2017 Annual Report
Groundwater Monitoring and
Interim Action Performance Monitoring

Pasco Landfill NPL Site
Pasco, Washington

Prepared for:
IWAG Group III
c/o Mr. Will Ernst, Chairman
Technical Committee
MC 1W-12, PO Box 3707
Seattle, WA 98124

March 16, 2018
PBS Project No. 64180.018

PBS
400 BRADLEY BLVD, SUITE 106
RICHLAND, WA 99352
509.942.1600 MAIN
866.727.0140 FAX
PBSUSA.COM

Prepared by:

PBS Engineering and Environmental
400 Bradley Blvd., Suite 106
Richland, WA 99352

Mary McElheron
PBS Engineering and Environmental
Senior Environmental/Regulatory Specialist

Tina M. Blakley, P.E., PMP
PBS Engineering and Environmental
Project Engineer and Site Operations Manager

PBS
400 BRADLEY BLVD, SUITE 106
RICHLAND, WA 99352
509.942.1600 MAIN
866.727.0140 FAX
PBSUSA.COM

TABLE OF CONTENTS

TABLES

FIGURES

ATTACHMENTS

1 INTRODUCTION

On behalf of the Industrial Waste Area Generators Group lll (IWAG), PBS Engineering and Environmental Inc. (PBS) has prepared this *2017 Annual Report Groundwater Monitoring and Interim Action Performance Monitoring* (2017 Annual Report) for the Pasco Landfill NPL Site (Site) in Pasco, Washington. This report is being submitted to the Washington State Department of Ecology (Ecology) in support of the ongoing obligations of the potentially liable persons (PLPs) under Agreed Order No. DE 9240 (Agreed Order).

This 2017 Annual Report summarizes the results of the groundwater monitoring and interim action performance monitoring activities conducted during 2017 and discusses the effectiveness of the various interim actions implemented at the Site.

This 2017 Annual Report contains the following enclosures:

- Attachment A contains the *Data Validation Report Pasco Sanitary Landfill Groundwater Monitoring October 2017 Sampling*, by Pyron Environmental, Inc., dated February 5, 2018.
- Attachment B contains laboratory data from waste characterization sampling, hazardous waste manifests for wastes generated and transported off site for treatment or disposal during 2017, and documentation for non-hazardous waste generated and transported off-site for treatment or disposal during 2017.
- Attachment C contains monthly inspection checklists for the Industrial Waste Area landfill covers, detention/evaporation basins, and perimeter fencing for Zones A, C/D, and E during the fourth quarter of 2017.
- Attachment D contains differential TIN surface maps from the fourth quarter 2017 3-dimensional (3D) laser scanning of the Zone A landfill.
- Attachment E contains the 2017 East Pasco Plume Area Well Location Survey memorandum prepared by the City of Pasco and the Annual Institutional Controls Report for 2017 prepared by the Franklin County Planning and Building Department.

1.1 Site Location

The general location of the Site and the Pasco Sanitary Landfill (PSL) property are depicted on Figure 1. The PSL property is located approximately 1.5 miles northeast of the City of Pasco, in the southwest quarter of Section 15 and the northwest quarter of Section 22, Township 9 North, Range 30 East, Willamette Meridian, located in Franklin County, Washington. The PSL property is located on Dietrich Road near the intersection of Pasco-Kahlotus Road and U.S. Highway 12.

The PSL property occupies an area of more than 250 acres consisting of rolling hills surrounded by irrigated cropland. The former municipal solid waste landfill (MSW Landfill), Balefill/Inert Waste Disposal Area, Industrial Waste Area (IWA), and the New Waste, Inc. (NWI) landfill are located within the PSL property. Figure 2 shows the locations of each waste area on the PSL property. Reporting requirements detailed in the Agreed Order for the MSW Landfill and Balefill/Inert Waste Disposal Areas are addressed in a separate report prepared by the Landfill Group (LFG). 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 considered further in this report. Data and discussion related to Zone B is also presented in a separate report prepared by Bayer Crop Science (BCS).

The formal definition of the Site is presented in the Agreed Order. The Site boundary, as defined in the Agreed Order and illustrated in Exhibit A of the Order, encompasses both the PSL property, and the Groundwater Protection Area (GPA).

1.2 Background

The operational and cleanup history of the Site is documented in the *Draft Final Focused Feasibility Study – Pasco Landfill National Priorities List Site* (FFS), dated August 2017. The reviewer is directed to the FFS for information related to the Site background.

The following technical documents pertaining to groundwater monitoring and interim actions under the Agreed Order were submitted to Ecology during 2017:

- *Enforcement Order Task 3 Work Plan*, prepared by Anchor QEA and dated January 2017 and revised March 2017.
- *Technical Memorandum – Reasons Why MS/MSD Cannot Be Performed on SVE Samples Using Modified Method 25C*, by Eric Winegar, dated February 9, 2017.
- *Technical Memorandum – Why No Sample Composition Corrections to Method 25C Data Are Appropriate*, by Eric Winegar, dated March 5, 2017.
- A table containing responses to Ecology comments on the September 2014 *Draft Focused Feasibility Study* submitted to Ecology on March 10, 2017.
- *2016 Annual Report - Groundwater Monitoring and Interim Action Performance Monitoring*, dated March 16, 2017.
- *Addendum No. 1 – Operations and Maintenance Manual for Industrial Waste Area Caps – Zone A, C/D, and E*, prepared by PBS, dated March 2017.
- *Zone A Combustion Evaluation Report*, prepared by GSI Environmental and SCS Engineers, dated April 24, 2017 (*Revision 1* dated April 27, 2017).
- *Performance Testing of Anguil Regenerative Thermal Oxidizer*, prepared by Eric Winegar and PBS, dated June 7, 2017.
- *First Quarter 2017 Groundwater Monitoring and Interim Action Performance Monitoring Report*, dated June 16, 2017. Including *Technical Memorandum – Updated Cover Settlement Evaluation, Industrial Waste Area Zone A*, prepared by SCS Engineers, dated March 2017.
- *Performance Testing of Anguil Regenerative Thermal Oxidizer*, prepared by Eric Winegar and PBS, dated August 3, 2017.
- *Engineering Test of Anguil Regenerative Thermal Oxidizer*, prepared by Eric Winegar and PBS, dated August 14, 2017.
- *Technical Memorandum – Addendum to Cover Settlement Evaluation - Industrial Waste Area Zone A*, prepared by SCS Engineers, dated August 2017.
- *Draft Final Focused Feasibility Study* (2017 FFS), prepared by Anchor QEA, Environmental Partners, and AMEC Foster Wheeler, dated August 31, 2017.
- *Second Quarter 2017 Groundwater Monitoring and Interim Action Performance Monitoring Report*, dated September 15, 2017 with revisions made October 9, 2017.

- *Determination of Autoignition Temperature for GI2-32-082117*, prepared by Fauske Associates, dated August 2017 (September 31, 2017).
- *Addendum No. 1 – Zone A Liner Repair Details to Appendix A – Field Program Activities for Zone A Combustion Evaluation Report*, prepared by Environmental Partners, dated October 6, 2017.
- *Site-Wide Groundwater Performance and Protection Monitoring Operations and Maintenance Manual, prepared by PBS*, dated October 10, 2017.
- *Cone Penetrometer Testing Report*, prepared by PBS, dated October 17, 2017 and revised October 30, 2017.
- *Performance Summary Report for Anguil Regenerative Thermal Oxidizer*, prepared by Eric Winegar, Tom Card PBS, et. al., dated November 7, 2017.
- *Work Plan to Investigate the Zone A Cover System*, prepared by SCS and PBS, dated November 8, 2017.
- *Operations and Maintenance Manual -Soil Vapor Extraction System and Regenerative Thermal Oxidizer – Volume 1: SVE System O&M Manual (2017 Upgrades),* prepared by PBS, dated December 13, 2017.
- *Operations and Maintenance Manual -Soil Vapor Extraction System and Regenerative Thermal Oxidizer – Volume 2: SVE System O&M Manual (2017 Upgrades),* prepared by PBS, dated December 13, 2017.
- *Third Quarter 2017 Groundwater Monitoring and Interim Action Performance Monitoring Report*, dated December 18, 2017.

Additionally, twelve (12) Monthly Status Reports were submitted to Ecology during 2017. A memorandum was submitted during the first full week of each month summarizing activities and publications delivered to Ecology during the preceding month.

2 OBJECTIVES

The specific objectives of the groundwater monitoring and interim action performance monitoring conducted at the Site include:

- Assessment of groundwater quality relative to the draft cleanup levels (dCULs) in the FFS;
- Evaluation of trends in groundwater quality;
- Evaluation of the performance and effectiveness of the SVE and thermal oxidation systems; and
- Evaluation of subsidence on the Zone A cap.

This report presents and evaluates data collected during 2017 under the Agreed Order and reports on groundwater monitoring, operations and maintenance activities completed in relation to the soil vapor extraction (SVE) system operating beneath and within the Zone A landfill, the thermal oxidation units used to treat SVE system effluent, waste management, landfill covers on waste Zones A, C/D, and E, and institutional controls at the Site.

2.1 Contaminants of Potential Concern

Contaminants of Potential Concern (COPCs) were defined in the Site *Risk Assessment/Cleanup Level Analysis Report* (PSC 1998) based upon the occurrence and quantification of compounds detected in soil and groundwater during the Site investigation. Further evaluation was performed as part of the *Draft* and *Draft Final Focused Feasibility Studies*, in 2014 and 2017.

The chemicals of concern that were identified in the *Draft Final Focused Feasibility Study* include the following:

- Soil – none
- Groundwater – acetone, benzene, chloroform, total chromium, 1,2-dichloroethane (1,2-DCA), 1,1-dichloroethene (1,1-DCE), cis-1,2-dichloroethene (cis-1,2-DCE), ethylbenzene, methylene chloride, 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)

2.2 Draft Cleanup Levels

On May 14, 2013, Ecology presented dCULs for the Site. The dCULs were updated in the 2014 FFS and are presented in the 2017 FFS. During the April 11, 2014 monthly meeting with the IWAG, Ecology agreed to allow the use of the 2014 dCULs for evaluation of groundwater monitoring results. The 2014 dCULs are being used to evaluate groundwater in all wells across the Site until the point of compliance is established. It is expected that the Cleanup Action Plan point of compliance will be at the edge of the waste zone. For Zone A, the point of compliance is anticipated to be at the sentinel wells along the downgradient edge of Zone A.

The following table summarizes the 2014 dCULs:

dCULs for Groundwater
in micrograms/liter (µg/l)

Compound	2014 dCUL
Tetrachloroethene *	0.69
Trichloroethene *	2.5
1,1-Dichloroethene *	0.057
cis-1,2-Dichloroethene	16
Vinyl Chloride *	0.069
1,1,1-Trichloroethane	200
1,2-Dichloroethane *	0.38
Benzene *	0.79
Methylene Chloride *	5.0
Toluene	615
Total Chromium	100

Notes:

* Known or suspected carcinogen.

3 GROUNDWATER MONITORING

3.1 Methodology

3.1.1 Groundwater Monitoring Wells

Groundwater monitoring at the Site was conducted in accordance with schedules and field sampling methods presented in:

- *The Revised Site-Wide Groundwater Performance and Protection Monitoring Operations and Maintenance Manual – Pasco Landfill Site* (Groundwater O&M Manual), dated May 9, 2014, with October 10, 2014 Revisions.

- *Pasco Landfill: Proposed Modifications to the Existing Interim Actions Ground Water Monitoring Program* (Proposed Modifications), dated June 24, 2016 and approved with modifications by Ecology via email from Chuck Gruenenfelder dated December 29, 2016.

On June 24, 2016, the *Proposed Modifications to the Existing Interim Actions Ground Water Monitoring Program* was submitted to Ecology. In light of decreasing groundwater concentrations throughout the Site, the document proposed several changes in the groundwater sampling and water level measurement program. Ecology responded via e-mail on December 29, 2016, with modifications to the proposal. The IWAG and Ecology agreed upon final modifications in early 2017 and the revised sampling program began during the first quarter of 2017. The revised program included the following changes:

- A reduction in VOC monitoring from quarterly to semi-annual in several wells;
- Modified frequency and wells subject to SVOC, herbicide, chromium, and landfill parameter monitoring;
- Elimination of hexavalent chromium and natural attenuation monitoring; and
- Modified frequency and wells subject to groundwater elevation measurement.

As referenced in the Background section above, a revised Groundwater O&M Manual was prepared and submitted to Ecology on October 10, 2017 to document the updated monitoring program.

The modifications in the groundwater monitoring program reduced the frequency of water level monitoring to semi-annual with measurements to be recorded in April and October. Therefore, water level measurements were not recorded in January 2017. Due to the detection of NAPL in MW-52S, as discussed in the Ground Water Quality section below, quarterly water elevation monitoring was reinstituted in July along with the addition of monthly monitoring beginning in June 2017.

As part of the quarterly groundwater monitoring activities during April, July, and October 2017, groundwater levels were measured to the nearest 0.01-foot in wells throughout the Site. Figure 3 illustrates the location of each well in the groundwater monitoring well network. Groundwater levels are not measured in the residential wells because those wells were not constructed in a manner that allows such measurements.

Quarterly groundwater samples were collected during all four quarters. Semi-annual groundwater samples were collected in April and October. Table 1 summarizes the wells sampled and the specific chemical analyses performed on samples during each quarterly and semi-annual sampling event.

Selective ion monitoring (SIM) is used with full-scan volatile organic compound (VOC) and semi-volatile organic compound (SVOC) laboratory analysis of groundwater samples to attain reporting limits less than the dCULs or MTCA Method B values for each compound analyzed. All laboratory data from groundwater samples collected at the Site during 2017 have been submitted to a third-party data validator for evaluation. Attachment A contains the data validation report for the fourth quarter sample analysis. Data validation reports for the first through third quarters were submitted with the quarterly reports.

3.1.2 Residential Wells

The target sampling frequency for residential wells in the Groundwater Protection Area (GPA) is presented in the *Groundwater O&M Manual*. At a minimum, all functional and safely accessible residential wells are sampled on a semi-annual basis during the second and fourth quarters. If any compound is detected in a residential well at a concentration that exceeds a dCUL, that well is moved to a quarterly sampling schedule. If

all analytical results are below the dCULs in four consecutive quarterly samples, the well is moved back to a semi-annual sampling schedule.

At the start of 2017, none of the analytical data from the most recent four consecutive quarterly samples for any residential well contained a VOC concentration above a dCUL for the Site. Therefore, the residential wells were sampled semi-annually (i.e., second and fourth quarters).

The actual number of wells sampled during each semi-annual event in 2017 was dependent upon many factors including whether permission was granted by the property owner, the well was safely accessible, and the equipment or piping were functional. The IWAG does not control or maintain the residential wells and is not responsible for their upkeep or performance.

Residential wells are further described in Section 3.2.2.2.6.

3.2 Findings

3.2.1 Groundwater Elevation Data

Due to the modifications in the groundwater monitoring program, and the detection of NAPL in MW-52S, quarterly groundwater elevation monitoring was performed in April, July, and October at wells Site-wide. Monthly groundwater elevation monitoring was performed at five Zone A wells (MW-52S, MW-53S, MW-47S, MW-50S, and NVM-01) beginning in June 2017. Tables 2 and 3 present the quarterly and monthly water level measurement data for 2017.

The groundwater levels listed for MW-52S have not been corrected for NAPL. Water level measurements that appear to be anomalous have been flagged in Tables 2 and 4 and Figure 5.

Both horizontal and vertical hydraulic gradients for the monitoring well network were evaluated for the second, third, and fourth quarters of 2017.

3.2.1.1 Horizontal Hydraulic Gradients

Groundwater elevation contours were developed using the site-wide groundwater elevation measurements collected in April, July, and October 2017. A summary of the groundwater elevation data for each quarterly groundwater monitoring event is presented in Table 2. Site-wide groundwater elevation contours for shallow wells are presented in Figures 4 through 6.

The piezometric contours indicate that the groundwater flow direction beneath Zone A and across the PSL property was consistently southwesterly throughout 2017. The hydraulic gradient calculated between wells MW-52S in Zone A and MW-11S, approximately 1,109 feet southwest at the downgradient property boundary, averaged less than 0.002 feet/feet (ft/ft) during 2017.

The hydraulic gradient south of the property boundary is less steep than on the property. The calculated off-property hydraulic gradient averaged less than 0.001 ft/ft during 2017 as measured between wells MW-11S at the property boundary and MW-43S. MW-43S is located approximately 8,025 feet south of the property boundary along East A Street and along the historical orientation of the dissolved-phase contaminant plume.

Hydraulic gradients measured in the shallow aquifer in 2017 were consistent throughout the year and were consistent with findings for prior years. The hydraulic gradient direction and slope at the Site are stable and are not expected to change in the future.

The hydraulic gradient for the intermediate portion of the aquifer on the PSL property, as measured between MW-47I and MW-11I (approximately 845 feet), averaged less than 0.003 ft/ft during 2017. As with the shallow portion of the aquifer, the gradient for the intermediate portion of the aquifer is less steep downgradient of the property and, as measured between MW-11I and MW-54I (approximately 11,107 feet), averaged less than 0.001 ft/ft during 2017

As with the shallow aquifer, the hydraulic gradients in the intermediate portion of the aquifer were consistent throughout the year and were consistent with prior years. The hydraulic gradient direction for the intermediate portion of the aquifer is stable and is not expected to change in the future.

3.2.1.2 Vertical Hydraulic Gradients

Groupings of shallow and intermediate wells allow for the calculation of vertical hydraulic gradients throughout the aquifer. The gradients are calculated using groundwater elevations from the shallow and intermediate wells and the elevation of the center of the intermediate well screen. Due to the accuracy of the water level meter and survey instruments, the vertical gradients have been rounded to the nearest thousandth of a foot. Negative values reflect an upward vertical gradient. Table 4 summarizes vertical hydraulic gradients calculated for well clusters on the landfill property near Zone A and downgradient of the landfill property.

Vertical hydraulic gradients near Zone A have been calculated for five pairs of wells screened at the shallow and intermediate portions of the aquifer (#2R/I, MW-12S/I, MW-47S/I, MW-49S/I, and NVM-01/I). During 2017, the vertical hydraulic gradients for the five Zone A well pairs ranged from 0.007 ft/ft (downward) to -0.005 ft/ft (upward).

Four off-property well pairs are screened at the shallow and intermediate portions of the aquifer and are located along the inferred longitudinal axis of the dissolved-phase plume (MW-11S/I, MW-29S/I, MW-38S/I, and MW-43S/I). During 2017, the vertical gradients for the downgradient off-property well pairs ranged from 0.047 ft/ft in to -0.029 ft/ft.

The vertical gradient data indicate that only very small vertical gradients exist at the Site and that these vertical gradients are unlikely to have a significant effect on the vertical migration of dissolved-phase compounds.

3.2.2 Groundwater Quality

Well stabilization parameters collected during well purging are summarized in Table 5. Laboratory analytical results from groundwater monitoring during 2017 are summarized in Tables 6 through 10. VOC data is split into two tables. Table 6A presents the monitoring results for the five VOC compounds that were detected outside of the Zone A landfill footprint, including residential wells Table 6B presents the monitoring results for the 36 compounds that were detected in Zone A landfill wells (MW-52S and/or MW-53S).

Groundwater quality data are evaluated by well groupings in Section 3.2.2.2 and by distribution of dissolved-phase contaminants in Section 3.2.2.3. Overall concentration trends for 2017 are also discussed in relation to SVE System Performance Monitoring in Section 4.5 - Groundwater Quality Trends. The evaluation of groundwater quality at the Site is focused on compounds that were detected at concentrations exceeding a dCUL.

3.2.2.1 Well Stabilization Parameters

Well stabilization parameters are collected to evaluate steady-state conditions in each well prior to sampling and to evaluate data relative to measurements collected across the site during the same event. Conductivity, pH, dissolved oxygen (DO), and turbidity are the primary parameters used to evaluate steady-state conditions prior to sample collection. During well purging, temperature and oxidation-reduction potential (ORP) are also stabilized and recorded.

Stabilization measurements for the second and third quarter differed from historical measurements. The second quarter disparity, particularly with pH, may be attributed to the unusually high snow amounts in the preceding months and/or equipment error. Following additional anomalous data produced during the third quarter event, the water quality meter was sent in for repair and maintenance. The pH and reference probes were repaired, the DO membrane and fluid was replaced, and the meter was thoroughly cleaned and calibrated. Well stabilization data are presented in Table 5. Second and third quarter data have been flagged as anomalous due to equipment error. These data are not considered representative of actual site conditions.

3.2.2.2 Evaluation by Well Grouping

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

- Performance Monitoring Wells
    - MSW Landfill
    - Zone A
    - Zone B
    - Zones C and D
    - Zone E
- Sentinel Wells
- Property Boundary Wells
- Off-Property Downgradient Monitoring Wells
- Upgradient Wells
- Residential Wells

These well groupings are as presented in the *Groundwater O&M Manual*. Well locations are shown on Figure 3.

3.2.2.2.1 Performance Monitoring Wells

Performance monitoring wells are used to monitor the effectiveness of interim remedial measures and track changes in contaminant concentrations and distribution over time. They are located either directly under a waste zone or on the downgradient boundary of a zone. The performance monitoring wells are grouped into wells monitoring groundwater quality at the MSW landfill, Zone A, Zone B, Zones C/D, and Zone E. The wells associated with each landfill or zone are discussed below.

MSW Landfill Wells

The groundwater monitoring network for the MSW Landfill consists of wells 4R, MW-16S, MW-17SR, and MW-23S. Table 1 summarizes the wells sampled and analyses performed on samples from the MSW Landfill wells. Samples for VOC analysis were collected from wells 4R and MW-16S during all four quarters of 2017 while, in accordance with the 2017 Groundwater O&M Manual, MW-17SR was sampled semiannually. The concentration of PCE detected in the fourth quarter sample from well 4R exceeded the dCUL. No other VOC

detections in samples collected from the MSW landfill wells exceeded a dCUL. VOC data for the MSW landfill wells are summarized in Table 6A.

Landfill parameter samples were collected from wells 4R, MW-16S, MW-17SR, and MW-23S during the second and fourth quarters. The landfill parameters analyzed include nitrate, ammonia, sulfate, total dissolved solids, total alkalinity, bicarbonate, carbonate, hydroxide, chloride, total organic carbon, calcium, total iron, magnesium, manganese, potassium, and sodium. Landfill parameter data are summarized in Table 10.

Evaluation of MSW Landfill well data is provided in the 2017 Annual Report for the MSW Landfill as prepared by the LFG.

Zone A Wells

The groundwater monitoring network for Zone A consisted of eight wells during 2017. Wells EE-2, MW-13S, MW-47S, MW-50S, MW52S, MW-53S, and NVM-01 are completed in the shallow portion of the aquifer, and well MW-47I is completed in the intermediate portion of the aquifer. This intermediate well is paired with the adjacent shallow well MW-47S. Table 1 summarizes the analyses performed on samples from each Zone A Performance Monitoring well.

NAPL was observed in MW-52S during water level monitoring on June 26, 2017. Weekly NAPL monitoring was initiated that day for MW-52S and MW-53S. Initially, the thickness of the NAPL in MW-52S was measured as 0.28 ft (3.4 in). The measured thickness increased to a maximum of 0.30 ft (3.60 in) on July 10, 2017, then steadily decreased to a non-detectable thickness by October 2017. On the dates where LNAPL was measured at a thickness of more than ½-inch in MW-52S, the LNAPL was bailed down to ½-inch or less. No NAPL was detected in MW-53S, and no dense non-aqueous phase liquid (DNAPL) was detected in either well. Table 11 summarizes measurements made during NAPL monitoring in 2017.

VOC analyses were performed on samples from six wells (MW-13S, MW-47S, MW-50S, MW52S, MW-53S, and NVM-01) on a quarterly basis during 2017. VOC analyses were performed on samples from two additional wells (EE-2 and MW-47I) on a semi-annual basis during the second and fourth quarters. As a response to the presence of NAPL in MW-52S, monthly VOC sampling was initiated in June 2017 at wells MW-47S, MW-50S, MW-52S, MW-53S, and NVM-01. Samples were not collected from MW-52S during August or September 2017 due to the presence of measurable NAPL on the water table. Monthly VOC sampling results are summarized in Table 12.

Groundwater monitoring wells MW-52S and MW-53S are considered source zone wells as they are immediately beneath the Zone A wastes. During 2017, VOCs were detected in samples from MW-52S with concentrations of PCE, TCE, 1,1-DCE, cis-1,2-DCE, 1,2-DCA, benzene, methylene chloride, and toluene exceeding a dCUL in 2017. The presence of NAPL on the water table in MW-52S contributed to groundwater concentrations in MW-52S during 2017. VOCs were detected in samples from MW-53S with concentrations of PCE and TCE exceeding a dCUL during 2017.

Tables 6A and 6B summarize VOC data for the Zone A wells. Table 6A presents data from the five compounds detected in wells outside the footprint of Zone A – PCE, TCE, 1,1-DCE, 1,2-DCA, and toluene. Table 6B presents data for all compounds detected in MW-52S and MW-53S.

No compounds were detected at a concentration above a dCUL in any sample from the Zone A performance monitoring well in the intermediate portion of the aquifer (MW-47I) during 2017.

SVOC analyses were performed on samples from the two Zone A source wells (MW-52S and MW-53S) and two sentinel wells (MW-47S and MW-50S) during the second and fourth quarters. SVOCs were detected in samples from MW-52S and in samples from MW-53S during 2017. SVOC data are summarized in Table 7. There are no Site specific dCULs for any of the detected SVOCs.

Herbicide analyses were performed on samples from two Zone A wells (MW-52S and MW-53S) during the second and fourth quarters. No herbicides were detected in samples analyzed during 2017. Herbicide data are summarized in Table 8.

Total chromium analysis was performed on samples from MW-47S and MW-50S during second and fourth quarters of 2017. Total chromium was detected at concentrations below the dCUL. Chromium data are summarized in Table 9.

Zone B Well

The groundwater monitoring network for Zone B consisted of well MW-26SR during 2017. MW-26SR was sampled for VOCs, SVOCs and herbicides semiannually, during the second and fourth quarters. Table 1 summarizes the analyses performed on samples from this well.

No VOCs, SVOCs, or herbicides were detected in samples collected from MW-26SR during 2017. VOC, SVOC, and herbicide data are summarized in Tables 6A, 7, and 8, respectively.

Zone C/D Well

The groundwater monitoring network for Zones C and D consisted of well MW-55S in 2017. Well MW-55S was sampled for VOCs during all four quarters and total chromium semiannually during the second and fourth quarters. Table 1 summarizes the analyses performed on samples from the Zone C/D well.

No VOCs were detected in samples collected from MW-55S during 2017. Total chromium was detected in MW-55S during the second and fourth quarters 2017 at concentrations below the dCUL. VOC and chromium data are summarized in Tables 6A and 9, respectively.

Zone E Well

The groundwater monitoring network for Zone E consisted of well MW-27SR during 2017. Well MW-27SR was sampled for VOCs during all four quarters and total chromium semiannually during the second and fourth quarters. Table 1 summarizes the analyses performed on samples from the Zone E well.

No VOCs were detected in samples collected from MW-27SR during 2017. Total chromium was detected in the second quarter 2017 sample at a concentration below the dCUL. VOC and total chromium data are summarized in Tables 6A and 9, respectively.

3.2.2.2.2 Sentinel Wells

Sentinel wells are located between a landfill or waste zone and the property boundary. The sentinel wells, in conjunction with the performance monitoring wells, provide a means of tracking changes in contaminant concentrations over the distance from each source area and over time. This information is used to estimate concentration attenuation with distance from each source area.

The sentinel well monitoring network consists of six shallow wells (2R, MW-12S, MW-15S, MW-18S, MW-19S, and MW-49S) and three intermediate wells (2I, MW-12ID, and MW-49I). Each of the intermediate depth wells

is paired with an adjacent shallow zone well. Table 1 summarizes the analyses performed on samples from each sentinel well.

All shallow sentinel wells were analyzed for VOCs on a quarterly basis. The three intermediate wells were analyzed for VOCs on a semi-annual basis in the second and fourth quarters. VOC concentrations detected in samples from the sentinel wells during 2017 were all below dCULs. VOC data are summarized in Table 6A.

Well MW-19S was sampled for total chromium and landfill parameters during the second and fourth quarters. Total chromium concentrations in samples from the well were below the dCUL in 2017. Total chromium data are summarized in Table 9.

3.2.2.2.3 Property Boundary Wells

The property boundary groundwater monitoring network consists of five shallow wells (MW-10S, MW-11S, MW-22S, MW-24S, and MW-51S) and one intermediate depth well (MW-11I). Samples from the five shallow wells and the intermediate depth well were analyzed for VOCs on a semi-annual basis in the second and fourth quarters. Samples from MW-22S, a MSW Landfill well, were analyzed for total chromium on a semi-annual basis during the second and fourth quarters. Table 1 summarizes the analyses performed on samples from the Property Boundary Wells.

No VOCs were detected in any samples collected from the property boundary monitoring wells during 2017 at a concentration exceeding a dCUL. No total chromium was detected in samples collected from MW-22S during 2017. VOC and total chromium data are summarized in Tables 6A and 9, respectively.

The monitoring data for well MW-22S will be discussed in the 2017 Annual Report for the MSW Landfill.

3.2.2.2.4 Downgradient Monitoring Wells

The off-property downgradient monitoring well network consists of 12 shallow wells (MW-29S, MW-31S, MW-34S, MW-37S, MW-38S, MW-40S, MW-41SR, MW-42S, MW-43S, MW-44S, MW-45S, and MW-46S) and four intermediate depth wells (MW-29I, MW-38I, MW-43I, and MW54I). All downgradient off-property wells were analyzed for VOCs semiannually, during the second and fourth quarters of 2017. With the exception of MW-54I, the furthest downgradient well, each intermediate depth well is paired with an adjacent shallow depth well. Table 1 summarizes the analyses performed on samples from the off-property downgradient monitoring wells.

No VOCs were detected in any of the downgradient monitoring wells in 2017 at a concentration exceeding a dCUL. VOC data are summarized in Table 6A.

3.2.2.2.5 Upgradient Wells

The upgradient monitoring well network consists of two shallow wells (MW-20S, and MW-25SR). Table 1 summarizes the analyses performed on samples from the upgradient wells.

No VOCs were detected in samples collected at any time during 2017 from the upgradient monitoring well MW-25SR. Total chromium was detected at concentrations below the dCUL in both samples collected from MW-20S during 2017. VOC, chromium, and landfill parameter data are summarized in Tables 6A, 9, and 10, respectively.

3.2.2.2.6 Residential Wells

As outlined in the methodology section for residential wells, at the start of 2017, all residential wells in the GPA were scheduled for semi-annual VOC sampling and analysis. Groundwater samples were collected from eight residential wells in the second and fourth quarters due to access and/or equipment limitations. Table 1 summarizes residential well sampling and analysis.

VOCs detected in samples collected from the residential wells are summarized in Table 6A. No VOCs were detected at a concentration exceeding a dCUL in any of the residential wells during 2017.

Based on these data, all residential wells will remain on a semi-annual monitoring schedule at the start of 2018.

3.2.2.3 Contaminant Distribution

This section discusses the dissolved-phase distribution of the compounds for which dCULs have been established for the Site and for which observed concentrations exceeded a dCUL during 2017. PCE, TCE, 1,1-DCE, cis-1,2-DCE, 1,2-DCA, benzene, methylene chloride, and toluene were detected at concentrations above a dCUL during 2017. And, as discussed in Section 3.2.2.2.1, MW-52S contained NAPL during the second and third quarters of 2017.

Three wells contained contaminant concentrations above a dCUL during 2017: MW-52S and MW-53S, which are located within Zone A landfill; and well 4R, which is located immediately adjacent to and downgradient of the MSW landfill. Concentrations of PCE exceeded the dCUL in MW-52S in all four quarters, MW-53S during the first, third, and fourth quarters, and 4R during the fourth quarter of 2017. TCE concentrations exceeded the dCUL at MW-52S during all four quarters, and MW-53S during the third and fourth quarters of 2017. Concentrations of 1,1-DCE, 1,2-DCA, benzene, and toluene exceeded the dCUL in MW-52S during all four quarters of 2017. Concentrations of cis-1,2-DCE exceeded the dCUL in MW-52S during the first, second, and third quarters of 2017. Concentrations of methylene chloride exceeded the dCUL in MW-52S during second and third quarters of 2017. No other VOCs exceeded a dCUL during 2017.

Distribution maps are prepared only when a compound exceeds a dCUL in multiple wells during the quarterly monitoring events. For 2017, PCE was the only compound that triggered this requirement. Maps depicting the distribution and concentrations of PCE during each quarterly monitoring event are presented in Figures 7 through 10.

3.2.2.4 Landfill Parameters

Samples from wells 4R, MW-16S, MW-17SR, MW-19S, MW-20S, and MW-23S were analyzed for landfill parameters during the second and fourth quarters of 2017. Table 1 summarizes the analyses for landfill parameter monitoring. Landfill parameter data are summarized in Table 10. Landfill parameter data will be discussed in the 2017 Annual Report for the MSW Landfill prepared by the LFG.

4 SVE SYSTEM PERFORMANCE MONITORING

4.1 SVE Operation

A soil vapor extraction (SVE) system has been in operation at Zone A of the IWA since May 1997 as part of Interim Actions at the Site. Since 2012, the system has been connected to six SVE wells (VEW-06S, VEW-06I, VEW-06D, VEW-07S, VEW-07I and VEW-07D) within the Zone A landfill. During 2017, only the shallow and deep SVE wells were used for active vapor extraction. The intermediate depth extraction wells were only run for limited periods of 20-43 minutes related to periodic operational parameter and sample collection.

From December 13, 2016 to July 9, 2017, effluent from the SVE system was piped directly to a rental thermal oxidizer (TO) from Anguil Environmental Systems, Inc (Anguil). The TO system was taken off-line between July 9 and July 14, 2017, to allow for installation of SVE system upgrades and a new Ecology permitted Anguil RTO. On July 14, 2017, the new Anguil RTO began accepting SVE system effluent. Permit information related to the operation of both systems is referenced in Section 4.2.

A revised operations and maintenance manual for the combined SVE and RTO system was prepared after the final configuration and operational parameters of the Anguil RTO and SVE system were established. The two-part manual is referenced in Section 4.2.

Throughout 2017, the shallow and deep SVE wells ran nearly continuously, with the airflow from all four wells totaling between 398 and 711 standard cubic feet per minute (scfm). The average airflow to the TO from January 3 through July 5, 2017 was 451 scfm. The average airflow to the Anguil RTO between July 18 and December 26, 2017, including several weeks of ramped up airflows for engineering and compliance testing, was 521 scfm. Data from SVE performance monitoring are presented in Section 4.2 and in Tables 13 through 17. Information regarding the performance of the Anguil RTO can be found in the *Performance Summary Report for Anguil Regenerative Thermal Oxidizer*, dated November 7, 2017, and the *2017 Annual Report: Regenerative Thermal Oxidizer Performance Monitoring,* dated January 31, 2018.

4.2 SVE Monitoring and Vapor Treatment

Monitoring of the SVE system was performed using active and inactive vapor extraction wells (VEWs), vapor monitoring wells VMW-50S, VMW-51I, and VMW-51D, and vacuum monitoring probes. Figure 11 illustrates the locations of these features.

During 2017, operation, monitoring, and upgrades of the SVE system and RTO were conducted in accordance with the following Ecology approved documents:

- *Proposed Flowrates for Upgraded Zone A SVE System and Communications Protocol*, dated December 4, 2012.
- *As-Built and Testing Reports with Operations and Maintenance Manual* (SVE System O&M Manual), dated February 25, 2013.
- *Addendum No. 1 – Volume 1 – As-Built Report for SVE System Upgrades*, dated February 20, 2014.
- *Engineering Design Report for SVE System with Regenerative Thermal Oxidation Upgrade*, dated May 27, 2015.
- *Addendum No. 2 – Volume 1 – As-Built Report for SVE System Upgrades*, dated May 8, 2015.
- *Addendum No. 1 – Volume 3 – As-Built Report for SVE System Upgrades As-Built and Testing Reports with Operations and Maintenance Manual Attachment A – Sampling and Analysis Plan*, dated July 29, 2016.

- *Administrative Order Docket # 13922*, dated November 29, 2016, and issued by Washington State Department of Ecology, Air Quality Program.

- *Approval Order #16AQ-E031*, dated May 2, 2017, and issued by Washington State Department of Ecology, Air Quality Program.

- *Performance Summary Report for Anguil Regenerative Thermal Oxidizer*, dated November 7, 2017.

- *Operation and Maintenance Manual Soil Vapor Extraction System and Regenerative Thermal Oxidizer Volume 1: SVE System O&M Manual (2017 Upgrades)*, dated December 13, 2017.

- *Operation and Maintenance Manual Soil Vapor Extraction System and Regenerative Thermal Oxidizer Volume 2: RTO System O&M Manual (2017 Installation),* dated December 13, 2017.

Numerous meetings and communications between the IWAG and Ecology also guided operation, monitoring and upgrades to the systems.

During 2017, routine SVE performance monitoring included both field observation and measurement, and laboratory analysis of the SVE system and effluent air stream.

SVE system operational parameters were measured and recorded on a weekly basis at the wellheads and at the SVE equipment compound. Parameters recorded included wellhead and skid vacuum and airflow, dilution airflow, wellhead temperature, carbon dioxide (CO_2), oxygen (O_2), carbon monoxide (CO), total VOCs, and lower explosive limit (LEL). Field measurements were conducted using a photoionization detector (PID) to monitor total VOCs, a GEM 5000 Landfill Gas Analyzer to monitor CO_2, O_2, and LEL as methane, a QRae to measure CO in January and February, and the GEM 5000 Landfill Gas Analyzer to measure CO during the remainder of the year. SVE parameter data are presented in Table 13.

Temperature measurements during 2017 were made at the wellheads for the shallow and deep wells. Temperature in the intermediate depth wells was measured via a downhole thermocouple during the majority of 2017, except during the period from October 2 through November 27, 2017, in which temperatures were measured at the wellheads.

Operational parameters presented were recorded at each of the extraction wells (VEW-06S/I/D and VEW-07S/I/D), VMW-51I, and VMW-50S. Flowrates and applied vacuum measurements from individual SVE system wells are presented in Figures 12 and 13 respectively. Active extraction of soil vapor from beneath Zone A, during the period of January 3, 2017 through August 7, 2017, was performed with average airflows of 33 scfm in the shallow wells and 195 scfm in the deep wells. Between August 14 and September 18, 2017, airflows were increased to a maximum of 300 scfm in the deep wells and 116 in the shallow wells for engineering and compliance testing for the new Anguil RTO. From September 25 through December 26, 2017, average airflows were 148 scfm in both deep wells, 83 scfm in VEW-06S, and 119 scfm in VEW-07S.

Vacuum monitoring was performed on a weekly basis during 2017 to confirm a negative pressure beneath the geomembrane and to assess radius of influence of the SVE system. In addition to the vacuum measurements included in Table 13, vacuum measurements were collected at the inactive SVE extraction wells VEW-04 and VEW-05, at vacuum monitoring wells VMW-50S, VMW-51I, VMW-51D, and at vacuum monitoring probes (VMPs) through the Zone A cap (VMP-02, VMP-04, VMP-05, VMP-06, VMP-08, VMP-09, VMP-10) and VMPs

outside the barrier wall (VMP-13S, VMP-13D, VMP-17, VMP-18, VMP-19, VMP-20, and VMP-21). Vacuum measurement data are presented in Table 14.

As mentioned above and illustrated in Figure 12, airflow in the deep extraction wells during the period of August through December 2017 was decreased nearly 50 scfm and airflow in the shallow extraction wells was increased by 50 to 80 scfm. In response to the adjustments in extraction well airflow, vacuum measured in VMW-51I[1] and the other shallow vacuum monitoring points beneath the Zone A cover (VMP-02, 04, 05, 06, 08, 09, and 10) increased or decreased significantly. By comparison, vacuum in intermediate and deep wells in and around Zone A (VEW-04, VEW-05, VMW-50S[2], and VEW-51D) and VMPs outside of the protective barrier wall (VMP-13S, 13D, 17, 18, 19, 20, and 21) were relatively unaffected. Average vacuum measurements for each location, for the entire year, are shown on Table 13. These data illustrate that changes in vacuum and airflow at the shallow SVE wells affect the wells and probes set in the shallow intervals beneath the Zone A cover system the most. Meanwhile, such changes do not affect vapor monitoring probes screened at the shallow interval outside the protective barrier wall.

The radius of influence of the SVE system encompasses all shallow, intermediate, and deep intervals beneath the Zone A cover, and deep extraction wells beyond the cover, providing an effective means of contaminant source removal for the Zone A landfill.

The protective barrier wall installed in 2015 along the northern and northeastern boundaries of the Zone A landfill effectively limited airflow between the SVE system and the Balefill Area during 2017. This is evidenced by vacuum measurements in shallow probes in the Balefill Area outside of the protective barrier wall being relatively uninfluenced by significant changes in SVE system airflow during 2017.

Vapor samples were collected at each active extraction well (VEW-06S & D, and VEW-07S & D) on a weekly basis through March 20, 2017, monthly April through June, and on a biweekly schedule thereafter. The changing frequency of sampling from weekly to monthly was in response to steady airflows from the shallow and deep wells, while the change to biweekly sampling was in response to *Approval Order #16AQ-E031*, dated May 2, 2017. Additional vapor samples were collected weekly through March 20, 2017, and biweekly thereafter, from the combined SVE effluent line before thermal treatment at the TO/RTO (SV-BRTO). Samples were submitted for laboratory analysis of VOCs using a modified EPA Method 8260. SVE system laboratory data are presented in Table 15.

The percentage of the top 10 compounds contained in each sample of the SVE effluent collected during 2017 are summarized in Table 16. The 10 compounds constitute 72.7 to 99.3 percent of the total VOCs detected in each sample. Figure 14 illustrates the percentage of each of the top ten compounds in the SVE system effluent. These data are from the combined line samples (SV-BRTO).

A contaminant mass removal rate is calculated for each sample using the total VOC concentration and the measured flow rate. Figure 15 illustrates the average daily contaminant mass removal rates from the active

[1] VMW-51I was installed with a screen within a shallow interval of 30 to 35 feet bgs.

[2] VMW-50S was installed with a screen within an intermediate interval of 42 to 57 feet bgs.

SVE wells and for the combined SVE system effluent line from March 14, 2012 through the end of December 2017. Gaps in the graphed data series represent periods when wells were not operated.

Between January 3, 2017 and December 18, 2017, the sum of contaminant mass removal rates ranged from a low of 42 pounds/day (lb/day) on November 20, 2017, to the high of 193 lb/day on March 13, 2017. The SVE system recovered an estimated 32,257 pounds of VOCs during 2017, with an average combined SVE mass removal rate of 96 lb/day or 4 lb/hr. Analysis for Tentatively Identified Compounds (TICs), which was performed as part of RTO stack testing in September 2017, indicated that the extracted VOC mass could be higher than that calculated with the standard EPA Method 8260 target compounds. More information on TICs in the extracted soil vapors can be found in the *Performance Summary Report for Anguil Regenerative Thermal Oxidizer*, dated November 7, 2017.

The SVE system has recovered a total of approximately 1,068,440 pounds of VOCs between May 1997 and December 18, 2017. The cumulative mass removal is illustrated in Figure 16. The dark blue circles on the figure represent the dates when significant changes were made to the active vapor extraction well configuration.

The SVE system recovered approximately 32,257 pounds of total VOCs in 2017 using only the shallow and deep extraction wells. The SVE system, as currently operated, is limited in its ability to remove VOCs from Zone A by a number of factors including limitations on the use of the intermediate wells. Maximizing SVE has provided a demonstrated means for protection of groundwater quality (refer to Section 4.5 below).

4.3 Carbon Monoxide Monitoring

Carbon monoxide (CO) monitoring activities were performed in accordance with the following document:

- *Addendum No. 1 to Volume 3 – As-Built Report for SVE System Upgrades – Attachment A – Sampling and Analysis Plan,* dated July 29, 2016.
- Attachment A of the *Operations and Maintenance Manual -Soil Vapor Extraction System and Regenerative Thermal Oxidizer – Volume 1: SVE System O&M Manual (2017 Upgrades),* prepared by PBS, dated December 13, 2017.

The wells monitored for carbon monoxide levels included all six vapor extraction wells (VEW-06S/I/D and VEW-07S/I/D) and vapor monitoring well VMW-51I. Field measurements were made using a QRae3 or, beginning in late February 2017, a GEM 5000 Landfill Gas Analyzer. Field measurements are collected from each well, while sample collection and laboratory analysis were only carried out for those wells with a field reading greater than 100 parts per million (ppm). Tedlar bag samples were collected for laboratory analysis by modified EPA Methods 25C and 3C.

Table 17 contains carbon monoxide monitoring data.

4.4 SVE System Repair Reporting

With Ecology's approval, a downhole video inspection of the SVE wells was performed on June 26, 2017. The well inspections indicated a buildup of residue, particularly in the deep wells, as well as a liquid in the bottom of VEW-07I. While the inspection showed that the screens were still allowing sufficient airflow, on October 9, 2017, scaling encountered on the well screens was knocked off to allow additional airflow and prevent potential performance issues. The wells were re-inspected on October 10, 2017. Additional video was collected from the intermediate and deep wells during inspection. Dr. Clifford Lange from Auburn University

was consulted to review the well inspection videos and make recommendations regarding potential performance issues and further action that may be necessary. Sampling of the scaled residue and sump liquid is anticipated during 2018.

SVE system shutdowns occur both as planned events for routine system maintenance, system upgrades, and as unplanned shutdowns. Several planned and unplanned shutdowns of the SVE/RTO system occurred in 2017. Planned shutdowns included RTO installation and related upgrades to the SVE system, as well as equipment maintenance. Unplanned shutdowns were primarily related to weather-related power outages, calibration, adjustment of system components following installation of the RTO, and repairs required for ancillary equipment such as the air compressor.

Details of each shutdown that occurred between January 1, 2017 and September 30, 2017, were included in the first, second, and third quarter reports. Shutdowns that occurred during the fourth quarter of 2017 are summarized in Table 18. A complete summary of system shutdowns is documented in *2017 Annual Report: Regenerative Thermal Oxidizer Performance Monitoring,* dated January 31, 2018.

Work performed for installation of the Anguil RTO and integration of the RTO with the SVE system is documented in the as-built and revised operations and maintenance reports for the revised system.

4.5 Groundwater Quality Trends

VOC data presented in quarterly and annual reports, including Phase I AIA studies reported in the 2008 and 2009 Annual Reports, illustrate that extraction of soil vapor and groundwater quality associated with Zone A appear to be closely linked, and contaminant transport through the vadose zone to the water table is likely the primary mechanism for contaminant migration from the Zone A wastes to groundwater.

Groundwater quality at the Site had improved markedly over the last several years to the point at which only one well, the Zone A source monitoring well MW-52S, contained COPCs at concentrations exceeding dCULs in 2016. As noted in Section 3 above, during 2017, NAPL was discovered on the water table in MW-52S. The limited duration of NAPL appearance in this well had a temporal impact on groundwater concentrations within the well which were decreasing by the end of 2017.

During 2017, only wells 4R, MW-52S, and MW-53S contained VOCs at a concentration exceeding a dCUL. No other wells throughout the Site, including sentinel wells immediately downgradient of Zone A, contained a dCUL exceedance of any VOCs at any time during 2017 (Tables 6A and 6B).

