ENVIRONMENTAL PARTNERS INC

1180 NW Maple Street, Suite 310 Issaquah, Washington 98027 ph 425.395.0010

2015 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

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Prepared By:

Environmental Partners, Inc.
1180 NW Maple Street, Suite 310
Issaquah, Washington 98027
(425) 395-0010

For:

Adam R. Morine, PE
Project Engineer

State of Washington
4146
Licensed Geologist
Thomas C. Morin

Thomas C. Morin, LG
Principal and Site Technical Manager

EPI Project Number: 03915.2

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1.0 INTRODUCTION

On behalf of the Industrial Waste Area Generators Group lll (IWAG), Environmental Partners, Inc. (EPI) has prepared this 2015 Annual Report for Groundwater Monitoring and Interim Action Performance Monitoring (2015 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 report does not present data, interpretation or findings related to balefill combustion extinguishment actions conducted in compliance with Enforcement Order DE 10651, which will be addressed the Task 2 Technical Memorandum required under the scope of work of that order.

This 2015 Annual Report summarizes the results of the groundwater monitoring and interim action performance monitoring activities conducted in 2015 and discusses the effectiveness of the various interim actions implemented at the Site.

This 2015 Annual Report contains the following enclosures:

- Attachment A contains the *Data Validation Report Pasco Sanitary Landfill Groundwater Monitoring October 2014 Sampling*, by Pyron Environmental, Inc., dated February 20, 2015.
- Attachment B contains laboratory data for waste characterization sampling, hazardous waste manifests for condensate generated, treated, and disposed of during 2015, and non-hazardous purge water disposal documentation.
- 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.
- Attachment D contains the *Technical Memorandum - Cover Settlement Evaluation Update*, by SCS, dated March, 2016.
- Attachment E contains the 2015 East Pasco Plume Area Well Location Survey prepared by the City of Pasco and the Annual Institutional Controls Report for 2015 prepared by the Franklin County Planning and Building Department.
- Attachment F contains an electronic data deliverable, on compact disk, with Site data generated during the fourth quarter 2015 sampling event. The file PLF-Report-4Q14.xlsx contains multiple worksheets, containing fourth quarter 2015 water level data, well stabilization parameters, and laboratory results from volatile organic compound (VOCs), semi-volatile organic compound (SVOCs), herbicide, chromium, natural attenuation, and landfill parameter analysis.

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, the northeast quarter of Section 21, and the northwest quarter of Section 22, Township 9 North, Range 30 East, Willamette Meridian, located in Franklin County, Washington. The PSL property 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 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 Areas are addressed in a separate report 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.

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, encompass the following areas: the NWI Landfill, MSW Landfill, Balefill/Inert Waste Area, IWA, and the Groundwater Protection Area (GPA).

1.2 Background

The operational history and cleanup history of the Site has been documented extensively in numerous prior reports including the *Draft Focused Feasibility Study – Pasco Landfill National Priorities List Site*, dated September 3. 2014 (FFS). The reviewer is directed to that report for the most current and complete description of the Site background.

The following documents pertaining to groundwater monitoring and interim actions under the Agreed Order were submitted to Ecology during 2015:

- *Technical Memorandum – Final Work Plan for SVE System Piping Rerouting*, dated January 9, 2015.
- *Notification of RTO Minor Design Modification*, dated February 9, 2015.
- *Response to Ecology Comments – Proposed Work Plan for SVE Piping Rerouting*, dated February 23, 2015.
- *Technical Memorandum – Addendum to the Work Plan for Active Suppression of Combustion Conceptual Decision Support Document*, dated February 25, 2015
- *Addendum No. 2 to Volume 1 – As-Built Report for SVE System Upgrades*, dated May 8, 2015.
- *Engineering Design Report for SVE System with Regenerative Thermal Oxidation Upgrade, and Response to Ecology Comments*, dated May 27, 2015.
- *Performance Testing Plan – Pasco Sanitary Landfill*, dated October 9, 2015.
- *Request for Schedule Extension – RTO Operation and Maintenance Manual*, dated October 27, 2015.
- *2014 Annual Report Groundwater Monitoring and Interim Action Performance Monitoring*, dated March 16, 2015.
- *First Quarter 2015 Groundwater Monitoring and Interim Action Performance Monitoring Report*, dated June 12, 2015.
- *Second Quarter 2015 Groundwater Monitoring and Interim Action Performance Monitoring Report*, dated September 16, 2015.
- *Third Quarter 2015 Groundwater Monitoring and Interim Action Performance Monitoring Report*, dated December 15, 2015.

- Twelve (12) Monthly Status Reports were submitted to Ecology during 2015. A memorandum was submitted during the first full week of each month summarizing activities and publications delivered to Ecology during the preceding month.

2.0 OBJECTIVES

The objectives of groundwater monitoring and interim action performance monitoring at the Pasco Landfill NPL Site are to evaluate groundwater quality and document the operation, maintenance, and performance of ongoing interim actions. This 2015 Annual Report presents and evaluates data collected during 2015 under the Agreed Order and reports on operations and maintenance activities completed in relation to the soil vapor extraction (SVE) system operating beneath and within the Zone A landfill, landfill covers on waste Zones A, C/D, and E, and Institutional Controls at the Site.

The specific objectives of the groundwater monitoring and interim action performance monitoring conducted in 2015 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 system; and
- Evaluation of subsidence on the Zone A cap.

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 groundwater during the Site investigation.

The COPCs were defined as follows:

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

2.2 Draft Cleanup Levels

On May 14, 2013, Ecology presented dCULs for the Site, which were updated into the FFS. During the April 11, 2014 monthly meeting with the IWAG, Ecology agreed to allow the use of the dCULs for evaluation of groundwater monitoring results.

The following table summarizes the 2013 dCULs:

dCULs for Groundwater
in micrograms/Liter (µg/L)

Compound	2013 dCUL
Benzene *	0.79
1,2-Dichloroethane *	0.38
1,1-Dichloroethene **	0.057
cis-1,2-Dichloroethene	16
Methylene Chloride *	5.0
Tetrachloroethene *	0.69
Toluene	615
1,1,1-Trichloroethane	200
Trichloroethene *	2.5
Vinyl Chloride *	0.069
Total Chromium	100

Notes:
* Known or suspected carcinogenic compound.
** No longer contributes additional cancer risk for the calculation of groundwater CULs at the Site.

3.0 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), prepared by EPI, dated May 9, 2014, with October 10, 2014 Revisions.

As part of the quarterly groundwater monitoring activities, groundwater levels were measured to the nearest 0.01-foot in wells throughout the Site during January, April, July and October 2015. Figure 3 illustrates the location of each well in the groundwater monitoring well network. Groundwater levels were 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 requested for each quarterly and semi-annual sampling event.

Selective ion monitoring (SIM) has been used during VOC and SVOC laboratory analysis of groundwater samples in order to attain detection limits less than the dCULs for each compound analyzed. All laboratory data from groundwater samples collected at the Site during 2015 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 those 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 in a well are below the dCULs in four consecutive quarterly samples the well is moved back to a semi-annual sampling schedule.

At the start of 2015, none of the analytical data from the most recent four consecutive samples for any residential well contained a COC at concentration above a dCUL for the Site. Therefore, all residential wells were sampled semi-annually (i.e., second and fourth quarters).

The actual number of wells sampled during each semi-annual event in 2015 was dependent upon a number of 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.

It is noted that the Montalvo well was not accessible in 2015 due to an alleged dispute between the property owner and the tenant. The tenant has refused to allow access to the well house. During the 2015 Annual Well survey the property owner provided information on the well, but no access to the well was possible.

No VOCs were detected in samples collected during the second or fourth quarters sampling at a concentration above the dCULs, therefore all of the residential wells remain on the semi-annual sampling schedule. Residential wells are further described in Section 3.2.2.2.7.

3.2 Findings

3.2.1 Groundwater Elevation Data

Both horizontal and vertical hydraulic gradients within the monitoring well network were evaluated during 2015.

3.2.1.1 Horizontal Hydraulic Gradients

Groundwater elevation contours were developed using the site-wide groundwater elevation measurements from January, April, July, and October 2015. 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 7.

The piezometric contours indicate that the groundwater flow direction beneath Zone A and across the PSL property was consistently southwesterly throughout 2015. As measured between wells MW-52S in Zone A and MW-11S approximately 1,109 feet southwest at the downgradient property boundary, the hydraulic gradient averaged less than 0.002 feet/feet (ft/ft) during 2015.

The direction of groundwater flow shifts to a more southerly orientation downgradient of the property boundary and is best indicated by the historical orientation of the dissolved-phase contaminant plume. The orientation of the dissolved-phase plume is nearly due south while the orientation of the hydraulic gradient is about 30 degrees west of south. This difference between the axis of the dissolved-phase plume and the hydraulic gradient has been documented in prior quarterly and annual reports. The hydraulic gradient south of the property boundary is less steep than on the property. As measured between wells MW-11S at the property boundary and MW-43S, approximately 8,025 feet south of the property boundary along East A Street, the off-property hydraulic gradient averaged less than 0.001 ft/ft during 2015.

Hydraulic gradients measured in the shallow aquifer in 2015 were consistent throughout the year and were consistent with findings for prior years. The hydraulic gradient direction and slope at the Site are highly stable and are not expected to change in the future.

The direction of the groundwater gradient for the intermediate portion of the aquifer was consistent with the shallow portion of the aquifer throughout 2015. 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 -0.001 ft/ft during 2015. 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 MW54I (approximately 11,107 feet), averaged less than -0.001 ft/ft during 2015.

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 highly stable and is not expected to change in the future.

3.2.1.2 Vertical Hydraulic Gradients

Groupings of shallow, intermediate and deep wells allow for the calculation of vertical hydraulic gradients throughout the full thickness of the aquifer. The gradients are calculated using groundwater elevations and the elevations of the centers of the intermediate and deep well screens. 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. Tables 3 through 6 summarize

calculated vertical hydraulic gradients on the landfill property. Tables 7 through 10 summarize calculated off-property vertical hydraulic gradients at the Site.

Vertical hydraulic gradients have been calculated for six three-well groupings screened at the shallow, intermediate, and deep portions of the aquifer near Zone A (#2R/I/D, MW-12S/I/D, MW-47S/I/D, MW-48S/I/D, MW-49S/I/D and NVM-01/I/D).

During 2015, the vertical hydraulic gradients for the six well groupings near Zone A ranged from 0.022 ft/ft to -0.021 ft/ft. The average vertical gradients in these well groupings since the date of installation (i.e., July 2008) through October 2015 ranged from -0.005 to 0.003 ft/ft. The data for 2015 are consistent with historical observations.

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 2015 the vertical gradients for the downgradient off-property well pairs ranged from -0.006 ft/ft in to 0.004 ft/ft. The vertical gradients for the four well pairs since the date of installation (i.e., April 2011) through October 2015 ranged from -0.006 to 0.004 ft/ft. As with the on-property wells, the vertical gradient data for 2015 are consistent with historical gradients.

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 11. Laboratory analytical results from groundwater monitoring during 2015 are summarized in Tables 12 through 18. The 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 2015 will also be discussed in relation to SVE System Performance in Section 4.4. 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. pH, conductivity, 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. Well stabilization data are presented in Table 11.

3.2.2.2 Evaluation by Well Grouping

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

- MSW Landfill Wells
- Performance Monitoring Wells
  - Zone A
  - Zone B
  - Zones C/D
  - Zone E
- Sentinel Wells
- Property Boundary Wells
- 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 MSW Landfill Wells

The groundwater monitoring network for the MSW Landfill consists of wells 4R, MW-16S, and MW-17SR. Table 1 summarizes the wells sampled and analyses requested for each. Samples for VOC analysis were collected from wells 4R, MW-16S, and MW-17SR during all four quarters of 2015. VOC data for the MSW landfill wells are summarized in Table 12.

Landfill parameter samples were collected from wells 4R, MW-16S, and MW-17SR 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 17.

Evaluation of MSW Landfill well data is provided in the 2015 Annual Report for the MSW Landfill as prepared by the LFG and which is presented under separate cover.

3.2.2.2.2 Performance Monitoring Wells

Performance monitoring wells most directly monitor the effectiveness of the 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 Zone A, Zone B, Zones C/D, and Zone E. The wells associated with each Zone are discussed below.

Zone A Wells

The groundwater monitoring network for Zone A consisted of nine wells during 2015. 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 wells MW-47I and NVM-01I are completed in the intermediate portion of the aquifer. Both intermediate wells are paired with an adjacent shallow well. Table 1 summarizes the analyses requested for each Zone A Performance Monitoring well.

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 2015. VOC analyses were performed on samples from three additional wells (EE-2, MW-47I, and NVM-01I) on a semi-annual basis during the second and fourth quarters.

Groundwater monitoring wells MW-52S and MW-53S are considered source zone wells as they are immediately beneath the Zone A wastes. During 2015, 31 different VOCs were detected in samples from MW-52S. Of those 31 compounds, nine (PCE, TCE, 1,1-DCE, cis-1,2-DCE, vinyl chloride, 1,2-DCA, methylene chloride, benzene, and toluene) were detected at some time during 2015 at a concentration exceeding a dCUL. Only three of those compounds were detected in each of the four quarters at a concentration exceeding a dCUL.

Seven different VOCs were detected in samples from MW-53S, but none exceeded the respective dCUL.

No other VOCs were detected at a concentration exceeding a dCUL in any of the other Zone A performance monitoring wells at any time during 2015. No compounds were detected in any sample from a Zone A well in the intermediate portion of the aquifer during 2015. Table 12 summarizes VOC data for the Zone A wells.

SVOC analyses were performed on samples from two Zone A source wells (MW-52S and MW-53S) during the second and fourth quarters. Nine SVOCs were detected in samples from MW-52S and three SVOCs were detected in samples from MW-53S during 2015. SVOC data are summarized in Table 13. There are no dCULs for any of the detected SVOCs. For purposes of comparison only, concentrations of all but one detected SVOCs were below the Model Toxics Control Act (MTCA) Method B cleanup levels listed in the Ecology-maintained Cleanup Levels and Rick Calculation (CLARC) data tables as updated in August 2015. The concentration of 1-methylnaphthalene detected in the April sample (4.6J µg/L) from MW-52S exceeded the MTCA Method B groundwater cleanup level of 1.51 µg/L. The “J” flag on this reported result indicates that the result is “estimated” and not reliably quantified.

Herbicide analyses were performed on samples from two Zone A wells (MW-52S and MW-53S) during the second and fourth quarters. The compound 4-nitrophenol was detected in the April sample from MW-52S and 2,4-D was detected in the October sample. No other herbicides were detected in samples analyzed during 2015. Neither compound was detected at a concentration exceeding a MTCA Method B groundwater cleanup level. Herbicide data are summarized in Table 14.

Total and hexavalent chromium analyses was performed on the sample from MW-13S during all four quarters of 2015. No hexavalent chromium was detected. Total chromium was detected at concentrations below the dCUL. Chromium data are summarized in Table 15.

Natural attenuation data for Zone A well samples MW-47S and MW-50S are summarized in Table 16.

Zone B Well

The groundwater monitoring network for Zone B consisted of well MW-26SR during 2015. Well MW-26SR was sampled for VOCs, SVOCs and herbicides during all four quarters. Table 1 summarizes the analyses requested for this well.

TCE was detected only in the first quarter sample of 2015 and at a concentration below the dCUL. No other VOCs were detected in the samples from MW-26SR at any time during 2015.

The SVOCs acenaphthene and pyrene were detected in the first and second quarter samples from MW-26SR. The concentrations detected were well below the MTCA Method B groundwater cleanup levels.

No herbicides were detected in any samples from MW-26SR during 2015.

VOC, SVOC, and herbicide data are summarized in Tables 12, 13, and 14.

Zone C/D Well

The groundwater monitoring network for Zones C and D consisted of well MW-55S in 2015. Well MW-55S was sampled for VOCs, and total and hexavalent chromium during all four quarters. Table 1 summarizes the wells and analyses requested for the Zone C/D well.

