Tetrachloride	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
Chlorobenzene	< 0.2 U	0.22	< 0.2 U	< 0.2 U
Chloroethane	< 0.2 U	0.29	< 0.2 U	0.34
Chloroform	0.83	1.6	0.81	1.9
Chloromethane	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
2-Chlorotoluene	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
4-Chlorotoluene	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
Dibromochloromethane	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
1,2-Dibromo 3-Chloropr	< 1 U	< 1 U	< 1 U	< 1 U
1,2-Dibromoethane	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
Dibromomethane	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
1,2-Dichlorobenzene	< 0.2 U	0.34	< 0.2 U	0.46
1,3-Dichlorobenzene	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
1,4-Dichlorobenzene	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
1,1-Dichloroethane	5.8	7.9	5.9	8.9
1,2-Dichloroethane	1.9	7.9	2	9
1,1-Dichloroethene	0.35	0.46	0.36	0.43
cis-1,2-Dichloroethene	0.79	3	0.79	3.5
trans-1,2-Dichloroethene	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
2,2-Dichloropropane	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
1,2-Dichloropropane	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
1,3-Dichloropropane	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
1,1-Dichloropropene	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
cis-1,3-Dichloropropene	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
trans-1,3-Dichloropropene	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
Ethylbenzene	33	87	27	88
Hexachlorobutadiene	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
2-Hexanone	< 1 U	4.3	< 1 U	7.5
Isopropylbenzene	1.3	3.4	1.1	2.7
p-Isopropyltoluene	< 0.2 U	0.54	0.25	0.4
4-Methyl-2-Pentanone	60	160	61	160
Methylene Chloride	14	54	15	63
Naphthalene	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
N-Propylbenzene	2.3	5.8	2.1	4.4
Styrene	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
1,1,1,2-Tetrachloroethane	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
1,1,1,2,2-Tetrachloroethane	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
Tetrachloroethylene	7	14	6.4	12
Toluene	420	1,200	390	940
1,2,3-Trichlorobenzene	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
1,2,4-Trichlorobenzene	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
1,1,1-Trichloroethane	8.9	9.3	8.9	9.6
1,1,2-Trichloroethane	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
Trichloroethene	56	150	60	130
Trichlorofluoromethane	0.22	0.77	0.25	0.78
1,2,3-Trichloropropane	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
1,2,4-Trimethylbenzene	7.7	14	7.9	14
1,3,5-Trimethylbenzene	5.9	9.6	5.9	8.9
Vinyl Chloride	0.089	0.21	0.078	0.2
m+p Xylene	120	250	100	280
o-Xylene	31	66	26	74
Total [X]	955.84	2,724.16	900.54	2,532.82
Flow rate (scfm) [Y]	234	284	204	248
Removal Rate (lbs/day)	20.11	69.57	16.52	56.48

Notes: EPA Method 8260
Removal Rate (lbs/day) = [X] µg/L x 28.32 x [Y] ft³/min x 0.002205 lbs/gm / 1,000,000 µg/gm x 1440 min/day

TABLE 15
SVE Total Vapor
2011 Annual Report
Pasco Landfill, Pasco, WA

PERIOD: 1/1/2011 - 12/31/2011

Compound (µg/L)	10/3/11	11/21/11	11/30/11	12/5/11	12/12/11	12/19/11	12/26/11
Acetone	210	69	170	220	280	180	120
Benzene	1.1	1.1	1.5	1.9	1.4	2	1.4
Bromobenzene	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.2 U	< 0.2 U
Bromochloromethane	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.2 U	< 0.2 U
Dichlorobromomethane	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.2 U	< 0.2 U
Bromoform	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.2 U	< 0.2 U
Bromomethane	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.2 U	< 0.2 U
2-butanone (MEK)	250	210	200	250	300	200	140
n-butylBenzene	< 0.20 U	< 0.20 U	0.24	0.27	0.37	0.25	0.22
Sec-Butylbenzene	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.2 U	< 0.2 U
Tert-Butylbenzene	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.2 U	< 0.2 U
Carbon disulfide	< 0.20 U	0.4	0.21	0.2	< 0.20 U	< 0.2 U	< 0.2 U
Carbon tetrachloride	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.2 U	< 0.2 U
Chlorobenzene	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.2 U	< 0.2 U
Chloroethane	0.39	< 0.20 U	< 0.20 U	0.27	0.24	0.22	0.23
Chloroform	1.6	2.2	1.7	1.7	1.9	1.3	1.2
Chloromethane	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.2 U	< 0.2 U
2-Chlorotoluene	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.2 U	< 0.2 U
4-Chlorotoluene	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.2 U	< 0.2 U
Dibromochloromethane	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.2 U	< 0.2 U
1,2-Dibromo-3-Chloropropane	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1 U	< 1 U
Ethylene dibromide	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.2 U	< 0.2 U
Dibromomethane	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.2 U	< 0.2 U
1,2-Dichlorobenzene	< 0.20 U	< 0.20 U	0.21	< 0.20 U	0.22	< 0.2 U	< 0.2 U
1,3-Dichlorobenzene	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.2 U	< 0.2 U
1,4-Dichlorobenzene	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.2 U	< 0.2 U
1,1-Dichloroethane	10	7.6	8	9.2	9.5	7.6	6.9
1,2-Dichloroethane	7.7	5.6	6.1	6.1	6.4	5.2	4.5
1,1-Dichloroethene	0.45	0.55	0.54	0.58	0.59	0.44	0.42
cis-1,2-dichloroethene	2.4	1.7	2.1	2.4	2.6	2	1.9
trans-1,2-Dichloroethene	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.2 U	< 0.2 U
2,2-Dichloropropane	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.2 U	< 0.2 U
1,2-Dichloropropane	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.2 U	< 0.2 U
1,3-Dichloropropane	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.2 U	< 0.2 U
1,1-Dichloropropene	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.2 U	< 0.2 U
Cis-1,3-Dichloropropene	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.2 U	< 0.2 U
Trans-1,3-Dichloropropene	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.2 U	< 0.2 U
Ethylbenzene	42	42	53	54	50	44	34
Hexachlorobutadiene	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.2 U	< 0.2 U
2-Hexanone	3.1	< 1.0 U	< 1.0 U	1.1	2.8	1.4	< 1 U
Isopropylbenzene	1.1	2.1	2.1	2.2	2	1.8	1.5
p-Isopropyltoluene	< 0.20 U	0.35	0.25	0.27	0.25	0.28	0.2
4-Methyl-2-pentanone (MIBK)	150	67	130	140	130	98	77
Methylene chloride	49	22	32	40	50	31	23
Napthalene	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.2 U	< 0.2 U
n-propylbenzene	2.3	3.5	3.1	3.6	3.5	3.2	2.6
Styrene	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.2 U	< 0.2 U
1,1,1,2-Tetrachloroethane	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.2 U	< 0.2 U
1,1,2,2-Tetrachloroethane	0.23	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.2 U	< 0.2 U
Tetrachloroethene	6.9	15	13	14	12	9.3	8.2
Toluene	560	620	630	760	880	670	490
1,2,3-Trichlorobenzene	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.2 U	< 0.2 U
1,2,4-Trichlorobenzene	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.2 U	< 0.2 U
1,1,1-Trichloroethane	12	12	9.8	11	12	9.9	9
1,1,2-Trichloroethane	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.2 U	< 0.2 U
Trichloroethene	140	79	100	110	120	91	76
Trichlorofluoromethane	1.2	0.42	0.5	0.72	0.69	0.6	0.53
1,2,3-Trichloropropane	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.2 U	< 0.2 U
1,2,4-Trimethylbenzene	6.3	9	9.5	9.5	9.5	8.3	7.7
1,3,5-Trimethylbenzene	4	7	6	7	6	6	5
Vinyl chloride	0.11	0.049	0.14	0.19	0.21	0.17	0.14
m,p-Xylene	120	130	160	160	150	140	120
o-Xylene	32	33	41	40	38	36	30
Total [X]	1,614.28	1,340.47	1,581.39	1,845.70	2,070.47	1,549.96	1,162.04
Flow rate (scfm) [Y]	450	542	533	524	517	518	452
Removal Rate (lbs/day)	65.32	65.33	75.79	86.97	96.26	72.20	47.23
Total Run Time (Days)	7.0	49.0	9.0	5.0	7.0	7.0	7.0
Mass removal between sampling rounds (lbs)	457.3	3201.2	682.1	434.8	673.8	505.4	330.6
Cumulative mass removal since start (lbs)	433,229	436,430	437,112	437,547	438,221	438,726	439,057

Notes:
EPA Method 8260
Removal Rate (lbs/day) = [X] µg/L x 28.32 x [Y] ft3/min x 0.002205 lbs/gm / 1,000,000 µg/gm x 1440 min/day

Date	Removal Rate (pounds per day)				Flow Rate (cubic feet per minute)		
	VEW-04	VEW-05	TOTAL (Individual Wells)	Combined Sample	VEW-04	VEW-05	Cumulative Flow Rate
01/03/11	33.26	77.82	111.08	98.63	278	288	566
01/10/11	47.07	97.75	144.82	138.39	280	284	564
01/19/11	33.12	77.54	110.66	219.26	289	288	625
01/25/11	33.02	85.14	118.16	107.60	294	288	582
01/31/11	35.85	96.65	132.50	82.01	295	283	578
02/07/11	37.58	98.03	135.61	86.38	289	282	572
02/14/11	35.34	88.53	123.87	92.75	298	281	579
02/22/11	36.31	91.75	128.06	107.97	299	282	581
02/28/11	34.24	78.54	112.78	101.96	298	287	585
03/07/11	33.08	74.94	108.02	94.36	257	237	495
03/14/11	35.46	85.18	120.64	104.82	260	240	500
03/21/11	35.13	81.47	116.60	98.03	252	231	483
03/29/11	38.21	99.03	137.24	100.40	252	235	487
04/04/11	28.02	65.12	93.14	92.25	253	225	477
04/11/11	27.78	65.40	93.18	71.38	251	229	480
04/18/11	25.71	71.63	97.34	82.67	246	230	476
04/25/11	27.32	61.12	88.44	79.06	247	225	472
05/03/11	34.28	83.25	117.53	91.95	263	235	498
05/09/11	33.16	80.31	113.47	91.54	257	230	487
05/16/11	33.61	81.62	115.23	103.54	252	225	477
05/23/11	33.50	51.96	85.46	100.85	250	228	478
05/31/11	32.43	81.76	114.19	105.98	253	232	485
06/06/11	29.24	64.56	93.80	77.24	251	224	475
06/13/11	36.63	77.40	114.03	74.70	259	233	492
06/20/11	34.06	82.34	116.40	105.40	258	241	500
06/27/11	27.41	64.33	91.74	77.12	258	232	491
07/06/11	31.38	71.24	102.62	91.76	265	241	506
07/11/11	31.28	73.36	104.64	90.62	258	238	496
07/18/11	28.41	71.73	100.14	94.60	257	228	485
07/26/11	26.31	75.88	102.19	105.79	264	226	489
08/01/11	31.05	79.78	110.83	94.79	266	229	494
08/08/11	28.55	59.54	88.09	83.46	262	228	490
08/15/11	31.46	70.14	101.60	92.74	259	232	491
08/22/11	27.13	62.38	89.51	84.76	268	238	505
08/29/11	28.39	64.56	92.95	84.60	258	233	491
09/06/11	27.58	69.70	97.28	83.01	255	228	483
09/13/11	22.54	59.31	81.85	75.22	247	229	476
09/19/11	23.34	61.60	84.94	77.36	239	216	455
09/26/11	23.90	61.92	85.82	77.16	235	217	452
10/03/11	20.18	55.13	75.31	65.32	231	219	450
11/21/11	21.28	73.74	95.02	65.33	229	313	542
11/30/11	18.28	66.42	84.70	75.79	227	306	533
12/05/11	21.78	78.44	100.22	86.97	224	300	524
12/12/11	22.34	66.41	88.75	96.26	227	290	517
12/19/11	20.11	69.57	89.68	72.20	234	284	518
12/26/11	16.52	56.48	73.00	47.23	204	248	452
2011 Average	30	74	104	92	258	249	507

Waste Water	Volume (gallons)	Disposal or Treatment Facility	Disposal Date	Designation	SVE Equipment Skid Volume (gallons)	Conveyance Line at MSW Flare Volume (gallons)
SVE Condensate	512	Thermal treatment at MSW flare	12/14/10 - 1/20/11		-	512
SVE Condensate	3,980	Burlington Environmental, Tacoma, WA	1/17/2011	DW D035, D040	2,360	1,620
SVE Condensate	3,387	Burlington Environmental, Tacoma, WA	2/2/2011	DW D035, D040, D001	2,500	1,387
SVE Condensate	7,458	Burlington Environmental, Tacoma, WA	3/2 and 3/23/2011	DW D035, D040, D001	3,585	3,873
SVE Condensate	2,706	Burlington Environmental, Tacoma, WA	4/13/2011	DW D035, D040, D001	1,450	1,256
SVE Condensate	1,564	Burlington Environmental, Tacoma, WA	5/4/2011	DW D035, D040	-	1,564
SVE Condensate	2,243	Burlington Environmental, Tacoma, WA	6/1/2011	DW D035, D040	-	2,243
SVE Condensate	2,013	Burlington Environmental, Tacoma, WA	6/23/2011	DW D035, D040	-	2,013
SVE Condensate	1,674	Burlington Environmental, Tacoma, WA	7/20/2011	DW D035, D040	-	1,674
SVE Condensate	1,800	Burlington Environmental, Tacoma, WA	8/17/2011	DW D035, D040	-	1,800
SVE Condensate	1,290	Burlington Environmental, Tacoma, WA	11/22/2011	DW D035, D040	-	1,290
SVE Condensate	3,222	Burlington Environmental, Tacoma, WA	12/15/2011	DW D035, D040	1,970	1,252
SVE Condensate	2,050	City of Pasco Waste Water Treatment Plant	5/23/2011	NA	2,050	-
SVE Condensate	2,150	City of Pasco Waste Water Treatment Plant	7/21/2011	NA	2,150	-
SVE Condensate	550	City of Pasco Waste Water Treatment Plant	8/30/2011	NA	550	-
SVE Condensate	1,550	City of Pasco Waste Water Treatment Plant	9/30/2011	NA	-	1,550
SVE Condensate	550	City of Pasco Waste Water Treatment Plant	9/30/2011	NA	550	-
Purge, Drilling, Decon and Development Water	4,675	City of Pasco Waste Water Treatment Plant	4/26/2011	NA	-	-
Water from Rolloff Bins - Horizontal Borings	1,940	City of Pasco Waste Water Treatment Plant	5/23/2011	NA	-	-
Water from Rolloff Bins - Horizontal Borings	5,025	City of Pasco Waste Water Treatment Plant	7/21/2011	NA	-	-
Purge Water	550	City of Pasco Waste Water Treatment Plant	8/30/2011	NA	-	-
Waste Soil and Mud	Volume (pounds)	Disposal or Treatment Facility	Disposal Date	Designation		
Zone A Well Installation Soil	2,500 lbs	CWMNW, Inc., Arlington, OR	3/2/2011	HW D018, D039 and D040		
	1,000 lbs	CWMNW, Inc., Arlington, OR	3/2/2011	HW D007		
	2,000 lbs	CWMNW, Inc., Arlington, OR	3/2/2011	Non-Regulated X004		
	20,320 lbs	Finley Buttes Landfill, Boardman, OR	3/3/2011	Non-Hazardous - Non-Dangerous		
Mud from Rolloff Bins 1, 2 & 3	28,820 lbs	Finley Buttes Landfill, Boardman, OR	5/13/2011	NA		
Mud from Rolloff Bins 6 & 7	35,040 lbs	Finley Buttes Landfill, Boardman, OR	6/17/2011	NA		
Mud from Rolloff Bins 8 - 18	124,000 lbs	Finley Buttes Landfill, Boardman, OR	7/13/2011	NA		
Mud from Rolloff Bins 4 and 5	19,600 lbs	CWMNW, Inc., Arlington, OR	8/4/2011	F005, F039, U165		
On August 9, 2011 the mud from Rolloff Bins 4 and 5 was transferred from CWMNW, Inc. to Clean Harbors Aragonite LLC in Grantsville, UT.						
On August 13, 2011 the same mud was incinerated by Clean Harbors Environmental Services, Inc. in Grantsville, UT.						
Soil from Intermediate Well Installation and NoVOCs Decommissioning	9,740 lbs	BDI Transfer, Pasco, WA	8/31/2011	NA		

Date Surveyed	Days	SB-1	SB-2	SB-3	SB-4	SB-5	SB-6	SB-7	SB-8	SB-9	SB-10	SP-1	SP-2	SP-3	SP-4
05/29/08	1	430.738	430.820	425.355	426.134	425.125	424.593	425.408	430.663						
06/26/08	28	430.709	430.769	425.315	426.112	425.107	424.596	425.402	430.656						
07/29/08	61	430.665	430.707	425.255	426.068	425.063	424.573	425.371	430.63						
09/08/08	102	430.650	430.666	425.246	426.068	425.066	424.587	425.377	430.641						
09/30/08	124	430.628	430.631	425.225	426.056	425.056	424.592	425.369	430.636						
10/30/08	154	430.602	430.594	425.195	426.039	425.044	424.593	425.359	430.629						
12/05/08	190	430.572	430.552	425.164	426.022	425.027	424.592	425.315	430.622						
12/30/08	215	430.548	430.521	425.137	426.009	425.018	424.592	425.336	430.614						
01/30/09	246	430.523	430.483	425.098	425.988	425.001	424.616	425.315	430.601						
03/26/09	301	430.467	430.411	425.039	425.960	424.980	424.610	425.290	430.585						
04/23/09	329	430.441	430.378	425.020	425.954	424.978	424.616	425.279	430.577						
06/05/09	372	430.398	430.324	424.969	425.915	424.948	424.598	425.242	430.561						
07/28/09	425	430.352	430.261	424.920	425.877	424.932	424.598	425.220	430.547						
11/18/09	538	430.238	430.124	424.798	425.794	424.893	424.588	425.158	430.508						
01/07/10	588	430.190	430.061	424.747	425.754	424.876	424.583	425.128	430.485						
05/19/10	720	430.061	429.903	424.631	425.658	424.833	424.566	425.027	430.429						
08/11/10	804	429.975	429.797	424.577	425.605	424.809	424.566	424.966	430.379	420.258	420.767				
10/27/10	881	429.923	429.738	424.509	425.529	424.793	424.361	424.925	430.361	420.221	420.732				
12/15/10	930	429.885	429.694	424.466	425.496	424.781	424.359	424.899	430.339	420.201	420.712				
02/15/11	992	429.826	429.639	424.412	425.453	424.787	424.395	424.850	430.300	420.203	420.703				
04/14/11	1,050	429.735	429.546	424.351	425.366	424.761	424.383	424.796	430.247	420.172	420.676				
06/10/11	1,107	429.666	429.481	424.290	425.288	424.744	424.362	424.761	430.216	420.146	420.656				
08/11/11	1,169	429.596	429.416	424.246	425.183	424.732	424.359	424.732	430.187	420.123	420.633	429.865	430.448	434.477	435.199
11/04/11	1,254	LOST	LOST	LOST	LOST	LOST	424.345	424.674	LOST	420.090	420.603	429.713	430.275	434.258	435.107
12/16/11	1,296	LOST	LOST	LOST	LOST	LOST	424.341	424.645	LOST	420.075	420.585	429.683	430.203	434.153	435.060

LOST = Benchmark was covered during Zone A cap maintenance activities.

Note: SP-1 through 4 were installed August 23, 2011.

	SB-1	SB-2	SB-3	SB-4	SB-5	SB-6	SB-7	SB-8
Elevation Change First 216 Days (inches)	2.3	3.6	2.6	1.5	1.3	0.0	0.9	0.6
Average Change First 216 Days (inches/day)	0.0106	0.0167	0.0122	0.0070	0.0060	0.0001	0.0040	0.0027

0.0074 Average Change in Elevation 5/28/08 Through 12/30/08 - SB-1 Through SB-8 (inches/day)

	SB-1	SB-2	SB-3	SB-4	SB-5	SB-6	SB-7	SB-8
Elevation Change 12/30/08 to 8/11/10 (inches)	6.9	8.7	6.7	4.8	2.5	0.3	4.4	2.8
Average Change Day 216 to Day 804 (in/day)	0.0096	0.0122	0.0094	0.0068	0.0035	0.0004	0.0062	0.0039

0.0065 Average Change in Elevation 12/30/08 Through 8/11/10 - SB-1 Through SB-8 (inches/day)

	SB-1	SB-2	SB-3	SB-4	SB-5	SB-6	SB-7	SB-8
Change in Elevation 5/28/08 to 8/11/10 (inches)	9.2	12.3	9.3	6.3	3.8	0.3	5.3	3.4
Average Change per Day 1 to Day 804 (inches/day)	0.0114	0.0153	0.0116	0.0079	0.0047	0.0004	0.0066	0.0042

0.0078 Average Change in Elevation 5/28/08 Through 8/11/10 - SB-1 Through SB-8 (inches/day)

	SB-1	SB-2	SB-3	SB-4	SB-5	SB-6	SB-7	SB-8	SB-9	SB-10	SP-1	SP-2	SP-3	SP-4
Elevation Change 8/11/10 to 12/16/11 (inches)	LOST 8/11	LOST 8/11	LOST 8/11	LOST 8/11	LOST 8/11	2.7	3.9	LOST 8/11	2.2	2.2	2.2	2.9	3.9	1.7
Average Change Day 804 to Day 1,296 (inches/day)	No Value	No Value	No Value	No Value	No Value	0.0055	0.0078	No Value	0.0045	0.0044	0.0172	0.0231	0.0306	0.0131

0.0056 Average Change in Elevation 8/11/10 Through 12/16/11 - SB-6, SB-7, SB-9 and SB-10 (inches/day)

Preliminary Data - 8/23/11 to 12/16/11

0.0210 Average Change in Elevation 8/23/11 Through 12/16/11 - SP-1 through SP-4 (inches/day)

Elevations are in reference to the North American Vertical Datum of 1988 (NAVD88).

TABLE 19
Average Zone A Subsidence
(in inches/day)
2011 Annual Report
Pasco Landfill, Pasco, WA

PERIOD: 5/29/08 thru 12/16/11

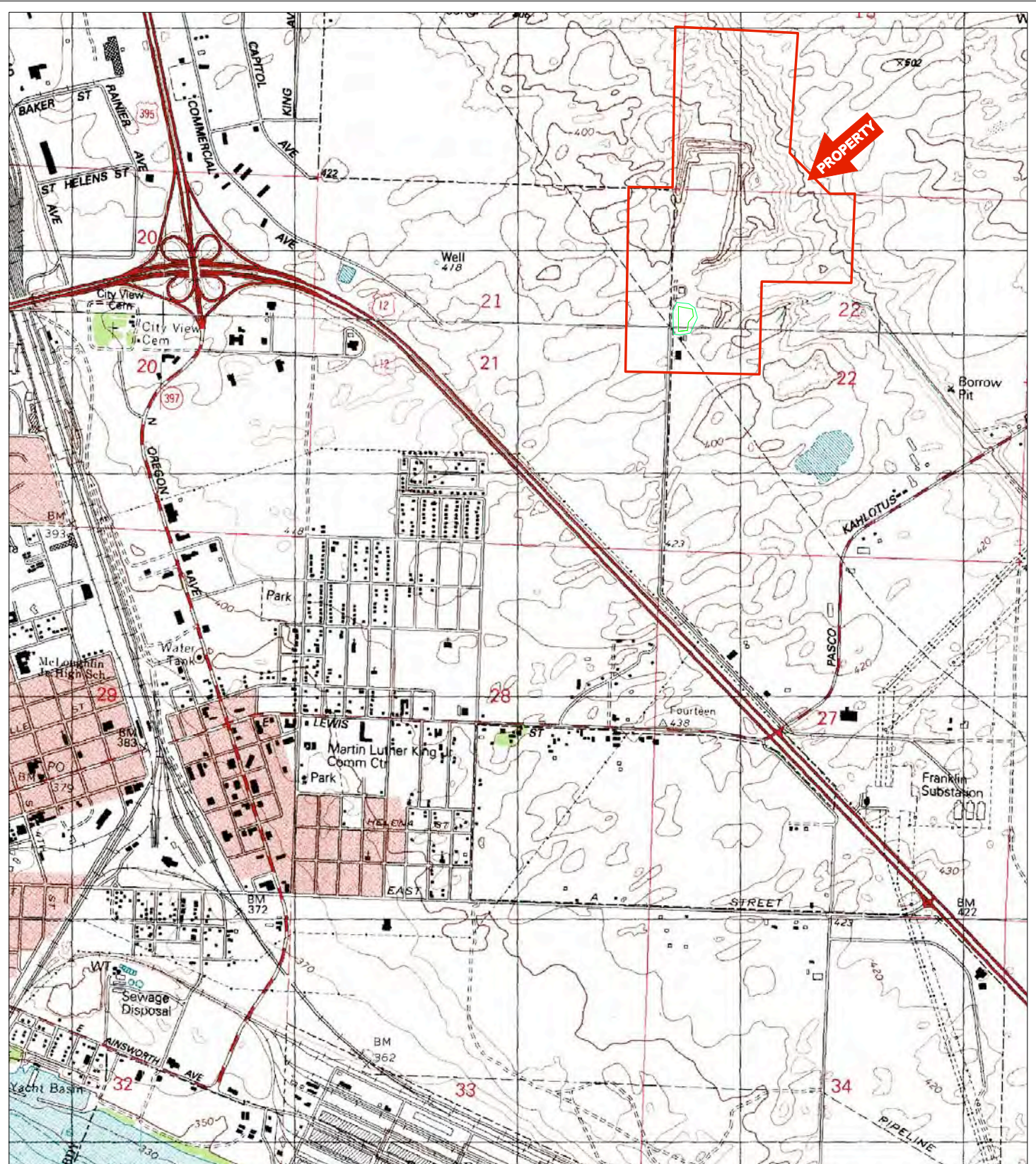
Time Period	SB-1	SB-2	SB-3	SB-4	SB-5	SB-6	SB-7	SB-8	SB-9	SB-10	SP-1	SP-2	SP-3	SP-4
5/29 to 6/26/2008	0.012	0.022	0.017	0.009	0.008	-0.001	0.003	0.003						
6/26 to 7/29/2008	0.016	0.023	0.022	0.016	0.016	0.008	0.011	0.009						
7/29 to 9/8/2008	0.004	0.012	0.003	0.000	-0.001	-0.004	-0.002	-0.003						
9/8 to 9/30/2008	0.012	0.019	0.011	0.007	0.005	-0.003	0.004	0.003						
9/30 to 10/30/2008	0.010	0.015	0.012	0.007	0.005	0.000	0.004	0.003						
10/30 to 12/5/2008	0.010	0.014	0.010	0.006	0.006	0.000	0.015	0.002						
12/5 to 12/30/2008	0.012	0.015	0.013	0.006	0.004	0.000	-0.010	0.004						
12/30/08 to 1/30/09	0.010	0.015	0.015	0.008	0.007	-0.009	0.008	0.005						
1/30 to 3/26/2009	0.012	0.016	0.013	0.006	0.005	0.001	0.005	0.003						
3/26 to 4/23/2009	0.011	0.014	0.008	0.003	0.001	-0.003	0.005	0.003						
4/23 to 6/5/2009	0.012	0.015	0.014	0.011	0.008	0.005	0.010	0.004						
6/5 to 7/28/2009	0.010	0.014	0.011	0.009	0.004	0.000	0.005	0.003						
7/28 to 11/18/2009	0.012	0.015	0.013	0.009	0.004	0.001	0.007	0.004						
11/18/09 to 1/7/10	0.012	0.015	0.012	0.010	0.004	0.001	0.007	0.006						
1/7 to 5/19/2010	0.012	0.014	0.011	0.009	0.004	0.002	0.009	0.005						
5/19 to 8/11/2010	0.012	0.015	0.008	0.008	0.003	0.000	0.009	0.007						
8/11 to 10/27/2010	0.008	0.009	0.011	0.012	0.002	0.032	0.006	0.003	0.006	0.005				
10/27 to 12/15/2010	0.009	0.011	0.011	0.008	0.003	0.000	0.006	0.005	0.005	0.005				
12/15/10 to 2/15/11	0.011	0.011	0.010	0.008	-0.001	-0.007	0.009	0.008	0.000	0.002				
2/15 to 4/14/2011	0.019	0.019	0.013	0.018	0.005	0.002	0.011	0.011	0.006	0.006				
4/14 to 6/10/2011	0.015	0.014	0.013	0.016	0.004	0.004	0.007	0.007	0.005	0.004				
6/10 to 8/11/2011	0.014	0.013	0.009	0.020	0.002	0.001	0.006	0.006	0.004	0.004				
8/11 to 11/04/2011	LOST	LOST	LOST	LOST	LOST	0.002	0.008	LOST	0.005	0.004	0.025	0.028	0.036	0.015
11/4 to 12/16/11	LOST	LOST	LOST	LOST	LOST	0.001	0.008	LOST	0.004	0.005	0.009	0.021	0.030	0.013
Average Rate since Installation (inches per day)	0.012	0.015	0.012	0.009	0.004	0.001	0.006	0.005	0.004	0.004	0.017	0.025	0.033	0.014

SB-1 through SB-8 were installed on May 28, 2008.

SB-9 and SB-10 were installed August 8, 2010.

SP-1 through SP-4 were installed August 23, 2011.

Figures



KEY:

SOURCE: USGS 7.5 MINUTE QUADRANGLE
(TOPOGRAPHIC)



GLADE, WASHINGTON - 1992
PASCO, WASHINGTON - 1992

SCALE = 1:24,000



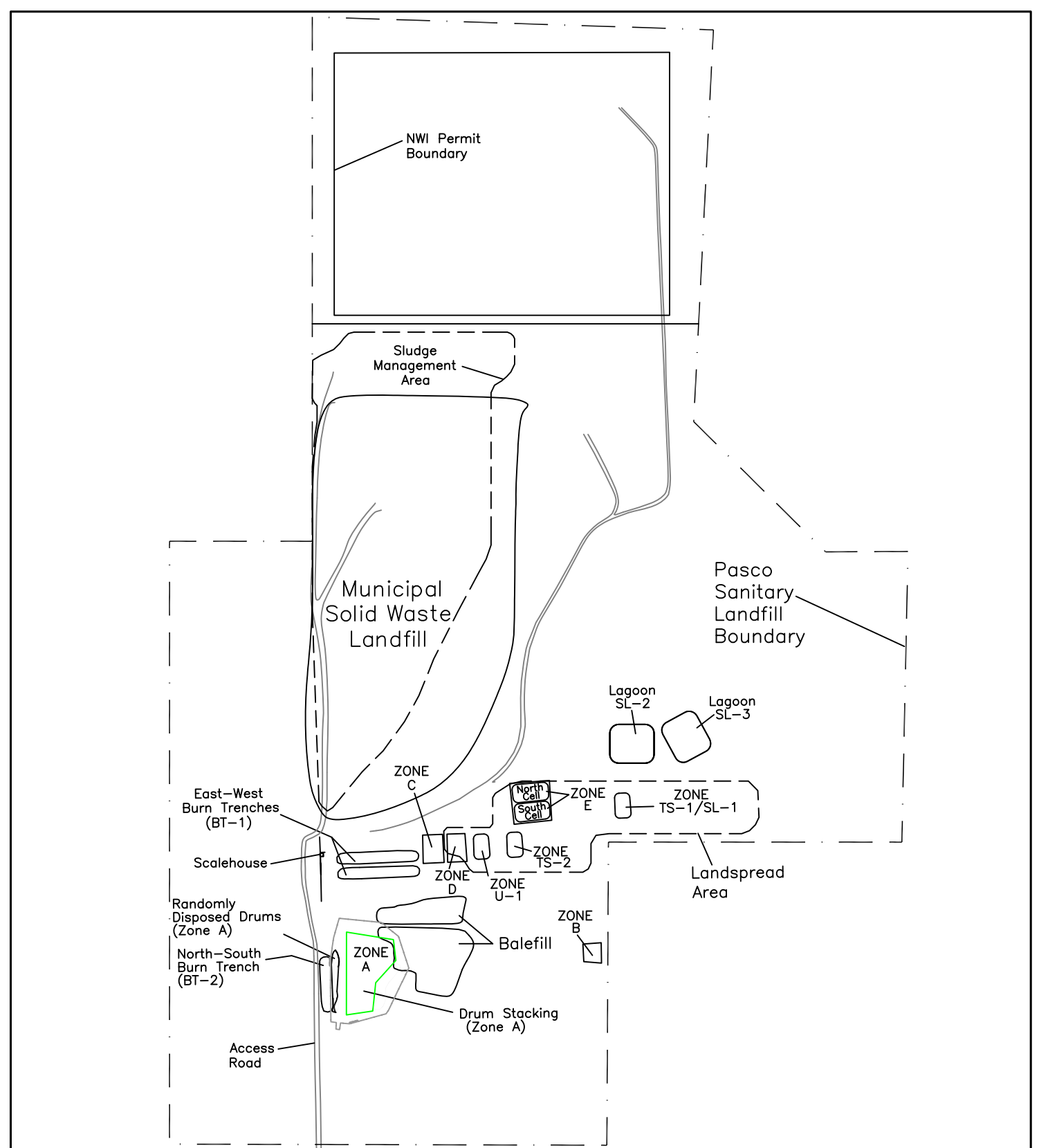
ENVIRONMENTAL PARTNERS INC

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Issaquah, Washington 98027

FIGURE 1

SITE LOCATION MAP

PROJECT	03911.2		
PREPARED FOR	IVAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	MMH	TCM	02/14/12



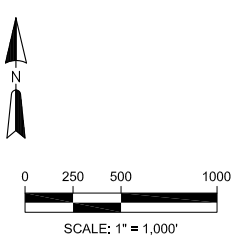
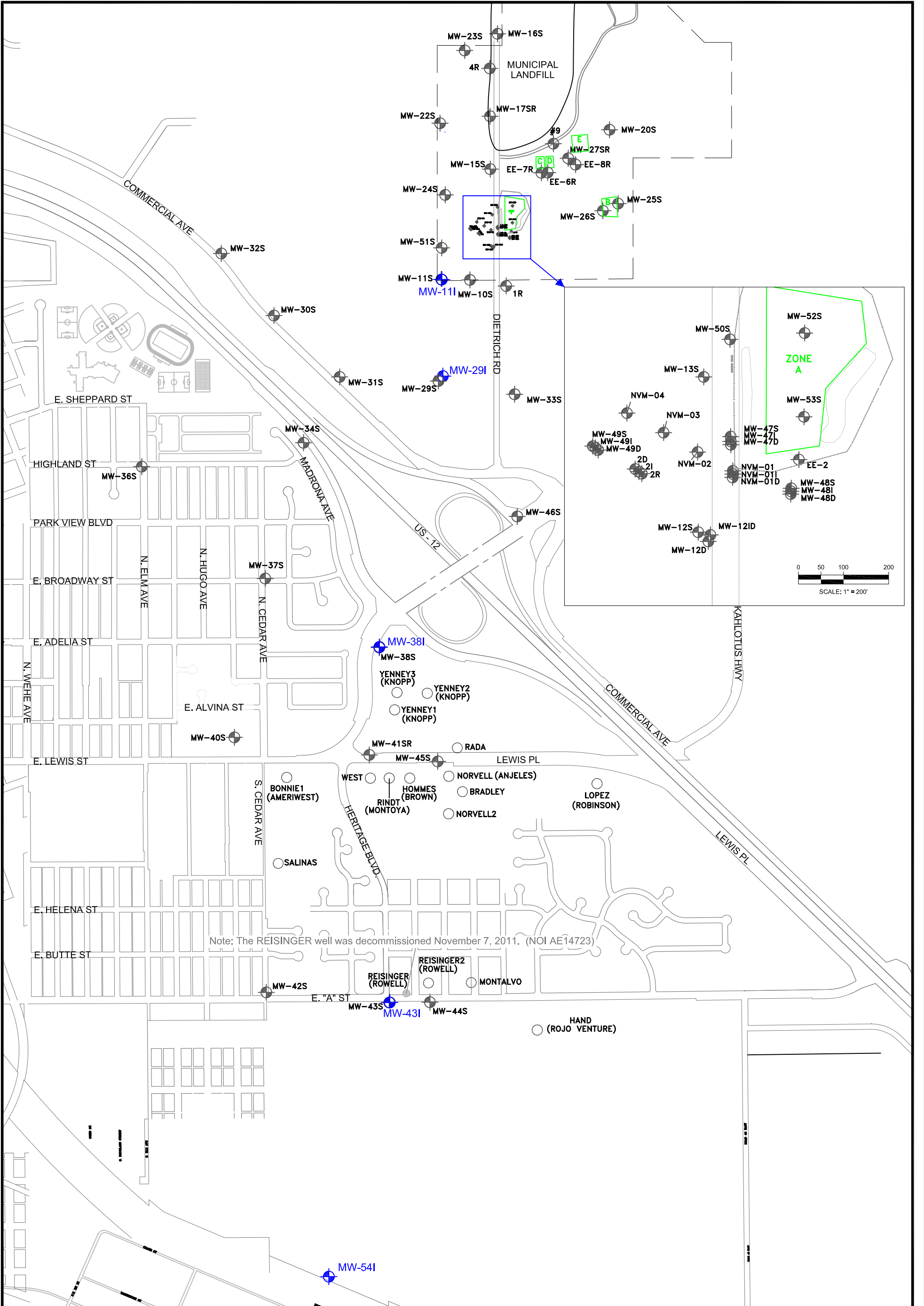
KEY: SOURCE: BURLINGTON 1993

SCALE: 1" = 600'

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FIGURE 2
 PSL PROPERTY REPRESENTATION

PROJECT	03911.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET 1 of 1	DRAWN BY MMH	REVIEWED BY TCM	DATE 02/14/12

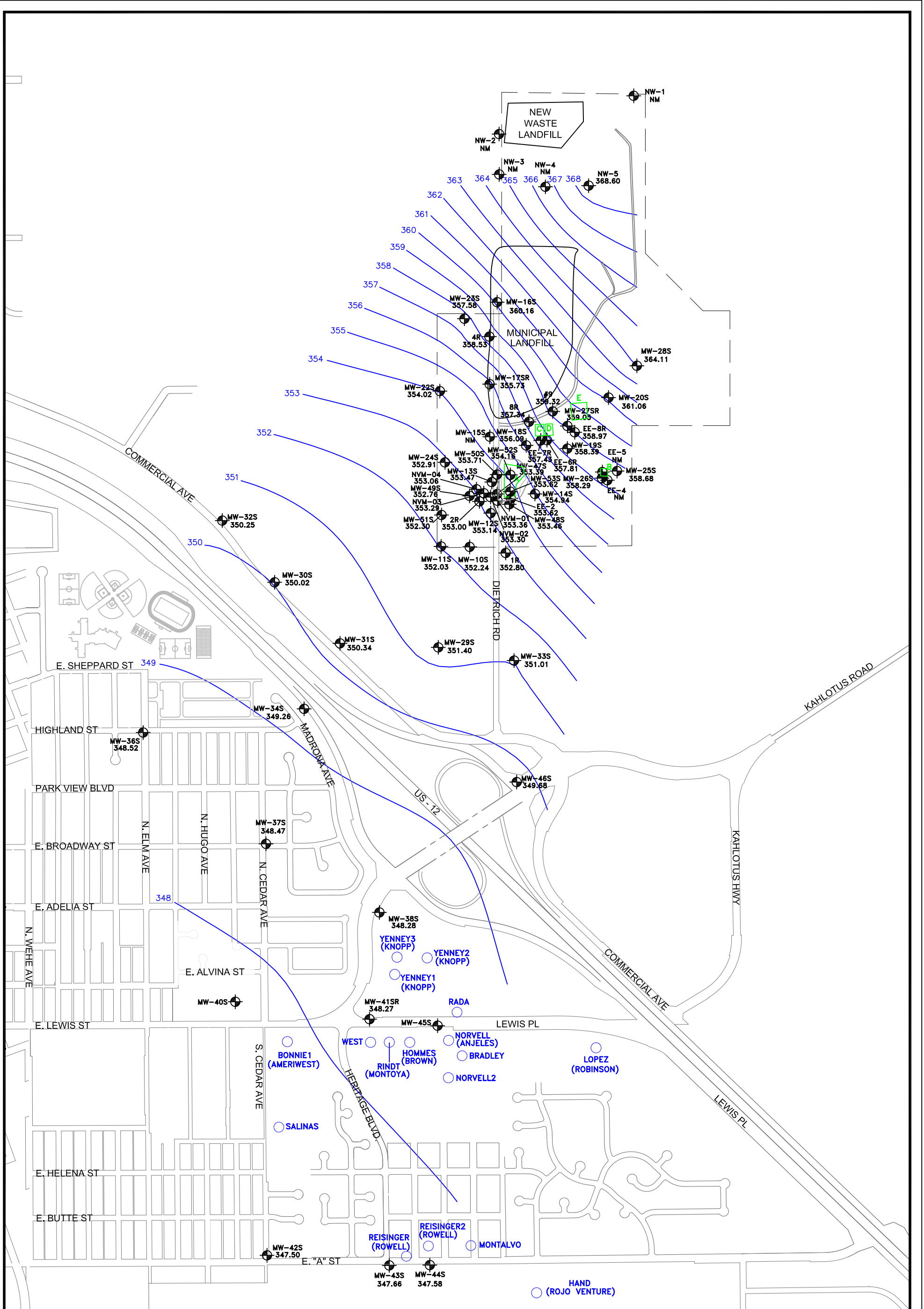


- MW-54I Newly Installed Intermediate Depth Ground Water Monitoring Well
- MW-50S Existing Ground Water Monitoring Well
- WEST Residential Well
- Decommissioned Residential Well

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FIGURE 3
GROUND WATER MONITORING WELL LOCATIONS

PROJECT	03911.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	MMH	TCM	02/17/12



MW-42S 347.50 SHALLOW AQUIFER MONITORING WELL WITH WATER ELEVATION IN FEET, NAVD88 (NM = NOT MEASURED)

WATER ELEVATION CONTOUR CONTOUR INTERVAL = 1 FOOT

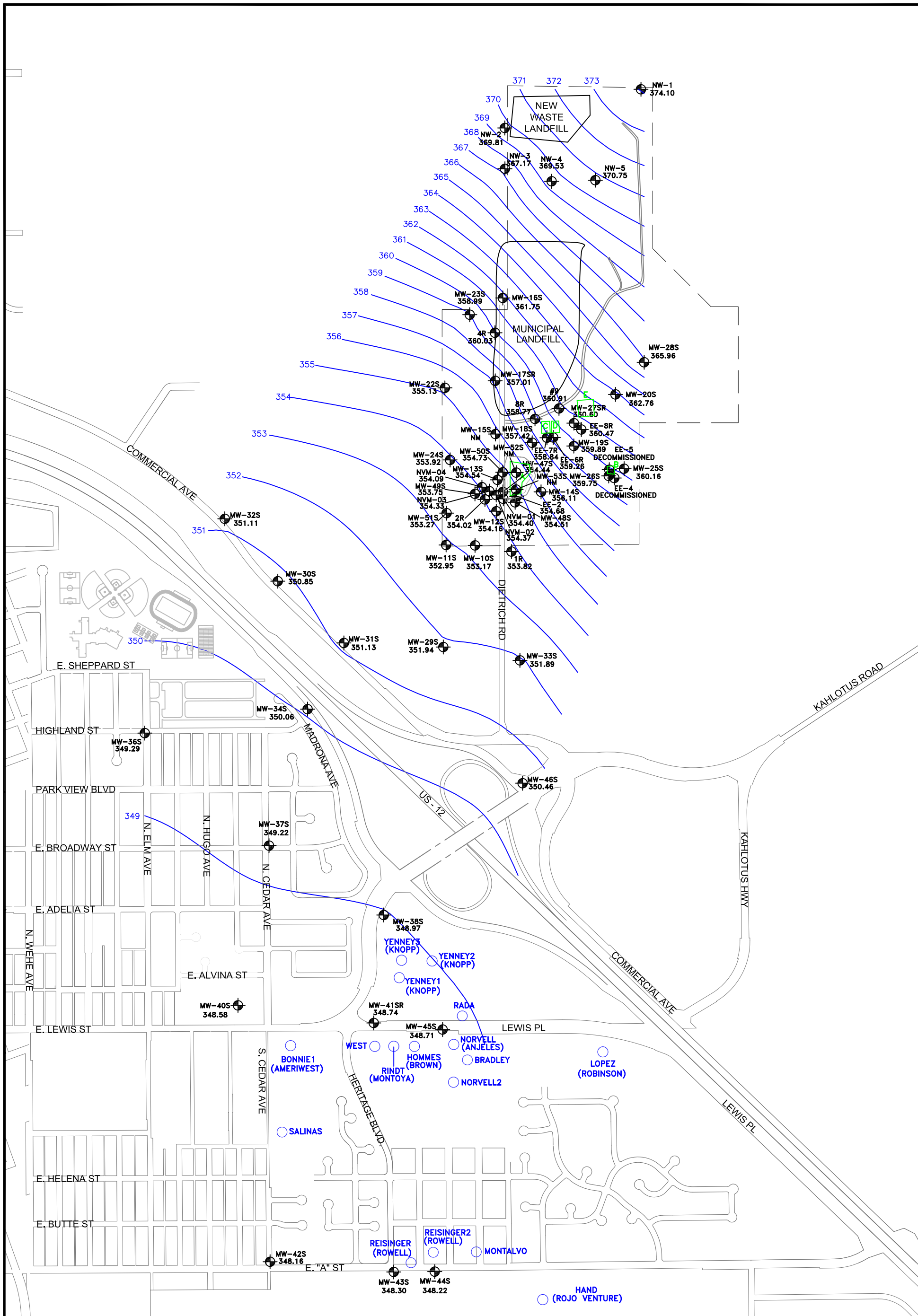
WATER LEVELS NOT MEASURED IN RESIDENTIAL WELLS

SCALE: 1" = 1,000'

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FIGURE 4
 GROUND WATER ELEVATIONS
 JANUARY 10, 2011

PROJECT	03910.2		
PREPARED FOR	IWAG III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	02/24/12



MW-42S 347.50 SHALLOW AQUIFER MONITORING WELL WITH WATER ELEVATION IN FEET, NAVD88 (NM = NOT MEASURED)

WATER ELEVATION CONTOUR CONTOUR INTERVAL = 1 FOOT

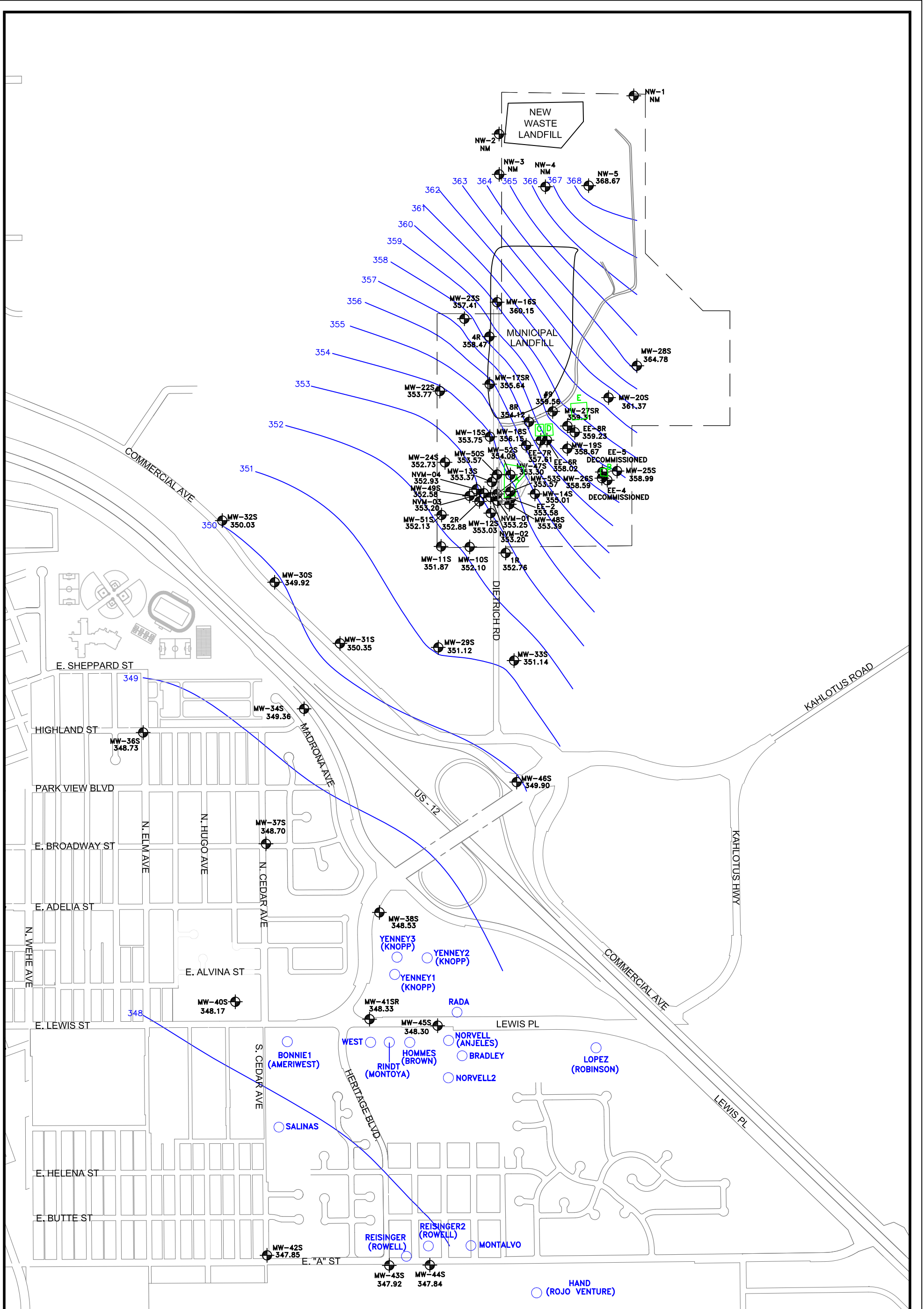
WATER LEVELS NOT MEASURED IN RESIDENTIAL WELLS


0 250 500 1000
 SCALE: 1" = 1,000'


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FIGURE 5
 GROUND WATER ELEVATIONS
 APRIL 15, 2011


PROJECT	03910.2		
PREPARED FOR	IWAG III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	02/16/12





 MW-42S 347.50  SHALLOW AQUIFER MONITORING WELL WITH WATER ELEVATION IN FEET, NAVD88 (NM = NOT MEASURED)

 WATER ELEVATION CONTOUR CONTOUR INTERVAL = 1 FOOT

 WATER LEVELS NOT MEASURED IN RESIDENTIAL WELLS

0 250 500 1000
 SCALE: 1" = 1,000'


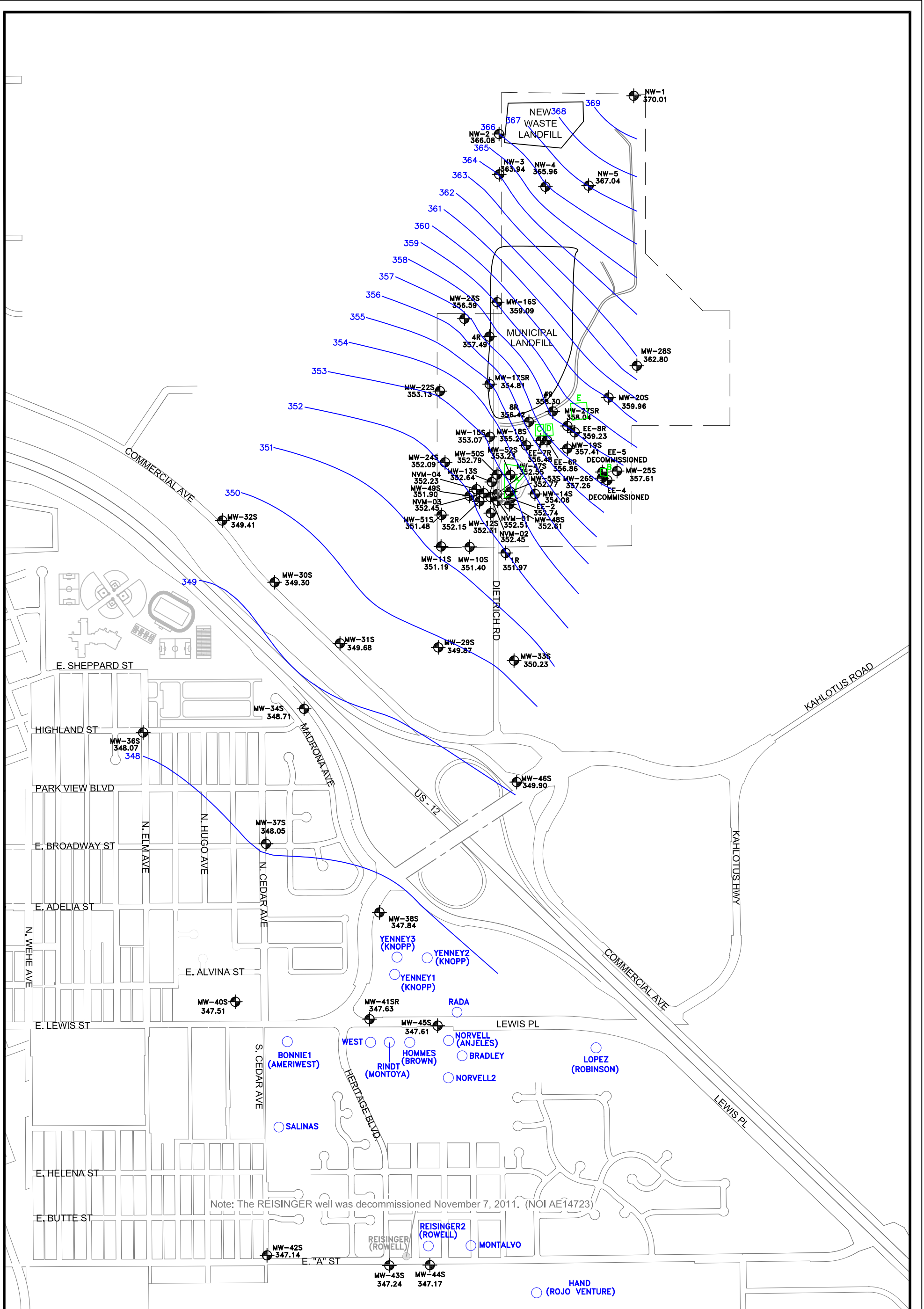


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FIGURE 6
GROUND WATER ELEVATIONS
 JULY 22, 2011


PROJECT	03910.2		
PREPARED FOR	IWAG III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	02/16/12






 MW-42S 347.14  SHALLOW AQUIFER MONITORING WELL WITH WATER ELEVATION IN FEET, NAVD88 (NM = NOT MEASURED)

 WATER ELEVATION CONTOUR CONTOUR INTERVAL = 1 FOOT

 WATER LEVELS NOT MEASURED IN RESIDENTIAL WELLS



 SCALE: 1" = 1,000'


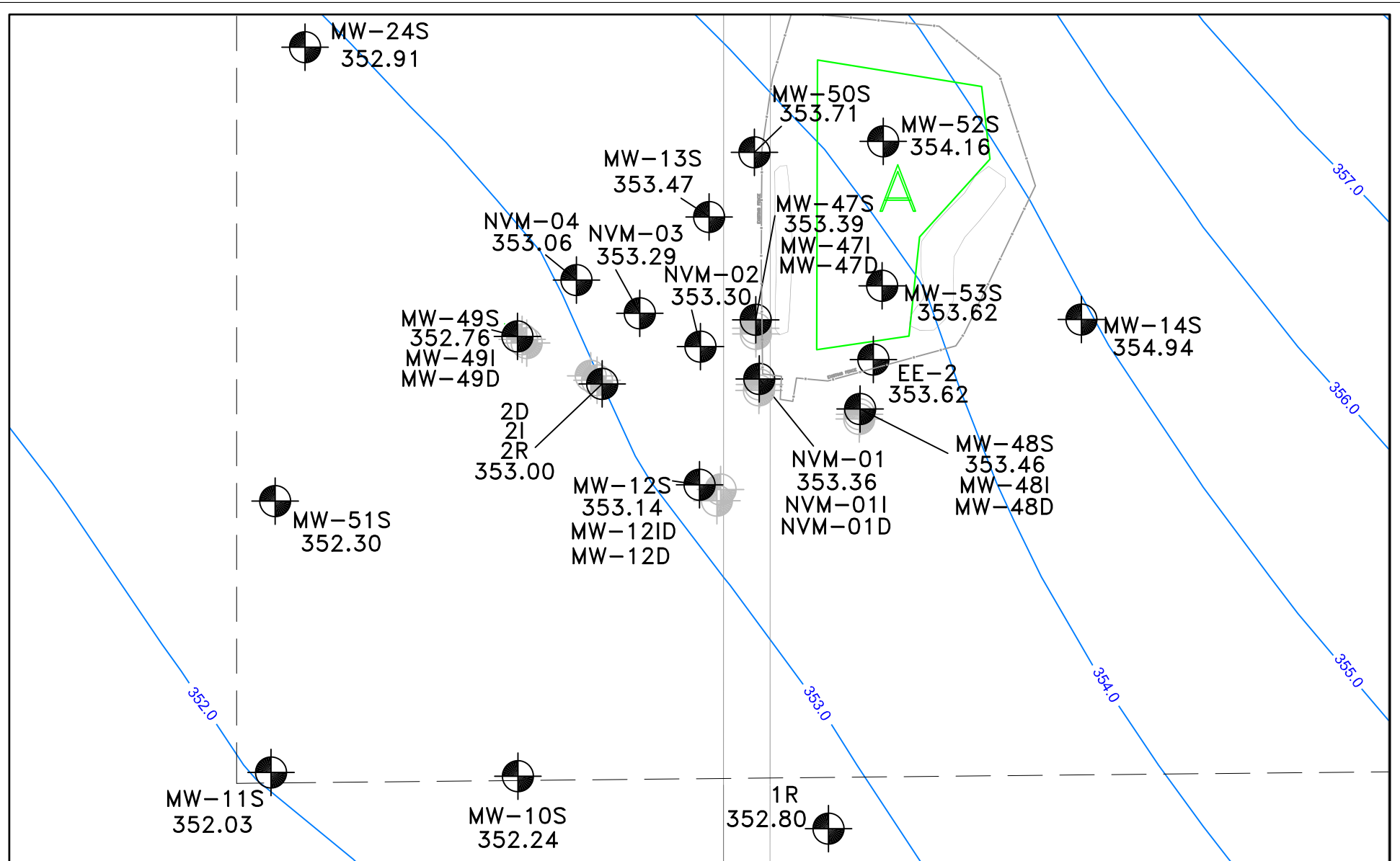
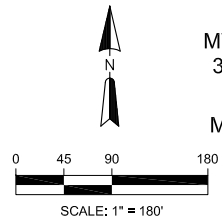

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FIGURE 7
GROUND WATER ELEVATIONS
 OCTOBER 20, 2011

PROJECT	03911.2		
PREPARED FOR	IWAG III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	MMM	TCM	01/14/12



KEY:



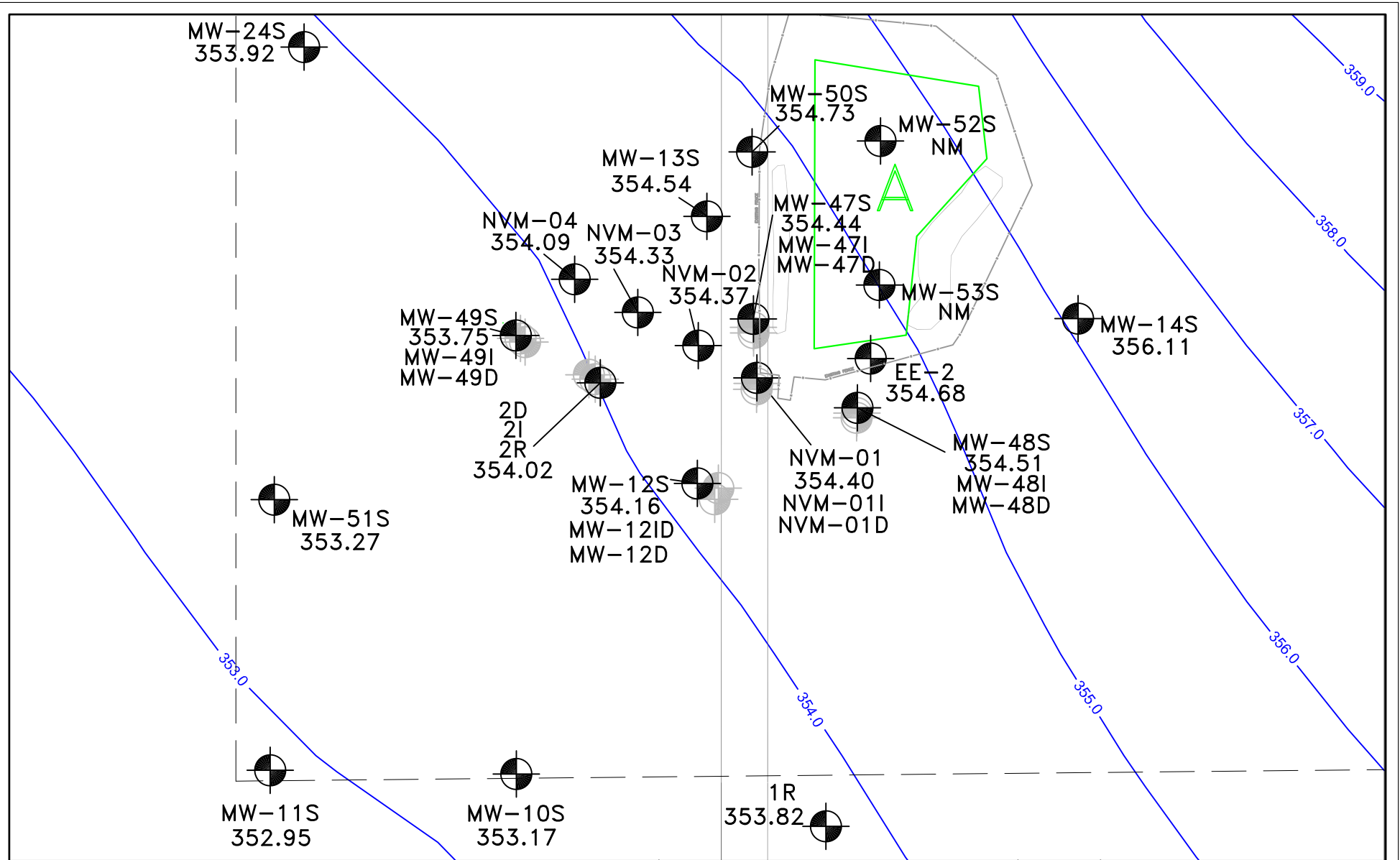
- MW-47S 353.39 SHALLOW AQUIFER MONITORING WELL WITH WATER LEVEL IN FEET, NAVD88
- MW-47D INTERMEDIATE AND DEEP MONITORING WELLS (INCLUDED FOR LOCATION REFERENCE)
- WATER ELEVATION CONTOUR CONTOUR INTERVAL = 1 FOOT

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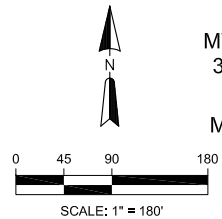
FIGURE 8

SHALLOW GROUND WATER ELEVATIONS
 JANUARY 10, 2011

PROJECT	03910.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	02/17/12



KEY:



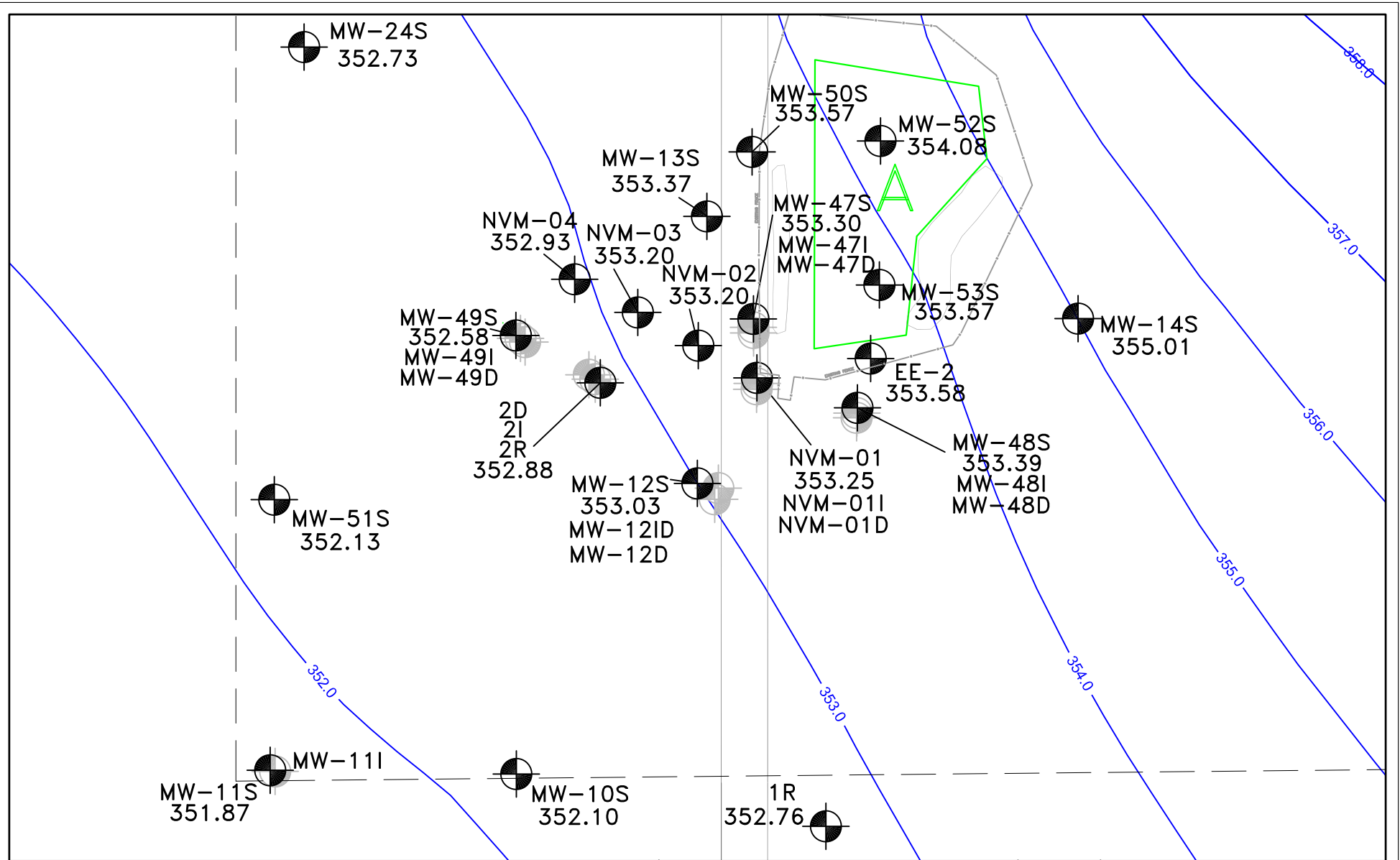
- MW-47S 354.44 SHALLOW AQUIFER MONITORING WELL WITH WATER LEVEL IN FEET, NAVD88
- MW-47D INTERMEDIATE AND DEEP MONITORING WELLS (INCLUDED FOR LOCATION REFERENCE)
- WATER ELEVATION CONTOUR CONTOUR INTERVAL = 1 FOOT

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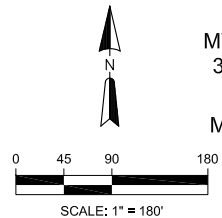
FIGURE 9

SHALLOW GROUND WATER ELEVATIONS
 APRIL 15, 2011

PROJECT	03910.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	02/17/12



KEY:



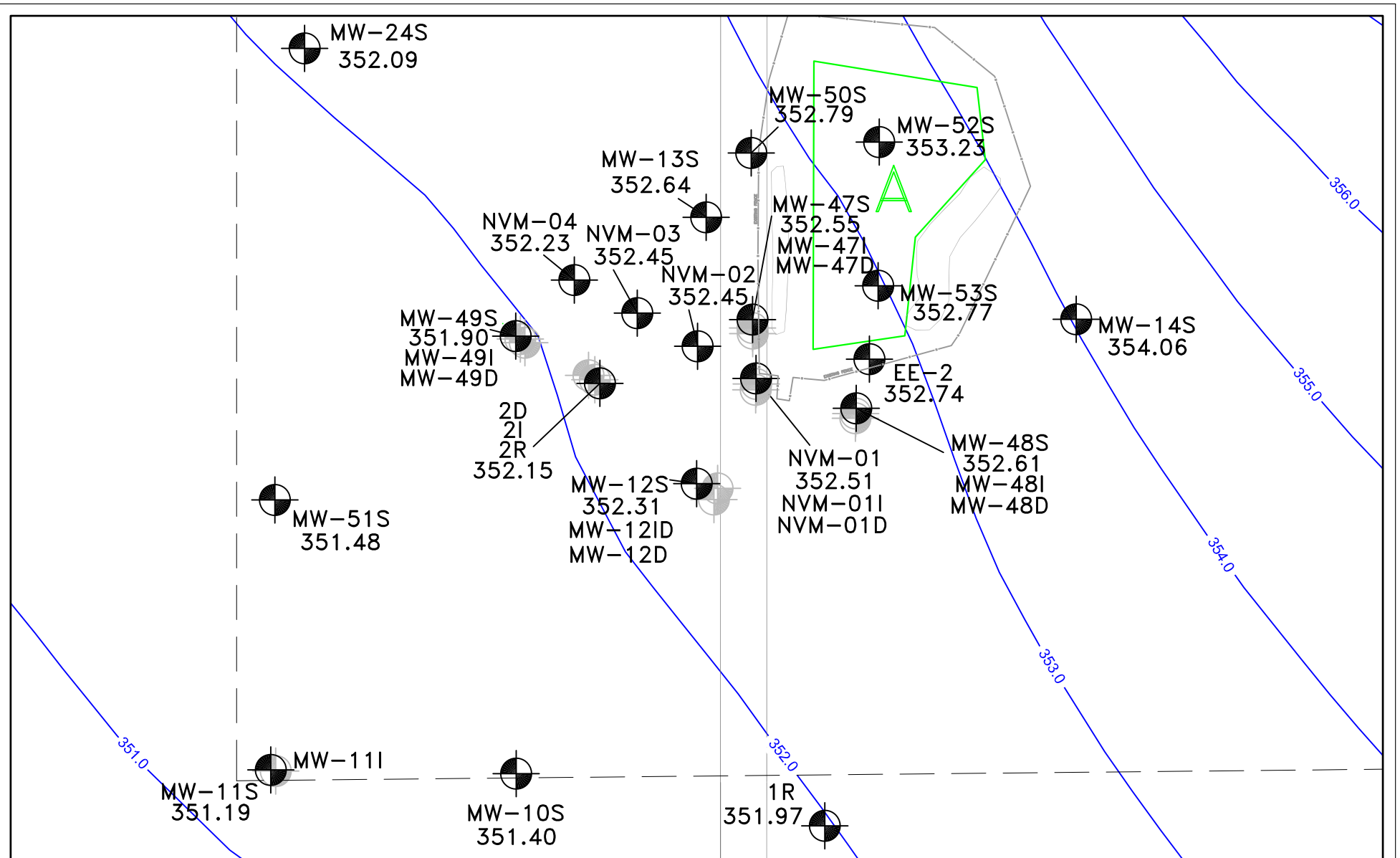
- MW-47S 354.44 SHALLOW AQUIFER MONITORING WELL WITH WATER LEVEL IN FEET, NAVD88
- MW-47D INTERMEDIATE AND DEEP MONITORING WELLS (INCLUDED FOR LOCATION REFERENCE)
- WATER ELEVATION CONTOUR CONTOUR INTERVAL = 1 FOOT

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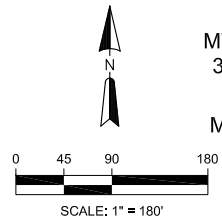
FIGURE 10




SHALLOW GROUND WATER ELEVATIONS
 JULY 22, 2011

PROJECT	03910.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	02/17/12



KEY:



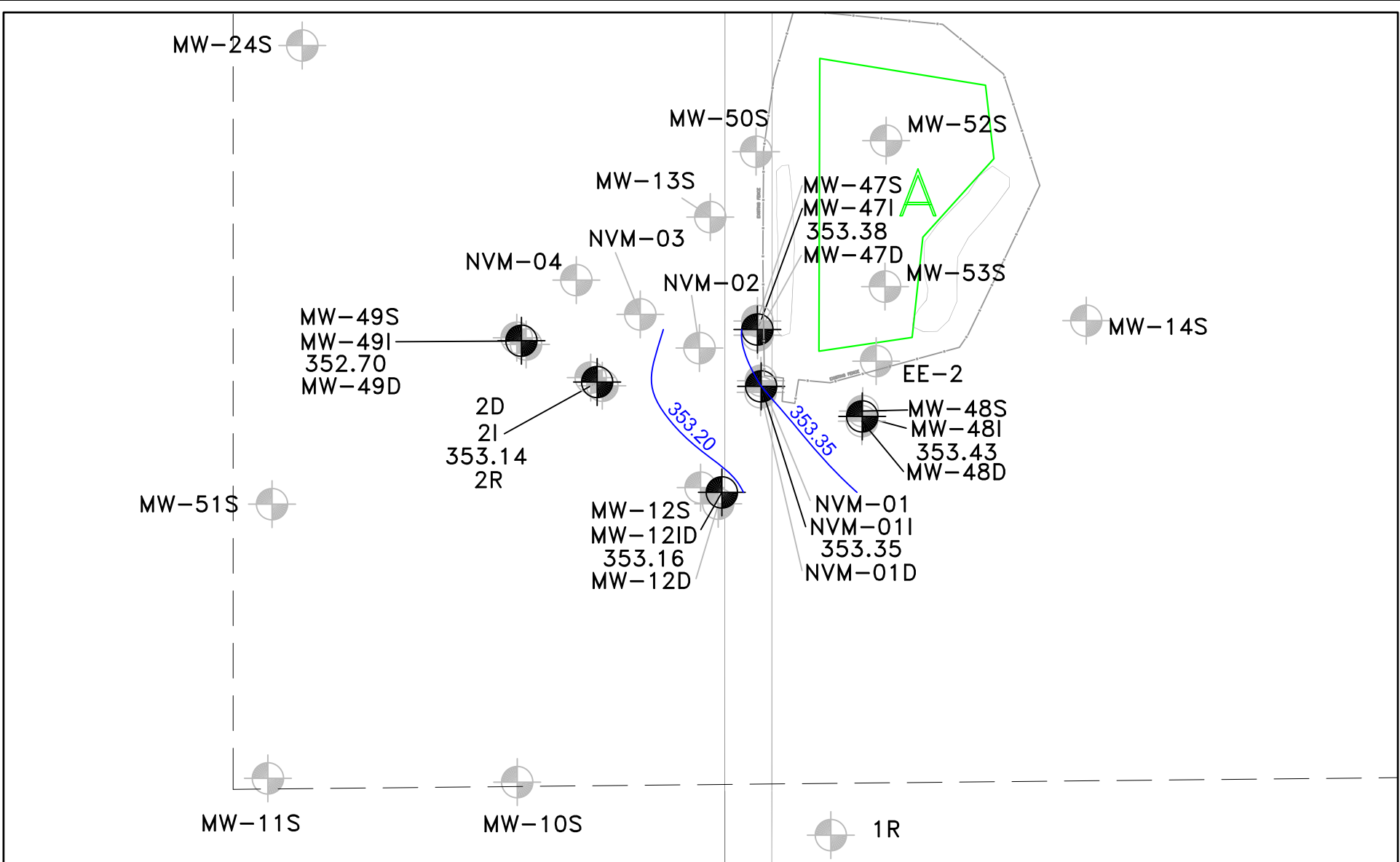
- MW-47S 352.55  SHALLOW AQUIFER MONITORING WELL WITH WATER LEVEL IN FEET, NAVD88
- MW-47D  INTERMEDIATE AND DEEP MONITORING WELLS (INCLUDED FOR LOCATION REFERENCE)
-  WATER ELEVATION CONTOUR CONTOUR INTERVAL = 1 FOOT

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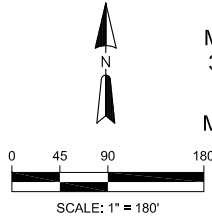
FIGURE 11




SHALLOW GROUND WATER ELEVATIONS
 OCTOBER 20, 2011

PROJECT	03910.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	02/17/12



KEY:

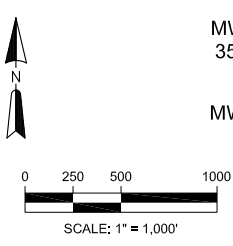
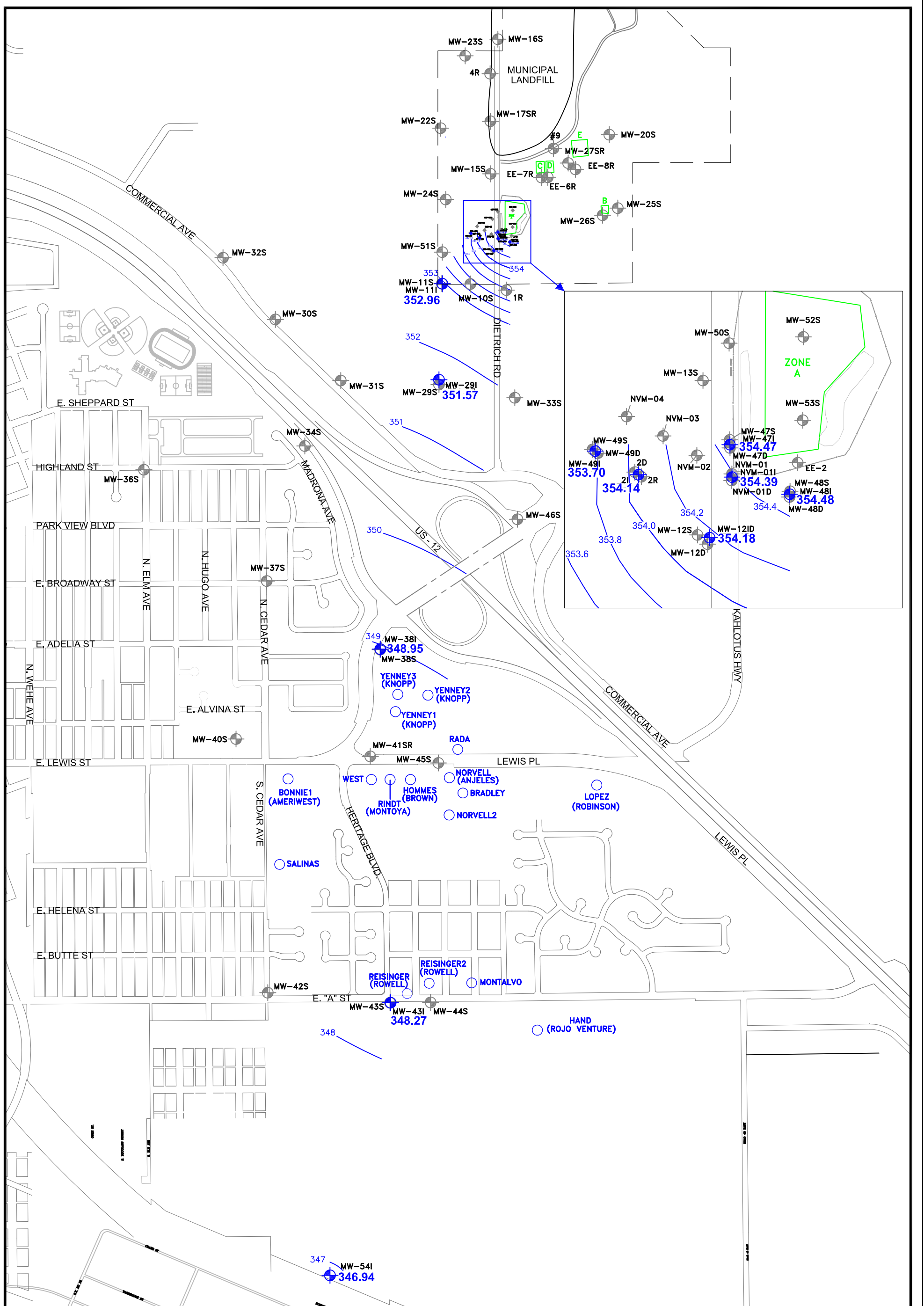


- MW-47I 353.38  INTERMEDIATE AQUIFER MONITORING WELL WITH WATER LEVEL IN FEET, NAVD88
- MW-47D  SHALLOW AND DEEP MONITORING WELLS (INCLUDED FOR LOCATION REFERENCE)
-  WATER ELEVATION CONTOUR

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FIGURE 12
 INTERMEDIATE GROUND WATER ELEVATIONS
 JANUARY 10, 2011

PROJECT	03910.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	02/17/12



MW-471
354.47

INTERMEDIATE AQUIFER MONITORING WELL WITH WATER LEVEL IN FEET, NAVD88

MW-47D

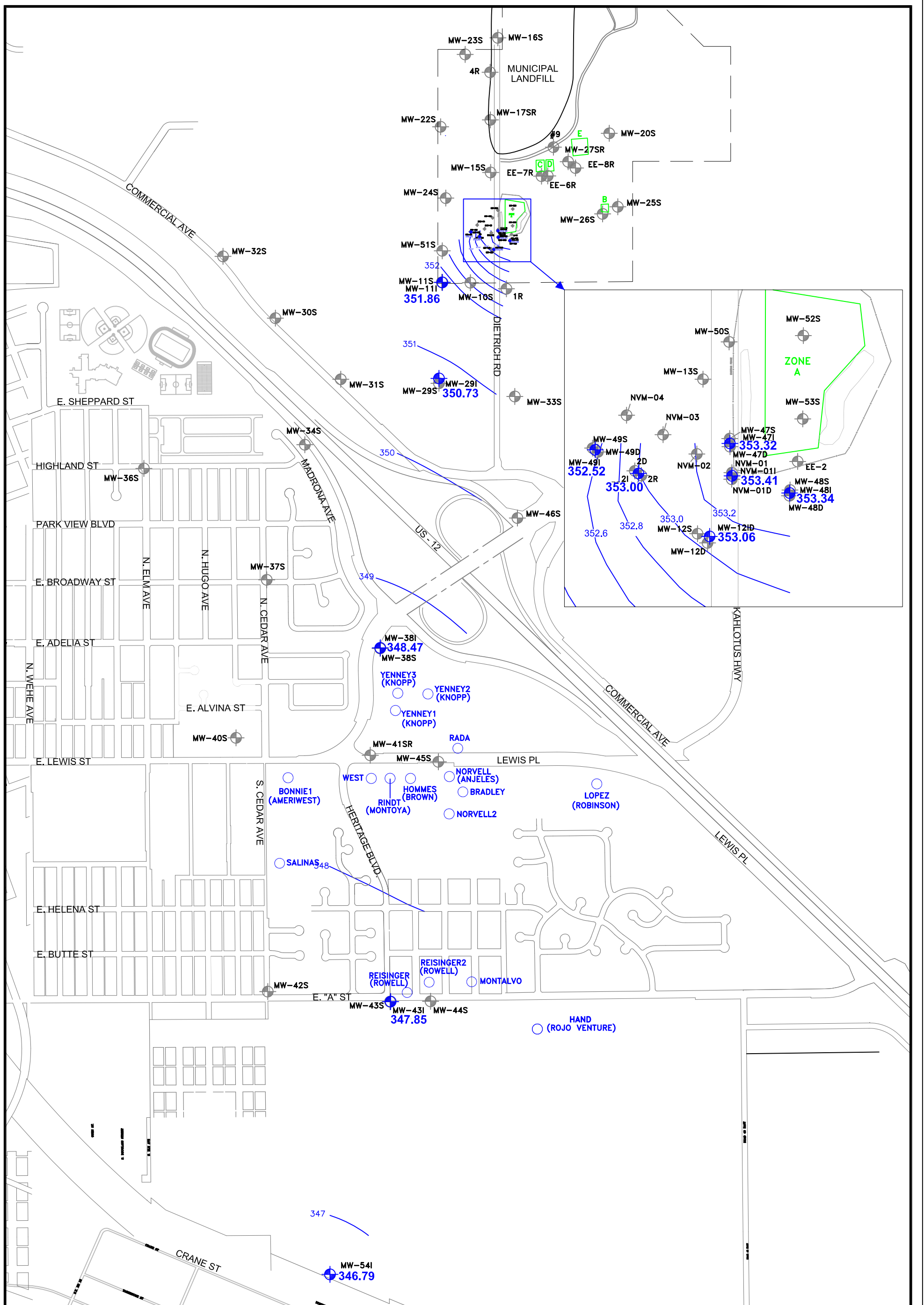
SHALLOW AND DEEP MONITORING WELLS (INCLUDED FOR LOCATION REFERENCE)

WATER ELEVATION CONTOUR (CONTOURS ARE DRAWN EVERY 0.2 FEET FROM MW-471 TO MW-111 AND EVERY FOOT FROM MW-111 TO MW-541.)

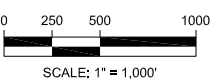
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FIGURE 13
INTERMEDIATE GROUND WATER ELEVATIONS
 APRIL 15, 2011

PROJECT	03910.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	03/15/12



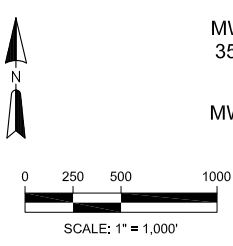
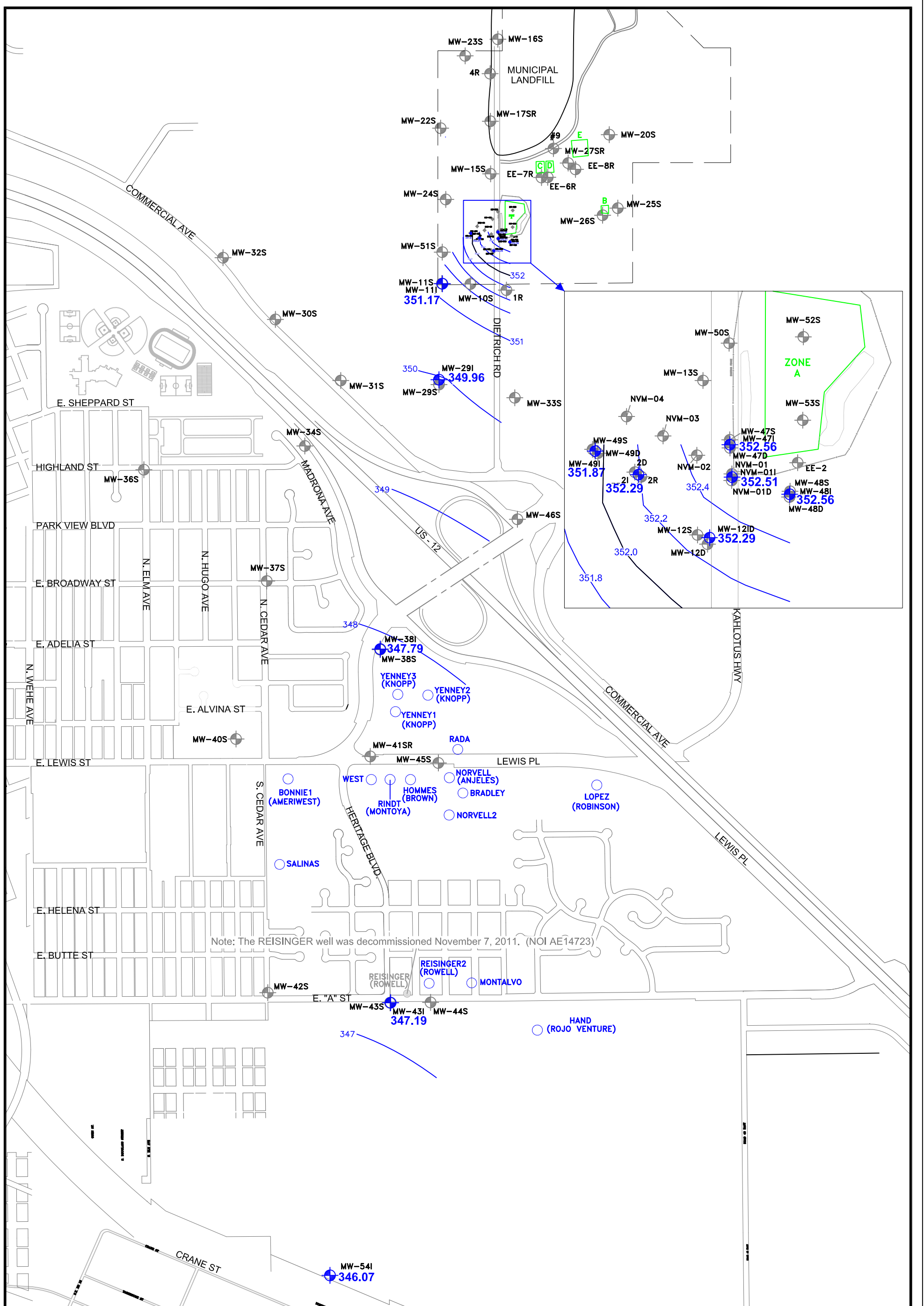
MW-47I 354.47 INTERMEDIATE AQUIFER MONITORING WELL WITH WATER LEVEL IN FEET, NAVD88
 MW-47D SHALLOW AND DEEP MONITORING WELLS (INCLUDED FOR LOCATION REFERENCE)
 WATER ELEVATION CONTOUR (CONTOURS ARE DRAWN EVERY 0.2 FEET FROM MW-47I TO MW-111 AND EVERY FOOT FROM MW-111 TO MW-54I.)





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FIGURE 14
INTERMEDIATE GROUND WATER ELEVATIONS
 JULY 22, 2011

PROJECT	03910.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	03/15/12



MW-47I 352.56  INTERMEDIATE AQUIFER MONITORING WELL WITH WATER LEVEL IN FEET, NAVD88

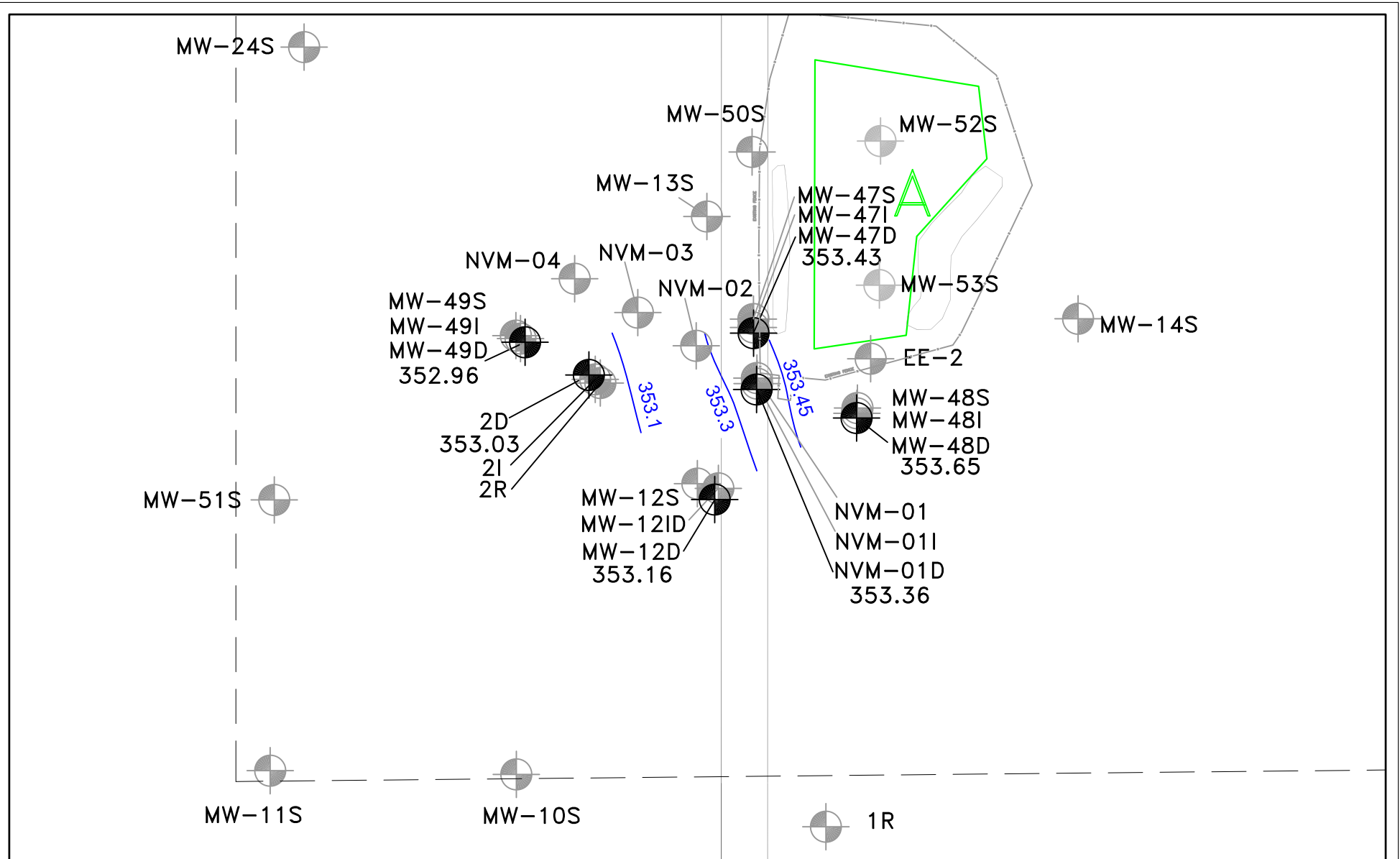
MW-47D  SHALLOW AND DEEP MONITORING WELLS (INCLUDED FOR LOCATION REFERENCE)

 WATER ELEVATION CONTOUR (CONTOURS ARE DRAWN EVERY 0.2 FEET FROM MW-47I TO MW-11I AND EVERY FOOT FROM MW-11I TO MW-54I.)

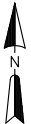


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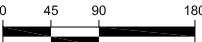
FIGURE 15
INTERMEDIATE GROUND WATER ELEVATIONS
 OCTOBER 20, 2011


PROJECT	03910.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	03/15/12



KEY:


 MW-47D 353.43  DEEP AQUIFER MONITORING WELL WITH WATER LEVEL IN FEET, NAVD88
 MW-47S  SHALLOW AND INTERMEDIATE MONITORING WELLS (INCLUDED FOR LOCATION REFERENCE)


 SCALE: 1" = 180'

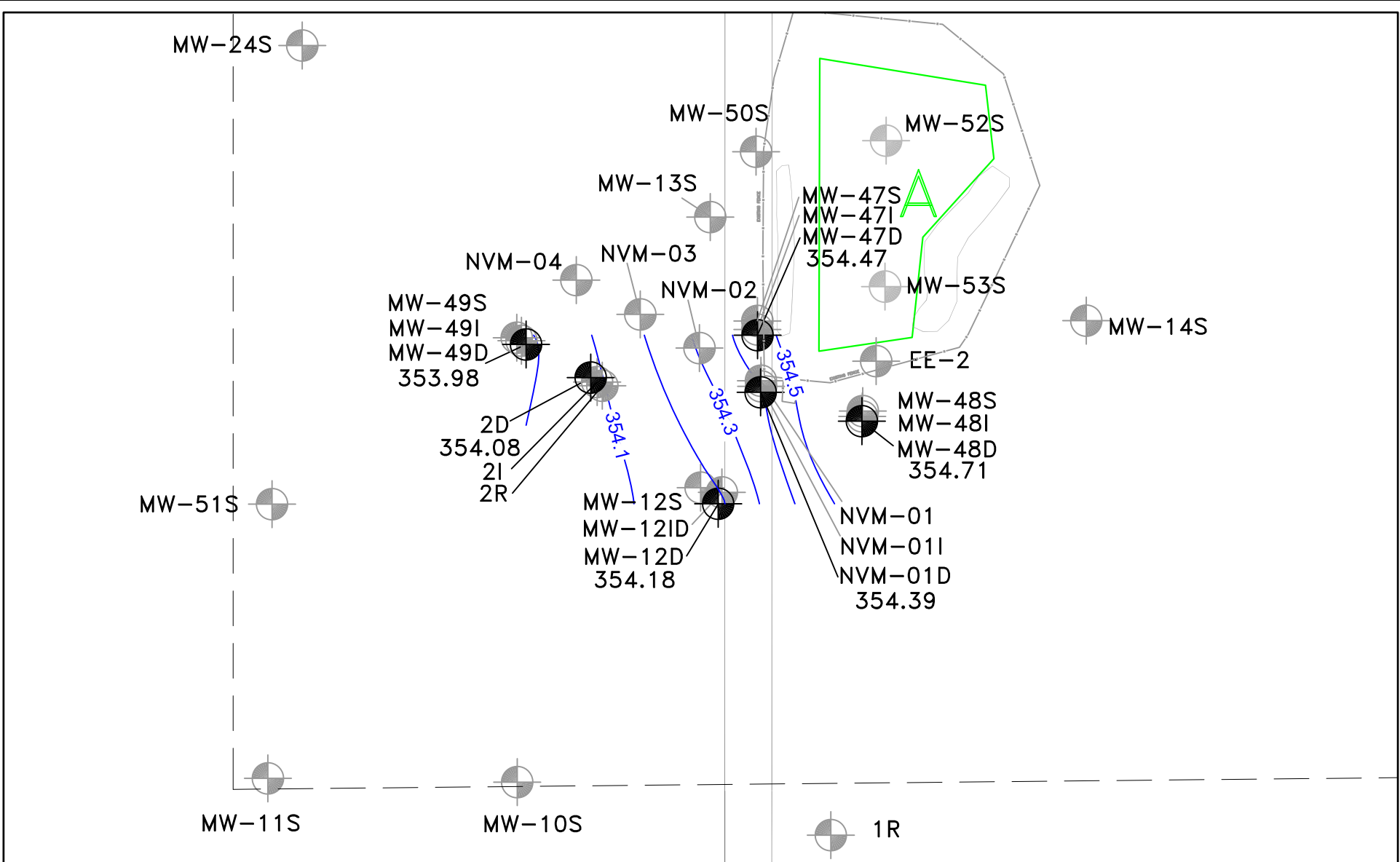
 WATER ELEVATION CONTOUR

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FIGURE 16

DEEP GROUND WATER ELEVATIONS
 JANUARY 10, 2011

PROJECT	03910.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	02/17/12



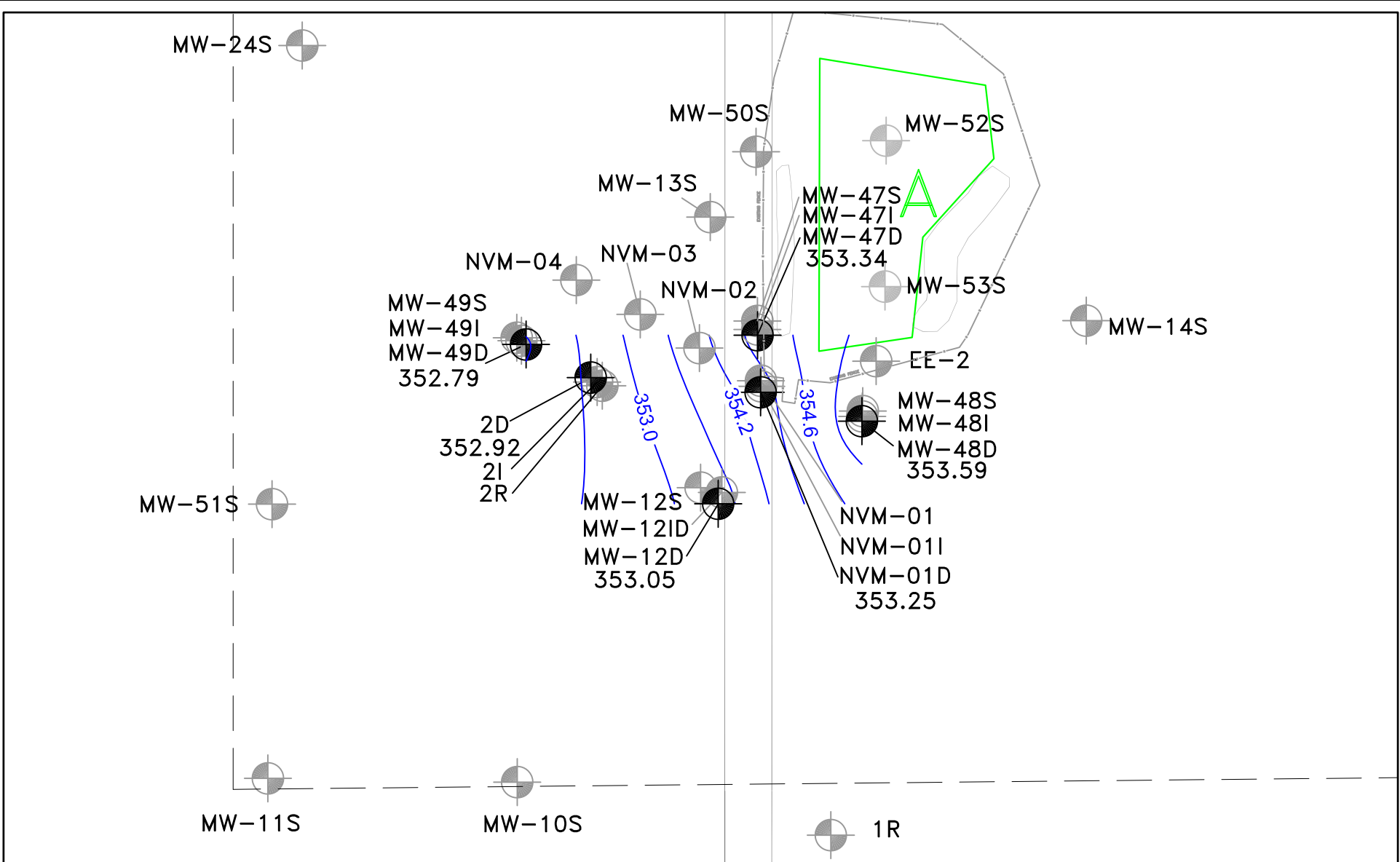
KEY:

MW-47D 354.47 DEEP AQUIFER MONITORING WELL WITH WATER LEVEL IN FEET, NAVD88
 MW-47S SHALLOW AND INTERMEDIATE MONITORING WELLS (INCLUDED FOR LOCATION REFERENCE)
 SCALE: 1" = 180'
 WATER ELEVATION CONTOUR


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FIGURE 17
 DEEP GROUND WATER ELEVATIONS
 APRIL 15, 2011

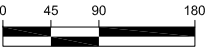
PROJECT	03910.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	02/17/12



KEY:



 MW-47D 354.47  DEEP AQUIFER MONITORING WELL WITH WATER LEVEL IN FEET, NAVD88
 MW-47S  SHALLOW AND INTERMEDIATE MONITORING WELLS (INCLUDED FOR LOCATION REFERENCE)
 WATER ELEVATION CONTOUR



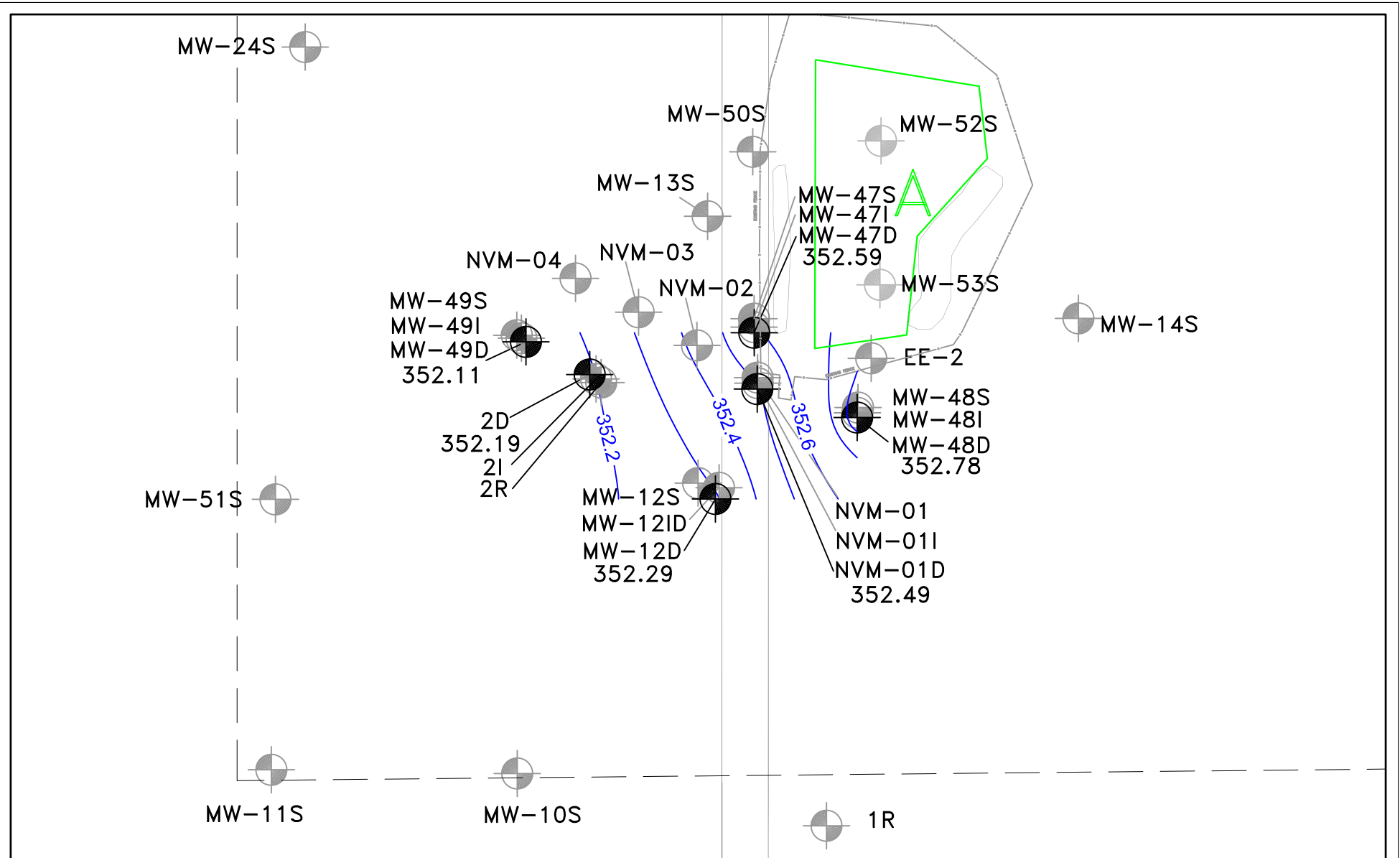
 SCALE: 1" = 180'


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FIGURE 18

DEEP GROUND WATER ELEVATIONS
JULY 22, 2011

PROJECT	03910.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	02/17/12



KEY:



MW-47D
352.59

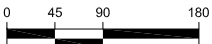


DEEP AQUIFER MONITORING WELL
WITH WATER LEVEL IN FEET, NAVD88

MW-47S



SHALLOW AND INTERMEDIATE MONITORING WELLS
(INCLUDED FOR LOCATION REFERENCE)



SCALE: 1" = 180'

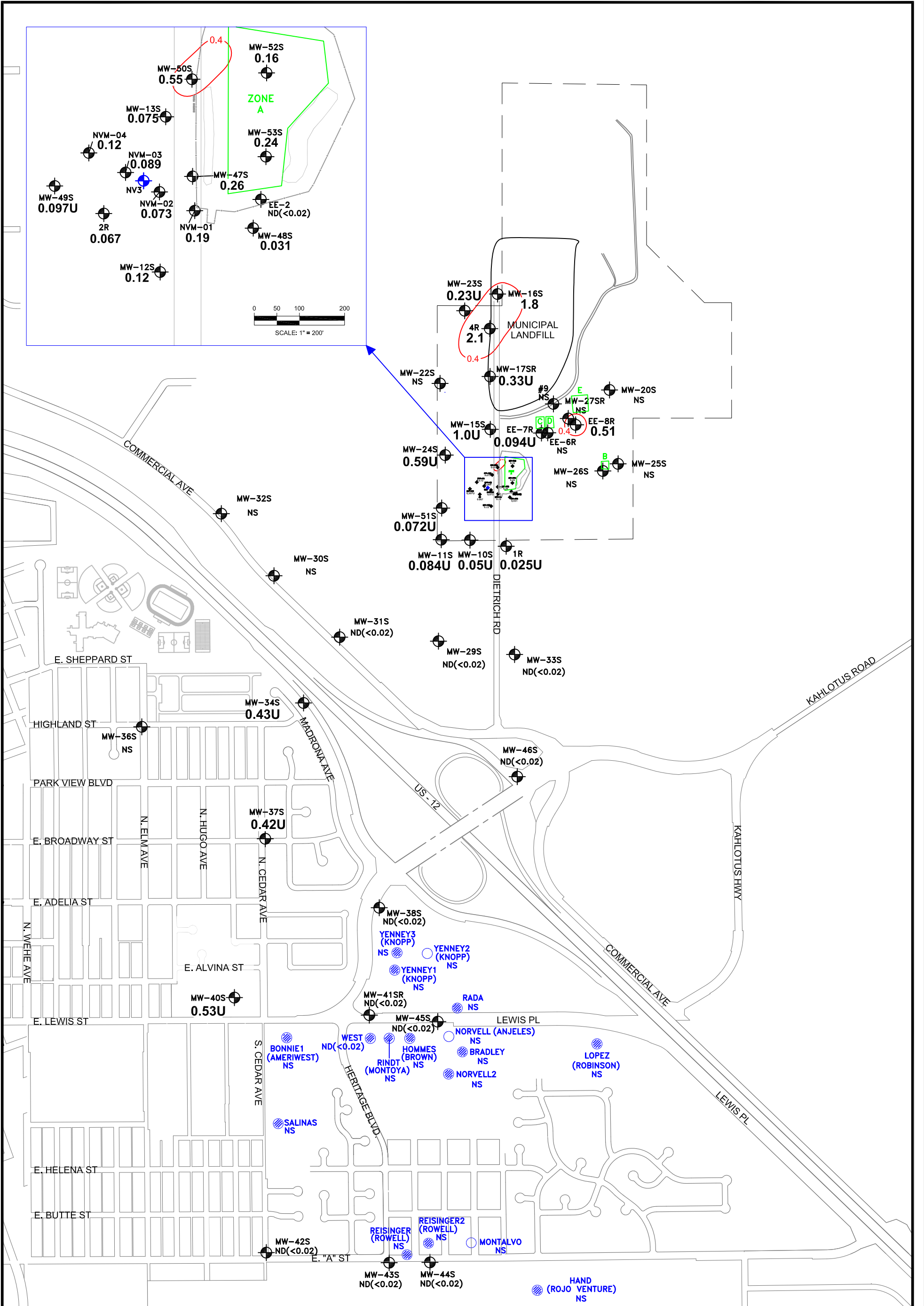
 WATER ELEVATION CONTOUR

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FIGURE 19

DEEP GROUND WATER ELEVATIONS
OCTOBER 20, 2011

PROJECT	03910.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET 1 of 1	DRAWN BY ARM	REVIEWED BY TCM	DATE 02/17/12



ND Not Detected
 NS Well Not Sampled
 NA Not Analyzed
 U Data Marked Non-Detect During Data Validation Process

MW-50S
 0.55

Monitoring Well
 Concentration in Ground Water (ug/L)

HAND Residential Well
 BONNIE1 Residential Well, Non-Potable Water Use (According to City of Pasco Survey)

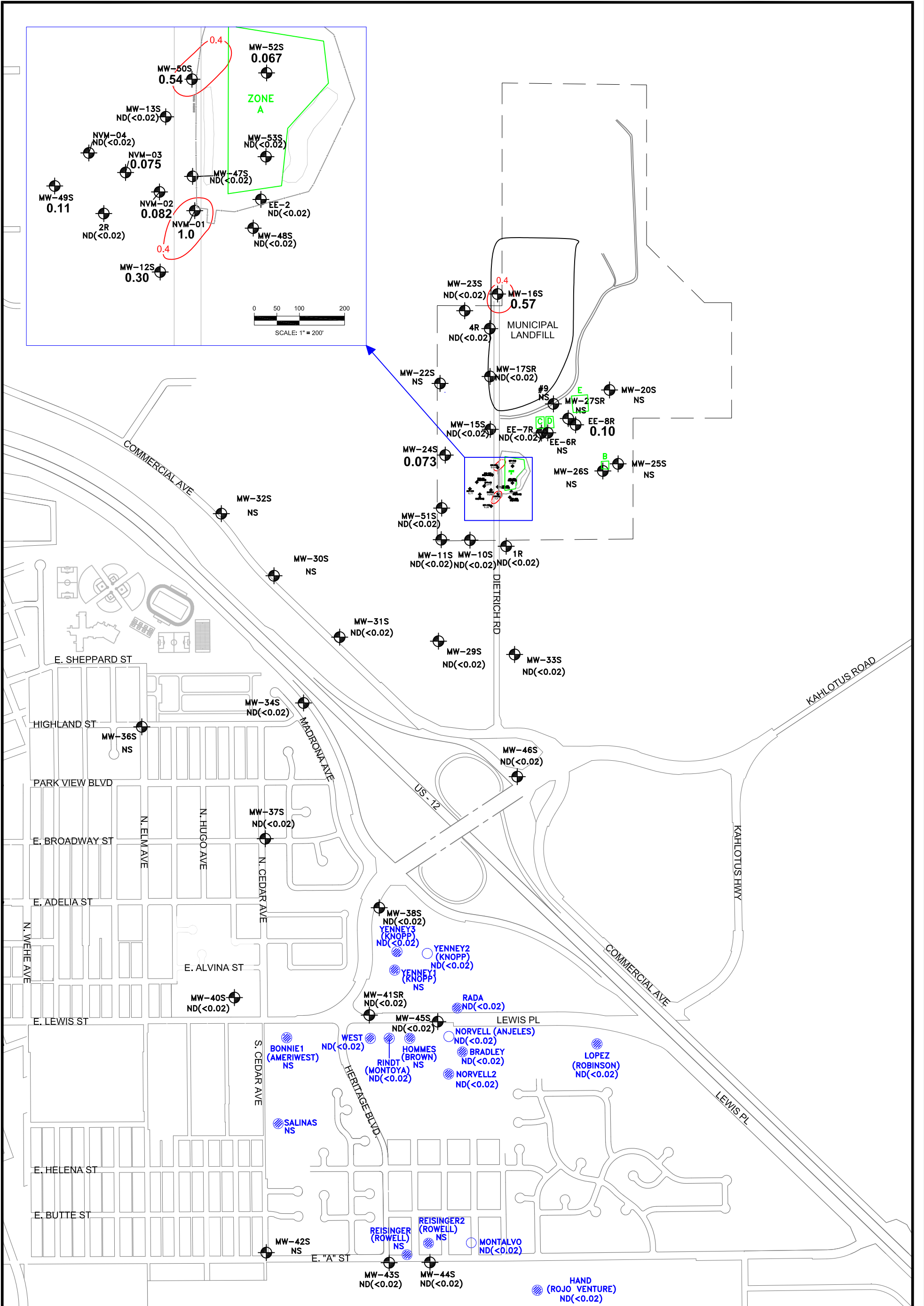
Tetrachloroethene Concentration Contour
 Dashed Where Inferred, Querried Where Uncertain
 Wells Colored Blue Not Used to Create Contours
 Tetrachloroethene Draft Cleanup Level = 0.4 ug/L

0 250 500 1000
 SCALE: 1" = 1,000'

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FIGURE 20
ISOCONCENTRATION MAP OF TETRACHLOROETHENE IN SHALLOW GROUND WATER
JANUARY 2011

PROJECT	03911.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	02/20/12



ND Not Detected
 NS Well Not Sampled
 NA Not Analyzed
 U Data Marked Non-Detect During Data Validation Process

MW-50S
 0.54

Monitoring Well
 Concentration in Ground Water (ug/L)

HAND Residential Well
BONNIE1 Residential Well, Non-Potable Water Use (According to City of Pasco Survey)

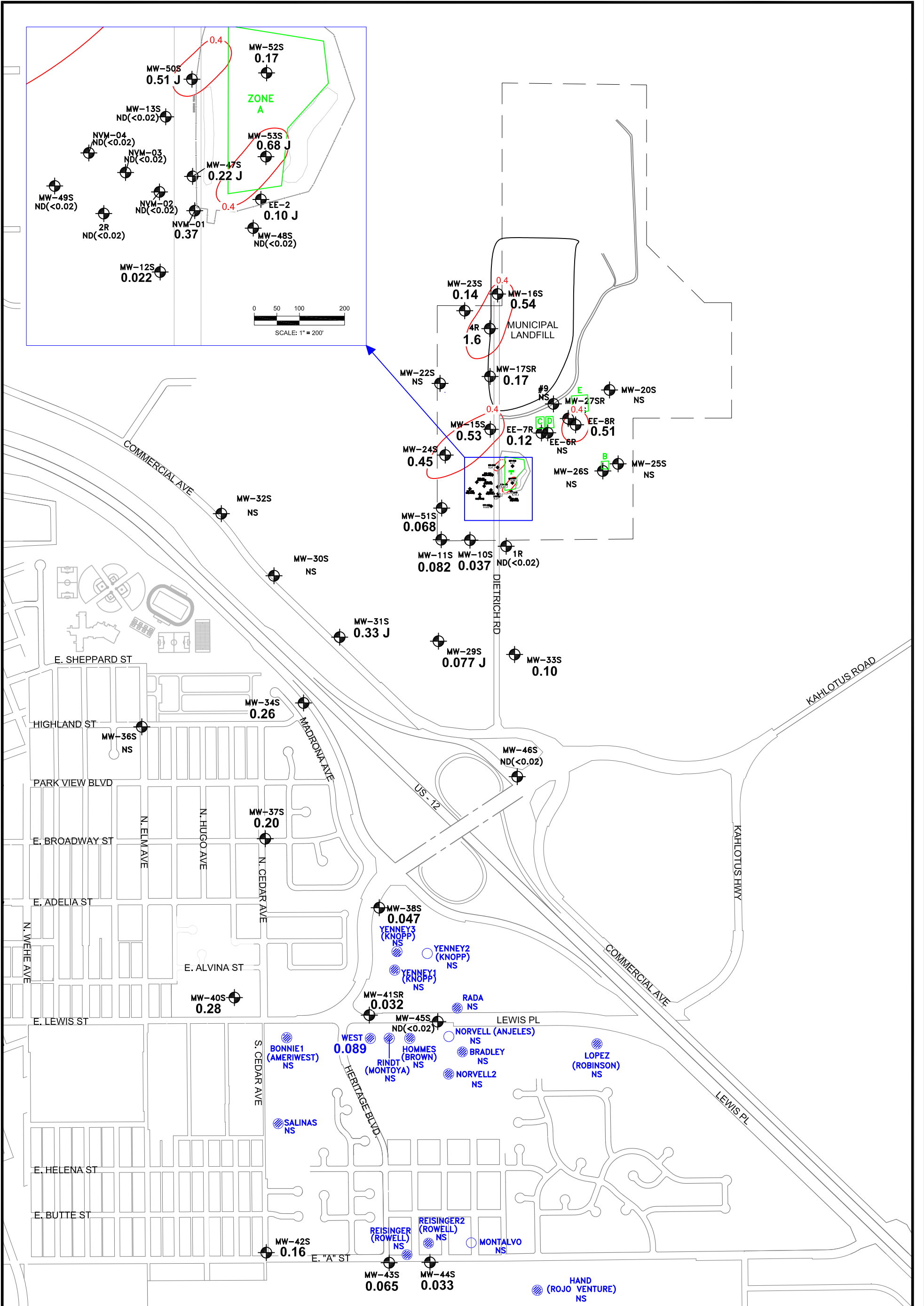
Tetrachloroethene Concentration Contour
 Dashed Where Inferred, Querried Where Uncertain
 Wells Colored Blue Not Used to Create Contours
 Tetrachloroethene Draft Cleanup Level = 0.4 ug/L