Table 19 presents groundwater quality trend data for the Zone A source wells (MW-52S and 53S) since their installation in October 2010, and for the Zone A sentinel wells (MW-47S, 50S, NVM-01, and MW-12S) since January 2010. Groundwater trends since 2010 show that while groundwater concentrations in MW-52S peaked during the first half of 2017 due to the presence of NAPL on the water table, VOCs have decreased steadily since July 2017. There were seven compounds exceeding a dCUL in MW-52S in January through July 2017, and four compounds exceeding a dCUL in December 2017. Similarly, in MW-53S, concentrations of one compound exceeded a dCUL starting in July, increasing to two compounds exceeding a dCUL in November 2017, and only one compound exceeding a dCUL in MW-53S in December 2017. Meanwhile, groundwater concentrations in the Zone A downgradient sentinel wells (MW-47S, MW-50S, NVM-01, and MW-12S) remained steady and consistent with concentrations remaining below dCULs.

It is not practical nor informative to prepare an analysis of trends for non-Zone A wells across the Site due to low concentrations, the limited number of detected compounds, and stable concentrations below dCULs.

5 WASTE MANAGEMENT

Table 20 summarizes waste volumes disposed of or treated off-site during 2017. Attachment B contains analytical data used for characterization and hazardous waste manifests and other documentation for materials transported off-Site during 2017.

5.1 SVE System Waste Storage, Characterization, and Management

During 2017, SVE system condensate was generated within the SVE system equipment compound and was stored in polyethylene tanks prior to treatment off-Site. Sampling and characterization of condensate is performed annually and as necessary to confirm the composition of the condensate and its consistency with the previously established waste profile. Condensate may also be sampled if there is a substantial change in SVE system operation or a change in the rate of condensate accumulation. Condensate sampling was performed during the first, second, and third quarters of 2017.

A total of 22,602 gallons of SVE condensate were generated in 2017. Approximately 6,000 gallons of SVE condensate generated at the Site between November 7, 2016 and March 31, 2017, was incorrectly designated as Washington state only Dangerous Waste and transported to Chemical Waste Management in Arlington, Oregon for treatment and disposal. The condensate had been characterized as Dangerous Waste carrying a WT02 waste code for toxicity criteria. Subsequent to this disposal, the toxicity calculations were re-evaluated, a conservative error was corrected, and it was determined that the condensate was suitable for characterization and disposal as non-regulated waste for the remainder of 2017.

Between March 31, 2017 and December 20, 2017, approximately 16,602 gallons of SVE condensate was designated as non-hazardous, non-dangerous, non-regulated waste and transported to PRS Group in Tacoma, Washington, for treatment and disposal.

5.2 Groundwater Monitoring Waste Storage, Characterization, and Management

Purge and decontamination water generated during routine sampling was stored for off-site treatment. Polyethylene tanks were used for storage of purge water and decontamination water from routine monitoring.

During 2017, less than 1,000 gallons of water from well purging was stored on-Site. This water was characterized as non-hazardous. Following review of the characterization data by City of Pasco Waste Water Treatment Plant staff, the wastewater was deemed acceptable for treatment. The purge water will be transported to the City of Pasco Waste Water Treatment Plant for treatment in early 2018. No purge water was transported off-site during 2017.

6 ZONE A COMBUSTION EVALUATION

During the first quarter of 2017, the IWAG performed an evaluation of potential combustion within the Zone A landfill. The work was performed in accordance with the Ecology approved *Second Revised Detailed Work Plan to Evaluate Potential Combustion in Zone A*, dated December 9, 2016. Activities involved installation of pairs of subsurface thermocouple arrays and gas monitoring probes in nine locations spread throughout the Zone A landfill. Temperature and soil gas monitoring was performed using these installations. The evaluation also involved boring six 24-inch diameter holes within Zone A. Field and laboratory data collected as part of the activities was evaluated against metrics developed by the IWAG and Ecology to identify potential indicators of subsurface combustion within the Zone A landfill. The *Zone A Combustion Evaluation Report*, prepared by GSI

Environmental Inc., SCS Engineers, Anchor QEA, LLC, and Environmental Partners, Inc., and dated April 24, 2017 and revised April 29, 2017, provides discussion of the combustion evaluation.

Additional data was collected in 2017, including autoignition temperature analysis of gas samples in August 2017, thermocouple reactivation in September 2017, and total volatile solids analysis.

Additional monitoring of thermocouple arrays within Zone A and soil gas monitoring at the soil gas probe arrays will be conducted in coordination with Ecology during 2018.

7 LANDFILL CAP PERFORMANCE MONITORING

Monitoring of the Zone A, C/D, and E landfill caps during 2017 was conducted in accordance with the following Ecology approved documents:

- *Operations and Maintenance Manual for Industrial Waste Area Caps – Zones A, C/D, and E – Pasco Landfill Site Pasco, Washington*, dated November 21, 2013.
- *Second Revised Detailed Work Plan to Evaluate Potential Combustion in Zone A* (*Zone A Combustion Work Plan*), dated December 9, 2016.
- *Addendum No. 1 to Operations and Maintenance Manual for Industrial Waste Area Caps Zones A, C/D, and E*, dated March 2017.

Monthly visual inspections are performed to monitor the condition of the Zone A, C/D, and E landfill covers, detention and evaporation basins, and perimeter fencing. Each monthly inspection is recorded on an inspection checklist. The monthly inspection checklists include assessment of man-made, animal-made, and natural disturbances. Disturbances under evaluation or requiring repairs are noted on the checklist. Monthly inspection checklists for Zones A, C/D, and E for the first, second, and third quarters of 2017, were presented in the quarterly reports. The monthly checklists for the fourth quarter of 2017 are available in Attachment C.

The surface of each cover is checked for vehicle traffic, burrowing, erosion, vegetation, and settlement. The Zone A cover inspection also involves inspection of sumps within settlement depressions. SVE piping on the surface of Zone A is monitored for settlement or other changes that may affect the flow of air or condensate within the pipes.

Detention and evaporation basins on each landfill cover are checked for disturbances including damage to the liner, staff gauge, or anchor trench along with levels of accumulated water, sediment, or vegetation. Perimeter fencing for each landfill is inspected for disturbances such as damage from vehicles, burrowing under the fence line, vegetation accumulation, and leaning fence posts.

7.1 Zone A Landfill

The Zone A Landfill Cover, Detention/Evaporation Basin, and Fence Inspection Checklists for the fourth quarter of 2017 are presented in Attachment C. Zone A cover settlement, vent monitoring, and fencing is addressed below.

7.1.1 Zone A Settlement

Monitoring of differential settlement of the Zone A cap has been ongoing since May 2008. From 2008 through 2013, monitoring included periodic surveys of settlement monitoring plates. In December 2011, the

entire surface of Zone A was surveyed with a ground-based LIDAR scanner to produce three-dimensional (3D) point cloud data for as-built documentation after cap maintenance and SVE system upgrades.

To address new areas of differential settlement and associated cracks in the upper soil cover, noted during the first quarter of 2013, routine LIDAR surveying was initiated in April 2013. During December 2015, a new baseline scan was performed to capture changes in the northern portion of the Zone A cover following the construction activities and installation of the protective barrier wall.

LIDAR surveys have been performed on a quarterly basis since 2013 to evaluate the progression of settlement. Each survey is evaluated through production of a differential surface map for comparison of the quarterly data relative to the December 2011 baseline LIDAR survey to evaluate total settlement, relative to the December 2015 baseline to evaluate settlement in the northern portion of Zone A, and relative to the prior quarterly survey to assess incremental settlement. Differential surface maps are presented in Attachment D.

Each differential surface map shows the surface of Zone A color-coded to indicate areas of positive or negative changes in elevation between the dates of comparison. Portions of the map colored blue indicate areas with the highest increase in elevation. Areas of increasing elevation may include portions of the landfill where additional soil or gravel was added, vegetative growth occurred, or surface water is in the evaporation basin. Portions of the map that are colored red indicate areas with the highest settlement. Areas of settlement may include portions of the landfill where excavation has occurred, vegetation was removed, or water has evaporated in a basin.

The Zone A landfill cover was disturbed between December 2016 through March 2017, for work activities related to the Zone A combustion investigation. Activities included drilling 18 six-inch diameter boreholes with a Rotosonic rig for installation of thermocouples and gas monitoring probes. Six additional holes were bored using a 24-inch diameter bucket auger. Each thermocouple array and gas probe installation was finished with a boot thermally sealed to the geomembrane layer creating an air tight seal. Each large diameter boring was completed by patching and sealing the geomembrane layer. Details of the geomembrane repairs are presented in the *Zone A Combustion Work Plan*.

Cover soil was disturbed and regraded as part of liner repairs around each borehole creating a new baseline for areas around each boring. With Ecology's approval, no first quarter 2017 survey was performed. Quarterly LIDAR scanning was resumed in March with the surface of Zone A being scanned in March, July, and October 2017. The second and third quarterly reports for 2017 contain differential surface maps from those quarters. Attachment D contains differential surface maps for the fourth quarter of 2017, showing elevation changes between the October 2017 survey and previous surveys performed in July 2017, December 2015, and December 2011. The attachment also contains the October 2016 to December 2011 differential surface map for comparison.

A record amount of snow fell during the winter of 2016/2017, producing unusually dense vegetation on Zone A in the late spring and early summer. The dense vegetation obscured the ground surface and created erroneous surface elevations on the July 2017 3D scan and the differential surface map comparing July and October 2017. Before the October 2017 scan, the grass and other vegetation on the surface of the Zone A cover was mowed in order to produce a more accurate scan. The differential surface maps comparing October 2017 with December 2011 and 2015 were therefore, unaffected by the dense vegetation.

For the period of October 2016 through October 2017, elevation changes in the two deepest settlement locations located east of MW-52S and MW-53S were -0.21 feet and -0.04 feet respectively.

During the routine cover inspection performed on March 28, 2017, water was observed in the sump in the depression at the southern end of Zone A. No water was observed in the sump in the depression near the northern end of Zone A. During April, approximately 619 gallons of water that had accumulated in the southern depression was pumped into the evaporation basin. No water had accumulated in the sump in the northern depression. These observations led to a concern by Ecology that the lack of comparable storm water accumulation in the northern sump may have been due to a loss of integrity of the cover system in the northern depression. Monitoring performed in May indicated no further accumulation of water in either depression. The *Technical Memorandum Addendum to Cover Settlement Evaluation Industrial Waste Area – Zone A*, which was prepared by SCS Engineers and presented to Ecology in September 2017, presented an analysis of cover system elevations and relative sump locations that may explain the difference in water accumulation. In November 2017, a draft work plan to investigate the Zone A cover system was submitted to Ecology to assess the condition of the Zone A cover system in the depression areas. The work plan was finalized, and an investigation, which was performed in early 2018, indicated that the cover system was free of damage. Further discussion will be presented in the first quarter 2018 report and is available in the *Zone A Cover Investigation Summary Report*, prepared by PBS and submitted to Ecology on March 5, 2018.

The IWAG will continue to perform quarterly subsidence monitoring of the Zone A cap and evaluate settlement rates and total strain on the Zone A cover system.

7.1.2 Zone A Cover Vent Monitoring

The Zone A cover vents were installed through the Zone A cover along the inner side the Zone A protective barrier wall in 2015. One-way valves in each vent allow ambient air to flow beneath the Zone A cover. Measurement of vacuum, and airflow in the four Zone A cover vents was performed on a weekly basis throughout 2017. The vent locations are illustrated on Figure 11. Airflow in the cover vents ranged from 0.6 to 3.7 scfm during 2017 with the most stable flows in vent V-2, which is located nearest to the VEW-06 cluster.

7.1.3 Zone A Fencing

Fencing around the perimeter of Zone A and a locked gate along Dietrich Road limits public access to Zone A. During 2017, repairs were made to the Zone A fencing, including reinstallation of the northeastern portion of the Zone A perimeter fencing, which was removed during 2015 Balefill extinguishment and barrier wall construction activities. Repairs were made to fencing along Dietrich Road and along the boundary with the Basin Disposal Inc. (BDI) transfer station to the south.

7.2 Zones C/D and E Landfills

The Zone C/D and Zone E Landfill Cover, Detention/Evaporation Basin, and Fence Inspection Checklists for 2017 are presented in Attachment C. A new staff gauge was fabricated and installed in the Zone C/D evaporation basin in October 2017. No other conditions requiring maintenance or repair were observed on the Zone C/D or E caps, basins, or fencing in 2017.

8 INSTITUTIONAL CONTROLS

Institutional controls for the Site are presented in:

- *Pasco Landfill Site Updated Institutional Controls Plan – Revision 1*, dated October 7, 2013.

Institutional controls at the Site include gates restricting access to the landfill, fencing around the perimeter of Zones A, B, C/D, and E, and informational signage posted around the Site. As discussed above, perimeter fencing is inspected monthly and Zone A fencing, disturbed as needed during previous field work, was repaired during March 2017. Informational signage is monitored during the monthly inspections as well as during operations and maintenance activities. Fencing Inspection Checklists are included in Attachment C.

Other institutional controls at the Site include City of Pasco Ordinance No. 3469 and Municipal Code Section 16.06.040 and Franklin County Ordinance No. 2-99 and Code Chapter 17.56 both prohibiting installation of new drinking water wells within the Groundwater Protection Area (GPA). As part of the control measures, the City of Pasco and Franklin County are responsible for monitoring and controlling building and development permits within the GPA.

On November 11, 2017, representatives of the City of Pasco and PBS, as representatives of the IWAG, performed the annual survey of the GPA including inspection of each known residential well. This annual well survey is a component of the institutional controls. The Benton/Franklin County Health Department did not attend the inspection. The City of Pasco *2016 – East Pasco Plume Area – Well Location Survey* is included in Attachment E.

On January 8, 2018, the IWAG received the Franklin County *Annual Institutional Controls Report for 2017*. The report from the County (Attachment E) indicated that no development activity has occurred within the unincorporated areas of the GPA. The report also indicated that the GPA is now located entirely within the City of Pasco and is no longer subject to Franklin County development regulations. The Director of the Franklin County Planning and Building Department has indicated that they will not update the report in the future and recommends amending the 2000 agreement to transfer Franklin County's Zoning Ordinance requirements to the City of Pasco. Both the County and City building directors have been contacted and the matter has been forwarded to the City attorney.

9 SUMMARY

The primary findings and conclusions from the groundwater monitoring and the interim action operations and maintenance in 2017 are summarized as follows:

- Groundwater quality at the downgradient property boundary, and locations downgradient of the property boundary (expected future identified point of compliance), continued to comply with the dCULs throughout 2017. No samples from property boundary wells or downgradient wells contained a COPC at a concentration exceeding a dCUL at any time in 2017.
- The only locations at the Site where groundwater quality exceeded a dCUL are at well 4R, which is a performance monitoring well for the MSW Landfill; and at wells MW-52S and MW-53S, which are source zone wells installed inside of Zone A immediately below Zone A wastes. Samples from wells along the downgradient extent of the Zone A landfill did not contain any compounds with a detected concentration exceeding a dCUL at any time in 2017.
- The presence of NAPL on the water table in MW-52S contributed to groundwater concentrations in MW-52S during 2017.
- The current groundwater monitoring network is adequate to assess and evaluate ongoing groundwater quality at the Site.

- Current groundwater quality continues to indicate that the SVE system is an effective remedial technology and protective of groundwater quality for contamination associated with Zone A.
- The covers at Zones B, C/D, and E have been effective in protecting groundwater quality in these areas.
- While approximately 32,257 pounds of total VOCs were removed from the Zone A landfill in 2017, the SVE system removal rate was limited due to the lack of operation of the intermediate depth SVE wells during 2017.
- Vacuum monitoring throughout Zone A, during 2017, confirms that changes in shallow well extraction rates have a radius of influence encompassing all shallow vacuum monitoring points completed beneath the Zone A cover, within the boundary wall.
- The protective barrier wall along the northern and northeastern boundaries of the Zone A landfill effectively limited air flow airflow between the SVE system and the Balefill Area during 2017. This is evidenced by vacuum measurements in shallow probes in the Balefill Area outside of the protective barrier wall being uninfluenced by significant changes in SVE system airflow during 2017.
- Settlement of the Zone A cover continued during 2017 at significantly lower rates than in prior years.
- Concentrations of condensate produced during operation of the SVE system were beneath hazardous and dangerous waste concentration limits during 2017.

10 REFERENCES

Anchor QEA, LLC. 2016. *Pasco Landfill: Proposed Modifications to the Existing Interim Actions Ground Water Monitoring Program*. 24 June.

Anchor QEA, AMEC Foster Wheeler, and Environmental Partners, Inc. (EPI). 2017. *Draft Final Focused Feasibility Study*. 31 August.

Anchor QEA, LLC. 2017. *Enforcement Order Task 3 Work Plan*. January. Revised 2017, March.

Environmental Partners, Inc. (EPI). 2012. *Proposed Flowrates for Upgraded Zone A SVE System and Communications Protocol*. 4 December.

Environmental Partners, Inc. (EPI). 2013. *As-Built and Testing Reports with Operations and Maintenance Manual As-Built and Testing Reports with Operations and Maintenance Manual*. 25 February.

Environmental Partners, Inc. (EPI). 2013. *Operations and Maintenance Manual for Industrial Waste Area Caps – Zones A, C/D, and E – Pasco Landfill Site Pasco, Washington*. 21 November.

Environmental Partners, Inc. (EPI). 2014. *Addendum No. 1 – Volume 1 – As-Built Report for SVE System Upgrades*. 20 February.

Environmental Partners, Inc. (EPI). 2014. *The Revised Site-Wide Groundwater Performance and Protection Monitoring Operations and Maintenance Manual – Pasco Landfill Site*. 9 May. Revised 10 October.

Environmental Partners, Inc. (EPI). 2015. *Addendum No. 2 – Volume 1 – As-Built Report for SVE System Upgrades*. 8 May.

Environmental Partners, Inc. (EPI). 2015. *Engineering Design Report for SVE System with Regenerative Thermal Oxidation Upgrade*. 27 May.

Environmental Partners, Inc. (EPI). 2016. *Addendum No. 1 – Volume 3 – As-Built Report for SVE System Upgrades As-Built and Testing Reports with Operations and Maintenance Manual Attachment A – Sampling and Analysis Plan*. 29 July.

Environmental Partners, Inc. (EPI). 2017. *Addendum No. 1 – Zone A Liner Repair Details to Appendix A – Field Program Activities for Zone A Combustion Evaluation Report*. 6 October.

Fauske Associates. 2017. *Determination of Autoignition Temperature for GI2-32-082117*. August.

GSI Environmental Inc., and SCS Engineers (SCS), Anchor QEA, LLC., Environmental Partners, Inc. 2017. *Zone A Combustion Evaluation Report*. 24 April. Revised 29 April.

IWAG Group III. 2013. *Pasco Landfill Site Updated Institutional Controls Plan – Revision 1*. 7. October.

IWAG Group III. 2016. *Second Revised Detailed Work Plan to Evaluate Potential Combustion in Zone A*. 9 December.

PBS Engineering and Environmental Inc. (PBS). 2016. *Addendum No. 1 to Volume 3 – As-Built Report for SVE System Upgrades – Attachment A – Sampling and Analysis Plan*. 29 July.

PBS Engineering and Environmental Inc. (PBS). 2017. *2016 Annual Report - Groundwater Monitoring and Interim Action Performance Monitoring*. 16 March.

PBS Engineering and Environmental Inc. (PBS). 2017. *Addendum No. 1 – Operations and Maintenance Manual for Industrial Waste Area Caps – Zone A, C/D, and E*. March.

PBS Engineering and Environmental Inc. (PBS). 2017. *Second Quarter 2017 Groundwater Monitoring and Interim Action Performance Monitoring Report*. 15 September. Revised 9 October.

PBS Engineering and Environmental Inc. (PBS). 2017. *Site-Wide Groundwater Performance and Protection Monitoring Operations and Maintenance Manual*. 10 October.

PBS Engineering and Environmental Inc. (PBS). 2017. *Cone Penetrometer Testing Report*. 17 October. Revised 30 October.

PBS Engineering and Environmental Inc. (PBS) and SCS Engineers (SCS). 2017. *Work Plan to Investigate the Zone A Cover System*. 8 November.

PBS Engineering and Environmental Inc. (PBS). 2017. *Operations and Maintenance Manual -Soil Vapor Extraction System and Regenerative Thermal Oxidizer – Volume 2: SVE System O&M Manual (2017 Upgrades).* 13 December.

PBS Engineering and Environmental Inc. (PBS). 2017. *Third Quarter 2017 Groundwater Monitoring and Interim Action Performance Monitoring Report*. 18 December.

PBS Engineering and Environmental Inc. (PBS). 2017. *Operation and Maintenance Manual Soil Vapor Extraction System and Regenerative Thermal Oxidizer Volume 1: SVE System O&M Manual (2017 Upgrades)*. 13 December.

PBS Engineering and Environmental Inc. (PBS). 2017. *Operation and Maintenance Manual Soil Vapor Extraction System and Regenerative Thermal Oxidizer Volume 2: RTO System O&M Manual (2017 Installation)*. 13 December.

PBS Engineering and Environmental Inc. (PBS). 2018. *2017 Annual Report: Regenerative Thermal Oxidizer Performance Monitoring*. 31 January.

PBS Engineering and Environmental Inc. (PBS). 2018. *Zone A Cover Investigation Summary Report*. 5 March.

PSC. 1998. *Risk Assessment/Cleanup Level Analysis Report*.

SCS Engineers (SCS). 2017. *First Quarter 2017 Groundwater Monitoring and Interim Action Performance Monitoring Report*. 16 June. Including SCS Engineers. 2017. *Technical Memorandum – Updated Cover Settlement Evaluation, Industrial Waste Area Zone A*. March.

SCS Engineers. 2017. *Technical Memorandum – Addendum to Cover Settlement Evaluation - Industrial Waste Area Zone A*. August.

SCS Engineers (SCS). 2017. *Technical Memorandum Addendum to Cover Settlement Evaluation Industrial Waste Area – Zone A*. September

Washington State Department of Ecology, Air Quality Program. 2016. *Administrative Order Docket # 13922*. 29 November.

Washington State Department of Ecology (Ecology). 2017. *Approval Order #16AQ-E031*. 2 May.

Winegar, E. 2017. *Technical Memorandum – Reasons Why MS/MSD Cannot Be Performed on SVE Samples Using Modified Method 25C*. 9 February.

Winegar, E. 2017. *Technical Memorandum – Why No Sample Composition Corrections to Method 25C Data Are Appropriate*. 5 March.

Winegar, E. and PBS. 2017. *Performance Testing of Anguil Regenerative Thermal Oxidizer*. 7 June.

Winegar, E. and PBS Engineering and Environmental Inc. (PBS). 2017. *Performance Testing of Anguil Regenerative Thermal Oxidizer*. 3 August.

Winegar, E. and PBS Engineering and Environmental Inc. (PBS). 2017. *Engineering Test of Anguil Regenerative Thermal* Oxidizer. 14 August.

Winegar et al. 2017. *Performance Summary Report for Anguil Regenerative Thermal* Oxidizer. 7 November.

TABLES

Table 1
Wells Sampled and Analyses Performed
2017 Annual Report
Pasco Landfill NPL Site, Pasco, WA

PERIOD: 1/1 - 12/31/2017

WELL	Jan/Q1	Apr/Q2					Jun	Jul/Q3	Aug Sep	Oct/Q4					Nov Dec
	VOCs with SIM	VOCs with SIM	SVOCs with SIM	Herbicides	Landfill Parameters	Total Chromium	VOCs with SIM	VOCs with SIM	VOCs with SIM	VOCs with SIM	SVOCs with SIM	Herbicides	Landfill Parameters	Total Chromium	VOCs with SIM
Performance Monitoring Wells - Municipal Solid Waste Landfill															
4R	X	X	-	-	X	X	-	X	-	X	-	-	X	X	-
MW-16S	X	X	-	-	X	X	-	X	-	X	-	-	X	X	-
MW-17SR	-	X	-	-	X	-	-	-	-	X	-	-	X	-	-
MW-23S	-	X	-	-	X	-	-	-	-	X	-	-	X	-	-
Performance Monitoring Wells - Zone A															
EE-2	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
MW-13S	X	X	-	-	-	-	-	X	-	X	-	-	-	-	-
MW-47S	X	X	X	-	-	X	X	X	X	X	X	-	-	X	X
MW-47I	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
MW-50S	X	X	X	-	-	X	X	X	X	X	X	-	-	X	X
MW-52S	X	X	X	X	-	-	X	X	X	X	X	X	-	-	X
MW-53S	X	X	X	X	-	-	X	X	X	X	X	X	-	-	X
NVM-01	X	X	-	-	-	-	X	X	X	X	-	-	-	-	X
Performance Monitoring Wells - Zone B															
MW-26SR	-	X	X	X	-	-	-	-	-	X	X	X	-	-	-
Performance Monitoring Wells - Zone C/D															
MW-55S	X	X	-	-	-	X	-	X	-	X	-	-	-	X	-
Performance Monitoring Wells - Zone E															
MW-27SR	X	X	-	-	-	X	-	X	-	X	-	-	-	X	-
Sentinel Wells															
MW-15S	X	X	-	-	-	-	-	X	-	X	-	-	-	-	-
MW-18S	X	X	-	-	-	-	-	X	-	X	-	-	-	-	-
MW-19S	X	X	-	-	X	X	-	X	-	X	-	-	X	X	-
2R	X	X	-	-	-	-	-	X	-	X	-	-	-	-	-
2I	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
MW-12S	X	X	-	-	-	-	-	X	-	X	-	-	-	-	-
MW-12ID	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
MW-49S	X	X	-	-	-	-	-	X	-	X	-	-	-	-	-
MW-49I	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
Property Boundary Wells															
MW-22S	-	X	-	-	-	X	-	-	-	X	-	-	-	X	-
MW-24S	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
MW-10S	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
MW-11S	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
MW-11I	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
MW-51S	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-

Table 1
Wells Sampled and Analyses Performed
2017 Annual Report
Pasco Landfill NPL Site, Pasco, WA

PERIOD: 1/1 - 12/31/2017

WELL	Jan/Q1	Apr/Q2					Jun	Jul/Q3	Aug Sep	Oct/Q4					Nov Dec
	VOCs with SIM	VOCs with SIM	SVOCs with SIM	Herbicides	Landfill Parameters	Total Chromium	VOCs with SIM	VOCs with SIM	VOCs with SIM	VOCs with SIM	SVOCs with SIM	Herbicides	Landfill Parameters	Total Chromium	VOCs with SIM
Downgradient Wells															
MW-29S	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
MW-29I	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
MW-31S	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
MW-34S	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
MW-37S	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
MW-38S	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
MW-38I	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
MW-40S	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
MW-41SR	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
MW-42S	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
MW-43S	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
MW-43I	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
MW-44S	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
MW-45S	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
MW-46S	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
MW-54I	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
Upgradient Wells															
MW-20S	-	-	-	-	X	X	-	-	-	-	-	-	X	X	-
MW-25SR	-	X	X	X	-	-	-	-	-	X	X	X	-	-	-
Residential Wells															
Bonnie1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bradley	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
Hand	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
Hommes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lopez	-	X	-	-	-	-	-	-	-	*	-	-	-	-	-
Montalvo	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
Norvell	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Norvell2	-	*	-	-	-	-	-	-	-	X	-	-	-	-	-
Rada	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
Reisinger2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rindt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Salinas	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
West	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
Yenney1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Yenney2	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
Yenney3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* No access to residential well.
Landfill parameters include analysis for nitrate, ammonia, sulfate, manganese, total dissolved solids, alkalinity, bicarbonate, chloride, total organic carbon, calcium, iron, magnesium, potassium, and sodium.

TABLE 2
Site-Wide Groundwater Elevation Data
2017 Annual Report
Pasco Landfill NPL Site

PERIOD: 1/1 - 12/31/2017

WELL ID	Q2	Q3	Q4	RANGE
#9	358.56	357.32	356.25	2.31
1R	352.56	353.94*	351.62	0.94
2I	352.87	351.94	351.31	1.56
2R	352.75	351.81	351.48	1.27
4R	357.80	356.52	355.49	2.31
8R	356.74	355.78	354.70	2.04
EE-2	353.34	362.56*	349.73	3.61
EE-6R	357.16	355.96	354.98	2.18
MW-10S	352.01	351.14	350.60	1.41
MW-11S	351.85	350.99	351.51*	0.86
MW-11I	350.66	351.66	350.44	1.22
MW-12S	352.87	351.94	351.35	1.52
MW-12ID	352.85	351.88	351.36	1.49
MW-13S	353.19	354.12*	352.78*	0.00
MW-14S	354.51	353.39	352.80	1.71
MW-15S	353.50	352.45	351.83	1.67
MW-16S	359.42	358.00	356.90	2.52
MW-17SR	355.15	354.15	353.31	1.84
MW-18S	355.64	354.45	353.66	1.98
MW-19S	357.62	356.32	355.33	2.29
MW-20S	360.13	357.61	357.51	2.62
MW-22S	353.65	352.61	353.40	1.04
MW-23S	356.97	355.58	354.74*	1.39
MW-24S	352.63	351.70	352.85*	0.93
MW-25SR	358.42	356.95	356.05	2.37
MW-26SR	357.54	355.98	355.19	2.35
MW-27SR	358.30	357.00	355.95	2.35
MW-28S	363.25	361.64*	360.28	2.97
MW-29S	350.57	349.74	349.24	1.33
MW-29I	350.14	348.89	349.38	1.25
MW-30S	350.04	348.95	348.91	1.13
MW-31S	350.36	349.66	349.15	1.21
MW-32S	350.27	349.35	349.17	1.10
MW-34S	349.40	348.76	349.19	0.64
MW-36S	348.75	348.72	347.57	1.18
MW-37S	348.68	348.18	347.57	1.11
MW-38S	348.47	348.00	347.33	1.14
MW-38I	348.41	347.98	348.31	0.43

TABLE 2
Site-Wide Groundwater Elevation Data
2017 Annual Report
Pasco Landfill NPL Site

PERIOD: 1/1 - 12/31/2017

WELL ID	Q2	Q3	Q4	RANGE
MW-40S	348.07	355.05*	346.45	1.62
MW-41SR	348.25	347.85	347.11	1.14
MW-42S	347.81	352.34*	347.44	0.37
MW-43S	347.90	347.51	346.76	1.14
MW-43I	347.80	347.36	346.71	1.09
MW-44S	347.84	347.42	346.73	1.11
MW-45S	348.24	347.78	347.07	1.17
MW-46S	349.65	348.96	348.40	1.25
MW-47S	353.11	352.17	351.54	1.57
MW-47I	353.13	354.04	351.52	2.52
MW-48S	353.03	352.02	351.49	1.54
MW-49S	352.54	351.45	351.02	1.52
MW-49I	352.43	351.52	351.01	1.42
MW-50S	353.31	352.97	351.76	1.55
MW-51S	352.11	351.18	350.66	1.45
MW-52S	353.92	352.67**	352.05	1.87
MW-53S	353.42	352.41	351.74	1.68
MW-54I	346.78	346.41	345.80	0.98
MW-55S	357.23	356.08	354.97	2.26
NVM-01	353.03	351.85	351.47	1.56
NW-1	NM	345.67*	NM	--
NW-5	367.11	NM	363.55	3.56

Notes:

Water levels were not collected in Quarter 1.

* Measurement appears to be erroneous. Not used to map contours or calculate range.

** Water level elevation not corrected for NAPL thickness

NM = Water level not measured.

Elevations are measured in feet above mean sea level.

Vertical Datum is based on NAVD 1988

TABLE 3
Zone A Groundwater Elevation Data
2017 Annual Report
Pasco Landfill NPL Site

PERIOD: 1/1 - 12/31/2017

WELL ID	Q2-April	Q3-July	August	September	Q4-October	November	December
MW-47S	353.11	352.17	351.25	351.16	351.54	351.87	352.11
MW-50S	353.31	352.97	352.58	351.41	351.76	352.08	NM
MW-52S	353.92	352.67**	351.90**	351.71**	352.05	352.48	352.84
MW-53S	353.42	352.41	351.60	351.46	351.74	352.02	352.36
NVM-01	353.03	351.85	351.24	351.10	351.47	351.87	NM

Notes:
NM = Water level not measured.
** Water level elevation not corrected for NAPL thickness
Elevations are measured in feet above mean sea level.
Vertical Datum is based on NAVD 1988

PERIOD: 1/1 - 12/31/17

TABLE 4
Evaluation of Vertical Gradients
2017 Annual Report
Pasco Landfill NPL Site

	Shallow Well	Water Elevation (in feet)	Shallow to Intermediate Vertical Piezometric Gradient (in feet/foot)	Intermediate Well	Elevation at Center of Screen (in feet)	Water Elevation (in feet)
April 2017						
Zone A Wells	**2R**	352.75	-0.005	**2I**	327.50	352.87
	MW-12S	352.87	<±0.001	**MW-12ID**	326.80	352.85
	MW-47S	353.11	<±0.001	**MW-47I**	326.70	353.13
	MW-49S	352.54	0.005	**MW-49I**	328.90	352.43
Off Property Wells	**MW-11S**	351.85	0.052	**MW-11I**	328.94	350.66
	MW-29S	350.57	0.022	**MW-29I**	331.39	350.14
	MW-38S	348.47	0.004	**MW-38I**	333.17	348.41
	MW-43S	347.90	0.005	**MW-43I**	327.22	347.80
July 2017						
Zone A Wells	**2R**	351.81	-0.005	**2I**	327.50	351.94
	MW-12S	351.94	0.002	**MW-12ID**	326.80	351.88
	MW-47S	352.17	-0.073	**MW-47I**	326.70	354.04
	MW-49S	351.45	-0.003	**MW-49I**	328.90	351.52
Off Property Wells	**MW-11S**	350.99	-0.030	**MW-11I**	328.94	351.66
	MW-29S	349.74	0.046	**MW-29I**	331.39	348.89
	MW-38S	348.00	0.001	**MW-38I**	333.17	347.98
	MW-43S	347.51	0.007	**MW-43I**	327.22	347.36
October 2017						
Zone A Wells	**2R**	351.48	0.007	**2I**	327.50	351.31
	MW-12S	351.35	<±0.001	**MW-12ID**	326.80	351.36
	MW-47S	351.54	<±0.001	**MW-47I**	326.70	351.52
	MW-49S	351.02	<±0.001	**MW-49I**	328.90	351.01
Off Property Wells	**MW-11S**	351.51*	-	**MW-11I**	328.94	350.44
	MW-29S	349.24	-0.008	**MW-29I**	331.39	349.38
	MW-38S	347.33	-0.069	**MW-38I**	333.17	348.31
	MW-43S	346.76	0.003	**MW-43I**	327.22	346.71

Notes:
Water levels were not collected in Quarter 1.
* Measurement appears to be erroneous. Not used to calculate piezometric gradient.
Elevations are measured in feet above mean sea level.
Vertical Datum is based on NAVD 1988

PERIOD: 1/1 - 12/31/17

TABLE 5
Well Stabilization Parameters
2017 Annual Report
Pasco Landfill NPL Site

Well	Date	Dissolved Oxygen (mg/l)	Oxidation Reduction Potential (mV)	pH	Specific Conductivity (mS/m)	Temperature (°C)	Turbidity (NTU)
2I	4/18/2017	6.1	250	7.45	60.5	20.6	0.1
	10/17/2017	5.1	231	7.43	73.6	17.9	0.1
2R	1/23/2017	3.4	127	7.44	59.0	17.0	0.6
	4/18/2017	5.5	200	7.81	61.5	20.6	0.2
	7/18/2017*	29	195	8.32	75.2	21.6	0.1
	10/17/2017	5.0	209	7.53	73.2	18.2	0.2
4R	1/24/2017	2.6	138	7.52	67.3	18.3	0.3
	4/19/2017	4.4	130	7.63	71.9	20.4	0.1
	7/18/2017*	28	173	8.64	87.5	21.6	0.2
	10/18/2017	2.0	174	7.65	44.9	17.4	0.2
EE-2	4/18/2017	4.7	197	8.43	62.8	21.8	0.1
	10/17/2017	4.3	190	7.74	74.4	18.6	0.2
MW-10S	4/20/2017	5.7	129	8.77	78.1	20.2	0.2
	10/17/2017	4.4	158	7.71	75.4	18.4	0.2
MW-11I	4/20/2017	5.8	157	8.81	79.2	19.8	0.1
	10/17/2017	4.4	185	7.64	80.7	17.6	0.1
MW-11S	4/20/2017	6.0	133	8.78	88.6	20.3	0.1
	10/17/2017	4.3	188	7.59	94.6	18.2	0.2
MW-12ID	4/18/2017	4.9	175	8.34	59.9	20.5	0.4
	10/17/2017	4.4	177	7.85	73.9	18.3	0.3
MW-12S	1/23/2017	3.3	176	7.00	61.2	17.7	0.2
	4/18/2017	4.3	166	8.13	65.2	21.6	0.5
	7/18/2017*	11	126	9.35	89.8	22.5	0.3
	10/17/2017	2.2	172	7.73	88.6	19.0	0.2
MW-13S	1/23/2017	4.7	219	6.58	58.6	19.3	0.1
	4/18/2017	5.3	202	7.93	62.3	20.9	0.2
	7/18/2017*	31	171	8.75	82.2	22.0	0.1
	10/17/2017	4.1	150	8.12	76.5	18.7	0.1
MW-15S	1/24/2017	5.8	164	6.97	85.6	18.2	0.3
	4/20/2017	5.8	163	7.96	123	20.2	0.4
	7/18/2017*	32	185	8.51	105	21.3	0.4
	10/17/2017	2.2	158	7.76	91.6	18.0	0.3
MW-16S	1/24/2017	2.3	114	7.54	64.8	16.4	0.1
	4/19/2017	5.0	125	7.51	67.4	20.6	0.1
	7/18/2017*	20	175	8.55	84.7	21.5	0.3
	10/18/2017	3.4	144	7.86	77.0	17.3	0.4
MW-17SR	4/20/2017	6.0	109	8.97	78.4	20.7	0.2
	10/18/2017	5.4	174	8.10	37.8	17.7	0.1
MW-18S	1/24/2017	4.3	87	7.96	61.1	18.9	0.1
	4/20/2017	6.0	147	8.65	77.1	20.1	0.0
	7/18/2017*	35	170	8.65	75.2	21.8	0.2
	10/17/2017	4.3	132	8.13	73.9	18.4	0.1
MW-19S	1/24/2017	4.2	165	7.65	65.0	15.4	0.1
	4/19/2017	5.1	132	7.73	69.6	20.9	0.2
	7/18/2017*	16	165	9.00	93.7	21.9	0.4
	10/19/2017	5.0	161	7.92	81.2	18.0	0.2

Well	Date	Dissolved Oxygen (mg/l)	Oxidation Reduction Potential (mV)	pH	Specific Conductivity (mS/m)	Temperature (°C)	Turbidity (NTU)
MW-20S	4/19/2017	5.0	103	8.01	61.6	21.0	0.1
	10/18/2017	5.6	135	8.18	74.4	18.1	0.2
MW-22S	4/19/2017	4.2	141	7.85	67.4	20.6	0.2
	10/19/2017	4.7	158	8.13	82.2	17.8	0.1
MW-23S	4/19/2017	5.2	166	7.72	62.4	20.6	0.1
	10/18/2017	3.1	183	8.00	77.6	17.0	0.1
MW-24S	4/20/2017	5.3	156	8.79	85.7	20.5	0.2
	10/17/2017	5.5	255	7.59	86.9	17.8	0.1
MW-25SR	4/21/2017	5.9	131	7.75	74.2	19.0	0.1
	10/20/2017	6.7	155	8.21	74.0	17.4	0.1
MW-26SR	4/21/2017	5.9	499	4.57	32.5	17.9	0.7
	10/20/2017	7.4	117	8.12	72.4	16.8	0.6
MW-27SR	1/24/2017	3.4	129	7.92	60.9	17.9	0.2
	4/19/2017	4.7	121	7.88	61.8	21.1	0.1
	7/18/2017*	17	157	9.33	76.0	22.6	0.1
	10/19/2017	5.0	141	8.16	74.7	18.3	0.2
MW-29I	4/19/2017	4.4	133	7.81	60.8	21.2	0.0
	10/17/2017	3.9	124	8.17	76.8	19.0	0.2
MW-29S	4/19/2017	4.3	123	7.73	63.4	21.5	0.4
	10/17/2017	4.0	148	8.14	78.6	19.3	0.1
MW-31S	4/19/2017	4.6	131	7.65	67.3	21.3	0.1
	10/18/2017	5.0	166	8.15	85.0	18.0	0.4
MW-34S	4/18/2017	4.9	161	8.46	68.6	21.6	0.1
	10/19/2017	5.1	146	8.03	85.8	18.1	0.2
MW-37S	4/18/2017	5.0	140	8.46	67.3	21.5	0.3
	10/19/2017	4.9	125	8.05	84.0	18.3	0.3
MW-38I	4/19/2017	5.5	161	7.51	62.8	20.8	0.1
	10/19/2017	5.8	144	8.12	77.9	18.6	0.1
MW-38S	4/19/2017	5.4	129	7.65	61.8	20.7	0.1
	10/19/2017	7.1	137	8.18	63.2	18.0	0.2
MW-40S	4/18/2017	5.0	117	8.47	67.3	21.4	1.3
	10/18/2017	4.3	154	8.22	80.9	18.2	0.4
MW-41SR	4/18/2017	5.8	173	8.63	57.3	21.5	0.6
	10/19/2017	5.9	144	8.18	70.2	18.8	1.8
MW-42S	4/18/2017	5.3	162	8.44	66.6	21.7	0.1
	10/18/2017	4.3	140	8.12	78.2	18.4	0.3
MW-43I	4/18/2017	4.8	178	8.45	64.0	21.4	0.1
	10/18/2017	4.0	155	8.22	77.3	18.2	0.1
MW-43S	4/18/2017	4.7	153	8.46	64.3	21.4	0.0
	10/18/2017	3.8	131	8.22	82.1	18.5	0.2
MW-44S	4/18/2017	4.8	163	8.34	72.6	22.2	0.1
	10/18/2017	4.8	154	8.15	87.1	18.5	0.2
MW-45S	4/18/2017	4.7	167	8.48	68.1	21.8	0.3
	10/18/2017	3.9	126	8.16	81.8	18.5	0.6
MW-46S	4/19/2017	4.6	144	7.59	65.7	20.7	0.2
	10/19/2017	6.1	177	8.00	39.2	17.8	0.1

Well	Date	Dissolved Oxygen (mg/l)	Oxidation Reduction Potential (mV)	pH	Specific Conductivity (mS/m)	Temperature (°C)	Turbidity (NTU)
MW-47I	4/19/2017	4.4	128	7.85	60.6	20.0	0.1
	10/17/2017	4.3	154	8.06	73.5	18.0	0.1
MW-47S	1/23/2017	0.0	-41	7.13	66.6	18.1	0.9
	4/21/2017	2.7	-127	9.26	98.0	22.9	3.0
	6/20/2017	6.7	-56	7.59	128	31.4	10
	7/19/2017*	10	-91	8.87	99.2	25.2	5.0
	8/29/2017	0.8	-139	8.75	110	21.8	9.3
	9/19/2017	0.7	-121	8.65	101	19.5	7.1
	10/20/2017	0.1	-99	7.89	80.9	19.4	9.6
	11/15/2017	0.9	-171	7.33	57.4	18.9	6.4
	12/12/2017	6.7	-154	7.45	60.0	18.0	1.7
MW-49I	4/18/2017	5.1	215	8.11	60.3	20.1	0.1
	10/17/2017	3.7	163	8.15	73.1	18.2	0.1
MW-49S	1/23/2017	1.1	179	6.50	63.6	18.8	0.0
	4/18/2017	3.1	191	7.77	64.9	20.4	0.0
	7/18/2017*	50	183	8.45	91.0	22.1	0.1
	10/17/2017	0.0	136	7.74	90.1	18.7	0.1
MW-50S	1/23/2017	0.0	110	7.20	75.8	18.1	0.1
	4/21/2017	2.3	45	9.13	109	23.2	0.2
	6/20/2017	5.0	79	7.49	123	25.8	0.7
	7/19/2017*	10.3	57	8.69	123	24.8	0.1
	8/29/2017	3.0	31	8.66	149	22.5	0.2
	9/19/2017	0.0	26	8.56	122	20.3	0.2
	10/20/2017	0.0	71	7.78	95.1	19.7	0.1
	11/15/2017	0.0	-9	7.19	65.3	18.0	0.2
	12/12/2017	1.4	-5	7.41	66.4	18.0	0.4
MW-51S	4/20/2017	5.3	149	8.89	78.7	19.9	0.1
	10/17/2017	4.7	203	7.61	79.6	17.8	0.2
MW-52S	1/24/2017	4.5	-179	7.43	71.8	22.1	9.7
	4/21/2017	1.9	-246	8.23	113	30.1	1.9
	6/20/2017	9.0	-195	6.31	103	32.3	2.6
	7/19/2017*	5.2	-197	7.79	90.8	30.6	3.0
	10/20/2017	1.0	-91	7.47	99.1	24.7	5.2
	11/15/2017	0.0	-126	6.88	69.7	20.7	4.6
	12/12/2017	1.8	-142	7.31	68.2	23.4	2.1
MW-53S	1/24/2017	6.4	25	6.44	70.2	20.9	0.2
	4/21/2017	9.4	52	9.37	96.6	25.6	0.2
	6/20/2017	7.7	88	7.70	94.8	31.0	0.3
	7/19/2017*	7.6	-9	8.27	90.8	29.8	0.8
	8/29/2017	9.0	77	8.96	97.5	26.4	0.2
	9/19/2017	4.9	-85	8.48	89.7	23.0	0.8
	10/20/2017	7.9	124	7.93	87.3	22.9	0.3
	11/15/2017	7.2	-114	7.22	61.2	19.7	0.4
	12/12/2017	7.6	37	7.60	65.2	20.8	0.8
MW-54I	4/18/2017	4.8	204	8.42	68.0	20.4	0.1
	10/18/2017	4.7	187	8.18	88.6	17.1	0.1

Well	Date	Dissolved Oxygen (mg/l)	Oxidation Reduction Potential (mV)	pH	Specific Conductivity (mS/m)	Temperature (°C)	Turbidity (NTU)
MW-55S	1/24/2017	2.1	96	7.90	61.0	18.8	0.2
	4/19/2017	4.7	108	7.94	62.6	21.4	0.3
	7/18/2017*	14.0	147	9.45	75.8	22.2	0.3
	10/19/2017	4.6	135	8.15	75.1	18.5	0.1
NVM-01	1/23/2017	0.0	118	6.97	66.6	17.9	0.2
	4/19/2017	2.4	85	7.61	76.0	22.7	0.6
	6/20/2017	7.5	155	6.64	46.4	27.2	0.3
	7/18/2017*	9.5	93	9.27	107	23.9	0.7
	8/29/2017	3.5	79	8.44	117	21.7	0.6
	9/19/2017	0.9	84	8.61	106	19.9	0.2
	10/17/2017	0.0	106	7.80	87.1	20.5	0.4
	11/15/2017	1.7	39	7.11	62.4	18.4	0.3
	12/12/2017	3.7	62	6.59	64.5	19.3	0.3
BRADLEY	4/20/2017	4.5	247	8.76	92.2	20.2	0.1
	10/19/2017	3.5	245	7.94	86.7	16.1	0.2
HAND	4/20/2017	4.5	166	8.83	94.1	19.4	0.1
	10/19/2017	2.0	195	8.05	87.5	16.6	0.1
LOPEZ	4/20/2017	3.3	-18	8.91	76.8	20.2	12.5
MONTALVO	4/20/2017	5.3	144	8.81	88.5	19.2	0.1
	10/19/2017	4.6	157	7.97	83.0	16.1	0.1
NORVELL2	10/20/2017	3.6	173	7.98	81.3	16.2	0.1
RADA	4/20/2017	6.6	139	8.84	88.2	19.4	0.2
	10/19/2017	5.2	194	8.00	82.5	16.3	0.1
SALINAS	4/20/2017	5.6	104	8.86	81.8	20.1	0.2
	10/19/2017	4.3	158	8.03	75.8	16.5	0.1
WEST	4/20/2017	1.2	-87	9.00	44.1	16.5	7.5
	10/19/2017	3.2	106	8.30	67.2	16.3	28
YENNEY2	4/20/2017	5.9	112	8.88	79.0	18.9	0.2
	10/19/2017	4.5	123	8.09	76.2	16.0	0.3

Notes:
Second and third quarter pH data for most of the site wells are elevated and likely due to instrument error.
* Indicates anomalous reading due to instrument error.
Stabilization measurements for the third quarter, except turbidity, appeared to be effected by instrument error.
Instrument repair and maintenance was performed following the third quarter sampling.