TCE and benzene were detected only in the first quarter of 2015 and at concentrations below the dCULs. No other VOC concentrations were detected in samples from MW-55S any time during 2015.

Total chromium was detected in MW-55S during the first three quarters of 2015 at concentrations below the dCUL.

Hexavalent chromium was not detected in MW-55S in 2015.

VOC and chromium data are summarized in Tables 12 and 15, respectively.

Zone E Well

The groundwater monitoring network for Zone E consisted of well MW-27SR during 2015. Well MW-27SR was sampled for VOCs, and total and hexavalent chromium during all four quarters. Table 1 summarizes the wells and analyses requested for the Zone E well.

TCE was detected only in the first quarter of 2015 from MW-27SR at a concentration below the dCUL. No other VOCs were detected in samples from MW-27SR at any other time during 2015.

Total and hexavalent chromium were not detected in samples from MW-27SR in 2015.

VOC, and total and hexavalent chromium data are summarized in Tables 12 and 15, respectively.

3.2.2.2.3 Sentinel Wells

Sentinel wells are located between a waste zone and the property boundary. In conjunction with the performance monitoring wells, the sentinel wells provide a means of tracking spatial and temporal changes in contaminant concentrations with distance from source areas and estimating concentration attenuation with distance from the source area.

The sentinel well monitoring network consists of seven shallow wells (2R, MW-12S, MW-15S, MW-18S, MW-19S, MW-23S, 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. During 2015, samples from the sentinel wells were analyzed for VOCs, total and hexavalent chromium, and natural attenuation parameters. Table 1 summarizes the wells and analyses requested for each sentinel well.

All seven shallow 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 data are summarized in Table 12.

Wells MW-12S and MW-19S were sampled for total and hexavalent chromium during all four quarters. Total and hexavalent chromium data are summarized in Table 15.

Wells 2R, MW-12S, and MW-49S were sampled for natural attenuation parameters on a semi-annual basis during the second and fourth quarters. Natural attenuation data are summarized in Table 16.

No VOCs were detected in any of the sentinel wells at any time during 2015 at a concentration above a dCUL.

Total chromium was not detected at a concentration exceeding a dCUL in any sentinel wells in 2015.

Hexavalent chromium was not detected in any of the sentinel wells at any time during 2015.

3.2.2.2.4 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 shallow wells were analyzed for VOCs on a quarterly basis and the sample from the intermediate depth well was analyzed for VOCs on a semi-annual basis in the second and fourth quarters. Additionally, samples from MW-22S, a MSW Landfill well, were analyzed for total and hexavalent chromium on a

quarterly basis and for landfill parameters on a semi-annual basis during the second and fourth quarters. Table 1 summarizes the wells and analyses requested for the Property Boundary Wells.

No VOCs were detected in any property boundary monitoring wells in 2015 at a concentration exceeding a dCUL. VOC data are summarized in Table 12.

Well MW-22S is located hydraulically downgradient of the MSW landfill. VOC and total and hexavalent chromium data are summarized in Tables 12 and 15, respectively. Landfill parameter data are summarized in Table 17. The monitoring data for well MW-22S will be discussed in the 2015 Annual Report for the MSW Landfill.

3.2.2.2.5 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 during 2015. The shallow depth wells were sampled on a quarterly basis, except for MW-44S and MW-45S, which were sampled on a semi-annual basis. The intermediate depth wells, MW-43I and MW-54I were sampled on a quarterly basis, while MW-29I and MW-38Iwere sampled on a semi-annual basis. With the exception of MW-54I, the downgradient-most well, each intermediate depth well is paired with an adjacent shallow depth well. Table 1 summarizes the wells and analyses requested for the off-property downgradient wells.

No VOCs were detected in any of the downgradient monitoring wells in 2015 at a concentration exceeding a dCUL. VOC data are summarized in Table 12.

3.2.2.2.6 Upgradient Wells

The upgradient monitoring well network consists of three shallow wells (NW-1, MW-20S, and MW-25SR). Table 1 summarizes the wells and analyses requested for the upgradient wells.

No VOCs were detected in any of the upgradient monitoring wells at any time in 2015 at a concentration exceeding a dCUL. Total or hexavalent chromium were not detected in any of the upgradient monitoring wells at any time in 2015.

VOC, chromium, natural attenuation and landfill parameter data are summarized in Tables 12, 15, 16 and 17, respectively.

Sampling of NW-1 is performed and reported as part of the New Waste landfill monitoring program. The data from samples from this well are discussed in the 2015 Annual Report for the MSW Landfill as prepared by the LFG.

3.2.2.2.7 Residential Wells

As outlined in the methodology section for residential wells, at the start of 2015, all residential wells in the GPA were scheduled for semi-annual VOC sampling and analysis. Groundwater samples were collected from six residential wells in the second quarter and, due to access limitations, from five wells in the fourth quarter. Samples collected from the residential wells were analyzed for VOCs by EPA Method 8260 and 8260-SIM. Table 1 summarizes residential well sampling and analysis.

VOCs detected in samples collected from the residential wells are summarized in Tables 12 and 18.

No VOCs were detected in any of the residential wells at any time during 2015 at a concentration exceeding a dCUL.

Based on these data, all residential wells will remain on a semi-annual monitoring schedule.

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 2015. PCE, TCE, 1,1-DCE, cis-1,2-DCE, vinyl chloride, 1,2-DCA, methylene chloride, benzene, and toluene were detected at concentrations above a dCUL in at least one sample during 2015, but all of these exceedances were limited to only one well (MW-52S). No other well, at any location at the Site, contained any COC at a concentration exceeding a dCUL. Graphical depictions of the interpreted isoconcentration contour equal to the dCUL for each of the COCs detected at a concentration above a dCUL, for each quarterly sampling event, are presented on Figures 7 through 25.

3.2.2.4 Natural Attenuation and Landfill Parameters

Samples from wells 2R, MW-12S, MW-20S, MW-25SR, MW-47S, MW-49S, and MW-50S were analyzed for natural attenuation parameters during the second and fourth quarters of 2015. Table 1 summarizes the wells and analyses for natural attenuation monitoring. Natural attenuation parameter data are summarized in Table 16.

Due to the generally low concentrations lack of abundance, and limited distribution of VOCs observed in groundwater at the Site, an evaluation of natural attenuation parameters provides limited information regarding biochemical degradation processes occurring in groundwater beneath the Site. As such, no detailed evaluation or scoring of natural attenuation mechanisms has been performed for this report. The IWAG proposes elimination of discussion of naturally attenuation parameters in future groundwater monitoring reports.

Samples from wells 4R, MW-16S, MW-17SR, MW-20S, MW-22S, and MW-25SR were analyzed for landfill parameters during the second and fourth quarters of 2015. Table 1 summarizes the wells and analyses for landfill parameter monitoring. The analysis includes alkalinity, ammonia, chloride, nitrate, nitrite, sulfate, total dissolved solids (TDS), total organic carbon (TOC), calcium, total iron, magnesium,

manganese, potassium, and sodium. Landfill parameter data are summarized in Table 17. Landfill parameter data will be discussed in the 2015 Annual Report for the MSW Landfill prepared by the LFG.

4.0 SVE SYSTEM PERFORMANCE MONITORING

4.1 SVE Operation

As part of Interim Actions at the Site, a soil vapor extraction (SVE) system installed at Zone A of the IWA has operated since May 1997. During March 2012, the system was upgraded to include six new SVE wells (VEW-06S, VEW-06I, VEW-06D, VEW-07S, VEW-07I and VEW-07D) installed within the Zone A landfill. Until October of 2015, effluent from the SVE system was conveyed through an underground pipeline to the MSW Landfill flare immediately north of the MSW landfill for treatment through thermal oxidation. Due to uncertainty over methane generation from the MSW landfill and MSW landfill flare reliability, a regenerative thermal oxidizer (RTO) was installed at the SVE skid as a treatment upgrade to the MSW flare. The RTO was installed in September 2015, and during the week of September 30, 2015 SVE effluent was transitioned to the RTO for treatment. Due to concerns regarding the perceived potential influence of the SVE system on ongoing subsurface combustion in the Balefill area east of Zone A, only SVE wells VEW-06D and VEW-07D were operated throughout 2015.

As part of the balefill combustion extinguishment actions modification of the high-density polyethylene geomembrane and cap of Zone A was required. The need to expose a portion of the Zone A cap created concerns regarding potential worker exposure to VOC vapors. To mitigate this potential exposure, the shallow SVE wells were turned on. In mid-September, prior to the Zone A cap work, approximately 100 and 150 standard cubic feet/minute (scfm) of the total flow was transitioned from the deep SVE wells VEW-06D and VEW-07D to shallow wells VEW-06S and VEW-07S. The total SVE flow remained between 400 and 450 scfm.

The RTO was manufactured by Gulf Coast Environmental Systems (GCE) of Houston, Texas and was assembled and installed at the SVE skid in September 2015. GCE was on-site to supervise and direct the RTO assembly, provide operator training, and to input initial system parameters. HiLine Engineering of Pasco, Washington provided additional technical assistance with setup and interlock programming of the existing SVE system Programmable Logic Controller (PLC) and Human-Machine Interface (HMI). After assembly, the RTO underwent a period of initial startup and basic functionality testing.

During initial startup of the RTO, several technical issues arose primarily regarding condensate injection. As a result, the condensate injection line was re-routed directly to the combustion chamber. Liquid atomizing spray nozzles were also rerouted to the injection port to ensure a sufficiently atomized aerosol is introduced to the RTO. That modification was not fully successful and the RTO continued to experience repeated shutdowns believed to be associated with condensate injection. As a result, with the exception of intermittent testing periods, condensate injection was ceased. Troubleshooting and efforts to resolve this issue with GCE continued throughout 2015 and those efforts continue as of the date of this report. A revised operations and maintenance manual for the combined SVE and RTO system will be prepared once the final configuration and operation of the RTO has been established.

RTO installation and start up were completed in accordance with the Ecology-approved *Engineering Design Report for SVE System with Regenerative Thermal Oxidation Upgrade* (EDR) dated May 27, 2015. On July 30, 2015, Ecology issued *Pasco Sanitary Landfill Approval Order No. 14AQ-E571* (Approval Order) allowing the installation and operation of the RTO. The Approval Order required the performance of a compliance stack test for the purpose of demonstrating compliance with emission limits specified in the Approval Order.

On behalf of the IWAG Group III, Landau Associates, Inc. prepared the *Performance Testing Plan,* dated October 9, 2015. The Performance Testing Plan presented the testing procedures and objectives, operational parameters and emissions limitations, proposed SVE operating parameters, and testing requirements during startup. The Performance Testing Plan was reviewed and approved by Ecology on October 20, 2015.

The Performance Testing Plan was implemented in early January 2016 and will be provided under separate cover to Ecology. Additional efforts to refine the operation of the RTO are ongoing and those efforts will be documented in future memoranda and reports, including the 2016 annual report.

The installation of the RTO required some minor modifications to the SVE system after the approval of the *SVE System O&M Plan*. The primary modification was moving the totalized SVE flow sample from the prior location immediately upstream of the flare (SV-FS) to immediately upstream of the RTO (SV-BRTO). The IWAG anticipates additional necessary changes to the RTO operation and monitoring before system operation is finalized. As noted above, an updated SVE System O&M Manual that includes the RTO operation after Performance Stack Testing has been completed. Final as-built drawings of the RTO and SVE system modification, including control logic, will be included in the O&M Manual.

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 points VMP-01 through VMP-16S. Figure 26 illustrates the locations of these features.

Operation, monitoring and upgrades of the SVE system during 2015 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.
- *Memorandum – Pasco Landfill: Work Plan for Protection of Zone A in the Presence of Potential Combustion with the Balefill Area*, dated January 6, 2014.
- *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.

- *Performance Testing Plan – Pasco Sanitary Landfill*, prepared by Landau Associates, Inc., dated October 9, 2015.

During 2015, 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 each active wellhead, at the SVE equipment compound, and at the flare end of the SVE effluent conveyance line prior to RTO installation. Parameters recorded included wellhead and skid vacuum and airflow, dilution airflow, wellhead temperature, carbon dioxide (CO_2), oxygen (O_2), total VOCs, and lower explosive limit (LEL). Field measurements were conducted using a photoionization detector (PID) to monitor total VOCs, and a GEM 2000 Landfill Gas Analyzer to monitor carbon dioxide, oxygen and LEL.

Vapor samples were collected at each active extraction well on a monthly basis. Additional samples were collected on a weekly basis for four weeks following any substantive change in system flow rates. Vapor samples were collected at the flare end (SV-FS) of the conveyance line on a bi-weekly basis until flow was transitioned to the RTO, at which time the SVE effluent samples were collected at sample location SV-BRTO. Samples were submitted for laboratory analysis of VOCs using a modified EPA Method 8260. The laboratory data, along with flow rates measured during performance monitoring, were used to calculate VOC removal rates.

Measurement of vacuum at vacuum monitoring probes VMP-01 through VMP-10 was performed on a weekly basis during 2015 in order to confirm a negative pressure beneath the geomembrane. Vacuum measurements were also collected at vacuum monitoring wells VMW-50S, VMW-51I, VMW-51D, and inactive SVE extraction wells VEW-04 and VEW-05 during the same periods to assess the vacuum radius of influence of the SVE system.

Between September and December of 2015, most of the VMPs located along the northern perimeter of Zone A were removed to accommodate the balefill extinguishment related work. A comprehensive list of the points that were removed and subsequently replaced will be included in the Construction Summary Report for the balefill extinguishment activities. That report will be submitted to Ecology in 2016.

Operational parameters were recorded at each of the extraction wells (VEW-06S/I/D and VEW-07S/I/D), VMW-51I, and VMW-50S. The parameters recorded for each well are presented in Table 18. Flowrates and applied vacuum measurements from individual SVE system wells are presented on Figures 29 and 30 respectively. Most of the flow and vacuums throughout 2015 were focused on the deep wells, but transitioned slightly to more of a shallow flow regime in the last quarter of 2015.

In addition to the vacuum measurements included in Table 18, vacuums at VMP-01 through VMP-10, VMW-51D, VEW-04 and VEW-05 were measured on a weekly basis throughout 2014. Vacuum measurements for these locations are presented in Table 19.

Vapor samples were collected from active SVE wells and at the end of the conveyance piping (SV-FS, or SV-BRTO, respectively) throughout 2015. Analytical data from loading rate recovery vapor sampling during 2015 are presented in Table 20.

Table 20 includes a list of all detected VOC concentrations and measured flow rate at the sample location at the time of collection. In general order of abundance, the top six compounds observed in the SVE effluent are; acetone, methyl ethyl ketone (MEK), methyl isobutyl ketone (MIBK), toluene, TCE and total xylenes. Table 21 summarizes the percentage of each of these compounds in each sample collected during 2015. Those six compounds constitute 77.0 to 92.8 percent of the total VOCs detected in each sample from an active SVE well.

Contaminant mass removal rate is calculated for each sample using the total VOC concentration and the standardized measured flow rate. Figure 27 illustrates the average daily contaminant mass removal rates from the active SVE wells and for the combined flow from March 14, 2012 through the end of December 2015. Gaps in the graphed data series represent periods when wells were not operated.

Between January 5, 2015 and December 28, 2015, the sum of contaminant mass removal rates ranged from a low of 31 pounds/day (lbs/day) in mid-October during a period of initial RTO testing to 647 lbs/day on July 6, 2015. The SVE system recovered an estimated 59,593 pounds of VOCs during 2015, with an average combined SVE mass removal rate of 168 lbs/day. The ability of the SVE system to recover contaminant mass was limited throughout much of 2015 due to the operation of only deep wells for most of the year.

The SVE system has recovered a total of approximately 987,117 pounds of VOCs between May 1997 and December 28, 2015. The cumulative mass removal is illustrated in Figure 28. The dark blue circles on the figure represent the dates when significant changes were made to the active vapor extraction well flows.