0 250 500 1000
 SCALE: 1" = 1,000'

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FIGURE 21
ISOCONCENTRATION MAP OF TETRACHLOROETHENE IN SHALLOW GROUND WATER
APRIL 2011

PROJECT	03911.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	02/20/12



ND Not Detected
 NS Well Not Sampled
 NA Not Analyzed
 U Data Marked Non-Detect During Data Validation Process

MW-50S 0.54
HAND Residential Well
BONNIE1 Residential Well, Non-Potable Water Use (According to City of Pasco Survey)

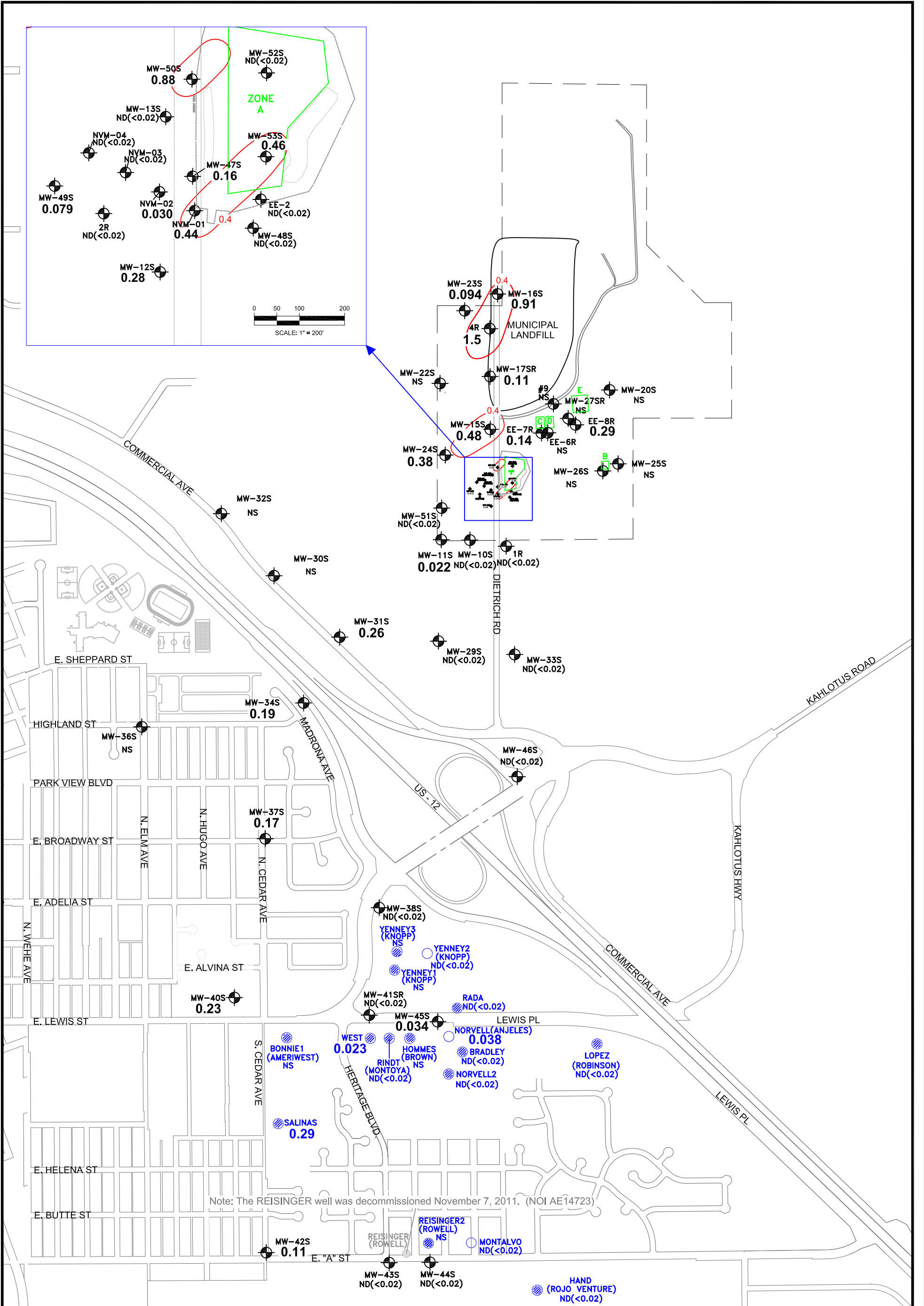
Tetrachloroethene Concentration Contour
 Dashed Where Inferred, Querried Where Uncertain
 Wells Colored Blue Not Used to Create Contours
 Tetrachloroethene Draft Cleanup Level = 0.4 ug/L

0 250 500 1000
 SCALE: 1" = 1,000'

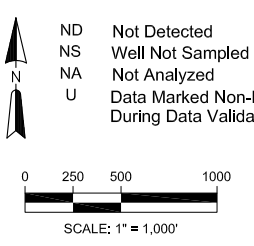
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FIGURE 22
ISOCONCENTRATION MAP OF TETRACHLOROETHENE IN SHALLOW GROUND WATER
JULY 2011

PROJECT	03911.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	02/20/12



Note: The REISINGER well was decommissioned November 7, 2011. (NOI AE14723)

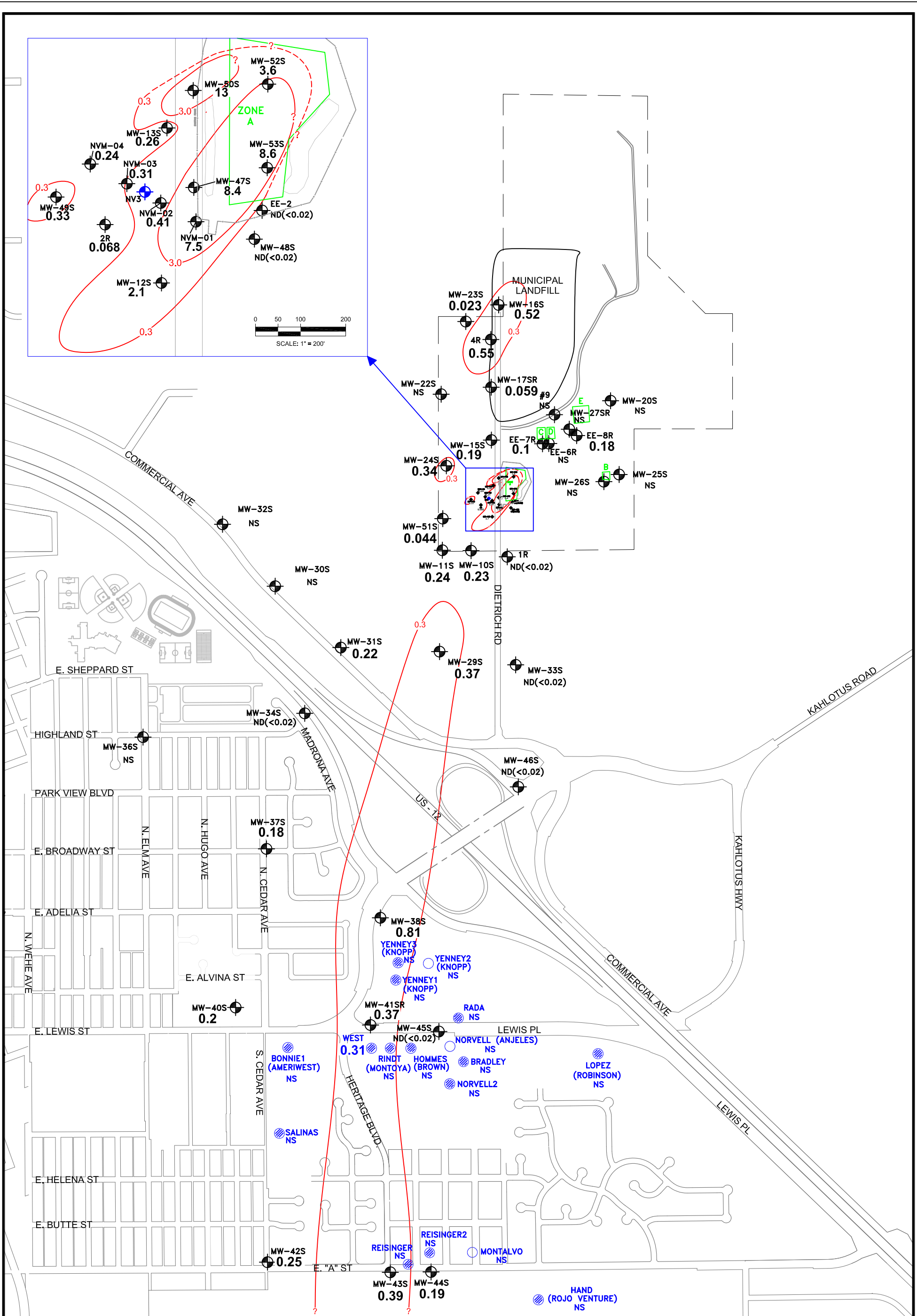


MW-50S 0.88
HAND (ROJO VENTURE)
BONNIE1 (AMERIWEST)
 Tetrachloroethene Concentration Contour
 Dashed Where Inferred, Querried Where Uncertain
 Wells Colored Blue Not Used to Create Contours
 Tetrachloroethene Draft Cleanup Level = 0.4 ug/L

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FIGURE 23
ISOCONCENTRATION MAP OF
TETRACHLOROETHENE IN
SHALLOW GROUND WATER
OCTOBER 2011

PROJECT	03911.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	02/20/12



ND Not Detected
 NS Well Not Sampled
 NA Not Analyzed
 DV Refused Data Refused During Data Validation Process

MW-42S 0.25 Monitoring Well Concentration in Ground Water (ug/L)
 HAND Residential Well
 BONNIE1 Residential Well, Non-Potable Water Use (According to City of Pasco Survey)

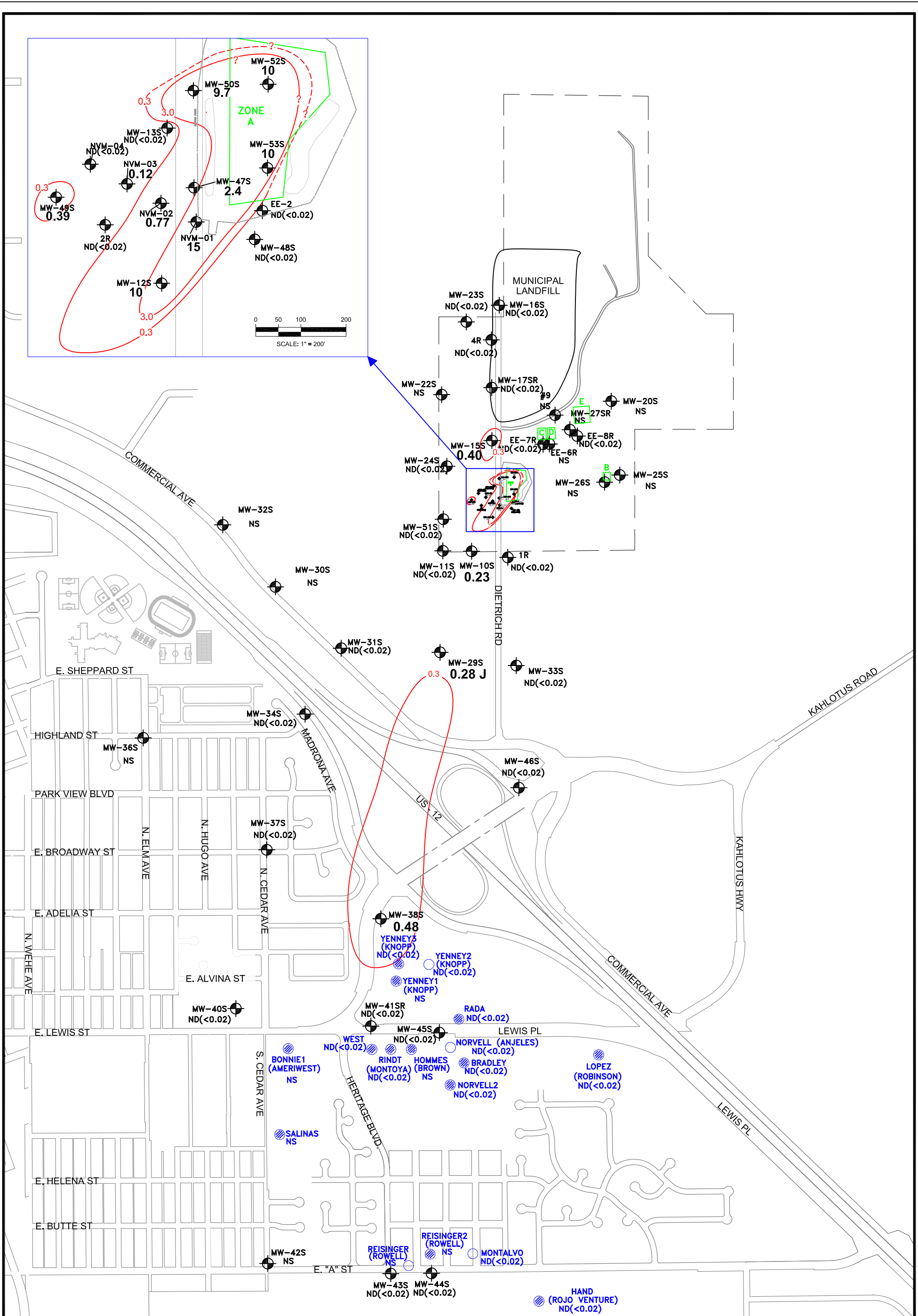
Trichloroethene Concentration Contour
 Dashed Where Inferred, Querried Where Uncertain
 Wells Colored Blue Not Used to Create Contours
 Trichloroethene Draft Cleanup Level = 0.3 ug/L

0 250 500 1000
 SCALE: 1" = 1,000'

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FIGURE 24
 ISOCONCENTRATION MAP OF
 TRICHLOROETHENE IN
 SHALLOW GROUND WATER
 JANUARY 2011

PROJECT	03911.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	02/20/12

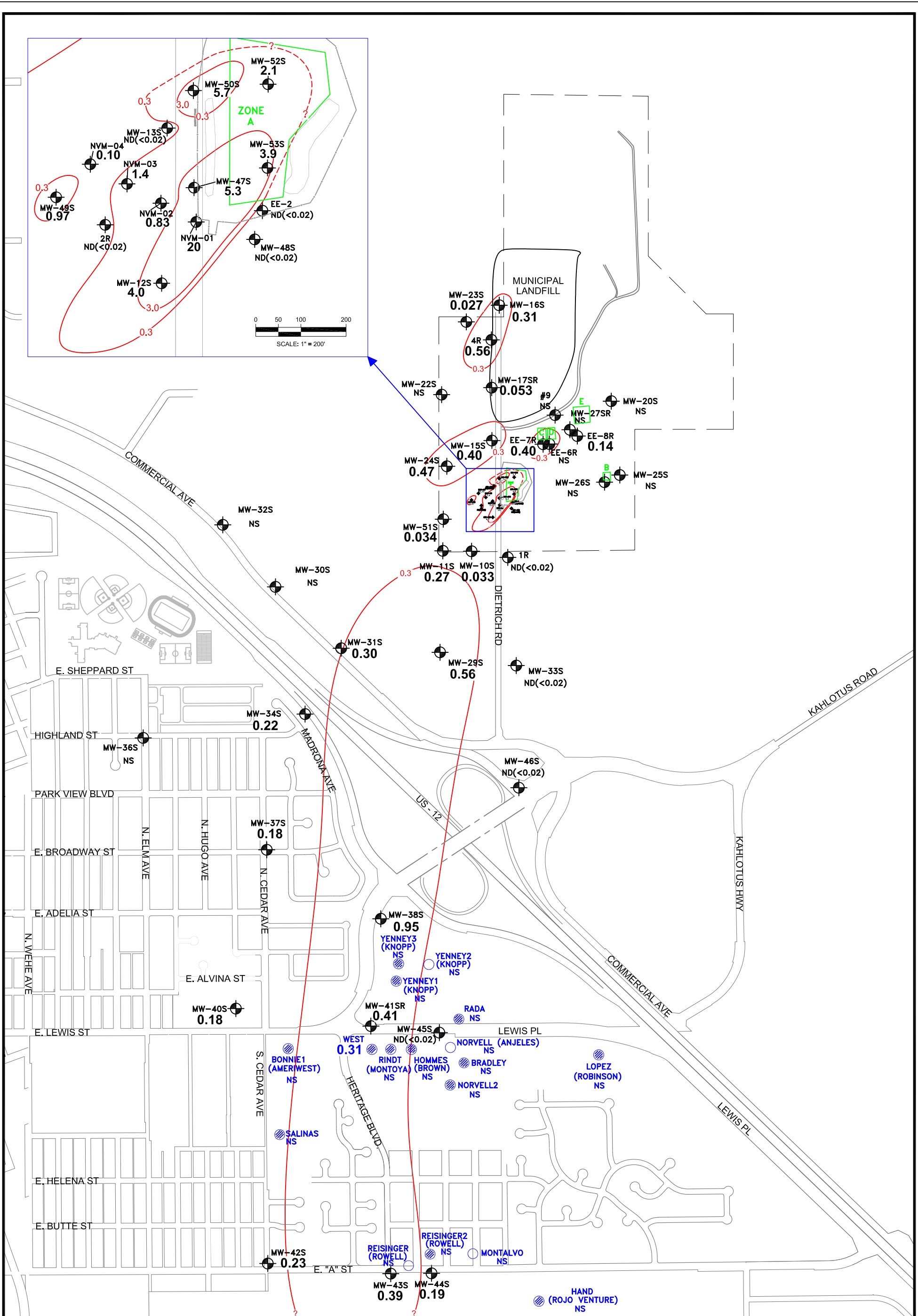


ND	Not Detected	MW-38S	Monitoring Well
NS	Well Not Sampled	0.48	Concentration in Ground Water (ug/L)
NA	Not Analyzed	HAND	Residential Well
DV	Refused Data Refused During Data Validation Process	BONNIE1	Residential Well, Non-Potable Water Use (According to City of Pasco Survey)
		0.3	Trichloroethene Concentration Contour
		- - -	Dashed Where Inferred, Querried Where Uncertain
		●	Wells Colored Blue Not Used to Create Contours
			Trichloroethene Draft Cleanup Level = 0.3 ug/L

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FIGURE 25
ISOCONCENTRATION MAP OF
TRICHLOROETHENE IN
SHALLOW GROUND WATER
APRIL 2011

PROJECT	03911.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	02/20/12



ND Not Detected
 NS Well Not Sampled
 NA Not Analyzed
 DV Refused Data Refused During Data Validation Process

MW-38S 0.48 Monitoring Well
 Concentration in Ground Water (ug/L)
 HAND Residential Well
 BONNIE1 Residential Well, Non-Potable Water Use (According to City of Pasco Survey)

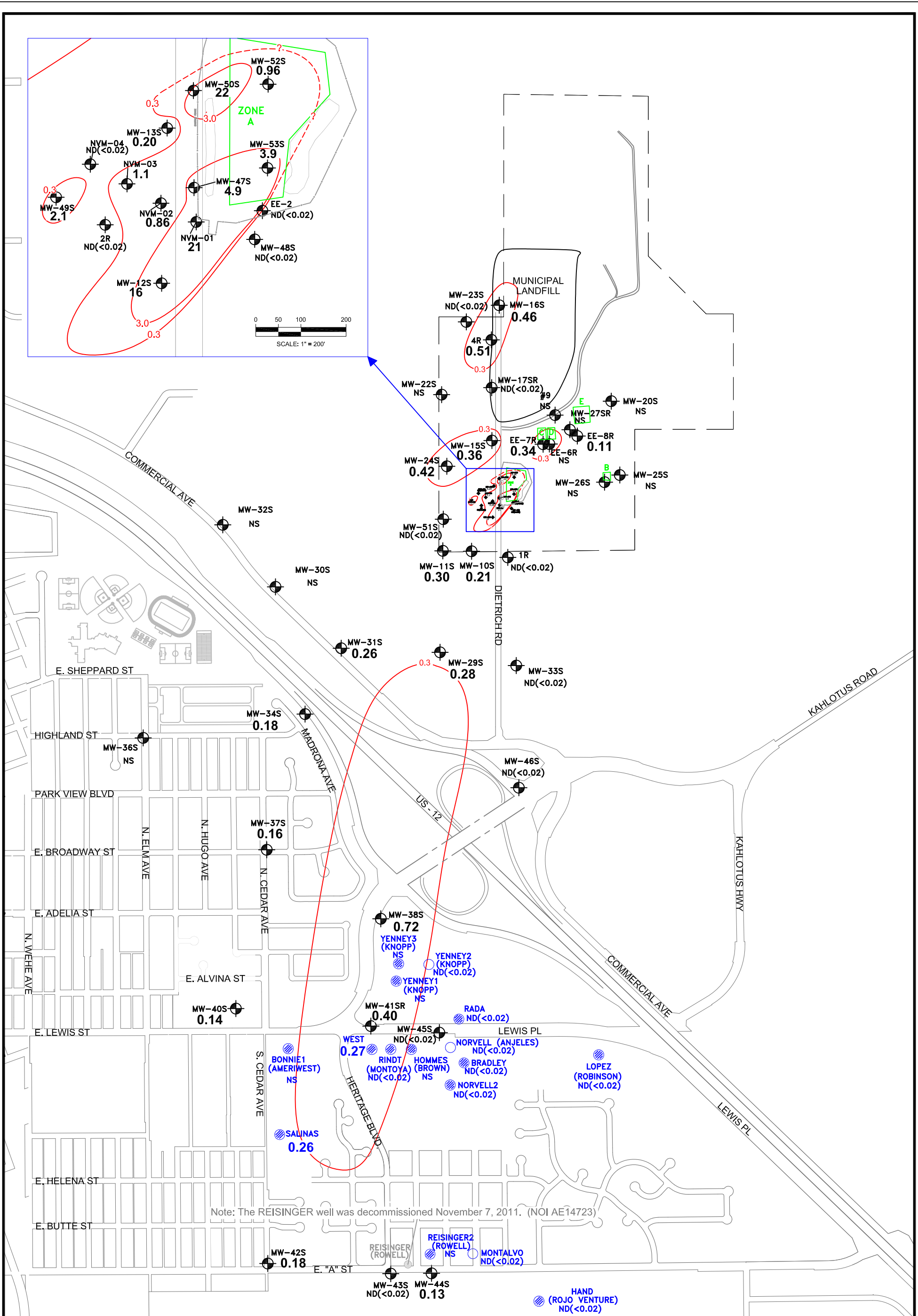
Trichloroethene Concentration Contour
 Dashed Where Inferred, Querried Where Uncertain
 Wells Colored Blue Not Used to Create Contours
 Trichloroethene Draft Cleanup Level = 0.3 ug/L

0 250 500 1000
 SCALE: 1" = 1,000'

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FIGURE 26
ISOCONCENTRATION MAP OF
TRICHLOROETHENE IN
SHALLOW GROUND WATER
JULY 2011

PROJECT	03911.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	02/20/12



Note: The REISINGER well was decommissioned November 7, 2011. (NOI AE14723)

Legend:

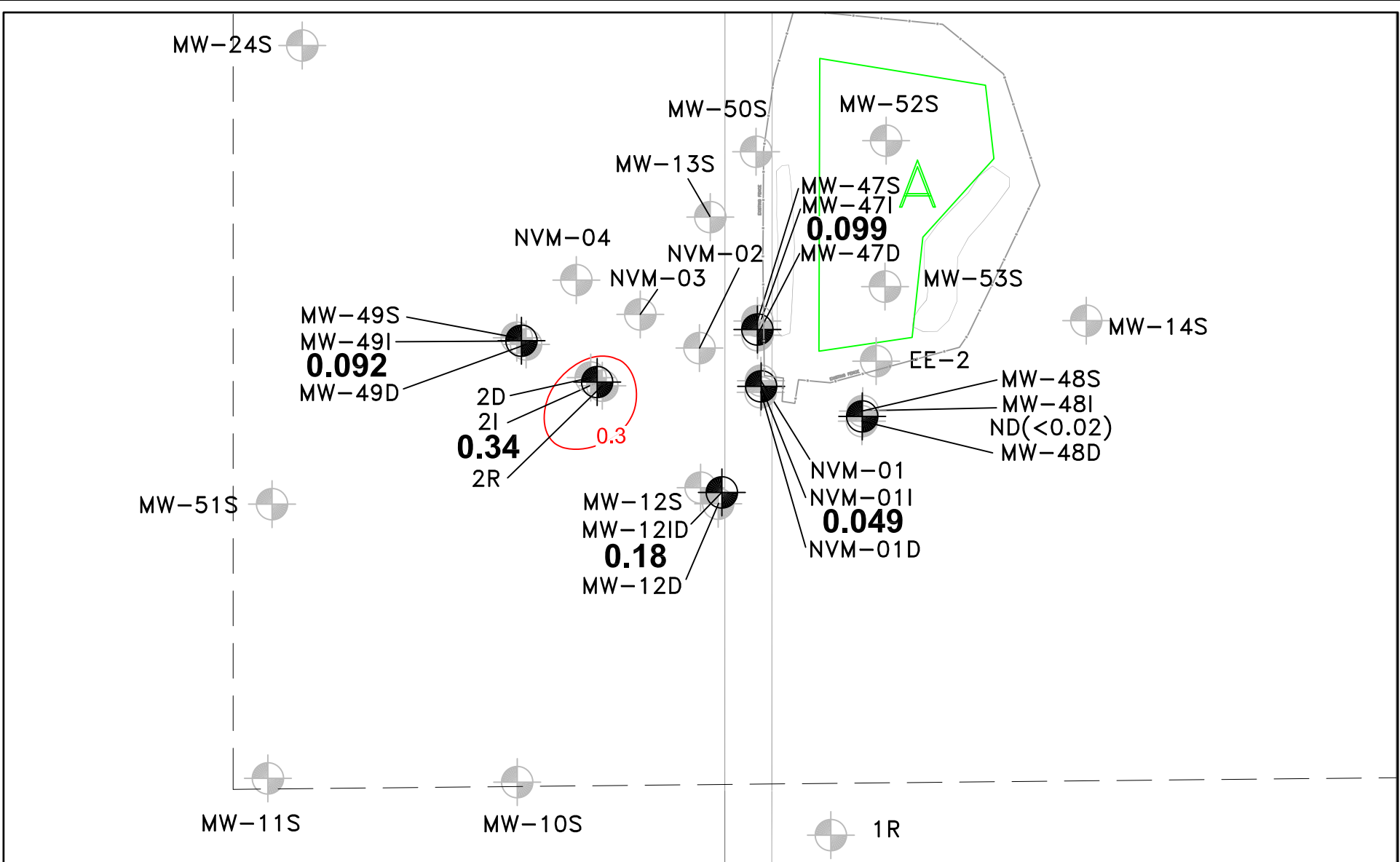
- ND Not Detected
- NS Well Not Sampled
- NA Not Analyzed
- DV Refused Data Refused During Data Validation Process
- MW-38S 0.48 Monitoring Well Concentration in Ground Water (ug/L)
- HAND Residential Well
- BONNIE1 Residential Well, Non-Potable Water Use (According to City of Pasco Survey)
- Trichloroethene Concentration Contour Dashed Where Inferred, Querried Where Uncertain Wells Colored Blue Not Used to Create Contours
- Trichloroethene Draft Cleanup Level = 0.3 ug/L

Scale: 1" = 1,000'

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FIGURE 27
 ISOCONCENTRATION MAP OF TRICHLOROETHENE IN SHALLOW GROUND WATER
 OCTOBER 2011

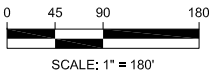
PROJECT	03911.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	02/20/12




KEY:



- MW-48I  INTERMEDIATE AQUIFER MONITORING WELL
ND(<0.02) CONCENTRATION IN GROUND WATER (ug/L)
- MW-48D  SHALLOW AND DEEP MONITORING WELLS
(INCLUDED FOR LOCATION REFERENCE)

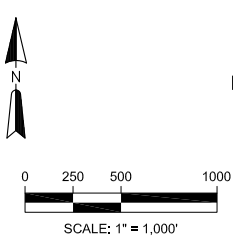
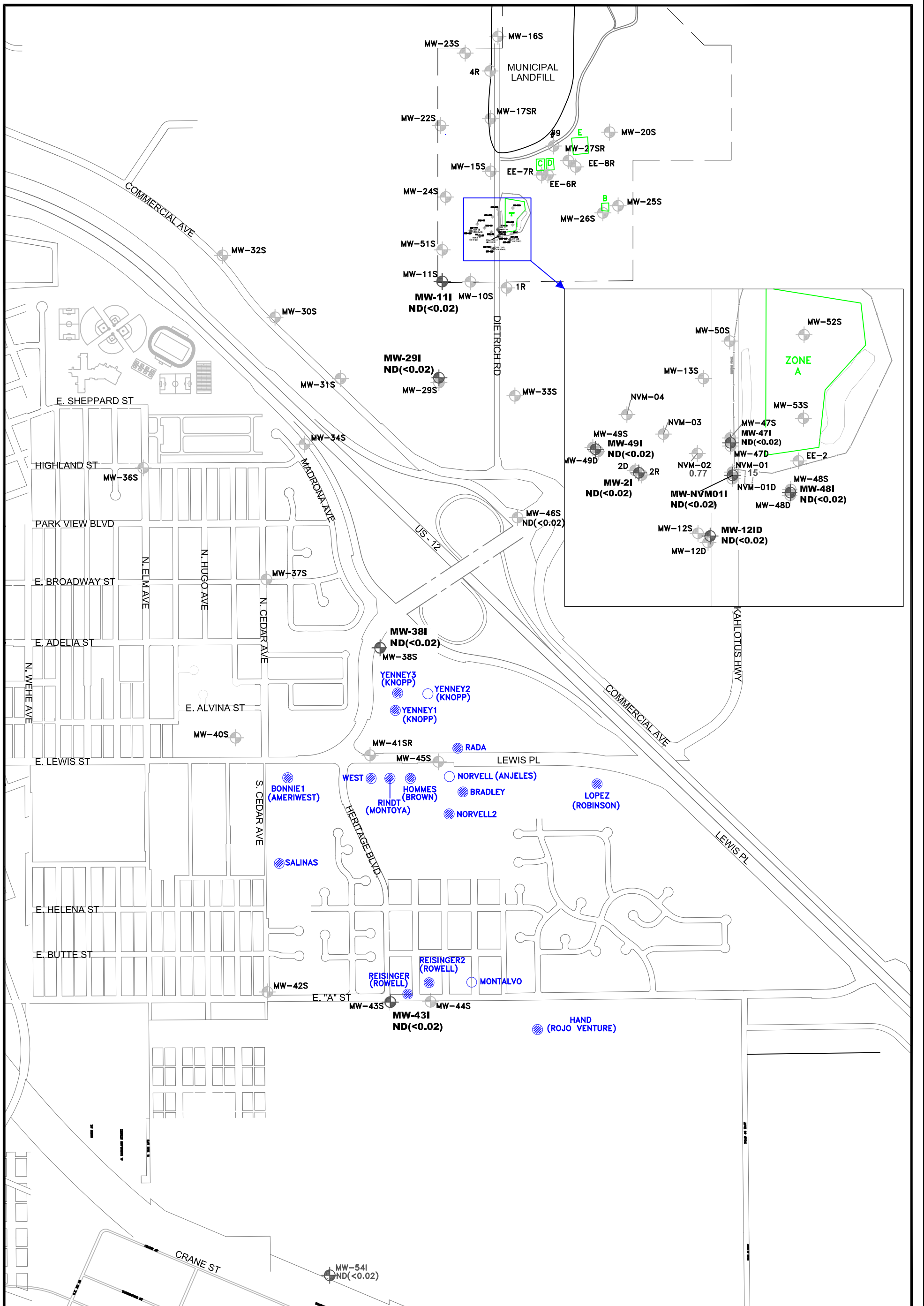


 0.3
TRICHLOROETHENE CONCENTRATION CONTOUR
TRICHLOROETHENE DRAFT CLEANUP LEVEL = 0.3 ug/L

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FIGURE 28
ISOCONCENTRATION MAP OF
TRICHLOROETHENE IN
INTERMEDIATE GROUND WATER
JANUARY 2011

PROJECT	03911.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	02/20/12



MW-471
0.08

MW-47D

Intermediate Monitoring Well
Concentration in Ground Water (ug/L)

Shallow and Deep Monitoring Wells (Included for Location Reference)

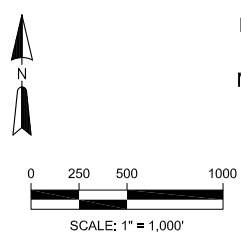
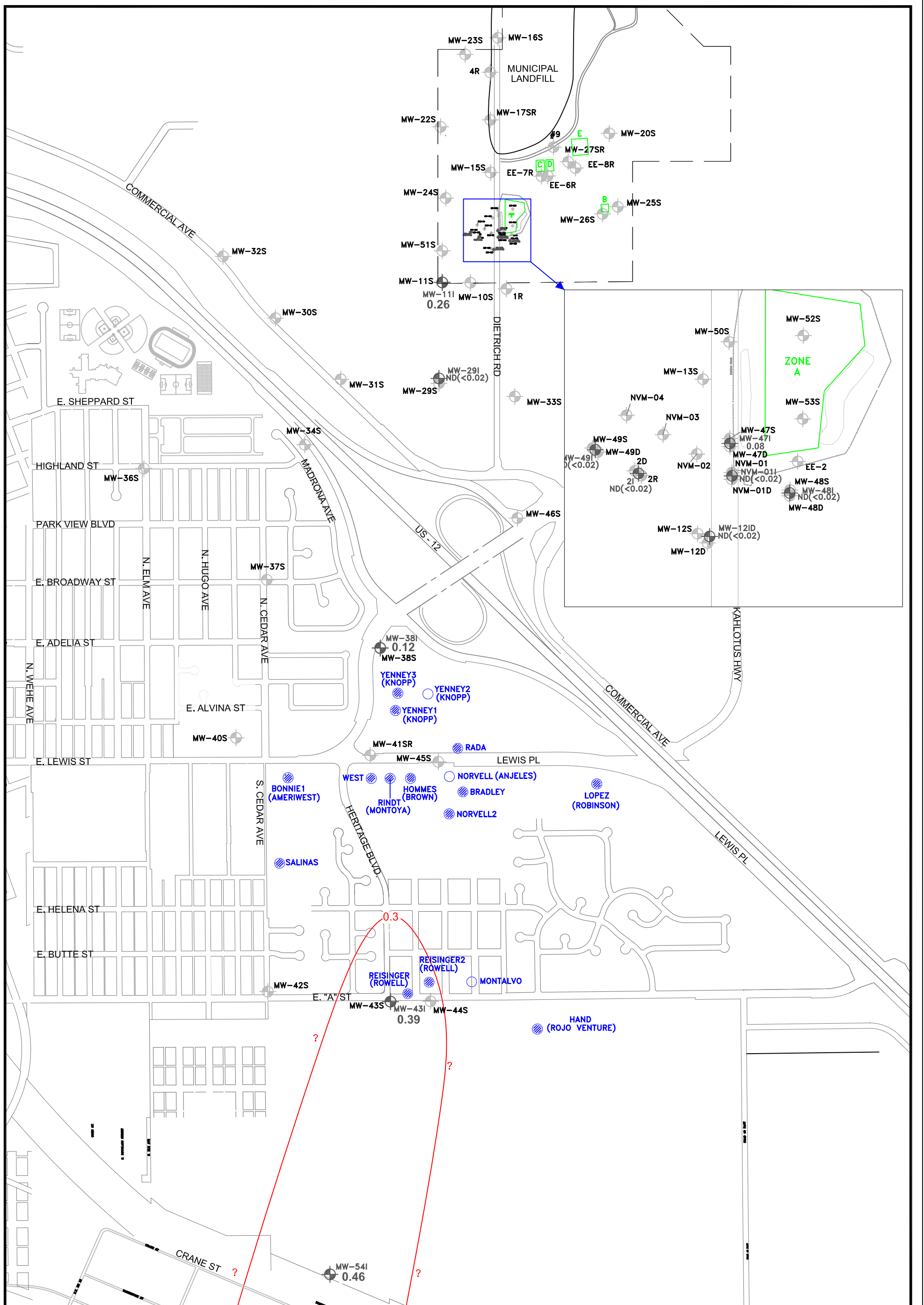
Trichloroethene Concentration Contour
Dashed Where Inferred, Querried Where Uncertain

Trichloroethene Draft Cleanup Level = 0.3 ug/L

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**FIGURE 29
ISOCONCENTRATION MAP OF
TRICHLOROETHENE IN
INTERMEDIATE GROUND WATER
APRIL 2011**

PROJECT	03911.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	02/21/12



MW-47I 0.08 Intermediate Monitoring Well
 Concentration in Ground Water (ug/L)

MW-47D Shallow and Deep Monitoring Wells (Included for Location Reference)

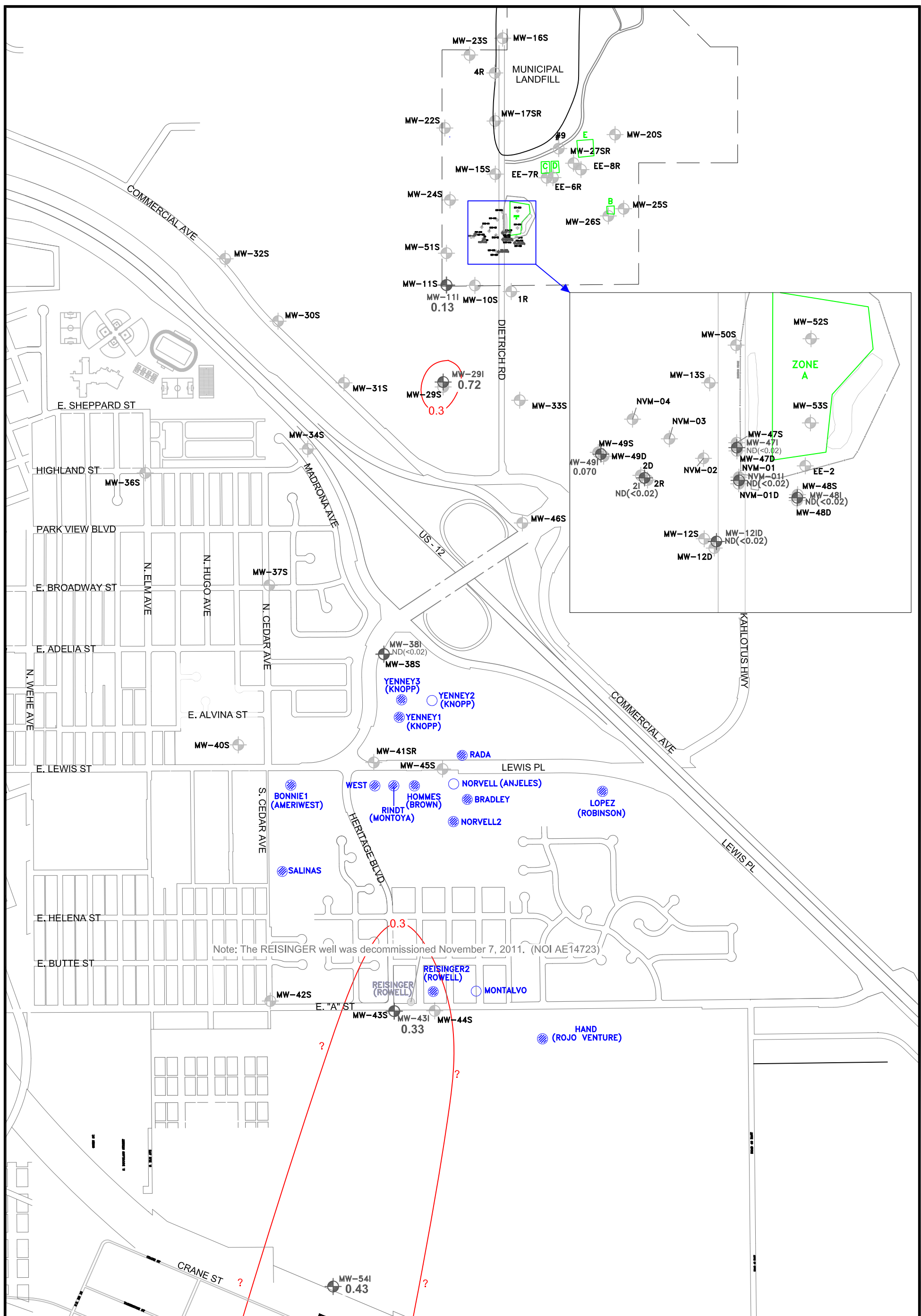
0.3 Trichloroethene Concentration Contour
 Dashed Where Inferred, Querried Where Uncertain

Trichloroethene Draft Cleanup Level = 0.3 ug/L

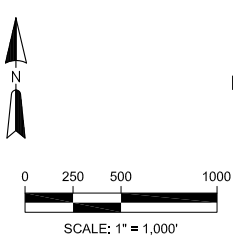
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FIGURE 30
 ISOCONCENTRATION MAP OF
 TRICHLOROETHENE IN
 INTERMEDIATE GROUND WATER
 JULY 2011

PROJECT	03911.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	03/13/12



Note: The REISINGER well was decommissioned November 7, 2011. (NOI AE14723)



MW-47I
0,08
Intermediate Monitoring Well
Concentration in Ground Water (ug/L)

MW-47D
Shallow and Deep Monitoring Wells (Included for Location Reference)

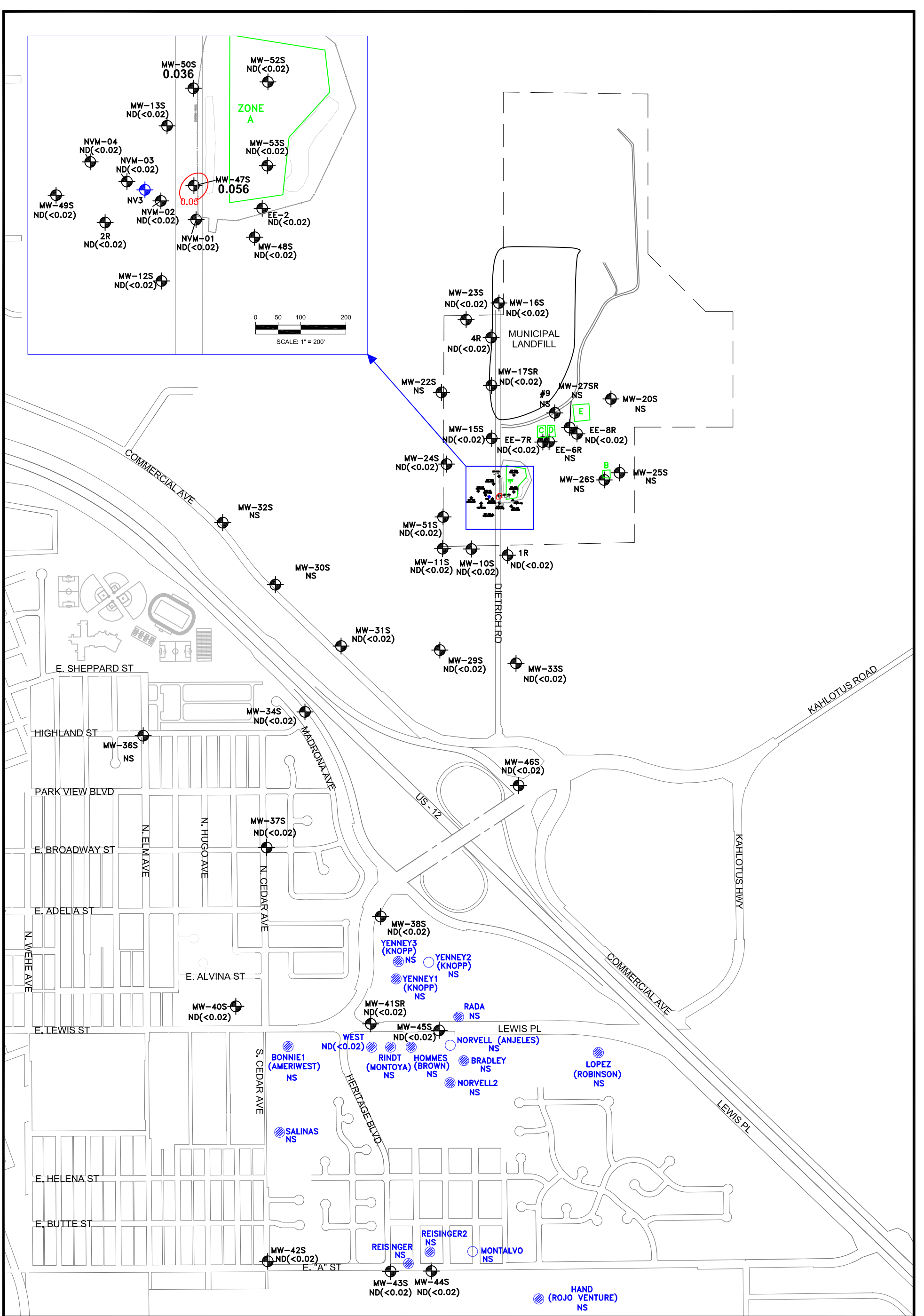
Trichloroethene Concentration Contour
Dashed Where Inferred, Querried Where Uncertain

Trichloroethene Draft Cleanup Level = 0.3 ug/L

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**FIGURE 31
ISOCONCENTRATION MAP OF
TRICHLOROETHENE IN
INTERMEDIATE GROUND WATER
OCTOBER 2011**

PROJECT	03911.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	03/13/12



ND Not Detected
 NS Well Not Sampled
 NA Not Analyzed

MW-42S Monitoring Well
 ND(<0.02) Concentration in Ground Water (ug/L)

HAND Residences Provided with Semi-Annual Sampling
 BONNIE1 Residences Provided with City Water

1,1-Dichloroethene Concentration Contour
 Dashed Where Inferred, Querried Where Uncertain
 Wells Colored Blue Not Used to Create Contours

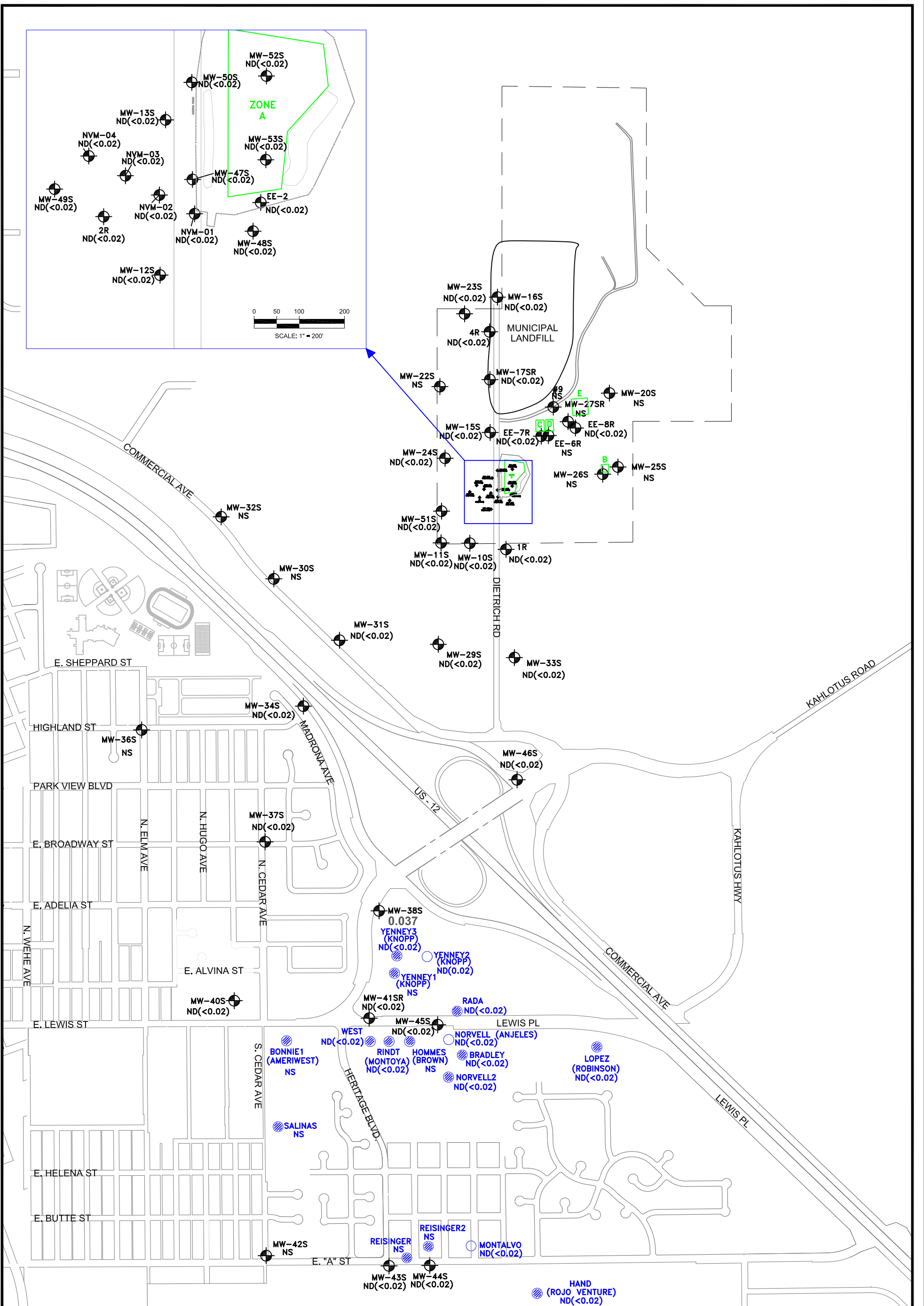
1,1-Dichloroethene Draft Cleanup Level = 0.05 ug/L

0 250 500 1000
 SCALE: 1" = 1,000'

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FIGURE 32
ISOCONCENTRATION MAP OF
1,1-DICHLOROETHENE IN
SHALLOW GROUND WATER
JANUARY 2011

PROJECT	03911.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	02/20/12



ND Not Detected
 NS Well Not Sampled

MW-43S
 0.051 Intermediate Monitoring Well
 Concentration in Ground Water (ug/L)

HAND Residential Well
BONNIE1 Residential Well, Non-Potable Water Use
 (According to City of Pasco Survey)

0.05 1,1-Dichloroethene Concentration Contour
 Wells Colored Blue Not Used to Create Contours

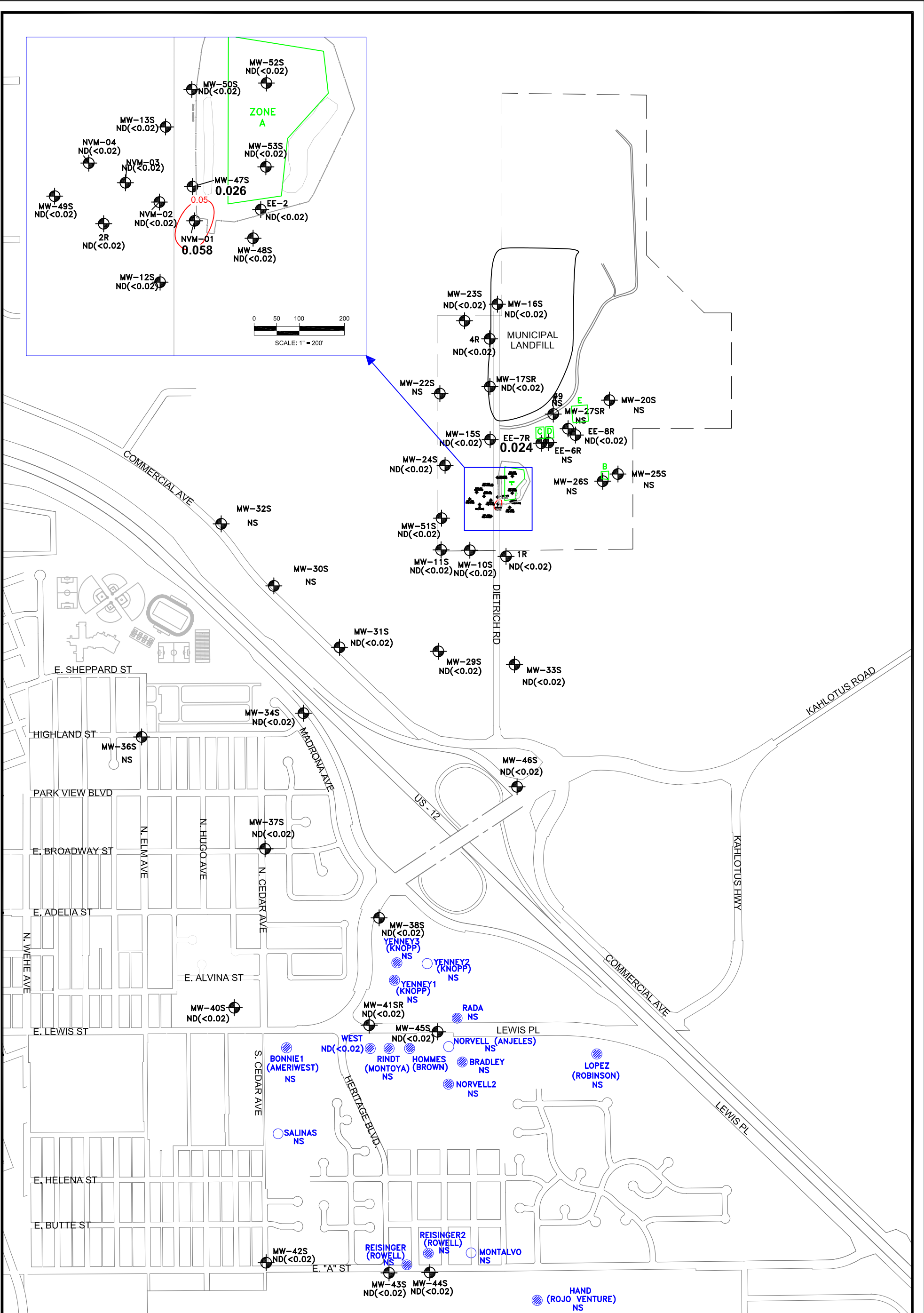
1,1-Dichloroethene Draft Cleanup Level = 0.05 ug/L

0 250 500 1000
 SCALE: 1" = 1,000'

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FIGURE 33
ISOCONCENTRATION MAP OF
1,1-DICHLOROETHENE IN
SHALLOW GROUND WATER
APRIL 2011

PROJECT	03911.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	02/24/12



ND Not Detected
 NS Well Not Sampled
 NA Not Analyzed

MW-43S 0.051 Monitoring Well Concentration in Ground Water (ug/L)
 HAND Residential Well
 BONNIE1 Residential Well, Non-Potable Water Use (According to City of Pasco Survey)

1,1-Dichloroethene Concentration Contour
 Wells Colored Blue Not Used to Create Contours

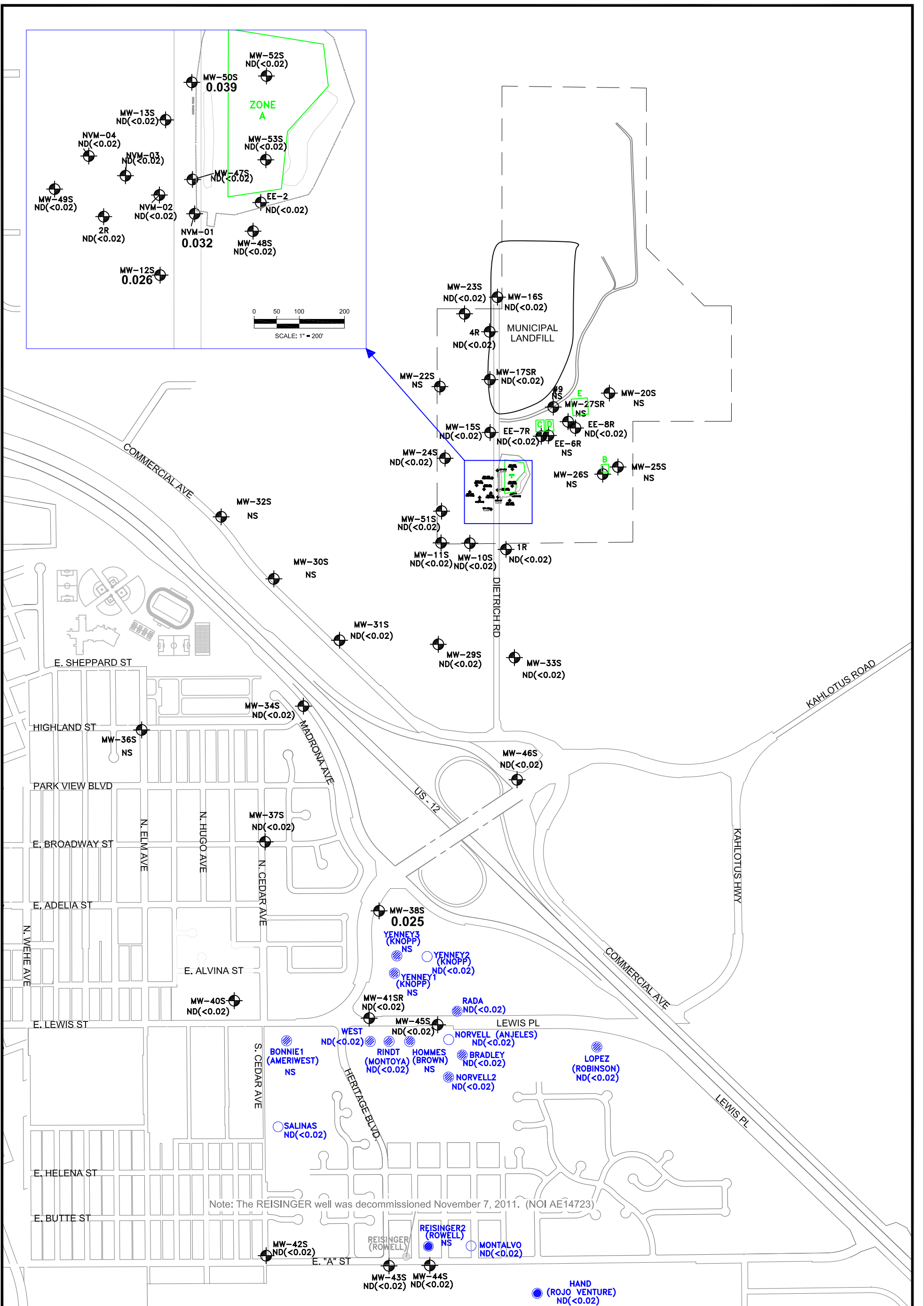
1,1-Dichloroethene Draft Cleanup Level = 0.05 ug/L