TABLE 6A
Volatile Organic Compounds in Groundwater
Compounds Detected Outside of Zone A (in ug/L)
2017 Annual Report
Pasco Landfill NPL Site

Well Group	Well	Date	Tetra chloro ethene	Tri chloro ethene	1,1-Dichloro ethene	1,2-Dichloro ethane	Toluene
2014 Draft Clean-up Levels (µg/L)			**0.69**	**2.5**	**0.057**	**0.38**	**615**
Municipal Solid Waste (MSW) Landfill Wells	**4R**	1/24/2017	0.36	0.12	<0.020 U	<0.020 U	<2.0 U
		4/19/2017	0.42	0.14	<0.020 U	<0.020 U	<2.0 U
		7/18/2017	0.53	0.14	<0.020 U	<0.020 U	<2.0 U
		10/18/2017	**0.90**	0.17	<0.020 U	<0.020 U	<2.0 U
	MW-16S	1/24/2017	<0.20 U	0.084	<0.020 U	<0.020 U	<2.0 U
		4/19/2017	0.28	0.089	<0.020 U	<0.020 U	<2.0 U
		7/18/2017	0.39	0.18	<0.020 U	<0.020 U	<2.0 U
		10/18/2017	0.24	0.066	<0.020 U	<0.020 U	<2.0 U
	MW-17SR	4/20/2017	<0.20 U	0.062	<0.020 U	<0.020 U	<2.0 U
		10/18/2017	<0.20 U	0.083	<0.020 U	<0.020 U	<2.0 U
Zone A Wells	**EE-2**	4/18/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		10/17/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
	MW-13S	1/23/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		4/18/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		7/18/2017	<0.20 U	0.091	<0.020 U	<0.020 U	<2.0 U
		10/17/2017	<0.20 U	0.077	<0.020 U	<0.020 U	<2.0 U
	MW-47S	1/23/2017	<0.20 U	0.097	<0.020 U	<0.020 U	<2.0 U
		4/21/2017	<0.20 U	0.14	<0.020 U	<0.020 U	4.9
		6/20/2017	<0.20 U	0.11	<0.020 U	<0.020 U	<2.0 U
		7/19/2017	<0.20 U	0.12	<0.020 U	<0.020 U	<2.0 U
		8/29/2017	<0.20 U	0.10	<0.020 U	<0.020 U	<2.0 U
		9/19/2017	<0.20 U	0.10	<0.020 U	0.028	<2.0 U
		10/20/2017	<0.20 U	0.13	<0.020 U	<0.020 U	<2.0 U
		11/15/2017	<0.20 U	0.12	<0.020 U	<0.020 U	<2.0 U
		12/12/2017	<0.20 U	0.11	<0.020 U	<0.020 U	<2.0 U
	MW-47I	4/19/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		10/17/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
	MW-50S	1/23/2017	0.20	0.36	<0.020 U	<0.020 U	<2.0 U
		4/21/2017	<0.20 U	0.35	<0.020 U	<0.020 U	<2.0 U
		6/20/2017	<0.20 U	0.37	<0.020 U	<0.020 U	<2.0 U
		7/19/2017	<0.20 U	0.28	<0.020 U	<0.020 U	<2.0 U
		8/29/2017	<0.20 U	0.27	<0.020 U	<0.020 U	<2.0 U
		9/19/2017	<0.20 U	0.24	<0.020 U	0.025	<2.0 U
		10/20/2017	0.25	0.29	<0.020 U	<0.020 U	<2.0 U
		11/15/2017	0.25	0.31	<0.020 U	<0.020 U	<2.0 U
		12/12/2017	0.23	0.32	<0.020 U	<0.020 U	<2.0 U
	MW-52S	1/24/2017	**30**	**580**	**0.46**	**16**	**14,000**
		4/21/2017	**23**	**340**	**0.63**	**36**	**11,000**
		6/20/2017	**19**	**350**	**0.46**	**39**	**11,000**
		7/19/2017	**23**	**380**	**0.33**	**34**	**9,900**
		10/20/2017	**12**	**120**	**0.073**	**4.1**	**3,400**
		11/15/2017	**16**	**81**	0.048	**0.69**	**2,600**
		12/12/2017	**10**	**42**	0.032	**0.93**	**1,500**
	MW-53S	1/24/2017	**0.72**	1.4	<0.020 U	0.091	31
		4/21/2017	0.31	0.31	<0.020 U	<0.020 U	5.9
		6/20/2017	0.35	0.60	<0.020 U	0.026	9.7
		7/19/2017	**0.70**	1.2	<0.020 U	0.072	16
		8/29/2017	**2.7**	2.4	<0.020 U	<0.020 U	25
		9/19/2017	**1.4**	2.3	<0.020 U	0.085	27
		10/20/2017	**2.1**	1.3	<0.020 U	<0.020 U	15
		11/15/2017	**3.7**	**3.8**	<0.020 U	0.044	37
		12/12/2017	**3.5**	1.7	<0.020 U	0.023	19

Results in bold text indicate an exceedance of a dCUL.
EPA Methods 8260 and 8260SIM

U = Compound not detected above reporting limit.
J = Estimated concentration or reporting limit

Well Group	Well	Date	Tetra chloro ethene	Tri chloro ethene	1,1-Dichloro ethene	1,2-Dichloro ethane	Toluene
2014 Draft Clean-up Levels (µg/L)			**0.69**	**2.5**	**0.057**	**0.38**	**615**
Zone A Wells	**NVM-01**	1/23/2017	<0.20 U	0.20	<0.020 U	<0.020 U	<2.0 U
		4/19/2017	<0.20 U	0.31	<0.020 U	0.025	<2.0 U
		6/20/2017	<0.20 U	0.47	<0.020 U	<0.020 U	<2.0 U
		7/18/2017	0.25	0.68	<0.020 U	0.023	<2.0 U
		8/29/2017	<0.20 U	0.36	<0.020 U	<0.020 U	<2.0 U
		9/19/2017	<0.20 U	0.40	<0.020 U	0.028	<2.0 U
		10/17/2017	0.22	0.28	<0.020 U	<0.020 U	<2.0 U
		11/15/2017	0.20	0.23	<0.020 U	<0.020 U	<2.0 U
		12/12/2017	<0.20 U	0.21	<0.020 U	<0.020 U	<2.0 U
Zone B	**MW-26SR**	4/21/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		10/20/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
Zone C/D	**MW-55S**	1/24/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		4/19/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		7/18/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		10/19/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
Zone E	**MW-27SR**	1/24/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		4/19/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		7/18/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		10/19/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
Sentinel Wells	**MW-23S**	4/19/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		10/18/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
Sentinel Wells	**MW-15S**	1/24/2017	0.23	0.25	<0.020 U	<0.020 U	<2.0 U
		4/20/2017	0.38	0.46	<0.020 U	<0.020 U	<2.0 U
		7/18/2017	0.41	0.34	<0.020 U	<0.020 U	<2.0 U
		10/17/2017	0.39	0.26	<0.020 U	<0.020 U	<2.0 U
	MW-18S	1/24/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		4/20/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		7/18/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		10/17/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
	MW-19S	1/24/2017	0.23	0.067	<0.020 U	<0.020 U	<2.0 U
		4/19/2017	0.21	0.076	<0.020 U	<0.020 U	<2.0 U
		7/18/2017	0.31	0.099	<0.020 U	<0.020 U	<2.0 U
		10/19/2017	0.37	0.095	<0.020 U	<0.020 U	<2.0 U
	2R	1/23/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		4/18/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		7/18/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		10/17/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
	2I	4/18/2017	<0.20 U	0.098	<0.020 U	<0.020 U	<2.0 U
		10/17/2017	<0.20 U	0.12	<0.020 U	<0.020 U	<2.0 U
	MW-12S	1/23/2017	<0.20 U	0.13	<0.020 U	<0.020 U	<2.0 U
		4/18/2017	<0.20 U	0.078	<0.020 U	<0.020 U	<2.0 U
		7/18/2017	0.23	0.41	<0.020 U	0.020	<2.0 U
		10/17/2017	<0.20 U	0.34	<0.020 U	<0.020 U	<2.0 U
	MW-12ID	4/18/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		10/17/2017	<0.20 U	0.056	<0.020 U	<0.020 U	<2.0 U
	MW-49S	1/23/2017	<0.20 U	0.17	<0.020 U	0.022	<2.0 U
		4/18/2017	<0.20 U	0.11	<0.020 U	0.020	<2.0 U
		7/18/2017	<0.20 U	0.29	<0.020 U	0.031	<2.0 U
		10/17/2017	<0.20 U	0.17	<0.020 U	<0.020 U	<2.0 U
	MW-49I	4/18/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		10/17/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U

Well Group	Well	Date	Tetra chloro ethene	Tri chloro ethene	1,1-Dichloro ethene	1,2-Dichloro ethane	Toluene
2014 Draft Clean-up Levels (µg/L)			**0.69**	**2.5**	**0.057**	**0.38**	**615**
Property Boundary Wells	**MW-22S**	4/19/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		10/19/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
	MW-24S	4/20/2017	<0.20 U	0.14	<0.020 U	<0.020 U	<2.0 U
		10/17/2017	0.28	0.19	<0.020 U	<0.020 U	<2.0 U
	MW-10S	4/20/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		10/17/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
	MW-11S	4/20/2017	<0.20 U	0.057	<0.020 U	<0.020 U	<2.0 U
		10/17/2017	<0.20 U	0.080	<0.020 U	<0.020 U	<2.0 U
	MW-11I	4/20/2017	<0.20 U	<0.053 U	<0.020 U	0.065	<2.0 U
		10/17/2017	<0.20 U	<0.053 U	<0.020 U	0.054	<2.0 U
	MW-51S	4/20/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		10/17/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
Off-Property Wells	**MW-29S**	4/19/2017	<0.20 U	0.097	<0.020 U	<0.020 U	<2.0 U
		10/17/2017	<0.20 U	0.11	<0.020 U	<0.020 U	<2.0 U
	MW-29I	4/19/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		10/17/2017	<0.20 U	0.080	<0.020 U	<0.020 U	<2.0 U
	MW-31S	4/19/2017	<0.20 U	0.086	<0.020 U	<0.020 U	<2.0 U
		10/18/2017	0.25	0.14	<0.020 U	<0.020 U	<2.0 U
	MW-46S	4/19/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		10/18/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
	MW-34S	4/18/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		10/19/2017	<0.20 U	0.10	<0.020 U	<0.020 U	<2.0 U
	MW-37S	4/18/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		10/19/2017	<0.20 U	0.082	<0.020 U	<0.020 U	<2.0 U
	MW-38S	4/19/2017	<0.20 U	0.31	<0.020 U	0.028	<2.0 U
		10/19/2017	<0.20 U	0.21	<0.020 U	<0.020 U	<2.0 U
	MW-38I	4/19/2017	<0.20 U	0.091	<0.020 U	0.021	<2.0 U
		10/19/2017	<0.20 U	0.13	<0.020 U	<0.020 U	<2.0 U
	MW-40S	4/18/2017	<0.20 U	0.063	<0.020 U	<0.020 U	<2.0 U
		10/18/2017	<0.20 U	0.081	<0.020 U	<0.020 U	<2.0 U
	MW-41SR	4/18/2017	<0.20 U	0.12	<0.020 U	<0.020 U	<2.0 U
		10/19/2017	<0.20 U	0.17	<0.020 U	<0.020 U	<2.0 U
	MW-42S	4/18/2017	<0.20 U	0.059	<0.020 U	<0.020 U	<2.0 U
		10/18/2017	<0.20 U	0.097	<0.020 U	<0.020 U	<2.0 U
	MW-43S	4/18/2017	<0.20 U	0.15	<0.020 U	0.020	<2.0 U
		10/18/2017	<0.20 U	0.19	<0.020 U	<0.020 U	<2.0 U
	MW-43I	4/18/2017	<0.20 U	0.12	<0.020 U	<0.020 U	<2.0 U
		10/18/2017	<0.20 U	0.17	<0.020 U	<0.020 U	<2.0 U
	MW-44S	4/18/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		10/18/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
	MW-45S	4/18/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		10/18/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
	MW-54I	4/18/2017	<0.20 U	0.16	<0.020 U	<0.020 U	<2.0 U
		10/18/2017	<0.20 U	0.22	<0.020 U	<0.020 U	<2.0 U
Upgradient Well	**MW-25SR**	4/21/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		10/20/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U

TABLE 6A
Volatile Organic Compounds in Groundwater
Compounds Detected Outside of Zone A (in ug/L)
2017 Annual Report
Pasco Landfill NPL Site

Well Group	Well	Date	Tetra chloro ethene	Tri chloro ethene	1,1-Dichloro ethene	1,2-Dichloro ethane	Toluene
2014 Draft Clean-up Levels (µg/L)			**0.69**	**2.5**	**0.057**	**0.38**	**615**
Residential Wells	**Bradley**	4/20/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		10/19/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
	Hand	4/20/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		10/19/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
	Lopez	4/20/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
	Montalvo	4/20/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		10/19/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
	Norvell2	10/20/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
	Rada	4/20/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		10/19/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
	Salinas	4/20/2017	<0.20 U	0.13	<0.020 U	<0.020 U	<2.0 U
		10/19/2017	0.24	0.13	<0.020 U	<0.020 U	<2.0 U
	West	4/20/2017	0.34	0.42	0.056	0.024	<2.0 U
		10/19/2017	<0.20 U	0.15	<0.020 U	<0.020 U	<2.0 U
	Yenney2	4/20/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U
		10/19/2017	<0.20 U	<0.053 U	<0.020 U	<0.020 U	<2.0 U

Results in bold text indicate an exceedance of a dCUL.
EPA Methods 8260 and 8260SIM

U = Compound not detected above reporting limit.
J = Estimated concentration or reporting limit

PERIOD: 1/1 - 12/31/2017

TABLE 6B
Volatile Organic Compounds in Groundwater
Compounds Detected in Zone A (in ug/L)
2017 Annual Report
Pasco Landfill NPL Site

Well Group	Well	Date	Chloroethenes					Chloroethanes			Chloromethanes		Chlorobenzenes				Aromatics			
			Tetra chloro ethene	Tri chloro ethene	1,1-Dichloro ethene	cis-1,2-Dichloro ethene	Vinyl Chloride	1,1-Dichloroethane	1,2-Dichloro ethane	Chloro ethane	Methylene Chloride	Chloro methane	1,2,4-Trichloro benzene	1,2-Dichloro benzene	1,4-Dichloro benzene	Chloro benzene	Benzene	1,2,4-Trimethyl benzene	1,3,5-Trimethyl benzene	Ethyl benzene
2014 Draft Clean-up Levels (µg/L)			**0.69**	**2.5**	**0.057**	**16**	**0.069**	-	**0.38**	-	**5**	-	-	-	-	-	**0.79**	-	-	-
Zone A Wells	**MW-52S**	1/24/2017	**30**	**580**	**0.46**	**22**	0.042	20	**16**	<2.0 U	5	<2.0 U	<2.0 U	30	4	6.2	**11**	790	340	2,000
		4/21/2017	**23**	**340**	**0.63**	**36**	<0.032 U	30	**36**	3.9	**20**	<2.0 U	3.3	65	9.8	7.1	**14**	1,200	500	2,000
		6/20/2017	**19**	**350**	**0.46**	**28**	<0.032 U	30	**39**	5.1	**29**	2.9	2.5	82	8	6.6	**15**	1,400	580	2,000
		7/19/2017	**23**	**380**	**0.33**	**28**	<0.032 U	28	**34**	4.1	**18**	2.2	<2.0 U	67	5.8	7.4	**16**	1,400	1,500	2,200
		10/20/2017	**12**	**120**	**0.073**	10	<0.032 U	3.6	**4.1**	<2.0 U	<5.0 U	<2.0 U	<2.0 U	45	4.2	2.5	**3.8**	630	220	840
		11/15/2017	**16**	**81**	0.048	6.7	<0.032 U	<2.0 U	**0.69**	<2.0 U	<5.0 U	<2.0 U	<2.0 U	66	6.6	<2.0 U	**1.3**	1,000	350	1,100
		12/12/2017	**10**	**42**	0.032	4	<0.032 U	<2.0 U	**0.93**	<2.0 U	<5.0 U	<2.0 U	<2.0 U	63	6.2	<2.0 U	**0.79**	1,100	350	640
	MW-53S	1/24/2017	**0.72**	1.4	<0.020 U	<2.0 U	<0.032 U	<2.0 U	0.091	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	0.071	23	10	16
		4/21/2017	0.31	0.31	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	22	11	5
		6/20/2017	0.35	0.60	<0.020 U	<2.0 U	<0.032 U	<2.0 U	0.026	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	6.5	3.1	4.5
		7/19/2017	**0.7**	1.2	<0.020 U	<2.0 U	<0.032 U	<2.0 U	0.072	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	0.053	8.9	4.2	5.9
		8/29/2017	**2.7**	2.4	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	12	5.9	9.5
		9/19/2017	**1.4**	2.3	<0.020 U	<2.0 U	<0.032 U	<2.0 U	0.085	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	0.049	10	5	7.8
		10/20/2017	**2.1**	1.3	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	7.5	4	6.3
		11/15/2017	**3.7**	**3.8**	<0.020 U	<2.0 U	<0.032 U	<2.0 U	0.044	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	0.034	11	5.5	12
		12/12/2017	**3.5**	1.7	<0.020 U	<2.0 U	<0.032 U	<2.0 U	0.023	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	13	7.5	9.3

Well Group	Well	Date	Aromatics										Ketones				Other VOCs		
			Isopropyl benzene	n-Propyl benzene	n-Butyl benzene	sec-Butyl benzene	tert-Butyl benzene	Naphthalene	Styrene	Toluene	p-isopropyl toluene	m,p-Xylene	o-Xylene	Methyl isobutyl ketone	2-Butanone (MEK)	Acetone	2-Hexanone (MBK)	Carbon Disulfide	Ethanol	tert-Butyl Alcohol
2014 Draft Clean-up Levels (µg/L)			-	-	-	-	-	-	-	615	-	-	-	-	-	-	-	-	-	-
Zone A Wells	**MW-52S**	1/24/2017	82	170	27	7.6	<2.0 U	210	1,200	**14,000**	9.7	6,600	2,500	3,700	3,800	7,800	110	<2.0 U	5,600	150
		4/21/2017	110	260	50	30	2.2	220	2,500	**11,000**	38	6,600	2,900	23,000	20,000	64,000	370	<2.0 U	73,000	1,000
		6/20/2017	100	270	57	18	<2.0 U	370	2,000	**11,000**	23	6,400	2,800	35,000	21,000	70,000	790	4.5	12,000	1,100
		7/19/2017	110	240	47	19	<2.0 U	280	2,400	**9,900**	22	7,000	3,100	30,000	12,000	31,000	610	<2.0 U	13,000	360
		10/20/2017	44	110	<2.0 U	6.4	<2.0 U	61	520	**3,400**	8.1	2,800	1,400	3,100	2,900	12,000	100	<2.0 U	<710 U	78
		11/15/2017	64	170	<2.0 U	9.5	<2.0 U	140	660	**2,600**	13	3,900	1,800	470	340	2,200	23	<2.0 U	<710 U	<13 U
		12/12/2017	54	150	35	9.4	<2.0 U	170	390	**1,500**	14	3,000	1,400	610	410	1,700	21	<2.0 U	<710 U	33
	MW-53S	1/24/2017	<2.0 U	3.3	<2.0 U	<2.0 U	<2.0 U	15	<1.5 U	31	<2.0 U	61	23	91	170	430	25	<2.0 U	1500	<13 U
		4/21/2017	<2.0 U	2.5	<2.0 U	<2.0 U	<2.0 U	17	<1.5 U	5.9	<2.0 U	20	10	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
		6/20/2017	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	6.4	<1.5 U	9.7	<2.0 U	16	6.7	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
		7/19/2017	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	9	<1.5 U	16	<2.0 U	22	10	100	110	350	<10 U	<2.0 U	1,400	15
		8/29/2017	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	6.4	<1.5 U	25	<2.0 U	36	17	12	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
		9/19/2017	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	6.7	<1.5 U	27	<2.0 U	32	16	130	96	370	<10 U	<2.0 U	<710 U	23
		10/20/2017	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	1.5	<1.5 U	15	<2.0 U	23	10	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
		11/15/2017	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	4.4	<1.5 U	37	<2.0 U	42	17	110	37	110	<10 U	<2.0 U	<710 U	<13 U
		12/12/2017	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	7.9	<1.5 U	19	<2.0 U	35	17	12	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U

Results in bold text indicate an exceedance of a dCUL.
EPA Methods 8260 and 8260SIM

U = Compound not detected above reporting limit.
J = Estimated concentration or reporting limit

TABLE 7
Semi-Volatile Organic Compounds in Groundwater
Detected Compounds Only (in ug/L)
2017 Annual Report
Pasco Landfill NPL Site

SAMPLED: 1/1 - 12/31/2017

Well	Qtr	1-Methyl naph thalene	2-Methyl naph thalene	2,4-Di methyl phenol	3-&4-Methyl phenol	Ace naphth ene	Anthra cene	Benzo(a) anthra cene	Benzo(a) pyrene	Benzo(b) fluoran thene	Benzo (g,h,i) perylene	Benzo(k) fluoran thene	Benzoic Acid
MW-25SR	Q2	<0.020 U	<0.020 U	<2.0 U	<2.0 U	<0.020 U	<0.020 U	<0.020 U	<0.029 U	<0.030 U	<0.020 U	<0.021 U	<10 U
	Q4	<0.020 U	<0.020 U	<2.0 U	<2.0 U	<0.020 U	<0.020 U	<0.020 U	<0.029 U	<0.030 U	<0.020 U	<0.021 U	<10 U
MW-26SR	Q2	<0.020 U	<0.020 U	<2.0 U	<2.0 U	<0.020 U	<0.020 U	<0.020 U	<0.029 U	<0.030 U	<0.020 U	<0.021 U	<10 U
	Q4	<0.020 U	<0.020 U	<2.0 U	<2.0 U	<0.020 U	<0.020 U	<0.020 U	<0.029 U	<0.030 U	<0.020 U	<0.021 U	<10 U
MW-47S	Q2	<0.020 U	<0.020 U	<2.0 U	<2.0 U	<0.020 U	0.029	0.047	0.18	0.19	0.16	0.18	<10 U
	Q4	<0.020 U	<0.020 U	<2.0 U	<2.0 U	<0.020 U	<0.020 U	<0.020 U	<0.029 U	<0.030 U	<0.020 U	<0.021 U	<10 U
MW-50S	Q2	<0.020 U	<0.020 U	<2.0 U	<2.0 U	<0.020 U	<0.020 U	<0.020 U	<0.029 U	<0.030 U	<0.020 U	<0.021 U	<10 U
	Q4	<0.020 U	<0.020 U	<2.0 U	<2.0 U	<0.020 U	<0.020 U	<0.020 U	<0.029 U	<0.030 U	<0.020 U	<0.021 U	<10 U
MW-52S	Q2	5.6	12	<2.0 U	<2.0 U	0.12	<0.020 U	<0.020 U	0.24	0.16	0.15	0.22	92
	Q4	2.7	4.5	3.1	4.0	0.077	<0.020 U	<0.020 U	<0.029 U	<0.030 U	<0.020 U	<0.021 U	<10 U
MW-53S	Q2	1.8	3.6	<2.0 U	<2.0 U	<0.020 U	<0.020 U	<0.020 U	<0.029 U	<0.030 U	<0.020 U	<0.021 U	<10 U
	Q4	0.35 J	0.44 J	<2.0 U	<2.0 U	<0.020 U	<0.020 U	<0.020 U	<0.029 U	<0.030 U	<0.020 U	<0.021 U	<10 U

U = Compound not detected above reporting limit.

EPA Methods 8270 and 8270SIM

J = Field duplicate results did not meet the advisory control criteria.

TABLE 7
Semi-Volatile Organic Compounds in Groundwater
Detected Compounds Only (in ug/L)
2017 Annual Report
Pasco Landfill NPL Site

SAMPLED: 1/1 - 12/31/2017

Well	Qtr	Benzyl Alcohol	bis(2-Ethyl hexyl) Phthalate	Chrysene	Dibenzo (a,h) anthracene	Fluoran thene	Fluorene	Indeno (1,2,3-cd) pyrene	Iso phorone	Naphtha lene	Pyrene
MW-25SR	Q2	<2.0 U	<2.0 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<2.0 U	<0.020 U	<0.020 U
	Q4	<2.0 U	<2.0 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<2.0 U	<0.020 U	<0.020 U
MW-26SR	Q2	<2.0 U	<2.0 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<2.0 U	<0.020 U	<0.020 U
	Q4	<2.0 U	<2.0 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<2.0 U	<0.020 U	<0.020 U
MW-47S	Q2	<2.0 U	<2.0 U	0.044	0.24	0.053	<0.020 U	0.17	<2.0 U	<0.020 U	0.062
	Q4	<2.0 U	<2.0 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<2.0 U	<0.020 U	<0.020 U
MW-50S	Q2	<2.0 U	<2.0 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<2.0 U	<0.020 U	<0.020 U
	Q4	<2.0 U	<2.0 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<2.0 U	<0.020 U	<0.020 U
MW-52S	Q2	37	7.1	<0.020 U	0.19	<0.020 U	0.046	0.20	<2.0 U	220	<0.020 U
	Q4	<2.0 U	<2.0 U	<0.020 U	<0.020 U	<0.020 U	0.030	<0.020 U	8.9	61	<0.020 U
MW-53S	Q2	<2.0 U	<2.0 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<2.0 U	17	<0.020 U
	Q4	<2.0 U	<2.0 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<0.020 U	<2.0 U	1.5 J	<0.020 U

U = Compound not detected above reporting limit.

EPA Methods 8270 and 8270SIM

J = Field duplicate results did not meet the advisory control criteria.

TABLE 8
Chlorinated Herbicides in Groundwater
(in ug/L)
2017 Annual Report
Pasco Landfill NPL Site

SAMPLED: 1/1 to 12/31/2017

HERBICIDE	MW-25SR		MW-26SR		MW-52S		MW-53S	
	Q2	Q4	Q2	Q4	Q2	Q4	Q2	Q4
2,4,5-T	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
2,4-D	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
2,4-DB	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
4-Nitrophenol	<0.080 U	<0.080 U	<0.080 U	<0.080 U	<0.080 U	<0.080 U	<0.080 U	<0.080 U
Dicamba	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
Dichloroprop	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
Dinoseb	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
MCPA	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
MCPP	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
Pentachlorophenol	<0.080 U	<0.080 U	<0.080 U	<0.080 U	<0.080 U	<0.080 U	<0.080 U	<0.080 U
Silvex (2,4,5-TP)	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U

U = Compound not detected above reporting limit

EPA Method 8151A

TABLE 9
Chromium in Groundwater (in ug/L)
2017 Annual Report
Pasco Landfill NPL Site

PERIOD: 1/1 - 12/31/2017

WELL	Total Chromium	
	Q2	Q4
4R	<2.0 UJ	<2.0 UJ
MW-16S	5.9	2.2
MW-19S	2.5 J	2.4
MW-20S	2.8 J	2.4
MW-22S	<2.0 UJ	<2.0 UJ
MW-27SR	2.7 J	<2.0 UJ
MW-47S	11	2.8
MW-50S	<2.0 UJ	<2.0 UJ
MW-55S	6.8	2.7

EPA Method 200.8.

U = Compound not detected above reporting limit.
J = Estimated concentration or reporting limit

PERIOD: 1/1 - 12/31/2017

TABLE 10
Landfill Parameters in Groundwater
(in mg/L)
2017 Annual Report
Pasco Landfill NPL Site

WELL	Quarter	Nitrate (as N)	Ammonia (as N)	Sulfate	Manganese	Total Dissolved Solids	Total Alkalinity	Bicarbonate	Carbonate	Hydroxide	Chloride	Total Organic Carbon	Calcium	Total Iron	Magnesium	Potassium	Sodium
4R	Q2	8.9	<0.050 U	63	0.002 J	450	270	270	<15 U	<15 U	25	1.9	85	<0.021 U	24	8.8	34
	Q4	8.4	<0.050 U	53	0.0038	480	270	270	<9.0 U	<9.0 U	23	1.4	86	<0.020 U	25	7.4	35
MW-16S	Q2	8.5	<0.050 U	59	0.021	410	250	250	<15 U	<15 U	22	1.7	70	0.058	27	7.3	32
	Q4	7.7	<0.050 U	48	0.046	370	230	230	<9.0 U	<9.0 U	19	1.5	64	0.15	26	7.1	33
MW-17SR	Q2	10	<0.050 U	59	0.045	390	200	200	<15 U	<15 U	23	1.5	59	<0.021 U	23	6.8	31
	Q4	9.6	<0.050 U	51	<0.0010 U	390	200	200	<9.0 U	<9.0 U	21	1.5	61	<0.020 U	24	6.8	32
MW-19S	Q2	9.9	<0.050 U	61	<0.0011 U	420	200	200	<15 U	<15 U	45	1.6	71	<0.021 U	21	10	37
	Q4	10	<0.050 U	55	<0.0010 U	420	200	200	<9.0 U	<9.0 U	33	1.4	66	<0.020 U	22	9.7	38
MW-20S	Q2	11	<0.050 U	61	<0.0011 U	380	190	190	<15 U	<15 U	22	1.7	58	<0.021 U	23	6.9	31
	Q4	9.2	<0.050 U	51	<0.0010 U	390	200	200	<9.0 U	<9.0 U	20	1.3	57	<0.020 U	24	6.9	32
MW-23S	Q2	9.4	<0.050 U	58	<0.0011 U	400	210	210	<15 U	<15 U	22	1.7	68	<0.021 U	22	7.1	31
	Q4	8.3	<0.050 U	51	<0.0010 U	380	230	230	<9.0 U	<9.0 U	21	1.6	67	<0.020 U	24	7.5	33

EPA Methods 200.8, 300.0, 350.1, SM 2320B, SM 2540C, SM 5310C, and SW-846 6010C.

U = Compound not detected above reporting limit.
J = Estimated concentration or reporting limit

Table 11
NAPL Monitoring
Zone A Landfill
Pasco Landfill NPL Site

Date	Depth to NAPL (ft)	Depth to Water (ft)	Initial NAPL Thickness (ft)	Initial NAPL Thickness (in)	Final NAPL Thickness (ft)	Final NAPL Thickness (in)	Approximate Volume Removed	DNAPL
MW-52S								
6/26/2017	77.98	78.26	0.28	3.36	--	--	0.13 gallons	--
7/10/2017	--	--	0.30	3.60	--	--	0.08 gallons	--
7/17/2017	78.41	78.65	0.24	2.88	0.14	1.68	0.07 gallons	--
7/24/2017	78.56	78.71	0.15	1.80	0.05	0.60	0.07 gallons	--
7/31/2017	78.70	78.84	0.14	1.68	0.04	0.48	0.07 gallons	--
8/7/2017	79.00	79.11	0.11	1.32	0.04	0.48	0.07 gallons	--
8/14/2017	79.05	79.12	0.07	0.84	0.04	0.48	0.02 gallons	--
8/21/2017	79.31	79.45	0.14	1.68	0.05	0.60	0.06 gallons	ND
8/28/2017	79.37	79.42	0.05	0.60	0.03	0.36	0.01 gallons	ND
9/5/2017	79.50	79.54	0.04	0.48	0.02	0.24	0.01 gallons	ND
9/11/2017	79.53	79.56	0.03	0.36	NA	NA	NA	ND
9/18/2017	79.58	79.61	0.03	0.36	NA	NA	NA	ND
9/25/2017	79.51	79.54	0.03	0.36	NA	NA	NA	ND
10/2/2017	79.47	79.49	0.02	0.24	NA	NA	NA	ND
10/9/2017	ND	79.38	0	0	NA	NA	NA	ND
10/16/2017	ND	79.27	0	0	NA	NA	NA	ND
10/23/2017	ND	79.16	0	0	NA	NA	NA	ND
10/30/2017	79.05	79.06	<0.01	<0.12	NA	NA	NA	ND
11/6/2017	ND	78.97	0	0	NA	NA	NA	ND
11/14/2017	ND	78.84	0	0	NA	NA	NA	ND
11/20/2017	ND	78.72	0	0	NA	NA	NA	ND
11/27/2017	ND	78.68	0	0	NA	NA	NA	ND
12/4/2017	ND	78.58	0	0	NA	NA	NA	ND
12/11/2017	ND	78.48	0	0	NA	NA	NA	ND
12/19/2017	ND	78.32	0	0	NA	NA	NA	ND
MW-53S								
7/10/2017	--	--	0	0	NA	NA	NA	--
7/17/2017	ND	76.26	0	0	NA	NA	NA	--
7/24/2017	ND	76.40	0	0	NA	NA	NA	--
7/31/2017	ND	76.52	0	0	NA	NA	NA	--
8/7/2017	ND	76.67	0	0	NA	NA	NA	--
8/14/2017	ND	76.81	0	0	NA	NA	NA	--
8/21/2017	ND	76.99	0	0	NA	NA	NA	--
8/28/2017	ND	77.07	0	0	NA	NA	NA	--
9/5/2017	ND	77.22	0	0	NA	NA	NA	--
9/11/2017	ND	77.25	0	0	NA	NA	NA	--
9/18/2017	ND	77.21	0	0	NA	NA	NA	ND
9/25/2017	ND	77.19	0	0	NA	NA	NA	ND
10/2/2017	ND	77.12	0	0	NA	NA	NA	ND
10/9/2017	ND	77.03	0	0	NA	NA	NA	ND
10/16/2017	ND	76.93	0	0	NA	NA	NA	ND
10/23/2017	ND	76.90	0	0	NA	NA	NA	ND
10/30/2017	ND	76.79	0	0	NA	NA	NA	ND
11/6/2017	ND	76.76	0	0	NA	NA	NA	ND
11/14/2017	ND	76.65	0	0	NA	NA	NA	ND
11/20/2017	ND	76.51	0	0	NA	NA	NA	ND
11/27/2017	ND	76.56	0	0	NA	NA	NA	ND
12/4/2017	ND	76.42	0	0	NA	NA	NA	ND
12/11/2017	ND	76.31	0	0	NA	NA	NA	ND
12/19/2017	ND	76.10	0	0	NA	NA	NA	ND

0.07 gallons equals approximately 250 milliliters

Measurements beginning 8/7/17 are taken from the top of the well casing. Measurements taken prior were taken from the top of the Grundfos connector plate. Grundfos pump put back into MW-52S on

'-- = No measurement taken

NA = Not Applicable

ND = Not Detected

Table 12
Monthly Groundwater Data - Zone A Source Wells
(in µg/L)
Pasco Landfill NPL SIte, Pasco WA

ANALYTE	2014 dCUL	MW-52S							MW-53S								
		Q1-2017	Q2-2017	June	Q3-2017	Q4-2017	Nov.	Dec.	Q1-2017	Q2-2017	June	Q3-2017	Aug.	Sept.	Q4-2017	Nov.	Dec.
1,1,1-Trichloroethane	200	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
1,1-Dichloroethane	-	**20**	**30**	**30**	**28**	**3.6**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
1,1-Dichloroethene	0.057	**0.46**	**0.63**	**0.46**	**0.33**	**0.073**	**0.048**	**0.032**	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U
1,2,4-Trichlorobenzene	-	< 2.0 U	**3.3**	**2.5**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
1,2,4-Trimethylbenzene	-	**790**	**1,200**	**1,400**	**1,400**	**630**	**1,000**	**1,100**	**23**	**22**	**6.5**	**8.9 J**	**12**	**10**	**7.5**	**11**	**13**
1,2-Dichlorobenzene	-	**30**	**65**	**82**	**67**	**35**	**66**	**63**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
1,2-Dichloroethane	0.38	**16**	**36**	**39**	**34**	**4.1**	**0.69**	**0.93**	**0.091**	< 0.020 U	**0.026**	**0.072**	< 0.020 U	**0.085**	< 0.020 U	**0.044**	**0.023**
1,3,5-Trimethylbenzene	-	**340**	**500**	**580**	**1,500**	**220**	**350**	**350**	**10**	**11**	**3.1**	**4.2**	**5.9**	**5.0**	**4.0**	**5.5**	**7.5**
1,4-Dichlorobenzene	-	**4.0**	**9.8**	**8.0**	**5.8**	**4.2**	**6.6**	**6.2**	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U
2-Butanone (MEK)	-	**3,800**	**20,000**	**21,000**	**12,000**	**2,900**	**340**	**410**	**170**	< 10 U	< 10 U	**110**	< 10 U	**96**	< 10 U	**37**	< 10 U
2-Hexanone	-	**110**	**370**	**790**	**610**	**100**	**23**	**21**	**25**	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Acetone	-	**7,800**	**64,000**	**70,000**	**31,000 J**	**12,000**	**2,200**	**1,700**	**430**	< 25 U	< 25 U	**350 J**	< 25 U	**370**	< 25 U	**110**	< 25 U
Benzene	0.79	**11**	**14**	**15**	**16**	**3.8**	**1.3**	**0.79**	**0.071**	< 0.028 U	< 0.028 U	**0.053**	< 0.028 U	**0.049**	< 0.028 U	**0.034**	< 0.028 U
Carbon Disulfide	-	< 2.0 U	< 2.0 U	**4.5**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**< 2.0 U**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Chlorobenzene	-	**6.2**	**7.1**	**6.6**	**7.4**	**2.5**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Chloroethane	-	< 2.0 U	**3.9**	**5.1**	**4.1**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Chloromethane	-	< 2.0 U	< 2.0 U	**2.9**	**2.2**	<2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Cis-1,2-Dichloroethene	16	**22**	**36**	**28**	**28**	**10**	**6.7**	**4.0**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Ethanol	-	**5,600**	**73,000**	**12,000**	**13,000**	<710 U	<710 U	<710 U	**1,500**	< 710 U	< 710 U	**1,400**	< 710 U	< 710 U	< 710 U	< 710 U	< 710 U
Ethylbenzene	-	**2,000**	**2,000**	**2,000**	**2,200**	**840**	**1,100**	**640**	**16**	**5.0**	**4.5**	**5.9 J**	**9.5**	**7.8**	**6.3**	**12**	**9.3**
Isopropylbenzene	-	**82**	**110**	**100**	**110**	**44**	**64**	**54**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
m, p-Xylene	-	**6,600**	**6,600**	**6,400**	**7,000**	**2,800**	**3,900**	**3,000**	**61**	**20**	**16**	**22 J**	**36**	**32**	**23**	**42**	**35**
Methyl isobutyl ketone	-	**3,700**	**23,000**	**35,000**	**30,000**	**3,100**	**470**	**610**	**91**	< 10 U	< 10 U	**100**	**12**	**130**	< 10 U	**110**	**12**
Methylene Chloride	5	**5.0**	**20**	**29**	**18**	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Naphthalene	-	**210**	**220**	**370**	**280**	**100**	**140**	**170**	**15**	**17**	**6.4**	**9.0 J**	**6.4**	**6.7**	**3.6**	**4.4**	**7.9**
n-Butylbenzene	-	**27**	**50**	**57**	**47**	< 2.0 U	< 2.0 U	**35**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
n-Propylbenzene	-	**170**	**260**	**270**	**240**	**110**	**170**	**150**	**3.3**	**2.5**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
o-Xylene	-	**2,500**	**2,900**	**2,800**	**3,100**	**1,400**	**1,800**	**1,400**	**23**	**10**	**6.7**	**10 J**	**17**	**16**	**10**	**17**	**17**
p-Isopropyltoluene	-	**9.7**	**38**	**23**	**22**	**8.1**	**13**	**14**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Sec-Butylbenzene	-	**7.6**	**30**	**18**	**19**	**6.4**	**9.5**	**9.4**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Styrene	-	**1,200**	**2,500**	**2,000**	**2,400**	**520**	**660**	**390**	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U
Tert-Butylbenzene	-	< 2.0 U	**2.2**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Tertiary butyl alcohol	-	**150**	**1,000**	**1,100**	**360**	**78**	< 13 U	**33**	< 13 U	< 13 U	< 13 U	**15**	<13 U	**23**	< 13 U	< 13 U	< 13 U
Tetrachloroethene	0.69	**30**	**23**	**19**	**23**	**12**	**16**	**10**	**0.72**	**0.31**	**0.35**	**0.70**	**2.7**	**1.4**	**2.1**	**3.7**	**3.5**
Toluene	615	**14,000**	**11,000**	**11,000**	**9,900**	**3,400**	**2,600**	**1,500**	**31**	**5.9**	**9.7**	**16 J**	**25**	**27**	**15**	**37**	**19**
Trichloroethene	2.5	**580**	**340**	**350**	**380**	**120**	**81**	**42**	**1.4**	**0.31**	**0.60**	**1.2**	**2.4**	**2.3**	**1.3**	**3.8**	**1.7**
Vinyl Chloride	0.069	**0.042**	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U

Detected volatile organic compounds (VOCs) and VOCs with 2014 dCULs only.
Detected concentrations are in **bold** text.
1,500 Red shading indicates an exceedance of the dCUL.
100 Green shading indicates data below the dCUL.
Q1, Q2, and Q3-2017 data were updated with data validation qualifiers. Data validation has not been performed on monthly or Q4 2017 data.
MW-52S was not sampled during August or September as NAPL was present in the well.

PBS

Table 12
Monthly Groundwater Data - Zone A Sentinel Wells (in µg/L)
2017 Annual Report
Pasco Landfill, Pasco, WA

ANALYTE	2014 dCUL	MW-50S									MW-47S									NVM-01								
		Q1-2017	Q2-2017	June	Q3-2017	Aug.	Sept.	Q4-2017	Nov.	Dec.	Q1-2017	Q2-2017	June	Q3-2017	Aug.	Sept.	Q4-2017	Nov.	Dec.	Q1-2017	Q2-2017	June	Q3-2017	Aug.	Sept.	Q4-2017	Nov.	Dec.
1,1,1-Trichloroethane	200	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
1,1-Dichloroethane	-	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
1,1-Dichloroethene	0.057	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U
1,2,4-Trichlorobenzene	-	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 UJ	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 UJ	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 UJ	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
1,2,4-Trimethylbenzene	-	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
1,2-Dichlorobenzene	-	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
1,2-Dichloroethane	0.38	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	**0.025**	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	**0.028**	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	**0.025**	< 0.020 U	**0.023**	< 0.020 U	**0.028**	< 0.020 U	< 0.020 U	< 0.020 U
1,3,5-Trimethylbenzene	-	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
1,4-Dichlorobenzene	-	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U
2-Butanone (MEK)	-	< 10 U	< 10 U	< 10 U	< 10 UJ	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 UJ	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 UJ	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Hexanone	-	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Acetone	-	< 25 U	< 25 U	< 25 U	< 25 UJ	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 UJ	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 UJ	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U
Benzene	0.79	< 0.028 U	< 0.028 U	< 0.028 U	< 0.028 U	< 0.028 U	< 0.028 U	< 0.028 U	< 0.028 U	< 0.028 U	< 0.028 U	< 0.028 U	< 0.028 U	< 0.028 U	< 0.028 U	< 0.028 U	< 0.028 U	< 0.028 U	< 0.028 U	< 0.028 U	< 0.028 U	< 0.028 U	< 0.028 U	< 0.028 U	< 0.028 U	< 0.028 U	< 0.028 U	< 0.028 U
Carbon Disulfide	-	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Chlorobenzene	-	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Chloroethane	-	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Chloromethane	-	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Cis-1,2-Dichloroethene	16	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Ethanol	-	< 710 U	< 710 U	< 710 U	< 710 U	< 710 U	< 710 U	< 710 U	< 710 U	< 710 U	< 710 U	< 710 U	< 710 U	< 710 U	< 710 U	< 710 U	< 710 U	< 710 U	< 710 U	< 710 U	< 710 U	< 710 U	< 710 U	< 710 U	< 710 U	< 710 U	< 710 U	< 710 U
Ethylbenzene	-	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Isopropylbenzene	-	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
m, p-Xylene	-	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U
Methyl isobutyl ketone	-	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Methylene Chloride	5	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Naphthalene	-	< 2.0 U	<0.020U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	<0.020U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
n-Butylbenzene	-	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
n-Propylbenzene	-	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
o-Xylene	-	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
p-Isopropyltoluene	-	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Sec-Butylbenzene	-	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Styrene	-	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U
Tert-Butylbenzene	-	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Tertiary butyl alcohol	-	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U
Tetrachloroethene	0.69	**0.20**	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	**0.25**	**0.25**	**0.23**	< 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	< 0.20 U	< 0.20 U	**0.25**	< 0.20 U	< 0.20 U	**0.22**	**0.20**	< 0.20 U
Toluene	615	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**4.9**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Trichloroethene	2.5	**0.36**	**0.35**	**0.37**	**0.28**	**0.27**	**0.24**	**0.29**	**0.31**	**0.32**	**0.097**	**0.14**	**0.11**	**0.12**	**0.10**	**0.095**	**0.13**	**0.12**	**0.11**	**0.20**	**0.31**	**0.47**	**0.68**	**0.36**	**0.40**	**0.28**	**0.23**	**0.21**
Vinyl Chloride	0.069	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U	< 0.032 U

Detected volatile organic compounds (VOCs) and VOCs with 2014 dCULs only.
Detected concentrations are in **bold** text.
1,500 Red shading indicates an exceedance of the dCUL.
100 Green shading indicates data below the dCUL.
Q1, Q2, and Q3-2017 data were updated with data validation qualifiers. Data validation has not been performed on monthly or Q4 2017 data.