Even though the SVE system recovered almost 60,000 pounds of total VOCs in 2015, that mass recovery is less than what SVE is capable of at the Site. The SVE system, as currently operated, is limited in its ability to capture VOCs from Zone A by a number of factors. The biggest factors limiting the level of SVE system operation during 2015 were related to Balefill Area concerns and the methane supply at the MSW landfill flare. With the eventual full operation of the RTO and its design capability to treat higher mass loadings, maximizing the effectiveness of the SVE system in 2016 and beyond will be a key objective of the IWAG's operation of the combined SVE/RTO system. Maximizing SVE mass removal provides the greatest available means for protection of groundwater quality while serving to shorten the restoration timeframe for this part of the Site.

4.3 SVE System Repair Reporting

SVE system shutdowns occur both as planned events for routine system maintenance, system upgrades, and as unplanned shutdowns. MSW flare shutdowns prior to October 2015 also resulted in automatic shutdown of the SVE system to prevent potential atmospheric discharges of untreated vapors.

Intermittent shutdowns of the SVE system occurred during 2015. Details of each shutdown that occurred between January 1, 2015 and September 30, 2015 were included in the first, second, and third quarter reports. Shutdowns that occurred during the fourth quarter of 2015 are summarized in Table 22.

On March 5, 2015, Ecology approved EPI's Revised Work Plan for SVE System Piping Re-Routing for proposed upgrades to the SVE system piping on the landfill cap. This plan was prepared in address piping settlement in two areas of underlying Zone A cap settlement. Between March 9 and March 17, 2015, Glacier Environmental Services re-routed SVE piping on the Zone A cap to the west so that the piping would be in an area between the randomly placed drums and stacked drums that has historically been free of differential settlement. EPI documented the work in a report titled Addendum No. 2 to Volume 1 - As-Built Report for SVE System Upgrades, dated May 8, 2015. That report was provided to Ecology and subsequently approved.

Additionally, one of the positive displacement blowers experienced an internal failure and required repair and reconditioning. The reconditioned blower was returned to working order in June of 2015. Other routine operation and maintenance activities performed during 2015 were reported to Ecology in Monthly Status Reports.

Work performed for installation of the RTO and integration of the RTO with the SVE system will be documented in the as-built and revised operations and maintenance reports for the revised system. That report will be submitted to Ecology in 2016.

4.4 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 soil vapor extraction at Zone A 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.

As noted above the only well that contained any VOCs at a concentration exceeding a dCUL in 2015 was MW-52S located within Zone A. 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 2015 (Table 23).

At the low concentrations of VOCs observed in other wells at the Site it is not realistic to provide a meaningful analysis of trends. It is likely that normal variability in sample quality and laboratory methods and results would mask any trend that may exist within those low concentrations.

Groundwater quality continues to comply with the dCULs both at the property boundary and at all locations downgradient of the property boundary. Detected concentrations of VOCs are generally stable. This observation continues to indicate the effectiveness of the SVE system for groundwater protection.

In well MW-52S, some general trends in groundwater quality can be observed. Groundwater quality in this well generally improved in the second half of 2015. 1,1-DCE, cis-1,2-DCE, 1,2-DCA, benzene, and methylene chloride were all detected at concentrations exceeding a dCUL in the first and/or second quarters, but concentrations were below the dCUL in the third and fourth quarters. Similarly, in the second quarter a total of nine compounds were detected at a concentration greater than the dCUL, but in the

third and fourth quarters only 3 and 4 compounds, respectively, were detected at a concentration exceeding a dCUL.

Groundwater quality at the Site has improved markedly over the last several years to the point at which only one well currently contains COCs at concentrations exceeding dCULs. The stability of groundwater quality throughout 2015 and the continued improvements in groundwater quality in that one well, MW-52S, continues to support a conclusion that SVE is an appropriate remedy for Zone A and is highly effective for protection of groundwater quality associated with releases from Zone A.

5.0 WASTE HANDLING

5.1 SVE System Waste Storage, Characterization, and Management

SVE system condensate in 2015 was generated at both the SVE system equipment compound and at the MSW flare. Condensate at both locations was stored in polyethylene tanks prior to disposal 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. Annual condensate sampling was performed during the first quarter of 2015. Table 24 summarizes SVE condensate volumes disposed of or treated off-Site during 2015. Attachment B contains analytical data used for characterization and hazardous waste manifests for SVE system condensate disposed of or treated off-Site during 2015.

A total of 39,684 gallons of SVE condensate and light non-aqueous phase liquid (LNAPL) were generated in 2015. All SVE condensate and condensate LNAPL generated at the Site during 2015 was designated as hazardous waste and transported to Burlington Environmental, LLC in Kent, Washington for treatment and disposal. The condensate was designated as a Dangerous Waste based on concentrations of methyl ethyl ketone (D035) and TCE (D040).

While the RTO has been installed and the ultimate intent is to treat condensate as a process liquid in the RTO, that capability is not yet fully functional. As of the date of this report SVE condensate continues to be collected and transported off-Site for treatment and disposal.

On September 9, 2015, Evoqua Water Technologies was retained to characterize 10,000 pounds of vapor-phase activated carbon that remained on-site and had been used as the historical backup for SVE effluent treatment in the event of an extended MSW flare shutdown. The carbon was analyzed using the Toxicity Characteristic Leaching Procedure (TCLP) analysis Methods 1311 with zero headspace extraction and the resulting extract was analyzed for VOCs using EPA Method 8260B. Those results were used to profile the carbon and to and create a hazardous waste manifest to accompany the shipment of the waste. In addition, four 2,000-lb vessels of activated carbon previously used for the treatment of NoVOCs off-gas were sampled and characterized using the same method described above. Final arrangements for the disposal of these wastes are underway and the wastes will be transported off-Site in 2016.

The disposal of wastes generated during the balefill extinguishment actions will be documented in the Construction Completion Report to be submitted to Ecology under separate cover.

5.2 Groundwater Monitoring Waste Storage, Characterization, and Management

Purge and decontamination water generated during routine sampling was stored, sampled and characterized prior to disposal off-Site. Polyethylene tanks were used for storage of purge water and decontamination water from routine monitoring. Each tank was sampled and characterized before off-Site disposal or treatment.

During 2015, 850 gallons of water from well purging was disposed of off-Site. This water was non-hazardous and was transported to the City of Pasco Publicly-Owned Treatment Works for treatment and disposal. Table 24 summarizes volumes of purge water and decontamination waste disposed or treated off-Site during 2015. Attachment B contains analytical data used for characterization of groundwater monitoring wastewater disposed of or treated off-Site during 2015.

6.0 LANDFILL CAP PERFORMANCE MONITORING

Monitoring of the Zone A, C/D, and E landfill caps during 2015 was conducted in accordance with the following Ecology approved document:

- Operations and Maintenance Manual for Industrial Waste Area Caps – Zones A, C/D, and E – Pasco Landfill Site Pasco, Washington, dated November 21, 2013.

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. Monthly inspection checklists for Zones A, C/D, and E for the fourth quarter of 2015 are available in Attachment C.

Cover inspections include assessment of man-made, animal-made and other disturbances including vehicle traffic, burrowing, erosion, vegetation and settlement. The Zone A cover inspection also involves inspection of sumps and SVE piping. Sumps were installed in the areas of greatest settlement to inspect for potential surface water accumulation. SVE piping on the Zone A cover is monitored for settlement or other changes that may affect the flow of air or condensate within the pipes. Disturbances under evaluation or requiring repairs are noted on the checklist.

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 fence posts leaning.

6.1 Zone A Landfill

The Zone A Landfill Cover, Detention/Evaporation Basin, and Fence Inspection Checklists for 2015 are presented in Attachment C. Significant work was performed on the Zone A cap resulting from separation

barrier wall installation. Settlement on the surface of the Zone A cover during 2015 and the repairs and alterations of the cap system along areas of the separation barrier wall are addressed below. No maintenance or repair of the Zone A basins was required for reasons other than balefill or barrier wall related work.

6.1.1 Zone A Settlement

Enhanced monitoring of differential settlement of the Zone A cap has been ongoing since May 2008.

That monitoring has included the installation and periodic surveying of settlement monitoring plates in 2008 and 2010. On December 15, 2011, a three-dimensional point cloud survey using Light Distancing and Ranging (LIDAR) methods was performed for the Zone A cap.

In January 2013, an aerial survey of the Site was flown for the purpose of establishing a topographic survey for the entire Site.

New areas of differential settlement and associated cracks in the surface of the uppermost soil cover on the Zone A cap were noted during the first quarter of 2013. Starting in April 2013, LIDAR surveys have been performed on a quarterly basis to evaluate the progression of settlement first observed in early 2013.

These areas of settlement and surface cracks were inspected by SCS Engineers and settlement related survey data were evaluated against yield point and break point values for the Zone A cover materials. The results of that evaluation are summarized in the *Technical Memorandum – Cover Settlement Evaluation Update – Zone A Drum Disposal Area – Pasco Sanitary Landfill Site*, dated September 13, 2013.

Since April 2013, settlement of the Zone A cap has been monitored quarterly using LIDAR surveys. Subsequent surveys are evaluated relative to the baseline LIDAR survey of December 2011, to evaluate total settlement and relative to the prior quarterly survey to assess incremental settlement. During 2015, LIDAR surveys of the Zone A were performed in January, April, July and December. No survey was performed in October due to ongoing balefill and separation barrier work.

For 2015, SCS prepared an update to its 2013 settlement evaluation memorandum to assess current Zone A cover performance since 2013. Additionally, portions of the Zone A HDPE membrane exposed by balefill and barrier wall construction were examined. During an inspection of the condition of the membrane on November 5, 2015, SCS collected two sample coupons of the HDPE from portions of the cap that had experience settlement. Both samples were submitted to TRI/Environmental for analysis of thickness, density, carbon black content, tensile properties, puncture resistance and tear resistance.

SCS's evaluation of current Zone A cover conditions is presented in their technical memorandum titled *Cover Settlement Evaluation Report Zone A Drum Disposal Area Pasco Sanitary Landfill Site*, dated March 7, 2016, included as Attachment D to this report.

SCS concluded that the differential settlement on the Zone A cap to date has resulted in total strain on the HDPE and geosynthetic clay liner (GCL) of between 0.9 and 3.5 percent. Those values are well below the allowable 10 percent yield elongation design basis, and are about two orders of magnitude less than the break elongation of the material necessary to suggest a strain-induced rupture of the HDPE geomembrane. SCS also concluded that the ultimate strain that the HDPE membrane is likely to receive as a result of foreseeable differential and cap-wide settlement is unlikely to result rupture of the HDPE membrane in the future. Additionally, the testing of the HDPE sample coupons does not indicate any perceptible degradation in material properties since the prior testing was performed or since the original construction quality assurance testing in 2002.

There are no indications that either wind or water erosion or material deposition have affected the measurement and monitoring of differential settlement. There are no erosional or depositional features at the edges of or within the settlement areas such as furrows in the sides of the depressions or sand accumulation in the depressions. No free water has been observed within the sumps in the two deepest settlement areas at any time since their installation. To provide a means of evaluating potential wind or water-related deposition in the future, the sumps have been marked at the current ground level to allow monitoring for changes in ground surface at the sumps.

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.

6.1.2 Zone A Fencing

The northeastern portion of the Zone A perimeter fencing was removed during 2015 as a component of the balefill and barrier wall actions. A locked gate limits access to this area and no portions of Zone A are accessible to the public. All fencing along Dietrich Road and along the boundary with the BDI transfer station to the south is in good condition.

6.2 Zone B Landfill

The condition of the Zone B cover, basins, and fencing, including inspection and maintenance activities performed during 2015, is reported to Ecology by Bayer Crop Science (BCS) under separate cover.

6.3 Zones C/D and E Landfills

The Zone C/D and Zone E Landfill Cover, Detention/Evaporation Basin, and Fence Inspection Checklists for 2015 are presented in Attachment C. No conditions requiring maintenance or repair were observed on the Zone C/D or E caps, basins, or fencing in 2015.

7.0 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 Zone A, B, C/D, and E perimeter fencing and informational signage posted around the Site. As discussed above, perimeter fencing is inspected on a monthly basis. Informational signage is monitored during the monthly inspections as well as during operations and maintenance activities.

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 monitor and control building and development permits within the GPA.

On December 4, 2015, representatives of the City of Pasco, Benton/Franklin County Health Department and EPI, the latter 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 Franklin County *Annual Institutional Controls Report for 2015* and the City of Pasco *2015 – East Pasco Plume Area – Well Location Survey* are included in Attachment E.

8.0 SUMMARY

The following summarizes the primary findings and conclusions from the groundwater monitoring and the interim action operations and maintenance in 2015:

- Groundwater quality at the downgradient property boundary, and locations downgradient of the property boundary, continued to comply with the dCULs throughout 2015. No samples from property boundary wells or downgradient wells contained a COC at a concentration exceeding a dCUL at any time in 2015.

- The only location at the Site where groundwater quality exceeds the dCULs is well MW-52S, which is a source zone well installed inside of Zone A immediately below Zone A wastes. Groundwater quality at well MW-52S indicated continued improvement throughout 2015. Samples from the other Zone A source well, MW-53S, did not contain any COCs at a concentration exceeding a dCUL at any time in 2015.

- The current 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 a highly effective remedial technology and highly protective of groundwater quality for contamination associated with Zone A and the covers at Zones B, C/D, and E have been effective in protecting groundwater quality in these areas.

- The SVE system was operated below its maximum capacity in 2015 due to concerns regarding its perceived potential effect on the adjacent balefill area and due to the methane supply at the MSW landfill flare. The approximately 60,000 pounds of total VOCs removed in 2015 is less than the mass removed in prior years, due to the lack of operation of the

shallow or intermediate depth SVE wells during much of 2015. It is expected that the SVE system mass removal rate will increase in 2016 with the operation of the shallow wells and the potential operation of the intermediate depth wells, as conditions allow following full RTO functionality.

- Modification and refinement of operation of the RTO is ongoing. This work will continue through early 2016 and include additional performance stack testing.

- Settlement of the Zone A cover continued during 2015 but at significantly slower rates than in prior years. The total strain on the HDPE and GCL is less than the allowable strain of 10 percent. Differential settlement does not currently pose any threat to the Zone A cover system.

- Monitoring and evaluation of parameters associated with natural attenuation of VOCs in groundwater no longer provides meaningful data at the Site. Exceedances of dCULs are limited to only one well and other detections are at very low concentrations and in limited locations. The limited data do not provide the type of spatial or temporal trend analysis necessary to evaluate this component of contaminant fate. The IWAG proposes discontinuing these analyses during future sampling events.