0 250 500 1000
 SCALE: 1" = 1,000'

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FIGURE 34
ISOCONCENTRATION MAP OF
1,1-DICHLOROETHENE IN
SHALLOW GROUND WATER
JULY 2011

PROJECT	03911.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	02/24/12

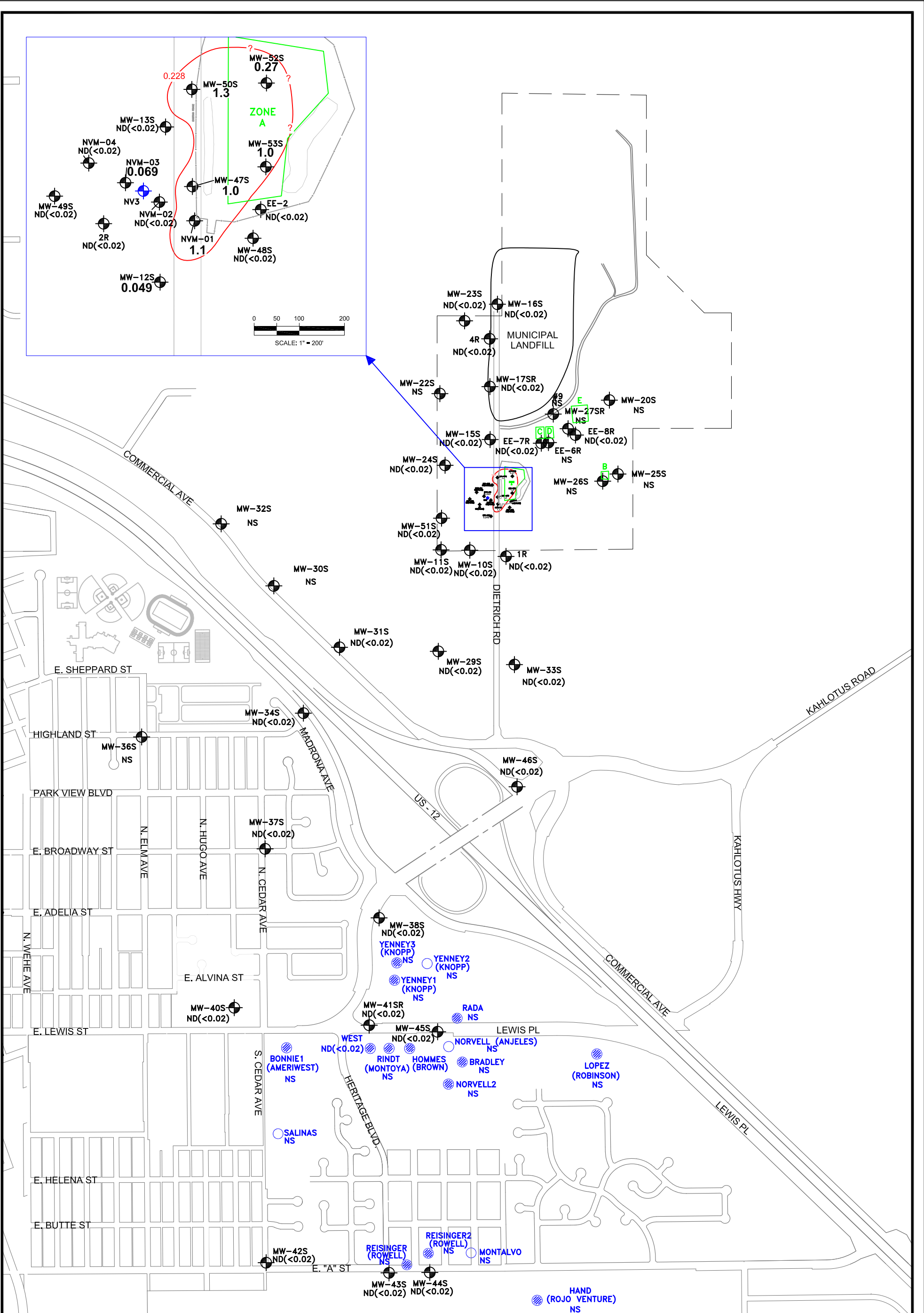


Note: The REISINGER well was decommissioned November 7, 2011. (NOI AE14723)

	ND Not Detected NS Well Not Sampled NA Not Analyzed	MW-12S 0.026 HAND BONNIE1	Monitoring Well Concentration in Ground Water (ug/L) Residential Well Residential Well, Non-Potable Water Use (According to City of Pasco Survey)
	 SCALE: 1" = 1,000'	 1,1-Dichloroethene Concentration Contour Wells Colored Blue Not Used to Create Contours 1,1-Dichloroethene Draft Cleanup Level = 0.05 ug/L	

 ENVIRONMENTAL PARTNERS INC 295 NE Gilman Boulevard, Suite 201 Issaquah, Washington 98027	FIGURE 35 ISOCONCENTRATION MAP OF 1,1-DICHLOROETHENE IN SHALLOW GROUND WATER OCTOBER 2011	

PROJECT	03911.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	02/24/12



ND Not Detected
 NS Well Not Sampled
 NA Not Analyzed

MW-42S ND(<0.02) Monitoring Well
 Concentration in Ground Water (ug/L)
 HAND Residential Well
 BONNIE1 Residential Well, Non-Potable Water Use
 (According to City of Pasco Survey)

0.228 1,2-Dichloroethane Concentration Contour
 Wells Colored Blue Not Used to Create Contours

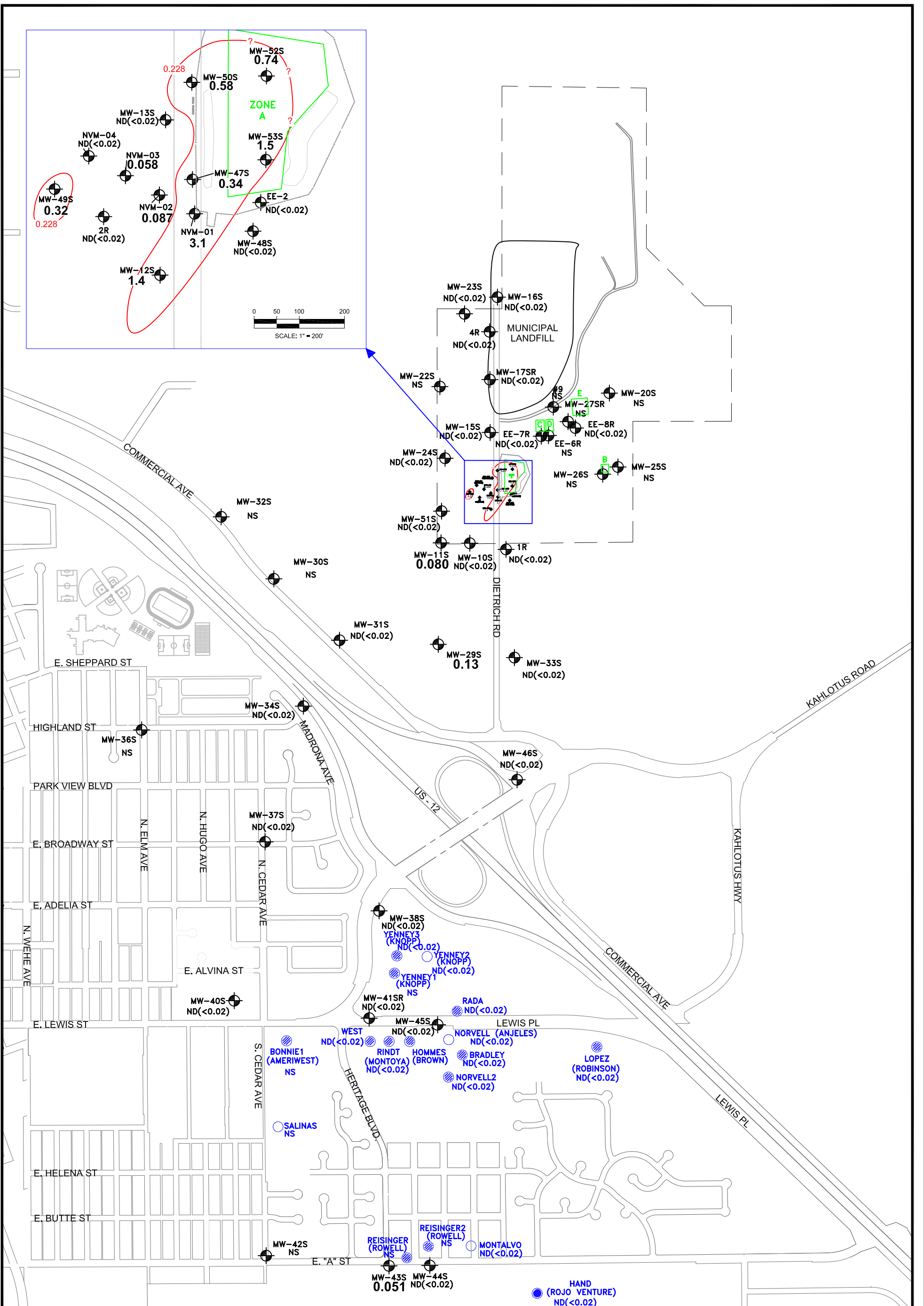
1,2-Dichloroethane Draft Cleanup Level = 0.228 ug/L

0 250 500 1000
 SCALE: 1" = 1,000'

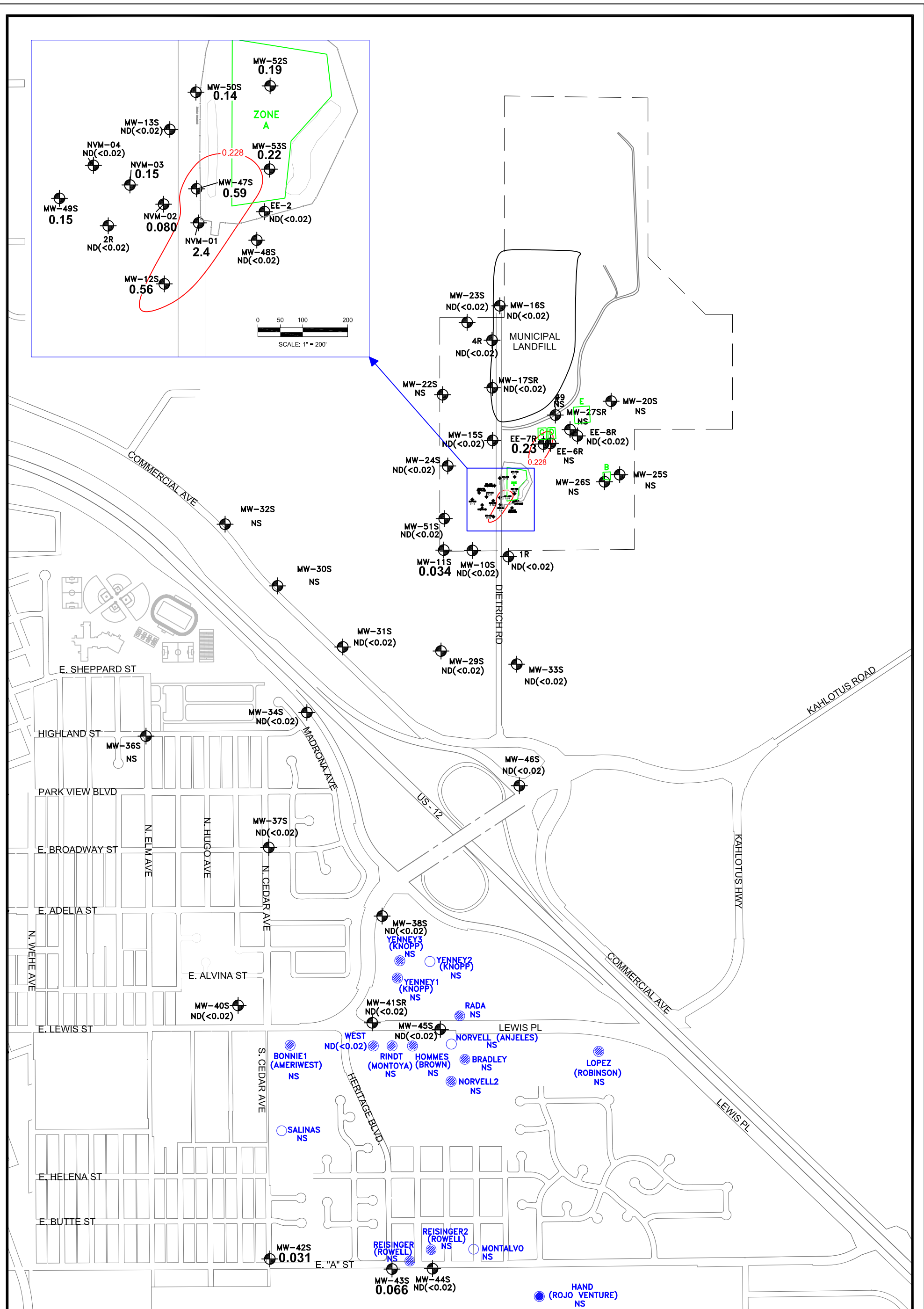
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FIGURE 36
ISOCONCENTRATION MAP OF
1,2-DICHLOROETHANE IN
SHALLOW GROUND WATER
JANUARY 2011

PROJECT	03911.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	02/20/12



<p>ND Not Detected NS Well Not Sampled NA Not Analyzed</p> <p>0 250 500 1000 SCALE: 1" = 1,000'</p>	<p>MW-43S 0.051</p> <p>Monitoring Well Concentration in Ground Water (ug/L)</p> <p>HAND ○ Residential Well</p> <p>BONNIE1 ● Residential Well, Non-Potable Water Use (According to City of Pasco Survey)</p> <p>0.228 1,2-Dichloroethane Concentration Contour Wells Colored Blue Not Used to Create Contours</p> <p>1,2-Dichloroethane Draft Cleanup Level = 0.228 ug/L</p>	<p>ept ENVIRONMENTAL PARTNERS INC 295 NE Gilman Boulevard, Suite 201 Issaquah, Washington 98027</p>		PROJECT	03911.2
		<p>FIGURE 37 ISOCONCENTRATION MAP OF 1,2-DICHLOROETHANE IN SHALLOW GROUND WATER APRIL 2011</p>		PREPARED FOR	IWAG GROUP III PASCO LANDFILL
		LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
		SHEET	DRAWN BY	REVIEWED BY	DATE
		1 of 1	ARM	TCM	02/20/12

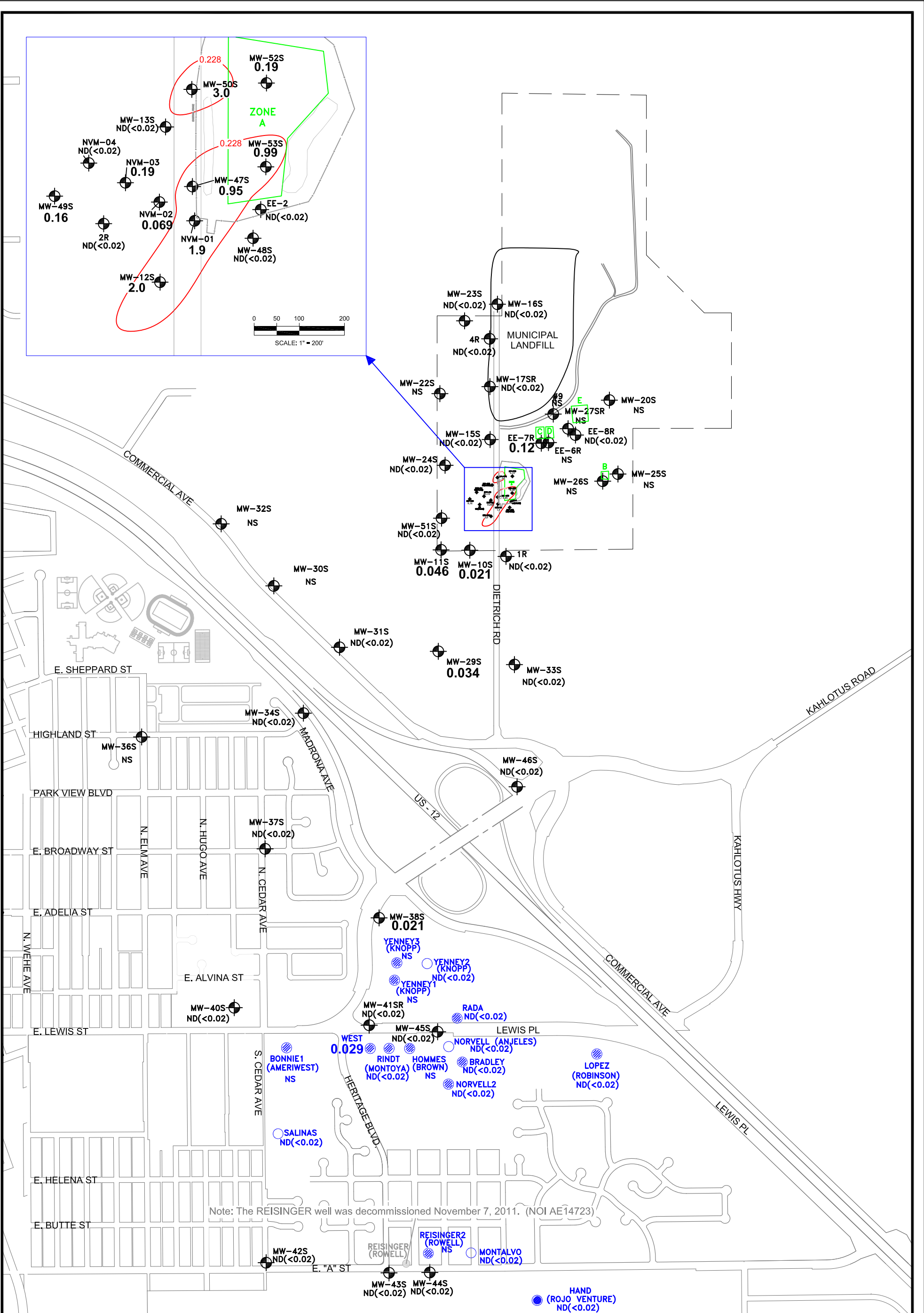


	ND Not Detected NS Well Not Sampled NA Not Analyzed	MW-43S 0.051	Monitoring Well Residential Well Residential Well, Non-Potable Water Use (According to City of Pasco Survey)
	 SCALE: 1" = 1,000'	1,2-Dichloroethane Concentration Contour Wells Colored Blue Not Used to Create Contours	1,2-Dichloroethane Draft Cleanup Level = 0.228 ug/L

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FIGURE 38
ISOCONCENTRATION MAP OF
1,2-DICHLOROETHANE IN
SHALLOW GROUND WATER
JULY 2011

PROJECT	03911.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	02/20/12

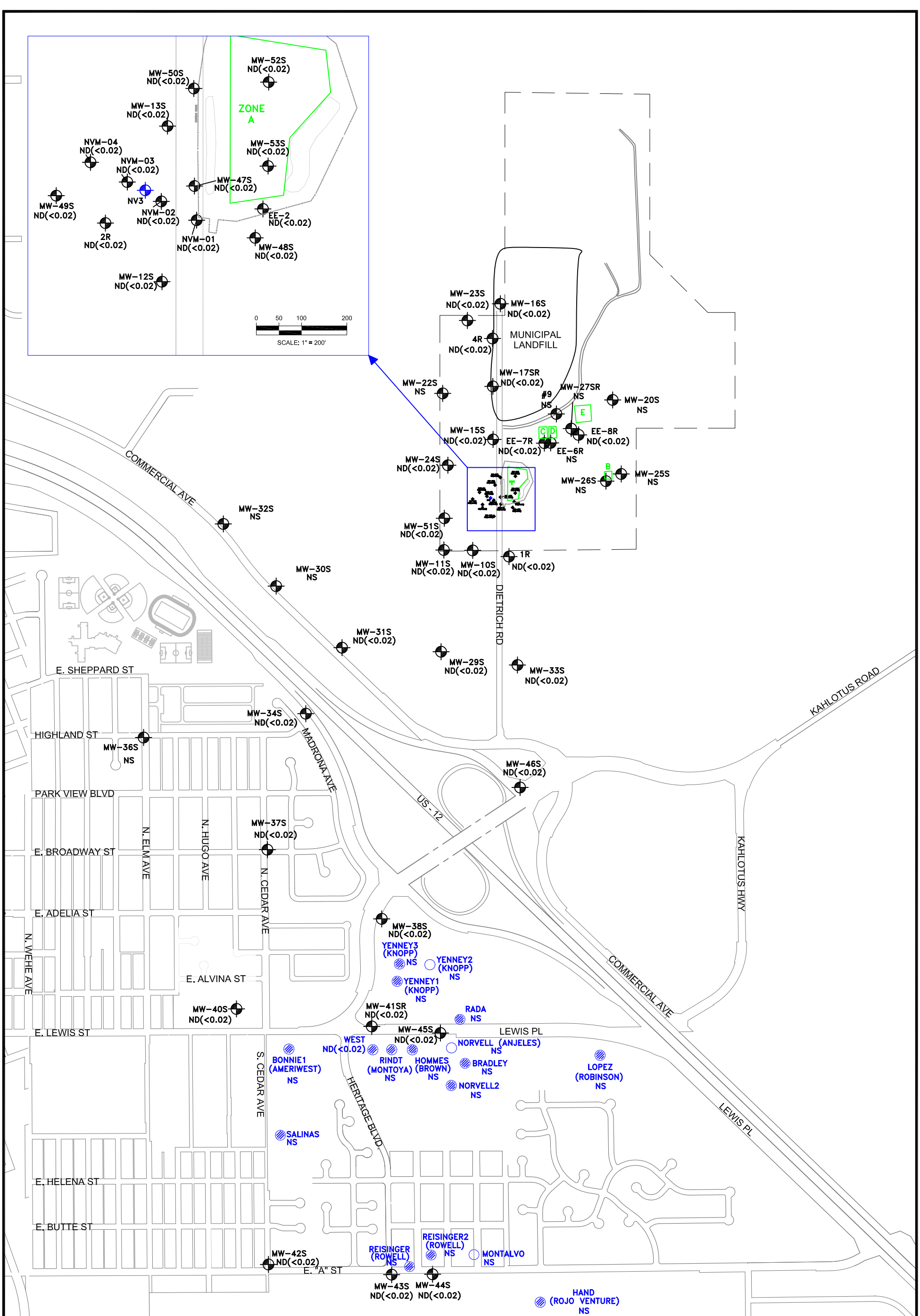


	ND Not Detected NS Well Not Sampled NA Not Analyzed	MW-38S 0.021	Monitoring Well Residential Well Residential Well, Non-Potable Water Use (According to City of Pasco Survey) 1,2-Dichloroethane Concentration Contour Wells Colored Blue Not Used to Create Contours
	SCALE: 1" = 1,000'	1,2-Dichloroethane Draft Cleanup Level = 0.228 ug/L	

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FIGURE 39
ISOCONCENTRATION MAP OF
1,2-DICHLOROETHANE IN
SHALLOW GROUND WATER
OCTOBER 2011

PROJECT	03911.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	02/20/12



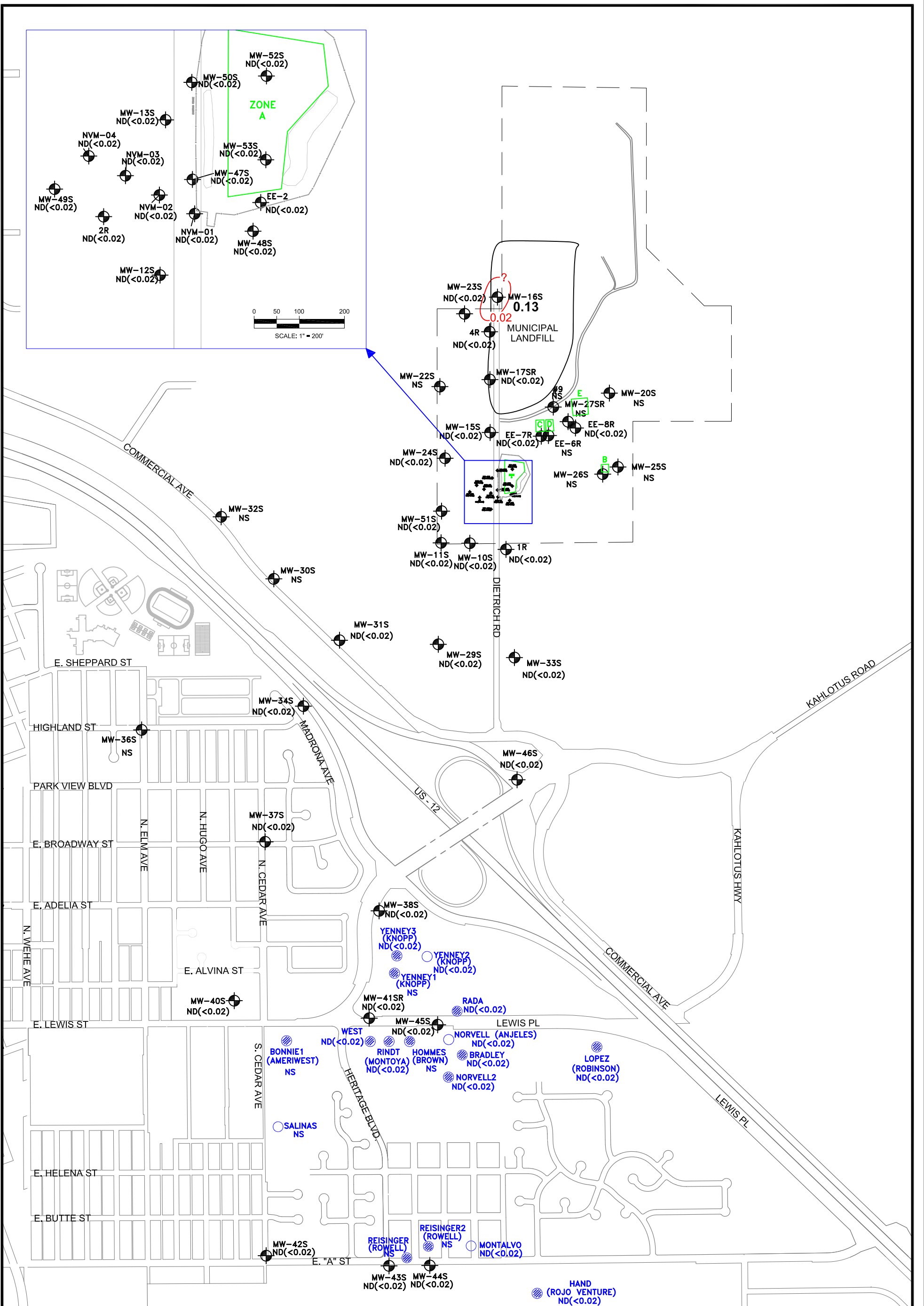
ND Not Detected
 NS Well Not Sampled
 MW-42S ND(<0.02) Monitoring Well Concentration in Ground Water (ug/L)
 HAND Residential Well
 BONNIE1 Residential Well, Non-Potable Water Use (According to City of Pasco Survey)
 0.02 Benzene Concentration Contour
 Wells Colored Blue Not Used to Create Contours
 Benzene Draft Cleanup Level = 0.02 ug/L

0 250 500 1000
 SCALE: 1" = 1,000'

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FIGURE 40
ISOCONCENTRATION
MAP OF BENZENE IN
SHALLOW GROUND WATER
JANUARY 2011

PROJECT	03911.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	02/21/12



ND Not Detected
 NS Well Not Sampled
 NA Not Analyzed

MW-43S
0.051

Monitoring Well
 Concentration in Ground Water (ug/L)

HAND Residential Well
BONNIE1 Residential Well, Non-Potable Water Use
 (According to City of Pasco Survey)

Benzene Concentration Contour
 Wells Colored Blue Not Used to Create Contours

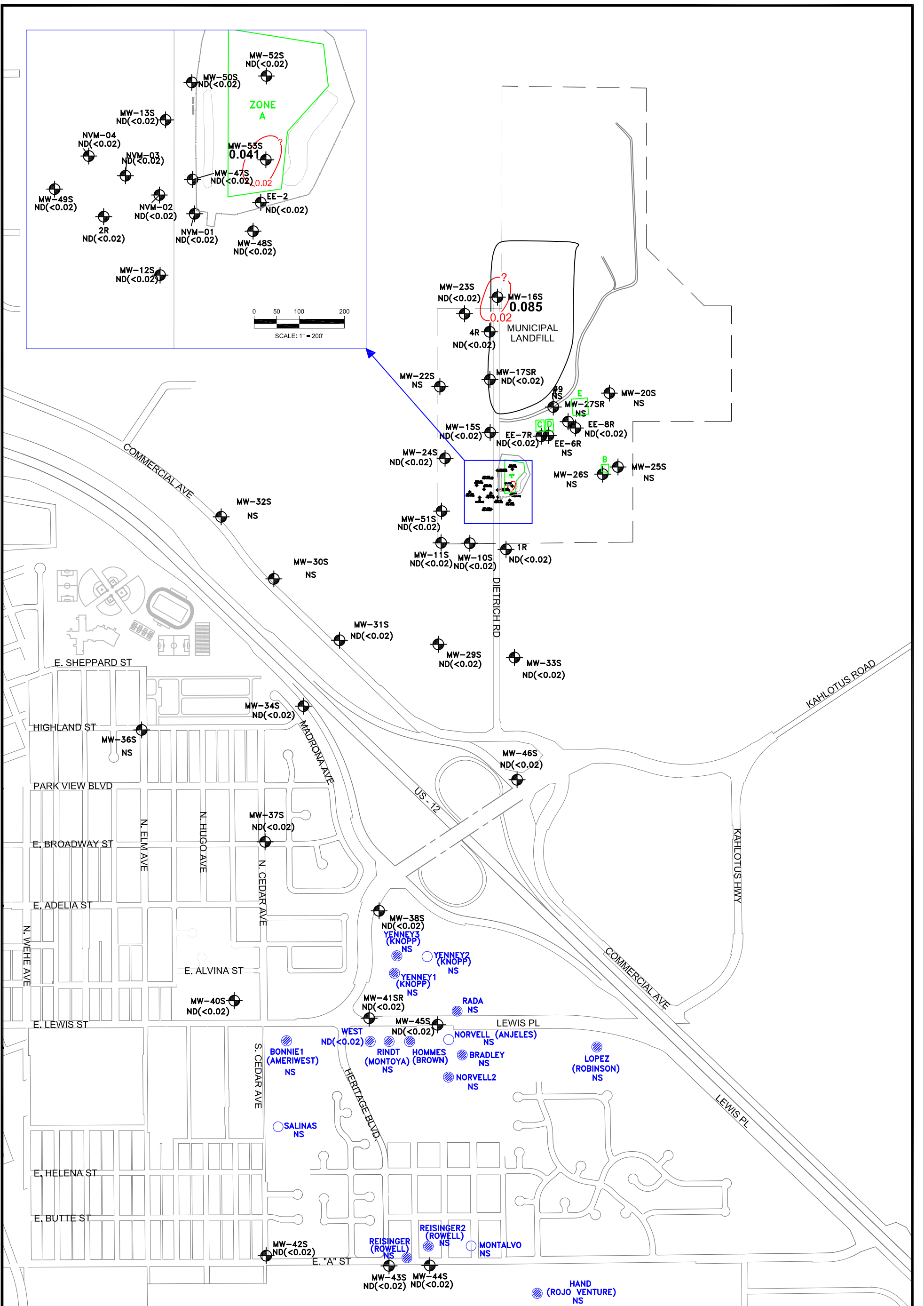
Benzene Draft Cleanup Level = 0.02 ug/L

0 250 500 1000
 SCALE: 1" = 1,000'

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FIGURE 41
ISOCONCENTRATION
MAP OF BENZENE IN
SHALLOW GROUND WATER
APRIL 2011

PROJECT	03911.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	02/21/12



ND Not Detected
 NS Well Not Sampled
 NA Not Analyzed

MW-43S 0.051 Monitoring Well Concentration in Ground Water (ug/L)
 HAND Residential Well
 BONNIE1 Residential Well, Non-Potable Water Use (According to City of Pasco Survey)
 0.02 Benzene Concentration Contour
 Wells Colored Blue Not Used to Create Contours

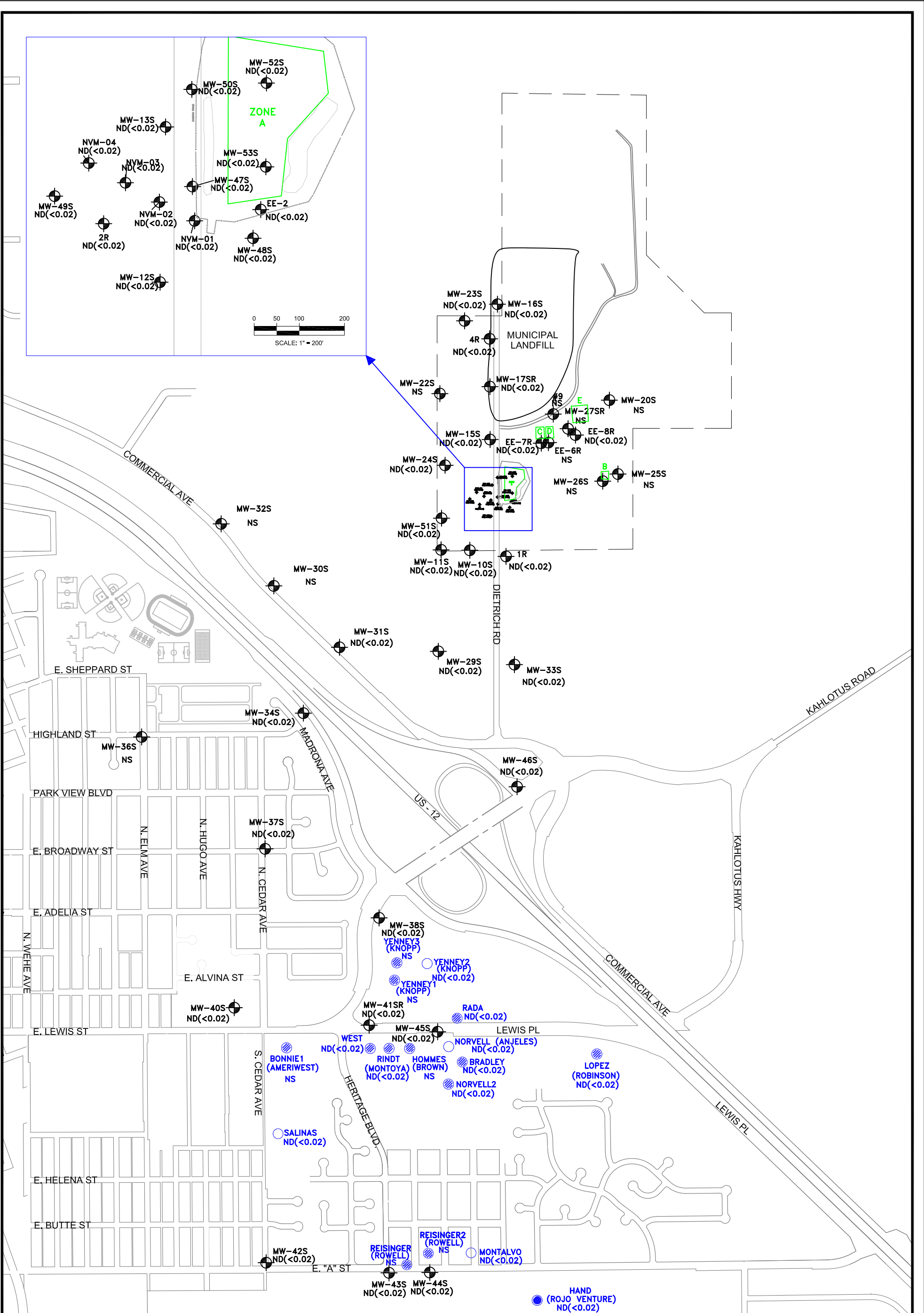
Benzene Draft Cleanup Level = 0.02 ug/L

0 250 500 1000
 SCALE: 1" = 1,000'

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FIGURE 42
ISOCONCENTRATION
MAP OF BENZENE IN
SHALLOW GROUND WATER
JULY 2011

PROJECT	03911.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	02/20/12



ND Not Detected
 NS Well Not Sampled
 NA Not Analyzed

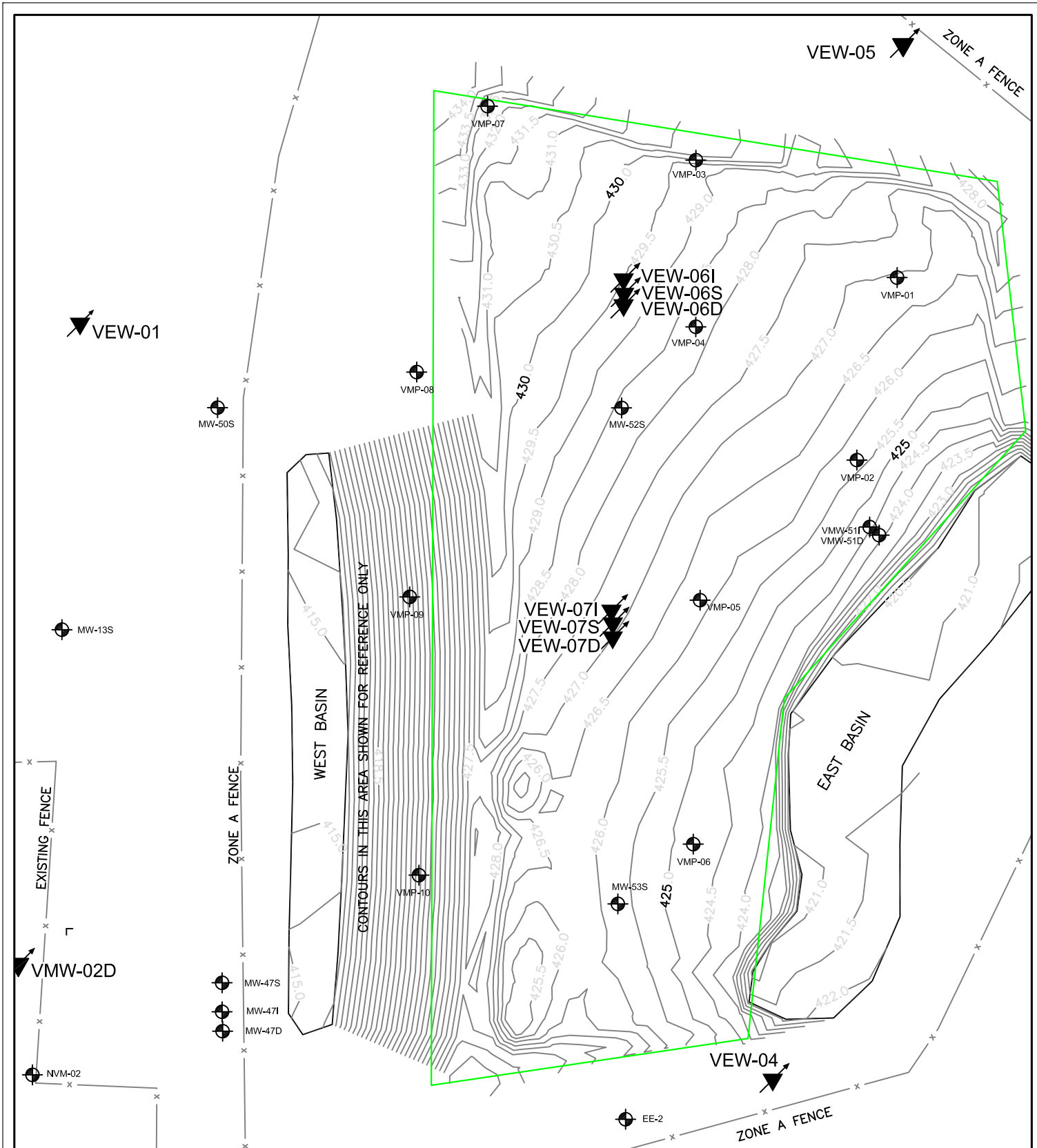
MW-43S ND(<0.02) Monitoring Well
 Concentration in Ground Water (ug/L)
 HAND Residential Well
 BONNIE1 Residential Well, Non-Potable Water Use
 (According to City of Pasco Survey)
 0.02 Benzene Concentration Contour
 Wells Colored Blue Not Used to Create Contours
 Benzene Draft Cleanup Level = 0.02 ug/L

0 250 500 1000
 SCALE: 1" = 1,000'

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FIGURE 43
ISOCONCENTRATION
MAP OF BENZENE IN
SHALLOW GROUND WATER
OCTOBER 2011

PROJECT	03911.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	TCM	02/20/12



KEY:

425' CONTOUR ELEVATION IN FEET (MAY 29, 2008)
 MW-47D GROUND WATER MONITORING WELL OR VAPOR MONITORING PROBE
 VEW-05 SOIL VAPOR EXTRACTION WELL

0 12.5 25 50
 SCALE: 1" = 50'

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FIGURE 44
 LOCATIONS OF SOIL VAPOR EXTRACTION (SVE) SYSTEM WELLS

PROJECT	03911.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	MMH	TCM	02/29/12

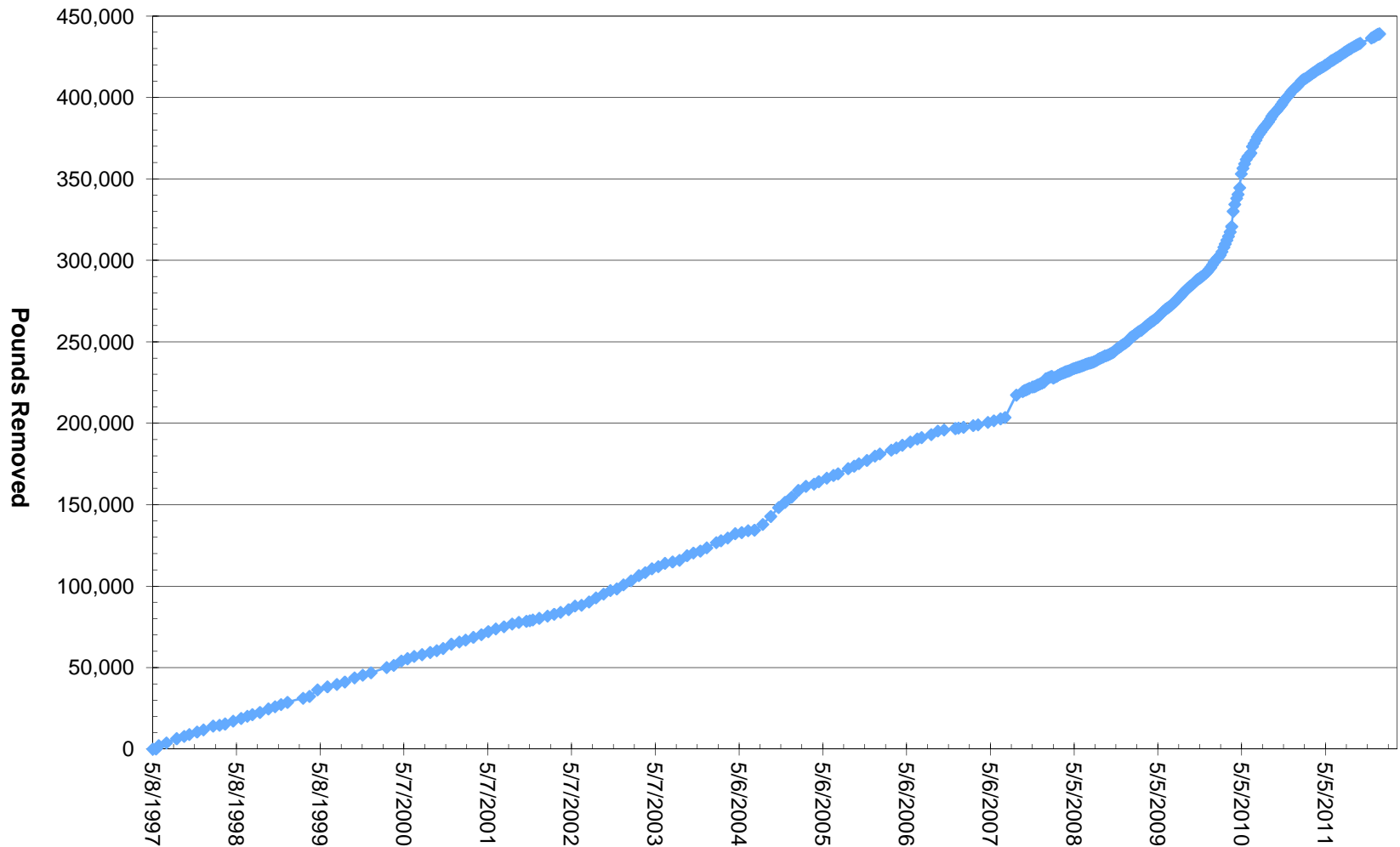
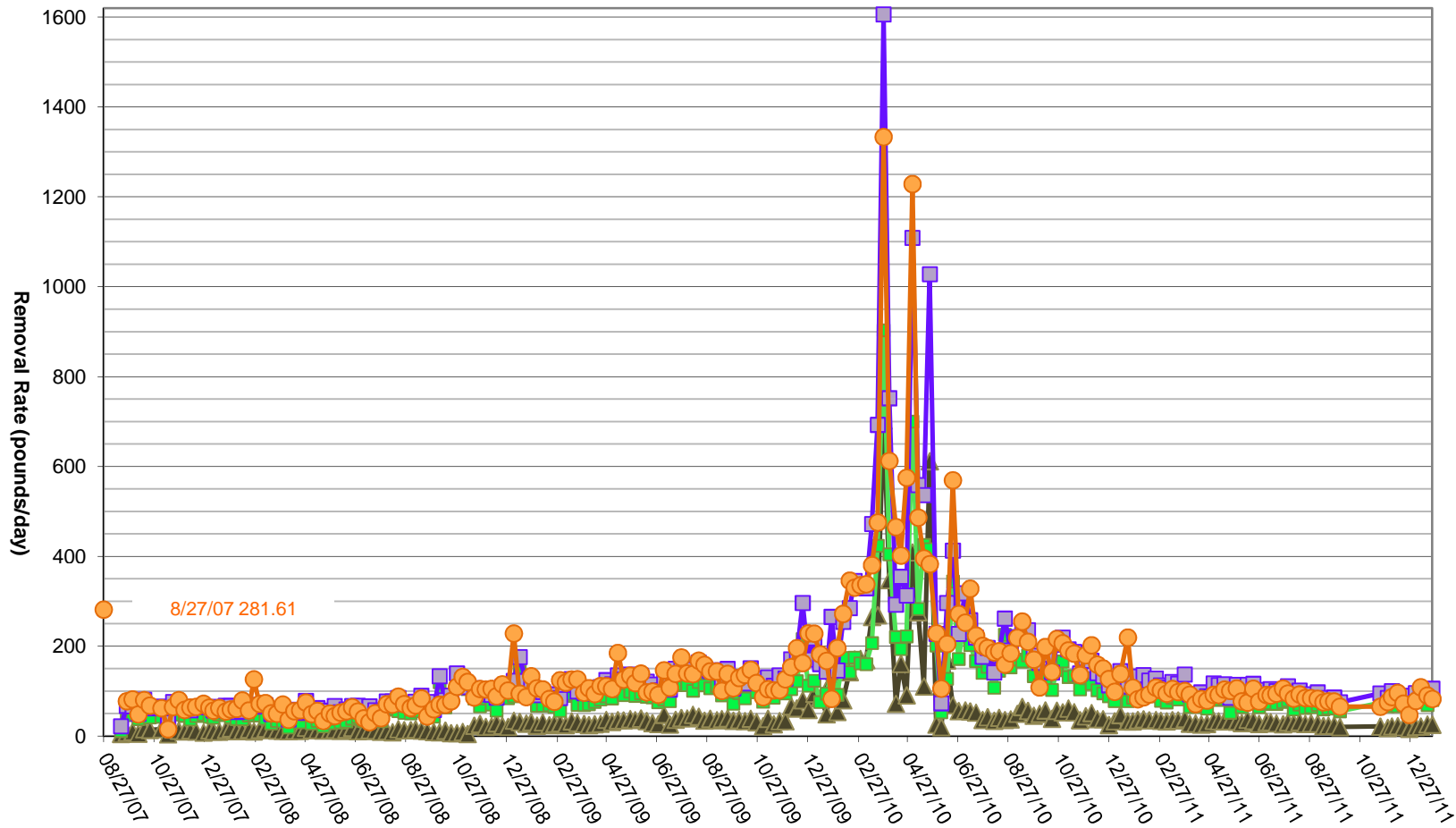


FIGURE 45
 CUMULATIVE MASS REMOVED BY SVE SYSTEM
 SINCE MAY 7, 1997

Project	Pasco Landfill		
Prepared For	IWAG Group III		
Location	1901 Dietrich Road Pasco, Washington		
	Drawn By MMH	Reviewed By TCM	Date 02/29/12

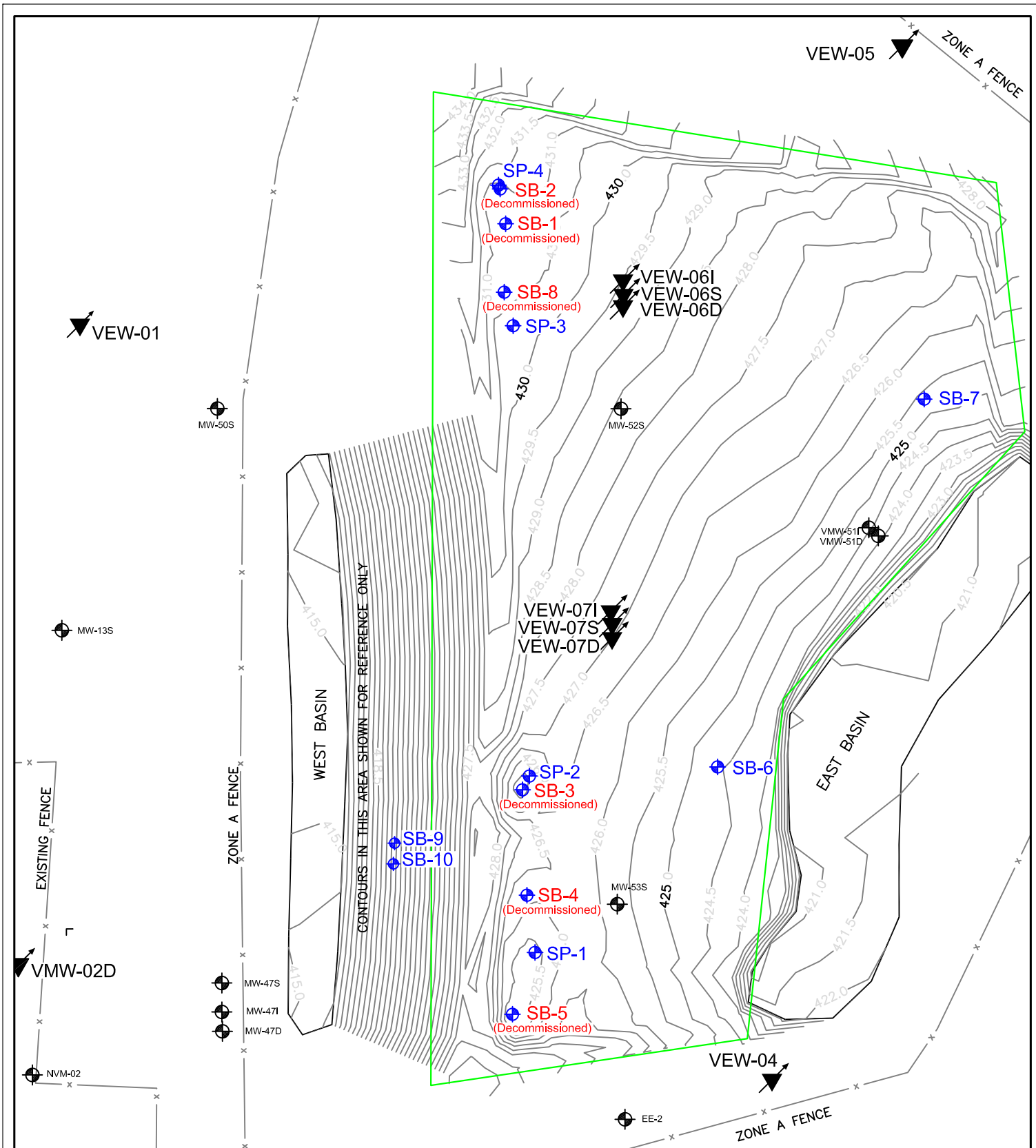


- Legend:
- ▲— VEW-04
 - VEW-05
 - TOTAL (Individual Wells)
 - Combined Sample



FIGURE 46
SVE REMOVAL RATES FOR
INDIVIDUAL AND COMBINED SAMPLES

Project	Pasco Landfill		
Prepared For	IWAG Group III		
Location	1901 Dietrich Road Pasco, Washington		
	Drawn By MMH	Reviewed By TCM	Date 02/29/12



KEY:

- MW-47D GROUND WATER MONITORING WELL
- VEW-05 SOIL VAPOR EXTRACTION WELL
- CONTOUR ELEVATION IN FEET (MAY 29, 2008)
- SB-1 SUBSIDENCE BENCHMARK
- SP-1 SETTLEMENT PLATE

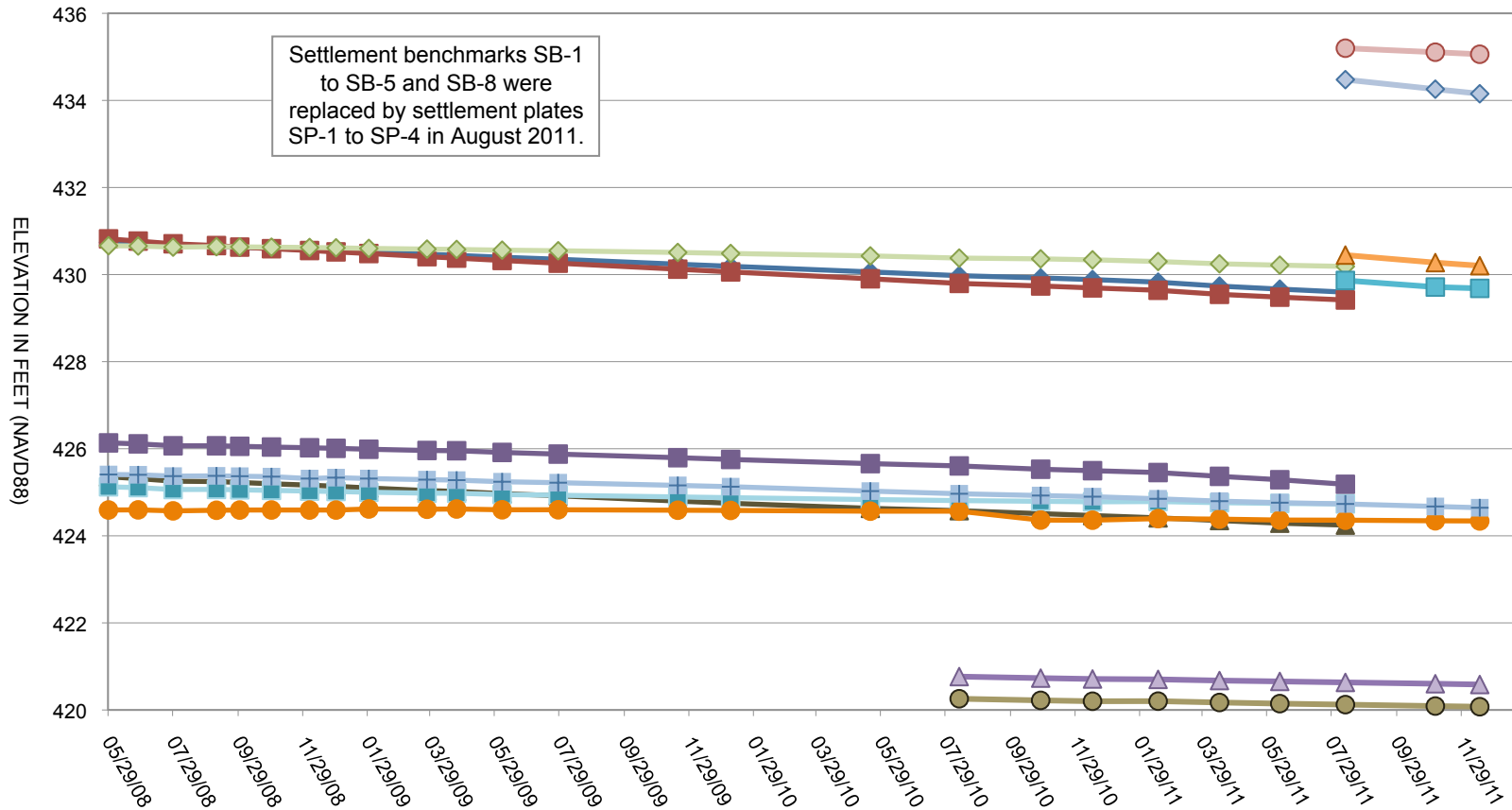
SCALE: 1" = 50'

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 Issaquah, Washington 98027

FIGURE 47

LOCATIONS OF
 ZONE A SUBSIDENCE BENCHMARKS
 AND SETTLEMENT PLATES

PROJECT	03911.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	MMH	TCM	02/29/12

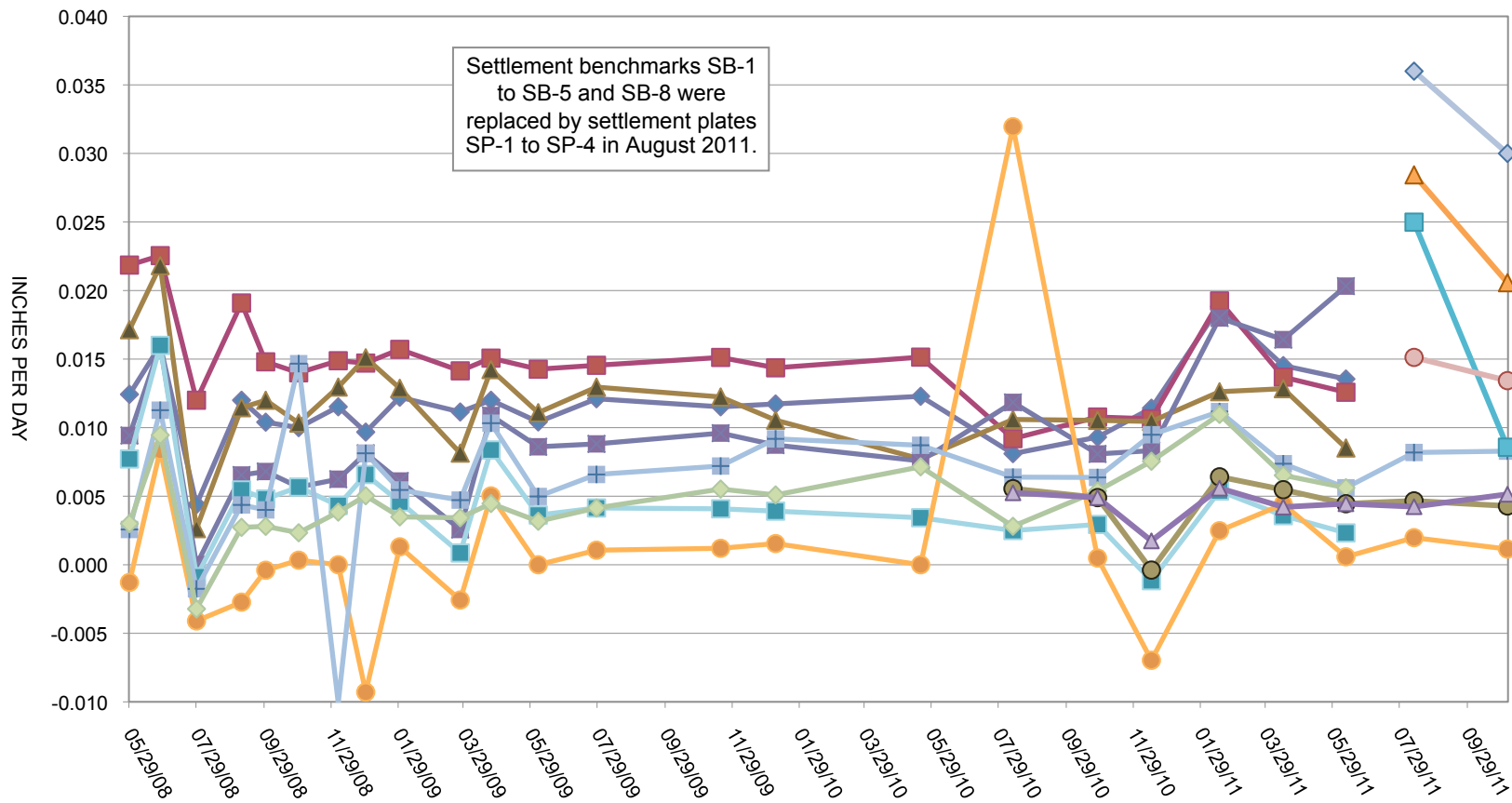


- Legend:
- SB-1
 - SB-2
 - SB-3
 - SB-4
 - SB-5
 - SB-6
 - SB-7
 - SB-8
 - SB-9
 - SB-10
 - SP-1
 - SP-2
 - SP-3
 - SP-4



FIGURE 48
ZONE A SUBSIDENCE MEASUREMENTS

Project	Pasco Landfill		
Prepared For	IWAG Group III		
Location	1901 Dietrich Road Pasco, Washington		
	Drawn By MMH	Reviewed By TCM	Date 02/29/12



- Legend:
- SB-1 (Blue diamond)
 - SB-2 (Red square)
 - SB-3 (Brown triangle up)
 - SB-4 (Purple square)
 - SB-5 (Light blue square)
 - SB-6 (Orange circle)
 - SB-7 (Blue square)
 - SB-8 (Green diamond)
 - SB-9 (Brown circle)
 - SB-10 (Purple triangle up)
 - SP-1 (Cyan square)
 - SP-2 (Orange triangle up)
 - SP-3 (Blue diamond)
 - SP-4 (Red circle)



FIGURE 49
ZONE A SUBSIDENCE RATES

Project	Pasco Landfill		
Prepared For	IWAG Group III		
Location	1901 Dietrich Road Pasco, Washington		
	Drawn By MMH	Reviewed By TCM	Date 02/29/12

Appendices

Appendix A
Data Validation Report

Data Validation Report

Pasco Sanitary Landfill Groundwater Monitoring October 2011 Sampling

Laboratory SDG Number: 1110151

Prepared for:

Environmental Partners, Inc.