TABLE 13
SVE Operational Parameters
2017 Annual Report
Pasco Landfill NPL Site

PERIOD: 1/1 - 12/31/2017

Well	Date	Well Head Vacuum (in. H_2O)	Skid Vacuum (in. H_2O)	Well Head Airflow (cfm)	Dilution Airflow (cfm)	Well Head Temperature (F)	Well Head CO_2 (%)	Well Head O_2 (%)	Well Head PID (ppm)	Well Head LEL (% as CH_4)
VEW-06S	1/3/2017	-19.8	--	30	0	102	5.6	10.8	1,165	1
	1/11/2017	-19.3	--	31	0	102	5.4	11.1	1,080	2
	1/16/2017	-18.5	--	38	0	101	5.2	11.8	1,096	2
	1/23/2017	-19.2	--	29	0	100	4.8	12.1	1,343	4
	1/30/2017	-18.5	--	32	0	100	4.8	12.9	1,158	4
	2/6/2017	-18.8	--	28	0	98	4.5	12.8	1,257	4
	2/13/2017	-18.9	--	32	0	97	3.3	17.2	752	6
	2/21/2017	-22.3	--	33	0	98	4.0	16.6	1,201	8
	2/27/2017	-21.2	--	29	0	96	3.1	17.2	1,011	6
	3/6/2017	-21.8	--	28	0	96	3.7	16.5	1,170	8
	3/13/2017	-20.0	--	34	0	96	3.7	15.3	1,314	2
	3/20/2017	-20.8	--	39	0	96	3.9	15.6	1,368	2
	3/27/2017	-21.1	--	36	0	96	3.7	15.4	869	6
	4/3/2017	-20.6	--	34	0	97	3.8	15.2	985	4
	4/10/2017	-21.1	--	31	0	92	3.9	15.6	760	4
	4/17/2017	-21.5	--	33	0	95	4.0	15.5	1,164	4
	4/25/2017	-21.4	--	32	0	96	3.7	15.8	1,492	4
	5/1/2017	-20.6	--	35	0	96	3.7	16.0	1,835	4
	5/8/2017	-20.2	--	28	0	96	3.8	15.4	1,371	4
	5/15/2017	-20.7	--	33	0	97	5.7	14.1	2,463	6
	5/23/2017	-20.5	--	36	0	98	3.8	14.9	1,708	4
	5/30/2017	-20.2	--	32	0	98	3.8	14.6	1,538	6
	6/5/2017	-20.8	--	32	0	99	3.5	16.0	2,149	4
	6/13/2017	-21.1	--	28	0	98	3.9	14.9	2,141	4
	6/19/2017	-20.3	--	29	0	99	3.6	15.2	2,423	4
	6/26/2017	-20.5	--	31	0	101	3.7	15.6	1,331	0
	7/5/2017	-20.2	--	32	0	102	3.5	15.4	1,151	0
	7/18/2017	-19.5	--	41	0	103	3.6	14.2	385	0
	7/24/2017	-26.6	--	42	0	103	3.5	15.2	1,087	0
	7/31/2017	-26.0	--	40	0	105	3.6	15.4	1,044	0
	8/7/2017	-32.5	--	51	0	105	3.8	15.1	1,193	0
	8/14/2017	-49.6	--	74	0	105	3.3	15.9	1,262	0
	8/21/2017	-60.6	--	88	0	105	3.4	16.0	1,263	0
	8/28/2017	-60.2	--	72	0	105	--	--	903	0
	9/6/2017	-54.8	--	80	0	106	1.1	20.1	1,154	0
	9/11/2017	--	--	53	0	--	--	--	--	--
	9/18/2017	-56.3	--	68	0	107	0.4	21.0	491	0
	9/25/2017	-63.0	--	83	0	107	0.5	20.4	1,162	0
	10/4/2017	-65.3	--	76	0	98	3.2	16.9	988	0
	10/9/2017	-65.7	--	79	0	107	3.2	17.6	961	0
	10/16/2017	-65.8	--	91	0	108	3.3	17.7	1,014	0
	10/23/2017	-66.6	--	86	0	109	3.1	17.6	793	0
	10/30/2017	-66.6	--	83	0	108	3.2	17.9	846	0
	11/6/2017	-67.4	--	83	0	109	3.1	17.2	782	0
	11/14/2017	-68.5	--	82	0	108	3.1	18.2	464	0
	11/20/2017	-68.4	--	82	0	108	3.2	17.1	659	0
	11/27/2017	-69.2	--	80	0	108	3.0	17.0	327	0
	12/4/2017	-70.1	--	81	0	108	2.9	17.0	426	0
	12/11/2017	-71.2	--	83	0	106	3.0	17.9	285	0
	12/18/2017	-73.6	--	79	0	106	3.0	17.2	1,389	0
	12/26/2017	-73.7	--	90	0	106	3.0	18.0	--	0

Well	Date	Well Head Vacuum (in. H_2O)	Skid Vacuum (in. H_2O)	Well Head Airflow (cfm)	Dilution Airflow (cfm)	Well Head Temperature (F)	Well Head CO_2 (%)	Well Head O_2 (%)	Well Head PID (ppm)	Well Head LEL (% as CH_4)
VEW-06I	1/3/2017	-0.7	0	0	0	131	14.0	0.0	9,999*	52
	1/11/2017	-1.3	0	0	0	--	10.0	6.6	4,339	18
	1/16/2017	-0.7	0	0	0	134	11.6	0.0	9,999*	26
	1/23/2017	-1.1	0	0	0	--	12.6	0.2	9,999*	16
	1/30/2017	-0.6	0	0	0	132	12.8	0.0	9,999*	24
	2/6/2017	-1.0	0	0	0	--	11.4	1.5	9,999*	27
	2/13/2017	-0.7	0	0	0	132	11.9	1.2	4,857	70
	2/21/2017	-1.2	0	0	0	--	11.0	1.1	9,999*	72
	2/27/2017	-0.9	0	0	0	132	11.7	2.0	4,129	62
	3/6/2017	-1.5	0	0	0	--	11.9	1.6	4,133	50
	3/13/2017	-0.9	0	0	0	135	11.6	1.7	4,983	30
	3/20/2017	-0.9	0	0	0	--	12.2	1.8	4,159	34
	3/27/2017	-1.3	0	0	0	131	11.4	1.9	3,495	94
	4/3/2017	-1.2	0	0	0	--	11.7	2.1	4,044	46
	4/10/2017	-1.2	0	0	0	133	11.8	1.7	3,345	74
	4/17/2017	-1.4	0	0	0	--	12.5	1.4	2,986	18
	4/25/2017	-1.0	0	0	0	138	11.7	1.6	15,000*	90
	5/1/2017	-0.9	0	0	0	--	6.8	9.9	3,759	8
	5/8/2017	-0.8	0	0	0	137	11.9	1.2	15,000*	96
	5/15/2017	-1.0	0	0	0	--	12.4	1.6	15,000*	60
	5/23/2017	-0.8	0	0	0	136	11.8	1.3	3,234	100
	5/30/2017	-0.9	0	0	0	--	12.4	1.2	11,590	62
	6/5/2017	-1.1	0	0	0	139	11.6	1.6	2,917	86
	6/13/2017	-1.1	0	0	0	--	11.0	3.5	15,000*	52
	6/19/2017	-0.7	0	0	0	137	11.7	1.1	15,000*	100
	6/26/2017	-0.8	0	0	0	--	12.4	1.3	15,000*	40
	7/5/2017	-1.0	0	0	0	136	11.7	1.3	15,000*	92
	7/18/2017	-0.9	0	0	0	--	11.6	0.7	15,000*	54
	7/24/2017	-1.3	0	0	0	136	11.5	1.5	15,000*	92
	7/31/2017	-1.1	0	0	0	--	11.9	1.9	15,000*	64
	8/7/2017	-1.3	0	0	0	134	11.8	1.0	15,000*	92
	8/14/2017	-1.6	0	0	0	--	11.1	3.5	6,489	60
	8/21/2017	-1.9	0	0	0	135	10.6	3.6	15,000*	92
	8/28/2017	-1.8	0	0	0	--	11.1	3.5	12,389	36
	9/6/2017	-2.3	0	0	0	138	11.5	2.4	2,187	92
	9/18/2017	-2.2	--	--	--	139	12.6	3.0	2,630	40
	9/25/2017	-1.9	0	0	0	132	8.7	7.2	--	48
	10/4/2017	-1.9	-15.4	--	--	137	13.3	3.2	12,401	32
	10/9/2017	-2.0	-20.1	0	0	138	13.4	3.2	13,069	26
	10/16/2017	-2.1	-20.1	0	0	140	13.5	3.3	13,375	22
	10/23/2017	-2.3	-20.1	0	0	139	12.9	4.3	10,006	18
	10/30/2017	-2.1	-19.2	0	0	139	14.5	2.6	12,014	18
	11/6/2017	-2.2	-20.2	0	0	138	14.5	2.6	6,683	14
	11/14/2017	-2.3	-20.3	0	0	140	13.7	3.7	8,558	18
	11/20/2017	-2.2	-20.0	0	0	139	15.2	2.0	3,369	22
	11/27/2017	-2.2	-20.4	0	0	140	13.7	3.3	7,121	16
	12/4/2017	-1.9	0	0	0	142	10.6	6.5	1,887	8
	12/11/2017	-1.9	0	0	0	138	10.3	7.6	2,046	20
	12/18/2017	-1.9	0	--	--	140	10.2	6.6	3814	30
	12/26/2017	-1.8	0	0	0	--	3.8	16.7	2,570	0

Well	Date	Well Head Vacuum (in. H_2O)	Skid Vacuum (in. H_2O)	Well Head Airflow (cfm)	Dilution Airflow (cfm)	Well Head Temperature (F)	Well Head CO_2 (%)	Well Head O_2 (%)	Well Head PID (ppm)	Well Head LEL (% as CH_4)
VEW-06D	1/3/2017	-19.6	--	173	0	91	6.9	11.0	568	1
	1/11/2017	-20.0	--	173	0	92	6.8	10.8	968	3
	1/16/2017	-18.8	--	173	0	93	6.2	11.6	757	2
	1/23/2017	-19.8	--	173	0	90	6.3	11.3	1,383	3
	1/30/2017	-19.1	--	173	0	90	6.2	13.7	887	3
	2/6/2017	-19.7	--	173	0	92	5.7	13.3	1,402	4
	2/13/2017	-19.3	--	173	0	92	4.3	16.8	615	6
	2/21/2017	-23.8	--	201	0	92	5.2	15.2	710	6
	2/27/2017	-24.1	--	202	0	90	5.2	15.4	1,074	8
	3/6/2017	-25.3	--	202	0	92	6.2	14.6	1,535	10
	3/13/2017	-24.5	--	202	0	92	5.3	14.2	1,224	2
	3/20/2017	-25.3	--	202	0	90	5.7	14.6	1,433	4
	3/27/2017	-26.7	--	202	0	95	5.6	14.0	738	8
	4/3/2017	-26.3	--	202	0	92	5.5	13.9	926	8
	4/10/2017	-26.6	--	202	0	90	5.5	14.5	707	8
	4/17/2017	-27.2	--	202	0	90	5.6	14.4	1,376	6
	4/25/2017	-27.4	--	202	0	92	5.6	14.4	1,869	6
	5/1/2017	-26.4	--	202	0	90	5.5	14.6	1,978	6
	5/8/2017	-27.0	--	202	0	92	5.5	14.2	1,683	6
	5/15/2017	-26.6	--	202	0	93	3.9	15.2	3,471	4
	5/23/2017	-26.5	--	202	0	94	5.4	13.8	2,465	8
	5/30/2017	-26.1	--	202	0	95	5.4	13.5	1,944	8
	6/5/2017	-27.5	--	202	0	94	5.3	14.4	3,443	6
	6/13/2017	-27.4	--	202	0	93	5.5	14.0	3,359	6
	6/19/2017	-26.3	--	201	0	96	5.4	13.8	2,996	8
	6/26/2017	-26.5	--	202	0	95	5.4	14.4	2,354	2
	7/5/2017	-26.2	--	202	0	95	5.2	14.2	1,919	2
	7/18/2017	-24.2	--	212	0	97	5.2	13.4	1,650	2
	7/24/2017	-25.8	--	206	0	95	5.5	13.7	2,098	0
	7/31/2017	-25.2	--	206	0	96	4.4	15.2	1,964	0
	8/7/2017	-25.0	--	195	0	96	5.4	14.1	2,245	2
	8/14/2017	-19.6	--	163	0	98	5.3	14.3	2,064	2
	8/21/2017	-18.0	--	144	0	98	5.2	14.6	1,864	0
	8/28/2017	-15.4	--	144	0	99	3.5	16.1	877	0
	9/6/2017	-34.6	--	268	0	95	4.9	15.7	1,673	0
	9/11/2017	--	--	301	0	--	--	--	--	--
	9/18/2017	-31.8	--	274	0	93	2.7	18.2	1,135	0
	9/25/2017	-16.9	--	147	0	95	5.0	15.2	1,369	0
	10/4/2017	-16.6	--	147	0	95	5.4	14.9	1,637	0
	10/9/2017	-17.2	--	147	0	95	5.6	15.3	1,715	0
	10/16/2017	-18.6	--	147	0	94	5.5	15.7	1,334	0
	10/23/2017	-19.8	--	147	0	94	5.4	15.3	1,439	0
	10/30/2017	-19.5	--	147	0	92	5.5	15.5	1,512	0
	11/6/2017	-20.4	--	147	0	95	5.3	15.2	909	0
	11/14/2017	-21.0	--	147	0	92	5.4	15.2	1,560	0
	11/20/2017	-20.7	--	147	0	94	5.3	14.7	979	0
	11/27/2017	-21.5	--	147	0	95	5.3	14.6	1,018	0
	12/4/2017	-20.8	--	147	0	95	5.4	14.4	1,380	0
	12/11/2017	-20.9	--	147	0	93	5.4	15.7	988	0
	12/18/2017	-22.0	--	147	0	92	5.4	14.7	3,388	0
	12/26/2017	-21.8	--	147	0	93	5.4	15.4	--	0

Well	Date	Well Head Vacuum (in. H_2O)	Skid Vacuum (in. H_2O)	Well Head Airflow (cfm)	Dilution Airflow (cfm)	Well Head Temperature (F)	Well Head CO_2 (%)	Well Head O_2 (%)	Well Head PID (ppm)	Well Head LEL (% as CH_4)
VEW-07S	1/3/2017	-1	--	32	0	96	3.1	13.7	1,371	0
	1/11/2017	-8	--	30	0	97	5.8	11.2	1,708	4
	1/16/2017	-8	--	36	0	98	5.0	11.2	1,652	3
	1/23/2017	-8	--	32	0	97	5.0	11.7	1,785	8
	1/30/2017	-7	--	32	0	98	5.3	13.1	1,663	5
	2/6/2017	-8	--	30	0	95	4.8	13.0	2,451	10
	2/13/2017	-8	--	37	0	97	4.6	15.9	1,579	10
	2/21/2017	-11	--	35	0	94	4.2	16.1	1,552	14
	2/27/2017	-11	--	38	0	94	4.1	16.1	1,422	8
	3/6/2017	-12	--	37	0	94	4.5	15.6	2,345	26
	3/13/2017	-10.7	--	34	0	96	4.5	14.7	1,584	8
	3/20/2017	-10.9	--	37	0	95	4.7	14.9	1,649	8
	3/27/2017	-11.0	--	33	0	95	4.5	15.0	1,241	10
	4/3/2017	-10.7	--	35	0	97	4.4	14.7	1,515	10
	4/10/2017	-11.0	--	33	0	95	4.6	15.1	977	8
	4/17/2017	-10.9	--	35	0	96	4.6	15.0	1,300	10
	4/25/2017	-10.9	--	32	0	97	4.4	15.1	3,490	10
	5/1/2017	-10.3	--	35	0	97	4.2	15.6	4,173	8
	5/8/2017	-10.1	--	24	0	98	4.4	14.9	1,765	10
	5/15/2017	-10.1	--	30	0	98	4.3	14.9	4,843	10
	5/23/2017	-10.4	--	31	0	100	4.1	15.0	3,344	10
	5/30/2017	-10.3	--	25	0	102	4.2	14.8	4,372	14
	6/5/2017	-10.7	--	33	0	101	4.3	14.9	1,715	14
	6/13/2017	-10.6	--	26	0	101	4.5	14.9	3,388	14
	6/19/2017	-10.2	--	30	0	102	4.0	14.5	4,336	14
	6/26/2017	-10.6	--	33	0	103	4.4	14.9	4,267	8
	7/5/2017	-11.9	--	34	0	105	4.4	14.5	3,230	6
	7/18/2017	-11.7	--	37	0	107	4.3	13.3	1,945	8
	7/24/2017	-9.5	--	36	0	106	4.2	14.9	2,985	4
	7/31/2017	-9.0	--	36	0	107	4.1	15.1	2,488	8
	8/7/2017	-13.7	--	47	0	108	4.3	15.0	3,033	4
	8/14/2017	-25.9	--	70	0	111	3.8	15.4	3,643	8
	8/21/2017	-28.8	--	91	0	112	4.0	15.6	3,264	4
	8/28/2017	-38.9	--	83	0	112	1.2	18.9	2,493	4
	9/6/2017	-46.1	--	116	0	112	3.1	17.6	2,920	2
	9/11/2017	--	--	69	0	--	--	--	--	--
	9/18/2017	-49.7	--	112	0	112	2.6	17.9	2,314	0
	9/25/2017	-52.8	--	115	0	112	1.1	19.5	1,657	4
	10/4/2017	-49.8	--	116	0	112	3.7	16.1	2,688	4
	10/9/2017	-51.4	--	117	0	111	3.8	16.8	4,923	2
	10/16/2017	-52.9	--	116	0	112	3.9	16.6	3,369	2
	10/23/2017	-53.6	--	117	0	112	3.6	16.6	3,512	2
	10/30/2017	-53.8	--	115	0	113	3.8	16.8	3,810	0
	11/6/2017	-53.2	--	115	0	112	3.6	16.9	2,521	0
	11/14/2017	-53.5	--	113	0	112	3.7	16.7	3,061	0
	11/20/2017	-54.1	--	117	0	112	3.6	15.9	2,537	2
	11/27/2017	-54.2	--	115	0	111	3.5	16.5	1,270	0
	12/4/2017	-54.1	--	116	0	112	3.5	16.1	426	2
	12/11/2017	-55.3	--	160	0	111	3.8	16.9	3,905	0
	12/18/2017	-54.2	--	120	0	110	3.7	16.5	1,630	2
	12/26/2017	-54.6	--	117	0	111	3.7	17.0	--	0

Well	Date	Well Head Vacuum (in. H_2O)	Skid Vacuum (in. H_2O)	Well Head Airflow (cfm)	Dilution Airflow (cfm)	Well Head Temperature (F)	Well Head CO_2 (%)	Well Head O_2 (%)	Well Head PID (ppm)	Well Head LEL (% as CH_4)
VEW-07I	1/3/2017	-1.0	0	0	0	145	14.1	0.0	9,999*	54
	1/11/2017	-1.7	0	0	0	--	13.9	0.5	6,207	30
	1/16/2017	-1.0	0	0	0	147	13.7	0.0	9,999*	48
	1/23/2017	-1.4	0	0	0	--	12.5	1.7	9,999*	32
	1/30/2017	-1.0	0	0	0	147	13.3	0.0	9,999*	94
	2/6/2017	-0.5	0	0	0	--	12.1	1.7	9,999*	41
	2/13/2017	-1.2	0	0	0	148	12.2	1.5	4,671	100
	2/21/2017	-1.7	0	0	0	--	12.4	1.5	9,999*	100
	2/27/2017	-1.4	0	0	0	144	11.5	2.6	4,289	100
	3/6/2017	-2.1	0	0	0	--	11.3	4.8	4,256	60
	3/13/2017	-1.4	0	0	0	147	11.3	2.0	4,206	100
	3/20/2017	-1.2	0	0	0	--	11.4	4.4	3,196	66
	3/27/2017	-1.8	0	0	0	148	11.6	2.3	3,555	100
	4/3/2017	-1.5	0	0	0	--	9.5	5.3	3,030	60
	4/10/2017	-1.7	0	0	0	137	8.3	6.6	4,066	42
	4/17/2017	-1.7	0	0	0	--	7.7	8.9	4,080	24
	4/25/2017	-1.6	0	0	0	150	11.8	2.1	15,000*	100
	5/1/2017	-1.3	0	0	0	--	11.8	3.4	15,000*	90
	5/8/2017	-1.3	0	0	0	149	11.7	1.6	11,527	100
	5/15/2017	-1.2	0	0	0	--	11.5	4.0	15,000*	100
	5/23/2017	-1.3	0	0	0	151	11.7	1.4	9,754	100
	5/30/2017	-1.2	0	0	0	--	11.8	3.4	15,000*	100
	6/5/2017	-1.4	0	0	0	150	11.8	1.6	13,384	100
	6/13/2017	-1.4	0	0	0	--	12.7	2.6	15,000*	100
	6/19/2017	-1.4	0	0	0	131	6.2	7.9	15,000*	80
	6/26/2017	-1.4	0	0	0	--	5.0	13.3	12,004	24
	7/5/2017	-1.5	0	0	0	150	11.9	1.3	15,000*	100
	7/18/2017	-1.1	0	0	0	--	11.8	1.1	15,000*	100
	7/24/2017	-1.6	0	0	0	151	11.8	1.5	15,000*	100
	7/31/2017	-1.4	0	0	0	--	11.9	3.2	15,000*	100
	8/7/2017	-1.6	0	0	0	150	11.4	1.7	15,000*	100
	8/14/2017	-1.8	0	0	0	--	11.0	1.6	13,279	100
	8/21/2017	-2.1	0	0	0	148	10.7	1.7	15,000*	100
	8/28/2017	-2.0	0	0	0	--	10.6	1.6	12,570	100
	9/6/2017	-3.0	0	0	0	141	11.2	1.6	15,000*	100
	9/18/2017	-2.5	0	0	0	144	11.1	2.4	3,315	100
	9/25/2017	-2.7	0	0	0	138	9.4	5.2	15,000*	100
	10/4/2017	-2.5	-15.3	0	0	133	10.1	5.0	15,000*	100
	10/9/2017	-2.6	-20.2	0	0	137	9.9	5.3	15,000*	100
	10/16/2017	-2.3	-20.2	0	0	137	10.5	4.9	11,232	100
	10/23/2017	-2.9	-20.1	0	0	138	9.7	6.3	13,535	100
	10/30/2017	-2.1	-20.3	0	0	136	9.9	6.2	15,000*	100
	11/6/2017	-2.3	-20.0	0	0	131	9.7	5.6	15,000*	82
	11/14/2017	-2.2	-20.1	0	0	131	9.2	6.3	15,000*	100
	11/20/2017	-2.5	-20.1	0	0	132	11.3	4.0	9,817	100
	11/27/2017	-1.6	-20.5	0	0	118	5.5	10.2	4,140	24
	12/4/2017	-3.3	0	0	0	138	4.6	9.7	7,561	10
	12/11/2017	-3.2	0	0	0	154	11.3	2.2	15,000*	76
	12/18/2017	-2.7	0	0	0	156	11.1	1.9	15,000*	100
	12/26/2017	-2.1	0	0	0	--	11.7	2.2	15,000*	60

Well	Date	Well Head Vacuum (in. H_2O)	Skid Vacuum (in. H_2O)	Well Head Airflow (cfm)	Dilution Airflow (cfm)	Well Head Temperature (F)	Well Head CO_2 (%)	Well Head O_2 (%)	Well Head PID (ppm)	Well Head LEL (% as CH_4)
VEW-07D	1/3/2017	-29.1	--	167	0	90	1.2	15.7	815	0
	1/11/2017	-26.7	--	167	0	90	2.5	14.9	1,283	4
	1/16/2017	-27.3	--	167	0	90	2.2	15.3	1,147	2
	1/23/2017	-27.7	--	167	0	90	2.3	15.2	2,488	7
	1/30/2017	-28.3	--	167	0	90	2.3	14.8	1,270	3
	2/6/2017	-27.7	--	167	0	90	2.0	15.7	2,937	9
	2/13/2017	-28.3	--	167	0	90	1.9	19.4	709	6
	2/21/2017	-29.0	--	202	0	90	2.0	19.0	1,589	18
	2/27/2017	-32.5	--	202	0	90	1.6	19.8	1,056	10
	3/6/2017	-32.7	--	202	0	90	1.9	19.1	2,990	34
	3/13/2017	-31.1	--	202	0	92	1.8	18.2	1,419	10
	3/20/2017	-32.3	--	202	0	90	1.9	18.9	1,675	10
	3/27/2017	-32.9	--	202	0	90	1.8	18.9	1,397	8
	4/3/2017	-32.5	--	202	0	90	1.8	18.5	1,374	12
	4/10/2017	-33.1	--	202	0	90	1.9	19.0	862	8
	4/17/2017	-33.7	--	202	0	90	1.9	19.1	1,298	10
	4/25/2017	-33.7	--	202	0	90	1.8	19.1	4,254	10
	5/1/2017	-33.0	--	202	0	92	1.9	19.2	4,579	10
	5/8/2017	-31.2	--	201	0	95	1.9	18.8	2,127	10
	5/15/2017	-32.8	--	201	0	95	1.9	18.5	5,091	14
	5/23/2017	-32.5	--	201	0	95	1.7	18.6	4,639	10
	5/30/2017	-31.9	--	201	0	96	1.7	18.8	4,389	16
	6/5/2017	-33.4	--	201	0	96	1.8	18.5	3,880	12
	6/13/2017	-33.0	--	201	0	94	1.8	19.1	1,953	14
	6/19/2017	-31.9	--	201	0	93	1.8	18.4	5,320	14
	6/26/2017	-32.5	--	195	0	95	1.7	19.1	4,238	10
	7/5/2017	-31.8	--	195	0	96	1.7	18.5	3,773	8
	7/18/2017	-35.7	--	211	0	96	1.7	17.9	3,442	10
	7/24/2017	-36.4	--	217	0	95	1.7	18.8	4,187	6
	7/31/2017	-35.9	--	217	0	95	1.7	18.8	3,969	12
	8/7/2017	-34.8	--	206	0	95	1.7	18.8	4,244	6
	8/14/2017	-24.7	--	164	0	96	1.5	18.7	4,498	8
	8/21/2017	-24.0	--	144	0	96	1.7	19.1	3,509	4
	8/28/2017	-21.7	--	144	0	98	1.4	19.0	1,159	8
	9/6/2017	-41.4	--	247	0	95	1.5	19.8	1,801	0
	9/11/2017	--	--	285	0	--	--	--	--	--
	9/18/2017	-34.9	--	227	0	95	1.1	20.1	1,644	0
	9/25/2017	-22.7	--	149	0	96	1.5	19.4	1,346	2
	10/4/2017	-26.0	--	149	0	94	1.6	19.3	3,641	2
	10/9/2017	-25.3	--	150	0	93	1.7	19.9	3,983	0
	10/16/2017	-27.1	--	150	0	91	1.6	19.9	2,588	0
	10/23/2017	-28.3	--	149	0	95	1.6	19.4	3,081	0
	10/30/2017	-27.9	--	150	0	92	1.6	20.2	3,249	0
	11/6/2017	-27.6	--	149	0	94	1.6	19.7	2,247	0
	11/14/2017	-28.1	--	149	0	95	1.6	19.8	3,769	0
	11/20/2017	-28.2	--	149	0	95	1.6	19.2	1,717	0
	11/27/2017	-28.1	--	149	0	95	1.6	19.5	910	0
	12/4/2017	-28.1	--	149	0	96	1.6	19.1	1,056	0
	12/11/2017	-27.3	--	149	0	94	1.7	20.1	2,542	0
	12/18/2017	-27.3	--	150	0	90	1.6	19.6	3,241	0
	12/26/2017	-27.1	--	150	0	91	1.7	20.0	--	0

Well	Date	Well Head Vacuum (in. H_2O)	Skid Vacuum (in. H_2O)	Well Head Airflow (cfm)	Dilution Airflow (cfm)	Well Head Temperature (F)	Well Head CO_2 (%)	Well Head O_2 (%)	Well Head PID (ppm)	Well Head LEL (% as CH_4)
VMW-51I	1/3/2017	-0.9	-30.8	--	--	58	21.3	0.0	199	20
	1/11/2017	-1.5	-28.9	--	--	64	21.0	0.0	169	25
	1/16/2017	-0.9	-28.1	--	--	45	20.9	0.0	185	19
	1/23/2017	--	-28.5	--	--	50	20.5	0.0	425	22
	1/30/2017	-0.8	-28.3	--	--	52	19.8	0.0	265	21
	2/6/2017	-1.1	-28.1	--	--	60	19.0	0.0	564	27
	2/13/2017	-1.0	-28.3	--	--	55	17.8	2.3	319	24
	2/21/2017	-1.3	-34.7	--	--	60	18.8	0.5	288	30
	2/27/2017	-1.1	-32.5	--	--	64	14.8	5.0	407	20
	3/6/2017	-1.5	0.0	--	--	60	18.8	0.4	510	24
	3/13/2017	-0.9	-31.8	--	--	61	18.0	0.5	720	12
	3/20/2017	-0.9	-33.7	--	--	62	6.4	9.2	876	6
	3/27/2017	-1.5	-33.2	--	--	71	18.4	0.5	404	16
	4/3/2017	-1.2	-33.8	--	--	68	18.6	0.6	726	16
	4/10/2017	-1.7	-33.4	--	--	65	5.4	12.1	475	6
	4/17/2017	-1.3	-34.6	--	--	64	18.5	0.6	590	16
	4/25/2017	-1.7	-34.5	--	--	70	18.7	0.5	523	16
	5/1/2017	-0.9	-34.0	--	--	70	18.2	0.6	2,347	16
	5/8/2017	-1.7	-34.5	--	--	66	18.6	0.7	1,239	16
	5/15/2017	-0.7	-33.4	--	--	72	18.5	0.5	1,403	22
	5/23/2017	-1.7	-33.1	--	--	78	18.3	0.6	928	16
	5/30/2017	-0.9	-33.0	--	--	82	18.4	0.6	1,034	18
	6/5/2017	-1.7	-33.9	--	--	78	18.5	0.5	396	14
	6/13/2017	-1.1	-33.6	--	--	77	18.7	0.5	842	16
	6/19/2017	-1.7	-32.5	--	--	82	18.4	0.6	1,323	16
	6/26/2017	-1.1	-32.8	--	--	83	18.3	0.5	343	12
	7/5/2017	-1.7	-31.8	--	--	86	18.0	0.7	304	12
	7/18/2017	-0.8	-32.8	--	--	95	18.7	0.6	201	20
	7/24/2017	-1.7	-36.8	--	--	89	18.4	0.8	227	14
	7/31/2017	-1.1	-32.8	--	--	93	17.8	0.8	264	12
	8/7/2017	-1.7	-34.4	--	--	95	17.9	0.9	207	12
	8/14/2017	-1.3	-47.6	--	--	94	17.8	1.3	216	16
	8/21/2017	-1.7	-57.3	--	--	100	18.9	0.7	128	24
	8/28/2017	-1.6	-47.6	--	--	97	17.6	2.0	225	30
	9/6/2017	-1.7	-36.2	--	--	82	18.9	0.8	104	22
	9/11/2017	--	--	--	--	--	--	--	--	--
	9/18/2017	-1.7	-45.4	--	--	86	17.9	1.7	126	20
	9/25/2017	-1.8	-43.5	--	--	80	16.5	4.1	137	22
	10/4/2017	-1.7	-47.3	--	--	85	18.6	1.7	114	30
	10/9/2017	-1.9	-48.3	--	--	80	18.6	1.5	106	26
	10/16/2017	-1.7	-50.6	--	--	78	18.0	1.5	162	26
	10/23/2017	-2.2	-51.2	--	--	82	19.1	1.2	221	24
	10/30/2017	-1.7	-51.7	--	--	82	19.0	1.5	143	28
	11/6/2017	-2.0	-51.2	--	--	82	19.4	0.9	160	28
	11/14/2017	-1.7	-51.8	--	--	80	19.3	1.1	158	28
	11/20/2017	-1.8	-51.8	--	--	80	19.3	0.8	195	30
	11/27/2017	-1.7	-51.8	--	--	85	19.5	0.8	151	30
	12/4/2017	-1.6	-51.0	--	--	81	19.0	1.2	134	24
	12/11/2017	-1.7	-53.4	--	--	82	18.2	1.6	129	24
	12/18/2017	-1.7	-55.7	--	--	85	19.2	0.8	148	30
	12/26/2017	--	--	--	--	--	--	--	--	--

Well	Date	Well Head Vacuum (in. H_2O)	Skid Vacuum (in. H_2O)	Well Head Airflow (cfm)	Dilution Airflow (cfm)	Well Head Temperature (F)	Well Head CO_2 (%)	Well Head O_2 (%)	Well Head PID (ppm)	Well Head LEL (% as CH_4)

Notes:

cfm	cubic feet per minute
CO_2	carbon dioxide
F	degrees Fahrenheit
in. H_2O	inches of water column
O_2	oxygen
LEL	lower explosive limit
PID	photoionization detector
ppm	parts per million
SVE	soil vapor extraction
% as CH_4	percent LEL as methane
*	measurement equals or exceeds upper limit of instrument

PBS

SAMPLED: 1/1 - 12/31/2017

TABLE 14
Vacuum Monitoring (in inches of H_2O)
2017 Annual Report
Pasco Landfill NPL Site

Date	Locations Beneath Zone A Cap									Locations Outside Protective Barrier Wall (In Order From West to East)									South
	VMP 02	VMP 04	VMP 05	VMP 06	VMP 08	VMP 09	VMP 10	VMW 51i	VMW 51D	VMP 19	VMP 20	VEW 05	VMP 17	VMP 18	VMP 13S	VMP 13D	VMW 50S	VMP 21	VEW 04
1/3/2017	-0.6	-1.8	-1.7	-0.7	-0.5	-0.4	-0.4	-0.9	-2.4	-0.4	-0.3	-2.0	-0.4	-0.1	0.0	-0.1	-1.9	0.0	-1.7
1/11/2017	-0.9	-2.1	-2.1	-1.0	-0.7	-0.7	-0.7	-1.5	-3.6	-0.7	-0.6	-3.0	-0.8	-0.3	-0.2	-0.3	-3.0	-0.2	-2.9
1/16/2017	-0.6	-1.8	-1.7	-0.7	-0.6	-0.4	-0.5	-0.9	-1.8	-0.3	-0.3	-1.4	-0.3	-0.1	-0.1	-0.1	-1.2	0.0	-1.0
1/23/2017	-0.8	-1.9	-1.8	-0.8	-0.6	-0.6	-0.5	NM	NM	-0.6	-0.5	-2.4	-0.6	-0.3	-0.3	-0.4	-2.3	-0.2	-2.1
1/30/2017	-0.5	-1.7	-1.5	-0.5	-0.4	-0.3	-0.2	-0.8	-1.8	-0.3	-0.3	-1.4	-0.3	-0.1	0.0	-0.1	-1.1	0.0	-0.9
2/6/2017	-0.6	-1.9	-1.8	-0.7	-0.6	-0.6	-0.5	-1.1	-2.7	-0.5	-0.5	-2.2	-0.5	-0.2	-0.2	-0.3	-2.2	-0.1	-2.0
2/13/2017	-0.7	-1.9	-1.8	-0.7	-0.6	-0.5	-0.5	-1.0	-2.3	-0.5	-0.5	-1.8	-0.5	-0.2	-0.2	-0.2	-1.7	-0.1	-1.5
2/21/2017	-0.9	-2.2	-2.3	-1.0	-0.8	-0.7	-0.7	-1.3	-3.1	-0.9	-0.6	-2.4	-0.8	-0.4	-0.2	-0.3	-2.4	-0.2	-2.2
2/27/2017	-0.8	-2.3	-2.4	-0.9	-0.8	-0.7	-0.7	-1.1	-2.1	-0.6	-0.1	-2.0	-0.6	-0.2	-0.1	-0.2	-1.8	-0.1	-1.6
3/6/2017	-1.0	-2.5	-2.7	-1.2	-1.0	-0.9	-0.9	-1.5	-3.5	-1.0	-0.9	-3.0	-1.0	-0.5	-0.4	-0.5	-2.8	-0.4	-2.5
3/13/2017	-0.7	-2.0	-2.2	-0.8	-0.7	-0.6	-0.6	-0.9	-1.9	-0.4	-0.3	-1.5	-0.4	-0.2	-0.1	-0.2	-1.2	-0.1	-1.0
3/20/2017	-0.7	-2.1	-2.3	-0.9	-0.8	-0.7	-0.6	-0.9	-2.2	-0.5	-0.4	-1.7	-0.4	-0.1	-0.1	-0.2	-1.6	-0.1	-1.2
3/27/2017	-1.0	-2.4	-2.6	-1.1	-0.9	-0.9	-0.8	-1.5	-3.6	-0.9	-0.9	-2.9	-0.8	-0.4	-0.2	-0.3	-2.8	-0.2	-2.6
4/3/2017	-0.8	-2.2	-2.3	-1.0	-0.8	-0.7	-0.6	-1.2	-2.8	-0.7	-0.6	-0.6	-0.3	-0.3	-0.2	-0.3	-2.1	-0.1	-1.8
4/10/2017	-0.9	-2.3	-2.5	-1.1	-0.8	-0.8	-0.7	-1.1	-3.1	-0.8	-0.7	-2.6	-0.7	-0.4	-0.2	-0.3	-2.5	-0.2	-2.3
4/17/2017	-0.8	-2.3	-2.4	-1.0	-0.8	-0.7	-0.6	-1.3	-3.0	-0.8	-0.8	-2.6	-0.7	-0.4	-0.3	-0.4	-2.5	-0.2	-2.1
4/25/2017	-0.9	-2.3	-2.4	-1.1	-0.8	-0.8	-0.7	-1.4	-3.2	-0.7	-0.7	-2.6	-0.7	-0.4	-0.2	-0.3	-2.5	-0.2	-2.2
5/1/2017	-0.7	-2.1	-2.2	-0.8	-0.7	-0.6	-0.5	-0.9	-2.3	-0.5	-0.4	-1.8	-0.4	-0.2	-0.1	-0.2	-1.6	-0.1	-1.4
5/8/2017	-0.7	-2.1	-2.1	-0.9	-0.7	-0.6	-0.5	-1.1	-2.6	-0.6	-0.5	-2.1	-0.5	-0.3	-0.2	-0.2	-1.9	-0.1	-1.7
5/15/2017	-0.6	-2.0	-2.1	-0.6	-0.7	-0.5	-0.4	-0.7	-2.3	-0.4	-0.4	-1.8	-0.3	-0.1	-0.2	-0.2	-1.6	-0.2	-1.2
5/23/2017	-0.7	-2.0	-2.1	-0.8	-0.6	-0.6	-0.5	-0.9	-2.2	-0.4	-0.4	-1.7	-0.4	-0.2	-0.1	-0.2	-1.5	-0.1	-1.2
5/30/2017	-0.7	-2.0	-2.1	-0.8	-0.7	-0.6	-0.5	-0.9	-2.1	-0.4	-0.4	-1.6	-0.4	-0.1	-0.1	-0.1	-1.4	-0.1	-1.2
6/5/2017	-0.9	-2.3	-2.3	-1.0	-0.8	-0.7	-0.7	-1.3	-3.2	-0.8	-0.8	-2.7	-0.7	-0.4	-0.3	-0.4	-2.6	-0.3	-2.3
6/13/2017	-0.7	-2.1	-2.2	-0.9	-0.7	-0.6	-0.5	-1.1	-2.9	-0.7	-0.6	-2.4	-0.6	-0.3	-0.1	-0.2	-2.3	-0.2	-2.0
6/19/2017	-0.6	-1.9	-2.0	-0.7	-0.6	-0.5	-0.5	-1.1	-2.1	-0.5	-0.5	-1.8	-0.4	-0.2	-0.1	-0.2	-1.6	-0.2	-1.2
6/26/2017	-0.8	-2.1	-2.3	-0.8	-0.7	-0.6	-0.6	-1.1	-2.4	-0.7	-0.6	-1.6	-0.3	-0.4	-0.3	-0.3	-1.7	-0.1	-1.5
7/5/2017	-0.7	-2.2	-2.3	-0.8	-0.8	-0.6	-0.6	-1.1	-2.7	-0.5	-0.4	-2.2	-0.4	-0.2	-0.1	-0.2	-2.1	-0.1	-1.9
7/18/2017	-0.6	-1.9	-2.2	-0.7	-0.6	-0.5	-0.5	-0.8	-2.0	-0.4	-0.2	-1.4	-0.3	-0.1	-0.1	-0.1	-1.4	0.0	-1.1
7/24/2017	-0.9	-2.6	-2.2	-1.0	-0.9	-0.7	-0.6	-1.4	-3.5	-0.8	-0.5	-2.9	-0.8	-0.4	-0.3	-0.4	-2.8	-0.2	-2.6
7/31/2017	-0.8	-2.4	-2.0	-0.9	-0.7	-0.6	-0.6	-1.1	-2.7	-0.6	-0.4	-2.2	-0.6	-0.3	-0.2	-0.3	-2.2	-0.2	-1.8
8/7/2017	-0.9	-3.0	-2.8	-1.0	-0.9	-0.7	-0.7	-1.3	-2.8	-0.6	-0.4	-2.3	-0.5	-0.3	-0.1	-0.2	-2.2	-0.2	-2.0

PBS

SAMPLED: 1/1 - 12/31/2017

TABLE 14
Vacuum Monitoring (in inches of H_2O)
2017 Annual Report
Pasco Landfill NPL Site

Date	Locations Beneath Zone A Cap									Locations Outside Protective Barrier Wall (In Order From West to East)									South
	VMP 02	VMP 04	VMP 05	VMP 06	VMP 08	VMP 09	VMP 10	VMW 51i	VMW 51D	VMP 19	VMP 20	VEW 05	VMP 17	VMP 18	VMP 13S	VMP 13D	VMW 50S	VMP 21	VEW 04
8/14/2017	-1.2	-4.4	-4.7	-1.3	-1.1	-0.9	-0.8	-1.3	-1.8	-0.4	-0.2	-1.5	-0.4	-0.2	-0.2	-0.2	-1.4	-0.1	-1.1
8/21/2017	-1.5	-5.1	-6.7	-1.8	-1.4	-1.2	-1.0	-1.6	-1.4	-0.3	-0.2	-1.9	-0.4	-0.3	-0.2	-0.2	-1.1	-0.2	-0.9
8/28/2017	-1.5	-5.1	-6.7	-1.8	-1.4	-1.2	-1.0	-1.6	-1.4	-0.3	-0.2	-1.9	-0.4	-0.3	-0.2	-0.2	-1.1	-0.2	-0.9
9/6/2017	-1.7	-5.5	-7.9	-2.1	-1.7	-1.5	-1.3	-2.0	-3.1	-0.6	-0.4	-2.5	-0.6	-0.3	-0.2	-0.3	-2.3	-0.2	-2.0
9/18/2017	-1.7	-5.2	-8.2	-2.1	-1.7	-1.5	-1.2	-1.9	-2.8	-0.5	-0.4	-2.2	-0.5	-0.3	-0.2	-0.3	-2.0	-0.1	-1.7
9/25/2017	-1.8	-5.5	-8.7	-2.1	-1.7	-1.5	-1.2	-1.8	-1.9	-0.5	-0.3	-1.6	-0.4	-0.3	-0.1	-0.2	-1.4	-0.1	-1.2
10/4/2017	-1.6	-5.3	-8.1	-2.0	-1.6	-1.4	-1.2	-1.8	-1.9	-0.5	-0.3	-1.5	-0.4	-0.3	-0.2	-0.2	-1.4	-0.2	-1.3
10/9/2017	-1.7	-5.5	-8.3	-2.1	-1.6	-1.4	-1.1	-1.9	-2.2	-0.5	-0.3	-1.7	-0.4	-0.3	-0.1	-0.2	-1.7	-0.1	-1.4
10/16/2017	-1.6	-5.3	-8.6	-2.0	-1.6	-1.4	-1.2	-1.8	-1.8	-0.4	-0.3	-1.5	-0.4	-0.2	-0.2	-0.2	-1.3	-0.9	-1.2
10/23/2017	-1.9	-5.5	-8.9	-2.3	-1.7	-1.6	-1.3	-2.2	-3.1	-0.7	-0.5	-2.6	-0.7	-0.3	-0.2	-0.3	-2.5	-0.2	-2.3
10/30/2017	-1.7	-5.2	-8.6	-2.2	-1.7	-1.6	-1.3	-1.9	-2.4	-0.5	-0.3	-1.9	-0.4	-0.3	-0.2	-0.3	-1.8	-0.1	-1.7
11/6/2017	-1.8	-5.4	-8.7	-2.2	-1.7	-1.6	-1.3	-2.0	-3.1	-0.7	-0.5	-2.6	-0.6	-0.3	-0.2	-0.3	-2.6	-0.2	-2.4
11/14/2017	-1.8	-5.3	-8.8	-2.3	-1.8	-1.6	-1.5	-2.1	-3.0	-0.6	-0.4	-2.5	-0.6	-0.3	-0.2	-0.3	-2.4	-0.2	-2.3
11/20/2017	-1.6	-5.1	-8.6	-2.3	-1.6	-1.5	-1.3	-1.8	-2.0	-0.6	-0.4	-1.8	-0.5	-0.3	-0.1	-0.3	-1.8	-0.2	-1.6
11/27/2017	-1.7	-5.1	-8.7	-2.2	-1.7	-1.6	-1.3	-2.0	-3.2	-0.7	-0.5	-2.8	-0.7	-0.4	-0.2	-0.4	-2.7	-0.2	-2.5
12/4/2017	-1.5	-4.8	-8.4	-2.0	-1.5	-1.3	-1.1	-1.6	-2.0	-0.5	-0.4	-1.7	-0.3	-0.2	-0.1	-0.2	-1.6	-0.1	-1.2
12/11/2017	-1.6	-4.7	-8.6	-2.0	-1.5	-1.4	-1.1	-1.7	-2.0	-0.5	-0.3	-1.6	-0.4	-0.3	-0.2	-0.3	-1.5	-0.2	-1.3
12/18/2017	-1.6	-4.5	-8.4	-2.1	-1.5	-1.4	-1.1	-1.7	-2.4	-0.6	-0.4	-2.1	-0.5	-0.3	-0.2	-0.3	-2.1	-0.2	-1.8

PERIOD: 1/1 - 12/31/2017

TABLE 15
SVE System Analytical Data and Removal Rates
Detected Compounds Only (in µg/L)
Pasco Landfill NPL Site