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Tables

ENVIRONMENTAL PARTNERS INC

TABLE 1
Wells Sampled and Analyses Performed
2015 Annual Report
Pasco Landfill, Pasco, WA

PERIOD: 1/1/ - 12/31/2015

WELL	Q1				Q2						Q3				Q4					
	VOCs with SIM	SVOCs with SIM	Herbicides	Total and Hexavalent Chromium	VOCs with SIM	SVOCs with SIM	Herbicides	Total and Hexavalent Chromium	Natural Attenuation Parameters	Landfill Parameters	VOCs with SIM	SVOCs with SIM	Herbicides	Total and Hexavalent Chromium	VOCs with SIM	SVOCs with SIM	Herbicides	Total and Hexavalent Chromium	Natural Attenuation Parameters	Landfill Parameters
Performance Monitoring Wells - Municipal Solid Waste Landfill																				
#4R	X	-	-	-	X	-	-	-	-	X	X	-	-	-	X	-	-	-	-	X
MW-16S	X	-	-	-	X	-	-	-	-	X	X	-	-	-	X	-	-	-	-	X
MW-17SR	X	-	-	-	X	-	-	-	-	X	X	-	-	-	X	-	-	-	-	X
Performance Monitoring Wells - Zone A																				
EE-2	-	-	-	-	X	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-
MW-13S	X	-	-	X	X	-	-	X	-	-	X	-	-	X	X	-	-	X	-	-
MW-47S	X	-	-	-	X	-	-	-	X	-	X	-	-	-	X	-	-	-	X	-
MW-47I	-	-	-	-	X	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-
MW-50S	X	-	-	-	X	-	-	-	X	-	X	-	-	-	X	-	-	-	X	-
MW-52S	X	-	-	-	X	X	X	-	-	-	X	-	-	-	X	X	X	-	-	-
MW-53S	X	-	-	-	X	X	X	-	-	-	X	-	-	-	X	X	X	-	-	-
NVM-01	X	-	-	-	X	-	-	-	-	-	X	-	-	-	X	-	-	-	-	-
NVM-01I	-	-	-	-	X	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-
Performance Monitoring Wells - Zone B																				
MW-26SR	X	X	X	-	X	X	X	-	-	-	X	X	X	-	X	X	X	-	-	-
Performance Monitoring Wells - Zone C/D																				
MW-55S	X	-	-	X	X	-	-	X	-	-	X	-	-	X	X	-	-	X	-	-
Performance Monitoring Wells - Zone E																				
MW-27SR	X	-	-	X	X	-	-	X	-	-	X	-	-	X	X	-	-	X	-	-
Sentinel Wells																				
MW-23S	X	-	-	-	X	-	-	-	-	-	X	-	-	-	X	-	-	-	-	-
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	-	-	-	X	-	-	-	X	-
2I	-	-	-	-	X	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-
MW-12S	X	-	-	X	X	-	-	X	X	-	X	-	-	X	X	-	-	X	X	-
MW-12ID	-	-	-	-	X	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-
MW-49S	X	-	-	-	X	-	-	-	X	-	X	-	-	-	X	-	-	-	X	-
MW-49I	-	-	-	-	X	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-
Property Boundary Wells																				
MW-22S	X	-	-	X	X	-	-	X	-	X	X	-	-	X	X	-	-	X	-	X
MW-24S	X	-	-	-	X	-	-	-	-	-	X	-	-	-	X	-	-	-	-	-
MW-10S	X	-	-	-	X	-	-	-	-	-	X	-	-	-	X	-	-	-	-	-
MW-11S	X	-	-	-	X	-	-	-	-	-	X	-	-	-	X	-	-	-	-	-
MW-11I	-	-	-	-	X	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-
MW-51S	X	-	-	-	X	-	-	-	-	-	X	-	-	-	X	-	-	-	-	-
Downgradient Wells																				
MW-29S	X	-	-	-	X	-	-	-	-	-	X	-	-	-	X	-	-	-	-	-
MW-29I	-	-	-	-	X	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-
MW-31S	X	-	-	-	X	-	-	-	-	-	X	-	-	-	X	-	-	-	-	-
MW-34S	X	-	-	-	X	-	-	-	-	-	X	-	-	-	X	-	-	-	-	-
MW-37S	X	-	-	-	X	-	-	-	-	-	X	-	-	-	X	-	-	-	-	-
MW-38S	X	-	-	-	X	-	-	-	-	-	X	-	-	-	X	-	-	-	-	-
MW-38I	-	-	-	-	X	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-
MW-40S	X	-	-	-	X	-	-	-	-	-	X	-	-	-	X	-	-	-	-	-
MW-41S	X	-	-	-	X	-	-	-	-	-	X	-	-	-	X	-	-	-	-	-
MW-42S	X	-	-	-	X	-	-	-	-	-	X	-	-	-	X	-	-	-	-	-
MW-43S	X	-	-	-	X	-	-	-	-	-	X	-	-	-	X	-	-	-	-	-
MW-43I	X	-	-	-	X	-	-	-	-	-	X	-	-	-	X	-	-	-	-	-
MW-44S	-	-	-	-	X	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-
MW-45S	-	-	-	-	X	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-
MW-46S	X	-	-	-	X	-	-	-	-	-	X	-	-	-	X	-	-	-	-	-
MW-54I	X	-	-	-	X	-	-	-	-	-	X	-	-	-	X	-	-	-	-	-
Upgradient Wells																				
MW-20S	-	-	-	X	-	-	-	-	X	X	-	-	-	X	-	-	-	-	X	X
MW-25SR	-	-	-	-	X	-	-	-	X	X	-	-	-	-	X	-	-	-	X	X
Residential/Domestic Wells																				
Bradley	-	-	-	-	X	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-
Bonnie	-	-	-	-	•	-	-	-	-	-	-	-	-	-	•	-	-	-	-	-
Hand	-	-	-	-	X	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-
Hommes	-	-	-	-	•	-	-	-	-	-	-	-	-	-	•	-	-	-	-	-
Lopez	-	-	-	-	•	-	-	-	-	-	-	-	-	-	•	-	-	-	-	-
Montalvo	-	-	-	-	•	-	-	-	-	-	-	-	-	-	•	-	-	-	-	-
Norvell	-	-	-	-	•	-	-	-	-	-	-	-	-	-	•	-	-	-	-	-
Norvell2	-	-	-	-	•	-	-	-	-	-	-	-	-	-	•	-	-	-	-	-
Rada	-	-	-	-	X	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-
Rindt	-	-	-	-	•	-	-	-	-	-	-	-	-	-	•	-	-	-	-	-
Salinas	-	-	-	-	X	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-
West	-	-	-	-	X	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-
Yenney1	-	-	-	-	•	-	-	-	-	-	-	-	-	-	•	-	-	-	-	-
Yenney2	-	-	-	-	X	-	-	-	-	-	-	-	-	-	•	-	-	-	-	-
Yenney3	-	-	-	-	•	-	-	-	-	-	-	-	-	-	•	-	-	-	-	-
Waste Characterization Samples																				
FLARE	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OWS	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PURGE	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-

Notes:
• = Residential well either not functional or not accessible
VOC = Volatile Organic Compound
SVOC = Semi-Volatile Organic Compound
SIM = Selective Ion Measurement (SIM) analysis
Herbicides = Chlorophenoxy and nitrophenol herbicides
Natural Attenuation Parameters = Analysis for nitrate/nitrite, ammonia, sulfate, ferrous iron, manganese, Chemical Oxygen Demand, Total Dissolved Solids, total alkalinity / bicarbonate, chloride and Total Organic Carbon.
Landfill Parameters = Analysis for nitrate, ammonia, sulfate, Total Dissolved Solids, total alkalinity / bicarbonate, chloride, Total Organic Carbon, calcium, total iron, magnesium, manganese, potassium, sodium
FLARE = Sampled condensate in the holding tank at the flare.
OWS = Sampled condensate in the holding tank at the oil and water separator in the SVE equipment compound

ENVIRONMENTAL PARTNERS INC

TABLE 2
Groundwater Elevation Data
(in feet)
2015 Annual Report
Pasco Landfill, Pasco, WA

PERIOD: 1/1 - 12/31/2015

WELL ID	Q1	Q2	Q3	Q4	RANGE
#9	358.02	359.09	356.91	355.92	3.17
1R	351.96	352.63	351.14	350.59	2.04
2R	352.14	352.83	351.36	350.76	2.07
2I	352.26	352.97	351.46	350.89	2.08
2D	352.17	352.89	351.36	350.76	2.13
4R	357.25	358.20	NM	355.23	2.97
8R	356.19	357.15	355.19	354.34	2.81
EE-2	352.71	353.43	351.85	351.25	2.18
EE-6R	356.62	357.55	355.56	354.70	2.85
MW-10S	351.43	352.09	350.63	351.15	1.46
MW-11S	351.25	351.88	350.50	349.97	1.91
MW-11I	351.28	351.92	350.48	350.00	1.92
MW-12S	352.26	352.96	351.43	350.83	2.13
MW-12ID	352.28	353.00	351.49	350.86	2.14
MW-12D	352.28	352.98	351.42	350.84	2.14
MW-13S	352.54	353.29	351.79	351.14	2.15
MW-14S	353.93	354.72	353.29	352.35	2.37
MW-15S	352.93	353.68	352.10	351.45	2.23
MW-16S	358.77	359.88	357.65	356.65	3.23
MW-17SR	354.61	355.52	353.69	352.91	2.61
MW-18S	355.03	355.57	354.16	353.80	1.77
MW-19S	357.09	358.06	355.95	355.22	2.84
MW-20S	359.61	360.73	358.37	357.40	3.33
MW-22S	353.03	353.76	350.62	350.03	3.73
MW-23S	356.32	357.22	355.27	354.46	2.76
MW-24S	352.06	352.71	351.25	350.69	2.02
MW-25SR	357.91	358.79	356.65	355.85	2.94
MW-26SR	357.05	357.88	355.78	355.01	2.87
MW-27SR	357.75	358.76	356.64	355.68	3.08
MW-28S	362.75	364.03	361.31	360.01	4.02
MW-29S	349.96	350.47	349.32	348.85	1.62
MW-29I	350.07	350.61	349.40	348.94	1.67
MW-30S	349.42	349.94	348.81	348.35	1.59
MW-31S	349.76	350.30	349.22	348.73	1.57
MW-32S	349.61	350.08	348.90	348.56	1.52
MW-34S	348.75	349.29	348.27	347.79	1.50
MW-36S	348.08	348.65	347.74	347.22	1.43

NM = Water level not measured
Vertical Datum is based on NAVD 1988

ENVIRONMENTAL PARTNERS INC

TABLE 2
Groundwater Elevation Data
(in feet)
2015 Annual Report
Pasco Landfill, Pasco, WA

PERIOD: 1/1 - 12/31/2015

WELL ID	Q1	Q2	Q3	Q4	RANGE
MW-37S	348.04	348.59	347.65	347.19	1.40
MW-38S	347.87	348.37	347.43	346.96	1.41
MW-38I	347.84	349.36	347.41	346.97	2.39
MW-40S	347.49	348.00	347.15	346.66	1.34
MW-41SR	347.66	348.14	347.23	346.79	1.35
MW-42S	347.17	347.64	346.80	346.37	1.27
MW-43S	347.33	347.79	346.88	346.49	1.30
MW-43I	347.24	347.70	346.79	346.40	1.30
MW-44S	347.27	347.72	346.79	346.43	1.29
MW-45S	347.66	348.16	347.22	346.78	1.38
MW-46S	349.13	349.62	348.50	348.08	1.54
MW-47S	352.50	353.32	351.64	351.04	2.28
MW-47I	352.50	353.22	351.66	351.03	2.19
MW-47D	352.52	353.25	351.68	351.06	2.19
MW-48S	352.49	353.22	351.63	351.04	2.18
MW-48I	352.52	353.24	351.61	351.06	2.18
MW-48D	352.77	353.45	351.81	351.22	2.23
MW-49S	351.94	352.57	351.14	350.57	2.00
MW-49I	351.85	352.55	350.66	350.49	2.06
MW-49D	352.07	352.79	351.28	350.68	2.11
MW-50S	352.83	353.46	351.98	351.31	2.15
MW-51S	351.53	352.29	350.74	350.20	2.09
MW-52S	353.39	354.11	352.51	351.63	2.48
MW-53S	352.75	353.06	351.96	351.31	1.75
MW-54I	346.23	346.57	345.91	345.57	1.00
MW-55S	356.73	357.61	NM	354.84	2.77
NVM-01	352.44	353.17	351.58	351.02	2.15
NVM-01I	352.45	353.17	351.58	351.01	2.16
NVM-01D	352.45	353.18	351.59	351.00	2.18
NVM-02	352.41	353.11	351.64	351.00	2.11
NVM-03	352.39	353.10	351.59	350.99	2.11
NVM-04	352.22	352.89	351.43	350.82	2.07
NW-1	NM	371.04	NM	365.79	5.25
NW-2	NM	367.05	NM	362.57	4.48
NW-3	NM	364.80	NM	360.72	4.08
NW-4	NM	366.91	NM	362.40	4.51
NW-5	366.51	367.96	364.85	363.27	4.69

NM = Water level not measured
Vertical Datum is based on NAVD 1988

ENVIRONMENTAL PARTNERS INC

TABLE 3
Evaluation of First Quarter 2015 Vertical Gradients
Zone A Well Clusters
2015 Annual Report
Pasco Landfill, Pasco, WA

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)	Intermediate to Deep Vertical Piezometric Gradient (in feet/foot)	Deep Well	Elevation at Center of Screen (in feet)	Water Elevation (in feet)	Shallow to Deep Vertical Piezometric Gradient (in feet/foot)
January 2015										
2R	352.14	-0.005	**2I**	**327.50**	352.26	0.003	**2D**	**297.50**	352.17	-0.001
MW-12S	352.26	-0.001	**MW-12ID**	**326.80**	352.28	<±0.001	**MW-12D**	**293.00**	352.28	<±0.001
MW-47S	352.50	<±0.001	**MW-47I**	**326.70**	352.50	-0.001	**MW-47D**	**293.40**	352.52	<±0.001
MW-48S	352.49	-0.001	**MW-48I**	**327.90**	352.52	-0.007	**MW-48D**	**293.30**	352.77	-0.005
MW-49S	351.94	0.004	**MW-49I**	**328.90**	351.85	-0.007	**MW-49D**	**299.50**	352.07	-0.002
NVM-01	352.44	<±0.001	**NVM-01I**	**324.10**	352.45	<±0.001	**NVM-01D**	**296.40**	352.45	<±0.001
Average of Water Elevations and Vertical Hydraulic Gradients - July 2008 Through January 2015										
2R	352.64	-0.005	**2I**	**327.50**	352.76	0.001	**2D**	**297.50**	352.69	-0.001
MW-12S	352.72	-0.003	**MW-12ID**	**326.80**	352.79	<±0.001	**MW-12D**	**293.00**	352.82	-0.002
MW-47S	353.04	<±0.001	**MW-47I**	**326.70**	353.04	<±0.001	**MW-47D**	**293.40**	353.06	<±0.001
MW-48S	353.08	0.001	**MW-48I**	**327.90**	353.07	-0.004	**MW-48D**	**293.30**	353.28	-0.003
MW-49S	352.41	0.003	**MW-49I**	**328.90**	352.34	-0.005	**MW-49D**	**299.50**	352.58	-0.003
NVM-01	353.07	0.004	**NVM-01I**	**324.10**	352.97	<±0.001	**NVM-01D**	**296.40**	352.97	0.002

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

Vertical Datum is based on NAVD 1988

ENVIRONMENTAL PARTNERS INC

TABLE 4
Evaluation of Second Quarter 2015 Vertical Gradients
Zone A Well Clusters
2015 Annual Report
Pasco Landfill, Pasco, WA

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)	Intermediate to Deep Vertical Piezometric Gradient (in feet/foot)	Deep Well	Elevation at Center of Screen (in feet)	Water Elevation (in feet)	Shallow to Deep Vertical Piezometric Gradient (in feet/foot)
April 2015										
2R	352.83	-0.006	**2I**	**327.50**	352.97	0.003	**2D**	**297.50**	352.89	-0.001
MW-12S	352.96	-0.002	**MW-12ID**	**326.80**	353.00	0.001	**MW-12D**	**293.00**	352.98	<±0.001
MW-47S	353.32	0.004	**MW-47I**	**326.70**	353.22	-0.001	**MW-47D**	**293.40**	353.25	0.001
MW-48S	353.22	-0.001	**MW-48I**	**327.90**	353.24	-0.006	**MW-48D**	**293.30**	353.45	-0.004
MW-49S	352.57	0.001	**MW-49I**	**328.90**	352.55	-0.008	**MW-49D**	**299.50**	352.79	-0.004
NVM-01	353.17	<±0.001	**NVM-01I**	**324.10**	353.17	<±0.001	**NVM-01D**	**296.40**	353.18	<±0.001
Average of Water Elevations and Vertical Hydraulic Gradients - July 2008 Through April 2015										
2R	352.65	-0.005	**2I**	**327.50**	352.77	0.001	**2D**	**297.50**	352.70	-0.001
MW-12S	352.73	-0.003	**MW-12ID**	**326.80**	352.80	<±0.001	**MW-12D**	**293.00**	352.83	-0.002
MW-47S	353.05	<±0.001	**MW-47I**	**326.70**	353.04	<±0.001	**MW-47D**	**293.40**	353.06	<±0.001
MW-48S	353.09	0.001	**MW-48I**	**327.90**	353.07	-0.004	**MW-48D**	**293.30**	353.29	-0.003
MW-49S	352.41	0.003	**MW-49I**	**328.90**	352.35	-0.005	**MW-49D**	**299.50**	352.59	-0.003
NVM-01	353.08	0.003	**NVM-01I**	**324.10**	352.98	<±0.001	**NVM-01D**	**296.40**	352.97	0.002