295 NE. Gilman Blvd., Suite 201
Issaquah, WA 98027

Prepared by:

Pyron Environmental, Inc.

3530 32nd Way NW
Olympia, WA 98502

February 9, 2012

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Acronyms

%D	percent difference
%D_f	percent drift
%R	percent recovery
%RSD	percent relative standard deviation
ALS	ALS Laboratory Group, Everett, Washington
ARI	Analytical Resources, Inc., Tukwila, Washington
BFB	bromofluorobenzene
CCB	continuing calibration blank
CCV	continuing calibration verification
CF	calibration factor
CLP	U.S. EPA Contract Laboratory Program
COC	chain-of-custody
COD	chemical oxygen demand
Cr	chromium
Cr (VI)	hexavalent chromium
DQO	data quality objective
DFTPP	decafluorotriphenylphosphine
EDD	electronic data deliverable
EPA	U.S. Environmental Protection Agency
Fe (II)	ferrous iron
GC/FID	gas chromatography/flame ionization detector
GC/MS	gas chromatography/mass spectrometer
ICAL	initial calibration
ICB	initial calibration blank
ICP/MS	Inductively coupled plasma/mass spectrometer
ICS	interference check sample
ICV	initial calibration verification
IDL	instrument detection limit
LCS	laboratory control sample
LCSD	laboratory control sample duplicate
µg/L	micrograms per liter
mg/L	milligrams per liter

MDL	method detection limit
MEE	methane, ethane, and ethane
MS	matrix spike
MSD	matrix spike duplicate
OMM	Operations and Maintenance Manual SVE, No VOCs and Groundwater Monitoring, Environmental Partners, Inc., 2007 & 2008 (Addendum No. 1).
PCP	pentachlorophenol
PEM	performance evaluation mixture
QA/QC	quality assurance/quality control
RF	response factor
RL	reporting limit
RPD	relative percent difference
SDG	sample delivery group
SIM	selective ion monitoring
SOP	standard operating procedures
SRM	standard reference material
SVOCs	semi-volatile organic compounds
TDS	total dissolved solids
TOC	total organic carbon
VOCs	volatile organic compounds

I. INTRODUCTION

This report presents and discusses findings of the data validation performed on analytical data associated with the 77 water samples collected during October 24 through October 28, 2011 for the referenced project. The validation procedures followed the requirements specified in the following documents, as applicable:

- *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*, Office of Superfund Remediation and Technology Innovation, U.S. Environmental Protection Agency, June 2008, EPA-540-R-08-01.
- *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review*, Office of Superfund Remediation and Technical Innovation, U.S. Environmental Protection Agency, January 2010, USEPA 540/R-10/011.

A Stage III validation was performed based on the summaries of sample and quality control (QC) analytical results submitted by the laboratories. The numerical quality assurance and quality control (QA/QC) criteria applied to the validation were in accordance with those specified in the analytical methods, the *Operations and Maintenance Manual SVE, No VOCsTM and Groundwater Monitoring ([OMM], Environmental Partners, Inc. 2007) & Addendum No. 1 (May 28, 2008)*, and the performance-based control limits established by the laboratory (laboratory control limits). The frequency of QC analyses was evaluated according to the OMM and the analytical methods. Raw data were not reviewed herein unless necessary for clarification purposes.

Validation findings are discussed in **Section II – Data Validation Findings**, pertinent to the QC parameters for each type of analysis. Field duplicate results were compared and data qualified based on the advisory criteria and presented in **Section III**. Qualified data along with proper data qualifiers, qualification reasons, and qualifier definitions are presented in **Section IV - Data Validation Summary**.

A data quality objective assessment summarizing the overall precision, accuracy, representativeness, comparability, and completeness of data collected in this sampling event was prepared and included in **Section V – Data Quality Objective Assessment**. Any additional laboratory submittals requested during the validation are transferred to Environmental Partners, Inc. along with this report.

As part of the validation, the electronic data deliverable (EDD) was verified against the hardcopy report. Any anomalies found or revisions made on the EDD were summarized in **Section IV, 3**. Data qualifiers and qualification reasons identified *via* the validation have been added to the EDD.

Samples collected during this sampling event and the associated analyses are summarized below:

Field Sample ID	ALS Laboratory Sample ID	Sample Collection Date	Matrix	Analysis				
				VOCs	SVOCs Herbicides	MEE	Total Cr Cr (VI)	Manganese & Inorganic Constituents
PLF-MW53S-1011	1110151-01	10/24/11	Water	X		X	X	X
PLF-MW52S-1011	1110151-02	10/24/11	Water	X		X	X	X

Field Sample ID	ALS Laboratory Sample ID	Sample Collection Date	Matrix	Analysis				
				VOCs	SVOCs Herbicides	MEE	Total Cr Cr (VI)	Manganese & Inorganic Constituents
PLF-NVM04-1011	1110151-03	10/24/11	Water	X		X	X	X
PLF-#2D-1011	1110151-04	10/24/11	Water	X		X		X
PLF-#2I-1011	1110151-05	10/24/11	Water	X		X		X
PLF-#2R-1011	1110151-06	10/24/11	Water	X		X		X
PLF-NVM02-1011	1110151-07	10/24/11	Water	X		X	X	X
PLF-NVM03-1011	1110151-08	10/24/11	Water	X		X	X	X
PLF-MW49D-1011	1110151-09	10/25/11	Water	X		X		X
PLF-MW49I-1011	1110151-10	10/25/11	Water	X		X		X
PLF-MW49S-1011	1110151-11	10/25/11	Water	X		X		X
PLF-MW949S-1011	1110151-12	10/25/11	Water	X		X		X
PLF-MW13S-1011	1110151-13	10/25/11	Water	X		X	X	X
PLF-MW12ID-1011	1110151-14	10/25/11	Water	X		X		X
PLF-MW12D-1011	1110151-15	10/25/11	Water	X		X		X
PLF-MW12S-1011	1110151-16	10/25/11	Water	X		X	X	X
PLF-MW912S-1011	1110151-17	10/25/11	Water	X		X	X	X
PLF-MW48D-10711	1110151-18	10/25/11	Water	X		X		X
PLF-MW48I-10711	1110151-19	10/25/11	Water	X		X		X
PLF-MW48S-10711	1110151-20	10/25/11	Water	X		X		X
PLF-EE2-1011	1110151-21	10/25/11	Water	X		X	X	X
PLF-NVM01D-1011	1110151-22	10/25/11	Water	X		X		X
PLF-NVM01I-1011	1110151-23	10/25/11	Water	X		X		X
PLF-NVM01-1011	1110151-24	10/25/11	Water	X		X	X	X
PLF-MW47D-1011	1110151-25	10/25/11	Water	X		X		X
PLF-MW47I-1011	1110151-26	10/25/11	Water	X		X		X
PLF-MW47S-1011	1110151-27	10/25/11	Water	X		X		X
PLF-MW50S-1011	1110151-28	10/25/11	Water	X		X		X
PLF-#1R-1011	1110151-29	10/25/11	Water	X		X	X	X
PLF-TripBlank1-1011	1110151-30	10/24/11	Water	X				
PLF-MW24S-1011	1110151-31	10/26/11	Water	X				
PLF-MW15S-1011	1110151-32	10/26/11	Water	X				
PLF-MW31S-1011	1110151-33	10/26/11	Water	X				
PLF-MW29S-1011	1110151-34	10/26/11	Water	X				

Field Sample ID	ALS Laboratory Sample ID	Sample Collection Date	Matrix	Analysis				
				VOCs	SVOCs Herbicides	MEE	Total Cr Cr (VI)	Manganese & Inorganic Constituents
PLF-MW929S-1011	1110151-35	10/26/11	Water	X				
PLF-MW33S-1011	1110151-36	10/26/11	Water	X				
PLF-MW46S-1011	1110151-37	10/26/11	Water	X				
PLF-MW38I-1011	1110151-38	10/26/11	Water	X				
PLF-MW38S-1011	1110151-39	10/26/11	Water	X				
PLF-MW10S-1011	1110151-40	10/26/11	Water	X		X		X
PLF-MW11I-1011	1110151-41	10/26/11	Water	X				
PLF-MW11S-1011	1110151-42	10/26/11	Water	X		X		X
PLF-MW51S-10111	1110151-43	10/26/11	Water	X		X		X
PLF-EE8R-1011	1110151-44	10/26/11	Water	X			X	
PLF-EE7R-1011	1110151-45	10/26/11	Water	X				
PLF-MW16S-1011	1110151-46	10/26/11	Water	X				
PLF-MW54I-1011	1110151-47	10/27/11	Water	X				
PLF-MW43I-1011	1110151-48	10/27/11	Water	X				
PLF-MW43S-1011	1110151-49	10/27/11	Water	X				
PLF-MW44S-1011	1110151-50	10/27/11	Water	X				
PLF-MW42S-1011	1110151-51	10/27/11	Water	X				
PLF-MW40S-1011	1110151-52	10/27/11	Water	X				
PLF-MW37S-1011	1110151-53	10/27/11	Water	X				
PLF-MW34S-1011	1110151-54	10/27/11	Water	X				
PLF-MW45S-1011	1110151-55	10/27/11	Water	X				
PLF-MW41SR-1011	1110151-56	10/27/11	Water	X				
PLF-MW17SR-1011	1110151-57	10/27/11	Water	X				
PLF-#4R-1011	1110151-58	10/27/11	Water	X				
PLF-#94R-1011	1110151-59	10/27/11	Water	X				
PLF-MW23S-1011	1110151-60	10/27/11	Water	X				
PLF-MW26S-1011	1110151-61	10/26/11	Water		X			
PLF-MW926S-1011	1110151-62	10/26/11	Water		X			
PLF-TripBlank2-1011	1110151-63	10/27/11	Water	X				
PLF-MW29I-1011	1110151-64	10/26/11	Water	X				
PLF-Lopez-1011	1110151-65	10/27/11	Water	X				
PLF-Bradley-1011	1110151-66	10/27/11	Water	X				

Field Sample ID	ALS Laboratory Sample ID	Sample Collection Date	Matrix	Analysis				
				VOCs	SVOCs Herbicides	MEE	Total Cr Cr (VI)	Manganese & Inorganic Constituents
PLF-Norvell2-1011	1110151-67	10/27/11	Water	X				
PLF-Norvell-1011	1110151-68	10/27/11	Water	X				
PLF-West-1011	1110151-69	10/27/11	Water	X				
PLF-Yenney2-1011	1110151-70	10/28/11	Water	X				
PLF-Rada-1011	1110151-71	10/28/11	Water	X				
PLF-Rindt-1011	1110151-72	10/28/11	Water	X				
PLF-Salinas-1011	1110151-73	10/28/11	Water	X				
PLF-Montalvo-1011	1110151-74	10/28/11	Water	X				
PLF-Hand-1011	1110151-75	10/28/11	Water	X				
PLF-TripBlank3-1011	1110151-76	10/28/11	Water	X				
PLF-MW22S-1011	TT92D ^(A)	10/26/11	Water				X	

Notes:

X - The analysis was requested and performed on the sample.

VOCs – Volatile organic compounds

SVOCs – Semi-volatile organic compounds

Herbicides – Chlorophenoxy herbicides and pentachlorophenol (PCP)

MEE – Methane, ethane, and ethane gases

Cr – Chromium

Cr (VI) – Hexavalent chromium

Inorganic Constituents – Alkalinity (total, as carbonate, bicarbonate, & hydroxide), chloride, nitrate, nitrite, sulfate, ferrous iron (Fe [II]), chemical oxygen demand (COD), total organic carbon (TOC), total dissolved solids (TDS), and ammonia.

^(A) – The laboratory sample ID was assigned by ARI.

The analytical parameters requested for the samples, the respective analytical methods, and the analytical laboratories are summarized below:

Parameter	Analytical Method	Laboratory
Volatile organic compounds (VOCs)	SW846 Method 8260B - SIM ^(A)	ALS Laboratory Group (ALS), Everett, Washington
Semi-volatile organic compounds (SVOCs)	SW846 Methods 3510C/8270C	
Methane, ethane, ethane (MEE)	Laboratory Standard Operation Procedure	
Chromium and manganese	EPA Method 200.8	Analytical Resources, Inc. (ARI), Tukwila, Washington
Alkalinity (total, carbonate, bicarbonate, & hydroxide)	SM Method 2320B	
Anions (chloride, nitrate, nitrite, & sulfate)	EPA Method 300.0	
Chemical oxygen demand (COD)	EPA Method 410.4	
Ferrous iron (Fe [II])	SM Method 3500-Fe D	
Total organic carbon (TOC)	SM Method 5310B	
Total dissolved solids (TDS)	EPA Method 160.1	
Ammonia	EPA Method 350.1 Modified	
Hexavalent chromium (Cr [VI])	SM Method 3500-Cr D	
Chlorophenoxy Herbicides & PCP	SW846 Method 3510C/8151A Modified ^(B)	TestAmerica Laboratories, Inc., Tacoma, WA

Notes:

1. SW846 - *USEPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, SW-846, Third Edition, December 1996.
2. EPA Methods - *USEPA Methods for Chemical Analysis of Water and Wastes*, EPA-600/4-79-020, March 1983 Revision.
3. SM – Standard Methods for the Examination of Water and Wastewater, American Public Health Association, 20th Edition, 1995.
4. PCP - Pentachlorophenol
5. ^(A) – SIM technique was performed on all target compounds to achieve lower detection limits.
6. ^(B) – Method was modified using GC/MS-SIM technique.

II. DATA VALIDATION FINDINGS

1. Sample Custody, Preservation, and Analysis Completeness

Sample custody was maintained and documented as required from the sample collection to the receipt at the laboratory. The samples were received properly preserved and consistent with the accompanying chain-of-custody (COC) documentation. All requested analyses on the COC forms were completed and reported.

2. Volatile Organic Compounds (VOCs; SW846 Method 8260B – SIM)

2.1 Holding Time

Water samples should be analyzed within 14 days of collection. All samples were analyzed within the required holding time.

2.2 GC/MS Instrument Performance Check

Bromofluorobenzene (BFB) tuning analyses were performed at the required frequency. Relative abundance of all required ions met the method requirements.

2.3 Initial Calibration (ICAL)

The method linearity criteria require that (1) if linear average RFs is chosen as the quantitation option, the %RSD of RFs be $\leq 15\%$ for the target compound, (2) if least-square linear regression is chosen for quantitation, the correlation coefficient (r) be ≥ 0.99 , and (3) if six-point non-linear (quadratic) curve is chosen for quantitation, the coefficient of determination (r^2) be ≥ 0.99 .

The initial calibrations either met the criteria or the outlier had no adverse effects on data quality (*e.g.*, %RSD $> 15\%$ for a non-detected compound).

2.4 Calibration Verification

The NFG and method criteria require that (1) continuing calibrations be analyzed at the beginning of each 12-hour analysis period prior to the analysis of method blank and samples, (2) the percent difference (%D) values be within $\pm 20\%$, and (3) the RF be ≥ 0.05 for all target and surrogate compounds.

Calibration verification analyses were performed at the required frequency. The %D values either met the criteria or the outliers had no effects on associated data (*e.g.*, bias-high %D value where the target compound was not detected in the samples), except for the following:

Calibration Verification ID	Analyte	%D	Bias	Affected Sample	Data Qualification
J2818.D	Tetrachloroethene	44.0%	High	PLF-MW53S-1011 PLF-NVM02-1011 PLF-MW49D-1011 PLF-MW49S-1011	J
J3102.D	Acetone	-22.1%	Low	PLF-MW949S-1011 PLF-MW13S-1011 PLF-MW12ID-1011 PLF-MW12D-1011 PLF-MW12S-1011 PLF-MW912S-1011 PLF-MW48D-1011 PLF-MW48I-1011 PLF-MW48S-1011 PLF-EE21011 PLF-NVM01D-1011 PLFNVM01I-1011 PLFMW47D-1011 PLFMW47I-1011 PLFMW47S-1011	UJ
J3122.D	Acetone 2-Haxanone	-46.5% -26.4%	Low	PLF-MW50S-1011 PLF-1R-1011 PLF-MW24S-1011 PLF-MW15S-1011 PLF-MW31S-1011 PLF-MW29S-1011 PLF-MW929S-1011 PLF-MW33S-1011 PLF-MW46S-1011 PLF-MW38I-1011	UJ
J3122.D	1,1-Dichloroethane	20.4%	High	PLF-MW50S-1011	J
K0122.D	Acetone	-20.7%	Low	PLF-MW45S-1011 PLF-MW41SR-1011 PLF-MW17SR-1011 PLF-#4R-1011 PLF-#94R-1011 PLF-MW23S-1011 PLF-TripBlank2-1011 PLF-MW29I-1011 PLF-Lopez-1011 PLF-Bradley-1011 PLF-Norvell2-1011	UJ
K0202.D	2-Butanone 2-Hexanone	-23.4% -21.3%	Low	PLF-Norvell-1011 PLF-West-1011 PLF-Yenney2-1011 PLF-Rada-1011 PLF-Rindt-1011 PLF-Salinas-1011 PLF-Montalvo-1011 PLF-Hand-1011	UJ

2.5 Blanks

Method Blanks: Method blanks were analyzed at the required frequency. Target compounds were not detected at or above the reporting limits (RLs) in the method blanks.

Trip Blanks: One trip blank was submitted with each of the three sample shipments for VOCs analyses. Target compounds were not detected at or above the RLs in the trip blanks.

2.6 Laboratory Control Sample (LCS) and LCS Duplicate (LCSD)

LCS and LCSD analyses, named as blank spike and blank spike duplicate by the laboratory, were performed as required. The %R and relative percent difference (RPD) values were within the laboratory control limits.

2.7 Surrogate Spikes

Surrogate spikes were added to all samples as required by the method. %R values met the laboratory control limits for all samples.

2.8 Matrix Spike and Matrix Spike Duplicate (MS/MSD)

MS/MSD analyses were performed on project samples as requested. All %R and RPD values were within the laboratory control limits.

2.9 Internal Standards

Proper internal standards were added to all samples. Internal standard retention times were within the ± 0.5 minute window of the associated standard in all samples. All internal standard intensity met the method requirement of -50% to $+100\%$ of the associated standard.

2.10 Field Duplicates

Four field duplicate pairs were submitted for VOCs analyses. The RPD or concentration difference values and data qualification for detected target compounds are presented in **Section III**.

2.11 Laboratory Reporting Limits

The target compounds listed in the OMM were reported as required. Reporting limits were supported with proper initial calibration concentrations for all target compounds. The reporting limit goals specified in the OMM were met.

2.12 Overall Assessment of VOCs Data Usability

VOCs data are acceptable for use as qualified, based on the information submitted by the laboratory.

3. Semi-volatile Organic Compounds (SVOCs; SW846 Method 8270C)

3.1 Holding Time

Water samples should be extracted within 7 days of collection and the extracts analyzed within 40 days of extraction. All samples were extracted and analyzed within the required holding times.

3.2 GC/MS Instrument Performance Check

Decafluorotriphenylphosphine (DFTPP) tuning analyses were performed at the required frequency. Relative abundance for all required ions met the method requirements.

3.3 Initial Calibration

The method linearity criteria require that (1) if linear average RFs is chosen as the quantitation option, the %RSD of RFs be $\leq 15\%$ for the analyte, (2) if least-square linear regression is chosen for quantitation, the correlation coefficient (r) be ≥ 0.99 , and (3) if six-point non-linear (quadratic) curve is chosen for quantitation, the coefficient of determination (r^2) be ≥ 0.99 . The initial calibration met the NFG and method criteria. The %RSD values for a number of target compounds exceeded 15%; these compounds were not detected in samples. No data qualifying action was taken.

3.4 Calibration Verification

The method criteria require that (1) continuing calibrations be analyzed at the beginning of each 12-hour analysis period prior to the analysis of method blank and samples, (2) the %D be within $\pm 20\%$, and (3) the RF be ≥ 0.05 for all target and surrogate compounds.

Calibration verification analyses were performed at the required frequency. The %D values either met the criteria or the outliers had no effects on associated data (e.g., bias-high %D value for a compound that was not detected in samples), except for the following:

Calibration Verification ID	Analyte	%D	Bias	Affected Sample	Data Qualification
K0202.D	4-Chloroaniline 4-Nitroaniline Phenanthrene	-32.0% -37.8% -22.9%	Low	PLF-MW26S-1011 PLF-MW926S-1011	UJ

3.5 Method Blanks

Method blanks were analyzed at the required frequency. No target analytes were detected at or above the RLs in the method blank.

3.6 Laboratory Control Sample (LCS) and LCS Duplicate (LCSD)

LCS and LCSD analyses were performed as required. The %R and RPD values either met the laboratory control limits or the %R and RPD outliers had no adverse effects on data quality and usability (e.g., high-bias %R or out-of-control RPD for a compound not detected in associated samples).

3.7 Surrogate Spikes

Surrogate spikes were added to all samples as required by the method. All surrogate %R values either met the laboratory control limits, or the outlier had no adverse effects on data quality (e.g., high-bias %R and associated compounds were not detected in the sample).

3.8 Matrix Spike and Matrix Spike Duplicate (MS/MSD)

MS/MSD analyses were performed on sample PLF-MW26S-1011. All %R and RPD values were within the laboratory control limits.

3.9 Internal Standards

Proper internal standards were added to all samples. All internal standard intensity met the method requirement of -50% to +100% of the associated standard. Internal standard retention times were within the ± 0.5 minute window of the associated standard.

3.10 Field Duplicates

One field duplicate pair, samples PLF-MW26S-1011 and PLF-MW926S-1011, were submitted for SVOCs analyses. Target compounds were not detected at or above the RLs in either sample. The field precision was acceptable.

3.11 Laboratory Reporting Limits

The target compounds listed in the OMM were reported as required. Reporting limits were supported with proper initial calibration concentrations for all target compounds. The reporting limit goals specified in the OMM were met.

3.12 Overall Assessment of SVOCs Data Usability

Pentachlorophenol results for all samples were to be reported from the EPA Method 8151A-SIM in favor of the lower detection limits; results from the EPA Method 8270C were to be qualified (R) and rejected. Data qualified in these respects are summarized in **Section IV -1**.

SVOCs data are acceptable for use as qualified, based on the information submitted by the laboratory.

4. Chlorophenoxy Herbicides and PCP (SW846 Method 8151A Modified)

4.1 Holding Times

Water samples should be extracted within 7 days of collection and the extracts analyzed within 40 days of extraction. All samples were extracted and analyzed within the required holding times.

4.2 GC/MS Instrument Performance Check

DFTPP tuning analyses were performed at the required frequency. Relative abundance for all required ions met the method requirements.

4.3 Initial Calibration

The method linearity criteria require that (1) if linear average RFs is chosen as the quantitation option, the %RSD of RFs be $\leq 20\%$ for the analyte, (2) if least-square linear regression is chosen for quantitation, the correlation coefficient (r) be ≥ 0.99 , and (3) if six-point non-linear (quadratic) curve is chosen for quantitation, the coefficient of determination (r^2) be ≥ 0.99 . The initial calibration met method criteria.

4.4 Calibration Verification

The method criteria require that (1) continuing calibrations be analyzed at the beginning of each 12-hour analysis period prior to the analysis of method blank and samples, (2) the %D be within $\pm 20\%$, and (3) the RF be ≥ 0.05 for all target and surrogate compounds. The calibration verification analyses met the requirements.

4.5 Method Blank

Target compounds were not detected at or above the RLs in the method blank.

4.6 Laboratory Control Sample (LCS) and LCS Duplicate (LCSD)

LCS and LCSD analyses were performed as required. The %R and RPD values either met the laboratory control limits or the %R values were at levels that had no adverse effects on data quality and usability (e.g., high-bias recovery for a compound not detected in associated samples).

4.7 Surrogate Spikes

Surrogate spikes were added to all samples as required by the method. The surrogate %R values were within the laboratory control limits for all analyses.

4.8 Matrix Spike and Matrix Spike Duplicate (MS/MSD)

MS/MSD analyses were performed on sample PLF-MW26S-1011 as requested. The %R and RPD values met the laboratory control limits.

4.9 Internal Standards

Proper internal standards were added to all samples. All internal standard intensity met the method requirement of -50% to +100% of the associated standard. Internal standard retention times were within the ± 0.5 minute window of the associated standard.

4.10 Field Duplicates

One pair of field duplicates, samples PLF-MW26S-1011 and PLF-MW926S-1011, were submitted for chlorophenoxy herbicides and PCP analyses with SW846 Method 8151A. Target compounds were not detected at or above the RLs in either sample. Field precision was acceptable.

4.11 Laboratory Reporting Limits

The target compounds listed in the OMM were reported as required. Reporting limits were supported with proper initial calibration concentrations for all target compounds, and met the quantitation limit goals for the project.

4.12 Overall Assessment of Chlorophenoxy Herbicides and PCP Data Usability

Chlorophenoxy herbicides and PCP data are acceptable for use as qualified, based on the information submitted by the laboratory.

5. Total Chromium and Manganese (EPA Method 200.8)

5.1 Holding Time

Water samples should be analyzed within 180 days of collection. All samples were analyzed within the required holding times.

5.2 ICP/MS Tune Analysis

Instrument tuning was performed at the required frequency. The stability check (%RSD <5%), mass calibration (mass difference <0.1 AMU), and resolution check (peak width <1.0 AMU at 5% peak height) met the method criteria.

5.3 Initial Calibration

The ICP method requires that (1) a blank and one calibration standard be used in establishing the analytical curve, and (2) the average of replicate exposures be reported for all standards, QC, and sample analyses. Initial calibrations met the method requirements.

5.4 Initial and Continuing Calibration Verification

Initial calibration verification (ICV) and continuing calibration verification (CCV) analyses were performed at the required frequency. All %R values were within 90-110%.

5.5 Blanks

Calibration Blanks: Initial calibration blanks (ICBs) and continuing calibration blanks (CCBs) were analyzed at the required frequency. Chromium and manganese were not detected at or above the instrument detection limits (IDLs) in the ICBs and CCBs.

Method Blank: Method blanks were prepared and analyzed at the required frequency. No target analytes were detected at or above the RLs in method blanks.

5.6 ICP Interference Check Sample (ICS)

ICS analyses were performed as required. No false positive or negative detections were observed (no detections of target analytes in ICS Solution A). All %R values were within 80-120% in Solution AB for target analytes.

5.7 Laboratory Control Sample (LCS)

LCS analyses were performed as required. All %R values were within the method control limits.

5.8 Duplicate Sample Analysis

Duplicate analyses were performed on project samples as requested. The RPD or concentration difference values met the laboratory control limits, except for the following:

Parent Sample ID	Analyte	RPD	Control Limit	Affected Sample	Data Qualification
PLF-MW53S-1011	Manganese	29.1%	20%	PLF-MW53S-1011 PLF-NVM02-1011 PLF-NVM03-1011	J
PLF-EE2-1011	Chromium	37.9%	20%	PLF-EE2-1011 PLF-NVM01-1011 PLF-#1R-1011	J

5.9 Matrix Spike (MS)

MS analyses were performed on project samples as requested. The %R values were within the laboratory control limits, except for the following:

Parent Sample ID	Analyte	MS %R	Control Limit	Affected Sample	Data Qualification
PLF-EE2-1011	Chromium	45.6%	75-125%	PLF-EE2-1011 PLF-NVM01-1011 PLF-#1R-1011	J

5.10 Internal Standards

At least three internal standards were added to all samples and QC analyses. All percent relative intensity values were within the NFG criterion (60 - 125% of those of the calibration blank).

5.11 Field Duplicates

Samples PLF-MW12S-1011 and PLF-MW912S-1011 were field duplicates submitted for total chromium and manganese analyses. Samples PLF-MW49S-1011 and PLF-MW949S-1011 were field duplicates submitted for total manganese analyses. Field duplicate precision for these analyses was within project criteria. The RPD (or concentration difference values) and data qualification are presented in **Section III**.

5.12 Laboratory Reporting Limits

RLs were supported with proper initial calibration concentrations for target analytes, and met the detection limit goals listed in the OMM.

5.13 Overall Assessment of Metals Data Usability

Metals data are acceptable for use as qualified, based on the information submitted by the laboratory.

6. Methane, Ethane, & Ethene (MEE) Gases (Laboratory Standard Operation Procedure)

6.1 Holding Time

Water samples should be analyzed within 14 days of collection. All samples were analyzed within the required holding time.

6.2 Initial Calibration

A 3-point calibration was performed for each target compound according to the analytical method. The correlation coefficient was ≥ 0.995 for the initial calibration linear regression and met the method requirement.

6.3 Calibration Verification

The method requires that (1) a mid-range check standard be analyzed prior to and after each analytical batch, and (2) the %D_f value be within ±20% of the true value. Calibration verification analyses met the laboratory SOP criteria.

6.4 Method Blanks

Method blanks were prepared and analyzed as required. No target analytes were detected at or above the RLs in the method blanks.

6.5 Laboratory Duplicate Analyses

Duplicate analyses were not reported in this SDG. Analytical precision was evaluated with LCS/LCSD and field duplicate results.

6.6 Matrix Spike and Matrix Spike Duplicate (MS/MSD)

MS/MSD analyses were not applicable for the method.

6.7 Laboratory Control Sample (LCS)

LCS and LCS duplicate (LCSD) analyses were performed as required by the method for methane. All %R and RPD values met the laboratory control limits.

6.8 Field Duplicates

Two pairs of field duplicates, samples PLF-MW12S-1011 and PLF-MW912S-1011, and samples PLF-MW49S-1011 and PLF-MW949S-1011, were submitted for MEE gases analyses. MEE gases were not detected at or above the RLs in these samples; field precision was with the acceptance criteria.

6.9 Reporting Limits

The reported RLs were supported with adequate ICAL concentrations. Sample-specific RLs met the OMM reporting limit requirements for all samples.

6.10 Overall Assessment of MEE Gases Data Usability

MEE gases data are of known quality and acceptable for use.

7. Alkalinity, COD, TOC, TDS, Anions, Cr (VI), Fe (II), and Ammonia

7.1 Holding Times

The samples were analyzed within the required holding times of 24 hours for Cr (VI) and Fe (II), 48 hours for nitrate and nitrite; seven days for total dissolved solids (TDS), 14 days for alkalinity; and 28 days for ammonia, chloride, sulfate, chemical oxygen demand (COD), and total organic carbon (TOC). All analyses were performed within the required holding times.

7.2 Initial Calibration

Initial calibration (ICAL) is required for anions (nitrite, nitrate, chloride, and sulfate by EPA Method 300.0), Cr (VI), Fe (II), ammonia, COD, and TOC analyses. The initial calibration correlation coefficients were greater than 0.995 and met the method requirements for these parameters.

7.3 Initial and Continuing Calibration Verification

Initial calibration verification (ICV) and continuing calibration verification (CCV) analyses were performed at the required frequency for all inorganic constituents. All %R values were within the control limits of 90 – 110%.

7.4 Blanks

Calibration Blanks: ICBs and CCBs were analyzed at the required frequency. Target analytes were not detected at or above the RLs in ICBs and CCBs, or detected at levels that had no adverse effects on sample results (*e.g.*, sample result >10x the concentration in the blank).

Method Blanks: Method blanks were analyzed at the required frequency. No target analytes were detected at or above the RLs in method blanks.

7.5 Laboratory Duplicate Analysis

Duplicate analyses were performed for all inorganic constituents on project samples. All RPD or concentration difference values met the laboratory control criteria. Note that the RPD value for the COD duplicate analysis performed on sample kPLF-MW49S-1011 was reported at 30.7%, exceeding the control limit of 20%. COD concentrations in the original and duplicate analyses were less than 5xRL; the RPD value was not applicable for precision evaluation. The concentration difference value (2.18 mg/L) was used for the evaluation, and the value was within the control limit of 1xRL (5 mg/L).

7.6 Matrix Spike (MS)

Matrix spike analyses were performed for anions, COD, TOC, Cr (VI), Fe (II), and ammonia on project samples as requested. All %R values were within the laboratory control limits (75 - 125%).

7.7 Laboratory Control Sample (LCS) and Standard Reference Material (SRM)

LCS analyses were performed for TDS and Fe (II); SRM analyses were performed for alkalinity, anions, TOC, COD, Cr (VI), and ammonia at the required frequency. All %R values were within the laboratory control limits or SRM manufacturer criteria.

7.8 Field Duplicates

Two pairs of field duplicates, samples PLF-MW12S-1011 and PLF-MW912S-1011, and samples PLF-MW49S-1011 and PLF-MW949S-1011, were submitted for inorganic constituents analyses (hexavalent chromium was only analyzed for the MW12S field duplicate pair). The RPD (or concentration difference values) and data qualification are presented in **Section III**.

7.9 Laboratory Reporting Limits

The target analytes listed in the OMM were reported as required. The reporting limit goals specified in the OMM were met for all inorganic constituents.

7.10 Overall Assessment of Inorganic Constituent Data

Inorganic constituent data are of known quality and acceptable for use as qualified, based on the information submitted by the laboratory.

III. FIELD DUPLICATE SUMMARY

Field duplicate RPD is indicative of field and laboratory precision and sample homogeneity in combination. The Functional Guidelines or OMM do not specify criteria for field duplicate evaluation. An advisory criterion of 35 percent was applied to evaluating the RPD values of field duplicate results $\geq 5 \times \text{RL}$. For results $< 5 \times \text{RL}$, an advisory criterion of $2 \times \text{RL}$ was applied to evaluating the concentration differences. The RPD (or concentration difference) values and data qualification for detected compounds in field duplicate pairs are presented as follows:

Detected Analyte	Unit	RL	Field Duplicate Sample ID & Concentration		RPD (%)	Concentration Difference	Data Qualification
			4R	94R			
Tetrachloroethene	µg/L	0.02	1.5	1.7	13%		
Trichloroethene	µg/L	0.020	0.51	0.57	11%		
			MW-12S	MW-912S			
Chromium	µg/L	0.5	2.1	2	5%	0.1	
Manganese	µg/L	0.5	ND	0.5		0.5	
Chloride	mg/L	2	27.8	29.7	7%		
Nitrate	mg/L	0.5	6.4	6.4	0%		
Nitrite as N	mg/L	0.1	ND	ND		0	
Sulfate	mg/L	2	73.4	74	1%		
Chemical Oxygen Demand	mg/L	5	ND	6.33		6.33	
1,1-Dichloroethane	µg/L	1.0	2.3	2.2		0.1	
1,1-Dichloroethene	µg/L	0.020	0.026	0.025		0.001	
1,2-Dichloroethane	µg/L	0.020	2.0	1.9	5%		
Tetrachloroethene	µg/L	0.020	0.28	0.27	4%		
Trichloroethene	µg/L	0.020	16	15	7%		
Alkalinity, Bicarbonate	mg/L	1	217	214	1%		
Alkalinity, Carbonate	mg/L	1	ND	ND		0	
Alkalinity, Hydroxide	mg/L	1	ND	ND		0	
Alkalinity, Total	mg/L	1	217	214	1%		
Total Dissolved Solids	mg/L	10	443	428	3%		
Chromium, Hexavalent	mg/L	0.01	ND	ND		0	
Iron, Ferrous, Fe ⁺²	mg/L	0.04	ND	ND		0	
Ammonia (NH ₃)	mg/L	0.01	0.014	0.021		0.007	
Total Organic Carbon	mg/L	1.5	ND	1.74		1.74	
			MW-29S	MW-29S			
1,2-Dichloroethane	µg/L	0.020	0.034	ND		0.034	
Trichloroethene	µg/L	0.020	0.28	0.28	0%		
			MW-49S	MW-949S			
Manganese	µg/L	0.5	23.8	23	3%		
Chloride	mg/L	2	53.9	54.1	0%		

Detected Analyte	Unit	RL	Field Duplicate Sample ID & Concentration		RPD (%)	Concentration Difference	Data Qualification
Nitrate	mg/L	0.1	2.5	2.3	8%		
Nitrite as N	mg/L	0.1	0.2	0.1		0.1	
Sulfate	mg/L	2	96.9	96.2	1%		
Chemical Oxygen Demand	mg/L	5	6.02	6.95	14%		
cis-1,2-Dichloroethene	µg/L	1.0	1.4	1.6		0.2	
Tetrachloroethene	µg/L	0.020	0.079	0.09		0.011	
Trichloroethene	µg/L	0.020	2.1	2.4	13%		
Alkalinity, Bicarbonate	mg/L	1	218	223	2%		
Alkalinity, Carbonate	mg/L	1	ND	ND		0	
Alkalinity, Hydroxide	mg/L	1	ND	ND		0	
Alkalinity, Total	mg/L	1	218	223	2%		
Total Dissolved Solids	mg/L	10	498	494	1%		
Iron, Ferrous, Fe ⁺²	mg/L	0.04	ND	ND		0	
Ammonia (NH3)	mg/L	0.01	0.018	0.022		0.004	
Total Organic Carbon	mg/L	1.5	2.04	2.01	1%		

Notes:

RL – Reporting limit

µg/L – Microgram per liter

mg/L – Milligram per liter

RPD – Relative percent difference

IV. DATA VALIDATION SUMMARY

1. Data Qualification

Sample ID	Analyte	Data Qualifier	Reason	Report Section
PLF-MW53S-1011 PLF-NVM02-1011 PLF-MW49D-1011 PLF-MW49S-1011	Tetrachloroethene	J	The calibration verification %D value indicated a potential high bias of the reported value.	Section II, 2.4
PLF-MW949S-1011 PLF-MW13S-1011 PLF-MW12ID-1011 PLF-MW12D-1011 PLF-MW12S-1011 PLF-MW912S-1011 PLF-MW48D-1011 PLF-MW48I-1011 PLF-MW48S-1011 PLF-EE2-1011 PLF-NVM01D-1011 PLFNVM01I-1011 PLFMW47D-1011 PLFMW47I-1011 PLFMW47S-1011 PLF-MW45S-1011 PLF-MW41SR-1011 PLF-MW17SR-1011 PLF-#4R-1011 PLF-#94R-1011 PLF-MW23S-1011 PLF-TripBlank2-1011 PLF-MW29I-1011 PLF-Lopez-1011 PLF-Bradley-1011 PLF-Norvell2-1011	Acetone	UJ	The calibration verification %D value indicated a potential low bias of the reported value.	Section II, 2.4
PLF-MW50S-1011 PLF-1R-1011 PLF-MW24S-1011 PLF-MW15S-1011 PLF-MW31S-1011 PLF-MW29S-1011 PLF-MW929S-1011 PLF-MW33S-1011 PLF-MW46S-1011 PLF-MW38I-1011	Acetone 2-Haxanone	UJ	The calibration verification %D value indicated a potential low bias of the reported value.	Section II, 2.4
PLF-MW50S-1011	1,1-Dichloroethane	J	The calibration verification %D value indicated a potential high bias of the reported value.	Section II, 2.4

Sample ID	Analyte	Data Qualifier	Reason	Report Section
PLF-Norvell-1011 PLF-West-1011 PLF-Yenney2-1011 PLF-Rada-1011 PLF-Rindt-1011 PLF-Salinas-1011 PLF-Montalvo-1011 PLF-Hand-1011	2-Butanone 2-Hexanone	UJ	The calibration verification %D value indicated a potential low bias of the reported value.	Section II, 2.4
PLF-MW26S-1011 PLF-MW926S-1011	4-Chloroaniline 4-Nitroaniline Phenanthrene	UJ	The calibration verification %D value indicated a potential low bias of the reported value.	Section II, 3.4
PLF-MW26S-1011 PLF-MW926S-1011	Pentachlorophenol (EPA 8270C-Full Scan)	R	Report from the EPA 8151A-Modified analysis in favor of the lower detection limit.	Section II, 3.12
PLF-MW53S-1011 PLF-NVM02-1011 PLF-NVM03-1011	Manganese	J	The laboratory duplicate analysis RPD value was >20%.	Section II, 5.8
PLF-EE2-1011 PLF-NVM01-1011 PLF-#1R-1011	Chromium	J	The laboratory duplicate analysis RPD value was >20%, and the MS %R value biased low.	Section II, 5.8 5.9

2. Data Qualifier Definition

Data Qualifier	Definition
J	The analyte was detected above the reported quantitation limit, and the reported concentration is an estimated value.
R	The reported value is rejected because the analysis is determined insufficient, or the value can be substituted with more favorable result available from other analysis.
U	The analyte is considered not detected at the reported value for the sample.
UJ	The analyte is not detected above the sample quantitation limit, and the reported quantitation limit is an estimated value.

V. DATA QUALITY OBJECTIVE ASSESSMENT

The quality of the data collected in this sampling event is assessed against the data quality objectives (DQOs) defined in the OMM. The assessment evaluates whether the DQOs were achieved in various QC elements - precision, accuracy, representativeness, comparability, and completeness, as presented below.

1. Precision

Precision is defined as the degree of mutual agreement among independent measurements as the result of repeated application of the same process under similar conditions. Analytical precision is evaluated via the relative percent difference (RPD) values of LCS/LCSD, MS/MSD, and duplicate sample (inorganic only) analyses. The RPD values of field duplicate analyses are used to evaluate the analytical and field precision in conjunction with sample homogeneity.

The precision of VOCs, SVOCs, chlorophenoxy herbicides, PCP, methane, ethane, ethane, total metals (chromium and manganese), and inorganic constituent (anions, alkalinity, bicarbonate, COD, TDS, hexavalent chromium, ferrous iron, ammonia, and TOC) analyses met the DQOs of the OMM, except for the following:

1.1 Chromium and Manganese – Laboratory Duplicate Analysis

The laboratory duplicate analyses performed on sample PLF-EE2-1011 for chromium and sample PLF-MW53S-1011 for manganese displayed significant variability with the original analyses (*i.e.*, RPD value >20%). As a conservative measure, positive chromium and manganese results for samples in the same preparation batch each with the two samples were qualified as estimated.

2. Accuracy

Accuracy is a statistical measurement of correctness and includes components of random and system errors. Accuracy is defined as the degree of agreement between a measurement and the known reference. Analytical accuracy is evaluated via the percent recovery (%R) values of initial and continuing calibration (percent difference or percent drift for organic analyses), surrogate spikes (organic analyses only), MS, MSD, LCS, LCSD, and internal standards (as applicable for the analytical methods) in conjunction with method blank and field blank results. Method and field blanks identify the type and magnitude of effects contributed to the system error through field and/or laboratory procedures.

The accuracy of VOCs, SVOCs, chlorophenoxy herbicides, PCP, methane, ethane, ethane, metals, and inorganic constituents analyses met the DQOs of the OMM, except for the following:

2.1 VOCs – Calibration Verification

The %D values for acetone in three of the continuing calibration verification (CCV) analyses showed biased-low recovery. Acetone was not detected in any of the samples analyzed in the same sequences with these CCVs, and acetone results for these samples were therefore qualified (UJ) to indicate the potential low-bias associated with these data.

The %D values for 2-hexanone in two CCV analyses showed low-bias recovery. 2-Hexanone was not detected in samples analyzed in the same analytical sequences with these outlying CCVs. 2-Hexanone results for these samples were qualified (UJ) as estimated.

The %D value for 2-butanone in one CCV analysis showed low-bias recovery. 2-Butanone was not detected in samples analyzed in the same analytical sequences with the outlying CCV. 2-Butanone results for these samples were therefore qualified (UJ) as estimated.

The %D values for tetrachloroethene and 1,1-dichloroethane each in one of the CCV analyses showed potential high bias of the associated sample results. Tetrachloroethene and 1,1-dichloroethane detections greater than their RLs in samples analyzed in the same sequence with the outlying CCVs were qualified (J) as estimated.

2.2 SVOCs – Calibration Verification

The %D values for 4-chloroaniline, 4-nitroaniline, and phenanthrene in one of the CCV analyses showed biased-low recovery. These compounds were not detected in any of the samples analyzed in the same sequences with this CCV, 4-chloroaniline, 4-nitroaniline, and phenanthrene results for these samples were therefore qualified (UJ) to indicate the potential low-bias associated with these data.

3. Representativeness

Representativeness is the level of confidence that the analytical data reflect the actual field condition. Representativeness is evaluated via the integrity of the samples during the course from collection through preparation/analysis at the laboratory. The evaluation of associated method and field blanks also assists in identifying artifacts that may skew the representativeness of the samples.

No anomalies were identified in the procedures of sample preservation, handling, preparation, and analyses. Sample preparation and analyses were all performed within the required holding times. The laboratory and field blanks were either free of contaminants or at levels that had no significant effects on sample results. The VOCs, SVOCs, chlorophenoxy herbicides, methane, ethane, ethane, metals, and inorganic constituent data are assumed representative.

4. Comparability

Comparability is the confidence with which one data set can be compared to another data set. Using standard methods throughout the data generation processes ensures the comparability of data generated in separated sampling events.

Data collected in this sampling event are assumed comparable because standard methods were used for sample preparation and analyses, and the methods were consistent with those specified in the OMM.

Selective ion monitoring (SIM) technique was applied to the analyses of full list VOCs, as opposed to only compounds requiring lower detection limits in all previous sampling events. The reporting limits remained

the same as those specified in the OMM. No significant deviations of results from the previous sampling events were observed.

5. Completeness

Completeness is a ratio of the number of valid data to the expected number of data that can be obtained under normal conditions for a given sampling event. Valid data are sample results determined acceptable for use. Rejected results are considered un-useable and thus invalid. In cases where data were rejected in favor of those obtained from a separate valid analysis, the rejection does not affect the completeness.

The completeness of this sampling event is 100 percent for all analyses. The overall completeness for this sampling event met the 95 percent completeness goal of the OMM.

6. Sensitivity

Sensitivity depicts the level of ability an analytical system (i.e., sample preparation and instrumental analysis) of detecting a target component in a given sample matrix with a defined level of confidence. Factors affecting the sensitivity of an analytical system include: analytical system background (e.g., laboratory artifact or method blank contamination), sample matrix (e.g., mass spectrometry ion ratio change, co-elution of peaks, or baseline elevation) and instrument instability.

To evaluate if the analytical sensitivity achieved the project expectation, sample-specific PQLs were compared against the RL goals set forth in the OMM. In addition, sample results were compared to detections of target analytes in method blanks to identify potential effects of laboratory background on sensitivity.

The sensitivity associated with the analyses of all samples was attained to the project goals in this sampling event.

VI. REFERENCES

USEPA Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983 and updates.

USEPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, Third Edition, December 1996.

USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, Office of Superfund Remediation and Technology Innovation, U.S. Environmental Protection Agency, June 2008, EPA-540-R-08-01.

USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review, Office of Superfund Remediation and Technical Innovation, U.S. Environmental Protection Agency, January 2010, USEPA 540/R-10/011.

Standard Methods for the Examination of Water and Wastewater, American Public Health Association, 20th Edition, 1995.

Operations and Maintenance Manual - SVE, NoVOCsTM and Groundwater Monitoring, Pasco Landfill Site Pasco, Washington. Environmental Partners, Inc. January 31, 2007 and Revisions.

Operations and Maintenance Manual - SVE, NoVOCsTM and Groundwater Monitoring, Pasco Landfill Site Pasco, Washington, Addendum No. 1. Environmental Partners, Inc. May 22, 2008.

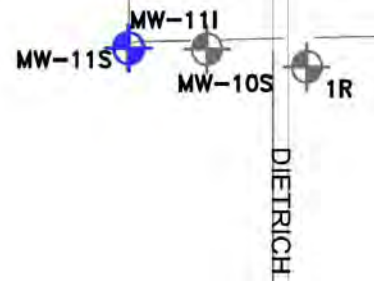
Appendix B

Borelogs

Boring/Well Designation: MW-111

Client: IWAG
Logged By: K. Addis, L.G.
Date of Drilling: 2/15/11 **Ground Elevation:** 419.63
Location: Dietrich Road **Top of Casing:** 421.94
Drilling Contractor: Environmental West **Bottom of Casing:** 323.94
Drill Rig: Truck-mounted Sonic **Total Depth:** 99.8
Method: Rotasonic w/ 140lb autohammer **Top Screen Elevation:** 333.94
Borehole: Casing 6-5/8"; Sonic 4" O.D. **Bottom Screen Elevation:** 323.94

Site Representation:



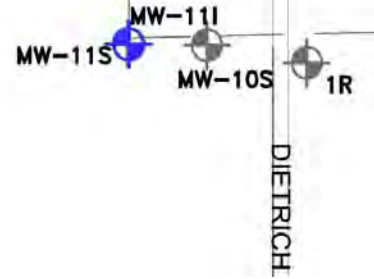
		SUBSURFACE PROFILE				SAMPLE			PID (ppm)	Well Data	Comments
Depth	Elevation	Log	USCS Code	Description	Interval Recovery	Blows per 6"	Sample				
0	423.0			Ground Surface							
			SP	Poorly-Graded Sand Brown; damp; mostly fine to medium sand; massive					0.1		Above ground completion Concrete surface seal
5	418.5		ML	Silt with Sand Olive gray; moist; mostly silt with little fine sand					0.2		2" Sch. 40 PVC Blank Bentonite grout
10				Becomes damp					0.0		
15				Olive gray; damp; mostly silt					0.0		
20	404.0		SP	Poorly-Graded Sand with Silt Brown; damp; mostly fine sand with little silt			MW111@21		0.5		
25	398.0								2.1		

Boring/Well Designation: MW-111

Client: IWAG
Logged By: K. Addis, L.G.
Date of Drilling: 2/15/11
Location: Dietrich Road
Drilling Contractor: Environmental West
Drill Rig: Truck-mounted Sonic
Method: Rotasonic w/ 140lb autohammer
Borehole: Casing 6-5/8"; Sonic 4" O.D.