Sample Location	Date	Toluene	m,p-Xylene	4-Methyl-2-pentanone (MIBK)	Acetone	2-butanone (MEK)	Ethanol	Ethyl benzene	o-Xylene	Trichloroethene	1,2,4-Trimethyl benzene	1,3,5-Trimethyl benzene	n-propyl benzene	Tetrachloroethene	Methylene chloride	1,1-Dichloroethane	Iso propyl benzene	1,2-Dichloroethane	Chloroethane	1,2-Dichlorobenzene	Benzene	Chloromethane	cis-1,2-Dichloroethene
SV-BRTO	1/3/2017	570	180	200	250	260	71	62	61	63	16	12	8.2	9.6	6.6	5.6	4.0	2.3	1.5	1.4	1.3	0.33	1.2
	1/11/2017	840	230	250	280	270	95	85	77	71	20	12	7.7	9.8	6.2	6.0	4.1	2.7	1.5	1.8	1.4	0.44	1.4
	1/16/2017	740	200	170	270	130	110	78	63	73	18	14	9.9	13	7.7	8.0	5.0	3.0	2.0	1.3	1.8	0.51	1.8
	1/23/2017	610	210	110	280	200	100	77	74	62	16	11	6.8	9.3	15	5.6	3.4	2.3	1.5	1.5	1.4	0.38	1.3
	1/30/2017	630	210	150	160	210	86	80	69	55	15	9.1	5.3	10	6.5	6.2	3.0	2.6	1.5	1.3	1.6	0.38	1.5
	2/6/2017	820	230	130	380	170	79	88	62	64	14	13	8.1	12	6.6	5.9	4.4	2.2	1.5	1.6	1.5	0.41	1.5
	2/13/2017	600	240	200	490	420	99	83	71	64	22	11	7.2	8.6	7.3	5.6	3.7	1.7	1.3	1.5	1.1	0.41	1.3
	2/21/2017	1,200	270	390	490	240	100	98	98	72	21	9.6	5.8	9.5	5.3	5.2	3.3	2.0	1.4	1.3	1.4	0.39	1.3
	2/27/2017	1,000	270	220	580	200	130	100	66	62	24	16	12	13	5.5	7.9	6.2	2.8	2.0	2.1	1.6	0.66	1.9
	3/6/2017	1,500	270	380	470	260	130	99	87	64	16	9.9	6.1	8.6	5.4	5.5	3.4	1.9	1.5	1.4	1.5	0.52	1.3
	3/13/2017	1,600	1,300	390	370	330	120	120	120	69	36	23	15	15	7.0	6.7	7.1	2.1	1.6	3.4	1.6	0.60	1.7
	3/20/2017	1,200	950	280	240	190	110	130	110	82	31	19	11	11	5.9	6.0	5.0	2.0	1.4	2.4	1.3	0.61	1.4
	4/3/2017	1,200	1,500	360	560	270	120	140	99	70	38	29	11	9.9	2.8	4.3	4.7	1.3	1.3	1.7	1.1	0.42	1.0
	4/17/2017	890	230	260	210	210	96	85	76	55	16	9.7	6.1	6.3	4.4	4.1	3.1	1.3	1.1	1.4	0.94	0.43	0.92
	5/1/2017	720	150	410	390	50	120	57	47	39	9.0	5.4	3.1	5.1	3.4	3.4	1.7	1.2	0.87	0.97	0.78	0.29	0.74
	5/15/2017	950	280	230	150	150	190	110	110	60	28	10	6.4	8.1	3.0	3.7	3.0	1.2	0.92	1.5	0.85	0.31	0.89
	5/30/2017	1,000	230	430	350	220	180	84	75	55	21	12	7.3	8.0	2.5	4.7	4.1	1.1	1.2	1.5	1.0	0.37	0.91
	6/13/2017	840	260	270	130	130	150	97	55	60	13	7.8	5.0	6.3	2.8	4.1	2.6	0.91	1.0	1.2	0.85	0.32	0.73
	6/26/2017	1,300	280	360	330	210	170	110	94	70	28	14	9.3	7.6	5.1	4.3	4.1	1.1	1.0	1.4	0.88	0.37	0.76
	7/18/2017	620	140	250	140	160	130	56	61	40	14	7.7	4.0	3.8	5.2	4.2	2.0	0.94	1.4	1.3	0.82	0.59	0.68
	7/31/2017	1,300	300	450	120	240	150	120	110	60	46	25	12	9.7	5.4	5.2	6.1	0.97	1.5	2.7	1.1	0.56	0.88
	8/14/2017	390	140	220	120	140	98	53	50	38	9.8	5.8	3.1	3.7	4.9	3.9	1.5	1.1	1.2	0.96	0.79	0.60	0.60
	8/28/2017	530	250	170	110	120	160	96	80	59	30	20	12	16	11	9.1	9.2	2.2	4.4	2.2	2.0	2.8	1.3
	9/5/2017	920	320	360	160	350	190	120	100	73	55	34	15	11	3.7	5.1	6.0	1.2	2.1	3.5	1.1	1.1	0.84
	9/11/2017	1,300	260	320	110	160	140	100	85	67	33	22	10	12	6.5	7.7	5.3	1.4	2.9	2.0	1.5	1.3	1.2
	9/25/2017	550	270	150	57	94	< 20 U	98	92	48	14	9.4	6.1	4.2	1.8	1.7	2.4	0.42	0.81	0.88	0.41	0.68	0.34
	10/9/2017	410	160	150	97	130	85	58	51	37	14	9.6	6.9	6.3	4.7	3.1	2.9	0.71	1.3	0.71	0.76	1.1	0.54
	10/23/2017	360	150	150	98	130	81	55	52	34	10	5.9	3.4	3.7	3.4	2.2	1.4	0.63	0.86	1.2	0.54	0.81	0.37
	11/6/2017	460	230	150	110	100	70	69	59	44	10	6.3	4.3	3.7	3.2	1.8	1.8	0.4	0.81	0.99	0.47	0.83	0.28
	11/20/2017	300	160	120	59	100	< 20 U	60	56	42	13	7.6	4.9	4.2	1.8	2.2	2.3	0.5	0.92	1.1	0.55	0.91	0.34
	12/4/2017	280	220	130	76	120	62	72	61	38	7.0	6.1	4.1	5.2	2.3	2.0	2.3	0.45	0.87	0.8	0.52	1.3	0.37
	12/18/2017	290	140	140	93	140	71	51	48	32	8.8	4.8	2.7	3.4	3.8	2.0	1.4	0.39	0.86	1.1	1.2	1.7	0.36

Modified EPA Method 8260

U = Not detected above reporting limit

lbs/day = (X)µg/L x 28.32 L/ft^3/min x 0.002205 lb/g / 1,000,000 µg/g x 1440 min/day

PERIOD: 1/1 - 12/31/2017

TABLE 15
SVE System Analytical Data and Removal Rates
Detected Compounds Only (in µg/L)
Pasco Landfill NPL Site

Sample Location	n-butyl benzene	p-Iso propyl toluene	Sec-butyl benzene	Dichloro difluoro methane (CFC-12)	Chloro form	1,1-Dichloro ethene	Chloro benzene	Naphtha lene	1,1,1-Trichloro ethane	Vinyl chloride	1,4-Dichloro benzene	2-Hexanone (MBK)	Trichloro fluoro methane (CFC-11)	1,2,4-Trichloro benzene	Carbon disulfide	trans-1,2-Dichloro ethene	Bromo methane	Tertiary butyl alcohol	Total VOCs (µg/L)	Flow Rate (scfm)	Removal Rate (lbs/day)
SV-BRTO	0.74	0.49	0.57	<0.20 U	0.27	0.47	0.23	<0.20 U	0.26	0.15	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,790	402	65
	0.64	0.43	0.49	<0.20 U	0.29	0.45	0.25	0.37	0.31	0.14	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	2,276	401	82
	0.90	0.61	0.75	<0.20 U	0.58	0.58	0.31	0.28	0.37	0.19	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,925	414	72
	0.57	0.37	0.45	<0.20 U	0.27	0.41	0.22	0.29	0.28	0.15	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,801	401	65
	0.40	0.28	0.33	<0.20 U	0.34	0.47	0.21	0.24	0.25	0.13	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,717	404	62
	0.68	0.42	0.5	<0.20 U	0.26	0.40	0.29	0.2	0.29	0.12	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	2,099	398	75
	0.61	0.42	0.49	<0.20 U	0.47	0.37	0.21	0.32	0.25	0.11	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	2,343	409	86
	0.45	0.32	0.35	<0.20 U	0.49	0.39	0.22	0.23	0.25	0.13	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	3,028	471	128
	0.92	0.69	0.74	<0.20 U	0.61	0.49	0.37	0.25	0.34	0.14	0.21	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	2,728	471	116
	0.44	0.31	0.36	<0.20 U	0.39	0.35	0.22	0.25	0.28	0.13	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	3,326	469	140
	1.4	0.89	0.98	<0.20 U	0.37	0.40	0.39	0.65	0.29	0.11	0.36	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	4,546	472	193
	0.91	0.57	0.66	<0.20 U	0.34	0.35	0.29	0.47	0.28	0.13	0.24	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	3,394	480	147
	1.1	0.59	0.71	<0.20 U	0.23	0.24	0.27	0.26	<0.20 U	0.075	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	4,429	473	188
	0.52	0.37	0.37	<0.20 U	0.26	0.22	<0.20 U	<0.20 U	<0.20 U	0.082	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	2,170	472	92
	0.24	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	0.25	<0.20 U	0.068	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	2,020	474	86
	0.77	0.39	<0.20 U	<0.20 U	0.25	0.20	<0.20 U	0.24	<0.20 U	0.058	<0.20 U	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	2,300	466	96
	0.57	0.43	0.46	<0.20 U	0.25	0.27	0.22	0.28	<0.20 U	0.07	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	2,692	460	111
	0.56	0.28	0.29	<0.20 U	0.24	0.22	<0.20 U	<0.20 U	<0.20 U	0.059	<0.20 U	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	2,040	457	84
	<0.20 U	0.47	0.55	<0.20 U	0.39	0.22	0.24	0.21	<0.20 U	0.058	<0.20 U	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	3,004	461	125
	0.42	0.25	0.26	<0.20 U	0.42	0.24	<0.20 U	0.29	<0.20 U	0.067	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,646	501	74
	1.9	1.3	1.1	<0.20 U	0.56	0.29	0.32	0.60	<0.20 U	0.096	0.28	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	2,974	499	133
	0.28	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	0.37	<0.20 U	0.045	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,288	499	58
	2.7	1.7	2.1	<0.20 U	0.72	0.51	0.49	0.29	0.25	0.11	<0.20 U	<1.0 U	<0.20 U	<0.20 U	0.26	0.21	<0.20 U	<0.20 U	1,707	463	71
	2.2	1.2	<0.20 U	<0.20 U	<0.20 U	0.25	0.32	0.68	<0.20 U	0.081	0.36	<1.0 U	<0.20 U	<0.20 U	0.25	<0.20 U	<0.20 U	<0.20 U	2,738	711	175
	1.0	0.74	0.78	<0.20 U	1.3	0.45	0.30	0.51	<0.20 U	0.11	<0.20 U	<1.0 U	<0.20 U	<0.20 U	0.33	<0.20 U	<0.20 U	<0.20 U	2,654	708	169
	0.67	0.51	0.52	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	0.024	<0.20 U	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,404	494	62
	0.56	0.39	0.52	<0.20 U	0.4	<0.20 U	<0.20 U	<0.20 U	<0.20 U	0.039	<0.20 U	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,233	493	55
	0.29	<0.20 U	0.22	<0.20 U	<0.20 U	<0.20 U	<0.20 U	0.24	<0.20 U	0.023	<0.20 U	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,145	499	51
	0.45	0.30	0.32	<0.20 U	0.34	<0.20 U	<0.20 U	0.34	<0.20 U	< 0.020 U	<0.20 U	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,329	494	59
	0.55	0.39	0.40	3.5	0.44	<0.20 U	<0.20 U	0.23	<0.20 U	0.03	<0.20 U	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	943	495	42
	0.44	0.33	0.31	0.83	<0.20 U	<0.20 U	<0.20 U	0.22	<0.20 U	< 0.020 U	<0.20 U	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,094	493	49
	0.42	0.27	0.25	0.20	0.21	<0.20 U	<0.20 U	0.28	<0.20 U	0.041	<0.20 U	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,039	496	46

Modified EPA Method 8260

U = Not detected above reporting limit

lbs/day = (X)µg/L x 28.32 L/ft^3/min x 0.002205 lb/g / 1,000,000 µg/g x 1440 min/day

PERIOD: 1/1 - 12/31/2017

TABLE 15
SVE System Analytical Data and Removal Rates
Detected Compounds Only (in µg/L)
Pasco Landfill NPL Site

Sample Location	Date	Toluene	m,p-Xylene	4-Methyl-2-pentanone (MIBK)	Acetone	2-butanone (MEK)	Ethanol	Ethyl benzene	o-Xylene	Trichloroethene	1,2,4-Trimethyl benzene	1,3,5-Trimethyl benzene	n-propyl benzene	Tetrachloroethene	Methylene chloride	1,1-Dichloroethane	Iso propyl benzene	1,2-Dichloroethane	Chloroethane	1,2-Dichlorobenzene	Benzene	Chloromethane	cis-1,2-Dichloroethene
VEW-06S	1/3/2017	300	150	93	20	46	28	51	52	68	4.4	3	2.6	4.7	3.2	5.8	1.8	4.6	3.6	0.26	1	<0.20 U	0.89
	1/11/2017	720	200	150	43	58	23	72	69	75	9.2	6.1	4.3	6.2	3.6	6.5	2.8	5.2	4.5	0.52	1.4	0.36	1.2
	1/16/2017	790	260	150	20	36	53	95	82	79	17	14	11	13	5.9	9.8	6.6	7.2	7.1	0.67	2.4	0.47	1.8
	1/23/2017	790	300	180	29	60	37	110	110	67	23	11	7.7	7.9	11	5.8	4.3	5.1	4.9	1	1.7	0.31	1.1
	1/30/2017	410	190	120	14	37	39	67	64	48	7.4	5.2	4.1	5.6	2.6	4	2.4	3.4	3.3	0.31	1.1	0.22	0.69
	2/6/2017	570	230	120	23	24	100	81	65	54	16	14	9.9	10	5.5	6.5	5.3	4.8	6	1.1	1.8	0.45	1.1
	2/13/2017	420	160	120	45	37	38	54	51	43	8.9	5.5	3.9	4.6	4.7	4.2	2.2	2.4	4.3	0.41	0.87	0.32	0.66
	2/21/2017	1500	750	440	120	140	330	280	150	54	15	10	11	16	4.6	5.3	9.7	4.7	5.7	0.52	2.7	0.37	1.5
	2/27/2017	250	120	62	16	11	<20 U	42	43	27	12	8	5.3	5.5	3.6	5	3.1	2.6	6.3	0.5	1.2	0.58	0.81
	3/6/2017	840	260	120	110	150	25	90	95	40	32	12	7.1	5.7	3.4	4	3.7	2.4	4.9	0.86	1.4	0.49	0.65
	3/13/2017	850	310	130	14	19	21	100	120	36	46	28	17	11	5.1	5.2	10	3.1	6.8	2.7	1.7	0.75	0.87
	3/20/2017	830	300	160	20	27	69	98	110	37	36	21	13	5.2	3.5	3.8	5.7	2.4	5.1	1.2	1.3	0.67	0.61
	4/17/2017	340	220	100	9.8	18	<20 U	74	87	15	38	25	9.9	4.4	3	3.1	4.9	1.3	3.9	0.98	0.82	0.56	0.34
	5/15/2017	700	230	87	11	16	< 20 U	77	94	13	43	15	9.2	4.8	1.7	3.2	3.7	1.2	3.4	1.2	0.78	0.47	0.3
	6/13/2017	150	140	44	9.4	15	< 20 U	44	61	13	37	16	8.6	2.6	3.6	3.6	2.5	0.71	2.9	1.3	0.64	0.34	0.28
	7/18/2017	86	27	31	4.9	12	<20 U	10	14	7.1	6.1	3.4	1.3	1.5	3	3.6	0.72	0.57	3.6	0.53	0.55	0.56	<0.20 U
	7/31/2017	150	130	38	9.1	6.7	<20 U	42	44	32	29	18	12	7.7	7.9	8.9	4.8	1.5	8.2	1.6	1.5	3.1	0.64
	8/14/2017	89	57	39	6	13	<20 U	13	16	7.9	6	3.6	1.5	1.7	2.7	2.6	0.84	0.82	1.9	0.47	0.52	0.59	<0.20 U
	8/28/2017	130	110	37	11	16	<20 U	37	36	12	24	11	5.2	3.6	3.5	3.4	2.3	0.97	3	1.1	0.81	1.3	0.24
	9/11/2017	120	100	36	7.3	16	<20 U	36	33	8.5	12	7.8	3.7	3.9	0.8	2.7	1.8	0.54	1.9	0.74	0.61	0.38	<0.20 U
	9/25/2017	100	120	20	9.5	12	< 20 U	15	39	4.4	13	8.6	4.4	2.3	0.68	0.87	1.4	0.33	1	0.59	0.29	0.78	<0.20 U
	10/9/2017	86	92	32	44	78	< 20 U	15	16	5.9	12	7.9	3.9	2.8	1.8	1.3	1.4	0.45	1.5	0.64	0.4	1	<0.20 U
	10/23/2017	47	27	16	13	14	< 20 U	9.1	11	3.9	8.1	4.6	2	2	< 0.50 U	0.93	0.73	0.36	0.97	0.68	0.29	0.65	<0.20 U
	11/6/2017	70	89	21	13	15	< 20 U	14	16	4.7	13	7.6	3.7	2.8	0.79	0.96	1.3	0.27	1	1	0.3	0.89	<0.20 U
	11/20/2017	47	27	14	9.8	9.9	< 20 U	9.1	11	4.5	8.9	5.4	2.5	1.9	< 0.50 U	0.72	0.92	0.28	0.87	0.59	0.25	0.72	<0.20 U
	12/4/2017	15	18	9.9	13	10	< 20 U	4.8	5.7	2.7	4.1	2.3	0.78	1.3	< 0.50 U	0.64	0.44	0.25	0.66	0.49	<0.20 U	0.66	<0.20 U
	12/18/2017	35	22	15	12	11	< 20 U	6.9	8.9	3.1	8.4	4.3	1.6	2	1.3	0.6	0.68	<0.20 U	0.61	1.3	0.23	0.66	<0.20 U

Modified EPA Method 8260

U = Not detected above reporting limit

lbs/day = (X)µg/L x 28.32 L/ft^3/min x 0.002205 lb/g / 1,000,000 µg/g x 1440 min/day

PERIOD: 1/1 - 12/31/2017

TABLE 15
SVE System Analytical Data and Removal Rates
Detected Compounds Only (in µg/L)
Pasco Landfill NPL Site

Sample Location	n-butyl benzene	p-Iso propyl toluene	Sec-butyl benzene	Dichloro difluoro methane (CFC-12)	Chloro form	1,1-Dichloro ethene	Chloro benzene	Naphtha lene	1,1,1-Trichloro ethane	Vinyl chloride	1,4-Dichloro benzene	2-Hexanone (MBK)	Trichloro fluoro methane (CFC-11)	1,2,4-Trichloro benzene	Carbon disulfide	trans-1,2-Dichloro ethene	Bromo methane	Tertiary butyl alcohol	Total VOCs (µg/L)	Flow Rate (scfm)	Removal Rate (lbs/day)
VEW-06S	<0.20 U	<0.20 U	<0.20 U	<0.20 U	0.4	<0.20 U	<0.20 U	<0.20 U	<0.20 U	0.073	<0.20 U	1.9	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	846	30	2
	<0.20 U	0.2	0.24	<0.20 U	0.39	0.24	0.21	<0.20 U	<0.20 U	0.087	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,463	31	4
	0.49	0.58	0.73	<0.20 U	0.88	0.36	0.54	<0.20 U	<0.20 U	0.12	<0.20 U	<1.0 U	0.3	<0.20 U	<0.20 U	0.23	<0.20 U	<0.20 U	1,666	38	6
	0.44	0.43	0.5	<0.20 U	0.43	<0.20 U	0.34	<0.20 U	<0.20 U	0.085	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,770	38	6
	<0.20 U	<0.20 U	<0.20 U	<0.20 U	0.3	<0.20 U	<0.20 U	<0.20 U	<0.20 U	0.05	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,030	32	3
	0.72	0.54	0.67	<0.20 U	0.58	0.23	0.39	<0.20 U	<0.20 U	0.089	<0.20 U	<1.0 U	0.22	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,353	28	3
	0.25	0.23	0.28	<0.20 U	0.56	<0.20 U	0.21	<0.20 U	<0.20 U	0.047	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,013	32	3
	0.27	0.31	0.47	<0.20 U	0.8	0.24	0.78	<0.20 U	<0.20 U	0.089	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	3,854	33	11
	0.27	0.31	0.38	<0.20 U	0.57	<0.20 U	0.21	<0.20 U	<0.20 U	0.057	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	627	29	2
	0.47	0.41	0.49	<0.20 U	0.59	<0.20 U	0.23	<0.20 U	<0.20 U	0.056	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,811	28	5
	1.7	1.5	1.7	<0.20 U	0.71	<0.20 U	0.59	0.23	<0.20 U	0.056	0.31	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,745	34	5
	0.66	0.74	0.94	<0.20 U	0.46	<0.20 U	0.34	<0.20 U	<0.20 U	0.057	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,754	39	6
	0.63	0.9	1	<0.20 U	0.47	<0.20 U	0.21	<0.20 U	<0.20 U	0.038	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	963	33	3
	1.1	0.83	<0.20 U	<0.20 U	0.56	<0.20 U	0.2	<0.20 U	<0.20 U	0.028	<0.20 U	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,319	33	4
	0.93	1	0.94	<0.20 U	0.6	<0.20 U	<0.20 U	<0.20 U	<0.20 U	0.024	<0.20 U	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	560	28	1
	0.21	<0.20 U	<0.20 U	<0.20 U	0.6	<0.20 U	<0.20 U	0.21	<0.20 U	0.028	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	218	41	1
	2.4	2.2	2.1	<0.20 U	1.2	0.29	0.31	0.48	<0.20 U	0.069	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	566	40	2
	<0.20 U	<0.20 U	<0.20 U	<0.20 U	0.32	<0.20 U	<0.20 U	0.28	<0.20 U	<0.020 U	<0.20 U	<1.0 U	0.2	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	265	74	2
	0.96	0.82	0.76	<0.20 U	0.57	<0.20 U	<0.20 U	0.32	<0.20 U	<0.020 U	<0.20 U	<1.0 U	<0.20 U	0.24	<0.20 U	<0.20 U	<0.20 U	<0.20 U	453	72	3
	0.61	0.51	0.5	<0.20 U	0.86	<0.20 U	<0.20 U	0.44	<0.20 U	<0.020 U	<0.20 U	<1.0 U	<0.20 U	<0.20 U	0.24	<0.20 U	<0.20 U	<0.20 U	397	53	2
	0.79	0.68	0.66	<0.20 U	0.36	<0.20 U	<0.20 U	<0.20 U	<0.20 U	< 0.020 U	<0.20 U	< 1.0 U	<0.20 U	0.28	<0.20 U	<0.20 U	<0.20 U	<0.20 U	357	83	3
	0.81	0.7	0.65	<0.20 U	0.44	<0.20 U	<0.20 U	<0.20 U	<0.20 U	< 0.020 U	<0.20 U	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	407	79	3
	0.37	0.31	0.28	<0.20 U	0.25	<0.20 U	<0.20 U	0.32	<0.20 U	< 0.020 U	<0.20 U	< 1.0 U	<0.20 U	0.26	<0.20 U	<0.20 U	<0.20 U	<0.20 U	164	86	1
	0.9	0.65	0.56	<0.20 U	0.34	<0.20 U	<0.20 U	0.54	<0.20 U	< 0.020 U	<0.20 U	1	<0.20 U	0.29	<0.20 U	<0.20 U	<0.20 U	<0.20 U	281	83	2
	0.57	0.47	0.42	44	0.54	<0.20 U	<0.20 U	0.25	<0.20 U	< 0.020 U	<0.20 U	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	202	82	1
	0.22	<0.20 U	<0.20 U	5.3	0.28	<0.20 U	<0.20 U	0.77	<0.20 U	< 0.020 U	<0.20 U	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	97	81	1
	0.73	0.47	0.38	0.81	0.29	<0.20 U	<0.20 U	0.39	<0.20 U	< 0.020 U	<0.20 U	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	139	79	1

Modified EPA Method 8260

U = Not detected above reporting limit

lbs/day = (X)µg/L x 28.32 L/ft^3/min x 0.002205 lb/g / 1,000,000 µg/g x 1440 min/day

PERIOD: 1/1 - 12/31/2017

TABLE 15
SVE System Analytical Data and Removal Rates
Detected Compounds Only (in µg/L)
Pasco Landfill NPL Site

Sample Location	Date	Toluene	m,p-Xylene	4-Methyl-2-pentanone (MIBK)	Acetone	2-butanone (MEK)	Ethanol	Ethyl benzene	o-Xylene	Trichloroethene	1,2,4-Trimethyl benzene	1,3,5-Trimethyl benzene	n-propyl benzene	Tetrachloroethene	Methylene chloride	1,1-Dichloroethane	Iso propyl benzene	1,2-Dichloroethane	Chloroethane	1,2-Dichlorobenzene	Benzene	Chloromethane	cis-1,2-Dichloroethene
VEW-06D	1/3/2017	460	78	150	230	200	52	32	20	43	2.3	1.3	0.9	5.5	1.7	3	0.7	1.1	0.63	<0.20 U	0.83	<0.20 U	0.85
	1/11/2017	650	140	190	210	160	76	55	41	51	3.9	2.3	1.9	6	1.4	3.1	1.4	1.5	0.51	0.35	0.99	<0.20 U	0.9
	1/16/2017	1,100	290	250	170	190	80	110	83	65	9.9	7.2	6.5	14	2.6	4.2	4.5	1.9	0.83	0.45	1.4	<0.20 U	1.3
	1/23/2017	1,100	300	250	350	160	110	110	100	60	11	6.9	5.4	9.5	9.2	3.5	3.4	2	0.57	0.76	1.4	<0.20 U	1.2
	1/30/2017	610	180	140	140	150	74	70	49	41	5.2	3.2	2.3	8	1.8	2.7	1.7	1.3	0.43	0.35	0.94	<0.20 U	0.87
	2/6/2017	880	260	180	320	120	72	100	71	52	13	8.5	6.3	9.8	2.6	3	3.6	1.3	0.43	0.87	1	<0.20 U	0.93
	2/13/2017	830	160	200	620	140	41	59	44	46	12	6.9	5	10	5.5	4.5	2.9	1.3	0.78	0.66	1.1	<0.20 U	1.2
	2/21/2017	1,900	1,500	790	340	270	370	490	140	75	15	10	10	13	3.6	5.4	9.2	5.2	1.2	0.54	3.6	<0.20 U	2.2
	2/27/2017	780	220	160	540	84	70	83	75	41	15	9.3	6.8	9.1	2.3	3.5	4.1	1.2	0.6	0.71	0.85	<0.20 U	1
	3/6/2017	1,600	220	400	320	220	87	78	80	41	19	13	8.3	9.7	3.9	3.9	4.7	1.2	0.62	0.97	1.2	<0.20 U	1.2
	3/13/2017	1,300	1,100	340	230	120	190	320	380	49	36	24	18	14	3.9	4.8	10	1.5	0.74	1.6	1.4	<0.20 U	1.4
	3/20/2017	760	290	200	160	86	84	100	98	52	20	11	8.4	8	3	3.6	4.7	1.2	0.57	0.62	0.9	<0.20 U	0.96
	4/17/2017	870	260	250	140	78	57	91	100	40	40	26	11	6.5	2.7	2.7	5.4	0.94	0.44	1	0.75	<0.20 U	0.67
	5/15/2017	840	280	210	92	100	150	100	110	42	35	22	11	10	1.8	3	5.1	1	0.49	1.2	0.87	<0.20 U	0.9
	6/13/2017	1,100	230	300	130	89	140	83	55	36	49	11	6.4	4.7	< 0.50 U	2.1	2.6	0.54	0.35	1.1	0.52	<0.20 U	0.41
	7/18/2017	680	190	240	84	91	100	74	77	16	10	5.4	2.9	3.9	2.7	2.1	1.8	0.55	0.34	0.66	0.5	<0.20 U	0.4
	7/31/2017	520	290	84	100	110	<20 U	100	93	44	41	24	16	14	5.2	5.3	9.7	1.1	1.2	1.7	1.3	<0.20 U	0.83
	8/14/2017	320	120	130	91	89	<20 U	45	41	13	7.1	4.1	2.3	3.2	1.8	1.6	1.2	0.48	0.21	0.4	0.38	<0.20 U	0.25
	8/28/2017	770	220	200	94	84	110	84	66	32	28	11	6.6	6.3	1.8	1.8	2.9	0.57	0.2	0.54	0.45	<0.20 U	0.26
	9/11/2017	1,200	250	300	93	81	120	97	74	44	31	12	7.5	10	1.3	3.1	4	0.71	<0.20 U	0.76	0.68	<0.20 U	0.43
	9/25/2017	500	190	77	26	28	< 20 U	71	59	15	14	9.8	6.6	5.7	0.97	0.99	2.5	0.27	<0.20 U	0.52	0.27	<0.20 U	<0.20 U
	10/9/2017	580	130	110	68	52	50	45	38	11	8.4	5.5	3.9	4.3	0.7	0.77	1.8	0.23	<0.20 U	0.32	0.21	<0.20 U	<0.20 U
	10/23/2017	370	120	110	65	48	56	44	38	10	6.8	4	2.6	3.5	< 0.50 U	0.86	1.1	0.24	<0.20 U	0.33	0.22	<0.20 U	<0.20 U
	11/6/2017	260	200	110	77	56	< 20 U	60	49	22	13	7.9	5.7	6	0.85	1.1	2.4	0.24	<0.20 U	0.87	0.3	<0.20 U	<0.20 U
	11/20/2017	290	130	90	38	38	49	51	44	10	9.5	5.7	4	4.1	< 0.50 U	0.6	1.9	0.2	<0.20 U	0.41	0.21	<0.20 U	<0.20 U
	12/4/2017	260	170	93	44	44	54	58	47	13	7.7	6.3	3.9	5.1	< 0.50 U	1	2.3	0.24	<0.20 U	0.44	0.25	<0.20 U	<0.20 U
	12/18/2017	240	110	93	55	43	52	42	37	8.7	7.6	4.1	2.2	3.2	1.2	0.62	1.2	<0.20 U	<0.20 U	0.85	<0.20 U	<0.20 U	<0.20 U

Modified EPA Method 8260

U = Not detected above reporting limit

lbs/day = (X)µg/L x 28.32 L/ft^3/min x 0.002205 lb/g / 1,000,000 µg/g x 1440 min/day

PERIOD: 1/1 - 12/31/2017

TABLE 15
SVE System Analytical Data and Removal Rates
Detected Compounds Only (in µg/L)
Pasco Landfill NPL Site

Sample Location	n-butyl benzene	p-Iso propyl toluene	Sec-butyl benzene	Dichloro difluoro methane (CFC-12)	Chloro form	1,1-Dichloro ethene	Chloro benzene	Naphtha lene	1,1,1-Trichloro ethane	Vinyl chloride	1,4-Dichloro benzene	2-Hexanone (MBK)	Trichloro fluoro methane (CFC-11)	1,2,4-Trichloro benzene	Carbon disulfide	trans-1,2-Dichloro ethene	Bromo methane	Tertiary butyl alcohol	Total VOCs (µg/L)	Flow Rate (scfm)	Removal Rate (lbs/day)
VEW-06D	<0.20 U	<0.20 U	<0.20 U	<0.20 U	0.21	0.32	<0.20 U	<0.20 U	<0.20 U	0.12	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,284	173	20
	<0.20 U	<0.20 U	<0.20 U	0.24	<0.20 U	0.29	<0.20 U	<0.20 U	<0.20 U	0.1	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,598	173	25
	0.26	0.29	0.34	0.29	0.43	0.37	0.34	<0.20 U	0.23	0.13	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	2,395	173	37
	0.28	0.27	0.29	0.29	0.23	0.29	0.29	<0.20 U	<0.20 U	0.12	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	2,597	173	40
	<0.20 U	<0.20 U	<0.20 U	<0.20 U	0.21	0.22	<0.20 U	<0.20 U	<0.20 U	0.073	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,483	173	23
	0.45	0.34	0.38	0.24	0.24	0.24	0.27	<0.20 U	<0.20 U	0.083	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	2,109	173	33
	0.42	0.4	0.39	0.35	0.52	0.35	0.24	<0.20 U	0.27	0.12	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	2,195	173	34
	0.3	0.34	0.46	0.31	0.78	0.41	0.96	<0.20 U	0.23	0.16	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	5,958	201	108
	0.35	0.38	0.43	0.21	0.4	0.25	0.24	<0.20 U	<0.20 U	0.082	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	2,110	202	38
	0.46	0.45	0.52	0.26	0.26	0.27	0.3	<0.20 U	<0.20 U	0.11	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	3,116	202	57
	0.94	0.94	1.1	0.41	0.37	0.31	0.63	<0.20 U	0.26	0.097	<0.20 U	<1.0 U	0.2	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	4,152	202	75
	0.3	0.39	0.52	0.41	0.23	0.24	0.32	<0.20 U	<0.20 U	0.1	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,895	202	34
	0.63	0.87	1	0.33	0.29	<0.20 U	0.24	<0.20 U	<0.20 U	0.074	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,988	202	36
	1.2	0.99	<0.20 U	0.23	0.3	<0.20 U	0.29	<0.20 U	<0.20 U	0.059	<0.20 U	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	2,019	202	37
	0.93	0.61	0.55	<0.20 U	0.2	<0.20 U	<0.20 U	<0.20 U	<0.20 U	0.039	<0.20 U	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	2,244	202	41
	0.3	<0.20 U	<0.20 U	<0.20 U	0.43	<0.20 U	<0.20 U	0.29	<0.20 U	0.043	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,584	212	30
	3.2	2.4	2.3	2.1	0.48	0.29	0.41	0.4	<0.20 U	0.13	0.22	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,474	206	27
	0.21	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	0.28	<0.20 U	0.022	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	873	163	13
	0.72	0.47	0.51	<0.20 U	0.3	<0.20 U	<0.20 U	0.27	<0.20 U	<0.020 U	<0.20 U	<1.0 U	<0.20 U	0.24	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,723	144	22
	0.81	0.56	0.63	0.24	0.81	0.25	0.21	0.54	<0.20 U	0.043	<0.20 U	<1.0 U	<0.20 U	<0.20 U	0.28	<0.20 U	<0.20 U	<0.20 U	2,335	301	63
	0.8	0.55	0.56	0.28	0.31	<0.20 U	<0.20 U	0.21	<0.20 U	< 0.020 U	<0.20 U	< 1.0 U	<0.20 U	0.35	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,011	147	13
	0.43	0.28	0.31	<0.20 U	0.23	<0.20 U	<0.20 U	<0.20 U	<0.20 U	< 0.020 U	<0.20 U	< 1.0 U	0.2	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,112	147	15
	0.21	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	0.26	<0.20 U	< 0.020 U	<0.20 U	< 1.0 U	<0.20 U	0.21	<0.20 U	<0.20 U	<0.20 U	<0.20 U	881	147	12
	0.64	0.4	0.41	0.25	0.22	<0.20 U	<0.20 U	0.49	<0.20 U	< 0.020 U	<0.20 U	3.6	<0.20 U	0.25	<0.20 U	<0.20 U	<0.20 U	<0.20 U	879	147	12
	0.42	0.27	0.29	0.25	0.37	<0.20 U	<0.20 U	0.21	<0.20 U	< 0.020 U	<0.20 U	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	768	147	10
	0.58	0.39	0.33	<0.20 U	<0.20 U	<0.20 U	<0.20 U	0.5	<0.20 U	< 0.020 U	<0.20 U	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	812	147	11
	0.49	0.29	0.24	0.25	<0.20 U	<0.20 U	<0.20 U	0.48	<0.20 U	< 0.020 U	<0.20 U	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	703	147	9

Modified EPA Method 8260

U = Not detected above reporting limit

lbs/day = (X)µg/L x 28.32 L/ft^3/min x 0.002205 lb/g / 1,000,000 µg/g x 1440 min/day

PERIOD: 1/1 - 12/31/2017

TABLE 15
SVE System Analytical Data and Removal Rates
Detected Compounds Only (in µg/L)
Pasco Landfill NPL Site

Sample Location	Date	Toluene	m,p-Xylene	4-Methyl-2-pentanone (MIBK)	Acetone	2-butanone (MEK)	Ethanol	Ethyl benzene	o-Xylene	Trichloroethene	1,2,4-Trimethyl benzene	1,3,5-Trimethyl benzene	n-propyl benzene	Tetrachloroethene	Methylene chloride	1,1-Dichloroethane	Iso propyl benzene	1,2-Dichloroethane	Chloroethane	1,2-Dichlorobenzene	Benzene	Chloromethane	cis-1,2-Dichloroethene
VEW-07S	1/3/2017	290	170	120	48	85	44	59	54	15	4.5	2.9	2	3	2	2.9	1.6	4.9	2.1	0.22	0.6	0.7	0.45
	1/11/2017	1,000	310	290	44	120	80	120	110	80	13	9.4	7.7	7	6	9.6	5.3	16.0	9.4	0.64	2.5	5.1	1.7
	1/16/2017	1,200	510	260	71	130	63	140	110	85	19	14	11	8.8	6.5	11	6.3	19	9.8	0.94	2.7	5.1	1.9
	1/23/2017	1,100	530	280	100	150	86	150	160	71	27	16	11	6.8	13	7.7	5.9	15	7.7	1.4	2.3	4.3	1.5
	1/30/2017	930	200	200	64	120	50	79	66	54	19	11	6.3	5.1	4.3	6.1	3	12	5.7	0.78	1.8	3.1	1.2
	2/6/2017	1,200	610	220	91	150	97	210	140	78	23	15	12	8.6	5.5	7.1	7.3	12	7.3	0.98	2.2	4.1	1.4
	2/13/2017	1,000	430	330	120	150	78	120	100	58	17	12	9.7	8.6	9.5	9	5.6	11	9.8	0.75	2.2	5.5	1.6
	2/21/2017	1,300	880	340	120	100	100	120	120	60	13	9.4	8.3	11	6.4	8	5.9	11	9.5	0.34	2.6	4.9	1.7
	2/27/2017	680	240	110	84	110	65	93	59	54	9.6	6.2	4	4.1	3.3	5.8	2.6	9.5	5.8	0.46	1.4	3.8	1.2
	3/6/2017	1,000	190	290	110	160	97	70	71	35	7.6	15	15	8.9	5.6	7.1	8.5	8.4	8.5	0.47	2.6	5.8	1.5
	3/13/2017	1,600	1,800	390	79	130	110	150	150	59	46	30	20	9	7.1	7.6	9.7	10	8.5	2.6	2.2	6.3	1.6
	3/20/2017	1,400	1,300	360	86	120	100	150	150	71	32	21	14	7.5	6.3	6.6	7.1	9.3	7.2	1.1	1.9	6.1	1.4
	4/17/2017	830	260	220	53	81	56	98	97	44	34	12	7.4	3.9	4.4	4.7	3.9	5.4	5.6	0.9	1.3	4.2	0.86
	5/15/2017	760	1,000	180	76	71	170	150	420	44	82	48	16	5.1	3.7	4.7	6.3	5.5	5.2	2.5	1.4	3.3	0.86
	6/13/2017	1,000	1,400	160	57	63	120	120	81	38	62	14	8	2.9	2.9	4.5	3.5	3.6	5.4	1.8	1.1	2.9	0.63
	7/18/2017	380	140	140	33	54	<20 U	53	60	35	13	7.3	3.4	2	8.5	6	2.1	3.4	7.3	2.1	1.3	4.9	0.76
	7/31/2017	970	310	140	24	46	<20 U	110	110	55	55	35	20	7.7	14	9.8	10	5.4	12	5.1	2.3	12	1.1
	8/14/2017	350	160	170	41	84	54	61	65	43	22	14	7.1	3	13	5.9	3.2	4	5.4	3.3	1.5	4.2	0.91
	8/28/2017	780	760	240	65	140	87	120	120	86	65	37	14	5.3	24	8.8	5.8	3.3	6.5	5.6	2.1	5.1	1.4
	9/11/2017	770	290	160	45	110	76	110	100	86	55	34	9.8	5.1	15	9.5	4.6	2.8	10	4.3	2.1	6.1	1.4
	9/25/2017	580	310	130	38	77	43	110	110	61	63	15	8.9	3.4	6	3.6	3.1	0.9	2.6	2.2	0.82	2.6	0.62
	10/9/2017	790	230	240	95	180	99	83	81	52	40	23	12	4.6	10	5.3	4	1.4	3.5	2.6	1.4	3.6	0.87
	10/23/2017	430	200	190	99	170	110	72	73	52	35	11	6.1	3.6	11	4.2	2.5	1.4	2.8	3.5	1.1	3	0.72
	11/6/2017	400	350	140	100	100	150	100	95	84	56	32	14	5.2	20	7.2	4.8	1.6	4.8	5.6	1.9	5.9	1.2
	11/20/2017	540	240	140	66	140	88	93	91	77	47	15	9	3.7	9.7	5.7	3.5	1.3	3.2	3.4	1.4	3.7	0.83
	12/4/2017	400	360	160	86	170	150	110	100	63	50	15	8.6	5.6	9.9	5.2	4.9	1.3	4	3.3	1.5	6.3	0.89
	12/18/2017	390	190	180	100	130	99	73	71	53	15	8.8	5.2	4	11	5.7	2.6	1.1	3.9	1.9	4.3	7.9	1.1

Modified EPA Method 8260

U = Not detected above reporting limit

lbs/day = (X)µg/L x 28.32 L/ft^3/min x 0.002205 lb/g / 1,000,000 µg/g x 1440 min/day

PERIOD: 1/1 - 12/31/2017

TABLE 15
SVE System Analytical Data and Removal Rates
Detected Compounds Only (in µg/L)
Pasco Landfill NPL Site

Sample Location	n-butyl benzene	p-Iso propyl toluene	Sec-butyl benzene	Dichloro difluoro methane (CFC-12)	Chloro form	1,1-Dichloro ethene	Chloro benzene	Naphtha lene	1,1,1-Trichloro ethane	Vinyl chloride	1,4-Dichloro benzene	2-Hexanone (MBK)	Trichloro fluoro methane (CFC-11)	1,2,4-Trichloro benzene	Carbon disulfide	trans-1,2-Dichloro ethene	Bromo methane	Tertiary butyl alcohol	Total VOCs (µg/L)	Flow Rate (scfm)	Removal Rate (lbs/day)
VEW-07S	<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	0.033	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	913	32	3
	0.25	0.27	0.36	<0.20 U	0.61	0.4	0.43	<0.20 U	0.47	0.14	<0.20 U	<1.0 U	0	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	2,251	30	6
	0.5	0.49	0.64	<0.20 U	0.83	0.39	0.53	<0.20 U	0.59	0.14	<0.20 U	<1.0 U	0.42	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	2,690	36	9
	0.58	0.51	0.67	<0.20 U	0.5	0.3	0.42	<0.20 U	0.38	0.12	<0.20 U	<1.0 U	0.3	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	2,750	36	9
	0.28	0.29	0.41	<0.20 U	0.42	0.25	0.25	<0.20 U	0.28	0.08	<0.20 U	<1.0 U	0.22	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,845	32	5
	0.49	0.45	0.6	<0.20 U	0.5	0.27	0.54	<0.20 U	0.36	0.1	<0.20 U	<1.0 U	0.25	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	2,906	30	8
	0.46	0.45	0.53	<0.20 U	0.88	0.38	0.42	<0.20 U	0.36	0.12	<0.20 U	<1.0 U	0.37	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	2,492	37	8
	0.2	0.29	0.43	<0.20 U	0.92	0.39	0.42	<0.20 U	0.49	0.15	<0.20 U	<1.0 U	0.35	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	3,236	35	10
	<0.20 U	0.2	0.23	<0.20 U	0.53	0.21	0.23	<0.20 U	0.31	0.072	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,555	38	5
	0.46	0.55	0.83	<0.20 U	0.75	0.33	0.56	<0.20 U	0.44	0.14	<0.20 U	<1.0 U	0.29	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	2,122	37	7
	1.3	1.1	1.3	<0.20 U	0.71	0.32	0.6	<0.20 U	0.49	0.11	0.29	<1.0 U	0.33	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	4,635	34	14
	0.58	0.63	0.8	<0.20 U	0.57	0.28	0.49	<0.20 U	0.39	0.12	<0.20 U	<1.0 U	0.26	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	3,863	37	13
	0.53	0.62	0.65	<0.20 U	0.5	<0.20 U	0.24	<0.20 U	<0.20 U	0.079	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,830	35	6
	1.9	1.4	<0.20 U	<0.20 U	0.59	<0.20 U	0.34	<0.20 U	0.25	0.06	0.32	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	3,060	30	8
	1.4	0.78	0.69	<0.20 U	0.52	<0.20 U	0.23	<0.20 U	<0.20 U	0.058	<0.20 U	< 1.0 U	0.21	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	3,156	26	7
	0.49	0.3	0.27	<0.20 U	0.8	0.29	<0.20 U	0.4	0.21	0.089	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	960	37	3
	5.6	3.7	3.5	<0.20 U	1.4	0.48	0.56	0.69	0.47	0.15	0.55	<1.0 U	0.39	0.21	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,972	36	6
	0.83	0.56	0.55	<0.20 U	0.56	0.26	0.23	0.59	0.25	0.064	0.27	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	0.44	<0.20 U	1,120	70	7
	2.7	1.6	1.5	<0.20 U	0.65	0.5	0.38	0.76	0.3	0.13	0.49	<1.0 U	<0.20 U	0.25	0.22	<0.20 U	<0.20 U	<0.20 U	2,591	83	19
	1.6	1	0.98	<0.20 U	1.3	0.59	0.29	0.7	0.33	0.2	0.39	<1.0 U	0.23	<0.20 U	0.32	<0.20 U	<0.20 U	0.20	1,915	69	12
	1.5	0.95	0.92	<0.20 U	0.35	0.22	<0.20 U	<0.20 U	<0.20 U	0.068	0.21	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,576	115	16
	1.8	1.1	1.1	<0.20 U	0.59	0.24	0.21	0.23	<0.20 U	0.076	0.26	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,968	117	21
	0.89	0.51	0.48	<0.20 U	0.3	<0.20 U	<0.20 U	0.56	<0.20 U	0.054	0.29	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,485	117	16
	2.5	1.4	1.3	<0.20 U	0.73	0.29	0.25	1.1	0.21	0.089	0.53	< 1.0 U	<0.20 U	0.33	0.29	<0.20 U	<0.20 U	<0.20 U	1,688	115	17
	1.6	1.0	0.88	<0.20 U	0.67	0.27	<0.20 U	0.45	<0.20 U	0.095	0.31	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,588	117	17
	1.7	1.1	0.87	<0.20 U	0.55	0.23	0.23	0.55	<0.20 U	0.073	0.36	< 1.0 U	<0.20 U	<0.20 U	0.22	<0.20 U	<0.20 U	<0.20 U	1,721	116	18
	0.73	0.52	0.51	<0.20 U	0.59	0.29	<0.20 U	0.36	<0.20 U	0.14	<0.20 U	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	0.3	<0.20 U	1,362	120	15

Modified EPA Method 8260

U = Not detected above reporting limit

lbs/day = (X)µg/L x 28.32 L/ft^3/min x 0.002205 lb/g / 1,000,000 µg/g x 1440 min/day

PERIOD: 1/1 - 12/31/2017

TABLE 15
SVE System Analytical Data and Removal Rates
Detected Compounds Only (in µg/L)
Pasco Landfill NPL Site