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

Vertical Datum is based on NAVD 1988

ENVIRONMENTAL PARTNERS INC

TABLE 5
Evaluation of Third Quarter 2015 Vertical Gradients
Zone A Well Clusters
2015 Annual Report
Pasco Landfill, Pasco, WA

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)	Intermediate to Deep Vertical Piezometric Gradient (in feet/foot)	Deep Well	Elevation at Center of Screen (in feet)	Water Elevation (in feet)	Shallow to Deep Vertical Piezometric Gradient (in feet/foot)
July 2015										
2R	351.36	-0.004	**2I**	**327.50**	351.46	0.003	**2D**	**297.50**	351.36	<±0.001
MW-12S	351.43	-0.002	**MW-12ID**	**326.80**	351.49	0.002	**MW-12D**	**293.00**	351.42	<±0.001
MW-47S	351.64	-0.001	**MW-47I**	**326.70**	351.66	-0.001	**MW-47D**	**293.40**	351.68	-0.001
MW-48S	351.63	0.001	**MW-48I**	**327.90**	351.61	-0.006	**MW-48D**	**293.30**	351.81	-0.003
MW-49S	351.14	0.022	**MW-49I**	**328.90**	350.66	-0.021	**MW-49D**	**299.50**	351.28	-0.003
NVM-01	351.58	<±0.001	**NVM-01I**	**324.10**	351.58	<±0.001	**NVM-01D**	**296.40**	351.59	<±0.001
Average of Water Elevations and Vertical Hydraulic Gradients - July 2008 Through July 2015										
2R	352.61	-0.005	**2I**	**327.50**	352.72	0.001	**2D**	**297.50**	352.65	-0.001
MW-12S	352.69	-0.003	**MW-12ID**	**326.80**	352.76	<±0.001	**MW-12D**	**293.00**	352.78	-0.002
MW-47S	353.00	<±0.001	**MW-47I**	**326.70**	353.00	<±0.001	**MW-47D**	**293.40**	353.02	<±0.001
MW-48S	353.04	0.001	**MW-48I**	**327.90**	353.02	-0.004	**MW-48D**	**293.30**	353.23	-0.003
MW-49S	352.37	0.003	**MW-49I**	**328.90**	352.29	-0.005	**MW-49D**	**299.50**	352.55	-0.003
NVM-01	353.02	0.003	**NVM-01I**	**324.10**	352.93	<±0.001	**NVM-01D**	**296.40**	352.92	0.002

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

Vertical Datum is based on NAVD 1988

ENVIRONMENTAL PARTNERS INC

TABLE 6
Evaluation of Fourth Quarter 2015 Vertical Gradients
Zone A Well Clusters
2015 Annual Report
Pasco Landfill, Pasco, WA

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)	Intermediate to Deep Vertical Piezometric Gradient (in feet/foot)	Deep Well	Elevation at Center of Screen (in feet)	Water Elevation (in feet)	Shallow to Deep Vertical Piezometric Gradient (in feet/foot)
October 2015										
2R	350.76	-0.006	**2I**	**327.50**	350.89	0.004	**2D**	**297.50**	350.76	<±0.001
MW-12S	350.83	-0.001	**MW-12ID**	**326.80**	350.86	0.001	**MW-12D**	**293.00**	350.84	<±0.001
MW-47S	351.04	0.000	**MW-47I**	**326.70**	351.03	-0.001	**MW-47D**	**293.40**	351.06	<±0.001
MW-48S	351.04	-0.001	**MW-48I**	**327.90**	351.06	-0.005	**MW-48D**	**293.30**	351.22	-0.003
MW-49S	350.57	0.004	**MW-49I**	**328.90**	350.49	-0.006	**MW-49D**	**299.50**	350.68	-0.002
NVM-01	351.02	<±0.001	**NVM-01I**	**324.10**	351.01	<±0.001	**NVM-01D**	**296.40**	351.00	<±0.001
Average of Water Elevations and Vertical Hydraulic Gradients - July 2008 Through October 2015										
2R	352.54	-0.005	**2I**	**327.50**	352.66	0.001	**2D**	**297.50**	352.59	-0.001
MW-12S	352.62	-0.003	**MW-12ID**	**326.80**	352.69	<±0.001	**MW-12D**	**293.00**	352.71	-0.001
MW-47S	352.93	<±0.001	**MW-47I**	**326.70**	352.93	<±0.001	**MW-47D**	**293.40**	352.95	<±0.001
MW-48S	352.97	0.001	**MW-48I**	**327.90**	352.96	-0.004	**MW-48D**	**293.30**	353.17	-0.003
MW-49S	352.31	0.003	**MW-49I**	**328.90**	352.23	-0.005	**MW-49D**	**299.50**	352.48	-0.003
NVM-01	352.94	0.003	**NVM-01I**	**324.10**	352.84	<±0.001	**NVM-01D**	**296.40**	352.84	0.002

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

Vertical Datum is based on NAVD 1988

ENVIRONMENTAL PARTNERS INC

TABLE 7
Evaluation of Vertical Gradients
First Quarter 2015
Off-Property Well Pairs
2015 Annual Report
Pasco Landfill, Pasco, WA

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)
January 2015					
MW-11S	351.25	0.000	**MW-11I**	**328.94**	351.28
MW-29S	349.96	-0.006	**MW-29I**	**331.39**	350.07
MW-38S	347.87	0.001	**MW-38I**	**333.17**	347.84
MW-43S	347.33	0.004	**MW-43I**	**327.22**	347.24
Average Water Elevations and Vertical Hydraulic Gradients - Apr 2011 to Jan 2015					
MW-11S	351.66	-0.006	**MW-11I**	**328.94**	351.79
MW-29S	350.43	-0.006	**MW-29I**	**331.39**	350.54
MW-38S	348.20	-0.002	**MW-38I**	**333.17**	348.24
MW-43S	347.67	0.004	**MW-43I**	**327.22**	347.59

Notes:

Downward gradients are shown as positive numbers. Upward gradients are shown as negative (-) numbers. The intermediate wells were installed in March 2011.

Elevations for MW-29S/I are based on the June 2012 survey measurements.

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TABLE 8
Evaluation of Vertical Gradients
Second Quarter 2015
Off-Property Well Pairs
2015 Annual Report
Pasco Landfill, Pasco, WA

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 2015					
MW-11S	351.88	<±0.001	**MW-11I**	**328.94**	351.92
MW-29S	350.47	-0.006	**MW-29I**	**331.39**	350.61
MW-38S	348.37	0.001	**MW-38I**	**333.17**	349.36
MW-43S	347.79	0.004	**MW-43I**	**327.22**	347.70
Average Water Elevations and Vertical Hydraulic Gradients - Apr 2011 to Apr 2015					
MW-11S	351.67	-0.006	**MW-11I**	**328.94**	351.80
MW-29S	350.43	-0.006	**MW-29I**	**331.39**	350.54
MW-38S	348.21	-0.006	**MW-38I**	**333.17**	348.30
MW-43S	347.68	0.004	**MW-43I**	**327.22**	347.60

Notes:

Downward gradients are shown as positive numbers. Upward gradients are shown as negative (-) numbers. The intermediate wells were installed in March 2011.

Elevations for MW-29S/I are based on the June 2012 survey measurements.

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TABLE 9
Evaluation of Vertical Gradients
Third Quarter 2015
Off-Property Well Pairs
2015 Annual Report
Pasco Landfill, Pasco, WA

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)
July 2015					
MW-11S	350.50	<±0.001	**MW-11I**	**328.94**	350.48
MW-29S	349.32	-0.006	**MW-29I**	**331.39**	349.40
MW-38S	347.43	0.001	**MW-38I**	**333.17**	347.41
MW-43S	346.88	0.004	**MW-43I**	**327.22**	346.79
Average Water Elevations and Vertical Hydraulic Gradients - Apr 2011 to Jul 2015					
MW-11S	351.61	-0.005	**MW-11I**	**328.94**	351.73
MW-29S	350.37	-0.006	**MW-29I**	**331.39**	350.48
MW-38S	348.17	-0.006	**MW-38I**	**333.17**	348.25
MW-43S	347.63	0.004	**MW-43I**	**327.22**	347.55

Notes:

Downward gradients are shown as positive numbers. Upward gradients are shown as negative (-) numbers. The intermediate wells were installed in March 2011.

Elevations for MW-29S/I are based on the June 2012 survey measurements.

ENVIRONMENTAL PARTNERS INC

TABLE 10
Evaluation of Vertical Gradients
Fourth Quarter 2015
Off-Property Well Pairs
2015 Annual Report
Pasco Landfill, Pasco, WA

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)
October 2015					
MW-11S	349.97	<±0.001	**MW-11I**	**328.94**	350.00
MW-29S	348.85	-0.006	**MW-29I**	**331.39**	348.94
MW-38S	346.96	0.001	**MW-38I**	**333.17**	346.97
MW-43S	346.49	0.004	**MW-43I**	**327.22**	346.40
Average Water Elevations and Vertical Hydraulic Gradients - Apr 2011 to Oct 2015					
MW-11S	351.52	-0.005	**MW-11I**	**328.94**	351.64
MW-29S	350.29	-0.006	**MW-29I**	**331.39**	350.40
MW-38S	348.11	-0.005	**MW-38I**	**333.17**	348.19
MW-43S	347.57	0.004	**MW-43I**	**327.22**	347.49

Notes:

Downward gradients are shown as positive numbers. Upward gradients are shown as negative (-) numbers. The intermediate wells were installed in March 2011.

Elevations for MW-29S/I are based on the June 2012 survey measurements.

SITE	DATE	Dissolved Oxygen (mg/l)	Oxidation Reduction Potential (mV)	pH	Specific Conductivity (mS/m)	Temperature (Degrees Celcius)	Turbidity (NTU)
2R	1/20/15	4.81	38	7.67	72.7	17.40	0.00
	4/22/15	3.71	2	6.58	48.2	19.14	0.53
	7/17/15	3.88	-1	7.55	49.1	22.02	0.13
	10/29/15	2.76	-5	7.49	50.3	18.25	0.26
2I	4/23/15	4.92	36	7.09	49.1	16.47	0.21
	10/29/15	4.20	38	7.43	48.2	17.69	0.17
4R	1/21/15	3.16	53	7.48	77.2	16.63	0.00
	4/22/15	3.30	64	6.20	54.9	17.81	0.34
	7/17/15	3.56	85	7.08	54.6	17.22	0.79
	10/28/15	0.96	94	7.18	52.8	16.14	0.11
EE-2	4/23/15	4.53	38	7.26	49.8	16.88	0.18
	10/29/15	5.37	35	7.53	48.6	17.66	0.38
MW-10S	1/21/15	4.80	-1	7.72	68.8	17.05	0.00
	4/22/15	4.63	8	6.52	47.8	17.56	0.13
	7/17/15	5.02	-19	7.49	51.9	18.88	0.20
	10/28/15	2.71	-32	7.89	49.1	17.60	0.59
MW-11S	1/21/15	5.01	21	7.59	70.8	16.74	0.00
	4/22/15	4.23	6	6.41	49.7	17.70	0.88
	7/17/15	4.71	-7	7.36	52.1	20.27	0.36
	10/28/15	2.20	-12	7.81	51.9	17.67	0.34
MW-11I	4/22/15	4.60	44	6.50	47.0	16.65	0.00
	10/28/15	2.25	19	7.85	49.1	17.01	0.23
MW-12S	1/20/15	5.21	94	7.30	75.3	18.31	0.00
	4/22/15	2.36	35	6.43	50.3	20.38	0.36
	7/15/15	3.39	24	7.27	58.5	23.44	0.20
	10/29/15	3.50	18	7.45	50.2	18.49	0.20
MW-12ID	4/22/15	4.19	36	6.57	47.1	16.79	0.02
	10/28/15	2.64	-1	7.92	48.0	17.24	1.14
MW-13S	1/20/15	4.67	45	7.66	73.8	17.51	0.00
	4/23/15	3.78	20	7.18	50.8	18.37	0.07
	7/15/15	5.45	20	7.21	54.4	23.16	0.16
	10/29/15	2.30	15	7.48	50.0	18.52	0.23
MW-15S	1/22/15	5.33	59	6.73	75.4	16.63	0.00
	4/21/15	4.49	108	5.69	61.0	16.96	0.50
	7/17/15	3.97	42	7.14	61.8	19.77	0.24
	10/27/15	2.77	110	6.85	55.2	15.61	0.40
MW-16S	1/21/15	2.47	-42	7.53	76.5	16.58	0.00
	4/21/15	1.61	38	7.25	53.7	22.42	0.14
	7/17/15	2.86	26	7.10	53.7	20.04	0.61
	10/27/15	1.48	46	7.96	57.6	17.48	0.58
MW-17SR	1/21/15	4.04	17	7.80	66.5	16.38	0.00
	4/22/15	3.98	25	6.55	46.9	17.60	0.00
	7/17/15	4.55	15	7.43	49.2	18.63	0.09
	10/28/15	2.89	-2	7.87	48.4	17.43	0.05
MW-18S	1/21/15	4.32	33	7.76	67.4	16.71	0.00
	4/23/15	4.22	11	7.28	49.2	17.33	0.07
	7/17/15	4.27	17	7.55	47.7	22.08	0.16
	10/29/15	4.57	21	7.51	48.2	17.84	0.20
MW-19S	1/21/15	4.84	14	7.84	77.8	16.92	0.00
	4/21/15	3.46	5	7.41	61.9	21.86	0.31
	7/16/15	5.03	2	7.51	62.3	21.75	0.10
	10/27/15	6.15	25	8.05	49.2	15.98	1.38