Ground Elevation: 419.63
Top of Casing: 421.94
Bottom of Casing: 323.94
Total Depth: 99.8
Top Screen Elevation: 333.94
Bottom Screen Elevation: 323.94

Site Representation:

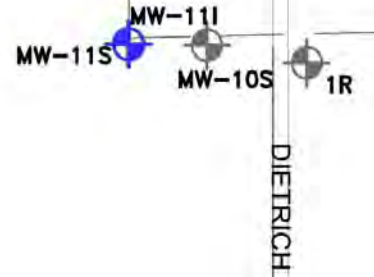


		SUBSURFACE PROFILE				SAMPLE			PID (ppm)	Well Data	Comments
Depth	Elevation	Log	USCS Code	Description	Interval	Recovery	Blows per 6"	Sample			
	395.0		SP	Olive gray; damp; mostly fine sand with trace silt					2.1		2" Sch. 40 PVC Blank
	394.5		MH	Elastic Silt Olive gray; moist; mostly silt with some clay							
30			SM	Silty Sand Olive gray; damp; mostly fine sand with some silt (40%)					2.8		Bentonite grout
	389.0										
35	387.0		SP	Poorly-Graded Sand Black (salt and pepper); damp; mostly fine to medium sand							
			SM	Silty Sand Olive gray; damp; mostly fine sand with little silt					1.3		
	384.0										
40			SP	Poorly-Graded Sand Black (salt and pepper); damp; mostly fine to medium sand					0.9		
									0.5		
45											
									0.8		
50	373.0								2.3		

Boring/Well Designation: MW-111

Client: IWAG
Logged By: K. Addis, L.G.
Date of Drilling: 2/15/11 **Ground Elevation:** 419.63
Location: Dietrich Road **Top of Casing:** 421.94
Drilling Contractor: Environmental West **Bottom of Casing:** 323.94
Drill Rig: Truck-mounted Sonic **Total Depth:** 99.8
Method: Rotasonic w/ 140lb autohammer **Top Screen Elevation:** 333.94
Borehole: Casing 6-5/8"; Sonic 4" O.D. **Bottom Screen Elevation:** 323.94

Site Representation:

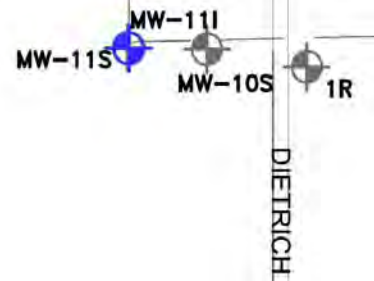


		SUBSURFACE PROFILE				SAMPLE			PID (ppm)	Well Data	Comments
Depth	Elevation	Log	USCS Code	Description	Interval	Recovery	Blows per 6"	Sample			
			SP	Black (salt and pepper); moist; fine to medium sand with trace gravel					0.3		
			SP	Grades to fine to medium sand					1.8		2" Sch. 40 PVC Blank
55									2.0		
	365.0								0.8		Bentonite grout
	364.4		SM	Silty Sand							
			SP	Poorly-Graded Sand Black (salt and pepper); moist; fine to medium sand with trace gravel					2.2		
60									3.6		
				Grades to fine to medium sand with few gravel					3.8		
65											
				Becomes saturated				MW111@67	4.2		
									5.3		
70	353.0		SW	Well-Graded Sand with Gravel Dark gray; saturated; mostly fine to coarse sand with little gravel					2.3		Water level 68.95' ATD, measured from MW-11S
75	348.0										

Boring/Well Designation: MW-111

Client: IWAG
Logged By: K. Addis, L.G.
Date of Drilling: 2/15/11 **Ground Elevation:** 419.63
Location: Dietrich Road **Top of Casing:** 421.94
Drilling Contractor: Environmental West **Bottom of Casing:** 323.94
Drill Rig: Truck-mounted Sonic **Total Depth:** 99.8
Method: Rotasonic w/ 140lb autohammer **Top Screen Elevation:** 333.94
Borehole: Casing 6-5/8"; Sonic 4" O.D. **Bottom Screen Elevation:** 323.94

Site Representation:

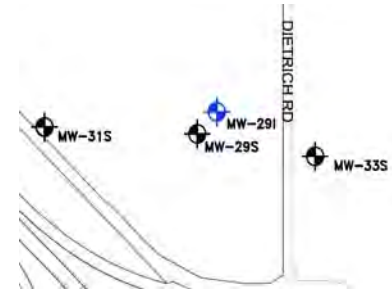


		SUBSURFACE PROFILE				SAMPLE			PID (ppm)	Well Data	Comments
Depth	Elevation	Log	USCS Code	Description	Interval	Recovery	Blows per 6"	Sample			
80			SW	Dark gray; saturated; mostly fine to coarse sand with little gravel							2" Sch. 40 PVC Blank
	338.0								1.8		Bentonite grout
85			GW	Well-Graded Gravel with Sand Dark gray; saturated; mostly fine to coarse gravel with little sand							Bentonite pellets
90									0.8		10/20 Colorado Silica Sand
95									1.1		2" PVC 0.01" Well Screen
100	323.0			End of Borehole					2.1		

Boring/Well Designation: MW-29I

Client: IWAG
Logged By: K. Addis, L.G.
Date of Drilling: 2/28/11 **Ground Elevation:** 428.41
Location: 1800 N. Commercial Ave. **Top of Casing:** 431.04
Drilling Contractor: Environmental West **Bottom of Casing:** 329.04
Drill Rig: Truck-mounted Sonic **Total Depth:** 102' bgs
Method: Rotosonic w/ 140lb autohammer **Top Screen Elevation:** 339.04
Borehole: Casing 6-5/8"; Sonic 4" O.D. **Bottom Screen Elevation:** 329.04

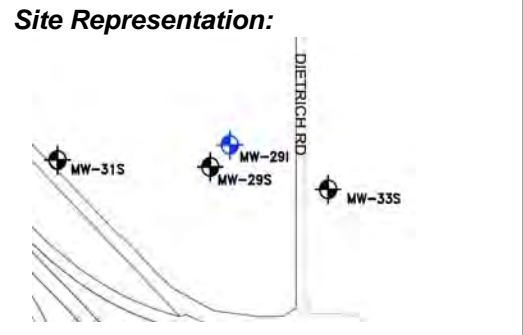
Site Representation:



		SUBSURFACE PROFILE				SAMPLE			PID (ppm)	Well Data	Comments
Depth	Elevation	Log	USCS Code	Description	Interval Recovery	Blows per 6"	Sample				
0	431.5			Ground Surface							
			SP	Poorly-Graded Sand with Gravel Light brown; damp; mostly fine sand with little gravel; hand dug					0.2		Above ground completion Concrete surface seal
5	426.5		SM	Silty Sand Brown; damp; mostly fine sand with little silt					1.1		2" Sch. 40 PVC Blank Bentonite grout
10	421.5		ML	Silt with Sand Olive gray; moist; mostly silt with few fine sand Medium sand lens, 6" thick					0.7		
15	415.5		SM-SP	Poorly-Graded Sand with Silt Olive gray; damp; mostly fine sand with little silt					1.1		
	414.5		ML	Silt with Sand Olive gray; damp; mostly silt with few sand					2.0		
20											
25	406.5										

Boring/Well Designation: MW-29I

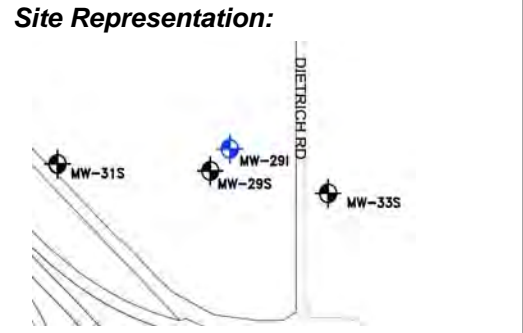
Client: IWAG
Logged By: K. Addis, L.G.
Date of Drilling: 2/28/11 **Ground Elevation:** 428.41
Location: 1800 N. Commercial Ave. **Top of Casing:** 431.04
Drilling Contractor: Environmental West **Bottom of Casing:** 329.04
Drill Rig: Truck-mounted Sonic **Total Depth:** 102' bgs
Method: Rotosonic w/ 140lb autohammer **Top Screen Elevation:** 339.04
Borehole: Casing 6-5/8"; Sonic 4" O.D. **Bottom Screen Elevation:** 329.04



		SUBSURFACE PROFILE				SAMPLE			PID (ppm)	Well Data	Comments
Depth	Elevation	Log	USCS Code	Description	Interval	Recovery	Blows per 6"	Sample			
	402.5		ML	Silt with Sand Olive gray; damp; mostly silt with some sand					1.1		2" Sch. 40 PVC Blank
30	400.0		SP	Poorly-Graded Sand Olive gray; damp; mostly fine sand with trace silt							
	396.5		ML	Silt with Sand Olive gray; moist; mostly silt with little fine sand					5.2		Bentonite grout
35	394.5		SM	Silty Sand Olive gray; moist; mostly fine sand with some silt							
	392.5		SP-SM	Poorly-Graded Sand with Silt Olive gray; damp; mostly fine sand with few silt					3.6		
40			SP	Poorly-Graded Sand Olive gray; moist; mostly fine to medium sand							
				Becomes dark gray					3.1		
45				Becomes olive gray							
	382.5								2.8		
50											

Boring/Well Designation: MW-29I

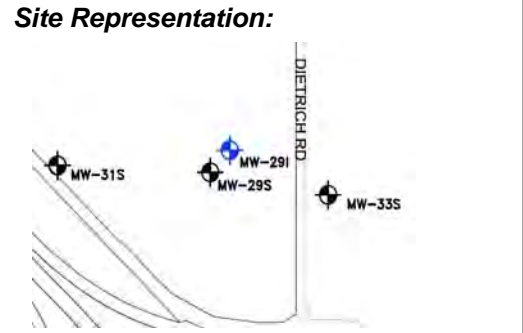
Client: IWAG
Logged By: K. Addis, L.G.
Date of Drilling: 2/28/11 **Ground Elevation:** 428.41
Location: 1800 N. Commercial Ave. **Top of Casing:** 431.04
Drilling Contractor: Environmental West **Bottom of Casing:** 329.04
Drill Rig: Truck-mounted Sonic **Total Depth:** 102' bgs
Method: Rotosonic w/ 140lb autohammer **Top Screen Elevation:** 339.04
Borehole: Casing 6-5/8"; Sonic 4" O.D. **Bottom Screen Elevation:** 329.04



		SUBSURFACE PROFILE				SAMPLE		PID (ppm)	Well Data	Comments
Depth	Elevation	Log	USCS Code	Description	Interval Recovery	Blows per 6"	Sample			
55			SP	Poorly-Graded Sand Black (salt and pepper); moist; mostly fine to medium sand				2.2		2" Sch. 40 PVC Blank
60				Grades to fine to medium sand with trace gravel				1.6		Bentonite grout
	368.5		SP	Black (salt and pepper); moist; mostly fine to medium sand with few gravel				2.3		
65								1.9		
70								2.4		
75	356.5									

Boring/Well Designation: MW-29I

Client: IWAG
Logged By: K. Addis, L.G.
Date of Drilling: 2/28/11 **Ground Elevation:** 428.41
Location: 1800 N. Commercial Ave. **Top of Casing:** 431.04
Drilling Contractor: Environmental West **Bottom of Casing:** 329.04
Drill Rig: Truck-mounted Sonic **Total Depth:** 102' bgs
Method: Rotosonic w/ 140lb autohammer **Top Screen Elevation:** 339.04
Borehole: Casing 6-5/8"; Sonic 4" O.D. **Bottom Screen Elevation:** 329.04

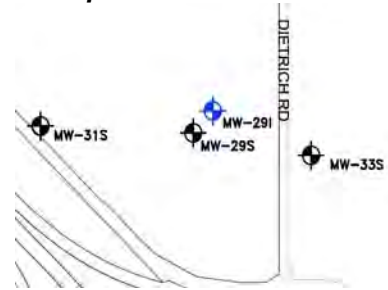


		SUBSURFACE PROFILE				SAMPLE			PID (ppm)	Well Data	Comments
Depth	Elevation	Log	USCS Code	Description	Interval Recovery	Blows per 6"	Sample				
80			SW	Well-Graded Sand with Gravel Black (salt and pepper); moist to saturated; mostly fine to coarse sand with some gravel				2.1		2" Sch. 40 PVC Blank	
								1.1		Bentonite grout	
85								1.8		Bentonite pellets	
90	341.5		GW	Well-Graded Gravel with Sand Dark gray; saturated; mostly fine to coarse gravel with some sand and trace silt						10/20 Colorado Silica Sand	
95								0.2		2" PVC 0.01" Well Screen	
100	331.5			Grades to mostly gravel with little sand and few silt							

Boring/Well Designation: MW-29I

Client: IWAG
Logged By: K. Addis, L.G.
Date of Drilling: 2/28/11 **Ground Elevation:** 428.41
Location: 1800 N. Commercial Ave. **Top of Casing:** 431.04
Drilling Contractor: Environmental West **Bottom of Casing:** 329.04
Drill Rig: Truck-mounted Sonic **Total Depth:** 102' bgs
Method: Rotosonic w/ 140lb autohammer **Top Screen Elevation:** 339.04
Borehole: Casing 6-5/8"; Sonic 4" O.D. **Bottom Screen Elevation:** 329.04

Site Representation:



		SUBSURFACE PROFILE				SAMPLE			PID (ppm)	Well Data	Comments
Depth	Elevation	Log	USCS Code	Description	Interval	Recovery	Blows per 6"	Sample			
05	326.5		GW	Black;saturated; mostly fine to coarse gravel with little sand							
				End of Borehole							
10											
15											
20											
25											

Boring/Well Designation: MW-38I

Client: IWAG
Logged By: K. Addis, L.G.
Date of Drilling: 3/2/11 **Ground Elevation:** 425.27
Location: E.Lewis St (Knopp Property) **Top of Casing:** 428.17
Drilling Contractor: Environmental West **Bottom of Casing:** 328.17
Drill Rig: Truck-mounted Sonic **Total Depth:** 101' bgs
Method: Rotosonic w/ 140lb autohammer **Top Screen Elevation:** 338.17
Borehole: Casing 6-5/8"; Sonic 4" O.D. **Bottom Screen Elevation:** 328.17

Site Representation:



		SUBSURFACE PROFILE				SAMPLE			PID (ppm)	Well Data	Comments
Depth	Elevation	Log	USCS Code	Description	Interval	Recovery	Blows per 6"	Sample			
0	428.5			Ground Surface							
			SP	Poorly-Graded Sand Red-brown; damp; mostly fine sand Becomes brown Becomes olive gray; grades to mostly fine sand with trace silt and trace gravel				MW38I@15.5 Grab	1.0		Above ground completion Concrete surface seal
5									1.6		2" Sch. 40 PVC Blank
	420.5		SW	Well-Graded Sand with Gravel Olive gray; dry; mostly fine to coarse sand with some gravel							Bentonite grout
10	419.5		SP	Poorly-Graded Sand Olive gray; damp; mostly fine to medium sand with trace silt					2.0		
15							50-5"	MW38I@15.5			
	410.5							MW38I@15.5	2.1		
20	408.5		SP-SM	Poorly-Graded Sand with Silt Olive gray; damp; mostly fine to medium sand with trace silt							
			SP	Poorly-Graded Sand Olive gray; damp; mostly fine to medium sand					1.6		
25											

Boring/Well Designation: MW-38I

Client: IWAG
Logged By: K. Addis, L.G.
Date of Drilling: 3/2/11 **Ground Elevation:** 425.27
Location: E.Lewis St (Knopp Property) **Top of Casing:** 428.17
Drilling Contractor: Environmental West **Bottom of Casing:** 328.17
Drill Rig: Truck-mounted Sonic **Total Depth:** 101' bgs
Method: Rotosonic w/ 140lb autohammer **Top Screen Elevation:** 338.17
Borehole: Casing 6-5/8"; Sonic 4" O.D. **Bottom Screen Elevation:** 328.17

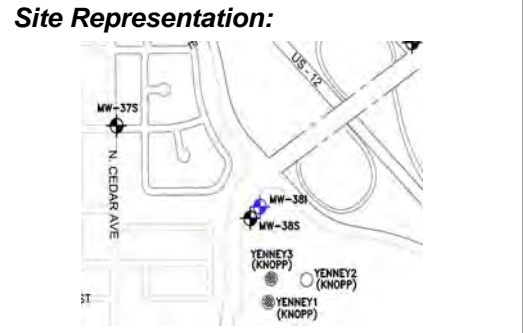
Site Representation:



		SUBSURFACE PROFILE				SAMPLE			PID (ppm)	Well Data	Comments
Depth	Elevation	Log	USCS Code	Description	Interval Recovery	Blows per 6"	Sample				
30	398.5		SP	Black (Salt and Pepper); damp; mostly medium sand				2.0		2" Sch. 40 PVC Blank	
35				Grades to fine to medium sand with trace silt				1.4		Bentonite grout	
40								1.7			
45	387.0		SP	Olive gray; damp; mostly fine sand				1.2			
50	380.5		SP-SM	Poorly-Graded Sand with Silt Olive gray; moist; mostly fine sand with few silt			MW38I@50	0.6			
	378.5										

Boring/Well Designation: MW-38I

Client: IWAG
Logged By: K. Addis, L.G.
Date of Drilling: 3/2/11 **Ground Elevation:** 425.27
Location: E.Lewis St (Knopp Property) **Top of Casing:** 428.17
Drilling Contractor: Environmental West **Bottom of Casing:** 328.17
Drill Rig: Truck-mounted Sonic **Total Depth:** 101' bgs
Method: Rotosonic w/ 140lb autohammer **Top Screen Elevation:** 338.17
Borehole: Casing 6-5/8"; Sonic 4" O.D. **Bottom Screen Elevation:** 328.17



		SUBSURFACE PROFILE				SAMPLE			PID (ppm)	Well Data	Comments
Depth	Elevation	Log	USCS Code	Description	Interval	Recovery	Blows per 6"	Sample			
	376.0		SM	Silty Sand Olive gray; moist; mostly fine sand with little silt					2.0	2" Sch. 40 PVC Blank	
55			SP	Poorly-Graded Sand Black; moist; mostly medium sand							
	372.0									Bentonite grout	
60			SM	Silty Sand Olive gray; moist; mostly fine sand with some silt					1.2		
	368.0						50-6"			2.0	
65			ML	Silt with Sand Olive gray; moist; mostly silt with little sand (20%)							
	364.5									3.2	
70			SP	Poorly-Graded Sand Black; moist; mostly fine to medium sand Grades to mostly fine to medium sand with trace gravel							
										1.2	
75				Becomes saturated							
	353.5									Water level 74.6' ATD measured at MW-38S	

Boring/Well Designation: MW-38I

Client: IWAG
Logged By: K. Addis, L.G.
Date of Drilling: 3/2/11
Location: E.Lewis St (Knopp Property)
Drilling Contractor: Environmental West
Drill Rig: Truck-mounted Sonic
Method: Rotosonic w/ 140lb autohammer
Borehole: Casing 6-5/8"; Sonic 4" O.D.

Ground Elevation: 425.27
Top of Casing: 428.17
Bottom of Casing: 328.17
Total Depth: 101' bgs
Top Screen Elevation: 338.17
Bottom Screen Elevation: 328.17

Site Representation:



		SUBSURFACE PROFILE				SAMPLE			PID (ppm)	Well Data	Comments
Depth	Elevation	Log	USCS Code	Description	Interval	Recovery	Blows per 6"	Sample			
80	350.5	[Dotted pattern]	SP	Black; saturated; mostly fine to medium sand	[Thick black line]	[Grey bar]			2.0	[Hatched pattern]	2" Sch. 40 PVC Blank
	348.5			Black; saturated; mostly fine to medium sand with few gravel							
85		[Dotted pattern]	GW	Well-Graded Gravel with Sand Black;saturated; mostly fine to coarse gravel with little sand	[Thick black line]	[Grey bar]		MW38I@80 Grab	0.5	[Hatched pattern]	Bentonite grout
				Grades to mostly fine to medium gravel with little sand and trace silt							
90		[Dotted pattern]			[Thick black line]	[Grey bar]			0.2	[Hatched pattern]	10/20 Colorado Silica Sand
95											
100		[Dotted pattern]			[Thick black line]	[Grey bar]				[Hatched pattern]	2" PVC 0.01" Well Screen

Boring/Well Designation: MW-38I

Client: IWAG
Logged By: K. Addis, L.G.
Date of Drilling: 3/2/11 **Ground Elevation:** 425.27
Location: E.Lewis St (Knopp Property) **Top of Casing:** 428.17
Drilling Contractor: Environmental West **Bottom of Casing:** 328.17
Drill Rig: Truck-mounted Sonic **Total Depth:** 101' bgs
Method: Rotosonic w/ 140lb autohammer **Top Screen Elevation:** 338.17
Borehole: Casing 6-5/8"; Sonic 4" O.D. **Bottom Screen Elevation:** 328.17

Site Representation:

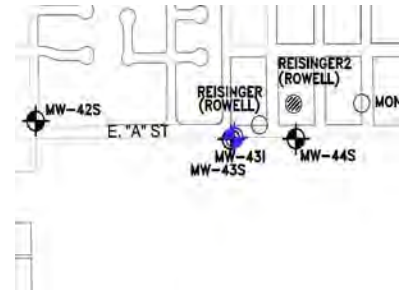


		SUBSURFACE PROFILE				SAMPLE			PID (ppm)	Well Data	Comments
Depth	Elevation	Log	USCS Code	Description	Interval Recovery	Blows per 6"	Sample				
	327.5			End of Borehole			MW38I@101	0.0			
105											
110											
115											
120											
125											

Boring/Well Designation: MW-43I

Client: IWAG
Logged By: K. Addis, L.G.
Date of Drilling: 2/17/11 **Ground Elevation:** 416.56
Location: East A Street and Heritage Blvd **Top of Casing:** 416.22
Drilling Contractor: Environmental West **Bottom of Casing:** 322.22
Drill Rig: Truck-mounted Sonic **Total Depth:** 94' bgs
Method: Rotosonic w/ 140lb autohammer **Top Screen Elevation:** 332.22
Borehole: Casing 6-5/8"; Sonic 4" O.D. **Bottom Screen Elevation:** 322.22

Site Representation:

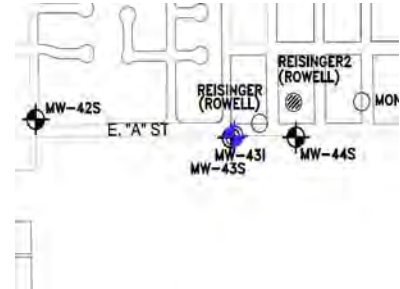


		SUBSURFACE PROFILE				SAMPLE			PID (ppm)	Well Data	Comments
Depth	Elevation	Log	USCS Code	Description	Interval Recovery	Blows per 6"	Sample				
0	416.5			Ground Surface							
	416.0			Asphalt							
			SW	Well-Graded Sand with Gravel Brown; damp; mostly fine to coarse sand with some gravel					0.9	Flush-Mount completion Concrete surface seal	
	414.0		SP	Poorly-Graded Sand Light brown; moist; mostly fine to medium sand with trace silt							
5				Becomes olive gray; grades to few silt					2.0	2" Sch. 40 PVC Blank	
10				Becomes light brown					2.1	Bentonite grout	
15	400.5		SP	Black; moist; mostly fine to medium sand					2.0		
20							MW43I@21.5				
							MW43I@21.5		4.7		
25	391.5										

Boring/Well Designation: MW-43I

Client: IWAG
Logged By: K. Addis, L.G.
Date of Drilling: 2/17/11 **Ground Elevation:** 416.56
Location: East A Street and Heritage Blvd **Top of Casing:** 416.22
Drilling Contractor: Environmental West **Bottom of Casing:** 322.22
Drill Rig: Truck-mounted Sonic **Total Depth:** 94' bgs
Method: Rotasonic w/ 140lb autohammer **Top Screen Elevation:** 332.22
Borehole: Casing 6-5/8"; Sonic 4" O.D. **Bottom Screen Elevation:** 322.22

Site Representation:

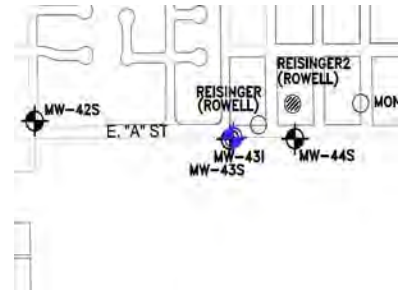


		SUBSURFACE PROFILE				SAMPLE			PID (ppm)	Well Data	Comments
Depth	Elevation	Log	USCS Code	Description	Interval Recovery	Blows per 6"	Sample				
30			SP	Olive gray; moist; mostly fine to medium sand				4.0		2" Sch. 40 PVC Blank	
				Grades to trace silt				2.2		Bentonite grout	
35			SP	Grades to trace gravel				2.0			
40				Becomes mica-rich sand				3.1			
45								2.8			
50	366.5										

Boring/Well Designation: MW-43I

Client: IWAG
Logged By: K. Addis, L.G.
Date of Drilling: 2/17/11 **Ground Elevation:** 416.56
Location: East A Street and Heritage Blvd **Top of Casing:** 416.22
Drilling Contractor: Environmental West **Bottom of Casing:** 322.22
Drill Rig: Truck-mounted Sonic **Total Depth:** 94' bgs
Method: Rotasonic w/ 140lb autohammer **Top Screen Elevation:** 332.22
Borehole: Casing 6-5/8"; Sonic 4" O.D. **Bottom Screen Elevation:** 322.22

Site Representation:

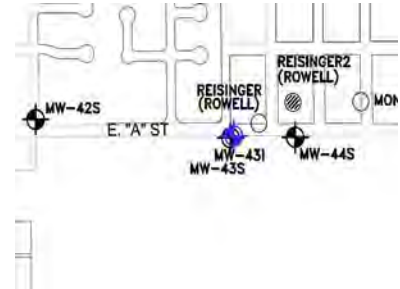


		SUBSURFACE PROFILE				SAMPLE			PID (ppm)	Well Data	Comments
Depth	Elevation	Log	USCS Code	Description	Interval Recovery	Blows per 6"	Sample				
55			SP	Olive gray; dry; mostly fine to medium sand				3.2		2" Sch. 40 PVC Blank	
60								2.9		Bentonite grout	
65			SP	Grades to trace gravel				3.0			
70								2.9			
75	341.5							2.7			

Boring/Well Designation: MW-43I

Client: IWAG
Logged By: K. Addis, L.G.
Date of Drilling: 2/17/11 **Ground Elevation:** 416.56
Location: East A Street and Heritage Blvd **Top of Casing:** 416.22
Drilling Contractor: Environmental West **Bottom of Casing:** 322.22
Drill Rig: Truck-mounted Sonic **Total Depth:** 94' bgs
Method: Rotosonic w/ 140lb autohammer **Top Screen Elevation:** 332.22
Borehole: Casing 6-5/8"; Sonic 4" O.D. **Bottom Screen Elevation:** 322.22

Site Representation:

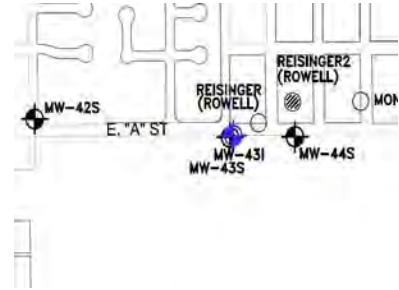


SUBSURFACE PROFILE				SAMPLE			PID (ppm)	Well Data	Comments
Depth	Elevation	Log	USCS Code	Description	Interval Recovery	Blows per 6"			
339.5			SP	Olive gray; saturated; mostly fine to medium sand				2" Sch. 40 PVC Blank Bentonite grout	
80				Black; saturated; mostly fine to medium sand with trace gravel				Bentonite pellets	
				Grades to few gravel				10/20 Colorado Silica Sand	
85									
90	326.5		GW	Well-Graded Gravel Olive gray; saturated; mostly fine to coarse gravel with little sand and trace silt				2" PVC 0.01" Well Screen	
95	320.5								
	319.5		GM	Silty Gravel Olive gray; moist; mostly fine to coarse gravel with some silt					
	318.5		ML						
			GW	Silt with Gravel Olive gray; moist; mostly silt with little gravel and few sand				Bentonite pellets	
100									

Boring/Well Designation: MW-43I

Client: IWAG
Logged By: K. Addis, L.G.
Date of Drilling: 2/17/11 **Ground Elevation:** 416.56
Location: East A Street and Heritage Blvd **Top of Casing:** 416.22
Drilling Contractor: Environmental West **Bottom of Casing:** 322.22
Drill Rig: Truck-mounted Sonic **Total Depth:** 94' bgs
Method: Rotosonic w/ 140lb autohammer **Top Screen Elevation:** 332.22
Borehole: Casing 6-5/8"; Sonic 4" O.D. **Bottom Screen Elevation:** 322.22

Site Representation:



		SUBSURFACE PROFILE				SAMPLE			PID (ppm)	Well Data	Comments
Depth	Elevation	Log	USCS Code	Description	Interval Recovery	Blows per 6"	Sample				
	315.5			<p>Well-Graded Gravel Light brown; saturated; mostly fine to coarse gravel with some sand and trace silt</p> <p>End of Borehole</p>							
05											
10											
15											
20											
25											

Boring/Well Designation: MW-54I

Client: IWAG
Logged By: K. Addis, L.G.
Date of Drilling: 2/21/11
Location: North of Railroad Tracks
Drilling Contractor: Environmental West
Drill Rig: Truck-mounted Sonic
Method: Rotosonic w/ 140lb autohammer
Borehole: Casing 6-5/8"; Sonic 4" O.D.

Ground Elevation: 371.29
Top of Casing: 373.84
Bottom of Casing: 324.84
Total Depth: 49' bgs
Top Screen Elevation: 334.84
Bottom Screen Elevation: 324.84

Site Representation:



		SUBSURFACE PROFILE				SAMPLE			PID (ppm)	Well Data	Comments
Depth	Elevation	Log	USCS Code	Description	Interval Recovery	Blows per 6"	Sample				
0	374.0			Ground Surface							
			SP	Poorly-Graded Sand with Silt Red-brown; moist; mostly fine sand with few silt Becomes brown					2.1	Above ground completion Concrete surface seal	
5	369.0		SP	Olive gray; damp; mostly fine sand Becomes dry; grades to medium sand; angular White friable mineral Grades to no gravel					3.6	2" Sch. 40 PVC Blank Bentonite grout	
10									3.5		
15				Becomes dark gray							
	356.0		SW	Well-Graded Sand with Gravel Gray; dry; mostly fine to coarse sand with little gravel					3.0		
20									2.4		
				Becomes saturated							
25	349.0										Water Level 24.8' ATD

Boring/Well Designation: MW-54I

Client: IWAG
Logged By: K. Addis, L.G.
Date of Drilling: 2/21/11
Location: North of Railroad Tracks
Drilling Contractor: Environmental West
Drill Rig: Truck-mounted Sonic
Method: Rotasonic w/ 140lb autohammer
Borehole: Casing 6-5/8"; Sonic 4" O.D.

Ground Elevation: 371.29
Top of Casing: 373.84
Bottom of Casing: 324.84
Total Depth: 49' bgs
Top Screen Elevation: 334.84
Bottom Screen Elevation: 324.84

Site Representation:



		SUBSURFACE PROFILE				SAMPLE		PID (ppm)	Well Data	Comments
Depth	Elevation	Log	USCS Code	Description	Interval Recovery	Blows per 6"	Sample			
30	342.0		SP	Poorly-Graded Sand with Gravel Black (salt and pepper); saturated; mostly fine to medium sand with few gravel			MW543I@26.5	3.2	2" Sch. 40 PVC Blank	
				Becomes saturated					Bentonite grout	
35			GW	Well-Graded Gravel with Sand Black; saturated; mostly fine to coarse gravel with some sand				4.9	Bentonite pellets	
40			GW	Dark gray; saturated; mostly fine to coarse gravel with some sand, few silt and trace cobbles				3.2	10/20 Colorado Silica Sand	
45								3.0	2" PVC 0.01" Well Screen	
50	324.0			End of Borehole						

Appendix C
Performance Monitoring – Weekly Soil Vapor
Extraction System Parameters

Date	Time	Barometric Pressure	VEW-04 Pitot			VEW-04										VEW-04 DS-300	
			Pitot Flow Rate (cfm)	Temp (f°)	Pitot Diff. Press (wc")	Vac. @ Wellhead (wc")	Vac. @ Skid (wc")	Ratio Flow/ Wellhead Vacuum	PID (ppm)	CH4 (%)	CO2 (%)	O2 (%)	Bal (%)	LEL (%)	DS-300 Flow Rate (cfm)	DS-300 Diff. Press (wc")	
01/03/11	15:00	30.41	NM	58	NM	21.0	55.0	NM	412	0.0	2.1	19.3	78.1	9.0	278	1.30	
01/10/11	10:30	30.51	288	56	0.720	25.5	58.0	NM	522	0.0	2.1	19.2	78.2	9.0	280	1.30	
01/19/11	13:00	30.44	285	59	0.700	24.5	56.0	NM	495	0.0	2.0	19.0	78.4	13.0	289	1.40	
01/25/11	14:00	30.36	297	58	0.760	22.5	55.0	NM	557	0.0	1.8	19.8	78.0	7.0	294	1.45	
01/31/11	9:00	30.56	295	58	0.750	24.9	59.0	NM	646	0.0	2.0	19.3	78.2	8.0	295	1.45	
02/07/11	9:00	30.10	297	58	0.760	24.5	56.0	NM	573	0.0	1.8	19.2	78.3	9.0	289	1.40	
02/14/11	9:00	29.52	303	58	0.790	18.1	51.0	NM	551	0.0	2.0	19.1	78.7	7.0	298	1.50	
02/22/11	10:30	29.98	305	59	0.800	19.6	51.0	NM	597	0.0	1.9	19.0	78.7	5.0	299	1.52	
02/28/11	9:30	29.64	303	58	0.790	19.5	52.0	NM	576	0.0	1.9	19.3	78.2	7.0	298	1.50	
03/07/11	9:00	29.87	297	59	0.760	23.2	52.0	12.8	568	0.0	1.9	19.4	78.7	10.0	257	1.45	
03/14/11	13:00	30.19	299	60	0.770	24.5	55.0	12.2	518	0.0	1.6	19.5	78.9	3.0	260	1.50	
03/21/11	8:50	29.57	293	60	0.740	23.8	54.0	12.3	583	0.0	2.0	19.1	78.9	8.0	252	1.40	
03/29/11	9:00	30.05	295	60	0.750	24.5	55.0	12.1	602	0.0	1.9	19.4	78.7	8.0	252	1.40	
04/04/11	9:00	30.13	289	60	0.720	24.0	52.0	12.1	342	0.0	2.0	19.1	78.9	7.0	253	1.40	
04/11/11	11:00	30.00	294	62	0.740	26.2	56.0	11.2	662	0.0	1.6	19.8	78.6	1.0	251	1.40	
04/18/11	9:00	29.94	294	62	0.740	26.5	56.0	11.1	645	0.0	2.0	18.9	79.1	5.0	246	1.35	
04/25/11	13:00	29.63	290	62	0.720	26.2	55.0	11.1	526	0.0	1.6	19.5	78.9	7.0	247	1.35	
05/03/11	10:00	30.37	306	62	0.800	20.1	52.0	15.2	468	0.0	1.8	18.9	79.3	5.0	263	1.52	
05/09/11	11:00	29.98	300	62	0.770	21.2	52.0	14.1	478	0.0	1.8	18.9	79.3	6.0	257	1.45	
05/16/11	9:00	29.82	298	62	0.760	22.9	54.0	13.0	561	0.0	1.9	18.9	79.2	7.0	252	1.40	
05/23/11	10:45	30.01	304	70	0.780	23.4	54.0	13.0	556	0.0	1.9	19.0	79.1	4.0	250	1.40	
05/31/11	9:00	29.92	303	72	0.770	23.5	55.0	12.9	461	0.0	1.9	18.7	79.4	5.0	253	1.45	
06/06/11	9:00	29.75	295	66	0.740	23.0	54.0	12.8	NM	NM	NM	NM	NM	NM	251	1.40	
06/13/11	10:00	29.92	306	69	0.790	24.0	54.0	12.7	504	0.0	1.8	18.5	79.7	4.0	259	1.50	
06/20/11	11:00	29.96	319	70	0.860	24.2	54.0	13.2	487	0.0	1.8	18.6	79.6	3.0	258	1.50	
06/27/11	8:30	29.82	304	71	0.780	23.0	54.0	13.2	466	0.0	1.8	19.2	79.0	7.0	258	1.50	
07/06/11	9:30	30.02	296	76	0.730	25.6	54.0	11.6	460	0.0	1.6	19.4	79.0	3.0	265	1.60	
07/11/11	13:30	29.79	297	74	0.740	22.9	53.0	13.0	432	0.0	1.7	18.8	79.5	3.0	258	1.50	
07/18/11	10:30	29.86	300	78	0.750	23.5	53.0	12.8	421	0.0	1.7	19.1	79.2	4.0	257	1.50	
07/26/11	7:30	29.97	310	72	0.810	19.1	50.0	16.3	535	0.0	1.9	19.1	79.0	7.0	264	1.55	
08/01/11	11:00	30.00	314	76	0.820	19.2	49.0	16.3	432	0.0	1.6	19.2	79.2	7.0	266	1.58	
08/08/11	8:30	29.92	317	76	0.840	20.2	51.0	15.7	517	0.0	1.9	19.1	79.0	5.0	262	1.55	
08/15/11	9:30	29.99	319	74	0.850	18.1	50.0	17.6	472	0.0	1.8	19.3	78.9	4.0	259	1.50	
08/22/11	14:30	29.81	312	76	0.810	17.5	48.0	17.8	505	0.0	1.7	19.0	79.3	4.0	268	1.60	
08/29/11	8:30	29.83	314	76	0.820	19.8	50.0	15.8	477	0.0	1.9	19.8	78.3	4.0	258	1.50	
09/06/11	7:30	30.08	NM	72	NM	20.8	51.0	NM	465	0.0	2.0	19.7	78.3	5.0	255	1.45	

Date	Time	Barometric Pressure	VEW-04 Pitot			VEW-04									VEW-04 DS-300	
			Pitot Flow Rate (cfm)	Temp (f°)	Pitot Diff. Press (wc")	Vac. @ Wellhead (wc")	Vac. @ Skid (wc")	Ratio Flow/Wellhead Vacuum	PID (ppm)	CH4 (%)	CO2 (%)	O2 (%)	Bal (%)	LEL (%)	DS-300 Flow Rate (cfm)	DS-300 Diff. Press (wc")
09/13/11	6:30	29.98	NM	70	NM	20.6	49.0	NM	420	0.0	2.0	19.9	78.1	5.0	247	1.35
09/19/11	7:00	30.05	296	71	0.740	17.5	45.0	16.9	447	0.0	1.9	19.9	78.2	5.0	239	1.25
09/26/11	9:30	30.03	NM	76	NM	17.1	46.0	NM	415	0.0	2.0	19.7	78.3	4.0	235	1.23
10/03/11	14:00	29.80	NM	76	NM	17.0	35.0	NM	363	0.0	1.8	19.7	78.5	7.0	231	1.15
11/21/11	9:00	29.89	NM	66	NM	15.0	33.0	NM	441	0.0	2.0	19.1	78.9	10.0	229	NM
11/30/11	10:30	30.48	NM	68	NM	14.8	35.0	NM	462	0.0	2.0	18.8	79.2	9.0	227	NM
12/05/11	13:45	30.47	NM	66	NM	14.0	35.0	NM	459	0.0	1.7	19.3	79.0	8.0	224	NM
12/12/11	8:30	30.31	NM	64	NM	15.0	36.0	NM	479	0.0	1.9	19.2	78.9	11.0	227	NM
12/19/11	9:00	30.49	NM	65	NM	15.5	39.0	NM	524	0.0	1.7	19.4	78.9	8.0	234	NM
12/26/11	9:00	30.35	NM	64	NM	13.3	32.0	NM	531	0.0	1.8	18.5	79.7	7.0	204	NM

Date	Time	Barometric Pressure	VEW-05 Pitot			VEW-05										VEW-05 DS-300	
			Pitot Flow Rate (cfm)	Temp (f°)	Pitot Diff. Press (wc")	Vac. @ Wellhead (wc")	Vac. @ skid (wc")	Ratio Flow/Wellhead Vacuum	PID (ppm)	CH4 (%)	CO2 (%)	O2 (%)	Bal (%)	LEL (%)	DS-300 Flow Rate (cfm)	DS-300 Diff. Press (wc")	
01/03/11	15:00	30.41	NM	74	NM	16.0	65.0	NM	1446	0.0	8.0	11.6	79.6	15.0	288	1.40	
01/10/11	10:30	30.51	295	72	0.730	15.0	68.0	NM	1603	0.0	8.3	11.0	79.7	16.0	284	1.35	
01/19/11	13:00	30.44	289	74	0.700	17.8	65.0	NM	1472	0.0	8.0	11.6	79.6	16.0	288	1.40	
01/25/11	14:00	30.36	288	71	0.700	17.0	64.0	NM	1392	0.0	7.2	12.4	79.7	11.0	288	1.40	
01/31/11	9:00	30.56	285	74	0.680	18.2	68.0	NM	1521	0.0	7.9	11.6	79.6	15.0	283	1.35	
02/07/11	9:00	30.10	285	74	0.680	17.5	65.0	NM	1480	0.0	7.4	12.2	79.7	14.0	282	1.35	
02/14/11	9:00	29.52	283	75	0.670	15.0	62.0	NM	1483	0.0	7.5	11.9	79.8	13.0	281	1.35	
02/22/11	10:30	29.98	281	75	0.660	16.0	63.0	NM	1606	0.0	7.4	11.8	80.1	12.0	282	1.35	
02/28/11	9:30	29.64	297	74	0.740	16.5	64.0	NM	1435	0.0	7.3	12.2	79.7	13.0	287	1.40	
03/07/11	9:00	29.87	285	75	0.680	16.5	65.0	17.3	1465	0.0	7.5	12.0	80.5	15.0	237	1.32	
03/14/11	13:00	30.19	286	76	0.680	17.5	66.0	16.3	1316	0.0	6.6	12.3	81.1	4.0	240	1.35	
03/21/11	8:50	29.57	279	75	0.650	17.5	65.0	15.9	1513	0.0	7.3	12.1	80.6	16.0	231	1.25	
03/29/11	9:00	30.05	283	76	0.670	17.2	66.0	16.5	1596	0.0	7.5	12.0	80.5	14.0	235	1.30	
04/04/11	9:00	30.13	292	78	0.710	17.0	68.0	17.2	1370	0.0	7.2	12.3	80.5	12.0	225	1.20	
04/11/11	11:00	30.00	290	78	0.700	19.0	68.0	15.3	1757	0.0	6.8	12.3	80.9	11.0	229	1.25	
04/18/11	9:00	29.94	299	79	0.740	19.0	67.0	15.7	1681	0.0	7.4	11.7	80.9	14.0	230	1.25	
04/25/11	13:00	29.63	286	79	0.680	18.5	66.0	15.5	1404	0.0	6.8	12.8	80.4	11.0	225	1.20	
05/03/11	10:00	30.37	282	79	0.660	16.6	65.0	17.0	1293	0.0	6.8	11.5	81.7	14.0	235	1.30	
05/09/11	11:00	29.98	286	79	0.680	16.1	65.0	17.8	1174	0.0	7.2	11.7	81.1	10.0	230	1.25	
05/16/11	9:00	29.82	282	79	0.660	17.1	66.0	16.5	1418	0.0	7.3	11.7	81.0	13.0	225	1.20	
05/23/11	10:45	30.01	293	88	0.700	16.2	65.0	18.1	1414	0.0	7.1	12.0	80.9	10.0	228	1.25	
05/31/11	9:00	29.92	293	90	0.700	16.5	66.0	17.8	1157	0.0	7.1	11.9	81.0	12.0	232	1.30	
06/06/11	9:00	29.75	275	85	0.620	16.0	66.0	17.2	NM	NM	NM	NM	NM	NM	224	1.20	
06/13/11	10:00	29.92	305	86	0.760	16.9	66.0	18.0	1018	0.0	7.0	11.6	81.4	11.0	233	1.30	
06/20/11	11:00	29.96	313	87	0.800	17.0	66.0	18.4	1020	0.0	6.9	11.8	81.3	10.0	241	1.40	
06/27/11	8:30	29.82	297	88	0.720	16.0	66.0	18.6	910	0.0	7.2	12.0	80.8	11.0	232	1.30	
07/06/11	9:30	30.02	295	89	0.710	16.9	66.0	17.5	820	0.0	6.8	12.1	81.1	9.0	241	1.40	
07/11/11	13:30	29.79	292	85	0.700	15.8	65.0	18.5	714	0.0	6.8	11.8	81.4	10.0	238	1.35	
07/18/11	10:30	29.86	283	90	0.650	16.5	65.0	17.1	805	0.0	6.9	11.9	81.2	9.0	257	1.25	
07/26/11	7:30	29.97	285	90	0.660	16.2	63.0	17.6	1352	0.0	7.6	11.8	80.6	12.0	226	1.22	
08/01/11	11:00	30.00	290	91	0.680	16.0	62.0	18.1	886	0.0	6.7	12.1	81.2	10.0	229	1.25	
08/08/11	8:30	29.92	298	91	0.720	16.6	64.0	17.9	1026	0.0	7.2	12.1	80.7	9.0	228	1.25	
08/15/11	9:30	29.99	296	90	0.710	16.3	65.0	18.1	1190	0.0	7.3	12.1	80.6	9.0	232	1.30	
08/22/11	14:30	29.81	287	90	0.670	14.5	62.0	19.8	843	0.0	6.6	12.0	81.4	11.0	238	1.35	
08/29/11	8:30	29.83	302	90	0.740	15.9	63.0	19.0	971	0.0	7.3	12.8	79.9	9.0	233	1.30	

Date	Time	Barometric Pressure	VEW-05 Pitot			VEW-05										VEW-05 DS-300	
			Pitot Flow Rate (cfm)	Temp (f°)	Pitot Diff. Press (wc")	Vac. @ Wellhead (wc")	Vac. @ skid (wc")	Ratio Flow/Wellhead Vacuum	PID (ppm)	CH4 (%)	CO2 (%)	O2 (%)	Bal (%)	LEL (%)	DS-300 Flow Rate (cfm)	DS-300 Diff. Press (wc")	
09/06/11	7:30	30.08	NM	90	NM	17.0	64.0	NM	1050	0.0	7.5	12.6	79.9	13.0	228	1.25	
09/13/11	6:30	29.98	NM	90	NM	16.9	62.0	NM	1214	0.0	7.6	12.6	79.8	7.0	229	1.25	
09/19/11	7:00	30.05	276	88	0.620	14.8	58.0	18.6	1051	0.0	7.2	12.7	80.1	12.0	216	1.10	
09/26/11	9:30	30.03	NM	91	NM	15.0	60.0	NM	1011	0.0	7.3	12.7	80.0	9.0	217	1.12	
10/03/11	14:00	29.80	NM	91	NM	15.2	65.0	NM	918	0.0	7.3	12.4	80.3	11.0	219	1.16	
11/21/11	9:00	29.89	NM	84	NM	16.3	61.0	NM	1245	0.0	4.7	15.9	79.4	10.0	313	NM	
11/30/11	10:30	30.48	NM	85	NM	16.4	64.0	NM	1382	0.0	1.9	18.7	79.4	10.0	306	NM	
12/05/11	13:45	30.47	NM	54	NM	13.9	62.0	NM	1376	0.0	6.7	13.0	80.3	13.0	300	NM	
12/12/11	8:30	30.31	NM	82	NM	14.9	59.0	NM	1403	0.0	7.7	11.8	80.5	15.0	290	NM	
12/19/11	9:00	30.49	NM	83	NM	14.8	57.0	NM	1564	0.0	7.3	12.5	80.2	15.0	284	NM	
12/26/11	9:00	30.35	NM	80	NM	12.9	45.0	NM	1580	0.0	7.5	12.0	80.5	14.0	248	NM	

Date	Time	Barometric Pressure	System Parameters				DS-300 Cumulative Flow Rate (cfm)	SV-BC PID (ppm)	SV-FS PID (ppm)	MASSterflex Cumulative Flow Rate (cfm)
			Pressure (wc")	Vacuum (wc")	Temperature (f°)	Pitot Cumulative Flow Rate (cfm)				
01/03/11	15:00	30.41	23	66	219	566		1152	NM	NM
01/10/11	10:30	30.51	23	69	221	583	564	1238	NM	NM
01/19/11	13:00	30.44	24	66	222	622	625	1413	NM	NM
01/25/11	14:00	30.36	24	65	223	585	582	958	NM	NM
01/31/11	9:00	30.56	25	69	223	580	578	NM	511	NM
02/07/11	9:00	30.10	24	66	222	582	572	NM	907	NM
02/14/11	9:00	29.52	25	63	218	586	579	NM	1018	NM
02/22/11	10:30	29.98	24	64	219	586	581	NM	1042	NM
02/28/11	9:30	29.64	24	65	221	600	585	NM	943	NM
03/07/11	9:00	29.87	24	66	224	582	495	NM	1062	495
03/14/11	13:00	30.19	24	67	226	585	500	NM	891	486
03/21/11	8:50	29.57	24	66	226	572	483	NM	923	NM
03/29/11	9:00	30.05	24	67	226	579	487	NM	798	471
04/04/11	9:00	30.13	24	69	227	582	477	NM	NM	521
04/11/11	11:00	30.00	24	69	231	584	480	NM	827	488
04/18/11	9:00	29.94	24	68	232	593	476	NM	941	477
04/25/11	13:00	29.63	23	67	230	576	472	NM	871	457
05/03/11	10:00	30.37	NM	66	NM	588	498	NM	728	498
05/09/11	11:00	29.98	NM	66	NM	586	487	NM	740	481
05/16/11	9:00	29.82	NM	67	NM	580	477	NM	931	498
05/23/11	10:45	30.01	NM	66	NM	597	478	NM	1007	495
05/31/11	9:00	29.92	NM	67	NM	596	485	NM	774	496
06/06/11	9:00	29.75	NM	67	NM	570	475	NM	NM	523
06/13/11	10:00	29.92	NM	67	NM	610	492	NM	828	505
06/20/11	11:00	29.96	NM	67	NM	632	500	NM	854	498
06/27/11	8:30	29.82	NM	67	NM	602	491	NM	842	496
07/06/11	9:30	30.02	NM	67	NM	591	506	NM	795	492
07/11/11	13:30	29.79	NM	66	NM	589	496	NM	724	480
07/18/11	10:30	29.86	NM	66	NM	583	485	NM	613	496
07/26/11	7:30	29.97	NM	64	NM	595	489	NM	841	506
08/01/11	11:00	30.00	NM	63	NM	603	494	NM	703	500
08/08/11	8:30	29.92	NM	65	NM	615	490	NM	742	507

Date	Time	Barometric Pressure	System Parameters				DS-300 Cumulative Flow Rate (cfm)	SV-BC	SV-FS	MASSterflex Cumulative Flow Rate (cfm)
			Pressure (wc")	Vacuum (wc")	Temperature (f°)	Pitot Cumulative Flow Rate (cfm)		PID (ppm)	PID (ppm)	
08/15/11	9:30	29.99	NM	66	NM	614	491	NM	811	511
08/22/11	14:30	29.81	NM	63	NM	599	505	NM	742	481
08/29/11	8:30	29.83	NM	64	NM	615	491	NM	661	498
09/06/11	7:30	30.08	NM	65	NM	NM	483	NM	852	485
09/13/11	6:30	29.98	NM	63	NM	NM	476	NM	882	492
09/19/11	7:00	30.05	NM	60	NM	572	455	NM	803	481
09/26/11	9:30	30.03	NM	62	NM	NM	452	NM	623	489
10/03/11	14:00	29.80	NM	66	NM	NM	450	NM	NM	447
11/21/11	9:00	29.89	27	NM	182	NM	542	NM	647	606
11/30/11	10:30	30.48	27	NM	186	NM	533	NM	963	464
12/05/11	13:45	30.47	27	NM	185	NM	524	NM	716	473
12/12/11	8:30	30.31	29	NM	174	NM	517	NM	859	NM
12/19/11	9:00	30.49	29	NM	173	NM	518	NM	843	NM
12/26/11	9:00	30.35	31	NM	160	NM	452	NM	612	NM


Appendix D
Annual Reports on Institutional Controls

M E M O R A N D U M

DATE: December 9, 2011

TO: Gary Crutchfield, City Manager

CC: Rick White, Director, Community & Economic Development
Mary Holder, Environmental Scientist, Environmental Partners, Inc.
Doyle Heath, Senior Engineer - Utility
James Coleman, Biologist, B-F Health District

FROM: Mitch Nickolds  Inspection Services Manager

RE: 2011- East Pasco Plume Area-Well Location Survey

Attachments: 1) Chart - 2) Well Report- Decommission - 3) Monitoring Well Map

Please find attached a chart which provides the address, parcel number, property owner information, current water use status of operational wells located within a section of East Pasco, inclusive of the area south of East "A" Street, determined by the State Department of Ecology to be affected by a subterranean plume of ground water contamination. The well names shown in the first column in the chart coincide with the names of the wells shown on the attached monitoring wells map, as prepared by Environmental Partners, Inc.

On Wednesday, November 16, 2011, Doyle Heath, Senior Engineer-Utilities, Mary Holder, Environmental Scientist, Environmental Partners, Inc., James Coleman, Biologist, Benton-Franklin Health District, and I surveyed the target area to verify the exact locations of known wells and to locate any wells not previously known to the City.

No additional wells were discovered during the 2011 survey and the status of the existing wells and the properties upon which they are located have been updated in the attached chart. As directed, we will perform an East Pasco well survey annually and provide you the updated well status chart and monitoring well map.

Please advise if you have any questions.

MN/

**OPERATIONAL WELLS/NOVEMBER-2011
EAST PASCO PLUME IMPACT AREA**

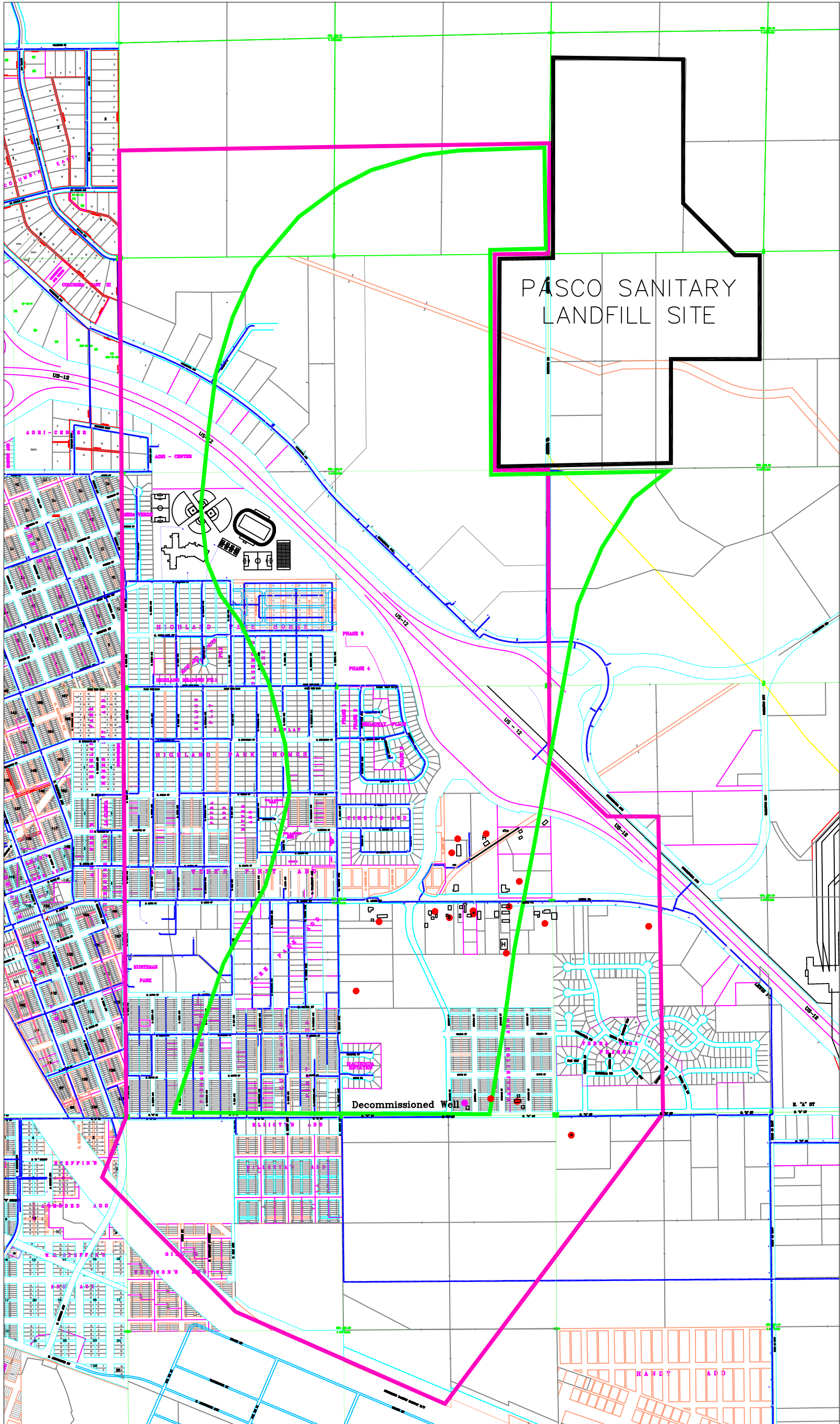
Number and Name of Wells	Address	Property Owner(s)	Potable Water Use/Parcel Status?	City Water Account Status
1 BONNIE 1	2508 E. Lewis St. Tax Parcel #: 113900057	Amerawest Corporation 2839 West Kennewick Ave. Kennewick, WA 99336	No City water available to the entire site. All mobile homes removed. Property in foreclosure.	2 accts. w/water 1 acct. no water (Bonnie Brae) Note: Well is used for irrigation only.
1 WEST	2400 East Lewis Pl. Tax Parcel #: 113900011	Lester & Marjorie West 2400 E Lewis St. Pasco, WA 99301	No. City Water is available on site.	4 accts. w/water Note: Well is used for irrigation only.
1 RINDT	2500 E Lewis Pl. Tax Parcel #: 113870135	Enrique & Elodia Montoya 2500 East Lewis St. Pasco, WA 99301	No	1 acct. w/water
2 HOMME'S	2506 E. Lewis Pl. Tax Parcel #: 113870198	Doug Brown (ETAL) Michelle Raye Younger 2506 E Lewis Pl. Pasco, WA 99301	No City Water on site. New concrete pad and awning added to shed	1 acct. w/water
1 NORVELL (Anjeles)	2700 E. Lewis Place Tax Parcel #: 113870170	Alejandro Anjeles 2700 East Lewis St. Pasco, WA 99301	Yes Certified by the WA Dept. of Ecology and B-F Heath District.	No water acct. Note: Well is only water source on this property.
1 NORVELL 2	2750 E Lewis Street Tax Parcel #: 113870161	Don & Barbara Norvell PO Box 62 Pasco, WA 99301	No Well drilled in 2005 with DOE approval.	No water acct. Note: Well is only water source on this property.

**OPERATIONAL WELLS/NOVEMBER-2011
EAST PASCO PLUME IMPACT AREA**

Number and Name of Wells	Address	Property Owner(s)	Potable Water Use/Parcel Status?	City Water Account Status
1 BRADLEY	2904 E Lewis Pl. Tax Parcel #: 113870018	Ramiro & Irma Mendoza 4114 Finnhorse Lane Pasco, WA 99301-8317	No City water available but not connected.	No water acct. Note: Well is only water source on this property
1 LOPEZ	No Address Tax Parcel #: 113730044	Bill & Sheree (Jr) Robinson 10120 W Argent Road Pasco, WA 99301	No power to well. Old shed removed. City water available but not connected.	No water acct. Note: Well is only water source on this property
1 RADA	2707 E Lewis Pl. Tax Parcel #: 113780053	Douglas Rada (ETAL) Deby Rada & Joe Rada 2707 East Lewis St. Pasco, WA 99301	No City water available but not connected.	No water acct. Note: Well is only water source on this property
1 YENNEY 1	900 N Avery Ave. Tax Parcel #: 113780035	Glenn & Carol Knopp 4172 N. Frontage Road E. Moses Lake, WA 98837	No	1 acct. w/water Note: Well is used for irrigation only.
1 YENNEY 3	900 ½ N Avery Ave. Tax Parcel #: 113780062	Glenn & Carol Knopp 4172 N. Frontage Road E. Moses Lake, WA 98837	No	1 acct. w/water Note: Well is used for irrigation only.
1 YENNEY 2	3021 E George St. Tax Parcel #: 113780017	Glenn & Carol Knopp 4172 N. Frontage Road E. Moses Lake, WA 98837	Yes House is vacant and decayed. Bldg. permit required to occupy.	No water acct. Note: Well is only water source on this property

**OPERATIONAL WELLS/NOVEMBER-2011
EAST PASCO PLUME IMPACT AREA**

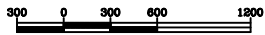
Number & Name of Wells	Address & Tax Parcel	Property Owner(s)	Potable Water Use/Parcel Status?	City Water Account Status
1 SALINAS	407 S Cedar Ave. Tax Parcel #: 113900085	Julian Salinas 407 South Cedar Avenue Pasco, WA 99301	No -City Water on site. Dwelling is connected to City water service.	1 acct. w/water Well is used for irrigation only.
1 REISINGER 1	2505 E "A" St. Tax Parcel #: 113884147	Howard A & Linda S Rowell 4709 Hilltop Drive Pasco, WA 99301	House demolished. Well is decommissioned (Please see DOE Water Well Report AE14723 - attached)	1 acct. w/water Noted as irrigation
1 REISINGER 2	No Address Tax Parcel #: 113883031	Howard A & Linda S Rowell 4709 Hilltop Drive Pasco, WA 99301	No Note: The well house is the only structure built on this property.	No water acct. Well is used for irrigation only.
1 MONTALVO	2700 E "A" St. Tax Parcel #: 113882078	Juan Montalvo 2700 East "A" St. Pasco, WA 99301	Yes Well is used for drinking water. Certified by WA Dept. of Ecology and B-F Heath District.	No water acct. Note: Well is only water source on this property.
1 HAND	3300 E "A" St. Tax Parcel #: 112530057	Ronald & Alice Hjaltalin DBA Rojo Venture LLC 4520 West Wernett Pasco, WA 99301	No	1 acct. w/water Noted as fire line



PASCO SANITARY
LANDFILL SITE

Decommissioned Well

HARDT ROAD



- Pasco Sanitary Landfill Groundwater Protection Area
- Pasco Sanitary Landfill Plume
- City of Pasco Water Lines
- City of Pasco Proposed Water Lines
- Known Domestic Wells

Pasco Sanitary Landfill Study Area City of Pasco Water Lines		
PUBLIC WORKS DEPARTMENT - ENGINEERING DIVISION		
DESIGN: DLH DRAWN: DLH CHECK: [blank] APPR: [blank]	 CITY OF PASCO FRANKLIN COUNTY WASHINGTON	SHEET: 1 OF 1 SCALE: V: N/A H: N/A DATE: 12/7/11 CADFILE: [blank] <small>Landfill Area 19911</small>

**PROSECUTING ATTORNEY
FRANKLIN COUNTY, WASHINGTON**

**SHAWN P. SANT
PROSECUTING ATTORNEY**

**DAVID W. CORKRUM
CHIEF CRIMINAL DEPUTY**

**RYAN E. VERHULP
CHIEF CIVIL DEPUTY**

**KELLY J. SCHADLER
OFFICE ADMINISTRATOR**

*1016 North 4th Avenue
Pasco, WA 99301
Criminal Division (509) 545-3543
Fax (509) 545-2135*

DEPUTIES:

**FRANK W. JENNY
BRIAN V. HULTGRENN
TIMOTHY E. DICKERSON
MAUREEN R. LORINCZ
KIM M. KREMER
TEDDY E. CHOW
TERESA CHEN
JANET E. TAYLOR**

February 15, 2012

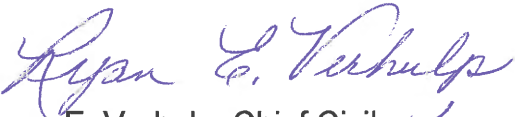

Ms. Mary Holder
Environmental Partners, Inc.
295 NE Gilman Boulevard
Suite 201
Issaquah, WA 98027

Re: Pasco Sanitary Landfill
Annual Institutional Controls Reports for 2011

Dear Ms. Holder,

Enclosed please find the Annual Institutional Controls Report for 2011.

Very truly yours,


Ryan E. Verhulp, Chief Civil
Deputy Prosecuting Attorney 

REV:df

Enclosure



FRANKLIN COUNTY

PLANNING AND BUILDING DEPARTMENT

JERROD B. MACPHERSON – DIRECTOR

January 27, 2012

Ryan E. Verhulp
Chief Civil Deputy
Prosecuting Attorney's Office
1016 North 4th Avenue
Pasco, WA 99301

RE: Pasco Sanitary Landfill - "Annual Institutional Controls Report" for 2011.