Sample Location	Date	Toluene	m,p-Xylene	4-Methyl-2-pentanone (MIBK)	Acetone	2-butanone (MEK)	Ethanol	Ethyl benzene	o-Xylene	Trichloroethene	1,2,4-Trimethyl benzene	1,3,5-Trimethyl benzene	n-propyl benzene	Tetrachloroethene	Methylene chloride	1,1-Dichloroethane	Iso propyl benzene	1,2-Dichloroethane	Chloroethane	1,2-Dichlorobenzene	Benzene	Chloromethane	cis-1,2-Dichloroethene
VEW-07D	1/3/2017	610	89	260	410	440	83	36	28	82	9.8	7	4.8	13	13	8.4	2.4	1.6	1.1	0.32	2	0.23	1.8
	1/11/2017	1,200	250	440	510	540	120	100	80	92	5.3	3.6	3.1	9	9.4	6.7	2.5	1.7	0.68	0.39	1.6	<0.20 U	1.5
	1/16/2017	1,200	470	260	400	470	120	140	100	110	14	12	10	21	13	12	6.5	2.4	1.4	0.94	2.8	0.31	2.8
	1/23/2017	940	440	290	410	260	140	150	150	91	18	11	8.7	13	36	7.5	5.2	2	0.88	0.92	2	0.21	1.8
	1/30/2017	1,100	260	300	480	240	59	100	76	76	7.8	4.7	3.7	12	8.6	6.7	2.7	1.4	0.66	0.47	1.7	<0.20 U	1.6
	2/6/2017	1,400	730	310	510	230	430	240	170	99	17	15	14	19	12	9.4	9.4	2.7	0.95	1	2.8	<0.20 U	2.4
	2/13/2017	570	140	170	500	370	<20 U	56	38	68	7.3	4.2	2.7	6.6	8.8	6.1	1.5	0.89	0.68	0.42	1.2	<0.20 U	1.6
	2/21/2017	930	280	320	400	250	130	110	100	86	12	8.2	7	15	12	9.2	5.3	2.1	1.1	0.33	2.5	0.24	2.2
	2/27/2017	680	220	130	380	200	59	87	73	69	15	9.3	6.1	13	7.6	9.6	4.2	1.5	0.88	0.63	1.8	<0.20 U	2.3
	3/6/2017	1,500	1,400	580	340	290	280	440	490	81	9.4	6.3	5	8.9	7.5	6.5	4.4	2.1	0.75	0.47	2.5	0.23	1.9
	3/13/2017	1,600	1,300	440	400	370	64	130	130	85	38	24	15	16	12	9.7	8.6	1.6	0.94	2.3	2.2	0.31	2.3
	3/20/2017	1,500	1,400	440	350	320	120	130	120	110	24	12	9.1	11	9	7.6	5.1	1.5	0.66	0.8	1.8	0.24	1.7
	4/17/2017	1,000	230	360	350	290	81	86	82	75	31	11	6.6	6.7	6.4	5.8	3.4	0.98	0.52	0.73	1.3	<0.20 U	1.3
	5/15/2017	910	1,000	340	270	240	290	310	430	82	68	42	29	12	5.5	5.7	8.2	1.2	0.54	1.8	1.4	<0.20 U	1.3
	6/13/2017	1,600	1,500	450	360	280	220	440	90	90	64	13	7	6.8	4.8	5.5	3.3	0.77	0.52	1.5	1.1	<0.20 U	1
	7/18/2017	670	140	390	95	110	200	56	56	32	11	6.4	3.6	5.4	6.4	5.2	2.3	0.75	0.49	1.4	0.99	<0.20 U	1
	7/31/2017	1,500	1,800	640	340	490	<20 U	150	140	110	49	31	22	20	8.9	9.9	9.1	1.2	1.1	2.7	1.9	0.48	1.8
	8/14/2017	540	190	310	140	250	120	74	70	60	10	5.9	3.4	4.1	4.4	4.2	1.6	0.66	0.32	1.2	0.75	<0.20 U	0.72
	8/28/2017	820	670	300	180	280	250	130	110	92	44	28	18	14	7.4	7.3	6.7	1.1	0.35	3.7	1.4	<0.20 U	1.3
	9/11/2017	1,300	320	400	180	280	180	120	100	99	38	15	9.9	11	4.3	7.3	4.9	0.98	0.28	2.6	1.3	<0.20 U	1.2
	9/25/2017	650	680	280	78	140	< 20 U	140	120	74	16	11	8	6.9	1.6	2.2	3	0.4	<0.20 U	1.2	0.49	<0.20 U	0.42
	10/9/2017	720	210	260	150	220	94	78	69	55	15	9.9	7	6.6	1.9	2.1	2.7	0.42	<0.20 U	1.1	0.5	<0.20 U	0.41
	10/23/2017	570	210	320	190	290	120	77	71	51	12	7.2	4.5	6.2	1.2	2.3	2.1	0.48	<0.20 U	1.4	0.51	<0.20 U	0.4
	11/6/2017	720	690	260	140	200	110	96	82	63	35	11	7.7	6.8	2.3	2.5	2.8	0.36	<0.20 U	2	0.52	<0.20 U	0.44
	11/20/2017	520	240	200	130	200	26	92	84	61	15	9.2	6.5	6.3	< 0.50 U	1.9	2.7	0.39	<0.20 U	1.3	0.47	<0.20 U	0.34
	12/4/2017	380	380	230	160	230	140	110	93	58	38	10	6.6	8.4	1.9	2.5	3.6	0.43	<0.20 U	1.8	0.5	<0.20 U	0.42
	12/18/2017	360	180	220	140	180	77	69	62	44	8.8	5.4	3.4	4.8	2.7	2	1.9	0.32	<0.20 U	0.92	0.45	<0.20 U	0.35

Modified EPA Method 8260

U = Not detected above reporting limit

lbs/day = (X)µg/L x 28.32 L/ft^3/min x 0.002205 lb/g / 1,000,000 µg/g x 1440 min/day

PERIOD: 1/1 - 12/31/2017

TABLE 15
SVE System Analytical Data and Removal Rates
Detected Compounds Only (in µg/L)
Pasco Landfill NPL Site

Sample Location	n-butyl benzene	p-Iso propyl toluene	Sec-butyl benzene	Dichloro difluoro methane (CFC-12)	Chloro form	1,1-Dichloro ethene	Chloro benzene	Naphtha lene	1,1,1-Trichloro ethane	Vinyl chloride	1,4-Dichloro benzene	2-Hexanone (MBK)	Trichloro fluoro methane (CFC-11)	1,2,4-Trichloro benzene	Carbon disulfide	trans-1,2-Dichloro ethene	Bromo methane	Tertiary butyl alcohol	Total VOCs (µg/L)	Flow Rate (scfm)	Removal Rate (lbs/day)
VEW-07D	0.23	0.30	0.38	<0.20 U	0.26	0.73	<0.20 U	<0.20 U	0.43	0.23	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	2,106	167	32
	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	0.48	0.22	<0.20 U	0.33	0.15	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	3,378	167	51
	0.47	0.45	0.53	<0.20 U	0.53	0.92	0.48	<0.20 U	0.6	0.29	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	0.24	<0.20 U	<0.20 U	3,374	167	51
	0.34	0.32	0.44	<0.20 U	0.21	0.53	0.38	<0.20 U	0.4	0.18	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	2,981	167	45
	<0.20 U	<0.20 U	<0.20 U	<0.20 U	0.21	0.51	0.25	<0.20 U	0.27	0.13	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	2,744	167	41
	0.55	0.47	0.65	<0.20 U	0.37	0.65	0.73	<0.20 U	0.45	0.18	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	4,229	167	64
	0.22	0.21	<0.20 U	<0.20 U	0.38	0.43	<0.20 U	<0.20 U	0.24	0.11	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,956	167	29
	0.21	0.26	0.36	<0.20 U	0.62	0.73	0.4	<0.20 U	0.42	0.23	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	0.21	<0.20 U	<0.20 U	2,687	202	49
	0.32	0.37	0.41	<0.20 U	0.52	0.63	0.34	<0.20 U	0.42	0.16	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,973	202	36
	<0.20 U	<0.20 U	<0.20 U	<0.20 U	0.31	0.41	0.42	<0.20 U	0.28	0.14	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	5,459	202	99
	1.4	1.2	1.4	<0.20 U	0.39	0.62	0.56	<0.20 U	0.43	0.16	0.27	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	4,658	202	85
	0.4	0.43	0.55	<0.20 U	0.27	0.45	0.38	<0.20 U	0.32	0.15	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	4,577	202	83
	0.48	0.6	0.61	<0.20 U	<0.20 U	0.32	<0.20 U	<0.20 U	<0.20 U	0.11	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	2,632	202	48
	1.6	1.6	<0.20 U	<0.20 U	0.31	0.33	0.39	<0.20 U	<0.20 U	0.085	0.27	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	4,053	201	73
	1.1	0.72	0.62	<0.20 U	<0.20 U	0.29	0.22	<0.20 U	<0.20 U	0.075	<0.20 U	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	5,142	201	93
	0.3	<0.20 U	<0.20 U	<0.20 U	0.41	0.27	<0.20 U	0.40	<0.20 U	0.085	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,795	211	34
	2.1	1.4	1.5	<0.20 U	0.4	0.6	0.44	0.50	0.26	0.21	0.28	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	5,337	217	104
	0.26	<0.20 U	<0.20 U	<0.20 U	<0.20 U	0.2	<0.20 U	0.35	<0.20 U	0.045	<0.20 U	<1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,792	164	26
	1.6	0.97	1.1	<0.20 U	0.31	0.36	0.37	0.80	<0.20 U	0.068	0.34	<1.0 U	<0.20 U	0.24	<0.20 U	<0.20 U	<0.20 U	<0.20 U	2,971	144	38
	0.86	0.48	0.62	<0.20 U	0.99	0.43	0.28	0.6	<0.20 U	0.092	0.23	<1.0 U	<0.20 U	<0.20 U	0.22	<0.20 U	<0.20 U	<0.20 U	3,081	285	79
	0.73	0.45	0.51	<0.20 U	0.24	<0.20 U	<0.20 U	<0.20 U	<0.20 U	0.022	<0.20 U	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	2,215	149	30
	0.66	0.4	0.48	<0.20 U	0.25	<0.20 U	<0.20 U	<0.20 U	<0.20 U	0.023	<0.20 U	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,905	150	26
	0.32	<0.20 U	0.23	<0.20 U	<0.20 U	<0.20 U	<0.20 U	0.36	<0.20 U	0.026	<0.20 U	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,938	149	26
	0.83	0.46	0.49	<0.20 U	<0.20 U	<0.20 U	<0.20 U	0.60	<0.20 U	0.027	0.21	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	2,435	149	33
	0.58	0.35	0.59	<0.20 U	0.4	<0.20 U	<0.20 U	0.29	<0.20 U	0.028	<0.20 U	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,599	149	21
	0.86	0.51	0.47	<0.20 U	<0.20 U	<0.20 U	<0.20 U	0.43	<0.20 U	0.032	<0.20 U	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,857	149	25
	0.31	<0.20 U	0.23	<0.20 U	<0.20 U	<0.20 U	<0.20 U	0.32	<0.20 U	0.021	<0.20 U	< 1.0 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	1,364	150	18

Modified EPA Method 8260

U = Not detected above reporting limit

lbs/day = (X)µg/L x 28.32 L/ft^3/min x 0.002205 lb/g / 1,000,000 µg/g x 1440 min/day

TABLE 16
Percentages of Ten Most Abundant Detected VOCs
(in µg/L)
2017 Annual Report
Pasco Landfill NPL Site

SAMPLED: 1/1 to 12/31/2017

Sample Location	Date	Toluene	Xylenes	2-butanone (MEK)	4-Methyl-2-pentanone (MIBK)	Acetone	Ethanol	Ethyl benzene	Trichloro ethene	1,2,4-Trimethyl benzene	1,3,5-Trimethyl benzene	Percent Total
SV-BRTO	1/3/2017	32%	13%	15%	11%	14%	4%	3%	4%	1%	1%	97%
	1/11/2017	37%	13%	12%	11%	12%	4%	4%	3%	1%	1%	98%
	1/16/2017	38%	14%	7%	9%	14%	6%	4%	4%	1%	1%	97%
	1/23/2017	34%	16%	11%	6%	16%	6%	4%	3%	1%	1%	97%
	1/30/2017	37%	16%	12%	9%	9%	5%	5%	3%	1%	1%	98%
	2/6/2017	39%	14%	8%	6%	18%	4%	4%	3%	1%	1%	98%
	2/13/2017	26%	13%	18%	9%	21%	4%	4%	3%	1%	0%	98%
	2/21/2017	40%	12%	8%	13%	16%	3%	3%	2%	1%	0%	99%
	2/27/2017	37%	12%	7%	8%	21%	5%	4%	2%	1%	1%	98%
	3/6/2017	45%	11%	8%	11%	14%	4%	3%	2%	0%	0%	99%
	3/13/2017	35%	31%	7%	9%	8%	3%	3%	2%	1%	1%	99%
	3/20/2017	35%	31%	6%	8%	7%	3%	4%	2%	1%	1%	98%
	4/3/2017	27%	36%	6%	8%	13%	3%	3%	2%	1%	1%	99%
	4/17/2017	41%	14%	10%	12%	10%	4%	4%	3%	1%	0%	99%
	5/1/2017	36%	10%	2%	20%	19%	6%	3%	2%	0%	0%	99%
	5/15/2017	41%	17%	7%	10%	7%	8%	5%	3%	1%	0%	99%
	5/30/2017	37%	11%	8%	16%	13%	7%	3%	2%	1%	0%	99%
	6/13/2017	41%	15%	6%	13%	6%	7%	5%	3%	1%	0%	99%
	6/26/2017	43%	12%	7%	12%	11%	6%	4%	2%	1%	0%	99%
	7/18/2017	38%	12%	10%	15%	9%	8%	3%	2%	1%	0%	98%
	7/31/2017	44%	14%	8%	15%	4%	5%	4%	2%	2%	1%	98%
	8/14/2017	30%	15%	11%	17%	9%	8%	4%	3%	1%	0%	98%
	8/28/2017	31%	19%	7%	10%	6%	9%	6%	3%	2%	1%	95%
	9/5/2017	34%	15%	13%	13%	6%	7%	4%	3%	2%	1%	98%
	9/11/2017	49%	13%	6%	12%	4%	5%	4%	3%	1%	1%	98%
	9/25/2017	39%	26%	7%	11%	4%	0%	7%	3%	1%	1%	98%
	10/9/2017	33%	17%	11%	12%	8%	7%	5%	3%	1%	1%	97%
	10/23/2017	31%	18%	11%	13%	9%	7%	5%	3%	1%	1%	98%
	11/6/2017	35%	22%	8%	11%	8%	5%	5%	3%	1%	0%	98%
	11/20/2017	32%	23%	11%	13%	6%	0%	6%	4%	1%	1%	97%
	12/4/2017	26%	26%	11%	12%	7%	6%	7%	3%	1%	1%	98%
	12/18/2017	28%	18%	13%	13%	9%	7%	5%	3%	1%	0%	98%
VEW-06S	1/3/2017	35%	24%	5%	11%	2%	3%	6%	8%	1%	0%	96%
	1/11/2017	49%	18%	4%	10%	3%	2%	5%	5%	1%	0%	97%
	1/16/2017	47%	21%	2%	9%	1%	3%	6%	5%	1%	1%	96%
	1/23/2017	45%	23%	3%	10%	2%	2%	6%	4%	1%	1%	97%
	1/30/2017	40%	25%	4%	12%	1%	4%	7%	5%	1%	1%	97%
	2/6/2017	42%	22%	2%	9%	2%	7%	6%	4%	1%	1%	96%
	2/13/2017	41%	21%	4%	12%	4%	4%	5%	4%	1%	1%	97%
	2/21/2017	39%	23%	4%	11%	3%	9%	7%	1%	0%	0%	98%
	2/27/2017	40%	26%	2%	10%	3%	0%	7%	4%	2%	1%	94%
	3/6/2017	46%	20%	8%	7%	6%	1%	5%	2%	2%	1%	98%
	3/13/2017	49%	25%	1%	7%	1%	1%	6%	2%	3%	2%	96%
	3/20/2017	47%	23%	2%	9%	1%	4%	6%	2%	2%	1%	97%
	4/17/2017	35%	32%	2%	10%	1%	0%	8%	2%	4%	3%	96%
	5/15/2017	53%	25%	1%	7%	1%	0%	6%	1%	3%	1%	98%
	6/13/2017	27%	36%	3%	8%	2%	0%	8%	2%	7%	3%	95%
	7/18/2017	39%	19%	5%	14%	2%	0%	5%	3%	3%	2%	92%
	7/31/2017	27%	31%	1%	7%	2%	0%	7%	6%	5%	3%	88%
	8/14/2017	34%	28%	5%	15%	2%	0%	5%	3%	2%	1%	95%
	8/28/2017	29%	32%	4%	8%	2%	0%	8%	3%	5%	2%	94%
	9/11/2017	30%	34%	4%	9%	2%	0%	9%	2%	3%	2%	95%
	9/25/2017	28%	45%	3%	6%	3%	0%	4%	1%	4%	2%	96%
	10/9/2017	21%	27%	19%	8%	11%	0%	4%	1%	3%	2%	96%
	10/23/2017	29%	23%	9%	10%	8%	0%	6%	2%	5%	3%	94%
	11/6/2017	25%	37%	5%	7%	5%	0%	5%	2%	5%	3%	94%
	11/20/2017	23%	19%	5%	7%	5%	0%	5%	2%	4%	3%	73%
	12/4/2017	15%	24%	10%	10%	13%	0%	5%	3%	4%	2%	88%
	12/18/2017	25%	22%	8%	11%	9%	0%	5%	2%	6%	3%	91%
VEW-06D	1/3/2017	36%	8%	16%	12%	18%	4%	2%	3%	0%	0%	99%
	1/11/2017	41%	11%	10%	12%	13%	5%	3%	3%	0%	0%	99%
	1/16/2017	46%	16%	8%	10%	7%	3%	5%	3%	0%	0%	98%
	1/23/2017	42%	15%	6%	10%	13%	4%	4%	2%	0%	0%	98%
	1/30/2017	41%	15%	10%	9%	9%	5%	5%	3%	0%	0%	99%
	2/6/2017	42%	16%	6%	9%	15%	3%	5%	2%	1%	0%	98%
	2/13/2017	38%	9%	6%	9%	28%	2%	3%	2%	1%	0%	98%
	2/21/2017	32%	28%	5%	13%	6%	6%	8%	1%	0%	0%	99%
	2/27/2017	37%	14%	4%	8%	26%	3%	4%	2%	1%	0%	98%
	3/6/2017	51%	10%	7%	13%	10%	3%	3%	1%	1%	0%	99%
	3/13/2017	31%	36%	3%	8%	6%	5%	8%	1%	1%	1%	98%
	3/20/2017	40%	20%	5%	11%	8%	4%	5%	3%	1%	1%	98%
	4/17/2017	44%	18%	4%	13%	7%	3%	5%	2%	2%	1%	98%
	5/15/2017	42%	19%	5%	10%	5%	7%	5%	2%	2%	1%	98%
	6/13/2017	49%	13%	4%	13%	6%	6%	4%	2%	2%	0%	99%
	7/18/2017	43%	17%	6%	15%	5%	6%	5%	1%	1%	0%	99%

Modified EPA Method 8260

Sample Location	Date	Toluene	Xylenes	2-butanone (MEK)	4-Methyl-2-pentanone (MIBK)	Acetone	Ethanol	Ethyl benzene	Trichloro ethene	1,2,4-Trimethyl benzene	1,3,5-Trimethyl benzene	Percent Total
VEW-06D	7/31/2017	35%	26%	7%	6%	7%	0%	7%	3%	3%	2%	95%
	8/14/2017	37%	18%	10%	15%	10%	0%	5%	1%	1%	0%	99%
	8/28/2017	45%	17%	5%	12%	5%	6%	5%	2%	2%	1%	99%
	9/11/2017	51%	14%	3%	13%	4%	5%	4%	2%	1%	1%	99%
	9/25/2017	49%	25%	3%	8%	3%	0%	7%	1%	1%	1%	98%
	10/9/2017	52%	15%	5%	10%	6%	4%	4%	1%	1%	0%	99%
	10/23/2017	42%	18%	5%	12%	7%	6%	5%	1%	1%	0%	99%
	11/6/2017	30%	28%	6%	13%	9%	0%	7%	3%	1%	1%	97%
	11/20/2017	38%	23%	5%	12%	5%	6%	7%	1%	1%	1%	98%
	12/4/2017	32%	27%	5%	11%	5%	7%	7%	2%	1%	1%	98%
	12/18/2017	34%	21%	6%	13%	8%	7%	6%	1%	1%	1%	98%
VEW-07S	1/3/2017	32%	25%	9%	13%	5%	5%	6%	2%	0%	0%	98%
	1/11/2017	44%	19%	5%	13%	2%	4%	5%	4%	1%	0%	97%
	1/16/2017	45%	23%	5%	10%	3%	2%	5%	3%	1%	1%	97%
	1/23/2017	40%	25%	5%	10%	4%	3%	5%	3%	1%	1%	97%
	1/30/2017	50%	14%	7%	11%	3%	3%	4%	3%	1%	1%	97%
	2/6/2017	41%	26%	5%	8%	3%	3%	7%	3%	1%	1%	98%
	2/13/2017	40%	21%	6%	13%	5%	3%	5%	2%	1%	0%	97%
	2/21/2017	40%	31%	3%	11%	4%	3%	4%	2%	0%	0%	98%
	2/27/2017	44%	19%	7%	7%	5%	4%	6%	3%	1%	0%	97%
	3/6/2017	47%	12%	8%	14%	5%	5%	3%	2%	0%	1%	96%
	3/13/2017	35%	42%	3%	8%	2%	2%	3%	1%	1%	1%	98%
	3/20/2017	36%	38%	3%	9%	2%	3%	4%	2%	1%	1%	98%
	4/17/2017	45%	20%	4%	12%	3%	3%	5%	2%	2%	1%	98%
	5/15/2017	25%	46%	2%	6%	2%	6%	5%	1%	3%	2%	98%
	6/13/2017	32%	47%	2%	5%	2%	4%	4%	1%	2%	0%	99%
	7/18/2017	40%	21%	6%	15%	3%	0%	6%	4%	1%	1%	95%
	7/31/2017	49%	21%	2%	7%	1%	0%	6%	3%	3%	2%	94%
	8/14/2017	31%	20%	7%	15%	4%	5%	5%	4%	2%	1%	95%
	8/28/2017	30%	34%	5%	9%	3%	3%	5%	3%	3%	1%	96%
	9/11/2017	40%	20%	6%	8%	2%	4%	6%	4%	3%	2%	96%
	9/25/2017	37%	27%	5%	8%	2%	3%	7%	4%	4%	1%	98%
	10/9/2017	40%	16%	9%	12%	5%	5%	4%	3%	2%	1%	97%
	10/23/2017	29%	18%	11%	13%	7%	7%	5%	4%	2%	1%	97%
	11/6/2017	24%	26%	6%	8%	6%	9%	6%	5%	3%	2%	95%
	11/20/2017	34%	21%	9%	9%	4%	6%	6%	5%	3%	1%	97%
	12/4/2017	23%	27%	10%	9%	5%	9%	6%	4%	3%	1%	97%
	12/18/2017	29%	19%	10%	13%	7%	7%	5%	4%	1%	1%	96%
VEW-07D	1/3/2017	29%	6%	21%	12%	19%	4%	2%	4%	0%	0%	98%
	1/11/2017	36%	10%	16%	13%	15%	4%	3%	3%	0%	0%	99%
	1/16/2017	36%	17%	14%	8%	12%	4%	4%	3%	0%	0%	98%
	1/23/2017	32%	20%	9%	10%	14%	5%	5%	3%	1%	0%	97%
	1/30/2017	40%	12%	9%	11%	17%	2%	4%	3%	0%	0%	99%
	2/6/2017	33%	21%	5%	7%	12%	10%	6%	2%	0%	0%	98%
	2/13/2017	29%	9%	19%	9%	26%	0%	3%	3%	0%	0%	98%
	2/21/2017	35%	14%	9%	12%	15%	5%	4%	3%	0%	0%	98%
	2/27/2017	34%	15%	10%	7%	19%	3%	4%	3%	1%	0%	97%
	3/6/2017	27%	35%	5%	11%	6%	5%	8%	1%	0%	0%	99%
	3/13/2017	34%	31%	8%	9%	9%	1%	3%	2%	1%	1%	98%
	3/20/2017	33%	33%	7%	10%	8%	3%	3%	2%	1%	0%	99%
	4/17/2017	38%	12%	11%	14%	13%	3%	3%	3%	1%	0%	99%
	5/15/2017	22%	35%	6%	8%	7%	7%	8%	2%	2%	1%	98%
	6/13/2017	31%	31%	5%	9%	7%	4%	9%	2%	1%	0%	99%
	7/18/2017	37%	11%	6%	22%	5%	11%	3%	2%	1%	0%	98%
	7/31/2017	28%	36%	9%	12%	6%	0%	3%	2%	1%	1%	98%
	8/14/2017	30%	15%	14%	17%	8%	7%	4%	3%	1%	0%	99%
	8/28/2017	28%	26%	9%	10%	6%	8%	4%	3%	1%	1%	98%
	9/11/2017	42%	14%	9%	13%	6%	6%	4%	3%	1%	0%	98%
	9/25/2017	29%	36%	6%	13%	4%	0%	6%	3%	1%	0%	99%
	10/9/2017	38%	15%	12%	14%	8%	5%	4%	3%	1%	1%	99%
	10/23/2017	29%	14%	15%	17%	10%	6%	4%	3%	1%	0%	99%
	11/6/2017	30%	32%	8%	11%	6%	5%	4%	3%	1%	0%	99%
	11/20/2017	33%	20%	13%	13%	8%	2%	6%	4%	1%	1%	99%
	12/4/2017	20%	25%	12%	12%	9%	8%	6%	3%	2%	1%	98%
	12/18/2017	26%	18%	13%	16%	10%	6%	5%	3%	1%	0%	99%

TABLE 17
Carbon Monoxide Monitoring Data
2017 Annual Report
Pasco Landfill NPL Site

	VEW-06S		VEW-06I			VEW-06D		VEW-07S		VEW-07I			VEW-07D		VMW-51I	
Date	Well Head CO (ppm)	Lab CO (ppmV)	Well Head CO (ppm)	Lab CO (Method 25C) (ppmV)	Lab CO (Method 3C) (%, v/v)	Well Head CO (ppm)	Lab CO (ppmV)	Well Head CO (ppm)	Lab CO (ppmV)	Well Head CO (ppm)	Lab CO (ppmV)	Lab CO (Method 3C) (%, v/v)	Well Head CO (ppm)	Lab CO (ppmV)	Well Head CO (ppm)	Lab CO (ppmV)
1/3/2017	0.0	<5.0	>499	630	--	6.0	7.5	--	<5.0	>499	1,400	--	22.0	25.0	13.0	5.1
1/16/2017	0.0	<5.0	>499	640	--	6.0	8.6	13.0	12	>499	730	--	21.0	20.0	14.0	6.0
1/30/2017	0.0	--	>499	730	--	10.0	--	15.0	--	>499	820	--	25.0	--	22.0	--
2/13/2017	1.0	--	1,248	720	--	6.0	--	13.0	--	1,253	820	--	21.0	--	11.0	--
2/27/2017	2.0	--	1,108	810	--	7.0	--	15.0	--	1,188	750	--	18.0	--	12.0	--
3/13/2017	--	--	1,319	1,200	--	--	--	--	--	1,089	1,100	--	--	--	--	--
3/27/2017	5.0	--	1,542	1,100	--	15.0	--	24.0	--	1,402	1,100	--	36.0	--	14.0	--
4/10/2017	4.0	--	1,503	1,000	--	16.0	--	25.0	--	1,328	940	--	37.0	--	31.0	--
4/25/2017	6.0	--	1,508	1,100	0.118	18.0	--	20.0	--	1,513	1,100	0.111	36.0	--	12.0	--
5/8/2017	6.0	--	1,614	990	0.113	18.0	--	25.0	--	1,447	1,000	0.111	41.0	--	12.0	--
5/23/2017	15.0	--	1,681	1,200	0.120	21.0	--	21.0	--	1,517	1,000	0.117	38.0	--	15.0	--
6/5/2017	19.0	--	1,774	1,100	0.127	31.0	--	49.0	--	2,000	1,000	0.118	42.0	--	15.0	--
6/19/2017	71.0	--	1,863	950	0.115	55.0	--	50.0	--	1,588	920	0.115	68.0	--	16.0	--
7/5/2017	15.0	--	1,566	760	0.111	18.0	--	30.0	--	1,633	670	<0.10	28.0	--	15.0	--
7/24/2017	12.0	--	1,405	800	<0.10	18.0	--	35.0	--	1,444	780	<0.10	40.0	--	17.0	--
8/7/2017	25.0	--	1,629	1,100	0.116	21.0	--	55.0	--	1,632	1,000	0.100	46.0	--	24.0	--
8/21/2017	13.0	--	1,579	1,200	0.107	14.0	--	53.0	--	2,000	1,100	0.130	34.0	--	21.0	--
9/6/2017	6.0	--	1,216	730	<0.10	11.0	--	28.0	--	2,000	1,000	0.112	29.0	--	20.0	--
9/18/2017	7.0	--	1,306	840	<0.10	9.0	--	35.0	--	2,000	950	<0.10	25.0	--	18.0	--
10/4/2017	16.0	--	1,285	710	<0.10	10.0	--	61.0	--	1,454	990	<0.10	34.0	--	18.0	--
10/16/2017	7.0	--	1,307	690	<0.10	5.0	--	48.0	--	1,412	990	<0.10	18.0	--	14.0	--
10/30/2017	5.0	--	896	790	<0.10	6.0	--	42.0	--	1,219	990	<0.10	22.0	--	13.0	--
11/14/2017	6.0	--	908	770	<0.10	8.0	--	39.0	--	1,518	980	<0.10	25.0	--	13.0	--
11/27/2017	10.0	--	997	730	<0.10	9.0	--	42.0	--	1,093	820	<0.10	30.0	--	22.0	--
12/11/2017	5.0	--	845	620	<0.10	6.0	--	87.0	--	1,490	920	<0.10	69.0	--	13.0	--
12/26/2017	5.0	--	304	210	<0.10	5.0	--	59.0	--	1,550	1,000	0.117	33.0	--	--	--

-- Not measured

TABLE 18
Summary of Fourth Quarter 2017
RTO Shutdowns and Restarts
2017 Annual Report
Pasco Landfill NPL Site

PERIOD: 10/1/2017 - 12/31/2017

Start	End	Duration (hr)	Reason for Shutdown
10/9/2017 10:15	10/9/2017 12:30	Varies	Alternating shut down of the SVE wells was necessary to clear build up in 06D, 07D, and 07I so the borehole camera could advance further down those wells. One well cluster remained on while the other was down. The RTO remained running and XV401 remained open.
10/30/2017 10:30	10/30/2017 14:15	3.75	Shutdown of the RTO and SVE system was necessary to run piping to the auxiliary compressed air tank and add oil to the compressed air lubricator at the poppet valves.
12/25/2017 21:15	12/25/2017 22:30	1.25	LEL 300 ran out of hydrogen. The system was down for an hour and 15 minutes before hydrogen was replaced.

TABLE 19
Zone A Groundwater Trends
2017 Annual Report
Pasco Landfill NPL Site

Well	Date	Chloroethenes					Chloroethanes					Chloromethanes			Chlorobenzenes				Aromatics																	Ketones						
		Tetra chloro ethene	Trichloro ethene	1,1-Dichloro ethene	cis-1,2-Dichloro ethene	Vinyl Chloride	Chloro ethane	1,1,1-Trichloro ethane	1,1,2-Trichloro ethane	1,1-Dichloro ethane	1,2-Dichloro ethane	Chloro methane	Methylene Chloride	Chloro form	1,2-Dichloro benzene	Chloro benzene	1,4-Dichlorob enzene	1,2,4-Trichlorob enzene	Benzene	1,2,4-Trimethyl benzene	1,3,5-Trimethyl benzene	Ethyl benzene	Isopropyl benzene (Cumene)	n-Propyl benzene	Tert-Butyl benzene	n-Butyl benzene	sec-Butylbenz ene	Styrene	Naph thalene	Toluene	2-Chloro toluene	4-Chloro toluene	p-Isopropyl toluene	m, p-Xylene	o-Xylene	Methyl isobutyl ketone	2-Butanone	Acetone	2-Hexanone	Carbon Disulfide	Ethanol	Tertiary butyl alcohol
2014 dCUL:		**0.69**	**2.5**	**0.057**	**16**	**0.069**	**-**	**200**	**-**	**-**	**0.38**	**-**	**5**	**-**	**-**	**-**			**0.79**	**-**	**-**	**-**	**-**	**-**	**-**	**-**		**-**	**-**	**615**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
MW-52S	10/12/2010	0.054	0.48	<0.050 U	<1.0 U	<0.020 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 U	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	11/18/2010	<1.0 U	1.5	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<1.0 U	<1.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	12/21/2010	<1.0 U	2.3	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<1.0 U	<1.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	1/12/2011	0.16	**3.6**	<0.020 U	<1.0 U	<0.020 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	0.27	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	2/17/2011	<1.0 U	**5.7**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	1.3	**1.2**	<5.0 U	<5.0 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	<1.0 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	<1.0 U	<1.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	3/16/2011	<1.0 U	**6.7**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	1.2	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<1.0 U	<1.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	4/20/2011	0.067	**10**	<0.020 U	<1.0 U	<0.020 U	<1.0 U	<1.0 U	<1.0 U	1.4	**0.74**	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	5/19/2011	<1.0 U	**12**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	1.2	<1.0 U	2.0	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<1.0 U	<1.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	6/15/2011	<1.0 U	**6.3**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<1.0 U	<1.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	7/26/2011	0.17	2.1	<0.020 U	<1.0 U	<0.020 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	0.19	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	8/25/2011	<1.0 U	1.6	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<1.0 U	<1.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	9/30/2011	<1.0 U	2.5	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<1.0 U	<1.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	10/17/2011	0.11	1.1	<0.020 U	<2.0 U	<0.020 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	0.12	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.020 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	3.5	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<1000 U	< 20 U
	10/24/2011	<0.020 U	0.96	<0.020 U	<1.0 U	<0.020 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 U	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	2.4	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	11/7/2011	0.32	**4.1**	<0.020 U	<2.0 U	<0.020 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	0.38	<5.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.020 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	2.3	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<10 U	<10 U	<2.0 U	<1000 U	<10 U
	11/14/2011	<0.020 U	1.3	<0.020 U	<1.0 U	<0.020 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 U	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	2.8	<1.0 U	<1.0 U	<1.0 U	2.1	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	12/19/2011	<1.0 U	**2.9**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<5.0 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	2.1	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	20	<1.0 U	<1.0 U	<1.0 U	6.0	1.5	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	1/24/2012	0.43	**6.6**	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	**1.0**	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	14	<2.0 U	<2.0 U	<2.0 U	4.8	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	2/27/2012	**5.1**	**58**	<2.0 U	9.9	<0.20 U	<2.0 U	2.1	<0.77 U	8.9	**33**	<2.0 U	**77**	2.2	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	16	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	190	<2.0 U	<2.0 U	<2.0 U	44	23	540	2300	1800	<10 U	<2.0 U	<710 U	34
	3/14/2012	<2.0 U	**9.6**	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	8.9	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	4/24/2012	0.12	0.35	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	5/16/2012	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	6/21/2012	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	7/24/2012	<0.050 U	<0.053 U	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	8/16/2012	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	9/19/2012	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	10/16/2012	<0.050 U	<0.053 U	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	11/14/2012	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	2.1	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	12/12/2012	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	2.4	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	1/30/2013	<0.050 U	0.12	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	2/20/2013	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	3/20/2013	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	4/16/2013	<0.050 U	<0.053 U	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	5/21/2013	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	6/18/2013	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	7/24/2013	<0.050 U	<0.053 U	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	10/23/2013	<0.05 U	<0.053 U	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	1/23/2014	**11**	**60**	0.055	3.8	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	**0.94**	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	46	28	240	9.5	16	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	**1000**	<2.0 U	<2.0 U	<2.0 U	800	270	<1000 U	1400	<2500 U	20	<2.0 U	<710 U	79
	4/22/2014	**55**	**530**	<0.020 U	11	<0.032 U	<2.0 U	6.3	2.4	6.9	**8.5**	<2.0 U	**7.1**	<2.0 U	7.5	3.5	<1.8 U	<2.0 U	**3.1**	390	370	1600	71	210	<2.0 U	11	<2.0 U	<1.5 U	12	**11000**	<2.0 U	<2.0 U	12	4600	1300	2400	200	<2500 U	<100 U	<2.0 U	<710 U	<13 U
	7/23/2014	**3.2**	**22**	**0.16**	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	**1.4**	<2.0 U	<5.0 U	<2.0 U	3.6	<2.0 U	<1.8 U	<2.0 U	0.40	87	40	140	7.8	18	<2.0 U	<2.0 U	<2.0 U	<1.5 U	24	**640**	<2.0 U	<2.0 U	<2.0 U	520	220	830	3700	6900	48	<2.0 U	6400	340
	10/21/2014	**2.5**	**20**	**0.074**	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	**1.3**	<2.0 U	<5.0 U	<2.0 U	5.1	<2.0 U	<1.8 U	<2.0 U	0.63	120	53	140	8.6	25	26	2.4	<2.0 U	17	24	390	19	5.7	2.1	550	230	<1000 U	390	<2500 U	37	<2.0 U	<710 U	24
	1/21/2015	**3.2**	**32**	**0.086**	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	**0.94**	<2.0 U	<5.0 U	<2.0 U	4.9	<2.0 U	<1.8 U	<2.0 U	**0.96**	120	47	150	6.6	20	<2.0 U	5.5	<2.0 U	<1.5 U	28	520	<2.0 U	<2.0 U	<2.0 U	560	230	360	<1000 U	<2500 U	21	<2.0 U	<710 U	<13 U
	4/21/2015	**6.9**	**75**	**0.25**	**17**	**0.091**	<2.0 U	<2.0 U	<0.77 U	13	**10**	<2.0 U	**30**	<2.0 U	16	<2.0 U	1.9	<2.0 U	**3.7**	420	180	390	29	65	<2.0 U	<2.0 U	<2.0 U	<1.5 U	R	**1500**	<2.0 U	<2.0 U	8.2	1,400	630	3,800	<10000 U	<25000 U	180	<2.0 U	17000	540
	7/17/2015	**0.89**	**9.2**	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	**1.7**	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	0.31	52	24	35	2.8	7.2	<2.0 U	<2.0 U	<2.0 U	<1.5 U	12	120	<2.0 U	<2.0 U	<2.0 U	130	58	<1000 U	<1000 U	<2500 U	11	<2.0 U	<710 U	26
	10/27/2015	**8.6**	**81**	<0.020 U	6.2	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	**4.5**	<2.0 U	<5.0 U	<2.0 U	7.0	<2.0 U	<1.8 U	<2.0 U	**1.6**	140	61	250	12	27	<2.0 U	<2.0 U	<2.0 U	<1.5 U	R	**1500**	<2.0 U	<2.0 U	2.8	930	390	1500	26	36	<100 U	<2.0 U	<710 U	<13 U
	1/28/2016	**1.3**	0.23	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	43	34	8.2	3.3	9.4	<2.0 U	3.4	<2.0 U	<1.5 U	6.2	6.3	<2.0 U	<2.0 U	2.8	69	31	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	4/27/2016	0.25	0.062	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	6.9	4.4	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<0.020 U	<2.0 U	<2.0 U	<2.0 U	4.8	2.1	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	7/21/2016	0.46	**4.6**	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	0.13	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	0.17	15	7.1	15	<2.0 U	2.1	<2.0 U	<2.0 U	<2.0 U	9.2	6.3	100	<2.0 U	<2.0 U	<2.0 U	55	23	34	16	350	<10 U	<2.0 U	<710 U	<13 U
	10/20/2016	0.23	**4.2 J**	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	0.17 J	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	0.072 J	13	5.3	10 J	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	6.6	3.4	60	<2.0 U	<2.0 U	<2.0 U	37 J	16 J	<100 U	<100 UJ	320 J	<10 U	<2.0 U	<710 U	<13 U
	1/24/2017	**30**	**580**	**0.46**	**22**	0.042	<2.0 U	<2.0 U	<0.77 U	20	**16**	<2.0 U	5	<2.0 U	30	6.2	4	<2.0 U	**11**	790	340	2000	82	170	<2.0 U	27	7.6	1200	210	**14000**	<2.0 U	<2.0 U	9.7	6600	2500	3700	3800	7800	110	<2.0 U	5600	150
	4/21/2017	**23**	**340**	**0.63**	**36**	<0.032 U	3.9	<2.0 U	<0.77 U	30	**36**	<2.0 U	**20**	<2.0 U	65	7.1	9.8	3.3	**14**	1200	500	2000	110	260	2.2	50	30	2500	220	**11000**	<2.0 U	<2.0 U	38	6600	2900	23000	20000	64000	370	<2.0 U	73000	1000
	6/20/2017	**19**	**350**	**0.46**	**28**	<0.032 U	5.1	<2.0 U	<0.77 U	30	**39**	2.9	**29**	<2.0 U	82	6.6	8	2.5	**15**	1400	580	2000	100	270	<2.0 U	57	18	2000	370	**11000**	<2.0 U	<2.0 U	23	6400	2800	35000	21000	70000	790	4.5	12000	1100
	7/19/2017	**23**	**380**	**0.33**	**28**	<0.032 U	4.1	<2.0 U	<0.77 U	28	**34**	2.2	**18**	<2.0 U	67	7.4	5.8	<2.0 U	**16**	1400	1500	2200	110	240	<2.0 U	47	19	2400	280	**9900**	<2.0 U	<2.0 U	22	7000	3100	30000	12000	31000	610	<2.0 U	13000	360
	10/20/2017	**12**	**120**	**0.073**	10	<0.032 U	<2.0 U	<2.0 U	<0.77 U	3.6	**4.1**	<2.0 U	<5.0 U	<2.0 U	45	2.5	4.2	<2.0 U	**3.8**	630	220	840	44	110	<2.0 U	<2.0 U	6.4	520	61	**3400**	<2.0 U	<2.0 U	8.1	2800	1400	3100	2900	12000	100	<2.0 U	<710 U	78
	11/15/2017	**16**	**81**	0.048	6.7	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	**0.69**	<2.0 U	<5.0 U	<2.0 U	66	<2.0 U	6.6	<2.0 U	**1.3**	1000	350	1100	64	170	<2.0 U	<2.0 U	9.5	660	140	**2600**	<2.0 U	<2.0 U	13	3900	1800	470	340	2200	23	<2.0 U	<710 U	<13 U
	12/12/2017	**10**	**42**	0.032	4.