SITE	DATE	Dissolved Oxygen (mg/l)	Oxidation Reduction Potential (mV)	pH	Specific Conductivity (mS/m)	Temperature (Degrees Celcius)	Turbidity (NTU)
MW-20S	1/21/15	4.32	24	7.85	67.2	16.80	0.00
	4/21/15	3.52	46	7.71	48.9	20.52	0.00
	7/15/15	5.60	28	7.60	51.1	19.26	0.07
	10/28/15	2.06	95	7.62	45.9	15.76	0.25
MW-22S	1/21/15	3.69	51	7.70	68.0	16.60	0.04
	4/22/15	3.32	94	6.55	45.9	16.06	1.14
	7/16/15	5.97	89	7.72	48.5	17.23	0.62
	10/28/15	2.75	96	7.79	47.1	15.67	2.44
MW-23S	1/21/15	3.45	54	7.57	65.2	15.87	0.00
	4/23/15	4.44	70	6.98	47.3	16.78	0.00
	7/17/15	4.11	58	7.29	50.2	19.20	0.02
	10/28/15	2.44	48	7.59	48.8	16.99	0.28
MW-24S	1/21/15	6.30	76	7.22	76.4	16.58	0.00
	4/22/15	3.46	49	6.43	58.0	18.28	0.00
	7/16/15	5.68	48	7.69	57.0	18.93	0.02
	10/29/15	6.21	61	6.90	51.0	17.22	0.09
MW-25SR	4/21/15	3.66	21	7.76	48.7	21.41	0.28
	10/27/15	5.10	-27	8.35	45.4	15.89	0.32
MW-26SR	1/21/15	4.53	-16	7.81	68.7	16.02	0.00
	4/21/15	3.17	12	7.75	50.2	22.00	0.08
	7/16/15	7.07	35	7.46	49.8	18.17	0.18
	10/27/15	2.62	30	8.12	48.9	17.46	0.09
MW-27SR	1/21/15	4.42	41	7.78	67.4	16.81	0.00
	4/23/15	3.38	51	7.22	49.3	17.87	0.13
	7/16/15	5.20	55	7.78	49.4	19.02	0.26
	10/29/15	2.85	43	7.52	48.9	18.49	0.04
MW-29S	1/21/15	4.72	33	7.68	71.2	17.22	0.05
	4/22/15	4.50	29	6.39	50.3	17.58	0.24
	7/17/15	5.60	12	7.26	52.1	18.98	0.25
	10/28/15	2.45	9	7.86	49.8	16.45	0.40
MW-29I	4/22/15	4.29	40	6.46	48.0	17.33	0.13
	10/28/15	2.84	11	7.83	49.0	16.88	0.41
MW-31S	1/21/15	4.59	25	7.62	71.3	16.45	0.27
	4/22/15	4.52	28	6.27	49.3	17.74	0.03
	7/17/15	6.11	-1	7.05	52.5	18.69	0.36
	10/28/15	2.39	-22	7.73	50.8	17.25	1.09
MW-34S	1/22/15	4.51	41	7.25	63.5	16.12	0.00
	4/21/15	4.42	58	7.24	50.4	16.35	0.00
	7/16/15	5.66	30	7.65	52.2	19.06	0.24
	10/27/15	2.71	75	7.39	50.1	15.34	0.20
MW-37S	1/22/15	4.96	20	7.19	64.5	16.27	0.00
	4/21/15	4.72	33	6.93	50.9	16.65	2.71
	7/16/15	5.71	19	7.60	51.8	18.97	1.87
	10/27/15	3.24	52	7.42	50.5	15.72	2.40
MW-38S	1/22/15	4.46	32	7.52	58.4	17.10	0.00
	4/21/15	3.91	-11	7.68	47.3	22.44	0.00
	7/16/15	7.52	41	7.92	40.3	19.46	0.17
	10/29/15	5.09	27	7.58	42.7	18.36	0.32
MW-38I	4/21/15	3.39	-25	7.60	52.2	23.29	0.00
	10/29/15	4.96	25	7.54	51.0	18.76	0.25

SITE	DATE	Dissolved Oxygen (mg/l)	Oxidation Reduction Potential (mV)	pH	Specific Conductivity (mS/m)	Temperature (Degrees Celcius)	Turbidity (NTU)
MW-40S	1/22/15	4.52	44	7.33	65.6	16.81	0.00
	4/21/15	4.31	42	7.40	50.8	16.39	0.47
	7/16/15	5.30	48	7.75	53.1	19.16	0.25
	10/27/15	2.96	80	7.60	51.2	15.78	0.94
MW-41SR	1/22/15	4.49	11	7.50	56.8	17.19	6.95
	4/21/15	4.15	28	7.70	45.5	19.02	2.56
	7/16/15	5.41	46	7.81	47.9	19.54	2.41
	10/28/15	2.54	16	7.74	48.1	17.99	2.29
MW-42S	1/22/15	4.71	16	7.37	65.0	16.98	0.00
	4/21/15	4.58	36	7.47	53.4	17.16	0.00
	7/16/15	5.73	26	7.74	55.8	19.02	0.35
	10/27/15	2.82	72	7.37	54.1	16.20	0.00
MW-43S	1/22/15	3.93	10	7.42	64.8	17.02	0.00
	4/21/15	3.63	23	7.57	52.1	18.50	0.07
	7/16/15	4.82	24	7.75	54.7	19.42	0.24
	10/27/15	2.67	57	7.47	52.6	17.52	0.19
MW-43I	1/22/15	3.93	30	7.42	63.7	16.69	0.00
	4/21/15	3.75	45	7.57	50.8	18.21	0.10
	7/16/15	4.73	48	7.76	51.7	19.41	0.04
	10/27/15	2.53	75	7.43	50.3	17.13	0.15
MW-44S	4/21/15	3.89	34	7.49	55.8	18.23	0.04
	10/27/15	2.54	39	8.14	57.1	17.64	0.22
MW-45S	4/21/15	3.42	43	7.50	55.5	19.13	0.00
	10/28/15	2.74	17	7.18	54.5	18.09	0.69
MW-46S	1/22/15	4.16	17	7.34	67.9	14.33	0.00
	4/22/15	4.87	35	6.03	52.7	17.88	0.12
	7/17/15	4.97	6	7.29	56.5	18.89	0.10
	10/28/15	2.96	2	7.69	51.1	17.41	0.12
MW-47S	1/20/15	0.83	-166	7.33	89.2	19.05	1.02
	4/22/15	0.00	-176	6.31	62.4	21.06	2.58
	7/17/15	0.14	-206	7.22	61.0	21.52	2.31
	10/29/15	0.17	-213	7.32	56.9	19.42	3.00
MW-47I	4/23/15	4.19	41	7.26	48.7	16.87	0.01
	10/29/15	5.41	37	7.42	50.5	17.16	0.27
MW-49S	1/20/15	0.00	25	7.33	79.5	17.05	0.00
	4/23/15	0.46	31	6.86	57.3	17.96	0.06
	7/17/15	0.37	9	7.08	60.5	20.10	0.22
	10/29/15	2.00	-5	7.06	57.7	18.28	0.10
MW-49I	4/23/15	4.03	52	7.33	48.9	17.41	0.07
	10/29/15	6.20	68	7.34	47.3	17.08	0.06
MW-50S	1/20/15	0.16	-14	7.31	104.0	19.17	0.00
	4/22/15	0.00	-13	6.23	70.2	21.56	0.22
	7/17/15	0.20	-28	7.14	81.8	22.35	0.24
	10/29/15	0.04	-47	7.24	62.2	19.43	0.20
MW-51S	1/21/15	5.48	33	7.58	67.4	16.17	0.00
	4/22/15	4.06	23	6.52	47.1	17.46	0.03
	7/16/15	5.68	21	7.85	49.1	18.87	0.00
	10/28/15	2.49	-18	7.89	49.1	17.36	0.18
MW-52S	1/21/15	1.84	-146	7.55	80.5	23.23	3.58
	4/21/15	0.99	-214	6.95	67.8	26.19	3.50
	7/17/15	1.37	-146	7.24	59.4	26.49	1.69
	10/27/15	0.96	-205	7.67	99.6	22.68	1.31

SITE	DATE	Dissolved Oxygen (mg/l)	Oxidation Reduction Potential (mV)	pH	Specific Conductivity (mS/m)	Temperature (Degrees Celcius)	Turbidity (NTU)
MW-53S	1/21/15	3.58	31	7.55	84.5	22.29	0.00
	4/21/15	2.76	40	7.40	67.6	25.09	0.02
	7/17/15	3.39	12	7.45	52.2	25.37	0.59
	10/27/15	2.25	102	7.99	57.9	21.28	0.33
MW-54I	1/22/15	4.21	49	7.41	65.6	15.75	0.00
	4/21/15	3.71	54	7.54	51.9	17.22	0.00
	7/16/15	5.08	59	7.75	52.4	17.91	0.02
	10/27/15	3.12	64	8.23	51.6	16.93	0.15
MW-55S	1/21/15	4.21	9	7.75	67.8	17.04	0.77
	4/21/15	3.20	25	7.61	49.7	21.74	0.11
	7/16/15	5.69	19	7.76	50.6	22.00	0.47
	10/28/15	3.06	88	7.80	45.8	15.88	0.62
NVM-01	1/20/15	2.37	51	7.35	80.4	19.30	0.00
	4/22/15	1.30	2	6.25	55.8	19.44	1.47
	7/17/15	1.67	-15	7.23	59.8	21.29	1.14
	10/29/15	3.56	7	7.25	53.1	19.31	0.30
NVM-01I	4/22/15	3.75	15	6.51	47.1	17.58	0.66
	10/29/15	5.36	38	7.47	47.8	17.38	0.27
BRADLEY	4/23/15	3.13	157	7.10	59.3	16.11	0.06
	10/30/15	7.19	147	7.53	57.0	16.08	0.24
HAND	4/23/15	2.11	117	7.20	54.5	16.53	0.05
	10/30/15	3.23	104	7.75	55.6	16.43	0.16
LOPEZ	4/23/15	1.99	-101	6.83	52.1	16.26	0.73
RADA	4/23/15	3.21	92	7.18	60.8	18.16	0.01
	10/30/15	8.59	37	7.29	57.4	16.24	2.79
SALINAS	4/23/15	3.49	97	7.19	49.5	16.53	0.05
	10/30/15	7.10	69	7.81	47.8	16.30	0.23
WEST	4/23/15	0.41	118	7.40	31.9	12.91	0.93
	10/30/15	6.80	19	7.96	45.6	16.17	17.30
YENNEY2	4/23/15	3.42	76	7.25	50.9	15.93	0.16

ENVIRONMENTAL PARTNERS INC

PERIOD: 1/1 - 12/31/2015

TABLE 12
Volatile Organic Compounds Detected in Groundwater
(in ug/L)
2015 Annual Report
Pasco Landfill, Pasco, WA

WELL GROUP	WELL	DATE	Chloroethenes					Chloroethanes			Chloromethanes			Aromatics				
			Tetra chloro ethene	Trichloro ethene	1,1-Dichloro ethene	cis-1,2-Dichloro ethene	Vinyl chloride	1,1,2,2-Tetra chloro ethane	1,1-Dichloro ethane	1,2-Dichloro ethane	Chloroform	Methylene chloride	Bromo dichloro methane	1,2-Dichloro benzene	1,4-Dichloro benzene	Benzene	Ethyl benzene	1,2,4-Trimethyl benzene
Draft Cleanup Levels (dCULs)			**0.69**	**2.5**	**0.057**	**16**	**0.069**	**-**	**-**	**0.38**	**-**	**5**	**-**	**-**	**-**	**0.79**	**-**	**-**
MSW Landfill Wells	4R	1/21/15	0.43	0.17	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	0.029	< 2 U	< 2 U
		4/22/15	0.36	0.14	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		7/17/15	0.40	0.12	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/28/15	0.57	0.12	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	MW-16S	1/21/15	0.49	0.15	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	0.029	< 2 U	< 2 U
		4/21/15	0.33	0.12	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		7/17/15	< 0.2 U	0.12	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/27/15	0.58	0.21	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	MW-17SR	1/21/15	< 0.2 U	0.12	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	0.049	< 2 U	< 2 U
		4/22/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		7/17/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/28/15	< 0.2 U	0.054	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
Zone A	EE-2	4/23/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/29/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	MW-13S	1/20/15	< 0.2 U	0.10	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		4/23/15	< 0.2 U	0.059	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		7/15/15	< 0.2 U	0.09	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/29/15	< 0.2 U	0.077	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	MW-47S	1/20/15	< 0.2 U	0.21	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		4/22/15	< 0.2 U	0.12	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		7/17/15	< 0.2 U	0.13	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/29/15	< 0.2 U	0.16	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	MW-47I	4/23/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/29/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	MW-50S	1/20/15	0.24	0.43	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		4/22/15	0.24	0.33	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		7/17/15	< 0.2 U	0.28	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/29/15	< 0.2 U	0.26	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	MW-52S	1/21/15	**3.2**	**32**	**0.086**	< 2 U	< 0.032 U	< 0.22 U	< 2 U	0.94	< 2 U	< 5 U	< 0.71 U	4.9	< 1.8 U	**0.96**	150	120
		4/21/15	**6.9**	**75**	**0.25**	**17**	**0.091**	0.24	13	**10**	< 2 U	**30**	< 0.71 U	16	1.9	**3.7**	390	420
		7/17/15	**0.89**	**9.2**	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	**1.7**	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	0.31	35	52
		10/27/15	**8.6**	**81**	< 0.02 U	6.2	< 0.032 U	< 0.22 U	< 2 U	**4.5**	< 2 U	< 5 U	< 0.71 U	7	< 1.8 U	**1.6**	250	140
	MW-53S	1/21/15	0.28	0.45	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	3	< 2 U
		4/21/15	< 0.2 U	0.62	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	2.7	< 2 U
		7/17/15	< 0.2 U	0.36	< 0.02 UJ	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	2.3	< 2 U
		10/27/15	< 0.2 U	0.12	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	NVM-01	1/20/15	< 0.2 U	**1.1**	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	0.047	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		4/22/15	< 0.2 U	0.40	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		7/17/15	< 0.2 U	0.17	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/29/15	< 0.2 U	0.40	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	NVM-01I	4/22/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/29/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
Zone B	MW-26SR	1/21/15	< 0.2 U	0.056	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		4/21/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		7/16/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/27/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U

EPA Methods 8260 8260SIM.

U = Not detected > reporting limit. J = Concentration estimated. R = Refused in favor of SVOC analysis.

Bold values exceed a dCUL.

TABLE 12
Volatile Organic Compounds Detected in Groundwater
(in ug/L)
2015 Annual Report
Pasco Landfill, Pasco, WA

WELL GROUP	WELL	DATE	Chloroethenes					Chloroethanes			Chloromethanes			Aromatics				
			Tetra chloro ethene	Trichloro ethene	1,1-Dichloro ethene	cis-1,2-Dichloro ethene	Vinyl chloride	1,1,2,2-Tetra chloro ethane	1,1-Dichloro ethane	1,2-Dichloro ethane	Chloroform	Methylene chloride	Bromo dichloro methane	1,2-Dichloro benzene	1,4-Dichloro benzene	Benzene	Ethyl benzene	1,2,4-Trimethyl benzene
Draft Cleanup Levels (dCULs)			**0.69**	**2.5**	**0.057**	**16**	**0.069**	**-**	**-**	**0.38**	**-**	**5**	**-**	**-**	**-**	**0.79**	**-**	**-**
Zones C and D	MW-55S	1/21/15	< 0.2 U	0.11	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	0.033	< 2 U	< 2 U
		4/21/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		7/16/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/28/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
Zone E	MW-27SR	1/21/15	< 0.2 U	0.064	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		4/23/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		7/16/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/29/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
Sentinel Wells	MW-23S	1/21/15	< 0.2 U	0.056	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		4/23/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		7/17/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/28/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	MW-15S	1/22/15	0.49	0.47	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		4/21/15	0.34	0.37	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		7/17/15	0.27	0.17	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/27/15	0.39	0.36	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	MW-18S	1/21/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	0.046	< 2 U	< 2 U
		4/23/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		7/17/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/29/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	MW-19S	1/21/15	0.39	0.19	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	3.4	< 5 U	< 0.71 U	< 2 U	< 1.8 U	0.042	< 2 U	< 2 U
		4/21/15	0.28	0.11	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	3.1	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		7/16/15	0.32	0.11	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	2.3	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/27/15	0.31	0.13	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	2R	1/20/15	< 0.2 U	0.059	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	0.030	< 2 U	< 2 U
		4/22/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		7/17/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/29/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	2I	4/23/15	< 0.2 U	0.13	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/29/15	< 0.2 U	0.13	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	MW-12S	1/20/15	< 0.2 U	0.31	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		4/22/15	< 0.2 U	0.18	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		7/15/15	< 0.2 U	0.31	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/29/15	< 0.2 U	0.12	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	MW-12ID	4/22/15	< 0.2 U	0.056	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/28/15	< 0.2 U	0.059	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	MW-49S	1/20/15	< 0.2 U	0.28	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		4/23/15	< 0.2 U	0.29	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	0.065	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		7/17/15	< 0.2 U	0.46	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	0.095	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/29/15	< 0.2 U	0.39	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	0.075	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	MW-49I	4/23/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/29/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
Property Boundary Wells	MW-22S	1/21/15	< 0.2 U	0.085	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	0.032	< 2 U	< 2 U
		4/22/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	0.130	< 2 U	< 2 U
		7/16/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/28/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U

EPA Methods 8260 8260SIM.