Dear Mr. Verhulp:

Please consider this letter as the "Annual Institutional Controls Report" to inform you of the activity that has taken place in the year 2011 for the Pasco Sanitary Landfill.

Throughout the calendar year of 2011 our department continued to carefully monitor all building and development permits for the affected area. No land use approvals or building permits were issued within the affected zone for the 2011 calendar year.

However, the landowners of the adjacent BDI Transfer Station (Leonard and Glenda Dietrich – Parcel # 113-580-037) inquired about adding an additional drywell for storm water runoff within their respective paved parking area.

These control measures include building and development permit tracking for the affected area through our land use and building permit programs, as well as quarterly site investigations to ensure that no illegal activities are taking place within the affected zone.

To date, all of these controls measures are in place and working very well. Our main goal in instituting these control measures is to prevent any drinking water wells from going into the affected area.

If you have any further comments, questions, and/or concerns don't hesitate to contact me at anytime.

Sincerely,

A handwritten signature in blue ink that reads "Jerrod MacPherson".

Jerrod MacPherson,
Director of Planning and Building

JM/jm

Appendix E
Waste Handling



CERTIFICATE OF ANALYSIS

CLIENT:	Environmental Partners, Inc. 295 NE Gilman Blvd., Suite 201 Issaquah, WA 98027	DATE:	11/7/2011
CLIENT CONTACT:	Thom Morin / Mary Holder	ALS JOB#:	1110164
CLIENT PROJECT:	03910.5.2	ALS SAMPLE#:	-01
CLIENT SAMPLE ID	SVECONDFLARE-102411	DATE RECEIVED:	10/27/2011
		COLLECTION DATE:	10/24/2011 12:15
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	CAS NUMBER	METHOD	RESULTS	REPORTING LIMITS	QUALIFIER	UNITS	ANALYSIS DATE
Vinyl Chloride	75-01-4	EPA-8260 SIM	0.058	0.020		UG/L	10/29/2011
1,1-Dichloroethene	75-35-4	EPA-8260 SIM	ND	0.020	U	UG/L	10/29/2011
1,2-Dichloroethane	107-06-2	EPA-8260 SIM	82	0.10		UG/L	10/28/2011
Benzene	71-43-2	EPA-8260 SIM	1.3	0.020		UG/L	10/29/2011
Trichloroethene	79-01-6	EPA-8260 SIM	190	0.20		UG/L	10/28/2011
Tetrachloroethylene	127-18-4	EPA-8260 SIM	25	0.050		UG/L	10/29/2011
1,2-Dibromoethane	106-93-4	EPA-8260 SIM	ND	0.010	U	UG/L	10/29/2011
1,1,1,2-Tetrachloroethane	79-34-5	EPA-8260 SIM	ND	0.22	U	UG/L	10/29/2011
1,2,3-Trichloropropane	96-18-4	EPA-8260 SIM	ND	0.010	U	UG/L	10/29/2011
1,2-Dibromo 3-Chloropropane	96-12-8	EPA-8260 SIM	ND	0.10	U	UG/L	10/29/2011
Dichlorodifluoromethane	75-71-8	EPA-8260	ND	2.0	U	UG/L	10/29/2011
Chloromethane	74-87-3	EPA-8260	ND	5.0	U	UG/L	10/29/2011
Bromomethane	74-83-9	EPA-8260	ND	2.0	U	UG/L	10/29/2011
Chloroethane	75-00-3	EPA-8260	ND	2.0	U	UG/L	10/29/2011
Trichlorofluoromethane	75-69-4	EPA-8260	ND	2.0	U	UG/L	10/29/2011
Acetone	67-64-1	EPA-8260	120000	6800		UG/L	10/28/2011
Carbon Disulfide	75-15-0	EPA-8260	ND	2.0	U	UG/L	10/29/2011
Ethanol	64-17-5	EPA-8260	110000	71000		UG/L	10/28/2011
Methylene Chloride	75-09-2	EPA-8260	130	6.8		UG/L	10/28/2011
tert-Butanol	75-65-0	EPA-8260	2800	100		UG/L	10/28/2011
Acrylonitrile	107-13-1	EPA-8260	ND	10	U	UG/L	10/29/2011
Diisopropyl Ether	108-20-3	EPA-8260	ND	2.0	U	UG/L	10/29/2011
Methyl T-Butyl Ether	1634-04-4	EPA-8260	ND	2.0	U	UG/L	10/29/2011
Trans-1,2-Dichloroethene	156-60-5	EPA-8260	ND	2.0	U	UG/L	10/29/2011
1,1-Dichloroethane	75-34-3	EPA-8260	27	2.0		UG/L	10/29/2011
2-Butanone	78-93-3	EPA-8260	74000	14000		UG/L	10/28/2011
Ethyl T-Butyl Ether	637-92-3	EPA-8260	ND	2.0	U	UG/L	10/29/2011
Cis-1,2-Dichloroethene	156-59-2	EPA-8260	6.0	2.0		UG/L	10/29/2011
2,2-Dichloropropane	594-20-7	EPA-8260	ND	2.0	U	UG/L	10/29/2011
Bromochloromethane	74-97-5	EPA-8260	ND	2.0	U	UG/L	10/29/2011
Chloroform	67-66-3	EPA-8260	32	2.0		UG/L	10/29/2011
1,1,1-Trichloroethane	71-55-6	EPA-8260	11	2.0		UG/L	10/29/2011
1,1-Dichloropropene	563-58-6	EPA-8260	ND	2.0	U	UG/L	10/29/2011
Carbon Tetrachloride	56-23-5	EPA-8260	ND	0.34	U	UG/L	10/29/2011
tert-Amyl Methyl Ether	994-05-8	EPA-8260	ND	2.0	U	UG/L	10/29/2011
1,2-Dichloropropane	78-87-5	EPA-8260	ND	0.64	U	UG/L	10/29/2011
Dibromomethane	74-95-3	EPA-8260	ND	2.0	U	UG/L	10/29/2011
Bromodichloromethane	75-27-4	EPA-8260	ND	0.71	U	UG/L	10/29/2011



CERTIFICATE OF ANALYSIS

CLIENT: Environmental Partners, Inc.
 295 NE Gilman Blvd., Suite 201
 Issaquah, WA 98027

CLIENT CONTACT: Thom Morin / Mary Holder
 CLIENT PROJECT: 03910.5.2
 CLIENT SAMPLE ID: SVECONDFLARE-102411

DATE: 11/7/2011
 ALS JOB#: 1110164
 ALS SAMPLE#: -01
 DATE RECEIVED: 10/27/2011
 COLLECTION DATE: 10/24/2011 12:15
 WDOE ACCREDITATION: C601

DATA RESULTS

ANALYTE	CAS NUMBER	METHOD	RESULTS	REPORTING LIMITS	QUALIFIER	UNITS	ANALYSIS DATE
Trans-1,3-Dichloropropene	10061-02-6	EPA-8260	ND	2.0	U	UG/L	10/29/2011
4-Methyl-2-Pentanone	108-10-1	EPA-8260	15000	340		UG/L	10/28/2011
Toluene	108-88-3	EPA-8260	1400	1.5		UG/L	10/28/2011
Cis-1,3-Dichloropropene	10061-01-5	EPA-8260	ND	2.0	U	UG/L	10/29/2011
1,1,2-Trichloroethane	79-00-5	EPA-8260	4.5	0.77		UG/L	10/29/2011
2-Hexanone	591-78-6	EPA-8260	500	94		UG/L	10/28/2011
1,3-Dichloropropane	142-28-9	EPA-8260	ND	2.0	U	UG/L	10/29/2011
Dibromochloromethane	124-48-1	EPA-8260	ND	0.52	U	UG/L	10/29/2011
Chlorobenzene	108-90-7	EPA-8260	ND	2.0	U	UG/L	10/29/2011
1,1,1,2-Tetrachloroethane	630-20-6	EPA-8260	ND	1.7	U	UG/L	10/29/2011
Ethylbenzene	100-41-4	EPA-8260	270	0.29		UG/L	10/28/2011
m,p-Xylene	179601-23-1	EPA-8260	970	11		UG/L	10/28/2011
Styrene	100-42-5	EPA-8260	ND	1.5	U	UG/L	10/29/2011
o-Xylene	95-47-6	EPA-8260	370	6.9		UG/L	10/28/2011
Bromoform	75-25-2	EPA-8260	ND	2.0	U	UG/L	10/29/2011
Isopropylbenzene	98-82-8	EPA-8260	8.8	2.0		UG/L	10/29/2011
Bromobenzene	108-86-1	EPA-8260	ND	2.0	U	UG/L	10/29/2011
N-Propyl Benzene	103-65-1	EPA-8260	26	2.0		UG/L	10/29/2011
2-Chlorotoluene	95-49-8	EPA-8260	ND	2.0	U	UG/L	10/29/2011
1,3,5-Trimethylbenzene	108-67-8	EPA-8260	97	0.41		UG/L	10/28/2011
4-Chlorotoluene	106-43-4	EPA-8260	ND	2.0	U	UG/L	10/29/2011
T-Butyl Benzene	98-06-6	EPA-8260	ND	2.0	U	UG/L	10/29/2011
1,2,4-Trimethylbenzene	95-63-6	EPA-8260	210	0.54		UG/L	10/28/2011
S-Butyl Benzene	135-98-8	EPA-8260	ND	2.0	U	UG/L	10/29/2011
P-Isopropyltoluene	99-87-6	EPA-8260	ND	2.0	U	UG/L	10/29/2011
1,3 Dichlorobenzene	541-73-1	EPA-8260	ND	2.0	U	UG/L	10/29/2011
1,4-Dichlorobenzene	106-46-7	EPA-8260	ND	1.8	U	UG/L	10/29/2011
N-Butylbenzene	104-51-8	EPA-8260	5.7	2.0		UG/L	10/29/2011
1,2-Dichlorobenzene	95-50-1	EPA-8260	9.1	2.0		UG/L	10/29/2011
1,2,4-Trichlorobenzene	120-82-1	EPA-8260	4.1	2.0		UG/L	10/29/2011
Hexachlorobutadiene	87-68-3	EPA-8260	ND	0.56	U	UG/L	10/29/2011
Naphthalene	91-20-3	EPA-8260	62	0.55		UG/L	10/28/2011
1,2,3-Trichlorobenzene	87-61-6	EPA-8260	ND	2.0	U	UG/L	10/29/2011

SURROGATE	CAS NUMBER	METHOD	%REC	ANALYSIS DATE
1,2-Dichloroethane-d4	17060-07-0	EPA-8260	95.4	10/29/2011
1,2-Dichloroethane-d4 10X	17060-07-0	EPA-8260	94.2	10/28/2011



CERTIFICATE OF ANALYSIS

CLIENT: Environmental Partners, Inc. DATE: 11/7/2011
295 NE Gilman Blvd., Suite 201 ALS JOB#: 1110164
Issaquah, WA 98027 ALS SAMPLE#: -01
CLIENT CONTACT: Thom Morin / Mary Holder DATE RECEIVED: 10/27/2011
CLIENT PROJECT: 03910.5.2 COLLECTION DATE: 10/24/2011 12:15
CLIENT SAMPLE ID: SVECONDFLARE-102411 WDOE ACCREDITATION: C601

DATA RESULTS

SURROGATE	CAS NUMBER	METHOD	%REC	ANALYSIS DATE
Dilution				
1,2-Dichloroethane-d4 100X	17060-07-0	EPA-8260	104	10/28/2011
Dilution				
1,2-Dichloroethane-d4 1000X	17060-07-0	EPA-8260	102	10/28/2011
Dilution				
1,2-Dichloroethane-d4 10000X	17060-07-0	EPA-8260	91.0	10/28/2011
Dilution				
Toluene-d8	2037-26-5	EPA-8260	90.8	10/29/2011
Toluene-d8 10X Dilution	2037-26-5	EPA-8260	95.8	10/28/2011
Toluene-d8 100X Dilution	2037-26-5	EPA-8260	104	10/28/2011
Toluene-d8 1000X Dilution	2037-26-5	EPA-8260	104	10/28/2011
Toluene-d8 10000X Dilution	2037-26-5	EPA-8260	100	10/28/2011
4-Bromofluorobenzene	460-00-4	EPA-8260	101	10/29/2011
4-Bromofluorobenzene 10X	460-00-4	EPA-8260	109	10/28/2011
Dilution				
4-Bromofluorobenzene 100X	460-00-4	EPA-8260	97.1	10/28/2011
Dilution				
4-Bromofluorobenzene 1000X	460-00-4	EPA-8260	98.4	10/28/2011
Dilution				
4-Bromofluorobenzene 10000X	460-00-4	EPA-8260	103	10/28/2011
Dilution				

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Environmental Partners, Inc. 295 NE Gilman Blvd., Suite 201 Issaquah, WA 98027	DATE:	11/29/2011
CLIENT CONTACT:	Thom Morin	ALS JOB#:	1111110
CLIENT PROJECT:	03910.1	ALS SAMPLE#:	-01
CLIENT SAMPLE ID	SVECONDSKID-1111	DATE RECEIVED:	11/18/2011
		COLLECTION DATE:	11/17/2011 10:20
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	CAS NUMBER	METHOD	RESULTS	REPORTING LIMITS	QUALIFIER	UNITS	ANALYSIS DATE
Vinyl Chloride	75-01-4	EPA-8260 SIM	ND	0.020	U	UG/L	11/29/2011
1,1-Dichloroethene	75-35-4	EPA-8260 SIM	ND	0.020	U	UG/L	11/29/2011
1,2-Dichloroethane	107-06-2	EPA-8260 SIM	94	0.10		UG/L	11/29/2011
Benzene	71-43-2	EPA-8260 SIM	2.5	0.020		UG/L	11/29/2011
Trichloroethene	79-01-6	EPA-8260 SIM	160	20		UG/L	11/29/2011
Tetrachloroethylene	127-18-4	EPA-8260 SIM	18	0.050		UG/L	11/29/2011
1,2-Dibromoethane	106-93-4	EPA-8260 SIM	ND	0.010	U	UG/L	11/29/2011
1,1,2,2-Tetrachloroethane	79-34-5	EPA-8260 SIM	ND	0.22	U	UG/L	11/29/2011
1,2,3-Trichloropropane	96-18-4	EPA-8260 SIM	ND	0.010	U	UG/L	11/29/2011
1,2-Dibromo 3-Chloropropane	96-12-8	EPA-8260 SIM	ND	0.10	U	UG/L	11/29/2011
Dichlorodifluoromethane	75-71-8	EPA-8260	ND	2.0	U	UG/L	11/29/2011
Chloromethane	74-87-3	EPA-8260	ND	5.0	U	UG/L	11/29/2011
Bromomethane	74-83-9	EPA-8260	ND	2.0	U	UG/L	11/29/2011
Chloroethane	75-00-3	EPA-8260	ND	2.0	U	UG/L	11/29/2011
Trichlorofluoromethane	75-69-4	EPA-8260	ND	2.0	U	UG/L	11/29/2011
Acetone	67-64-1	EPA-8260	59000	6800		UG/L	11/28/2011
Carbon Disulfide	75-15-0	EPA-8260	ND	2.0	U	UG/L	11/29/2011
Ethanol	64-17-5	EPA-8260	150000	7100		UG/L	11/29/2011
Methylene Chloride	75-09-2	EPA-8260	220	6.8		UG/L	11/29/2011
tert-Butanol	75-65-0	EPA-8260	5700	1000		UG/L	11/29/2011
Acrylonitrile	107-13-1	EPA-8260	ND	10	U	UG/L	11/29/2011
Diisopropyl Ether	108-20-3	EPA-8260	ND	2.0	U	UG/L	11/29/2011
Methyl T-Butyl Ether	1634-04-4	EPA-8260	ND	2.0	U	UG/L	11/29/2011
Trans-1,2-Dichloroethene	156-60-5	EPA-8260	ND	2.0	U	UG/L	11/29/2011
1,1-Dichloroethane	75-34-3	EPA-8260	26	2.0		UG/L	11/29/2011
2-Butanone	78-93-3	EPA-8260	76000	14000		UG/L	11/28/2011
Ethyl T-Butyl Ether	637-92-3	EPA-8260	ND	2.0	U	UG/L	11/29/2011
Cis-1,2-Dichloroethene	156-59-2	EPA-8260	8.5	2.0		UG/L	11/29/2011
2,2-Dichloropropane	594-20-7	EPA-8260	ND	2.0	U	UG/L	11/29/2011
Bromochloromethane	74-97-5	EPA-8260	ND	2.0	U	UG/L	11/29/2011
Chloroform	67-66-3	EPA-8260	15	2.0		UG/L	11/29/2011
1,1,1-Trichloroethane	71-55-6	EPA-8260	11	2.0		UG/L	11/29/2011
1,1-Dichloropropene	563-58-6	EPA-8260	ND	2.0	U	UG/L	11/29/2011
Carbon Tetrachloride	56-23-5	EPA-8260	ND	0.34	U	UG/L	11/29/2011
tert-Amyl Methyl Ether	994-05-8	EPA-8260	ND	2.0	U	UG/L	11/29/2011
1,2-Dichloropropane	78-87-5	EPA-8260	ND	0.64	U	UG/L	11/29/2011
Dibromomethane	74-95-3	EPA-8260	ND	2.0	U	UG/L	11/29/2011
Bromodichloromethane	75-27-4	EPA-8260	ND	0.71	U	UG/L	11/29/2011



CERTIFICATE OF ANALYSIS

CLIENT:	Environmental Partners, Inc. 295 NE Gilman Blvd., Suite 201 Issaquah, WA 98027	DATE:	11/29/2011
CLIENT CONTACT:	Thom Morin	ALS JOB#:	1111110
CLIENT PROJECT:	03910.1	ALS SAMPLE#:	-01
CLIENT SAMPLE ID	SVECONDSKID-1111	DATE RECEIVED:	11/18/2011
		COLLECTION DATE:	11/17/2011 10:20
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	CAS NUMBER	METHOD	RESULTS	REPORTING LIMITS	QUALIFIER	UNITS	ANALYSIS DATE
Trans-1,3-Dichloropropene	10061-02-6	EPA-8260	ND	2.0	U	UG/L	11/29/2011
4-Methyl-2-Pentanone	108-10-1	EPA-8260	14000	340		UG/L	11/29/2011
Toluene	108-88-3	EPA-8260	1800	2.0		UG/L	11/29/2011
Cis-1,3-Dichloropropene	10061-01-5	EPA-8260	ND	2.0	U	UG/L	11/29/2011
1,1,2-Trichloroethane	79-00-5	EPA-8260	3.5	0.77		UG/L	11/29/2011
2-Hexanone	591-78-6	EPA-8260	620	94		UG/L	11/29/2011
1,3-Dichloropropane	142-28-9	EPA-8260	ND	2.0	U	UG/L	11/29/2011
Dibromochloromethane	124-48-1	EPA-8260	ND	0.52	U	UG/L	11/29/2011
Chlorobenzene	108-90-7	EPA-8260	ND	2.0	U	UG/L	11/29/2011
1,1,1,2-Tetrachloroethane	630-20-6	EPA-8260	ND	1.7	U	UG/L	11/29/2011
Ethylbenzene	100-41-4	EPA-8260	130	2.0		UG/L	11/29/2011
m,p-Xylene	179601-23-1	EPA-8260	500	4.0		UG/L	11/29/2011
Styrene	100-42-5	EPA-8260	ND	1.5	U	UG/L	11/29/2011
o-Xylene	95-47-6	EPA-8260	200	2.0		UG/L	11/29/2011
Bromoform	75-25-2	EPA-8260	ND	2.0	U	UG/L	11/29/2011
Isopropylbenzene	98-82-8	EPA-8260	4.7	2.0		UG/L	11/29/2011
Bromobenzene	108-86-1	EPA-8260	ND	2.0	U	UG/L	11/29/2011
N-Propyl Benzene	103-65-1	EPA-8260	8.8	2.0		UG/L	11/29/2011
2-Chlorotoluene	95-49-8	EPA-8260	ND	2.0	U	UG/L	11/29/2011
1,3,5-Trimethylbenzene	108-67-8	EPA-8260	26	2.0		UG/L	11/29/2011
4-Chlorotoluene	106-43-4	EPA-8260	ND	2.0	U	UG/L	11/29/2011
T-Butyl Benzene	98-06-6	EPA-8260	ND	2.0	U	UG/L	11/29/2011
1,2,4-Trimethylbenzene	95-63-6	EPA-8260	55	2.0		UG/L	11/29/2011
S-Butyl Benzene	135-98-8	EPA-8260	ND	2.0	U	UG/L	11/29/2011
P-Isopropyltoluene	99-87-6	EPA-8260	ND	2.0	U	UG/L	11/29/2011
1,3 Dichlorobenzene	541-73-1	EPA-8260	ND	2.0	U	UG/L	11/29/2011
1,4-Dichlorobenzene	106-46-7	EPA-8260	ND	1.8	U	UG/L	11/29/2011
N-Butylbenzene	104-51-8	EPA-8260	ND	2.0	U	UG/L	11/29/2011
1,2-Dichlorobenzene	95-50-1	EPA-8260	4.2	2.0		UG/L	11/29/2011
1,2,4-Trichlorobenzene	120-82-1	EPA-8260	ND	2.0	U	UG/L	11/29/2011
Hexachlorobutadiene	87-68-3	EPA-8260	ND	0.56	U	UG/L	11/29/2011
Naphthalene	91-20-3	EPA-8260	14	2.0		UG/L	11/29/2011
1,2,3-Trichlorobenzene	87-61-6	EPA-8260	ND	2.0	U	UG/L	11/29/2011

SURROGATE	CAS NUMBER	METHOD	%REC	ANALYSIS DATE
1,2-Dichloroethane-d4	17060-07-0	EPA-8260	87.3	11/29/2011
1,2-Dichloroethane-d4 10X	17060-07-0	EPA-8260	83.8	11/29/2011



CERTIFICATE OF ANALYSIS

CLIENT:	Environmental Partners, Inc. 295 NE Gilman Blvd., Suite 201 Issaquah, WA 98027	DATE:	11/29/2011
CLIENT CONTACT:	Thom Morin	ALS JOB#:	1111110
CLIENT PROJECT:	03910.1	ALS SAMPLE#:	-01
CLIENT SAMPLE ID	SVECONDSKID-1111	DATE RECEIVED:	11/18/2011
		COLLECTION DATE:	11/17/2011 10:20
		WDOE ACCREDITATION:	C601

DATA RESULTS

SURROGATE	CAS NUMBER	METHOD	%REC	ANALYSIS DATE
Dilution				
1,2-Dichloroethane-d4 100X Dilution	17060-07-0	EPA-8260	80.9	11/29/2011
Dilution				
1,2-Dichloroethane-d4 1000X Dilution	17060-07-0	EPA-8260	82.4	11/29/2011
Dilution				
1,2-Dichloroethane-d4 10000X Dilution	17060-07-0	EPA-8260	83.0	11/28/2011
Dilution				
Toluene-d8	2037-26-5	EPA-8260	90.7	11/29/2011
Toluene-d8 10X Dilution	2037-26-5	EPA-8260	93.4	11/29/2011
Toluene-d8 100X Dilution	2037-26-5	EPA-8260	93.0	11/29/2011
Toluene-d8 1000X Dilution	2037-26-5	EPA-8260	91.1	11/29/2011
Toluene-d8 10000X Dilution	2037-26-5	EPA-8260	91.0	11/28/2011
4-Bromofluorobenzene	460-00-4	EPA-8260	108	11/29/2011
4-Bromofluorobenzene 10X Dilution	460-00-4	EPA-8260	101	11/29/2011
4-Bromofluorobenzene 100X Dilution	460-00-4	EPA-8260	97.9	11/29/2011
4-Bromofluorobenzene 1000X Dilution	460-00-4	EPA-8260	97.0	11/29/2011
4-Bromofluorobenzene 10000X Dilution	460-00-4	EPA-8260	95.0	11/28/2011

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Environmental Partners, Inc. 295 NE Gilman Blvd., Suite 201 Issaquah, WA 98027	DATE:	11/29/2011
CLIENT CONTACT:	Thom Morin	ALS JOB#:	1111110
CLIENT PROJECT:	03910.1	ALS SAMPLE#:	-02
CLIENT SAMPLE ID	SVECONDFLARE-1111	DATE RECEIVED:	11/18/2011
		COLLECTION DATE:	11/17/2011 11:20
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	CAS NUMBER	METHOD	RESULTS	REPORTING LIMITS	QUALIFIER	UNITS	ANALYSIS DATE
Vinyl Chloride	75-01-4	EPA-8260 SIM	ND	0.020	U	UG/L	11/29/2011
1,1-Dichloroethene	75-35-4	EPA-8260 SIM	1.2	0.020		UG/L	11/29/2011
1,2-Dichloroethane	107-06-2	EPA-8260 SIM	180	0.10		UG/L	11/29/2011
Benzene	71-43-2	EPA-8260 SIM	4.4	0.020		UG/L	11/29/2011
Trichloroethene	79-01-6	EPA-8260 SIM	320	20		UG/L	11/29/2011
Tetrachloroethylene	127-18-4	EPA-8260 SIM	26	0.050		UG/L	11/29/2011
1,2-Dibromoethane	106-93-4	EPA-8260 SIM	ND	0.010	U	UG/L	11/29/2011
1,1,2,2-Tetrachloroethane	79-34-5	EPA-8260 SIM	ND	0.22	U	UG/L	11/29/2011
1,2,3-Trichloropropane	96-18-4	EPA-8260 SIM	ND	0.010	U	UG/L	11/29/2011
1,2-Dibromo 3-Chloropropane	96-12-8	EPA-8260 SIM	ND	0.10	U	UG/L	11/29/2011
Dichlorodifluoromethane	75-71-8	EPA-8260	ND	2.0	U	UG/L	11/29/2011
Chloromethane	74-87-3	EPA-8260	ND	5.0	U	UG/L	11/29/2011
Bromomethane	74-83-9	EPA-8260	ND	2.0	U	UG/L	11/29/2011
Chloroethane	75-00-3	EPA-8260	ND	2.0	U	UG/L	11/29/2011
Trichlorofluoromethane	75-69-4	EPA-8260	ND	2.0	U	UG/L	11/29/2011
Acetone	67-64-1	EPA-8260	160000	6800		UG/L	11/28/2011
Carbon Disulfide	75-15-0	EPA-8260	ND	2.0	U	UG/L	11/29/2011
Ethanol	64-17-5	EPA-8260	370000	71000		UG/L	11/29/2011
Methylene Chloride	75-09-2	EPA-8260	440	68		UG/L	11/29/2011
tert-Butanol	75-65-0	EPA-8260	15000	1000		UG/L	11/29/2011
Acrylonitrile	107-13-1	EPA-8260	ND	10	U	UG/L	11/29/2011
Diisopropyl Ether	108-20-3	EPA-8260	ND	2.0	U	UG/L	11/29/2011
Methyl T-Butyl Ether	1634-04-4	EPA-8260	ND	2.0	U	UG/L	11/29/2011
Trans-1,2-Dichloroethene	156-60-5	EPA-8260	ND	2.0	U	UG/L	11/29/2011
1,1-Dichloroethane	75-34-3	EPA-8260	46	2.0		UG/L	11/29/2011
2-Butanone	78-93-3	EPA-8260	170000	14000		UG/L	11/28/2011
Ethyl T-Butyl Ether	637-92-3	EPA-8260	ND	2.0	U	UG/L	11/29/2011
Cis-1,2-Dichloroethene	156-59-2	EPA-8260	8.3	2.0		UG/L	11/29/2011
2,2-Dichloropropane	594-20-7	EPA-8260	ND	2.0	U	UG/L	11/29/2011
Bromochloromethane	74-97-5	EPA-8260	ND	2.0	U	UG/L	11/29/2011
Chloroform	67-66-3	EPA-8260	25	2.0		UG/L	11/29/2011
1,1,1-Trichloroethane	71-55-6	EPA-8260	18	2.0		UG/L	11/29/2011
1,1-Dichloropropene	563-58-6	EPA-8260	ND	2.0	U	UG/L	11/29/2011
Carbon Tetrachloride	56-23-5	EPA-8260	ND	0.34	U	UG/L	11/29/2011
tert-Amyl Methyl Ether	994-05-8	EPA-8260	ND	2.0	U	UG/L	11/29/2011
1,2-Dichloropropane	78-87-5	EPA-8260	ND	0.64	U	UG/L	11/29/2011
Dibromomethane	74-95-3	EPA-8260	ND	2.0	U	UG/L	11/29/2011
Bromodichloromethane	75-27-4	EPA-8260	ND	0.71	U	UG/L	11/29/2011



CERTIFICATE OF ANALYSIS

CLIENT:	Environmental Partners, Inc. 295 NE Gilman Blvd., Suite 201 Issaquah, WA 98027	DATE:	11/29/2011
CLIENT CONTACT:	Thom Morin	ALS JOB#:	1111110
CLIENT PROJECT:	03910.1	ALS SAMPLE#:	-02
CLIENT SAMPLE ID	SVECONDFLARE-1111	DATE RECEIVED:	11/18/2011
		COLLECTION DATE:	11/17/2011 11:20
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	CAS NUMBER	METHOD	RESULTS	REPORTING LIMITS	QUALIFIER	UNITS	ANALYSIS DATE
Trans-1,3-Dichloropropene	10061-02-6	EPA-8260	ND	2.0	U	UG/L	11/29/2011
4-Methyl-2-Pentanone	108-10-1	EPA-8260	42000	3400		UG/L	11/28/2011
Toluene	108-88-3	EPA-8260	3500	2.0		UG/L	11/29/2011
Cis-1,3-Dichloropropene	10061-01-5	EPA-8260	ND	2.0	U	UG/L	11/29/2011
1,1,2-Trichloroethane	79-00-5	EPA-8260	6.4	0.77		UG/L	11/29/2011
2-Hexanone	591-78-6	EPA-8260	1800	94		UG/L	11/29/2011
1,3-Dichloropropane	142-28-9	EPA-8260	ND	2.0	U	UG/L	11/29/2011
Dibromochloromethane	124-48-1	EPA-8260	ND	0.52	U	UG/L	11/29/2011
Chlorobenzene	108-90-7	EPA-8260	ND	2.0	U	UG/L	11/29/2011
1,1,1,2-Tetrachloroethane	630-20-6	EPA-8260	ND	1.7	U	UG/L	11/29/2011
Ethylbenzene	100-41-4	EPA-8260	290	2.0		UG/L	11/29/2011
m,p-Xylene	179601-23-1	EPA-8260	1100	11		UG/L	11/29/2011
Styrene	100-42-5	EPA-8260	ND	1.5	U	UG/L	11/29/2011
o-Xylene	95-47-6	EPA-8260	430	6.9		UG/L	11/29/2011
Bromoform	75-25-2	EPA-8260	ND	2.0	U	UG/L	11/29/2011
Isopropylbenzene	98-82-8	EPA-8260	9.1	2.0		UG/L	11/29/2011
Bromobenzene	108-86-1	EPA-8260	ND	2.0	U	UG/L	11/29/2011
N-Propyl Benzene	103-65-1	EPA-8260	18	2.0		UG/L	11/29/2011
2-Chlorotoluene	95-49-8	EPA-8260	ND	2.0	U	UG/L	11/29/2011
1,3,5-Trimethylbenzene	108-67-8	EPA-8260	63	2.0		UG/L	11/29/2011
4-Chlorotoluene	106-43-4	EPA-8260	ND	2.0	U	UG/L	11/29/2011
T-Butyl Benzene	98-06-6	EPA-8260	ND	2.0	U	UG/L	11/29/2011
1,2,4-Trimethylbenzene	95-63-6	EPA-8260	130	2.0		UG/L	11/29/2011
S-Butyl Benzene	135-98-8	EPA-8260	ND	2.0	U	UG/L	11/29/2011
P-Isopropyltoluene	99-87-6	EPA-8260	ND	2.0	U	UG/L	11/29/2011
1,3 Dichlorobenzene	541-73-1	EPA-8260	ND	2.0	U	UG/L	11/29/2011
1,4-Dichlorobenzene	106-46-7	EPA-8260	ND	1.8	U	UG/L	11/29/2011
N-Butylbenzene	104-51-8	EPA-8260	2.6	2.0		UG/L	11/29/2011
1,2-Dichlorobenzene	95-50-1	EPA-8260	8.6	2.0		UG/L	11/29/2011
1,2,4-Trichlorobenzene	120-82-1	EPA-8260	ND	2.0	U	UG/L	11/29/2011
Hexachlorobutadiene	87-68-3	EPA-8260	ND	0.56	U	UG/L	11/29/2011
Naphthalene	91-20-3	EPA-8260	37	2.0		UG/L	11/29/2011
1,2,3-Trichlorobenzene	87-61-6	EPA-8260	ND	2.0	U	UG/L	11/29/2011

SURROGATE	CAS NUMBER	METHOD	%REC	ANALYSIS DATE
1,2-Dichloroethane-d4	17060-07-0	EPA-8260	84.9	11/29/2011
1,2-Dichloroethane-d4 10X	17060-07-0	EPA-8260	83.8	11/29/2011



CERTIFICATE OF ANALYSIS

CLIENT:	Environmental Partners, Inc. 295 NE Gilman Blvd., Suite 201 Issaquah, WA 98027	DATE:	11/29/2011
CLIENT CONTACT:	Thom Morin	ALS JOB#:	1111110
CLIENT PROJECT:	03910.1	ALS SAMPLE#:	-02
CLIENT SAMPLE ID	SVECONDFLARE-1111	DATE RECEIVED:	11/18/2011
		COLLECTION DATE:	11/17/2011 11:20
		WDOE ACCREDITATION:	C601

DATA RESULTS

SURROGATE	CAS NUMBER	METHOD	%REC	ANALYSIS DATE
Dilution				
1,2-Dichloroethane-d4 100X Dilution	17060-07-0	EPA-8260	80.6	11/29/2011
Dilution				
1,2-Dichloroethane-d4 10000X Dilution	17060-07-0	EPA-8260	81.5	11/28/2011
Dilution				
Toluene-d8	2037-26-5	EPA-8260	88.6	11/29/2011
Toluene-d8 10X Dilution	2037-26-5	EPA-8260	90.9	11/29/2011
Toluene-d8 100X Dilution	2037-26-5	EPA-8260	94.2	11/29/2011
Toluene-d8 10000X Dilution	2037-26-5	EPA-8260	92.0	11/28/2011
4-Bromofluorobenzene	460-00-4	EPA-8260	113	11/29/2011
4-Bromofluorobenzene 10X Dilution	460-00-4	EPA-8260	97.6	11/29/2011
Dilution				
4-Bromofluorobenzene 100X Dilution	460-00-4	EPA-8260	98.5	11/29/2011
Dilution				
4-Bromofluorobenzene 10000X Dilution	460-00-4	EPA-8260	96.5	11/28/2011

U - Analyte analyzed for but not detected at level above reporting limit.

563477

1408954

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number WAD991281874	2. Page 1 of 1	3. Emergency Response Phone (877) 577-2669	4. Manifest Tracking Number 000035923 DAT				
5. Generator's Name and Mailing Address INAG GROUP III TECHNICAL COMM. C/O VIRGINIA SEX 720 OLIVE WAY, SUITE 1900 SEATTLE WA 98101-0000 (206)903-3347				Generator's Site Address (if different than mailing address) PASCO LANDFILL 1901 DIETRICH ROAD PASCO WA 99301 (425)227-6160					
6. Transporter 1 Company Name CERTIFIED CLEANING SERVICES					U.S. EPA ID Number WAR000011122				
7. Transporter 2 Company Name					U.S. EPA ID Number				
8. Designated Facility Name and Site Address BURLINGTON ENVIRONMENTAL, LLC. KENT FACILITY 20245 77TH AVENUE SOUTH KENT, WA 98032 (253) 872-8030					U.S. EPA ID Number WAD991281767				
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))			10. Containers No. Type		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
X	1. HA3082 HAZARDOUS WASTE, LIQUID, N.O.S. (METHYL ETHYL KETONE, TRICHLOROETHYLENE) 9 PGIII			1 TT		1290	G	D035	D040
	2.								
	3.								
	4.								
14. Special Handling Instructions and Additional Information (1) 482743-00 - ENG(171) ZONE A VAPOR CONDENS									
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export, shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 49 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.									
Generator's Site or Printed/Typed Name <i>Jeff J. Dawson</i>				Signature <i>Jeff J. Dawson</i>		Month Day Year 11 22 11			
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____									
17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name <i>Gerald Buehler</i> Signature <i>G Buehler</i> Month Day Year 11 22 11 Transporter 2 Printed/Typed Name Signature Month Day Year									
18. Discrepancy 18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection Manifest Reference Number: _____									
18b. Alternate Facility (or Generator) Facility's Phone: _____					U.S. EPA ID Number				
18c. Signature of Alternate Facility (or Generator)								Month Day Year	
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)									
1. <i>H082</i>		2. <input checked="" type="checkbox"/>			3.		4.		
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a Printed/typed Name <i>John Caputo</i> Signature <i>John Caputo</i> Month Day Year 11 18 11									

3910W

GENERATOR

TRANSPORTER INTL

DESIGNATED FACILITY

4304
22

575094

1418506
Form Approved OMB No. 2050-0028

Please print or type. (Form designed for use on 12-pitch typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number WAD991281874	2. Page 1 of 1	3. Emergency Response Phone (877) 577-2669	4. Manifest Tracking Number 000046077 DAT					
5. Generator's Name and Mailing Address 1940 GROUT III TECHNICAL COMM. C/O VIRGINIA SKI 128 OLIVE WAY, SUITE 1900 SEATTLE WA 98101-0000 (206)563-3347				Generator's Site Address (if different from mailing address) PARCO LANDFILL 1301 DISPRICH ROAD PASCO WA 99301 (425)227-6160						
6. Transporter 1 Company Name CERTIFIED CLEANING SERVICES		U.S. EPA ID Number WA9900611122		7. Transporter 2 Company Name						
8. Designated Facility Name and Site Address BURLINGTON ENVIRONMENTAL, LLC. HWY FACILITY 28245 77TH AVENUE SOUTH		U.S. EPA ID Number WAD991281767		Facility's Phone: HWY, WA 98032 (253) 872-8030						
9a. HW	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))			10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
	1. HAZARDOUS WASTE, LIQUID, H.O.S. (METHYL ETHYL KETONE, TRICHLOROETHYLENE) 9 PGIII			1. No.	TP Type	3,222	Q	D031	D048	
	2.									
	3.									
	4.									
14. Special Handling Instructions and Additional Information (1) 462743-00 - HRC(171) BOMB A VAPOUR CORRUPT										
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/retarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.										
Generator's/Offering Person/Typed Name Jeff J. Dumas								Month	Day	Year
Signature <i>Jeff J. Dumas</i>								12	15	11
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____										
17. Transporter Acknowledgment of Receipt of Materials										
Transporter 1 Printed/Typed Name Melvin L. Durr								Month	Day	Year
Signature <i>Melvin L. Durr</i>								12	15	11
Transporter 2 Printed/Typed Name								Month	Day	Year
18. Discrepancy										
18a. Discrepancy Indication Specify: <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection										
18b. Alternate Facility (or Generator) _____ U.S. EPA ID Number _____										
Facility's Phone: _____										
19a. Signature of Alternate Facility (or Generator)								Month	Day	Year
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)										
1. H082		2.		3.		4.				
20. Designated Facility Owner or Operator. Certification of receipt of hazardous materials covered by the manifest except as noted in item 18b										
Person/Typed Name Melissa Thompson								Month	Day	Year
Signature <i>Melissa Thompson</i>								12	15	11

44051W

GENERATOR

TRANSPORTER INT'L

DESIGNATED FACILITY



CERTIFICATE OF ANALYSIS

CLIENT:	Environmental Partners, Inc. 295 NE Gilman Blvd., Suite 201 Issaquah, WA 98027	DATE:	12/30/2011
CLIENT CONTACT:	Thom Morin	ALS JOB#:	1112138
CLIENT PROJECT:	03910.1	ALS SAMPLE#:	-01
CLIENT SAMPLE ID	Cond Flare-121911	DATE RECEIVED:	12/21/2011
		COLLECTION DATE:	12/19/2011 10:00
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	CAS NUMBER	METHOD	RESULTS	REPORTING LIMITS	QUALIFIER	UNITS	ANALYSIS DATE
Vinyl Chloride	75-01-4	EPA-8260 SIM	0.23	0.020		UG/L	12/29/2011
1,1-Dichloroethene	75-35-4	EPA-8260 SIM	ND	0.020	U	UG/L	12/29/2011
1,2-Dichloroethane	107-06-2	EPA-8260 SIM	94	0.10		UG/L	12/29/2011
Benzene	71-43-2	EPA-8260 SIM	17	0.020		UG/L	12/29/2011
Trichloroethene	79-01-6	EPA-8260 SIM	150	20		UG/L	12/29/2011
Tetrachloroethylene	127-18-4	EPA-8260 SIM	30	0.050		UG/L	12/29/2011
1,2-Dibromoethane	106-93-4	EPA-8260 SIM	ND	0.010	U	UG/L	12/29/2011
1,1,2,2-Tetrachloroethane	79-34-5	EPA-8260 SIM	ND	0.22	U	UG/L	12/29/2011
1,2,3-Trichloropropane	96-18-4	EPA-8260 SIM	ND	0.010	U	UG/L	12/29/2011
1,2-Dibromo 3-Chloropropane	96-12-8	EPA-8260 SIM	ND	0.10	U	UG/L	12/29/2011
Dichlorodifluoromethane	75-71-8	EPA-8260	ND	2.0	U	UG/L	12/29/2011
Chloromethane	74-87-3	EPA-8260	ND	5.0	U	UG/L	12/29/2011
Bromomethane	74-83-9	EPA-8260	ND	2.0	U	UG/L	12/29/2011
Chloroethane	75-00-3	EPA-8260	ND	2.0	U	UG/L	12/29/2011
Trichlorofluoromethane	75-69-4	EPA-8260	ND	2.0	U	UG/L	12/29/2011
Acetone	67-64-1	EPA-8260	110000	6800		UG/L	12/29/2011
Carbon Disulfide	75-15-0	EPA-8260	ND	2.0	U	UG/L	12/29/2011
Ethanol	64-17-5	EPA-8260	250000	7100		UG/L	12/29/2011
Methylene Chloride	75-09-2	EPA-8260	270	6.8		UG/L	12/29/2011
tert-Butanol	75-65-0	EPA-8260	7700	1000		UG/L	12/29/2011
Acrylonitrile	107-13-1	EPA-8260	ND	10	U	UG/L	12/29/2011
Diisopropyl Ether	108-20-3	EPA-8260	ND	2.0	U	UG/L	12/29/2011
Methyl T-Butyl Ether	1634-04-4	EPA-8260	ND	2.0	U	UG/L	12/29/2011
Trans-1,2-Dichloroethene	156-60-5	EPA-8260	ND	2.0	U	UG/L	12/29/2011
1,1-Dichloroethane	75-34-3	EPA-8260	20	2.0		UG/L	12/29/2011
2-Butanone	78-93-3	EPA-8260	94000	14000		UG/L	12/29/2011
Ethyl T-Butyl Ether	637-92-3	EPA-8260	ND	2.0	U	UG/L	12/29/2011
Cis-1,2-Dichloroethene	156-59-2	EPA-8260	17	2.0		UG/L	12/29/2011
2,2-Dichloropropane	594-20-7	EPA-8260	ND	2.0	U	UG/L	12/29/2011
Bromochloromethane	74-97-5	EPA-8260	ND	2.0	U	UG/L	12/29/2011
Chloroform	67-66-3	EPA-8260	18	2.0		UG/L	12/29/2011
1,1,1-Trichloroethane	71-55-6	EPA-8260	24	2.0		UG/L	12/29/2011
1,1-Dichloropropene	563-58-6	EPA-8260	ND	2.0	U	UG/L	12/29/2011
Carbon Tetrachloride	56-23-5	EPA-8260	ND	0.34	U	UG/L	12/29/2011
tert-Amyl Methyl Ether	994-05-8	EPA-8260	ND	2.0	U	UG/L	12/29/2011
1,2-Dichloropropane	78-87-5	EPA-8260	ND	0.64	U	UG/L	12/29/2011
Dibromomethane	74-95-3	EPA-8260	ND	2.0	U	UG/L	12/29/2011
Bromodichloromethane	75-27-4	EPA-8260	ND	0.71	U	UG/L	12/29/2011



CERTIFICATE OF ANALYSIS

CLIENT:	Environmental Partners, Inc. 295 NE Gilman Blvd., Suite 201 Issaquah, WA 98027	DATE:	12/30/2011
CLIENT CONTACT:	Thom Morin	ALS JOB#:	1112138
CLIENT PROJECT:	03910.1	ALS SAMPLE#:	-01
CLIENT SAMPLE ID	Cond Flare-121911	DATE RECEIVED:	12/21/2011
		COLLECTION DATE:	12/19/2011 10:00
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	CAS NUMBER	METHOD	RESULTS	REPORTING LIMITS	QUALIFIER	UNITS	ANALYSIS DATE
Trans-1,3-Dichloropropene	10061-02-6	EPA-8260	8.2	2.0		UG/L	12/29/2011
4-Methyl-2-Pentanone	108-10-1	EPA-8260	19000	3400		UG/L	12/29/2011
Toluene	108-88-3	EPA-8260	1900	2.0		UG/L	12/29/2011
Cis-1,3-Dichloropropene	10061-01-5	EPA-8260	ND	2.0	U	UG/L	12/29/2011
1,1,2-Trichloroethane	79-00-5	EPA-8260	9.4	0.77		UG/L	12/29/2011
2-Hexanone	591-78-6	EPA-8260	740	94		UG/L	12/29/2011
1,3-Dichloropropane	142-28-9	EPA-8260	ND	2.0	U	UG/L	12/29/2011
Dibromochloromethane	124-48-1	EPA-8260	ND	0.52	U	UG/L	12/29/2011
Chlorobenzene	108-90-7	EPA-8260	ND	2.0	U	UG/L	12/29/2011
1,1,1,2-Tetrachloroethane	630-20-6	EPA-8260	ND	1.7	U	UG/L	12/29/2011
Ethylbenzene	100-41-4	EPA-8260	160	2.0		UG/L	12/29/2011
m,p-Xylene	179601-23-1	EPA-8260	560	4.0		UG/L	12/29/2011
Styrene	100-42-5	EPA-8260	ND	1.5	U	UG/L	12/29/2011
o-Xylene	95-47-6	EPA-8260	240	2.0		UG/L	12/29/2011
Bromoform	75-25-2	EPA-8260	ND	2.0	U	UG/L	12/29/2011
Isopropylbenzene	98-82-8	EPA-8260	11	2.0		UG/L	12/29/2011
Bromobenzene	108-86-1	EPA-8260	ND	2.0	U	UG/L	12/29/2011
N-Propyl Benzene	103-65-1	EPA-8260	23	2.0		UG/L	12/29/2011
2-Chlorotoluene	95-49-8	EPA-8260	ND	2.0	U	UG/L	12/29/2011
1,3,5-Trimethylbenzene	108-67-8	EPA-8260	33	2.0		UG/L	12/29/2011
4-Chlorotoluene	106-43-4	EPA-8260	ND	2.0	U	UG/L	12/29/2011
T-Butyl Benzene	98-06-6	EPA-8260	ND	2.0	U	UG/L	12/29/2011
1,2,4-Trimethylbenzene	95-63-6	EPA-8260	82	2.0		UG/L	12/29/2011
S-Butyl Benzene	135-98-8	EPA-8260	ND	2.0	U	UG/L	12/29/2011
P-Isopropyltoluene	99-87-6	EPA-8260	2.5	2.0		UG/L	12/29/2011
1,3 Dichlorobenzene	541-73-1	EPA-8260	ND	2.0	U	UG/L	12/29/2011
1,4-Dichlorobenzene	106-46-7	EPA-8260	2.0	1.8		UG/L	12/29/2011
N-Butylbenzene	104-51-8	EPA-8260	ND	2.0	U	UG/L	12/29/2011
1,2-Dichlorobenzene	95-50-1	EPA-8260	12	2.0		UG/L	12/29/2011
1,2,4-Trichlorobenzene	120-82-1	EPA-8260	ND	2.0	U	UG/L	12/29/2011
Hexachlorobutadiene	87-68-3	EPA-8260	ND	0.56	U	UG/L	12/29/2011
Naphthalene	91-20-3	EPA-8260	21	2.0		UG/L	12/29/2011
1,2,3-Trichlorobenzene	87-61-6	EPA-8260	ND	2.0	U	UG/L	12/29/2011

SURROGATE	CAS NUMBER	METHOD	%REC	ANALYSIS DATE
1,2-Dichloroethane-d4	17060-07-0	EPA-8260	111	12/29/2011
1,2-Dichloroethane-d4 10X	17060-07-0	EPA-8260	103	12/29/2011



CERTIFICATE OF ANALYSIS

CLIENT: Environmental Partners, Inc. DATE: 12/30/2011
295 NE Gilman Blvd., Suite 201 ALS JOB#: 1112138
Issaquah, WA 98027 ALS SAMPLE#: -01
CLIENT CONTACT: Thom Morin DATE RECEIVED: 12/21/2011
CLIENT PROJECT: 03910.1 COLLECTION DATE: 12/19/2011 10:00
CLIENT SAMPLE ID: Cond Flare-121911 WDOE ACCREDITATION: C601

DATA RESULTS

SURROGATE	CAS NUMBER	METHOD	%REC	ANALYSIS DATE
Dilution				
1,2-Dichloroethane-d4 100X Dilution	17060-07-0	EPA-8260	112	12/29/2011
Dilution				
1,2-Dichloroethane-d4 10000X Dilution	17060-07-0	EPA-8260	110	12/29/2011
Dilution				
Toluene-d8	2037-26-5	EPA-8260	103	12/29/2011
Toluene-d8 10X Dilution	2037-26-5	EPA-8260	103	12/29/2011
Toluene-d8 100X Dilution	2037-26-5	EPA-8260	103	12/29/2011
Toluene-d8 10000X Dilution	2037-26-5	EPA-8260	102	12/29/2011
4-Bromofluorobenzene	460-00-4	EPA-8260	109	12/29/2011
4-Bromofluorobenzene 10X Dilution	460-00-4	EPA-8260	105	12/29/2011
4-Bromofluorobenzene 100X Dilution	460-00-4	EPA-8260	107	12/29/2011
4-Bromofluorobenzene 10000X Dilution	460-00-4	EPA-8260	101	12/29/2011

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Environmental Partners, Inc. 295 NE Gilman Blvd., Suite 201 Issaquah, WA 98027	DATE:	12/30/2011
CLIENT CONTACT:	Thom Morin	ALS JOB#:	1112138
CLIENT PROJECT:	03910.1	ALS SAMPLE#:	-02
CLIENT SAMPLE ID	Cond Skid-121911	DATE RECEIVED:	12/21/2011
		COLLECTION DATE:	12/19/2011 10:00
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	CAS NUMBER	METHOD	RESULTS	REPORTING LIMITS	QUALIFIER	UNITS	ANALYSIS DATE
Vinyl Chloride	75-01-4	EPA-8260 SIM	0.19	0.020		UG/L	12/29/2011
1,1-Dichloroethene	75-35-4	EPA-8260 SIM	ND	0.020	U	UG/L	12/29/2011
1,2-Dichloroethane	107-06-2	EPA-8260 SIM	240	0.10		UG/L	12/29/2011
Benzene	71-43-2	EPA-8260 SIM	4.1	0.020		UG/L	12/29/2011
Trichloroethene	79-01-6	EPA-8260 SIM	630	200		UG/L	12/29/2011
Tetrachloroethylene	127-18-4	EPA-8260 SIM	7.0	0.050		UG/L	12/29/2011
1,2-Dibromoethane	106-93-4	EPA-8260 SIM	ND	0.010	U	UG/L	12/29/2011
1,1,2,2-Tetrachloroethane	79-34-5	EPA-8260 SIM	ND	0.22	U	UG/L	12/29/2011
1,2,3-Trichloropropane	96-18-4	EPA-8260 SIM	ND	0.010	U	UG/L	12/29/2011
1,2-Dibromo 3-Chloropropane	96-12-8	EPA-8260 SIM	ND	0.10	U	UG/L	12/29/2011
Dichlorodifluoromethane	75-71-8	EPA-8260	ND	2.0	U	UG/L	12/29/2011
Chloromethane	74-87-3	EPA-8260	ND	5.0	U	UG/L	12/29/2011
Bromomethane	74-83-9	EPA-8260	ND	2.0	U	UG/L	12/29/2011
Chloroethane	75-00-3	EPA-8260	ND	2.0	U	UG/L	12/29/2011
Trichlorofluoromethane	75-69-4	EPA-8260	ND	2.0	U	UG/L	12/29/2011
Acetone	67-64-1	EPA-8260	240000	6800		UG/L	12/29/2011
Carbon Disulfide	75-15-0	EPA-8260	ND	2.0	U	UG/L	12/29/2011
Ethanol	64-17-5	EPA-8260	510000	71000		UG/L	12/29/2011
Methylene Chloride	75-09-2	EPA-8260	890	68		UG/L	12/29/2011
tert-Butanol	75-65-0	EPA-8260	20000	1000		UG/L	12/29/2011
Acrylonitrile	107-13-1	EPA-8260	ND	10	U	UG/L	12/29/2011
Diisopropyl Ether	108-20-3	EPA-8260	ND	2.0	U	UG/L	12/29/2011
Methyl T-Butyl Ether	1634-04-4	EPA-8260	ND	2.0	U	UG/L	12/29/2011
Trans-1,2-Dichloroethene	156-60-5	EPA-8260	ND	2.0	U	UG/L	12/29/2011
1,1-Dichloroethane	75-34-3	EPA-8260	18	2.0		UG/L	12/29/2011
2-Butanone	78-93-3	EPA-8260	240000	14000		UG/L	12/29/2011
Ethyl T-Butyl Ether	637-92-3	EPA-8260	ND	2.0	U	UG/L	12/29/2011
Cis-1,2-Dichloroethene	156-59-2	EPA-8260	7.4	2.0		UG/L	12/29/2011
2,2-Dichloropropane	594-20-7	EPA-8260	ND	2.0	U	UG/L	12/29/2011
Bromochloromethane	74-97-5	EPA-8260	ND	2.0	U	UG/L	12/29/2011
Chloroform	67-66-3	EPA-8260	5.6	2.0		UG/L	12/29/2011
1,1,1-Trichloroethane	71-55-6	EPA-8260	5.8	2.0		UG/L	12/29/2011
1,1-Dichloropropene	563-58-6	EPA-8260	ND	2.0	U	UG/L	12/29/2011
Carbon Tetrachloride	56-23-5	EPA-8260	ND	0.34	U	UG/L	12/29/2011
tert-Amyl Methyl Ether	994-05-8	EPA-8260	ND	2.0	U	UG/L	12/29/2011
1,2-Dichloropropane	78-87-5	EPA-8260	ND	0.64	U	UG/L	12/29/2011
Dibromomethane	74-95-3	EPA-8260	ND	2.0	U	UG/L	12/29/2011
Bromodichloromethane	75-27-4	EPA-8260	ND	0.71	U	UG/L	12/29/2011



CERTIFICATE OF ANALYSIS

CLIENT:	Environmental Partners, Inc. 295 NE Gilman Blvd., Suite 201 Issaquah, WA 98027	DATE:	12/30/2011
CLIENT CONTACT:	Thom Morin	ALS JOB#:	1112138
CLIENT PROJECT:	03910.1	ALS SAMPLE#:	-02
CLIENT SAMPLE ID	Cond Skid-121911	DATE RECEIVED:	12/21/2011
		COLLECTION DATE:	12/19/2011 10:00
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	CAS NUMBER	METHOD	RESULTS	REPORTING LIMITS	QUALIFIER	UNITS	ANALYSIS DATE
Trans-1,3-Dichloropropene	10061-02-6	EPA-8260	ND	2.0	U	UG/L	12/29/2011
4-Methyl-2-Pentanone	108-10-1	EPA-8260	44000	3400		UG/L	12/29/2011
Toluene	108-88-3	EPA-8260	5900	15		UG/L	12/29/2011
Cis-1,3-Dichloropropene	10061-01-5	EPA-8260	ND	2.0	U	UG/L	12/29/2011
1,1,2-Trichloroethane	79-00-5	EPA-8260	3.5	0.77		UG/L	12/29/2011
2-Hexanone	591-78-6	EPA-8260	2400	94		UG/L	12/29/2011
1,3-Dichloropropane	142-28-9	EPA-8260	ND	2.0	U	UG/L	12/29/2011
Dibromochloromethane	124-48-1	EPA-8260	ND	0.52	U	UG/L	12/29/2011
Chlorobenzene	108-90-7	EPA-8260	ND	2.0	U	UG/L	12/29/2011
1,1,1,2-Tetrachloroethane	630-20-6	EPA-8260	ND	1.7	U	UG/L	12/29/2011
Ethylbenzene	100-41-4	EPA-8260	560	2.9		UG/L	12/29/2011
m,p-Xylene	179601-23-1	EPA-8260	2000	11		UG/L	12/29/2011
Styrene	100-42-5	EPA-8260	ND	1.5	U	UG/L	12/29/2011
o-Xylene	95-47-6	EPA-8260	770	6.9		UG/L	12/29/2011
Bromoform	75-25-2	EPA-8260	ND	2.0	U	UG/L	12/29/2011
Isopropylbenzene	98-82-8	EPA-8260	3.6	2.0		UG/L	12/29/2011
Bromobenzene	108-86-1	EPA-8260	ND	2.0	U	UG/L	12/29/2011
N-Propyl Benzene	103-65-1	EPA-8260	7.0	2.0		UG/L	12/29/2011
2-Chlorotoluene	95-49-8	EPA-8260	ND	2.0	U	UG/L	12/29/2011
1,3,5-Trimethylbenzene	108-67-8	EPA-8260	21	2.0		UG/L	12/29/2011
4-Chlorotoluene	106-43-4	EPA-8260	ND	2.0	U	UG/L	12/29/2011
T-Butyl Benzene	98-06-6	EPA-8260	ND	2.0	U	UG/L	12/29/2011
1,2,4-Trimethylbenzene	95-63-6	EPA-8260	230	2.0		UG/L	12/29/2011
S-Butyl Benzene	135-98-8	EPA-8260	ND	2.0	U	UG/L	12/29/2011
P-Isopropyltoluene	99-87-6	EPA-8260	ND	2.0	U	UG/L	12/29/2011
1,3 Dichlorobenzene	541-73-1	EPA-8260	ND	2.0	U	UG/L	12/29/2011
1,4-Dichlorobenzene	106-46-7	EPA-8260	ND	1.8	U	UG/L	12/29/2011
N-Butylbenzene	104-51-8	EPA-8260	ND	2.0	U	UG/L	12/29/2011
1,2-Dichlorobenzene	95-50-1	EPA-8260	4.7	2.0		UG/L	12/29/2011
1,2,4-Trichlorobenzene	120-82-1	EPA-8260	ND	2.0	U	UG/L	12/29/2011
Hexachlorobutadiene	87-68-3	EPA-8260	ND	0.56	U	UG/L	12/29/2011
Naphthalene	91-20-3	EPA-8260	21	2.0		UG/L	12/29/2011
1,2,3-Trichlorobenzene	87-61-6	EPA-8260	ND	2.0	U	UG/L	12/29/2011

SURROGATE	CAS NUMBER	METHOD	%REC	ANALYSIS DATE
1,2-Dichloroethane-d4	17060-07-0	EPA-8260	109	12/29/2011
1,2-Dichloroethane-d4 10X	17060-07-0	EPA-8260	99.7	12/29/2011



CERTIFICATE OF ANALYSIS

CLIENT: Environmental Partners, Inc. DATE: 12/30/2011
295 NE Gilman Blvd., Suite 201 ALS JOB#: 1112138
Issaquah, WA 98027 ALS SAMPLE#: -02
CLIENT CONTACT: Thom Morin DATE RECEIVED: 12/21/2011
CLIENT PROJECT: 03910.1 COLLECTION DATE: 12/19/2011 10:00
CLIENT SAMPLE ID: Cond Skid-121911 WDOE ACCREDITATION: C601

DATA RESULTS

SURROGATE	CAS NUMBER	METHOD	%REC	ANALYSIS DATE
Dilution				
1,2-Dichloroethane-d4 100X Dilution	17060-07-0	EPA-8260	108	12/29/2011
1,2-Dichloroethane-d4 1000X Dilution	17060-07-0	EPA-8260	112	12/29/2011
1,2-Dichloroethane-d4 10000X Dilution	17060-07-0	EPA-8260	110	12/29/2011
Toluene-d8	2037-26-5	EPA-8260	104	12/29/2011
Toluene-d8 10X Dilution	2037-26-5	EPA-8260	105	12/29/2011
Toluene-d8 100X Dilution	2037-26-5	EPA-8260	103	12/29/2011
Toluene-d8 1000X Dilution	2037-26-5	EPA-8260	103	12/29/2011
Toluene-d8 10000X Dilution	2037-26-5	EPA-8260	102	12/29/2011
4-Bromofluorobenzene	460-00-4	EPA-8260	111	12/29/2011
4-Bromofluorobenzene 10X Dilution	460-00-4	EPA-8260	100	12/29/2011
4-Bromofluorobenzene 100X Dilution	460-00-4	EPA-8260	105	12/29/2011
4-Bromofluorobenzene 1000X Dilution	460-00-4	EPA-8260	102	12/29/2011
4-Bromofluorobenzene 10000X Dilution	460-00-4	EPA-8260	102	12/29/2011

U - Analyte analyzed for but not detected at level above reporting limit.