Well	Date	Chloroethenes					Chloroethanes					Chloromethanes			Chlorobenzenes				Aromatics																	Ketones						
		Tetra chloro ethene	Trichloro ethene	1,1-Dichloro ethene	cis-1,2-Dichloro ethene	Vinyl Chloride	Chloro ethane	1,1,1-Trichloro ethane	1,1,2-Trichloro ethane	1,1-Dichloro ethane	1,2-Dichloro ethane	Chloro methane	Methylene Chloride	Chloro form	1,2-Dichloro benzene	Chloro benzene	1,4-Dichlorob enzene	1,2,4-Trichlorob enzene	Benzene	1,2,4-Trimethyl benzene	1,3,5-Trimethyl benzene	Ethyl benzene	Isopropyl benzene (Cumene)	n-Propyl benzene	Tert-Butyl benzene	n-Butyl benzene	sec-Butylbenz ene	Styrene	Naph thalene	Toluene	2-Chloro toluene	4-Chloro toluene	p-Isopropyl toluene	m, p-Xylene	o-Xylene	Methyl isobutyl ketone	2-Butanone	Acetone	2-Hexanone	Carbon Disulfide	Ethanol	Tertiary butyl alcohol
2014 dCUL:		**0.69**	**2.5**	**0.057**	**16**	**0.069**	**-**	**200**	**-**	**-**	**0.38**	**-**	**5**	**-**	**-**	**-**			**0.79**	**-**	**-**	**-**	**-**	**-**	**-**	**-**		**-**	**-**	**615**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
MW-53S	10/12/2010	0.18	0.65	<0.050 U	<1.0 U	<0.020 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	0.11	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	11/18/2010	<1.0 U	**2.6**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	12/21/2010	<1.0 U	2.4	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	**1.1**	<5.0 U	<5.0 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	11	<1.0 U	<1.0 U	<1.0 U	<1.0 U	16	17	19	<10 U	<1.0 U	NA	NA
	1/12/2011	0.24	**8.6**	<0.020 U	<1.0 U	<0.020 U	<1.0 U	<1.0 U	<1.0 U	1.4	**1.0**	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	3.5	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	2/17/2011	<1.0 U	**7.6**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	2.8	**2.5**	<5.0 U	<5.0 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	2.8	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	23	<1.0 U	<1.0 U	<1.0 U	8.9	2.2	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	3/16/2011	<1.0 U	**6.6**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	1	**1.4**	<5.0 U	<5.0 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	5.9	<1.0 U	<1.0 U	<1.0 U	2.6	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	4/20/2011	<0.020 U	**10**	<0.020 U	<1.0 U	<0.020 U	<1.0 U	<1.0 U	<1.0 U	1.2	**1.5**	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	5/19/2011	<1.0 U	**9.2**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	1.5	**1.6**	<5.0 U	<5.0 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	1.4	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	7.8	<1.0 U	<1.0 U	<1.0 U	4.2	1.1	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	6/15/2011	<1.0 U	**4.5**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<5.0 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	8.5	<1.0 U	<1.0 U	<1.0 U	2.5	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	7/26/2011	0.68	**3.9**	<0.020 U	<1.0 U	<0.020 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	0.22	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	0.041	5.4	2.5	17	<1.0 U	1.6	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	52	<1.0 U	<1.0 U	<1.0 U	53	18	11	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	8/25/2011	<1.0 U	**8.8**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	**1.3**	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	4.2	2.1	14	<1.0 U	1.2	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	89	<1.0 U	<1.0 U	<1.0 U	51	16	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	9/30/2011	<1.0 U	**7.5**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	**1.2**	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	2.6	1.3	10	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	150	<1.0 U	<1.0 U	<1.0 U	35	12	17	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	10/17/2011	0.59	**6.4**	<0.020 U	<2.0 U	<0.020 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	**1.5**	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	0.066	2.5	<2.0 U	6.8	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	28	<2.0 U	<2.0 U	<2.0 U	24	8.8	<10 U	<10 U	<25 U	<10 U	<2.0 U	<1000 U	< 20 U
	10/24/2011	0.46	**3.9**	<0.020 U	<1.0 U	<0.020 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	**0.99**	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 U	3.8	1.8	6.1	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	17	<1.0 U	<1.0 U	<1.0 U	21	7.5	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	11/7/2011	0.64	**4.9**	<0.020 U	<2.0 U	<0.020 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	**2.4**	<5.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	0.10	3.9	<2.0 U	4.9	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	13	<2.0 U	<2.0 U	<2.0 U	18	6.0	<10 U	<10 U	<10 U	<10 U	<2.0 U	<1000 U	<10 U
	11/14/2011	0.47	**2.8**	<0.020 U	<1.0 U	<0.020 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	**0.87**	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 U	3.5	1.6	5.1	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	11	<1.0 U	<1.0 U	<1.0 U	19	6.3	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	12/19/2011	<1.0 U	**3.8**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	10	4.3	18	<1.0 U	2.2	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	1.1	60	<1.0 U	<1.0 U	<1.0 U	63	22	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	1/24/2012	0.64	**9.0**	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	**0.69**	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	0.073	8.8	4	17	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	66	<2.0 U	<2.0 U	<2.0 U	60	22	10	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	3/14/2012	**6.4**	**32**	<2.0 U	<2.0 U	<0.20 U	<2.0 U	2.4	<0.77 U	3.1	**3.8**	<2.0 U	**8.4**	<2.0 U	2.6	<2.0 U	<1.8 U	<2.0 U	<2.0 U	130	63	240	10	26	<2.0 U	3.5	<2.0 U	<1.5 U	9.3	**1100**	<2.0 U	<2.0 U	<2.0 U	880	340	300	62	310	<10 U	<2.0 U	<710 U	<13 U
	4/24/2012	**5.5**	**12**	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	**1.9**	<2.0 U	<5.0 U	<2.0 U	2.8	<2.0 U	<1.8 U	<2.0 U	<0.028 U	110	62	85	7.7	13	<2.0 U	<2.0 U	<2.0 U	<1.5 U	5.1	5.3	<2.0 U	<2.0 U	<2.0 U	480	160	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	5/16/2012	**2.9**	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	44	30	5.3	3.4	6.1	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	39	14	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	6/21/2012	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	7/24/2012	<0.050 U	0.16	0.024	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	8/16/2012	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	9/19/2012	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	10/16/2012	<0.050 U	<0.053 U	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	11/14/2012	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	12/12/2012	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	1/30/2013	<0.050 U	0.2	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	2/20/2013	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	3/20/2013	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	4/16/2013	0.12	**3.5**	0.022	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	2.5	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	30	<2.0 U	<2.0 U	<2.0 U	6.7	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	5/21/2013	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	6.4	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	6/18/2013	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	4.7	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	7/24/2013	<0.050 U	<0.053 U	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	10/23/2013	<0.05 U	<0.053 U	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	1/23/2014	0.16	**6.4**	<0.020 U	2.4	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	**0.47**	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	2.7	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	34	<2.0 U	<2.0 U	<2.0 U	6.3	5.3	270	360	790	<10 U	<2.0 U	<710 U	<13 U
	4/22/2014	<0.20 U	0.85	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	5.3	<2.0 U	<2.0 U	<2.0 U	4.5	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	7/23/2014	<0.20 U	0.28	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	2.2	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	9.6	<2.0 U	<2.0 U	<2.0 U	7.0	3.4	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	10/21/2014	<0.20 U	0.48	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	3.1	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	16	<2.0 U	<2.0 U	<2.0 U	9.0	3.1	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	1/21/2015	0.28	0.45	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	3	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	12	<2.0 U	<2.0 U	<2.0 U	10	3.1	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	4/21/2015	<0.20 U	0.62	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	2.7	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	R	13	<2.0 U	<2.0 U	<2.0 U	9.2	3.6	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	7/17/2015	<0.20 U	0.36	<0.020 UJ	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	2.3	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	6.3	<2.0 U	<2.0 U	<2.0 U	7.9	3.2	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	10/27/2015	<0.20 U	0.12	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	R	<2.0 U	<2.0 U	<2.0 U	<2.0 U	< 4 U	<2.0 U	25	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	1/28/2016	<0.20 U	<0.053 U	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	< 4 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	4/27/2016	<0.20 U	<0.053 U	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<0.020 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	< 4 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	7/21/2016	<0.20 U	0.28	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	0.021	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	2.2	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	7.0	<2.0 U	<2.0 U	<2.0 U	7.8	3.2	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	10/20/2016	<0.20 U	0.31	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	2.3	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	0.39	5.8	<2.0 U	<2.0 U	<2.0 U	7.3	3.4	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	1/24/2017	**0.72**	1.4	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	0.091	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	0.071	23	10	16	<2.0 U	3.3	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	15	31	<2.0 U	<2.0 U	<2.0 U	61	23	91	170	430	25	<2.0 U	1500	<13 U
	4/21/2017	0.31	0.31	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	22	11	5	<2.0 U	2.5	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	17	5.9	<2.0 U	<2.0 U	<2.0 U	20	10	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	6/20/2017	0.35	0.60	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	0.026	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	6.5	3.1	4.5	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	6.4	9.7	<2.0 U	<2.0 U	<2.0 U	16	6.7	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	7/19/2017	**0.7**	1.2	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	0.072	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	0.053	8.9	4.2	5.9	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	9	16	<2.0 U	<2.0 U	<2.0 U	22	10	100	110	350	<10 U	<2.0 U	1400	15
	8/29/2017	**2.7**	2.4	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	12	5.9	9.5	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	6.4	25	<2.0 U	<2.0 U	<2.0 U	36	17	12	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	9/19/2017	**1.4**	2.3	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	0.085	<2.0 U	<5.0 U	<2.0 U

Well	Date	Chloroethenes					Chloroethanes					Chloromethanes			Chlorobenzenes				Aromatics																	Ketones						
		Tetra chloro ethene	Trichloro ethene	1,1-Dichloro ethene	cis-1,2-Dichloro ethene	Vinyl Chloride	Chloro ethane	1,1,1-Trichloro ethane	1,1,2-Trichloro ethane	1,1-Dichloro ethane	1,2-Dichloro ethane	Chloro methane	Methylene Chloride	Chloro form	1,2-Dichloro benzene	Chloro benzene	1,4-Dichlorob enzene	1,2,4-Trichlorob enzene	Benzene	1,2,4-Trimethyl benzene	1,3,5-Trimethyl benzene	Ethyl benzene	Isopropyl benzene (Cumene)	n-Propyl benzene	Tert-Butyl benzene	n-Butyl benzene	sec-Butylbenz ene	Styrene	Naph thalene	Toluene	2-Chloro toluene	4-Chloro toluene	p-Isopropyl toluene	m, p-Xylene	o-Xylene	Methyl isobutyl ketone	2-Butanone	Acetone	2-Hexanone	Carbon Disulfide	Ethanol	Tertiary butyl alcohol
2014 dCUL:		**0.69**	**2.5**	**0.057**	**16**	**0.069**	-	**200**	-	-	**0.38**	-	**5**	-	-	-			**0.79**	-	-	-	-	-	-	-		-	-	**615**	-	-	-	-	-	-	-	-	-	-	-	-
MW-47S	1/27/2010	0.31	**9.2**	**0.089**	6.9	0.033	<1.0 U	<1.0 U	<1.0 U	4.2	**1.8**	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	2/25/2010	<1.0 U	**4.9**	<1.0 U	4.9	<0.20 U	<1.0 U	<1.0 U	<1.0 U	2.6	**1.2**	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	3/26/2010	<1.0 U	1.5	<1.0 U	5.3	<0.20 U	<1.0 U	<1.0 U	<1.0 U	1.7	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	4/21/2010	0.2	0.89	<0.050 U	3.1	<0.020 U	<1.0 U	<1.0 U	<1.0 U	1.1	0.37	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	5/20/2010	<1.0 U	**2.8**	<1.0 U	4.6	<0.20 U	<1.0 U	<1.0 U	<1.0 U	2.2	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	6/24/2010	<1.0 U	2.0	<1.0 U	4.8	<0.20 U	<1.0 U	<1.0 U	<1.0 U	1.6	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	7/14/2010	0.41	**3.1**	<0.050 U	4.0	<0.020 U	<1.0 U	<1.0 U	<1.0 U	1.3	**0.66**	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	8/18/2010	<1.0 U	**3.1**	<1.0 U	3.0	<0.20 U	<1.0 U	<1.0 U	<1.0 U	1.1	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	9/23/2010	<1.0 U	**4.5**	<1.0 U	3.8	<0.20 U	<1.0 U	<1.0 U	<1.0 U	1.3	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	10/13/2010	0.19	**3.5**	<0.050 U	3.5	<0.020 U	<1.0 U	<1.0 U	<1.0 U	1.2	**0.70**	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	11/18/2010	<1.0 U	2.3	<1.0 U	2.4	<0.20 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	12/22/2010	<1.0 U	**7.6**	<1.0 U	1.9	<0.20 U	<1.0 U	<1.0 U	<1.0 U	1.8	**1.1**	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	1/12/2011	0.26	**8.4**	0.056	2.1	<0.020 U	<1.0 U	<1.0 U	<1.0 U	1.5	**1.0**	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	2/17/2011	<1.0 U	**13**	<1.0 U	2.5	<0.20 U	<1.0 U	<1.0 U	<1.0 U	2.4	**1.4**	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	3/15/2011	<1.0 U	**4.2**	<1.0 U	1.6	<0.20 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	4/19/2011	<0.020 U	2.4	<0.020 U	1.5	<0.020 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	0.34	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	5/19/2011	<1.0 U	**2.8**	<1.0 U	1.4	<0.20 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	6/15/2011	<1.0 U	**3.8**	<1.0 U	1.1	<0.20 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	7/26/2011	0.22	**5.3**	0.026	1.6	<0.020 U	<1.0 U	<1.0 U	<1.0 U	1.1	**0.59**	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	8/25/2011	<1.0 U	**6.2**	<1.0 U	1.6	<0.20 U	<1.0 U	<1.0 U	<1.0 U	1.2	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	9/30/2011	<1.0 U	**8.2**	<1.0 U	2.0	<0.20 U	<1.0 U	<1.0 U	<1.0 U	1.8	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	10/25/2011	0.16	**4.9**	<0.020 U	1.6	<0.020 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	**0.95**	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	11/17/2011	<1.0 U	**3.8**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	12/20/2011	<1.0 U	**9.3**	<1.0 U	2.1	<0.20 U	<1.0 U	<1.0 U	<1.0 U	1.7	**1.3**	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	1/26/2012	0.4	**20**	0.055	2.4	<0.032 U	<2.0 U	<2.0 U	<0.77 U	4.2	**3.8**	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	2/27/2012	<2.0 U	**7.6**	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	3/14/2012	<2.0 U	**4.7**	<2.0 U	2.2	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	4/25/2012	0.27	**4.5**	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	**0.45**	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	5/16/2012	<2.0 U	**4.0**	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	6/21/2012	<2.0 U	**3.1**	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	7/25/2012	<0.050 U	1.6	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	8/16/2012	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	9/19/2012	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	10/16/2012	<0.050 U	0.45	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	11/14/2012	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	12/12/2012	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	1/30/2013	<0.050 U	0.25	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	2/20/2013	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	3/20/2013	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	4/17/2013	<0.050 U	0.097	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	5/21/2013	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	6/18/2013	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	7/25/2013	<0.050 U	<0.053 U	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	10/22/2013	<0.05 U	0.082	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	1/23/2014	<0.05 U	<0.053 U	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	4/23/2014	<0.20 U	<0.053 U	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	7/23/2014	<0.20 U	0.18	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	0.020	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	10/22/2014	<0.20 U	0.18	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	0.023	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	1/21/2015	<0.20 U	0.21	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	4/21/2015	<0.20 U	0.12	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	7/17/2015	<0.20 U	0.13	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	10/27/2015	<0.20 U	0.16	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	1/27/2016	<0.20 U	0.18	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	0.034	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U

Well	Date	Chloroethenes					Chloroethanes					Chloromethanes			Chlorobenzenes				Aromatics																	Ketones						
		Tetra chloro ethene	Trichloro ethene	1,1-Dichloro ethene	cis-1,2-Dichloro ethene	Vinyl Chloride	Chloro ethane	1,1,1-Trichloro ethane	1,1,2-Trichloro ethane	1,1-Dichloro ethane	1,2-Dichloro ethane	Chloro methane	Methylene Chloride	Chloro form	1,2-Dichloro benzene	Chloro benzene	1,4-Dichlorob enzene	1,2,4-Trichlorob enzene	Benzene	1,2,4-Trimethyl benzene	1,3,5-Trimethyl benzene	Ethyl benzene	Isopropyl benzene (Cumene)	n-Propyl benzene	Tert-Butyl benzene	n-Butyl benzene	sec-Butylbenz ene	Styrene	Naph thalene	Toluene	2-Chloro toluene	4-Chloro toluene	p-Isopropyl toluene	m, p-Xylene	o-Xylene	Methyl isobutyl ketone	2-Butanone	Acetone	2-Hexanone	Carbon Disulfide	Ethanol	Tertiary butyl alcohol
2014 dCUL:		**0.69**	**2.5**	**0.057**	**16**	**0.069**	**-**	**200**	**-**	**-**	**0.38**	**-**	**5**	**-**	**-**	**-**			**0.79**	**-**	**-**	**-**	**-**	**-**	**-**	**-**		**-**	**-**	**615**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
MW-50S	1/27/2010	**0.76**	**18**	**0.092**	8.1	0.034	<1.0 U	<1.0 U	<1.0 U	6.5	**4.4**	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	0.024	<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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	2/25/2010	**1.1**	**17**	<1.0 U	6.5	<0.20 U	<1.0 U	<1.0 U	0.49	5.6	**4.0**	<5.0 U	<5.0 U	0.51	<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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	3/26/2010	<1.0 U	**11**	<1.0 U	4.5	<0.20 U	<1.0 U	<1.0 U	<1.0 U	3.5	**2.0**	<5.0 U	<5.0 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	<1.0 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	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	4/21/2010	**0.73**	**11**	<0.050 U	3.8	<0.020 U	<1.0 U	<1.0 U	<1.0 U	3.8	**1.8**	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	5/20/2010	<1.0 U	**19**	<1.0 U	3.7	<0.20 U	<1.0 U	1.1	<1.0 U	5.7	**2.4**	<5.0 U	<5.0 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	<1.0 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	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	7/14/2010	**0.7**	**9.6**	<0.050 U	2.0	<0.020 U	<1.0 U	<1.0 U	<1.0 U	1.9	**0.9**	<5.0 U	<5.0 U	1.0	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	8/18/2010	<1.0 U	**10**	<1.0 U	3.3	<0.20 U	<1.0 U	<1.0 U	<1.0 U	2.3	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	9/23/2010	<1.0 U	**13**	<1.0 U	2.9	<0.20 U	<1.0 U	<1.0 U	<1.0 U	2.6	**1.2**	<5.0 U	<5.0 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	<1.0 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	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	10/13/2010	0.31	**9.9**	<0.050 U	2.7	<0.020 U	<1.0 U	<1.0 U	<1.0 U	2.2	**1.1**	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	11/18/2010	<1.0 U	**13**	<1.0 U	2.1	<0.20 U	<1.0 U	<1.0 U	<1.0 U	2.9	**1.9**	<5.0 U	<5.0 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	<1.0 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	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	12/22/2010	<1.0 U	**16**	<1.0 U	1.7	<0.20 U	<1.0 U	<1.0 U	<1.0 U	3.1	**2.0**	<5.0 U	<5.0 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	<1.0 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	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	1/12/2011	0.55	**13**	0.036	1.4	<0.020 U	<1.0 U	<1.0 U	<1.0 U	2.0	**1.3**	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	2/17/2011	<1.0 U	**11**	<1.0 U	1.2	<0.20 U	<1.0 U	<1.0 U	<1.0 U	2.1	**1.1**	<5.0 U	<5.0 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	<1.0 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	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	3/15/2011	<1.0 U	**16**	<1.0 U	1.7	<0.20 U	<1.0 U	<1.0 U	<1.0 U	3.6	**3.2**	<5.0 U	<5.0 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	<1.0 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	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	4/19/2011	0.54	**9.7**	<0.020 U	<1.0 U	<0.020 U	<1.0 U	<1.0 U	<1.0 U	1.4	**0.58**	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	5/19/2011	<1.0 U	**14**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	1.3	<1.0 U	2.00	<1.0 U	<5.0 U	<5.0 U	1.1	<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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	6/15/2011	<1.0 U	**10**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	7/26/2011	0.51	**5.7**	<0.020 U	<1.0 U	<0.020 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	0.14	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	8/25/2011	<1.0 U	**16**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	1.4	<1.0 U	1.8	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	9/30/2011	<1.0 U	**20**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	1.5	<1.0 U	3.1	**1.0**	<5.0 U	<5.0 U	1.1	<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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	10/25/2011	**0.88**	**22**	0.039	1.1	<0.020 U	<1.0 U	1.7	<1.0 U	4.1	**3.0**	<5.0 U	<5.0 U	1.1	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	11/17/2011	<1.0 U	**23**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	1.7	<1.0 U	4.1	**3.7**	<5.0 U	<5.0 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	<1.0 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	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	12/20/2011	<1.0 U	**37**	<1.0 U	1.4	<0.20 U	<1.0 U	2.3	<1.0 U	6.5	**4.5**	<5.0 U	<5.0 U	2.1	<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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	1/26/2012	**1.4**	**27**	0.035	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	3.9	**2.3**	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	2/27/2012	<2.0 U	**12**	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	3/14/2012	<2.0 U	**10**	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	4/25/2012	**0.80**	**13**	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	2.1	**0.43**	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	5/16/2012	<2.0 U	**8.9**	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	6/21/2012	<2.0 U	**3.2**	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	7/25/2012	<0.050 U	2.2	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	8/16/2012	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	9/19/2012	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	10/16/2012	0.060	0.63	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	11/14/2012	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	12/12/2012	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	1/30/2013	0.18	0.56	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	2/20/2013	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	3/20/2013	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	4/17/2013	0.13	0.41	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	5/21/2013	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	6/18/2013	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	7/25/2013	<0.050 U	0.29	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	10/22/2013	0.39	0.29	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	1/23/2014	<0.05 U	0.27	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	4/23/2014	<0.20 U	<0.053 U	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	7/23/2014	<0.20 U	0.31	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	0.028	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	10/22/2014	<0.20 U	0.33	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	1/21/2015	0.24	0.43	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	4/21/2015	0.24	0.33	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	7/17/2015	<0.20 U	0.28	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	10/27/2015	<0.20 U	0.26	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	1/27/2016	0.25	0.46	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	0.035	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0

Well	Date	Chloroethenes					Chloroethanes					Chloromethanes			Chlorobenzenes				Aromatics																	Ketones						
		Tetra chloro ethene	Trichloro ethene	1,1-Dichloro ethene	cis-1,2-Dichloro ethene	Vinyl Chloride	Chloro ethane	1,1,1-Trichloro ethane	1,1,2-Trichloro ethane	1,1-Dichloro ethane	1,2-Dichloro ethane	Chloro methane	Methylene Chloride	Chloro form	1,2-Dichloro benzene	Chloro benzene	1,4-Dichlorob enzene	1,2,4-Trichlorob enzene	Benzene	1,2,4-Trimethyl benzene	1,3,5-Trimethyl benzene	Ethyl benzene	Isopropyl benzene (Cumene)	n-Propyl benzene	Tert-Butyl benzene	n-Butyl benzene	sec-Butylbenz ene	Styrene	Naph thalene	Toluene	2-Chloro toluene	4-Chloro toluene	p-Isopropyl toluene	m, p-Xylene	o-Xylene	Methyl isobutyl ketone	2-Butanone	Acetone	2-Hexanone	Carbon Disulfide	Ethanol	Tertiary butyl alcohol
2014 dCUL:		**0.69**	**2.5**	**0.057**	**16**	**0.069**	**-**	**200**	**-**	**-**	**0.38**	**-**	**5**	**-**	**-**	**-**			**0.79**	**-**	**-**	**-**	**-**	**-**	**-**	**-**		**-**	**-**	**615**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
NVM-01	1/27/2010	0.60	**12**	<1.0 U	1.6	<0.20 U	<1.0 U	<1.0 U	<1.0 U	3.3	**0.92**	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	2/25/2010	<1.0 U	**10**	<1.0 U	1.6	<0.20 U	<1.0 U	<1.0 U	<1.0 U	3.3	**1.2**	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	3/26/2010	<1.0 U	**4.5**	<1.0 U	1.4	<0.20 U	<1.0 U	<1.0 U	<1.0 U	1.9	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	4/21/2010	0.46	**7.5**	<0.050 U	1.5	<0.020 U	<1.0 U	<1.0 U	<1.0 U	3.4	**0.86**	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	5/20/2010	<1.0 U	**5.5**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	1.9	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	6/23/2010	<1.0 U	**10**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	2.2	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	7/13/2010	0.65	**14**	<0.050 U	1.5	0.032	<1.0 U	<1.0 U	<1.0 U	2.7	**1.6**	<5.0 U	<5.0 U	1.5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	0.10	<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	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	8/18/2010	<1.0 U	**14**	<1.0 U	1.3	<0.20 U	<1.0 U	<1.0 U	<1.0 U	2.4	**1.3**	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	9/23/2010	<1.0 U	**17**	<1.0 U	1.2	<0.20 U	<1.0 U	<1.0 U	<1.0 U	2.6	**1.9**	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	10/13/2010	0.39	**11**	<0.050 U	<1.0 U	<0.020 U	<1.0 U	<1.0 U	<1.0 U	1.6	**1.1**	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	11/18/2010	<1.0 U	**4.5**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	12/22/2010	<1.0 U	**5.1**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	1.0	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	1/11/2011	0.19	**7.5**	<0.020 U	<1.0 U	<0.020 U	<1.0 U	<1.0 U	<1.0 U	1.4	**1.1**	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	2/17/2011	<1.0 U	**13**	<1.0 U	1.0	<0.20 U	<1.0 U	<1.0 U	<1.0 U	2.5	**2.0**	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	3/15/2011	<1.0 U	**24**	<1.0 U	2.4	<0.20 U	<1.0 U	<1.0 U	<1.0 U	5.5	**3.9**	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	4/19/2011	**1.0**	**15**	<0.020 U	<1.0 U	<0.020 U	<1.0 U	<1.0 U	<1.0 U	3.6	**3.1**	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	5/19/2011	<1.0 U	**19**	<1.0 U	1.3	<0.20 U	<1.0 U	<1.0 U	<1.0 U	3.7	**2.2**	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	6/15/2011	<1.0 U	**15**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	1.9	**1.5**	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	7/26/2011	0.37	**20**	**0.058**	<1.0 U	<0.020 U	<1.0 U	<1.0 U	<1.0 U	2.6	**2.4**	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	8/25/2011	<1.0 U	**15**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	2.0	**1.9**	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	9/30/2011	<1.0 U	**33**	<1.0 U	1.4	<0.20 U	<1.0 U	<1.0 U	<1.0 U	4.7	**3.0**	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	10/25/2011	0.44	**21**	0.032	<1.0 U	<0.020 U	<1.0 U	<1.0 U	<1.0 U	2.7	**1.9**	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	11/17/2011	<1.0 U	**34**	<1.0 U	1.4	<0.20 U	<1.0 U	<1.0 U	<1.0 U	4.6	**3.4**	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	12/20/2011	<1.0 U	**35**	<1.0 U	1.5	<0.20 U	<1.0 U	<1.0 U	<1.0 U	3.8	**2.8**	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	1/25/2012	0.68	**22**	0.036	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	4.6	**3.1**	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	2/27/2012	<2.0 U	**13**	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	2.1	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	3/14/2012	<2.0 U	**7.8**	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	4/25/2012	0.46	**11**	0.026	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	**1.3**	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	5/16/2012	<2.0 U	**14**	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	6/21/2012	<2.0 U	2.3	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	7/25/2012	<0.050 U	**4.4**	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	**0.53**	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	8/16/2012	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	9/19/2012	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	10/16/2012	<0.050 U	0.47	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	11/14/2012	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	12/12/2012	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	1/30/2013	<0.050 U	0.24	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	2/20/2013	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	3/20/2013	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	4/18/2013	<0.050 U	0.06	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	5/21/2013	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	6/18/2013	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	7/25/2013	<0.050 U	<0.053 U	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	10/22/2013	0.091	<0.053 U	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	1/23/2014	<0.05 U	<0.053 U	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	4/22/2014	<0.20 U	1.7	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	7/22/2014	0.22	1.4	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	10/21/2014	<0.20 U	0.94	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	0.028	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	1/21/2015	<0.20 U	1.1	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	0.047	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	R	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	25	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	4/21/2015	<0.20 U	0.4	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	7/17/2015	<0.20 U	0.17	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	10/27/2015	<0.20 U	0.4	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	1/27/2016	<0.20 U	0.72	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	0.033	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	4/26/2016	<0.20 U	0.12	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	0.020	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	7/20/2016	<0.20 U	0.13	<0.020 U	<2.0 U	<0.032 U

TABLE 19
Zone A Groundwater Trends
2017 Annual Report
Pasco Landfill NPL Site

Well	Date	Chloroethenes					Chloroethanes					Chloromethanes			Chlorobenzenes				Aromatics																	Ketones						
		Tetra chloro ethene	Trichloro ethene	1,1-Dichloro ethene	cis-1,2-Dichloro ethene	Vinyl Chloride	Chloro ethane	1,1,1-Trichloro ethane	1,1,2-Trichloro ethane	1,1-Dichloro ethane	1,2-Dichloro ethane	Chloro methane	Methylene Chloride	Chloro form	1,2-Dichloro benzene	Chloro benzene	1,4-Dichlorob enzene	1,2,4-Trichlorob enzene	Benzene	1,2,4-Trimethyl benzene	1,3,5-Trimethyl benzene	Ethyl benzene	Isopropyl benzene (Cumene)	n-Propyl benzene	Tert-Butyl benzene	n-Butyl benzene	sec-Butylbenz ene	Styrene	Naph thalene	Toluene	2-Chloro toluene	4-Chloro toluene	p-Isopropyl toluene	m, p-Xylene	o-Xylene	Methyl isobutyl ketone	2-Butanone	Acetone	2-Hexanone	Carbon Disulfide	Ethanol	Tertiary butyl alcohol
2014 dCUL:		**0.69**	**2.5**	**0.057**	**16**	**0.069**	**-**	**200**	**-**	**-**	**0.38**	**-**	**5**	**-**	**-**	**-**			**0.79**	**-**	**-**	**-**	**-**	**-**	**-**	**-**		**-**	**-**	**615**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
MW-12S	1/27/2010	0.25	**3.9**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	**0.43**	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	2/25/2010	<1.0 U	**4.2**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	1.2	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	3/26/2010	<1.0 U	**12**	<1.0 U	1.3	<0.20 U	<1.0 U	<1.0 U	<1.0 U	3.5	**1.1**	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	4/21/2010	0.23	**2.7**	<0.050 U	<1.0 U	<0.020 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	0.24	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	5/20/2010	<1.0 U	2.0	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	6/23/2010	<1.0 U	**2.6**	<1.0 U	2.6	<0.20 U	<1.0 U	<1.0 U	<1.0 U	1.1	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	7/13/2010	**0.77**	**3.9**	<0.050 U	8.0	0.052	<1.0 U	<1.0 U	<1.0 U	1.9	**0.52**	<5.0 U	**12**	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	0.12	<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	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	8/18/2010	<1.0 U	**4.5**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	1.1	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	9/23/2010	<1.0 U	**8.3**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	2.1	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	10/12/2010	0.15	**3.8**	<0.050 U	<1.0 U	<0.020 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	0.37	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	11/18/2010	<1.0 U	**4.8**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	12/22/2010	<1.0 U	1.2	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	1/11/2011	0.12	2.1	<0.020 U	<1.0 U	<0.020 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	0.049	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	2/16/2011	<1.0 U	2.2	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	3/15/2011	<1.0 U	**7.4**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	1.3	**1.3**	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	4/19/2011	0.30	**10**	<0.020 U	<1.0 U	<0.020 U	<1.0 U	<1.0 U	<1.0 U	1.6	**1.4**	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	5/19/2011	<1.0 U	**26**	<1.0 U	2.3	<0.20 U	<1.0 U	<1.0 U	<1.0 U	6.3	**4.3**	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	6/15/2011	<1.0 U	**14**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	2.8	**3.0**	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	7/26/2011	0.022	**4.0**	<0.020 U	<1.0 U	<0.020 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	**0.56**	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	8/25/2011	<1.0 U	**11**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	1.6	**1.7**	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	9/30/2011	<1.0 U	**8.2**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	1.2	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	10/25/2011	0.28	**16**	0.026	<1.0 U	<0.020 U	<1.0 U	<1.0 U	<1.0 U	2.3	**2.0**	<5.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<0.020 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	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	11/17/2011	<1.0 U	**12**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	1.3	**1.2**	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	12/20/2011	<1.0 U	**2.7**	<1.0 U	<1.0 U	<0.20 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<5.0 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	<1.0 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	<2.0 U	<1.0 U	<10 U	<10 U	<10 U	<10 U	<1.0 U	NA	NA
	1/25/2012	0.20	**10**	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	**0.98**	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	2/27/2012	<2.0 U	**25**	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	3.0	**2.4**	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	3/14/2012	<2.0 U	**19**	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	3.6	**2.9**	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	4/25/2012	0.22	**3.2**	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	0.35	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	5/16/2012	<2.0 U	**5.7**	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	6/21/2012	<2.0 U	**12**	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	7/25/2012	0.49	**23**	0.034	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	2.9	**3.6**	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	8/16/2012	<2.0 U	**11**	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	**2.0**	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	9/19/2012	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	10/16/2012	<0.050 U	1.8	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	0.17	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	11/14/2012	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	12/12/2012	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	1/30/2013	<0.050 U	0.3	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	2/20/2013	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	3/20/2013	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	4/17/2013	<0.050 U	0.056	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	5/21/2013	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	6/18/2013	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.20 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<2.0 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	7/24/2013	<0.050 U	<0.053 U	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	10/22/2013	0.090	<0.053 U	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	1/22/2014	<0.05 U	<0.053 U	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.014 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	4/23/2014	<0.20 U	0.92	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	7/21/2014	0.25	**7.0**	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	0.12	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	10/22/2014	<0.20 U	0.43	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	1/21/2015	<0.20 U	0.31	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	4/21/2015	<0.20 U	0.18	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	7/17/2015	<0.20 U	0.31	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U
	10/27/2015	<0.20 U	0.12	<0.020 U	<2.0 U	<0.032 U	<2.0 U	<2.0 U	<0.77 U	<2.0 U	<0.020 U	<2.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U	<1.8 U	<2.0 U	<0.028 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.5 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<10 U	<10 U	<25 U	<10 U	<2.0 U	<710 U	<13 U

Table 20
Waste Disposal
2017 Annual Report
Pasco Landfill NPL Site

Period: 1/1–12/31/2017

Waste	Shipment Quantity	Units	Disposal or Treatment Facility	Disposal Date	Designation
SVE Condensate	2,000	Gallons	Chemical Waste Management, Arlington, Oregon	2/3/2017	Washington State Dangerous Waste Toxic (WT02)
SVE Condensate	4,000	Gallons	Chemical Waste Management, Arlington, Oregon	3/31/2017	Washington State Dangerous Waste Toxic (WT02)
Oil/Water Separator Media	~6	Cubic Feet	Finley Buttes Regional Landfill	4/11/2017	Non-regulated
SVE Condensate	3,000	Gallons	PRS Group, Tacoma, Washington	8/14/2017	Non-regulated
SVE Condensate	3,200	Gallons	PRS Group, Tacoma, Washington	10/5/2017	Non-regulated
SVE Condensate	2,500	Gallons	PRS Group, Tacoma, Washington	11/1/2017	Non-regulated
SVE Condensate	4,130	Gallons	PRS Group, Tacoma, Washington	11/20/2017	Non-regulated
SVE Condensate	3,772	Gallons	PRS Group, Tacoma, Washington	12/20/2017	Non-regulated

Total waste disposed of during 2017:

6,000 gallons of SVE condensate, was mis-characterized as Washington State Dangerous Waste for toxicity (WT02) was disposed of at PRS Group in Tacoma, WA. A calculation error was later discovered later. The waste should have been characterized as non-regulated waste.

16,602 gallons of SVE condensate, characterized as non-regulated waste, was treated and disposed of with PRS Group in Tacoma, WA.

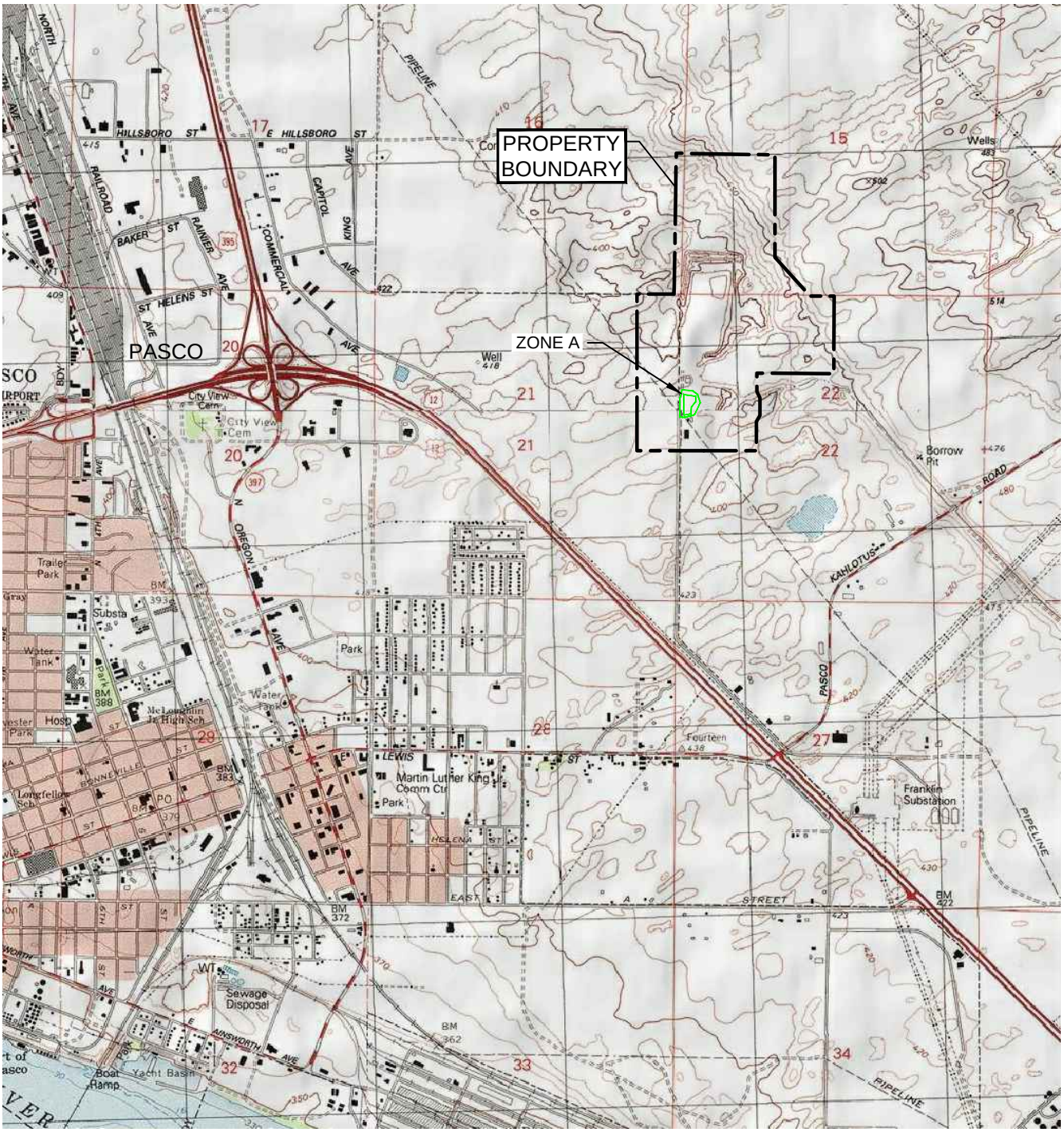
Approximately 6 cubic feet of plastic coalescing media from the oil/water separator was disposed of at the Finley Buttes Regional Landfill via Special Waste Permit and the BDI Transfer station.

Table 21
Zone A Cover Vent Monitoring
2017 Annual Report
Pasco Landfill NPL Site, Pasco, WA

Date	V2 Vacuum	V1 Airflow	V2 Airflow	V3 Airflow	V4 Airflow
1/3/2017	-0.1	2.0	1.9	2.0	1.8
1/11/2017	-0.2	2.4	2.6	2.4	2.5
1/16/2017	-0.1	1.7	1.9	1.6	1.6
1/23/2017	-0.2	1.9	1.9	2.2	2.2
1/30/2017	-0.1	1.7	1.8	2.0	1.9
2/6/2017	-0.1	2.2	2.3	2.2	2.1
2/13/2017	-0.1	2.5	3.0	2.4	2.3
2/21/2017	-0.2	2.7	2.9	2.7	2.7
2/27/2017	-0.2	2.3	2.4	2.2	2.3
3/6/2017	-0.5	2.3	2.5	2.5	2.4
3/13/2017	-0.2	2.0	2.1	1.9	1.9
3/20/2017	-0.2	1.9	2.1	2.0	1.9
3/27/2017	-0.3	3.0	3.1	2.9	3.1
4/3/2017	-0.2	2.5	2.5	2.5	2.4
4/10/2017	-0.2	2.3	2.3	2.1	2.4
4/17/2017	-0.2	2.4	2.6	2.3	2.5
4/25/2017	-0.2	2.6	2.8	2.5	2.5
5/1/2017	-0.2	2.2	2.5	2.0	1.9
5/8/2017	-0.2	2.3	2.4	2.0	2.3
5/15/2017	-0.2	2.0	2.0	1.6	1.9
5/23/2017	-0.2	1.9	2.2	1.3	2.0
5/30/2017	-0.2	1.8	1.9	1.3	1.9
6/5/2017	-0.4	2.3	2.2	1.6	2.3
6/13/2017	-0.2	2.3	2.1	2.7	2.0
6/19/2017	-0.2	2.3	1.8	1.4	1.8
6/26/2017	-0.1	1.7	1.4	1.0	1.8
7/5/2017	-0.3	1.6	1.8	0.8	1.9
7/18/2017	-0.1	1.5	1.7	0.6	1.4
7/24/2017	-0.3	2.1	2.2	1.2	2.3
7/31/2017	-0.2	1.6	2.0	0.9	1.8
8/7/2017	-0.3	1.8	2.1	1.0	1.3
8/14/2017	-0.3	1.6	2.1	0.9	1.4
8/21/2017	-0.3	1.7	2.2	0.9	0.8
8/28/2017	-0.3	1.7	2.2	0.9	0.8
9/6/2017	-0.5	1.6	2.1	0.8	0.7
9/18/2017	-0.5	1.5	1.9	0.6	0.9
9/25/2017	-0.4	1.8	2.3	0.7	1.0
10/4/2017	-0.5	1.6	2.3	0.8	1.0
10/9/2017	-0.4	1.7	2.1	0.7	1.0
10/16/2017	-0.4	1.6	1.9	0.8	0.6
10/23/2017	-0.5	1.6	2.0	1.1	1.3
10/30/2017	-0.5	1.6	2.1	0.8	1.0
11/6/2017	-0.5	2.2	2.9	1.0	1.2
11/14/2017	-0.5	2.5	3.1	0.9	1.2
11/20/2017	-0.5	1.8	2.3	0.9	1.0
11/27/2017	-0.5	2.4	3.7	1.1	1.5
12/4/2017	-0.4	2.1	2.7	1.0	1.4
12/11/2017	-0.4	1.5	2.3	0.9	0.9
12/18/2017	-0.4	1.7	2.2	0.9	0.9
12/26/2017	NM	NM	NM	NM	NM

V-1, V-3, and V-4 were not measured but are assumed to be the same as V-2, as they are connected

FIGURES



SOURCES: USGS PASCO, WA QUADRANGLE 1990,
USGS GLADE, WA QUADRANGLE 1990,
PHOTO REVISED 1992.

WASHINGTON

0' 1/4 mi 1/2 mi 1 mi

SCALE: 1" = 1/2 MILE

PREPARED FOR: IWAG GROUP III

PBS

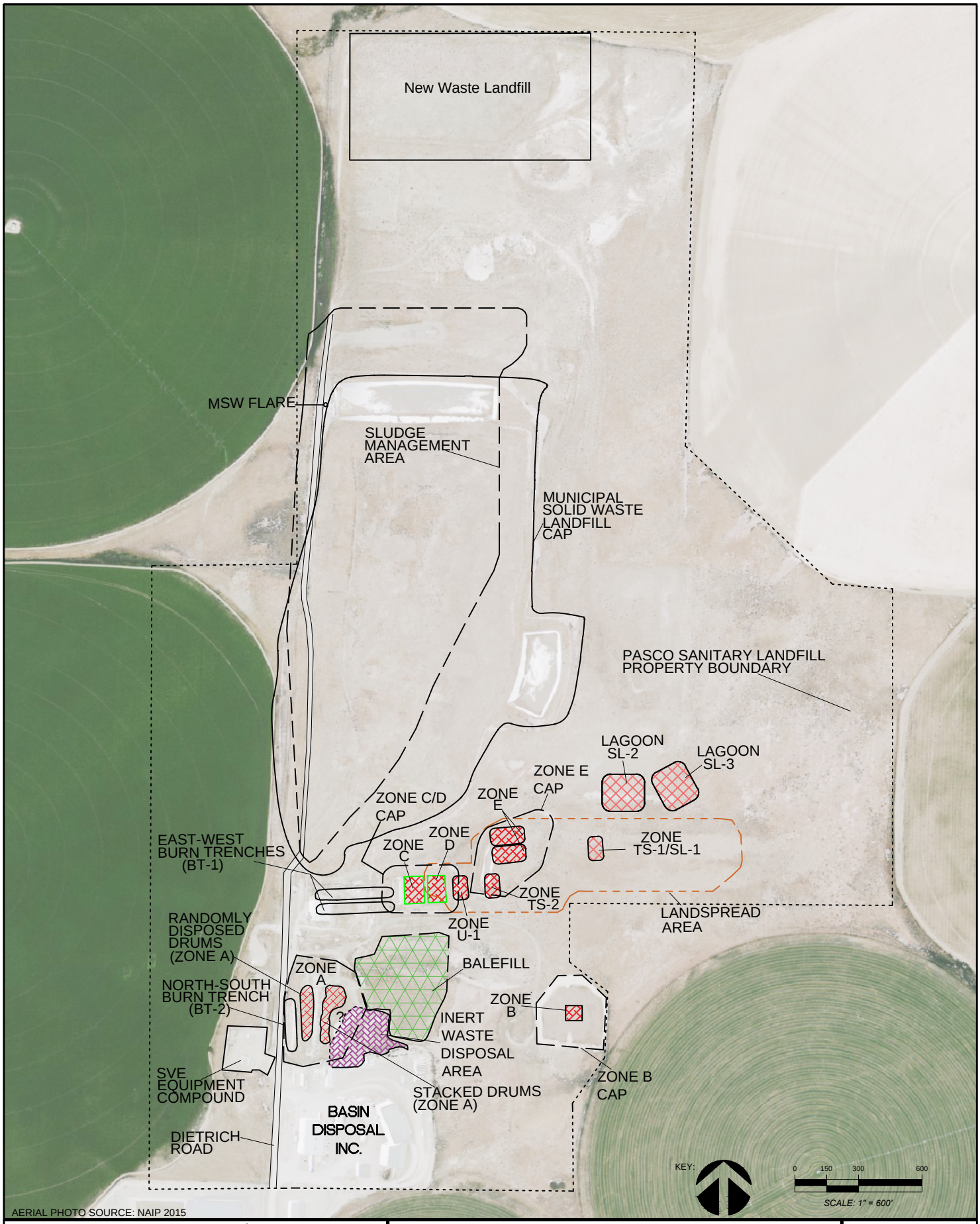
SITE LOCATION MAP

PASCO LANDFILL NPL SITE
PASCO, WASHINGTON

APR 2016
64180

FIGURE
1

C:\Users\patrickb\appdata\local\temp\AcPublish_4600\2016 FIG01.dwg Mar 02, 2017 11:10am patrickb

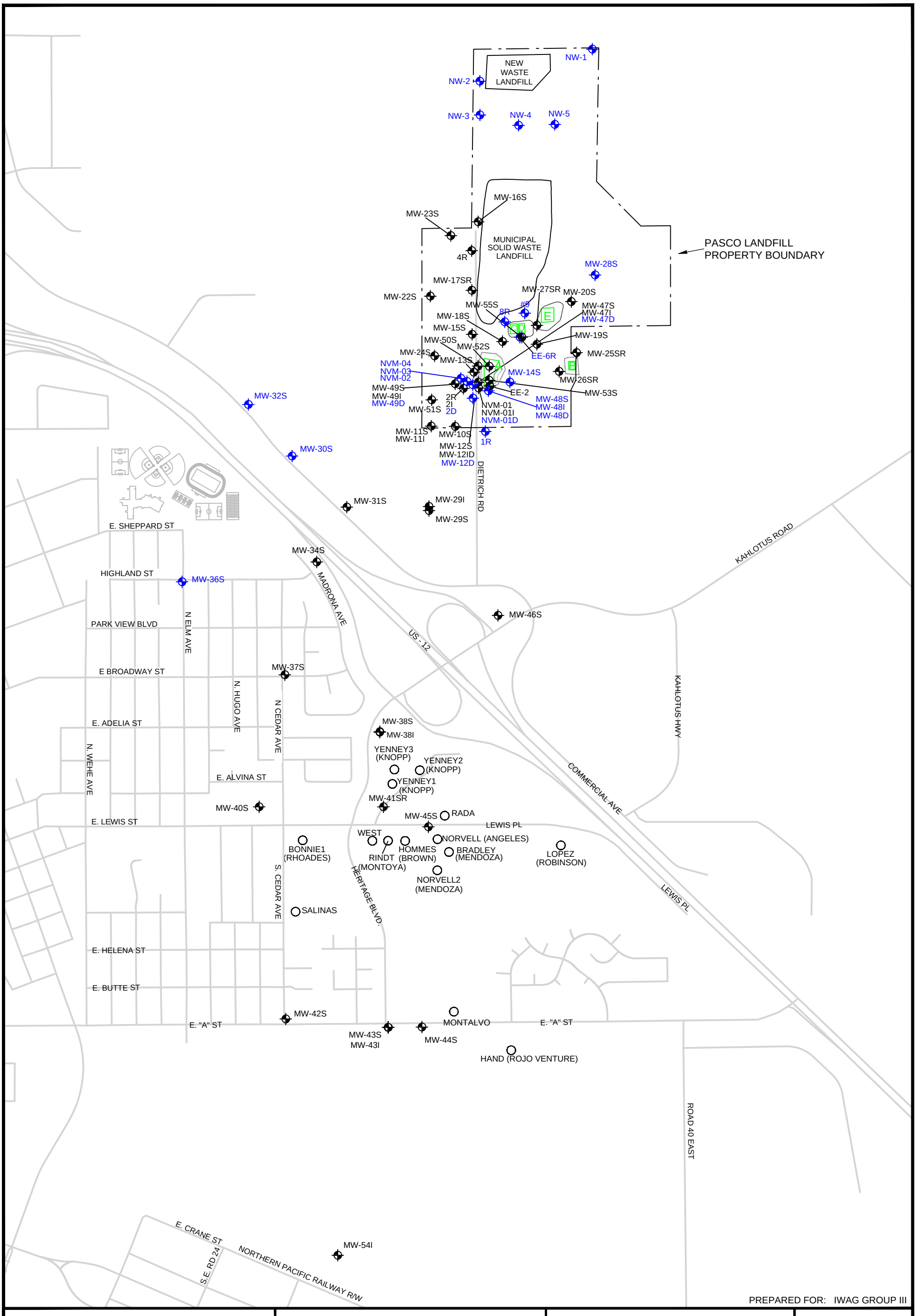


AERIAL PHOTO SOURCE: NAIP 2015

PBS Engineering and Environmental Inc.
400 Bradley Blvd, Ste 300
Richland, WA 99352
509.942.1600
pbsusa.com

PASCO LANDFILL NPL SITE PROPERTY

PROJECT: 64180
DATE: MAR 2017
FIGURE: 2



PREPARED FOR: IWAG GROUP III

0 300 600 1200

APPROXIMATE SCALE: 1" = 1200'

MW-12S GROUNDWATER MONITORING WELL

RADA RESIDENTIAL WELL (WITH PROPERTY OWNER)

MW-12D WATER ELEVATION MONITORING WELL

PBS Engineering and Environmental Inc.
400 Bradley Blvd, Ste 300
Richland, WA 99352
509.942.1600

pbsusa.com

MONITORING WELL NETWORK
PASCO LANDFILL NPL SITE
PASCO, WASHINGTON

PROJECT: 64180

DATE: FEB 2017

FIGURE: **3**

MUNICIPAL SOLID WASTE LANDFILL

NEW WASTE LANDFILL

MW-17SR 355.15
MW-22S 353.65
MW-20S 360.13
#9 358.56
8R 356.74
MW-27SR 358.30
MW-15S 353.50
MW-55S 357.23
EE-6R 357.16
MW-18S 355.64
MW-19S 357.62
MW-25SR 358.42
MW-24S 352.63
MW-50S 353.31
MW-52S 353.92
MW-47S 353.11
MW-13S 353.19
MW-53S 353.42
NVM-04 352.78
MW-26SR 357.54
MW-14S 354.51
MW-49S 352.54
EE-2 353.34
2R 352.75
MW-51S 352.11
NVM-03 352.99
NVM-02 353.04
MW-48S 353.03
MW-12S 352.87
NVM-01 353.03
MW-11S 351.85
MW-10S 352.01
1R 352.56
MW-32S 350.27
MW-30S 350.04
MW-31S 350.36
MW-29S 350.57
MW-34S 349.40
MW-36S 348.75
MW-46S 349.65
MW-37S 348.68
MW-38S 348.47
MW-40S 348.07
MW-41SR 348.25
MW-45S 348.24
MW-42S 347.81
MW-43S 347.90
MW-44S 347.84
NW-1 NM
NW-2 366.24
NW-3 365.10
NW-4 366.06
NW-5 367.11
MW-16S 359.42
MW-23S 356.97
4R 857.80
MW-28S 363.25
A
B
C D
E
YENNEY3 (KNOPP)
YENNEY2 (KNOPP)
YENNEY1 (KNOPP)
HOMMES (BROWN)
RADA
WEST
BONNIE (RHOADES)
RINDT (MONTOYA)
NORVELL (ANGELES)
BRADLEY (MENDOZA)
NORVELL2 (MENDOZA)
LOPEZ (ROBINSON)
SALINAS
REISINGER2 (ROWELL)
MONTALVO
HAND (ROJO VENTU

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

0' 500' 1,000' 2,000'
APPROXIMATE SCALE: 1" = 1,000'

LEGEND

MW-53S 352.75 — SHALLOW AQUIFER MONITORING WELL WITH WATER ELEVATION IN FEET, NAVD88

SALINAS — RESIDENTIAL WELL (WITH PROPERTY OWNER) WATER LEVELS NOT MEASURED IN RESIDENTIAL WELLS

WATER ELEVATION CONTOUR, WATER LEVELS NOT MEASURED IN RESIDENTIAL WELLS.