U = Not detected > reporting limit. J = Concentration estimated. R = Refused in favor of SVOC analysis.

Bold values exceed a dCUL.

TABLE 12
Volatile Organic Compounds Detected in Groundwater
(in ug/L)
2015 Annual Report
Pasco Landfill, Pasco, WA

WELL GROUP	WELL	DATE	Chloroethenes					Chloroethanes			Chloromethanes			Aromatics				
			Tetra chloro ethene	Trichloro ethene	1,1-Dichloro ethene	cis-1,2-Dichloro ethene	Vinyl chloride	1,1,2,2-Tetra chloro ethane	1,1-Dichloro ethane	1,2-Dichloro ethane	Chloroform	Methylene chloride	Bromo dichloro methane	1,2-Dichloro benzene	1,4-Dichloro benzene	Benzene	Ethyl benzene	1,2,4-Trimethyl benzene
Draft Cleanup Levels (dCULs)			**0.69**	**2.5**	**0.057**	**16**	**0.069**	**-**	**-**	**0.38**	**-**	**5**	**-**	**-**	**-**	**0.79**	**-**	**-**
Property Boundary Wells	MW-24S	1/21/15	< 0.2 U	0.18	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		4/22/15	< 0.2 U	0.14	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		7/16/15	< 0.2 U	0.20	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/29/15	0.24	0.18	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	MW-10S	1/21/15	< 0.2 U	0.069	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		4/22/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		7/17/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/28/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	MW-11S	1/21/15	< 0.2 U	0.16	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		4/22/15	< 0.2 U	0.13	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		7/17/15	< 0.2 U	0.076	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/28/15	< 0.2 U	0.095	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	MW-11I	4/22/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	0.036	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/28/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	MW-51S	1/21/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		4/22/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		7/16/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/28/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
Downgradient Wells	MW-29S	1/21/15	< 0.2 U	0.26	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	0.029	< 2 U	< 2 U
		4/22/15	< 0.2 U	0.16	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		7/17/15	< 0.2 U	0.12	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/28/15	< 0.2 U	0.15	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	MW-29I	4/22/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/28/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	MW-31S	1/21/15	< 0.2 U	0.17	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		4/22/15	< 0.2 U	0.089	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		7/17/15	< 0.2 U	0.092	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/28/15	0.20	0.12	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	MW-34S	1/22/15	< 0.2 U	0.19	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		4/21/15	< 0.2 U	0.068	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		7/16/15	< 0.2 U	0.099	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/27/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	MW-37S	1/22/15	< 0.2 U	0.15	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		4/21/15	< 0.2 U	0.068	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		7/16/15	< 0.2 U	0.061	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/27/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	MW-38S	1/22/15	< 0.2 U	0.56	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		4/21/15	< 0.2 U	0.45	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	0.026	2.4	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		7/16/15	< 0.2 U	0.52	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	4.1	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/29/15	< 0.2 U	0.66	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	0.065	4.2	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	MW-38I	4/21/15	< 0.2 U	0.099	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/29/15	< 0.2 U	0.11	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	MW-40S	1/22/15	0.22	0.17	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		4/21/15	< 0.2 U	0.09	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		7/16/15	< 0.2 U	0.077	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/27/15	< 0.2 U	0.16	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U

EPA Methods 8260 8260SIM.

U = Not detected > reporting limit. J = Concentration estimated. R = Refused in favor of SVOC analysis.

Bold values exceed a dCUL.

TABLE 12
Volatile Organic Compounds Detected in Groundwater
(in ug/L)
2015 Annual Report
Pasco Landfill, Pasco, WA

WELL GROUP	WELL	DATE	Chloroethenes					Chloroethanes			Chloromethanes			Aromatics				
			Tetra chloro ethene	Trichloro ethene	1,1-Dichloro ethene	cis-1,2-Dichloro ethene	Vinyl chloride	1,1,2,2-Tetra chloro ethane	1,1-Dichloro ethane	1,2-Dichloro ethane	Chloroform	Methylene chloride	Bromo dichloro methane	1,2-Dichloro benzene	1,4-Dichloro benzene	Benzene	Ethyl benzene	1,2,4-Trimethyl benzene
Draft Cleanup Levels (dCULs)			**0.69**	**2.5**	**0.057**	**16**	**0.069**	**-**	**-**	**0.38**	**-**	**5**	**-**	**-**	**-**	**0.79**	**-**	**-**
Downgradient Wells	MW-41SR	1/22/15	< 0.2 U	0.23	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	0.057	< 2 U	< 2 U
		4/21/15	< 0.2 U	0.22	0.026	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	0.030	< 2 U	< 2 U
		7/16/15	< 0.2 U	0.17	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/28/15	< 0.2 U	0.18	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	MW-42S	1/22/15	< 0.2 U	0.18	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	0.052	< 2 U	< 2 U
		4/21/15	< 0.2 U	0.085	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		7/16/15	< 0.2 U	0.078	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/27/15	< 0.2 U	0.083	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	MW-43S	1/22/15	< 0.2 U	0.31	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		4/21/15	< 0.2 U	0.18	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		7/16/15	< 0.2 U	0.18	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/27/15	< 0.2 U	0.20	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	MW-43I	1/22/15	< 0.2 U	0.19	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	0.030	< 2 U	< 2 U
		4/21/15	< 0.2 U	0.12	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		7/16/15	< 0.2 U	0.14	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/27/15	< 0.2 U	0.18	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	MW-44S	4/21/15	< 0.2 U	0.065	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/27/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	MW-45S	4/21/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/28/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	MW-46S	1/22/15	< 0.2 U	0.087	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		4/22/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		7/17/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/28/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	MW-54I	1/22/15	< 0.2 U	0.35	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	0.044	< 2 U	< 2 U
		4/21/15	< 0.2 U	0.17	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		7/16/15	< 0.2 U	0.18	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/27/15	< 0.2 U	0.24	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
Upgradient Well	MW-25SR	4/21/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/27/15	< 0.2 U	0.14	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
Residential Wells	BRADLEY	4/23/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/30/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	HAND	4/23/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/30/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	LOPEZ	4/23/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	RADA	4/23/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/30/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	SALINAS	4/23/15	< 0.2 U	0.12	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/30/15	0.20	0.12	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	WEST	4/23/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	13	< 5 U	2.4	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
		10/30/15	< 0.2 U	0.15	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U
	YENNEY2	4/23/15	< 0.2 U	< 0.053 U	< 0.02 U	< 2 U	< 0.032 U	< 0.22 U	< 2 U	< 0.02 U	< 2 U	< 5 U	< 0.71 U	< 2 U	< 1.8 U	< 0.028 U	< 2 U	< 2 U

EPA Methods 8260 8260SIM.

U = Not detected > reporting limit. J = Concentration estimated. R = Refused in favor of SVOC analysis.

Bold values exceed a dCUL.

TABLE 12
Volatile Organic Compounds Detected in Groundwater
(in ug/L)
2015 Annual Report
Pasco Landfill, Pasco, WA

WELL GROUP	WELL	DATE	Aromatics									Ketones				Alcohols	
			1,3,5-Trimethyl benzene	n-Propyl benzene	Isopropyl benzene (Cumene)	n-Butyl benzene	Naph thalene	Toluene	p-Isopropyl toluene	m,p-Xylene	o- Xylene	Methyl isobutyl ketone	2-Butanone	Acetone	2-Hexanone	Ethanol	Tertiary butyl alcohol
Draft Cleanup Levels (dCULs)			-	-	-	-	-	615	-	-	-	-	-	-	-	-	-
MSW Landfill Wells	4R	1/21/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 UJ	< 710 U	< 13 U
		4/22/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/17/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/28/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	MW-16S	1/21/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 UJ	< 710 U	< 13 U
		4/21/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/17/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/27/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	MW-17SR	1/21/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 UJ	< 710 U	< 13 U
		4/22/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/17/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/28/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
Zone A	EE-2	4/23/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/29/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	MW-13S	1/20/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		4/23/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/15/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/29/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	MW-47S	1/20/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		4/22/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/17/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/29/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	MW-47I	4/23/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/29/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	MW-50S	1/20/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		4/22/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/17/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/29/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	MW-52S	1/21/15	47	20	6.6	5.5	28	520	< 2 U	560	230	360	< 1000 U		21	< 710 U	< 13 U
		4/21/15	180	65	29	< 2 U	R	**1500**	8.2	1,400	630	3,800	< 10000 U	< 25000 U	180	17,000	540
		7/17/15	24	7.2	2.8	< 2 U	12	120	< 2 U	130	58	< 1000 U	< 1000 U	< 2500 U	11	< 710 U	26
		10/27/15	61	27	12	< 2 U	R	1500	2.8	930	390	1500	26	36	< 100 U	< 710 U	< 13 U
	MW-53S	1/21/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	12	< 2 U	10	3.1	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		4/21/15	< 2 U	< 2 U	< 2 U	< 2 U	R	13	< 2 U	9.2	3.6	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/17/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	6.3	< 2 U	7.9	3.2	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/27/15	< 2 U	< 2 U	< 2 U	< 2 U	R	< 2 U	< 2 U	< 4 U	< 2 U	25	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	NVM-01	1/20/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		4/22/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/17/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/29/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	NVM-01I	4/22/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/29/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
Zone B	MW-26SR	1/21/15	< 2 U	< 2 U	< 2 U	< 2 U	R	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 UJ	< 710 U	< 13 U
		4/21/15	< 2 U	< 2 U	< 2 U	< 2 U	R	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/16/15	< 2 U	< 2 U	< 2 U	< 2 U	R	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/27/15	< 2 U	< 2 U	< 2 U	< 2 U	R	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U

EPA Methods 8260 8260SIM.

U = Not detected > reporting limit. J = Concentration estimated. R = Refused in favor of SVOC analysis.

Bold values exceed a dCUL.

ENVIRONMENTAL PARTNERS INC

PERIOD: 1/1 - 12/31/2015

TABLE 12
Volatile Organic Compounds Detected in Groundwater
(in ug/L)
2015 Annual Report
Pasco Landfill, Pasco, WA

WELL GROUP	WELL	DATE	Aromatics									Ketones				Alcohols	
			1,3,5-Trimethyl benzene	n-Propyl benzene	Isopropyl benzene (Cumene)	n-Butyl benzene	Naph thalene	Toluene	p-Isopropyl toluene	m,p-Xylene	o- Xylene	Methyl isobutyl ketone	2-Butanone	Acetone	2-Hexanone	Ethanol	Tertiary butyl alcohol
Draft Cleanup Levels (dCULs)			-	-	-	-	-	615	-	-	-	-	-	-	-	-	-
Zones C and D	MW-55S	1/21/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 UJ	< 710 U	< 13 U
		4/21/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/16/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/28/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
Zone E	MW-27SR	1/21/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		4/23/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/16/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/29/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
Sentinel Wells	MW-23S	1/21/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 UJ	< 710 U	< 13 U
		4/23/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/17/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/28/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	MW-15S	1/22/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		4/21/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/17/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/27/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	MW-18S	1/21/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		4/23/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/17/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/29/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	MW-19S	1/21/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 UJ	< 710 U	< 13 U
		4/21/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/16/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/27/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	2R	1/20/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		4/22/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/17/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/29/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	2I	4/23/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/29/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	MW-12S	1/20/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		4/22/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/15/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/29/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	MW-12ID	4/22/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/28/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	MW-49S	1/20/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		4/23/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/17/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/29/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	MW-49I	4/23/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/29/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
Property Boundary Wells	MW-22S	1/21/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 UJ	< 710 U	< 13 U
		4/22/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/16/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/28/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U

EPA Methods 8260 8260SIM.

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Bold values exceed a dCUL.

TABLE 12
Volatile Organic Compounds Detected in Groundwater
(in ug/L)
2015 Annual Report
Pasco Landfill, Pasco, WA

WELL GROUP	WELL	DATE	Aromatics									Ketones				Alcohols	
			1,3,5-Trimethyl benzene	n-Propyl benzene	Isopropyl benzene (Cumene)	n-Butyl benzene	Naph thalene	Toluene	p-Isopropyl toluene	m,p-Xylene	o- Xylene	Methyl isobutyl ketone	2-Butanone	Acetone	2-Hexanone	Ethanol	Tertiary butyl alcohol
Draft Cleanup Levels (dCULs)			-	-	-	-	-	615	-	-	-	-	-	-	-	-	-
Property Boundary Wells	MW-24S	1/21/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		4/22/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/16/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/29/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	MW-10S	1/21/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		4/22/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/17/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/28/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	MW-11S	1/21/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		4/22/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/17/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/28/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	MW-11I	4/22/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/28/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	MW-51S	1/21/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		4/22/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/16/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/28/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
Downgradient Wells	MW-29S	1/21/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 UJ	< 710 U	< 13 U
		4/22/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/17/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/28/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	MW-29I	4/22/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/28/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	MW-31S	1/21/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 UJ	< 710 U	< 13 U
		4/22/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/17/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/28/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	MW-34S	1/22/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		4/21/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/16/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/27/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	MW-37S	1/22/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		4/21/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/16/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/27/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	MW-38S	1/22/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		4/21/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/16/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/29/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	MW-38I	4/21/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/29/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	MW-40S	1/22/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		4/21/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/16/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/27/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U

EPA Methods 8260 8260SIM.

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(in ug/L)
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Pasco Landfill, Pasco, WA

WELL GROUP	WELL	DATE	Aromatics									Ketones				Alcohols	
			1,3,5-Trimethyl benzene	n-Propyl benzene	Isopropyl benzene (Cumene)	n-Butyl benzene	Naph thalene	Toluene	p-Isopropyl toluene	m,p-Xylene	o- Xylene	Methyl isobutyl ketone	2-Butanone	Acetone	2-Hexanone	Ethanol	Tertiary butyl alcohol
Draft Cleanup Levels (dCULs)			-	-	-	-	-	**615**	-	-	-	-	-	-	-	-	-
Downgradient Wells	MW-41SR	1/22/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		4/21/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/16/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/28/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	MW-42S	1/22/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		4/21/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/16/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/27/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	MW-43S	1/22/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		4/21/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/16/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/27/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	MW-43I	1/22/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		4/21/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/16/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/27/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	MW-44S	4/21/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/27/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	MW-45S	4/21/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/28/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	MW-46S	1/22/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		4/22/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/17/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/28/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	MW-54I	1/22/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		4/21/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		7/16/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/27/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
Upgradient Well	MW-25SR	4/21/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/27/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
Residential Wells	BRADLEY	4/23/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/30/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	HAND	4/23/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/30/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	LOPEZ	4/23/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	RADA	4/23/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/30/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	SALINAS	4/23/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/30/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	WEST	4/23/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
		10/30/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U
	YENNEY2	4/23/15	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 10 U	< 10 U	< 25 U	< 10 U	< 710 U	< 13 U

EPA Methods 8260 8260SIM.

U = Not detected > reporting limit. J = Concentration estimated. R = Refused in favor of SVOC analysis.

Bold values exceed a dCUL.