Appendix F
Performance Monitoring – Monthly Inspection Checklists

Zone A Landfill Cover Inspection Checklist

Project Inspection Report No.: 01-2011 Date: 25-Jan-11

Project Inspector Name: Eric Jensen Weather: Clear, 43° f, Wind NW
5, Pressure 30.39
rising

Work Start/Finish: 1430/1450

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	No	No	No
Foot Traffic Disturbance	No	No	No
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	No	No	No
Consumption of Vegetation	No	No	No
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	No	No	No
Stormwater Erosion	No	No	No
Settlement	Yes	Under Evaluation	Under Evaluation
Sparse Vegetation	No	No	No
Distressed Vegetation	No	No	No
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Under construction

Two depressions are on the South side, top deck, east of the berm in the SW corner and 75ft north of the SW corner. The other depression is in the NW corner of top deck. Possible new depression forming on the side slope above the West Basin Staff Gauge.

Zone C/D Landfill Cover Inspection Checklist

Project Inspection Report No.: 01-2011 Date: 25-Jan-11

Project Inspector Name: Eric Jensen Weather: Clear, 43° f, Wind NW 5, Pressure 30.39 rising

Work Start/Finish: 1450/1510

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Consumption of Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Stormwater Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Settlement	<i>No</i>	<i>No</i>	<i>No</i>
Sparse Vegetation	<i>Yes</i>	<i>No</i>	<i>No</i>
Distressed Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Vegetation is sparse on crown and soil is holding.

Zone E Landfill Cover Inspection Checklist

Project Inspection Report No.: 01-2011 Date: 25-Jan-11

Project Inspector Name: Eric Jensen Weather: Clear, 43° f, Wind NW 5, Pressure 30.39 rising

Work Start/Finish: 1510/1530

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Consumption of Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	<i>Yes</i>	<i>No</i>	<i>No</i>
Stormwater Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Settlement	<i>No</i>	<i>No</i>	<i>No</i>
Sparse Vegetation	<i>Yes</i>	<i>No</i>	<i>No</i>
Distressed Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Minor wind erosion on the North side slope and crown.

Sparse vegetation on the crown in eroded area.

Zone A West Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 01-2011 Date: 25-Jan-11

Project Inspector Name: Eric Jensen Weather: Clear, 43° f, Wind NW 5, Pressure 30.39 rising

Work Start/Finish: 1430/1450

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)	<i>No</i>		<i>No</i>

Comments, Remarks, and Action Items:

The Sediment depth is 0" to 3", Ave. is 1". The water depth is 16".

The basin liner is beginning to be exposed on the west side of the west berm between the fence and the top of the berm.

Zone A East Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 01-2011 Date: 25-Jan-11

Project Inspector Name: Eric Jensen Weather: Clear, 43° f, Wind NW 5, Pressure 30.39 rising

Work Start/Finish: 1430/1450

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	No	No	No
Sediment/Water Level Staff Gauge Disturbance	No	No	No
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	No	No	No
Foot Traffic Damage to Liner	No	No	No
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	No	No	No
Water Level Greater than 4.0 feet	No	No	No
Anchor Trench Disturbed/Exposed/Pull Out	No	No	No
Ballooning Liner	Yes	No	No
Vegetation Growing in Sediment	Yes	No	No
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

The water depth is 18". The average sediment depth is approx. 1/2". Vegetation only growing in the sediment at North end near the inlet pipe. Minor sediment below keystone blocks.

Area C/D Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 01-2011 Date: 25-Jan-11

Project Inspector Name: Eric Jensen Weather: Clear, 43° f, Wind NW 5, Pressure 30.39 rising

Work Start/Finish: 1450/1510

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)	<i>No</i>		<i>No</i>

Comments, Remarks, and Action Items:

Water depth is 16". The Sediment depth is 0" to 6", ave. is 3" on the bottom, 0" on the side walls. Some sediment in North drainage pipe. Some vegetation growth in sediment.

Zone E Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 01-2011 Date: 25-Jan-11

Project Inspector Name: Eric Jensen Weather: Clear, 43° f, Wind NW 5, Pressure 30.39 rising

Work Start/Finish: 1510/1530

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Water depth is 12". Sediment is 0" to 5", Ave is 2" on the bottom, 0" on the side walls.

Vegetation is growing along the edge.

Zone A Fence Inspection Checklist

Project Inspection Report No.: 01-2011 Date: 25-Jan-11

Project Inspector Name: Eric Jensen Weather: Clear, 43° f, Wind NW 5, Pressure 30.39 rising

Work Start/Finish: 1430/1450

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence.

One of the fence poles is bent on the south side.

Zone C/D Fence Inspection Checklist

Project Inspection Report No.: 01-2011 Date: 25-Jan-11

Project Inspector Name: Eric Jensen Weather: Clear, 43° f, Wind NW 5, Pressure 30.39 rising

Work Start/Finish: 1450/1510

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence inside and out.

Zone E Fence Inspection Checklist

Project Inspection Report No.: 01-2011 Date: 25-Jan-11

Project Inspector Name: Eric Jensen Weather: Clear, 43° f, Wind NW 5, Pressure 30.39 rising

Work Start/Finish: 1510/1530

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence inside and out.

Zone A Landfill Cover Inspection Checklist

Project Inspection Report No.: 02-2011 Date: 23-Feb-11
 Project Inspector Name: Eric Jensen Weather: Clear, 34° f, Wind SW
20 G28, Pressure
29.99 falling
 Work Start/Finish: 1400/1420

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	No	No	No
Foot Traffic Disturbance	No	No	No
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	No	No	No
Consumption of Vegetation	No	No	No
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	No	No	No
Stormwater Erosion	No	No	No
Settlement	Yes	Under Evaluation	Under Evaluation
Sparse Vegetation	No	No	No
Distressed Vegetation	No	No	No
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Under construction

Two depressions are on the South side, top deck, east of the berm in the SW corner and 75ft north of the SW corner. The other depression is in the NW corner of top deck. Possible new depression forming on the side slope above the West Basin Staff Gauge.

Zone C/D Landfill Cover Inspection Checklist

Project Inspection Report No.: 02-2011 Date: 23-Feb-11

Project Inspector Name: Eric Jensen Weather: Clear, 34° f, Wind SW 20 G28, Pressure 29.99 falling

Work Start/Finish: 1340/1400

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Consumption of Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Stormwater Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Settlement	<i>No</i>	<i>No</i>	<i>No</i>
Sparse Vegetation	<i>Yes</i>	<i>No</i>	<i>No</i>
Distressed Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Vegetation is sparse on crown and soil is holding.

Zone E Landfill Cover Inspection Checklist

Project Inspection Report No.: 02-2011 Date: 23-Feb-11
 Project Inspector Name: Eric Jensen Weather: Clear, 34° f, Wind SW 20 G28, Pressure 29.99 falling
 Work Start/Finish: 1420/1440

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Consumption of Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	<i>Yes</i>	<i>No</i>	<i>No</i>
Stormwater Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Settlement	<i>No</i>	<i>No</i>	<i>No</i>
Sparse Vegetation	<i>Yes</i>	<i>No</i>	<i>No</i>
Distressed Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Minor wind erosion on the North side slope and crown.

Sparse vegetation on the crown in eroded area.

Zone A West Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 02-2011 Date: 23-Feb-11

Project Inspector Name: Eric Jensen Weather: Clear, 34° f, Wind SW 20 G28, Pressure 29.99 falling

Work Start/Finish: 1400/1420

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)	<i>No</i>		<i>No</i>

Comments, Remarks, and Action Items:

The Sediment depth is 0" to 3", Ave. is 1". The water depth is 15".

The basin liner is beginning to be exposed on the west side of the west berm between the fence and the top of the berm.

Zone A East Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 02-2011 Date: 23-Feb-11
 Project Inspector Name: Eric Jensen Weather: Clear, 34° f, Wind SW 20 G28, Pressure 29.99 falling
 Work Start/Finish: 1400/1420

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

The water depth is 13". The average sediment depth is approx. 1/2". Vegetation only growing in the sediment at North end near the inlet pipe. Minor sediment below keystone blocks.

Area C/D Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 02-2011 Date: 23-Feb-11
 Project Inspector Name: Eric Jensen Weather: Clear, 34° f, Wind SW 20 G28, Pressure 29.99 falling
 Work Start/Finish: 1340/1400

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)	<i>No</i>		<i>No</i>

Comments, Remarks, and Action Items:

Water depth is 16". The Sediment depth is 0" to 6", ave. is 3" on the bottom, 0" on the side walls. Some sediment in North drainage pipe. Some vegetation growth in sediment.

Zone E Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 02-2011 Date: 23-Feb-11
 Project Inspector Name: Eric Jensen Weather: Clear, 34° f, Wind SW 20 G28, Pressure 29.99 falling
 Work Start/Finish: 1420/1440

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Water depth is 13". Sediment is 0" to 5", Ave is 2" on the bottom, 0" on the side walls.

Vegetation is growing along the edge.

Zone A Fence Inspection Checklist

Project Inspection Report No.: 02-2011 Date: 23-Feb-11

Project Inspector Name: Eric Jensen Weather: Clear, 34° f, Wind SW 20 G28, Pressure 29.99 falling

Work Start/Finish: 1400/1420

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence.

One of the fence poles is bent on the south side.

Zone C/D Fence Inspection Checklist

Project Inspection Report No.: 02-2011 Date: 23-Feb-11

Project Inspector Name: Eric Jensen Weather: Clear, 34° f, Wind SW 20 G28, Pressure 29.99 falling

Work Start/Finish: 1340/1400

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence inside and out.

Zone E Fence Inspection Checklist

Project Inspection Report No.: 02-2011 Date: 23-Feb-11

Project Inspector Name: Eric Jensen Weather: Clear, 34° f, Wind SW 20 G28, Pressure 29.99 falling

Work Start/Finish: 1420/1440

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence inside and out.

Zone A Landfill Cover Inspection Checklist

Project Inspection Report No.: 03-2011 Date: 25-Mar-11

Project Inspector Name: Eric Jensen Weather: Overcast, 56° f, Wind SW 15 G20, Pressure 29.63 rising

Work Start/Finish: 1420/1440

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Consumption of Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Stormwater Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Settlement	<i>Yes</i>	<i>Under Evaluation</i>	<i>Under Evaluation</i>
Sparse Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Distressed Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Under construction

Two depressions are on the South side, top deck, east of the berm in the SW corner and 75ft north of the SW corner. The other depression is in the NW corner of top deck. Possible new depression forming on the side slope above the West Basin Staff Gauge.

Zone C/D Landfill Cover Inspection Checklist

Project Inspection Report No.: 03-2011 Date: 25-Mar-11

Project Inspector Name: Eric Jensen Weather: Overcast, 56° f,
Wind SW 15 G20,
Pressure 29.63
rising

Work Start/Finish: 1440/1500

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Consumption of Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Stormwater Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Settlement	<i>No</i>	<i>No</i>	<i>No</i>
Sparse Vegetation	<i>Yes</i>	<i>No</i>	<i>No</i>
Distressed Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Vegetation is sparse on crown and soil is holding.

Zone E Landfill Cover Inspection Checklist

Project Inspection Report No.: 03-2011 Date: 25-Mar-11

Project Inspector Name: Eric Jensen Weather: Overcast, 56° f,
Wind SW 15 G20,
Pressure 29.63
rising

Work Start/Finish: 1500/1520

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Consumption of Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	<i>Yes</i>	<i>No</i>	<i>No</i>
Stormwater Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Settlement	<i>No</i>	<i>No</i>	<i>No</i>
Sparse Vegetation	<i>Yes</i>	<i>No</i>	<i>No</i>
Distressed Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Minor wind erosion on the North side slope and crown.

Sparse vegetation on the crown in eroded area.

Zone A West Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 03-2011 Date: 25-Mar-11

Project Inspector Name: Eric Jensen Weather: Overcast, 56° f,
Wind SW 15 G20,
Pressure 29.63
rising

Work Start/Finish: 1420/1440

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)	<i>No</i>		<i>No</i>

Comments, Remarks, and Action Items:

The Sediment depth is 0" to 3", Ave. is 1". The water depth is 15".

The basin liner is beginning to be exposed on the west side of the west berm between the fence and the top of the berm.

Zone A East Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 03-2011 Date: 25-Mar-11

Project Inspector Name: Eric Jensen Weather: Overcast, 56° f,
Wind SW 15 G20,
Pressure 29.63
rising

Work Start/Finish: 1420/1440

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

The water depth is 17". The average sediment depth is approx. 1/2". Vegetation only growing in the sediment at North end near the inlet pipe. Minor sediment below keystone blocks.

Area C/D Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 03-2011 Date: 25-Mar-11

Project Inspector Name: Eric Jensen Weather: Overcast, 56° f,
Wind SW 15 G20,
Pressure 29.63
rising

Work Start/Finish: 1440/1500

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)	<i>No</i>		<i>No</i>

Comments, Remarks, and Action Items:

Water depth is 16". The Sediment depth is 0" to 6", ave. is 3" on the bottom, 0" on the side walls. Some sediment in North drainage pipe. Some vegetation growth in sediment.

Zone E Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 03-2011 Date: 25-Mar-11

Project Inspector Name: Eric Jensen Weather: Overcast, 56° f,
Wind SW 15 G20,
Pressure 29.63
rising

Work Start/Finish: 1500/1520

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Water depth is 12". Sediment is 0" to 5", Ave is 2" on the bottom, 0" on the side walls.

Vegetation is growing along the edge.

Zone A Fence Inspection Checklist

Project Inspection Report No.: 03-2011 Date: 25-Mar-11

Project Inspector Name: Eric Jensen Weather: Overcast, 56° f,
Wind SW 15 G20,
Pressure 29.63
rising

Work Start/Finish: 1420/1440

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence.

One of the fence poles is bent on the south side.

Zone C/D Fence Inspection Checklist

Project Inspection Report No.: 03-2011 Date: 25-Mar-11

Project Inspector Name: Eric Jensen Weather: Overcast, 56° f,
Wind SW 15 G20,
Pressure 29.63
rising

Work Start/Finish: 1440/1500

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence inside and out.

Zone E Fence Inspection Checklist

Project Inspection Report No.: 03-2011 Date: 25-Mar-11

Project Inspector Name: Eric Jensen Weather: Overcast, 56° f,
Wind SW 15 G20,
Pressure 29.63
rising

Work Start/Finish: 1500/1520

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence inside and out.

Zone A Landfill Cover Inspection Checklist

Project Inspection Report No.: 04-2011 Date: 26-Apr-11

Project Inspector Name: Eric Jensen Weather: Clear, 58° f, Wind SW
15 G20, Pressure
30.09 falling

Work Start/Finish: 1140/1200

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	No	No	No
Foot Traffic Disturbance	No	No	No
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	No	No	No
Consumption of Vegetation	No	No	No
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	No	No	No
Stormwater Erosion	No	No	No
Settlement	Yes	Under Evaluation	Under Evaluation
Sparse Vegetation	No	No	No
Distressed Vegetation	No	No	No
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Under construction

Two depressions are on the South side, top deck, east of the berm in the SW corner and 75ft north of the SW corner. The other depression is in the NW corner of top deck. Possible new depression forming on the side slope above the West Basin Staff Gauge.

Zone C/D Landfill Cover Inspection Checklist

Project Inspection Report No.: 04-2011 Date: 26-Apr-11

Project Inspector Name: Eric Jensen Weather: Clear, 58° f, Wind SW 15 G20, Pressure 30.09 falling

Work Start/Finish: 1200/1220

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Consumption of Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Stormwater Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Settlement	<i>No</i>	<i>No</i>	<i>No</i>
Sparse Vegetation	<i>Yes</i>	<i>No</i>	<i>No</i>
Distressed Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Vegetation is sparse on crown and soil is holding.

Zone E Landfill Cover Inspection Checklist

Project Inspection Report No.: 04-2011 Date: 26-Apr-11
 Project Inspector Name: Eric Jensen Weather: Clear, 58° f, Wind SW 15 G20, Pressure 30.09 falling
 Work Start/Finish: 1220/1240

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Consumption of Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	<i>Yes</i>	<i>No</i>	<i>No</i>
Stormwater Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Settlement	<i>No</i>	<i>No</i>	<i>No</i>
Sparse Vegetation	<i>Yes</i>	<i>No</i>	<i>No</i>
Distressed Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Minor wind erosion on the North side slope and crown.

Sparse vegetation on the crown in eroded area.

Zone A West Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 04-2011 Date: 26-Apr-11

Project Inspector Name: Eric Jensen Weather: Clear, 58° f, Wind SW 15 G20, Pressure 30.09 falling

Work Start/Finish: 1140/1200

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)	<i>No</i>		<i>No</i>

Comments, Remarks, and Action Items:

The Sediment depth is 0" to 3", Ave. is 1". The water depth is 13".

The basin liner is beginning to be exposed on the west side of the west berm between the fence and the top of the berm.

Zone A East Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 04-2011 Date: 26-Apr-11
 Project Inspector Name: Eric Jensen Weather: Clear, 58° f, Wind SW 15 G20, Pressure 30.09 falling
 Work Start/Finish: 1140/1200

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

The water depth is 14". The average sediment depth is approx. 1/2". Vegetation only growing in the sediment at North end near the inlet pipe. Minor sediment below keystone blocks.

Area C/D Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 04-2011 Date: 26-Apr-11
 Project Inspector Name: Eric Jensen Weather: Clear, 58° f, Wind SW 15 G20, Pressure 30.09 falling
 Work Start/Finish: 1200/1220

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	No	No	No
Sediment/Water Level Staff Gauge Disturbance	No	No	No
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	No	No	No
Foot Traffic Damage to Liner	No	No	No
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	No	No	No
Water Level Greater than 4.0 feet	No	No	No
Anchor Trench Disturbed/Exposed/Pull Out	No	No	No
Ballooning Liner	Yes	No	No
Vegetation Growing in Sediment	Yes	No	No
Other (Define in Inspection Report)	No		No

Comments, Remarks, and Action Items:

Water depth is 14". The Sediment depth is 0" to 6", ave. is 3" on the bottom, 0" on the side walls. Some sediment in North drainage pipe. Some vegetation growth in sediment.

Zone E Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 04-2011 Date: 26-Apr-11

Project Inspector Name: Eric Jensen Weather: Clear, 58° f, Wind SW 15 G20, Pressure 30.09 falling

Work Start/Finish: 1220/1240

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Water depth is 8". Sediment is 0" to 5", Ave is 2" on the bottom, 0" on the side walls.

Vegetation is growing along the edge.

Zone A Fence Inspection Checklist

Project Inspection Report No.: 04-2011 Date: 26-Apr-11
 Project Inspector Name: Eric Jensen Weather: Clear, 58° f, Wind SW 15 G20, Pressure 30.09 falling
 Work Start/Finish: 1140/1200

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence.

One of the fence poles is bent on the south side.

Zone C/D Fence Inspection Checklist

Project Inspection Report No.: 04-2011 Date: 26-Apr-11

Project Inspector Name: Eric Jensen Weather: Clear, 58° f, Wind SW 15 G20, Pressure 30.09 falling

Work Start/Finish: 1200/1220

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence inside and out.

Zone E Fence Inspection Checklist

Project Inspection Report No.: 04-2011 Date: 26-Apr-11

Project Inspector Name: Eric Jensen Weather: Clear, 58° f, Wind SW 15 G20, Pressure 30.09 falling

Work Start/Finish: 1220/1240

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence inside and out.

Zone A Landfill Cover Inspection Checklist

Project Inspection Report No.: 05-2011 Date: 23-May-11

Project Inspector Name: Eric Jensen Weather: Rain, 56° f, Wind vrbl 6, Pressure 29.99 falling

Work Start/Finish: 1300/1320

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Consumption of Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Stormwater Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Settlement	<i>Yes</i>	<i>Under Evaluation</i>	<i>Under Evaluation</i>
Sparse Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Distressed Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Under construction

Two depressions are on the South side, top deck, east of the berm in the SW corner and 75ft north of the SW corner. The other depression is in the NW corner of top deck. Possible new depression forming on the side slope above the West Basin Staff Gauge.

Zone C/D Landfill Cover Inspection Checklist

Project Inspection Report No.: 05-2011 Date: 23-May-11

Project Inspector Name: Eric Jensen Weather: Rain, 56° f, Wind vrbl 6, Pressure 29.99 falling

Work Start/Finish: 1320/1340

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Consumption of Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Stormwater Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Settlement	<i>No</i>	<i>No</i>	<i>No</i>
Sparse Vegetation	<i>Yes</i>	<i>No</i>	<i>No</i>
Distressed Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Vegetation is sparse on crown and soil is holding.

Zone E Landfill Cover Inspection Checklist

Project Inspection Report No.: 05-2011 Date: 23-May-11

Project Inspector Name: Eric Jensen Weather: Rain, 56° f, Wind vrbl 6, Pressure 29.99 falling

Work Start/Finish: 1340/1400

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Consumption of Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	<i>Yes</i>	<i>No</i>	<i>No</i>
Stormwater Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Settlement	<i>No</i>	<i>No</i>	<i>No</i>
Sparse Vegetation	<i>Yes</i>	<i>No</i>	<i>No</i>
Distressed Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Minor wind erosion on the North side slope and crown.

Sparse vegetation on the crown in eroded area.

Zone A West Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 05-2011 Date: 23-May-11

Project Inspector Name: Eric Jensen Weather: Rain, 56° f, Wind vrbl 6, Pressure 29.99 falling

Work Start/Finish: 1300/1320

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)	<i>No</i>		<i>No</i>

Comments, Remarks, and Action Items:

The Sediment depth is 0" to 3", Ave. is 1". The water depth is 10".

The basin liner is beginning to be exposed on the west side of the west berm between the fence and the top of the berm.

Zone A East Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 05-2011 Date: 23-May-11

Project Inspector Name: Eric Jensen Weather: Rain, 56° f, Wind vrbl 6, Pressure 29.99 falling

Work Start/Finish: 1300/1320

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

The water depth is 11". The average sediment depth is approx. 1/2". Vegetation only growing in the sediment at North end near the inlet pipe. Minor sediment below keystone blocks.

Area C/D Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 05-2011 Date: 23-May-11

Project Inspector Name: Eric Jensen Weather: Rain, 56° f, Wind vrbl 6, Pressure 29.99 falling

Work Start/Finish: 1320/1340

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)	<i>No</i>		<i>No</i>

Comments, Remarks, and Action Items:

Water depth is 10". The Sediment depth is 0" to 6", ave. is 3" on the bottom, 0" on the side walls. Some sediment in North drainage pipe. Some vegetation growth in sediment.

Zone E Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 05-2011 Date: 23-May-11

Project Inspector Name: Eric Jensen Weather: Rain, 56° f, Wind vrbl 6, Pressure 29.99 falling

Work Start/Finish: 1340/1400

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Water depth is 5". Sediment is 0" to 5", Ave is 2" on the bottom, 0" on the side walls.

Vegetation is growing along the edge.

Zone A Fence Inspection Checklist

Project Inspection Report No.: 05-2011 Date: 23-May-11

Project Inspector Name: Eric Jensen Weather: Rain, 56° f, Wind vrbl 6, Pressure 29.99 falling

Work Start/Finish: 1300/1320

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence.

One of the fence poles is bent on the south side.

Zone C/D Fence Inspection Checklist

Project Inspection Report No.: 05-2011 Date: 23-May-11

Project Inspector Name: Eric Jensen Weather: Rain, 56° f, Wind vrbl 6, Pressure 29.99 falling

Work Start/Finish: 1320/1340

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence inside and out.

Zone E Fence Inspection Checklist

Project Inspection Report No.: 05-2011 Date: 23-May-11

Project Inspector Name: Eric Jensen Weather: Rain, 56° f, Wind vrbl 6, Pressure 29.99 falling

Work Start/Finish: 1340/1400

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence inside and out.

Zone A Landfill Cover Inspection Checklist

Project Inspection Report No.: 06-2011 Date: 23-Jun-11

Project Inspector Name: Eric Jensen Weather: Clear, 72° f, Wind W 7 G24, Pressure 29.93 falling

Work Start/Finish: 1230/1250

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	No	No	No
Foot Traffic Disturbance	No	No	No
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	No	No	No
Consumption of Vegetation	No	No	No
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	No	No	No
Stormwater Erosion	No	No	No
Settlement	Yes	Under Evaluation	Under Evaluation
Sparse Vegetation	No	No	No
Distressed Vegetation	No	No	No
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Under construction

Two depressions are on the South side, top deck, east of the berm in the SW corner and 75ft north of the SW corner. The other depression is in the NW corner of top deck. Possible new depression forming on the side slope above the West Basin Staff Gauge.

Zone C/D Landfill Cover Inspection Checklist

Project Inspection Report No.: 06-2011 Date: 23-Jun-11

Project Inspector Name: Eric Jensen Weather: Clear, 72° f, Wind W
7 G24, Pressure
29.93 falling

Work Start/Finish: 1250/1310

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Consumption of Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Stormwater Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Settlement	<i>No</i>	<i>No</i>	<i>No</i>
Sparse Vegetation	<i>Yes</i>	<i>No</i>	<i>No</i>
Distressed Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Vegetation is sparse on crown and soil is holding.

Zone E Landfill Cover Inspection Checklist

Project Inspection Report No.: 06-2011 Date: 23-Jun-11

Project Inspector Name: Eric Jensen Weather: Clear, 72° f, Wind W
7 G24, Pressure
29.93 falling

Work Start/Finish: 1310/1330

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Consumption of Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	<i>Yes</i>	<i>No</i>	<i>No</i>
Stormwater Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Settlement	<i>No</i>	<i>No</i>	<i>No</i>
Sparse Vegetation	<i>Yes</i>	<i>No</i>	<i>No</i>
Distressed Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Minor wind erosion on the North side slope and crown.

Sparse vegetation on the crown in eroded area.

Zone A West Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 06-2011 Date: 23-Jun-11

Project Inspector Name: Eric Jensen Weather: Clear, 72° f, Wind W 7 G24, Pressure 29.93 falling

Work Start/Finish: 1230/1250

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)	<i>No</i>		<i>No</i>

Comments, Remarks, and Action Items:

The Sediment depth is 0" to 3", Ave. is 1". The water depth is 5".

The basin liner is beginning to be exposed on the west side of the west berm between the fence and the top of the berm.

Zone A East Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 06-2011 Date: 23-Jun-11

Project Inspector Name: Eric Jensen Weather: Clear, 72° f, Wind W
7 G24, Pressure
29.93 falling

Work Start/Finish: 1230/1250

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

The water depth is 6". The average sediment depth is approx. 1/2". Vegetation only growing in the sediment at North end near the inlet pipe. Minor sediment below keystone blocks.

Area C/D Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 06-2011 Date: 23-Jun-11

Project Inspector Name: Eric Jensen Weather: Clear, 72° f, Wind W
7 G24, Pressure
29.93 falling

Work Start/Finish: 1250/1310

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)	<i>No</i>		<i>No</i>

Comments, Remarks, and Action Items:

Water depth is 2". The Sediment depth is 0" to 6", ave. is 3" on the bottom, 0" on the side walls. Some sediment in North drainage pipe. Some vegetation growth in sediment.

Zone E Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 06-2011 Date: 23-Jun-11

Project Inspector Name: Eric Jensen Weather: Clear, 72° f, Wind W
7 G24, Pressure
29.93 falling

Work Start/Finish: 1310/1330

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Water depth is Dry. Sediment is 0" to 5", Ave is 2" on the bottom, 0" on the side walls.

Vegetation is growing along the edge.

Zone A Fence Inspection Checklist

Project Inspection Report No.: 06-2011 Date: 23-Jun-11

Project Inspector Name: Eric Jensen Weather: Clear, 72° f, Wind W
7 G24, Pressure
29.93 falling

Work Start/Finish: 1230/1250

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence.

One of the fence poles is bent on the south side.

Zone C/D Fence Inspection Checklist

Project Inspection Report No.: 06-2011 Date: 23-Jun-11

Project Inspector Name: Eric Jensen Weather: Clear, 72° f, Wind W 7 G24, Pressure 29.93 falling

Work Start/Finish: 1250/1310

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence inside and out.

Zone E Fence Inspection Checklist

Project Inspection Report No.: 06-2011 Date: 23-Jun-11

Project Inspector Name: Eric Jensen Weather: Clear, 72° f, Wind W
7 G24, Pressure
29.93 falling

Work Start/Finish: 1310/1330

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence inside and out.

Zone A Landfill Cover Inspection Checklist

Project Inspection Report No.: 07-2011 Date: 28-Jul-11

Project Inspector Name: Eric Jensen Weather: Clear, 86° f, Wind SE 8, Pressure 30.05 falling

Work Start/Finish: 1340/1400

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	No	No	No
Foot Traffic Disturbance	No	No	No
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	No	No	No
Consumption of Vegetation	No	No	No
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	No	No	No
Stormwater Erosion	No	No	No
Settlement	Yes	Under Evaluation	Under Evaluation
Sparse Vegetation	No	No	No
Distressed Vegetation	No	No	No
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Under construction

Two depressions are on the South side, top deck, east of the berm in the SW corner and 75ft north of the SW corner. The other depression is in the NW corner of top deck. Possible new depression forming on the side slope above the West Basin Staff Gauge.

Zone C/D Landfill Cover Inspection Checklist

Project Inspection Report No.: 07-2011 Date: 28-Jul-11

Project Inspector Name: Eric Jensen Weather: Clear, 86° f, Wind SE 8, Pressure 30.05 falling

Work Start/Finish: 1320/1340

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Consumption of Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Stormwater Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Settlement	<i>No</i>	<i>No</i>	<i>No</i>
Sparse Vegetation	<i>Yes</i>	<i>No</i>	<i>No</i>
Distressed Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Vegetation is sparse on crown and soil is holding.

Zone E Landfill Cover Inspection Checklist

Project Inspection Report No.: 07-2011 Date: 28-Jul-11

Project Inspector Name: Eric Jensen Weather: Clear, 86° f, Wind SE 8, Pressure 30.05 falling

Work Start/Finish: 1400/1420

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Consumption of Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	<i>Yes</i>	<i>No</i>	<i>No</i>
Stormwater Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Settlement	<i>No</i>	<i>No</i>	<i>No</i>
Sparse Vegetation	<i>Yes</i>	<i>No</i>	<i>No</i>
Distressed Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Minor wind erosion on the North side slope and crown.

Sparse vegetation on the crown in eroded area.

Zone A West Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 07-2011 Date: 28-Jul-11

Project Inspector Name: Eric Jensen Weather: Clear, 86° f, Wind SE 8, Pressure 30.05 falling

Work Start/Finish: 1340/1400

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)	<i>No</i>		<i>No</i>

Comments, Remarks, and Action Items:

The Sediment depth is 0" to 3", Ave. is 1". The water depth is 0".

The basin liner is beginning to be exposed on the west side of the west berm between the fence and the top of the berm.

Zone A East Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 07-2011 Date: 28-Jul-11

Project Inspector Name: Eric Jensen Weather: Clear, 86° f, Wind SE 8, Pressure 30.05 falling

Work Start/Finish: 1340/1400

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

The water depth is 0". The average sediment depth is approx. 1/2". Vegetation only growing in the sediment at North end near the inlet pipe. Minor sediment below keystone blocks.

Area C/D Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 07-2011 Date: 28-Jul-11

Project Inspector Name: Eric Jensen Weather: Clear, 86° f, Wind SE 8, Pressure 30.05 falling

Work Start/Finish: 1320/1340

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	No	No	No
Sediment/Water Level Staff Gauge Disturbance	No	No	No
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	No	No	No
Foot Traffic Damage to Liner	No	No	No
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	No	No	No
Water Level Greater than 4.0 feet	No	No	No
Anchor Trench Disturbed/Exposed/Pull Out	No	No	No
Ballooning Liner	Yes	No	No
Vegetation Growing in Sediment	Yes	No	No
Other (Define in Inspection Report)	No		No

Comments, Remarks, and Action Items:

Water depth is 0". The Sediment depth is 0" to 6", ave. is 3" on the bottom, 0" on the side walls. Some sediment in North drainage pipe. Some vegetation growth in sediment.

Zone E Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 07-2011 Date: 28-Jul-11

Project Inspector Name: Eric Jensen Weather: Clear, 86° f, Wind SE 8, Pressure 30.05 falling

Work Start/Finish: 1400/1420

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Water depth is Dry. Sediment is 0" to 5", Ave is 2" on the bottom, 0" on the side walls.

Vegetation is growing along the edge.

Zone A Fence Inspection Checklist

Project Inspection Report No.: 07-2011 Date: 28-Jul-11

Project Inspector Name: Eric Jensen Weather: Clear, 86° f, Wind SE 8, Pressure 30.05 falling

Work Start/Finish: 1340/1400

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence.

One of the fence poles is bent on the south side.

Zone C/D Fence Inspection Checklist

Project Inspection Report No.: 07-2011 Date: 28-Jul-11

Project Inspector Name: Eric Jensen Weather: Clear, 86° f, Wind SE 8, Pressure 30.05 falling

Work Start/Finish: 1320/1340

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:
Tumbleweeds along the fence inside and out.

Zone E Fence Inspection Checklist

Project Inspection Report No.: 07-2011 Date: 28-Jul-11

Project Inspector Name: Eric Jensen Weather: Clear, 86° f, Wind SE 8, Pressure 30.05 falling

Work Start/Finish: 1400/1420

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence inside and out.

Zone A Landfill Cover Inspection Checklist

Project Inspection Report No.: 08-2011 Date: 23-Aug-11

Project Inspector Name: Eric Jensen Weather: Clear, 72° f, Wind SW 10, Pressure 30.01 falling

Work Start/Finish: 0710/0730

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Consumption of Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Stormwater Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Settlement	<i>No</i>	<i>No</i>	<i>No</i>
Sparse Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Distressed Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Under construction

An umbrella cover was placed over the depressions.

Zone C/D Landfill Cover Inspection Checklist

Project Inspection Report No.: 08-2011 Date: 23-Aug-11

Project Inspector Name: Eric Jensen Weather: Clear, 72° f, Wind SW 10, Pressure 30.01 falling

Work Start/Finish: 0810/0830

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Consumption of Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Stormwater Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Settlement	<i>No</i>	<i>No</i>	<i>No</i>
Sparse Vegetation	<i>Yes</i>	<i>No</i>	<i>No</i>
Distressed Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Vegetation is sparse on crown and soil is holding.

Zone E Landfill Cover Inspection Checklist

Project Inspection Report No.: 08-2011 Date: 23-Aug-11

Project Inspector Name: Eric Jensen Weather: Clear, 72° f, Wind SW 10, Pressure 30.01 falling

Work Start/Finish: 0750/0810

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Consumption of Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	<i>Yes</i>	<i>No</i>	<i>No</i>
Stormwater Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Settlement	<i>No</i>	<i>No</i>	<i>No</i>
Sparse Vegetation	<i>Yes</i>	<i>No</i>	<i>No</i>
Distressed Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Minor wind erosion on the North side slope and crown.

Sparse vegetation on the crown in eroded area.

Zone A West Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 08-2011 Date: 23-Aug-11

Project Inspector Name: Eric Jensen Weather: Clear, 72° f, Wind SW 10, Pressure 30.01 falling

Work Start/Finish: 0710/0730

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)	<i>No</i>		<i>No</i>

Comments, Remarks, and Action Items:

The Sediment depth is 0" to 3", Ave. is 1". The water depth is 0".

The basin liner is beginning to be exposed on the west side of the west berm between the fence and the top of the berm.

Zone A East Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 08-2011 Date: 23-Aug-11

Project Inspector Name: Eric Jensen Weather: Clear, 72° f, Wind SW 10, Pressure 30.01 falling

Work Start/Finish: 0710/0730

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

The water depth is 0". The average sediment depth is approx. 1/2". Vegetation only growing in the sediment at North end near the inlet pipe. Minor sediment below keystone blocks.

Area C/D Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 08-2011 Date: 23-Aug-11

Project Inspector Name: Eric Jensen Weather: Clear, 72° f, Wind SW 10, Pressure 30.01 falling

Work Start/Finish: 0810/0830

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)	<i>No</i>		<i>No</i>

Comments, Remarks, and Action Items:

Water depth is 0". The Sediment depth is 0" to 6", ave. is 3" on the bottom, 0" on the side walls. Some sediment in North drainage pipe. Some vegetation growth in sediment.

Zone E Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 08-2011 Date: 23-Aug-11

Project Inspector Name: Eric Jensen Weather: Clear, 72° f, Wind SW 10, Pressure 30.01 falling

Work Start/Finish: 0750/0810

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Water depth is Dry. Sediment is 0" to 5", Ave is 2" on the bottom, 0" on the side walls.

Vegetation is growing along the edge.

Zone A Fence Inspection Checklist

Project Inspection Report No.: 08-2011 Date: 23-Aug-11

Project Inspector Name: Eric Jensen Weather: Clear, 72° f, Wind SW 10, Pressure 30.01 falling

Work Start/Finish: 0710/0730

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence.

One of the fence poles is bent on the south side.

Zone C/D Fence Inspection Checklist

Project Inspection Report No.: 08-2011 Date: 23-Aug-11

Project Inspector Name: Eric Jensen Weather: Clear, 72° f, Wind SW 10, Pressure 30.01 falling

Work Start/Finish: 0810/0830

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence inside and out.

Zone E Fence Inspection Checklist

Project Inspection Report No.: 08-2011 Date: 23-Aug-11

Project Inspector Name: Eric Jensen Weather: Clear, 72° f, Wind SW 10, Pressure 30.01 falling

Work Start/Finish: 0750/0810

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence inside and out.

Zone A Landfill Cover Inspection Checklist

Project Inspection Report No.: 09-2011 Date: 27-Sep-11

Project Inspector Name: Eric Jensen Weather: Overcast, 74° f, Wind SW 16, G22 Pressure 30.05 rising

Work Start/Finish: 1400/1420

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Consumption of Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Stormwater Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Settlement	<i>No</i>	<i>No</i>	<i>No</i>
Sparse Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Distressed Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Elevation surveys will be use to evaluate further settlement

Zone C/D Landfill Cover Inspection Checklist

Project Inspection Report No.: 09-2011 Date: 27-Sep-11

Project Inspector Name: Eric Jensen Weather: Overcast, 74° f,
Wind SW 16, G22
Pressure 30.05
rising

Work Start/Finish: 1500/1520

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Consumption of Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Stormwater Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Settlement	<i>No</i>	<i>No</i>	<i>No</i>
Sparse Vegetation	<i>Yes</i>	<i>No</i>	<i>No</i>
Distressed Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Vegetation is sparse on crown and soil is holding.

Zone E Landfill Cover Inspection Checklist

Project Inspection Report No.: 09-2011 Date: 27-Sep-11

Project Inspector Name: Eric Jensen Weather: Overcast, 74° f,
Wind SW 16, G22
Pressure 30.05
rising

Work Start/Finish: 1440/1500

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Consumption of Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	<i>Yes</i>	<i>No</i>	<i>No</i>
Stormwater Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Settlement	<i>No</i>	<i>No</i>	<i>No</i>
Sparse Vegetation	<i>Yes</i>	<i>No</i>	<i>No</i>
Distressed Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Minor wind erosion on the North side slope and crown.

Sparse vegetation on the crown in eroded area.

Zone A West Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 09-2011 Date: 27-Sep-11

Project Inspector Name: Eric Jensen Weather: Overcast, 74° f,
Wind SW 16, G22
Pressure 30.05
rising

Work Start/Finish: 1400/1420

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)	<i>No</i>		<i>No</i>

Comments, Remarks, and Action Items:

The Sediment depth is 0" to 3", Ave. is 1". The water depth is 0".

The basin liner is beginning to be exposed on the west side of the west berm between the fence and the top of the berm.

Zone A East Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 09-2011 Date: 27-Sep-11

Project Inspector Name: Eric Jensen Weather: Overcast, 74° f,
Wind SW 16, G22
Pressure 30.05
rising

Work Start/Finish: 1400/1420

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

The water depth is 0". The average sediment depth is approx. 1/2". Vegetation only growing in the sediment at North end near the inlet pipe. Minor sediment below keystone blocks.

Area C/D Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 09-2011 Date: 27-Sep-11
 Project Inspector Name: Eric Jensen Weather: Overcast, 74° f,
Wind SW 16, G22
Pressure 30.05
rising
 Work Start/Finish: 1500/1520

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	No	No	No
Sediment/Water Level Staff Gauge Disturbance	No	No	No
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	No	No	No
Foot Traffic Damage to Liner	No	No	No
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	No	No	No
Water Level Greater than 4.0 feet	No	No	No
Anchor Trench Disturbed/Exposed/Pull Out	No	No	No
Ballooning Liner	Yes	No	No
Vegetation Growing in Sediment	Yes	No	No
Other (Define in Inspection Report)	No		No

Comments, Remarks, and Action Items:

Water depth is 0". The Sediment depth is 0" to 6", ave. is 3" on the bottom, 0" on the side walls. Some sediment in North drainage pipe. Some vegetation growth in sediment.

Zone E Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 09-2011 Date: 27-Sep-11
 Project Inspector Name: Eric Jensen Weather: Overcast, 74° f,
Wind SW 16, G22
Pressure 30.05
rising
 Work Start/Finish: 1440/1500

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Water depth is Dry. Sediment is 0" to 5", Ave is 2" on the bottom, 0" on the side walls.

Vegetation is growing along the edge.

Zone A Fence Inspection Checklist

Project Inspection Report No.: 09-2011 Date: 27-Sep-11

Project Inspector Name: Eric Jensen Weather: Overcast, 74° f,
Wind SW 16, G22
Pressure 30.05
rising

Work Start/Finish: 1400/1420

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence.

One of the fence poles is bent on the south side.

Zone C/D Fence Inspection Checklist

Project Inspection Report No.: 09-2011 Date: 27-Sep-11

Project Inspector Name: Eric Jensen Weather: Overcast, 74° f,
Wind SW 16, G22
Pressure 30.05
rising

Work Start/Finish: 1500/1520

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence inside and out.

Zone E Fence Inspection Checklist

Project Inspection Report No.: 09-2011 Date: 27-Sep-11

Project Inspector Name: Eric Jensen Weather: Overcast, 74° f,
Wind SW 16, G22
Pressure 30.05
rising

Work Start/Finish: 1440/1500

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence inside and out.

Zone A Landfill Cover Inspection Checklist

Project Inspection Report No.: 10-2011 Date: 28-Oct-11

Project Inspector Name: Eric Jensen Weather: Clear, 44° f, Wind Calm, Pressure 30.12 falling

Work Start/Finish: 1120/1140

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Consumption of Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Stormwater Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Settlement	<i>No</i>	<i>No</i>	<i>No</i>
Sparse Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Distressed Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Elevation surveys will be use to evaluate further settlement

Hydroseeding of disturbed soil completed

Zone C/D Landfill Cover Inspection Checklist

Project Inspection Report No.: 10-2011 Date: 28-Oct-11

Project Inspector Name: Eric Jensen Weather: Clear, 44° f, Wind Calm, Pressure 30.12 falling

Work Start/Finish: 1140/1200

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Consumption of Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Stormwater Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Settlement	<i>No</i>	<i>No</i>	<i>No</i>
Sparse Vegetation	<i>Yes</i>	<i>No</i>	<i>No</i>
Distressed Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Vegetation is sparse on crown and soil is holding.

Zone E Landfill Cover Inspection Checklist

Project Inspection Report No.: 10-2011 Date: 28-Oct-11

Project Inspector Name: Eric Jensen Weather: Clear, 44° f, Wind Calm, Pressure 30.12 falling

Work Start/Finish: 1200/1220

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Consumption of Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	<i>Yes</i>	<i>No</i>	<i>No</i>
Stormwater Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Settlement	<i>No</i>	<i>No</i>	<i>No</i>
Sparse Vegetation	<i>Yes</i>	<i>No</i>	<i>No</i>
Distressed Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Minor wind erosion on the North side slope and crown.

Sparse vegetation on the crown in eroded area.

Zone A West Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 10-2011 Date: 28-Oct-11

Project Inspector Name: Eric Jensen Weather: Clear, 44° f, Wind Calm, Pressure 30.12 falling

Work Start/Finish: 1120/1140

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)	<i>No</i>		<i>No</i>

Comments, Remarks, and Action Items:

The Sediment depth is 0" to 3", Ave. is 1". The water depth is 0".

The basin liner is beginning to be exposed on the west side of the west berm between the fence and the top of the berm.

Zone A East Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 10-2011 Date: 28-Oct-11

Project Inspector Name: Eric Jensen Weather: Clear, 44° f, Wind Calm, Pressure 30.12 falling

Work Start/Finish: 1120/1140

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	No	No	No
Sediment/Water Level Staff Gauge Disturbance	No	No	No
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	No	No	No
Foot Traffic Damage to Liner	No	No	No
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	No	No	No
Water Level Greater than 4.0 feet	No	No	No
Anchor Trench Disturbed/Exposed/Pull Out	No	No	No
Ballooning Liner	Yes	No	No
Vegetation Growing in Sediment	Yes	No	No
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

The water depth is 0". The average sediment depth is approx. 1/2". Vegetation only growing in the sediment at North end near the inlet pipe. Minor sediment below keystone blocks.

Area C/D Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 10-2011 Date: 28-Oct-11

Project Inspector Name: Eric Jensen Weather: Clear, 44° f, Wind Calm, Pressure 30.12 falling

Work Start/Finish: 1140/1200

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)	<i>No</i>		<i>No</i>

Comments, Remarks, and Action Items:

Water depth is 0". The Sediment depth is 0" to 6", ave. is 3" on the bottom, 0" on the side walls. Some sediment in North drainage pipe. Some vegetation growth in sediment.

Zone E Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 10-2011 Date: 28-Oct-11

Project Inspector Name: Eric Jensen Weather: Clear, 44° f, Wind Calm, Pressure 30.12 falling

Work Start/Finish: 1200/1220

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Water depth is Dry. Sediment is 0" to 5", Ave is 2" on the bottom, 0" on the side walls.

Vegetation is growing along the edge.

Zone A Fence Inspection Checklist

Project Inspection Report No.: 10-2011 Date: 28-Oct-11

Project Inspector Name: Eric Jensen Weather: Clear, 44° f, Wind Calm, Pressure 30.12 falling

Work Start/Finish: 1120/1140

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence.

One of the fence poles is bent on the south side.

Zone C/D Fence Inspection Checklist

Project Inspection Report No.: 10-2011 Date: 28-Oct-11

Project Inspector Name: Eric Jensen Weather: Clear, 44° f, Wind Calm, Pressure 30.12 falling

Work Start/Finish: 1140/1200

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence inside and out.

Zone E Fence Inspection Checklist

Project Inspection Report No.: 10-2011 Date: 28-Oct-11

Project Inspector Name: Eric Jensen Weather: Clear, 44° f, Wind Calm, Pressure 30.12 falling

Work Start/Finish: 1200/1220

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence inside and out.

Zone A Landfill Cover Inspection Checklist

Project Inspection Report No.: 11-2011 Date: 22-Nov-11

Project Inspector Name: Eric Jensen Weather: Cloudy, 62° f, Wind SE 14, Pressure 29.68 rising

Work Start/Finish: 0920/0940

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Consumption of Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Stormwater Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Settlement	<i>No</i>	<i>No</i>	<i>No</i>
Sparse Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Distressed Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Elevation surveys will be use to evaluate further settlement

Zone C/D Landfill Cover Inspection Checklist

Project Inspection Report No.: 11-2011 Date: 22-Nov-11

Project Inspector Name: Eric Jensen Weather: Cloudy, 62° f, Wind SE 14, Pressure 29.68 rising

Work Start/Finish: 0900/0920

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Consumption of Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Stormwater Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Settlement	<i>No</i>	<i>No</i>	<i>No</i>
Sparse Vegetation	<i>Yes</i>	<i>No</i>	<i>No</i>
Distressed Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Vegetation is sparse on crown and soil is holding.

Zone E Landfill Cover Inspection Checklist

Project Inspection Report No.: 11-2011 Date: 22-Nov-11

Project Inspector Name: Eric Jensen Weather: Cloudy, 62° f, Wind SE 14, Pressure 29.68 rising

Work Start/Finish: 0940/1000

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Consumption of Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	<i>Yes</i>	<i>No</i>	<i>No</i>
Stormwater Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Settlement	<i>No</i>	<i>No</i>	<i>No</i>
Sparse Vegetation	<i>Yes</i>	<i>No</i>	<i>No</i>
Distressed Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Minor wind erosion on the North side slope and crown.

Sparse vegetation on the crown in eroded area.

Zone A West Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 11-2011 Date: 22-Nov-11

Project Inspector Name: Eric Jensen Weather: Cloudy, 62° f, Wind SE 14, Pressure 29.68 rising

Work Start/Finish: 0920/0940

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)	<i>No</i>		<i>No</i>

Comments, Remarks, and Action Items:

The Sediment depth is 0" to 3", Ave. is 1". The water depth is 0".

The basin liner is beginning to be exposed on the west side of the west berm between the fence and the top of the berm.

Zone A East Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 11-2011 Date: 22-Nov-11

Project Inspector Name: Eric Jensen Weather: Cloudy, 62° f, Wind SE 14, Pressure 29.68 rising

Work Start/Finish: 0920/0940

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	No	No	No
Sediment/Water Level Staff Gauge Disturbance	No	No	No
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	No	No	No
Foot Traffic Damage to Liner	No	No	No
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	No	No	No
Water Level Greater than 4.0 feet	No	No	No
Anchor Trench Disturbed/Exposed/Pull Out	No	No	No
Ballooning Liner	Yes	No	No
Vegetation Growing in Sediment	Yes	No	No
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

The water depth is 0". The average sediment depth is approx. 1/2". Vegetation only growing in the sediment at North end near the inlet pipe. Minor sediment below keystone blocks.

Area C/D Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 11-2011 Date: 22-Nov-11

Project Inspector Name: Eric Jensen Weather: Cloudy, 62° f, Wind SE 14, Pressure 29.68 rising

Work Start/Finish: 0900/0920

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	No	No	No
Sediment/Water Level Staff Gauge Disturbance	No	No	No
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	No	No	No
Foot Traffic Damage to Liner	No	No	No
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	No	No	No
Water Level Greater than 4.0 feet	No	No	No
Anchor Trench Disturbed/Exposed/Pull Out	No	No	No
Ballooning Liner	Yes	No	No
Vegetation Growing in Sediment	Yes	No	No
Other (Define in Inspection Report)	No		No

Comments, Remarks, and Action Items:

Water depth is 0". The Sediment depth is 0" to 6", ave. is 3" on the bottom, 0" on the side walls. Some sediment in North drainage pipe. Some vegetation growth in sediment.

Zone E Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 11-2011 Date: 22-Nov-11

Project Inspector Name: Eric Jensen Weather: Cloudy, 62° f, Wind SE 14, Pressure 29.68 rising

Work Start/Finish: 0940/1000

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Water depth is Dry. Sediment is 0" to 5", Ave is 2" on the bottom, 0" on the side walls.

Vegetation is growing along the edge.

Zone A Fence Inspection Checklist

Project Inspection Report No.: 11-2011 Date: 22-Nov-11

Project Inspector Name: Eric Jensen Weather: Cloudy, 62° f, Wind SE 14, Pressure 29.68 rising

Work Start/Finish: 0920/0940

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence.

One of the fence poles is bent on the south side.

Zone C/D Fence Inspection Checklist

Project Inspection Report No.: 11-2011 Date: 22-Nov-11

Project Inspector Name: Eric Jensen Weather: Cloudy, 62° f, Wind SE 14, Pressure 29.68 rising

Work Start/Finish: 0900/0920

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence inside and out.

Zone E Fence Inspection Checklist

Project Inspection Report No.: 11-2011 Date: 22-Nov-11

Project Inspector Name: Eric Jensen Weather: Cloudy, 62° f, Wind SE 14, Pressure 29.68 rising

Work Start/Finish: 0940/1000

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence inside and out.

Zone A Landfill Cover Inspection Checklist

Project Inspection Report No.: 12-2011 Date: 15-Dec-11

Project Inspector Name: Eric Jensen Weather: Cloudy, 35° f, Wind SW 3, Pressure 30.37 rising

Work Start/Finish: 1220/1240

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Consumption of Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Stormwater Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Settlement	<i>No</i>	<i>No</i>	<i>No</i>
Sparse Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Distressed Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Elevation surveys will be use to evaluate further settlement

Zone C/D Landfill Cover Inspection Checklist

Project Inspection Report No.: 12-2011 Date: 15-Dec-11

Project Inspector Name: Eric Jensen Weather: Cloudy, 35° f, Wind SW 3, Pressure 30.37 rising

Work Start/Finish: 1140/1200

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	No	No	No
Foot Traffic Disturbance	No	No	No
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	No	No	No
Consumption of Vegetation	No	No	No
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	No	No	No
Stormwater Erosion	No	No	No
Settlement	No	No	No
Sparse Vegetation	Yes	No	No
Distressed Vegetation	No	No	No
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Vegetation is sparse on crown and soil is holding.

Zone E Landfill Cover Inspection Checklist

Project Inspection Report No.: 12-2011 Date: 15-Dec-11

Project Inspector Name: Eric Jensen Weather: Cloudy, 35° f, Wind SW 3, Pressure 30.37 rising

Work Start/Finish: 1200/1220

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Consumption of Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Wind Erosion	<i>Yes</i>	<i>No</i>	<i>No</i>
Stormwater Erosion	<i>No</i>	<i>No</i>	<i>No</i>
Settlement	<i>No</i>	<i>No</i>	<i>No</i>
Sparse Vegetation	<i>Yes</i>	<i>No</i>	<i>No</i>
Distressed Vegetation	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Minor wind erosion on the North side slope and crown.

Sparse vegetation on the crown in eroded area.

Zone A West Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 12-2011 Date: 15-Dec-11

Project Inspector Name: Eric Jensen Weather: Cloudy, 35° f, Wind SW 3, Pressure 30.37 rising

Work Start/Finish: 1220/1240

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)	<i>No</i>		<i>No</i>

Comments, Remarks, and Action Items:

The Sediment depth is 0" to 3", Ave. is 1". The water depth is 0".

The basin liner is beginning to be exposed on the west side of the west berm between the fence and the top of the berm.

Zone A East Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 12-2011 Date: 15-Dec-11

Project Inspector Name: Eric Jensen Weather: Cloudy, 35° f, Wind SW 3, Pressure 30.37 rising

Work Start/Finish: 1220/1240

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

The water depth is 0". The average sediment depth is approx. 1/2". Vegetation only growing in the sediment at North end near the inlet pipe. Minor sediment below keystone blocks.

Area C/D Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 12-2011 Date: 15-Dec-11

Project Inspector Name: Eric Jensen Weather: Cloudy, 35° f, Wind SW 3, Pressure 30.37 rising

Work Start/Finish: 1140/1200

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)	<i>No</i>		<i>No</i>

Comments, Remarks, and Action Items:

Water depth is 0". The Sediment depth is 0" to 6", ave. is 3" on the bottom, 0" on the side walls. Some sediment in North drainage pipe. Some vegetation growth in sediment.

Zone E Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: 12-2011 Date: 15-Dec-11

Project Inspector Name: Eric Jensen Weather: Cloudy, 35° f, Wind SW 3, Pressure 30.37 rising

Work Start/Finish: 1200/1220

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Liner Puncture	<i>No</i>	<i>No</i>	<i>No</i>
Sediment/Water Level Staff Gauge Disturbance	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing	<i>No</i>	<i>No</i>	<i>No</i>
Foot Traffic Damage to Liner	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Sediment Level Greater than 0.9 feet average	<i>No</i>	<i>No</i>	<i>No</i>
Water Level Greater than 4.0 feet	<i>No</i>	<i>No</i>	<i>No</i>
Anchor Trench Disturbed/Exposed/Pull Out	<i>No</i>	<i>No</i>	<i>No</i>
Ballooning Liner	<i>Yes</i>	<i>No</i>	<i>No</i>
Vegetation Growing in Sediment	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Water depth is Dry. Sediment is 0" to 5", Ave is 2" on the bottom, 0" on the side walls.

Vegetation is growing along the edge.

Zone A Fence Inspection Checklist

Project Inspection Report No.: 12-2011 Date: 15-Dec-11

Project Inspector Name: Eric Jensen Weather: Cloudy, 35° f, Wind SW 3, Pressure 30.37 rising

Work Start/Finish: 1220/1240

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence.

One of the fence poles is bent on the south side.

Zone C/D Fence Inspection Checklist

Project Inspection Report No.: 12-2011 Date: 15-Dec-11

Project Inspector Name: Eric Jensen Weather: Cloudy, 35° f, Wind SW 3, Pressure 30.37 rising

Work Start/Finish: 1140/1200

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>Yes</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:
Tumbleweeds along the fence inside and out.

Zone E Fence Inspection Checklist

Project Inspection Report No.: 12-2011 Date: 15-Dec-11

Project Inspector Name: Eric Jensen Weather: Cloudy, 35° f, Wind SW 3, Pressure 30.37 rising

Work Start/Finish: 1200/1220

Man-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Fence Hit by Vehicle	<i>No</i>	<i>No</i>	<i>No</i>
Fence Cut	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Animal-Made Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Burrowing under Fence	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			
Natural Disturbance	Disturbance Noted (Yes/No)	Maintenance Required (Yes/No)	Repair Required (Yes/No)
Build Up of Blown Vegetation (Tumbleweed)	<i>No</i>	<i>No</i>	<i>No</i>
Vegetation Growing on Fence	<i>No</i>	<i>No</i>	<i>No</i>
Fence Leaning or Falling	<i>No</i>	<i>No</i>	<i>No</i>
Other (Define in Inspection Report)			

Comments, Remarks, and Action Items:

Tumbleweeds along the fence inside and out.

Appendix G
Electronic Data Deliverable
(available on compact disc)