PREPARED FOR: IWAG GROUP III

PBS Engineering and Environmental Inc.
400 Bradley Blvd, Ste 300
Richland, WA 99352
509.942.1600
pbsusa.com

SHALLOW GROUNDWATER ELEVATIONS - APRIL 2017

PASCO LANDFILL NPL SITE

PASCO, WASHINGTON

PROJECT: 64180
DATE: APRIL 2017
FIGURE: 4

L:\Projects\64000\64100-64199\64180_IWAGIII PascoLandfill\64180.018\Ph2 GW & Reports\2017 Annual Report\Drafting\Fig04_R1_0917_2017Q2_GW_ShallowElevations.dwg Mar 04, 2018 12:36pm patrickb

MUNICIPAL SOLID WASTE LANDFILL

NEW WASTE LANDFILL

MW-1 345.67*
NW-2
NW-3
NW-4
NW-5
MW-16S 358.00
MW-23S 355.58
4R 356.52
MW-17SR 354.15
MW-22S 352.61
8R 355.78
#9 357.32
MW-20S 357.61
MW-28S 361.64*
MW-27SR 357.00
MW-15S 352.45
MW-52S 352.67**
MW-18S 354.45
MW-50S 352.97
MW-55S 356.08
MW-24S 351.70
MW-19S 356.32
MW-25SR 356.95
MW-13S 354.12*
MW-53S 352.41
NVM-04
MW-26SR 355.98
MW-14S 353.39
MW-49S 351.45
MW-47S 352.17
NVM-03
NVM-02
NVM-01 351.85
EE-2 362.56*
MW-51S 351.18
2R 351.81
MW-48S 352.02
MW-11S 350.99
MW-10S 351.14
1R 353.94*
MW-12S 351.94
MW-32S 349.35
MW-30S 348.95
MW-31S 349.66
MW-29S 349.74
MW-34S 348.76
MW-36S 348.72
MW-46S 348.96
MW-37S 348.18
MW-38S 348.00
YENNEY3 (KNOPP)
YENNEY2 (KNOPP)
YENNEY1 (KNOPP)
HOMMES (VERA)
RADA
MW-40S 355.05*
MW-41SR 347.85
MW-45S 347.78
WEST
NORVELL (ANJELES)
LOPEZ (ROBINSON)
BONNIE (NORMAN FAMILY COOKIES)
RINDT (MONTOYA)
BRADLEY (MENDOZA)
NORVELL2 (MENDOZA)
SALINAS
REISINGER2 (ROWELL)
MONTALVO
MW-42S 352.34*
MW-43S 347.51
MW-44S 347.42
HAND (ROJO VENTURE)

355
350

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

0' 500' 1,000' 2,000'
APPROXIMATE SCALE: 1" = 1,000'

LEGEND

MW-53S 352.75	SHALLOW AQUIFER MONITORING WELL WITH WATER ELEVATION IN FEET, NAVD88
SALINAS	RESIDENTIAL WELL (WITH PROPERTY OWNER) WATER LEVELS NOT MEASURED IN RESIDENTIAL WELLS
	WATER ELEVATION CONTOUR, WATER LEVELS NOT MEASURED IN RESIDENTIAL WELLS.
MW-40S 355.05*	WATER ELEVATION RECORDED FOR THESE WELLS MAY BE INACCURATE AND HAVE BEEN EXCLUDED FROM THE CONTOUR DATA
MW-52S 352.67**	WATER ELEVATION NOT CORRECTED FOR NAPL THICKNESS

'ARED FOR: IWAG GROUP III

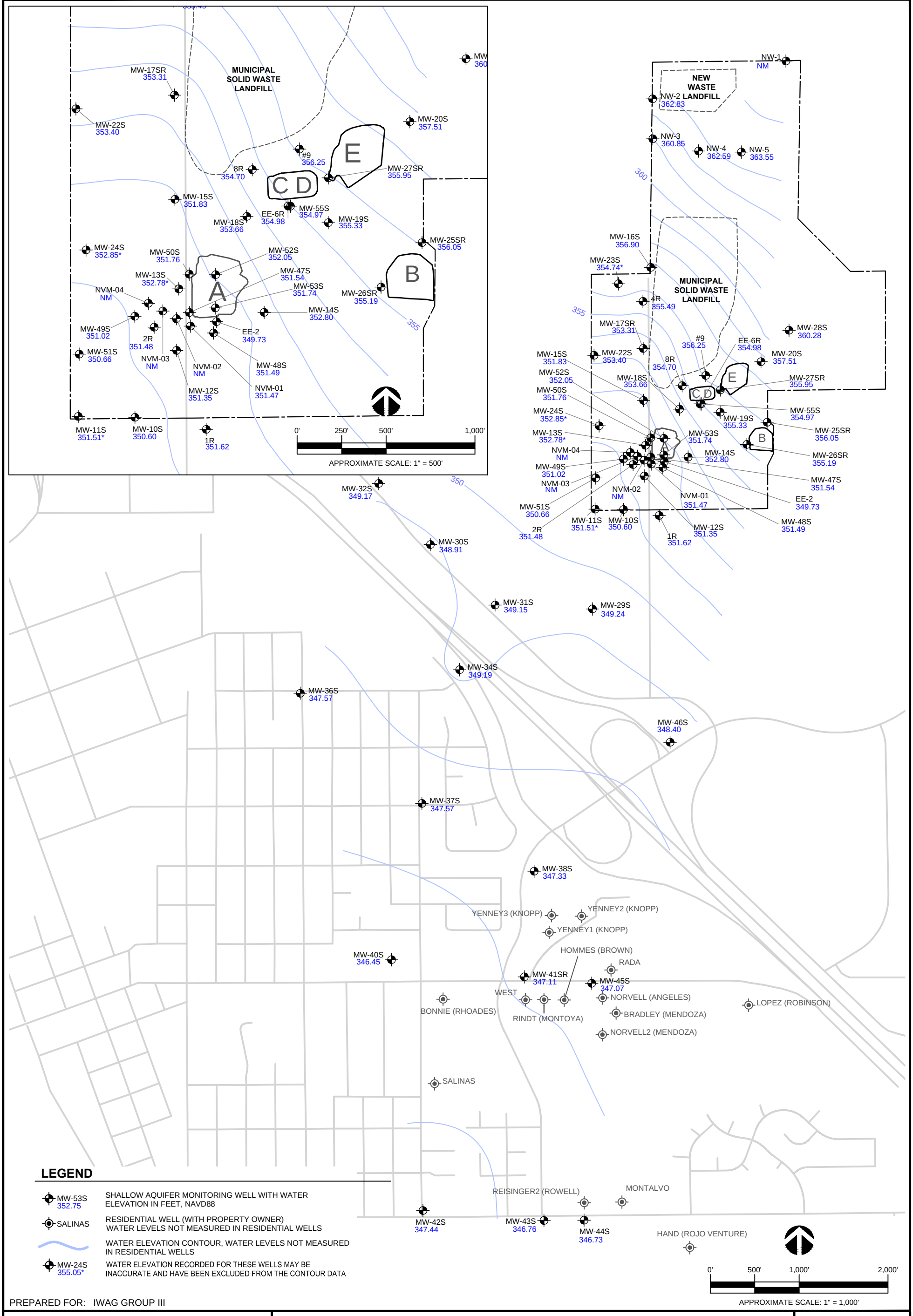
PBS Engineering and Environmental Inc.
400 Bradley Blvd, Ste 300
Richland, WA 99352
509.942.1600
pbsusa.com

SHALLOW GROUNDWATER ELEVATIONS - JULY 2017

PASCO LANDFILL NPL SITE

PASCO, WASHINGTON

PROJECT: 64180
DATE: NOVEMBER 2017
FIGURE: 5



PREPARED FOR: IWAG GROUP III

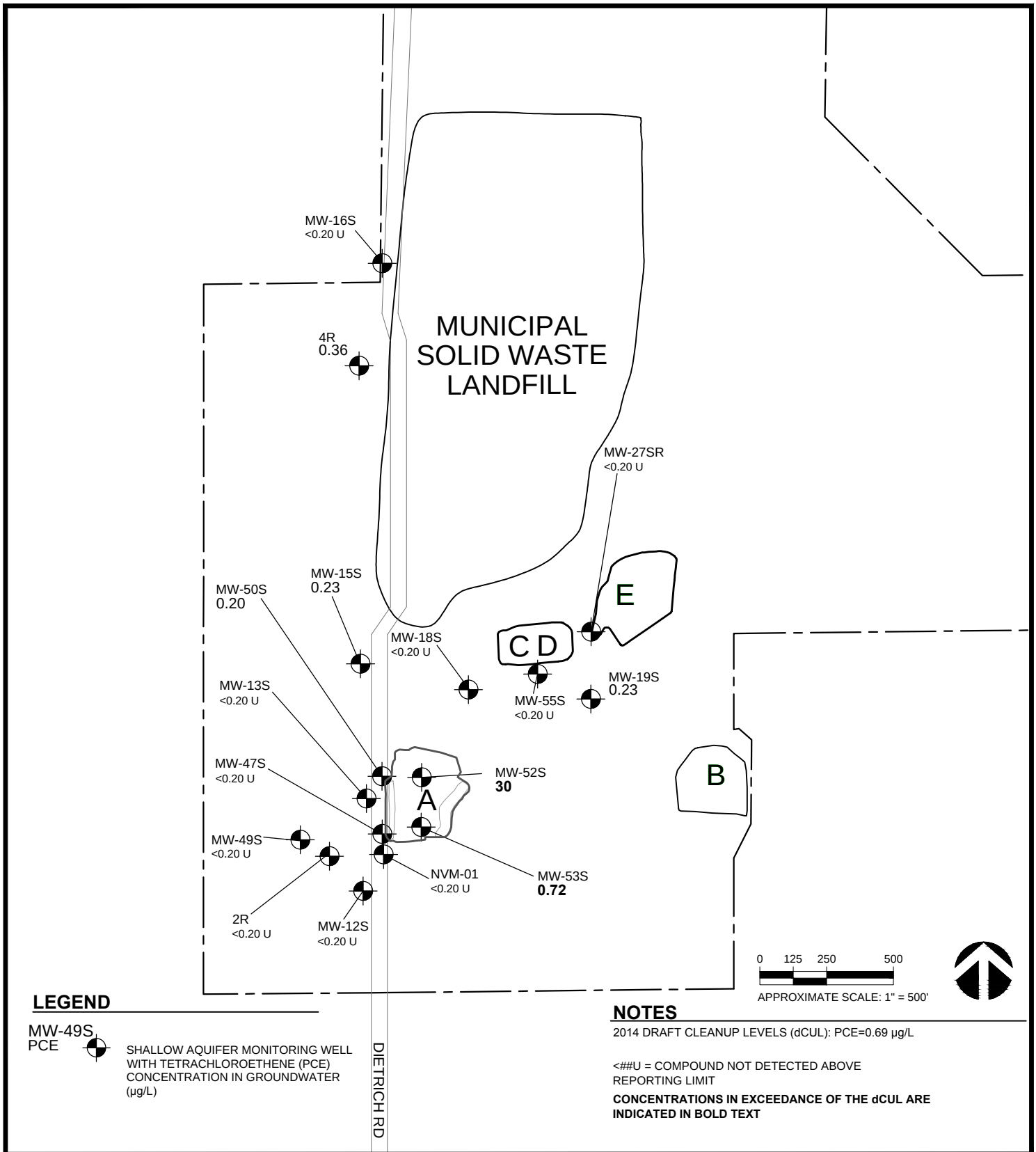
PBS Engineering and Environmental Inc.
400 Bradley Blvd, Ste 300
Richland, WA 99352
509.942.1600
pbsusa.com

SHALLOW GROUNDWATER ELEVATIONS - OCTOBER 2017

PASCO LANDFILL NPL SITE

PASCO, WASHINGTON

PROJECT: 64180
DATE: FEB 2018
FIGURE: 6



LEGEND

MW-49S
PCE

SHALLOW AQUIFER MONITORING WELL WITH TETRACHLOROETHENE (PCE) CONCENTRATION IN GROUNDWATER (µg/L)

NOTES

2014 DRAFT CLEANUP LEVELS (dCUL): PCE=0.69 µg/L

<##U = COMPOUND NOT DETECTED ABOVE REPORTING LIMIT

CONCENTRATIONS IN EXCEEDANCE OF THE dCUL ARE INDICATED IN BOLD TEXT

PBS Engineering and Environmental Inc.
400 Bradley Blvd, Ste 300
Richland, WA 99352
509.942.1600
pbsusa.com

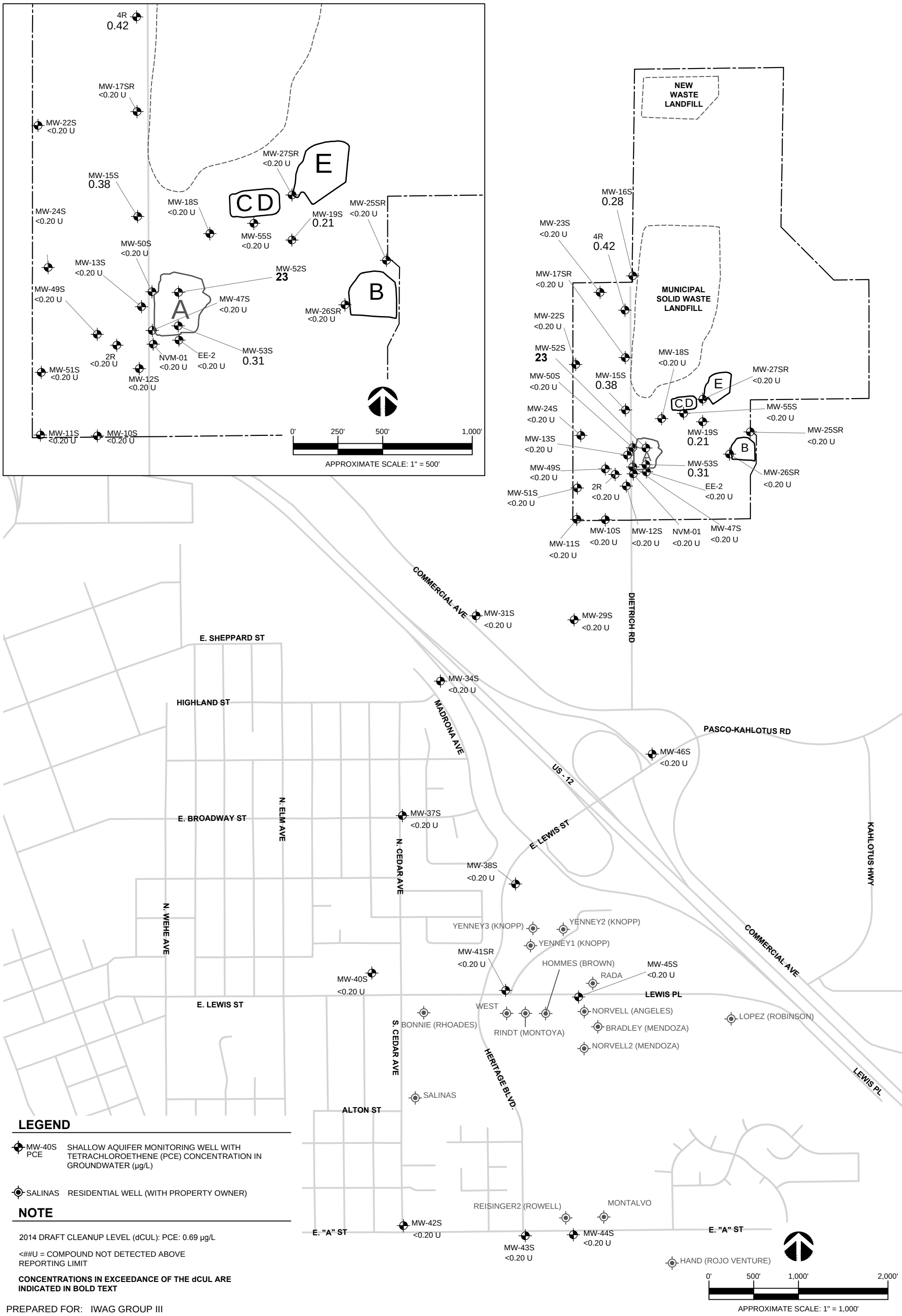
MAP OF TETRACHLOROETHENE CONCENTRATIONS IN SHALLOW GROUNDWATER - JANUARY 2017

PASCO LANDFILL NPL SITE
PASCO, WASHINGTON

PROJECT:64180

DATE: FEB 2018

FIGURE: 7



LEGEND

MW-40S PCE — SHALLOW AQUIFER MONITORING WELL WITH TETRACHLOROETHENE (PCE) CONCENTRATION IN GROUNDWATER (µg/L)

SALINAS — RESIDENTIAL WELL (WITH PROPERTY OWNER)

NOTE

2014 DRAFT CLEANUP LEVEL (dCUL): PCE: 0.69 µg/L

<##U = COMPOUND NOT DETECTED ABOVE REPORTING LIMIT

CONCENTRATIONS IN EXCEEDANCE OF THE dCUL ARE INDICATED IN BOLD TEXT

PREPARED FOR: IWAG GROUP III

PBS Engineering and Environmental Inc.
400 Bradley Blvd, Ste 300
Richland, WA 99352
509.942.1600
pbsusa.com

MAP OF TETRACHLOROETHENE CONCENTRATIONS IN SHALLOW GROUNDWATER APRIL 2017

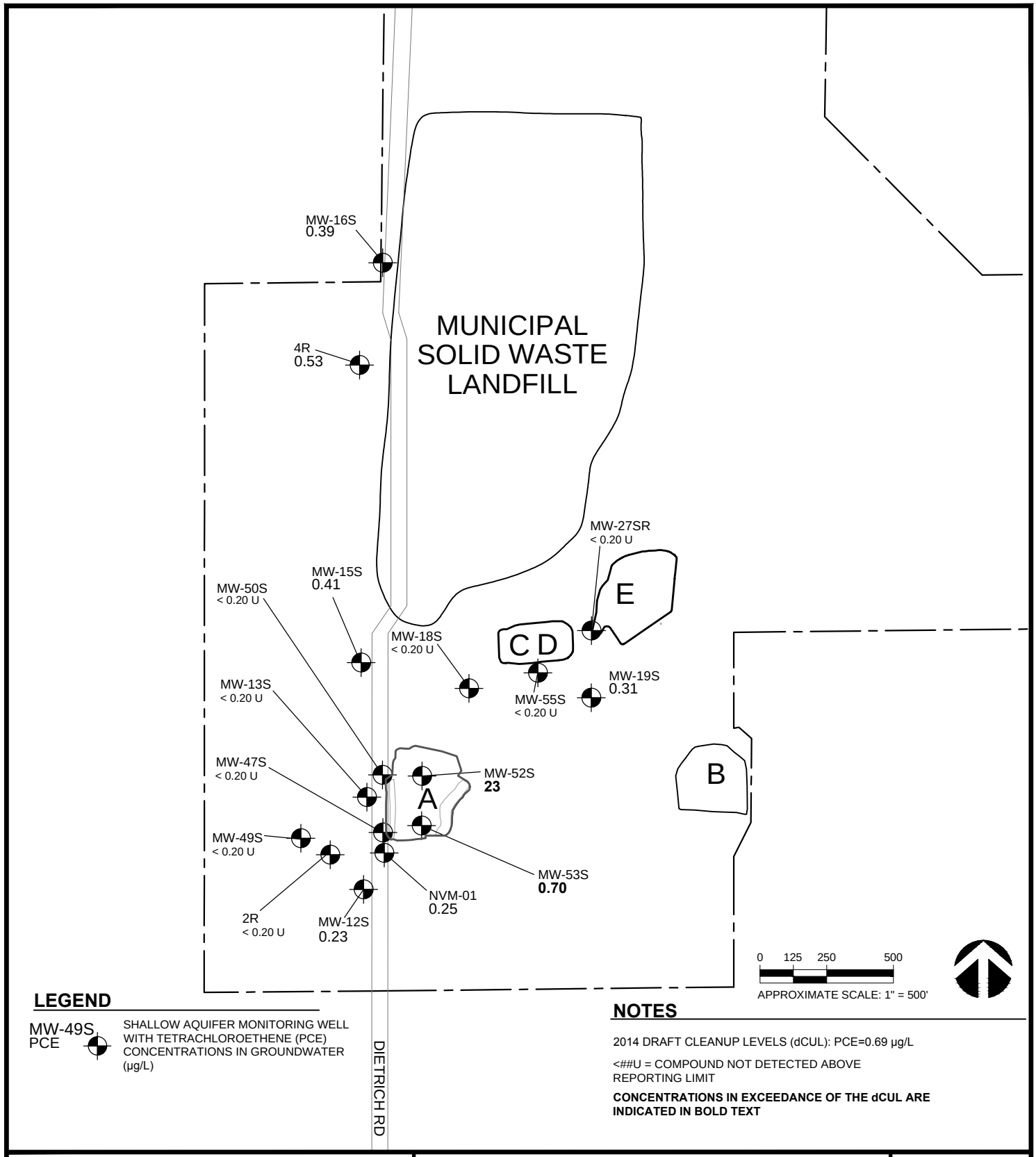
PASCO LANDFILL NPL SITE

PASCO, WASHINGTON

PROJECT: 64180

DATE: FEB 2018

FIGURE: 8



LEGEND

MW-49S
PCE

SHALLOW AQUIFER MONITORING WELL WITH TETRACHLOROETHENE (PCE) CONCENTRATIONS IN GROUNDWATER (µg/L)

NOTES

2014 DRAFT CLEANUP LEVELS (dCUL): PCE=0.69 µg/L

<##U = COMPOUND NOT DETECTED ABOVE REPORTING LIMIT

CONCENTRATIONS IN EXCEEDANCE OF THE dCUL ARE INDICATED IN BOLD TEXT

PBS

PBS Engineering and Environmental Inc.
400 Bradley Blvd, Ste 300
Richland, WA 99352
509.942.1600

pbsusa.com

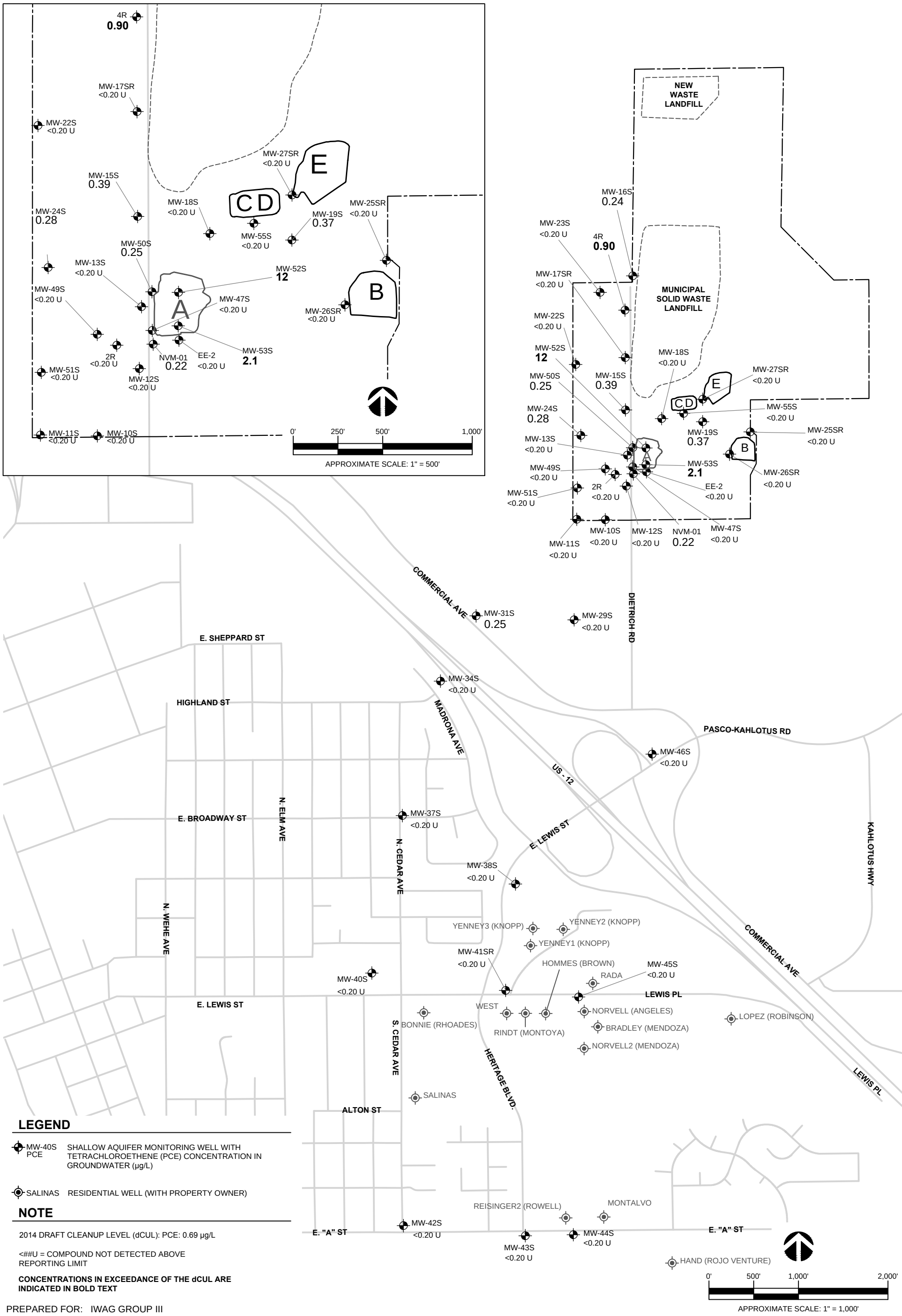
MAP OF TETRACHLOROETHENE CONCENTRATIONS IN SHALLOW GROUNDWATER - JULY 2017

PASCO LANDFILL NPL SITE
PASCO, WASHINGTON

PROJECT:64180

DATE: FEB 2018

FIGURE:
9



LEGEND

MW-40S PCE — SHALLOW AQUIFER MONITORING WELL WITH TETRACHLOROETHENE (PCE) CONCENTRATION IN GROUNDWATER (µg/L)

SALINAS — RESIDENTIAL WELL (WITH PROPERTY OWNER)

NOTE

2014 DRAFT CLEANUP LEVEL (dCUL): PCE: 0.69 µg/L

<##U = COMPOUND NOT DETECTED ABOVE REPORTING LIMIT

CONCENTRATIONS IN EXCEEDANCE OF THE dCUL ARE INDICATED IN BOLD TEXT

PREPARED FOR: IWAG GROUP III

PBS Engineering and Environmental Inc.
400 Bradley Blvd, Ste 300
Richland, WA 99352
509.942.1600
pbsusa.com

MAP OF TETRACHLOROETHENE CONCENTRATIONS IN SHALLOW GROUNDWATER OCTOBER 2017

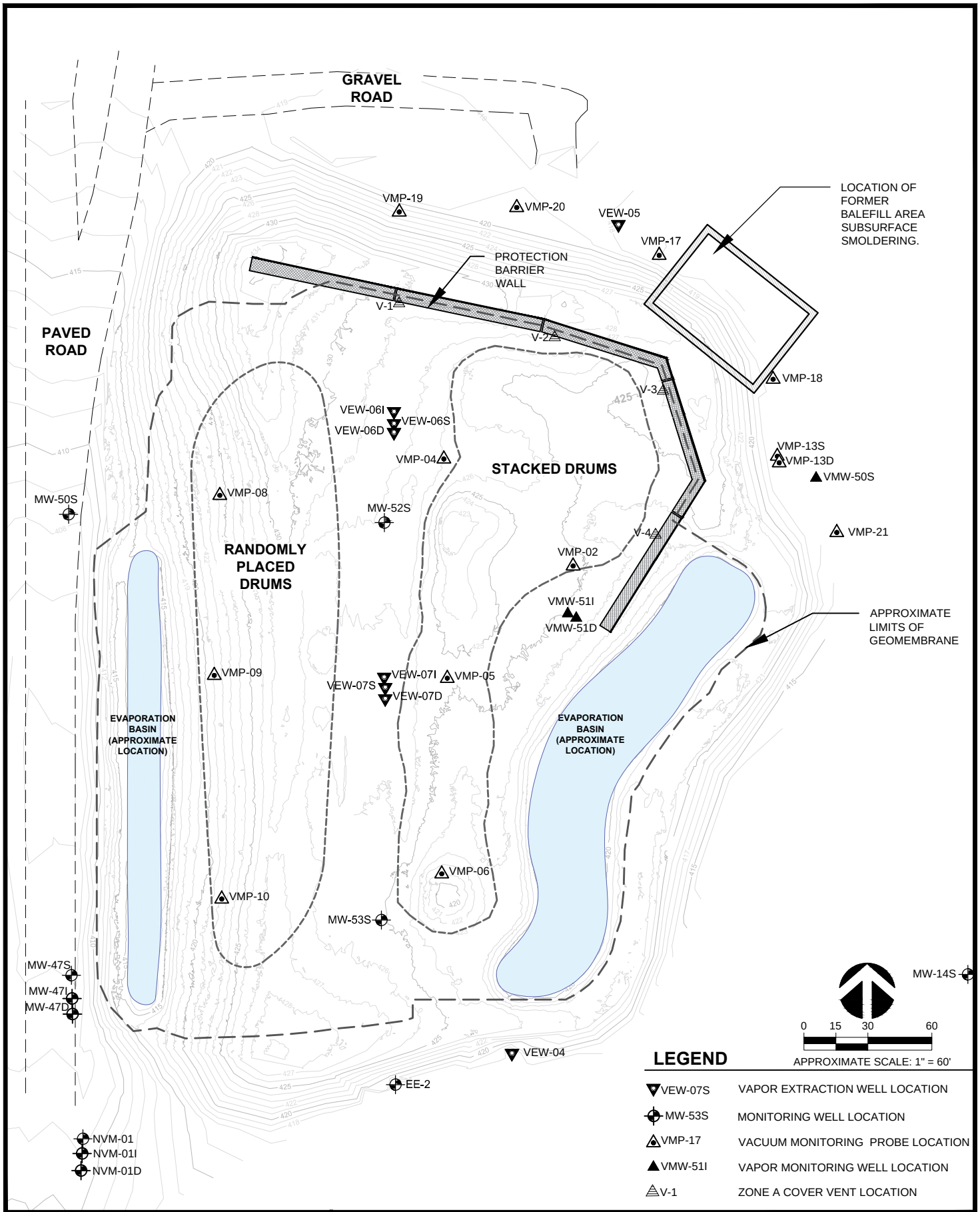
PASCO LANDFILL NPL SITE

PASCO, WASHINGTON

PROJECT: 64180

DATE: FEB 2018

FIGURE: 10



PBS

SOIL VAPOR EXTRACTION MONITORING LOCATIONS

PASCO LANDFILL NPL SITE
PASCO, WASHINGTON

JAN 2017
64180

FIGURE
11

Figure 12
SVE System Airflow Measurements
2017 Annual Report
Pasco Landfill NPL Site

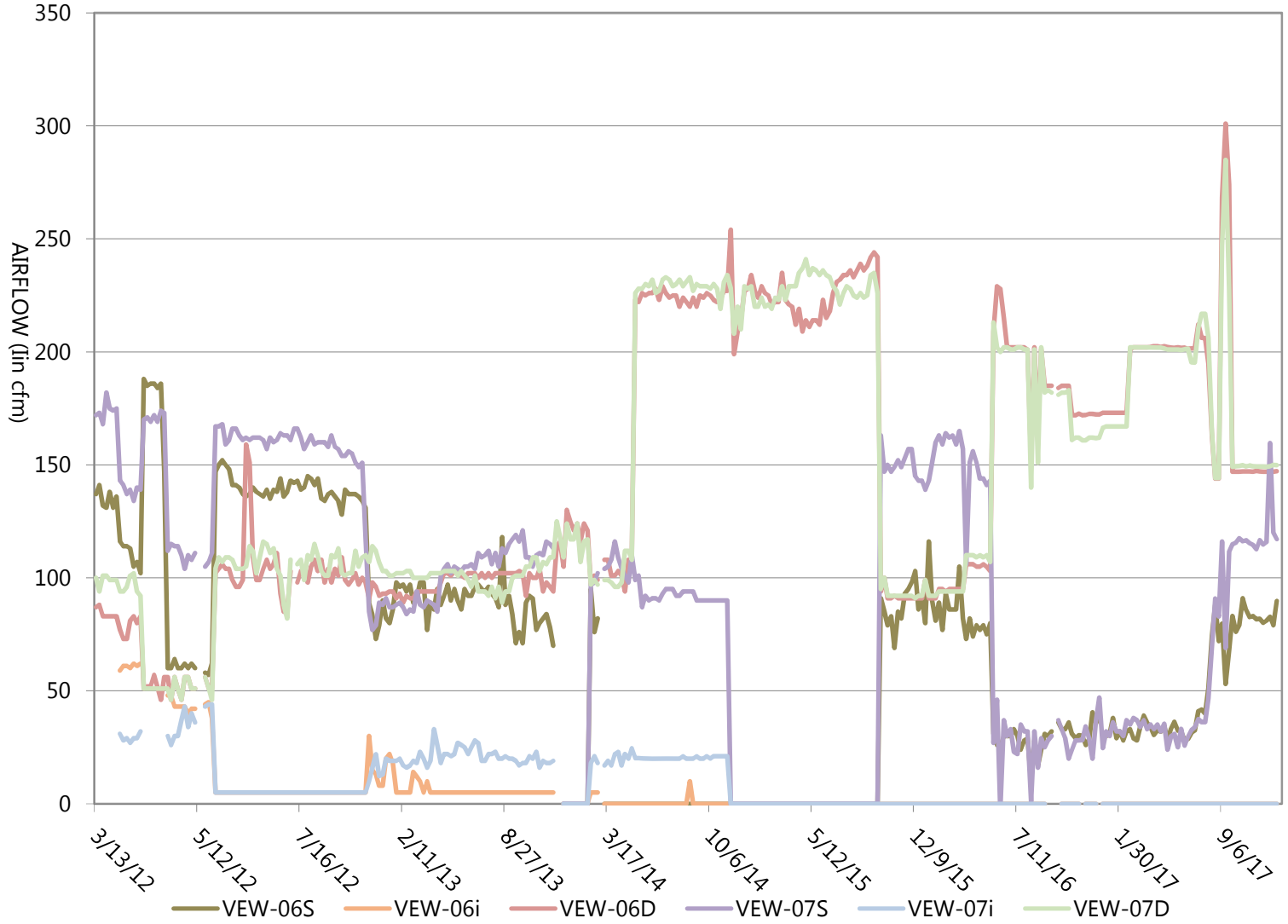


Figure 13
SVE System Vacuum Measurements
2017 Annual Report
Pasco Landfill NPL Site

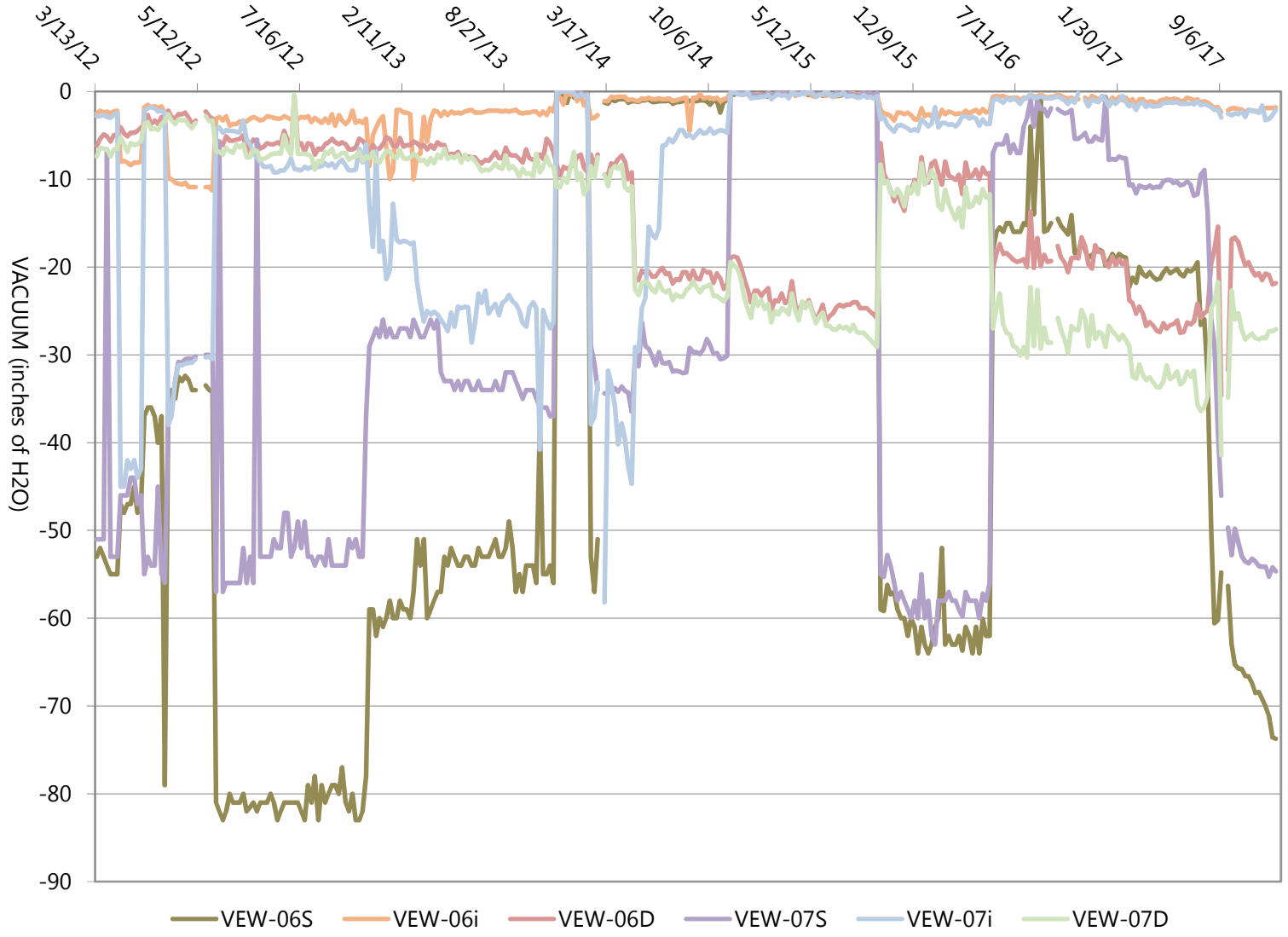


Figure 14
Percentage of Top Ten Compounds in SVE System Effluent
2017 Annual Report
Pasco Landfill NPL Site

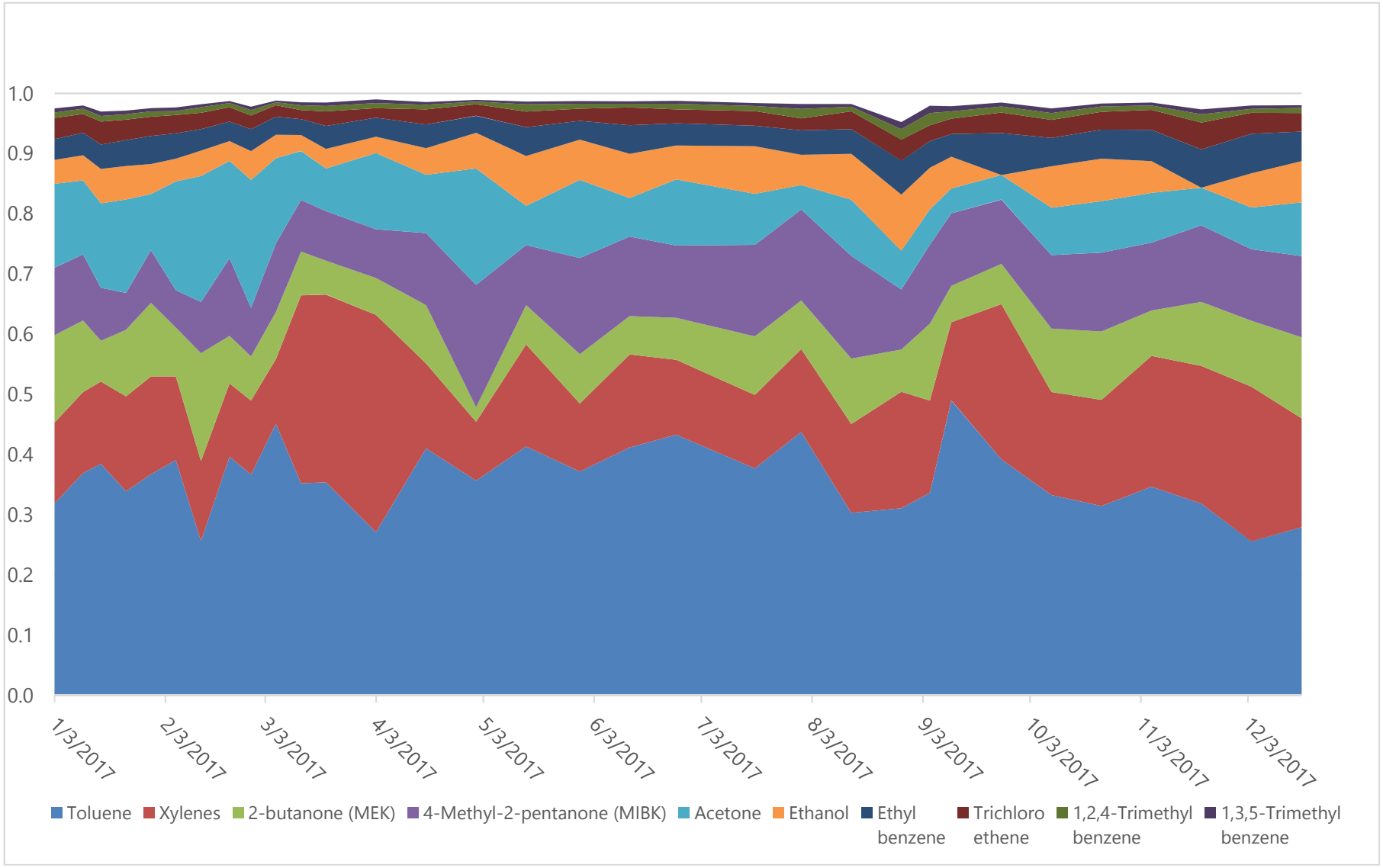


Figure 15
SVE System Removal Rates (in lbs/day)
2017 Annual Report
Pasco Landfill NPL Site

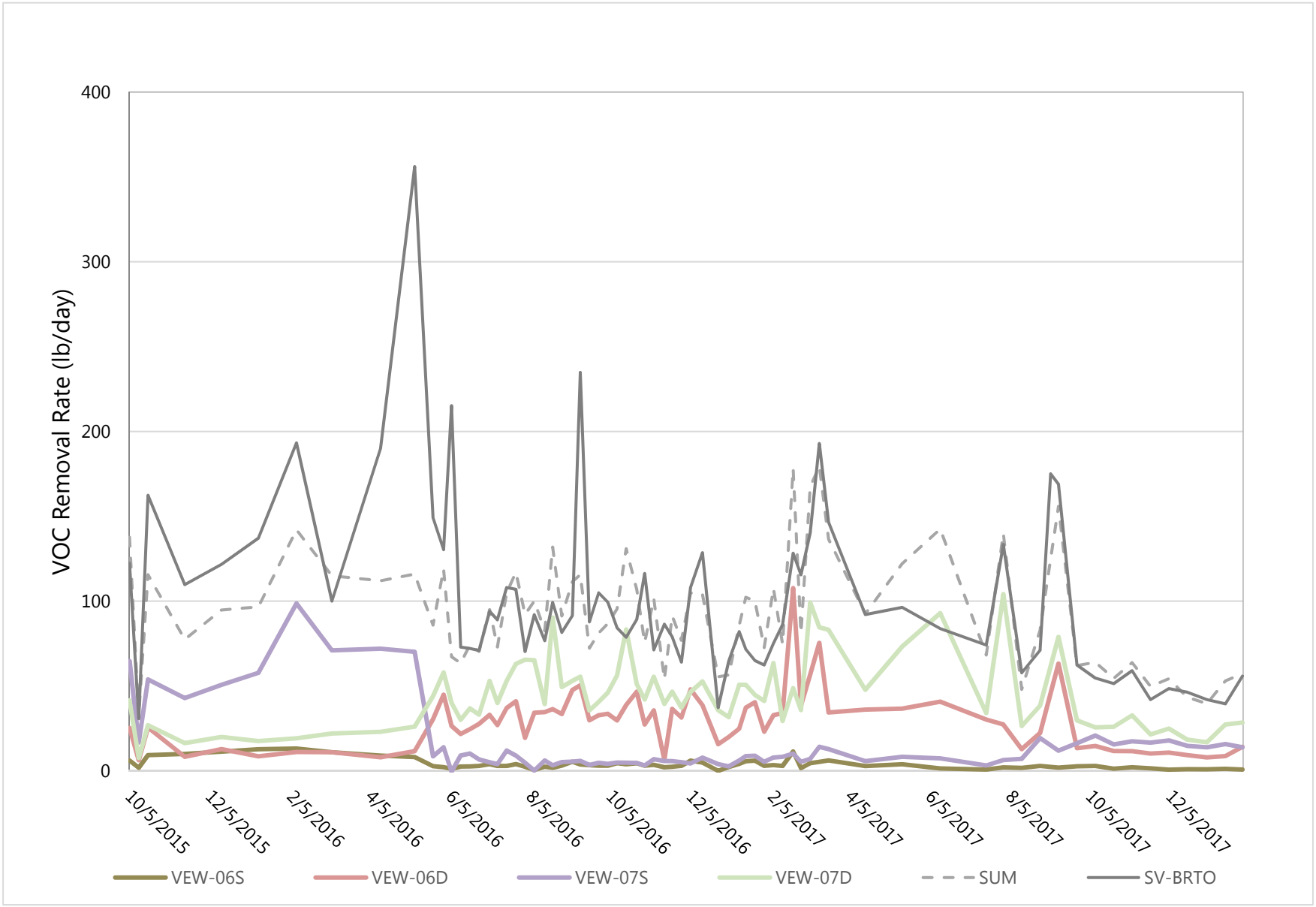


Figure 16
Cumulative VOC Mass Removal (in lbs) since May 8, 1997
2017 Annual Report
Pasco Landfill NPL Site