ENVIRONMENTAL PARTNERS INC

TABLE 13
Semivolatile Organic Compounds
Detected in Groundwater (in ug/L)
2015 Annual Report
Pasco Landfill, Pasco, WA

PERIOD: 1/1 - 12/31/2015

Detected Compound	Q1	Q2			Q3	Q4		
	MW-26 SR	MW-26 SR	MW-52S	MW-53S	MW-26 SR	MW-26 SR	MW-52S	MW-53S
1-Methylnaphthalene	< 0.02 U	< 0.02 U	**4.6 J**	**0.047**	< 0.02 U	R	R	R
2,4-Dimethylphenol	< 2 U	< 2 U	**7.8**	< 2 U	< 2 U	< 2 U	**2.2**	< 2 U
2-Chlorophenol	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	**6.2 J**	< 2 U
2-Methylnaphthalene	< 0.02 U	< 0.02 U	**8.8 J**	**0.096**	< 0.02 U	< 0.02 U	**1.5**	**0.21**
Acenaphthene	**0.064 J**	**0.022**	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	**0.067 J**	< 0.02 U
Fluorene	< 0.02 U	< 0.02 U	**0.063 J**	< 0.02 U	< 0.02 U	< 0.02 U	**0.026**	< 0.02 U
Naphthalene	< 0.02 U	< 0.02 U	**76 J**	**0.48**	< 0.02 U	< 0.02 U	**22**	**0.99**
o-Cresol	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	**2.3**	< 2 U
Pyrene	**0.093 J**	**0.029**	**0.022**	< 0.02 U	< 0.02 U	< 0.02 U	**0.035 J**	< 0.02 U

EPA Methods 8270 and 8270SIM
Detections in **bold text**

U = Compound not detected above reporting limit.
J = Concentration estimated.
R = Data refused in favor of 8260 analysis.

ENVIRONMENTAL PARTNERS INC

TABLE 14
Chlorinated Herbicides in Groundwater
(in ug/L)
2015 Annual Report
Pasco Landfill, Pasco, WA

PERIOD: 1/1 - 12/31/2015

Compound	MW-26SR	MW-26SR	MW-26SR	MW-26SR	MW-52S	MW-52S	MW-53S	MW-53S
	Q1	Q2	Q3	Q4	Q2	Q4	Q2	Q4
2,4-D	< 0.04 U	< 0.04 U	< 0.04 UJ	< 0.04 U	< 0.04 U	**0.96**	< 0.04 U	< 0.04 U
4-Nitrophenol	< 0.08 U	< 0.08 U	< 0.04 UJ	< 0.08 U	**0.094 J**	< 0.08 U	< 0.08 U	< 0.08 U
2,4-DB	< 0.04 U	< 0.04 U	< 0.04 UJ	< 0.04 U	< 0.04 U	< 0.04 U	< 0.04 U	< 0.04 U
2,4,5-T	< 0.04 U	< 0.04 U	< 0.04 UJ	< 0.04 U	< 0.04 U	< 0.04 U	< 0.04 U	< 0.04 U
Dicamba	< 0.04 U	< 0.04 U	< 0.04 UJ	< 0.04 U	< 0.04 U	< 0.04 U	< 0.04 U	< 0.04 U
Dichlorprop	< 0.04 U	< 0.04 U	< 0.04 UJ	< 0.04 U	< 0.04 U	< 0.04 U	< 0.04 U	< 0.04 U
Dinoseb	< 0.04 U	< 0.04 U	< 0.04 UJ	< 0.04 U	< 0.04 U	< 0.04 U	< 0.04 U	< 0.04 U
MCPA	< 0.04 U	< 0.04 U	< 0.04 UJ	< 0.04 U	< 0.04 U	< 0.04 U	< 0.04 U	< 0.04 U
Mecoprop	< 0.04 U	< 0.04 U	< 0.04 UJ	< 0.04 U	< 0.04 U	< 0.04 U	< 0.04 U	< 0.04 U
Pentachlorophenol	< 0.08 U	< 0.08 U	< 0.08 UJ	< 0.08 U	< 0.08 U	< 0.08 U	< 0.08 U	< 0.08 U
Silvex	< 0.04 U	< 0.04 U	< 0.04 UJ	< 0.04 U	< 0.04 U	< 0.04 U	< 0.04 U	< 0.04 U

EPA Method 8151A
Detections in **bold text**

U = Compound not detected above reporting limit.
J = Concentration estimated.

ENVIRONMENTAL PARTNERS INC

TABLE 15
Chromium in Groundwater
(in ug/L)
2015 Annual Report
Pasco Landfill, Pasco, WA

PERIOD: 1/1 - 12/31/2015

Well	Quarter	Total Chromium	Chromium, Hexavalent
MW-12S	Q1	< 2 UJ	< 10 U
	Q2	< 2 U	< 10 U
	Q3	8.3	< 10 U
	Q4	2.0	< 10 U
MW-13S	Q1	4.1 J	< 10 U
	Q2	61	< 10 U
	Q3	3.8 J	< 10 U
	Q4	2.6	< 10 U
MW-19S	Q1	< 2 UJ	< 10 UJ
	Q2	7.8	< 10 U
	Q3	4.4 J	< 10 U
	Q4	14	< 10 U
MW-20S	Q1	< 2 UJ	< 10 UJ
	Q3	< 0.59 UJ	< 10 U
MW-22S	Q1	< 2 UJ	< 10 UJ
	Q2	18 J	< 10 U
	Q3	8.4 J	< 10 U
	Q4	11 J	< 10 U
MW-27SR	Q1	< 2 UJ	< 10 UJ
	Q2	< 2 U	< 10 U
	Q3	< 0.59 UJ	< 10 U
	Q4	< 2 U	< 10 U
MW-55S	Q1	9.6	< 10 UJ
	Q2	3.1	< 10 U
	Q3	4.5 J	< 10 U
	Q4	< 2 U	< 10 U

EPA Methods 200.8 and 7196
Detections in bold text

U = Compound not detected above reporting limit.
J = Compound detected. Concentration estimated.

ENVIRONMENTAL PARTNERS INC

TABLE 16
Natural Attenuation Parameters in Groundwater
(in mg/L)
2015 Annual Report
Pasco Landfill, Pasco, WA

PERIOD: 1/1 - 12/31/2015

Well	Quarter	Nitrate	Nitrite	Ammonia (as N)	Sulfate	Iron, Ferrous, Fe+2	Manga-nese	Chemical Oxygen Demand	Total Dissolved Solids	Ethene	Ethane	Methane	Total Alkalinity	Bicar-bonate	Carbonate	Hydroxide	Chloride	Total Organic Carbon
2R	Q2	9.5	< 0.042 U	< 0.05 U	60	< 0.2 UJ	< 0.0036 UJ	< 5 U	350	< 0.01 U	< 0.01 U	< 0.01 U	200	200	< 15 U	< 15 U	21	1.2
2R	Q4	10	0.067	< 0.05 U	73	< 0.2 UJ	0.0036 J	< 5 U	390	< 0.01 U	< 0.01 U	< 0.01 U	200	200	< 15 U	< 15 U	25	1.3
MW-12S	Q2	7.6	< 0.042 U	< 0.05 U	62	< 0.2 UJ	< 0.0036 UJ	< 5 U	360 J	< 0.01 U	< 0.01 U	< 0.01 U	210	210	< 15 U	< 15 U	22	1
MW-12S	Q4	7.7	< 0.042 U	< 0.05 U	66 J	< 0.2 UJ	< 0.0036 U	< 5 U	390	< 0.01 U	< 0.01 U	0.02	210	210	< 15 U	< 15 U	24	1.1
MW-20S	Q2	9.8	<0.420 U	< 0.05 U	58	< 0.2 UJ	< .001 U	< 5 U	350	< 0.01 U	< 0.01 U	< 0.01 U	210	210	< 15 U	< 15 U	21	1.3
MW-20S	Q4	11	0.046	< 0.05 U	65	< 0.2 UJ	< .001 U	< 5 U	370	< 0.01 U	< 0.01 U	< 0.01 U	200	200	< 15 U	< 15 U	21	1.1
MW-25SR	Q2	110	< 0.420 U	< 0.05 U	64	< 0.2 UJ	< .001 U	< 5 U	370	< 0.01 U	< 0.01 U	< 0.01 U	200	200	< 15 U	< 15 U	23	1.2
MW-25SR	Q4	10	< 0.042 U	< 0.05 U	62	< 0.2 UJ	< .001 U	< 5 U	370	NA	NA	NA	190	190	< 15 U	< 15 U	21	1.1
MW-47S	Q2	1.9	0.064	0.065	110	1.6 J	0.61	< 5 U	390	< 0.01 U	< 0.01 U	< 0.01 U	220	220	< 15 U	< 15 U	46	1.3
MW-47S	Q4	0.8	0.13	0.12	110	1.2 J	0.73	< 5 U	420	< 0.01 U	< 0.01 U	0.02	210	210	< 15 U	< 15 U	33	1.3
MW-49S	Q2	4.8	< 0.042 U	< 0.05 U	83	< 0.2 UJ	0.32	< 5 U	480	< 0.01 U	< 0.01 U	< 0.01 U	240	240	< 15 U	< 15 U	29	1.4
MW-49S	Q4	4.5	0.067	< 0.05 U	93	< 0.2 UJ	0.66	< 5 U	390	< 0.01 U	< 0.01 U	0.02	230	230	< 15 U	< 15 U	45	1.4
MW-50S	Q2	9	10	< 0.05 U	74	< 0.2 UJ	2.3	< 5 U	480	< 0.01 U	< 0.01 U	< 0.01 U	280	280	< 15 U	< 15 U	49	1.5
MW-50S	Q4	8.1	0.71	< 0.05 U	100	< 0.2 UJ	1.5	< 5 U	470	< 0.01 U	< 0.01 U	< 0.01 U	230	230	< 15 U	< 15 U	32	1.2

EPA Methods 300.0, 350.1, 6020, RSK-175, SM 2320B, SM 2540C, SM 5220D, SM 5310B, and Hach 8146.

ENVIRONMENTAL PARTNERS INC

TABLE 17
Landfill Parameters in Groundwater
(in mg/L)
2015 Annual Report
Pasco Landfill, Pasco, WA

PERIOD: 1/1 - 12/31/2015

Well	Quarter	Nitrate	Ammonia (as N)	Sulfate	Manganese	Total Dissolved Solids	Total Alkalinity	Bicarb-onate	Carbonate	Hydroxide	Chloride	Total Organic Carbon	Calcium	Iron	Mag-nesium	Potassium	Sodium
4R	Q2	8.4	< 0.05 U	62	< .001 UJ	380	260	260	< 15 U	< 15 U	24	1.6	81	< 0.020 U	25	9.7	36
4R	Q4	1.5	< 0.05 U	84	0.022 J	400	250	250	< 15 U	< 15 U	22	1.2	81	< 0.020 U	23	7.3	36
MW-16S	Q2	7.6	< 0.05 U	63	0.018	400	250	250	< 15 U	< 15 U	19	1.3	74	0.091	25	7.1	33
MW-16S	Q4	8.2	< 0.05 U	65	0.880 J	440	290	290	< 15 U	< 15 U	22	1.4	86	4.6 J	32	8.5	40
MW-17SR	Q2	9.2	< 0.05 U	64	0.0091	360	200	200	< 15 U	< 15 U	21	1.2 J	60	< 0.020 U	23	6.7	32
MW-17SR	Q4	10	< 0.05 U	59	0.026 J	400	200	200	< 15 U	< 15 U	22	1.1	63	< 0.020 U	26	7.4	36
MW-20S	Q2	9.8	< 0.05 U	58	< .001 UJ	350	210	210	< 15 U	< 15 U	21	1.3	58	< 0.020 U	23	7	32
MW-20S	Q4	11	< 0.05 U	65	< .001 UJ	370	200	200	< 15 U	< 15 U	21	1.1	61	< 0.020 U	25	7.4	36
MW-22S	Q2	11	< 0.05 U	58	0.0021	370	200	200	< 15 U	< 15 U	22	1.3	61	0.16	23	7.5	35
MW-22S	Q4	11	< 0.05 U	63	0.0027 J	350	200	200	< 15 U	< 15 U	23	1.2	64	0.150 J	25	8	36
MW-25SR	Q2	110	< 0.05 U	64	< .001 UJ	370	200	200	< 15 U	< 15 U	23	1.2	59	0.033	22	8.3	34
MW-25SR	Q4	10	< 0.05 U	62	< .001 UJ	370	190	190	< 15 U	< 15 U	21	1.1	59	< 0.020 U	25	8	37

EPA Methods 300.0, 350.1, 6010 SM 2320B, SM2540C, and, SM 5310B.

ENVIRONMENTAL PARTNERS INC

TABLE 18
SVE System Operational Parameters
2015 Annual Report
Pasco Landfill, Pasco, WA

PERIOD: 1/1 - 12/32/ 2015

Well	Date	Well Head Vacuum (in. H_2O)	Skid Vacuum (in. H_2O)	Skid Airflow (cfm)	Well Head Airflow (cfm)	Dilution Airflow (cfm)	Well Head Temperature (F)	Well Head CO2 (%)	Well Head O2 (%)	Well Head PID (ppm)	Skid LEL (%)	Well Head LEL (%)
VEW-06S	1/5/15	-0.4	--	--	0	0	114	5.9	12.6	322	--	7
	1/12/15	-0.3	--	--	0	0	103	6.2	12.1	360	--	6
	1/20/15	-0.3	--	--	0	0	103	5.1	13.3	263	--	3
	1/27/15	-0.4	--	--	0	0	102	5.5	13.7	323	--	3
	2/2/15	-0.6	--	--	0	0	102	6.3	12.6	414	--	6
	2/10/15	-0.6	--	--	0	0	101	4.9	13.3	293	--	3
	2/17/15	-0.3	--	--	0	0	102	4.9	13.2	243	--	4
	2/23/15	-0.2	--	--	0	0	101	4.5	14.1	346	--	7
	3/2/15	-0.3	--	--	0	0	100	5.5	12.5	355	--	5
	3/9/15	-0.2	--	--	0	0	100	4.8	12.5	236	--	1
	3/24/15	-0.4	--	--	0	0	101	4.2	13.9	228	--	5
	3/30/15	-0.1	--	--	0	0	102	4.3	12.6	177	--	1
	4/6/15	-0.3	--	--	0	0	97	3.7	14.3	96	--	1
	4/13/15	-0.4	--	--	0	0	97	3.7	14.8	217	--	3
	4/20/15	-0.1	--	--	0	0	100	3.8	12.7	161	--	3
	4/28/15	-0.3	--	--	0	0	98	4.5	13.0	196	--	4
	5/4/15	-0.4	--	--	0	0	100	2.7	15.1	123	--	0
	5/12/15	-0.4	--	--	0	0	98	5.4	12.1	118	--	5
	5/18/15	-0.5	--	--	0	0	98	4.9	12.8	254	--	5
	5/26/15	-0.3	--	--	0	0	100	4.0	13.3	145	--	1
	6/1/15	-0.5	--	--	0	0	100	4.9	11.5	131	--	3
	6/8/15	-0.4	--	--	0	0	102	4.2	12.4	69	--	2
	6/15/15	-0.4	--	--	0	0	100	4.4	13.5	166	--	4
	6/22/15	-0.5	--	--	0	0	100	4.5	13.7	256	--	4
	6/29/15	-0.5	--	--	0	0	101	4.2	13.3	103	--	1
	7/6/15	-0.5	--	--	0	0	101	3.9	13.4	201	--	2
	7/14/15	-0.4	--	--	0	0	102	3.7	14.6	201	--	3
	7/20/15	-0.3	--	--	0	0	102	3.8	14.2	238	--	3
	7/27/15	-0.4	--	--	0	0	102	3.5	14.3	67	--	2
	8/3/15	-0.3	--	--	0	0	102	0.7	17.6	156	--	3
	8/10/15	-0.4	--	--	0	0	102	4.7	13.4	249	--	4
	8/16/15	-0.3	--	--	0	0	102	4.2	13.4	199	--	3
	8/24/15	-0.3	--	--	0	0	102	4.5	12.9	133	--	0
	8/31/15	-0.3	--	--	0	0	102	4.3	14.1	165	--	3
	9/8/15	-0.4	--	--	0	0	102	4.7	13.1	321	--	2
	9/14/15	-0.6	--	--	0	0	102	4.9	12.7	210	--	2
	9/21/15	-0.3	--	--	0	0	102	2.9	14.8	86	--	0
	9/30/15	-59.0	--	91	91	0	101	3.6	13.4	476	--	0
	10/5/15	-59.2	--	85	85	0	101	4.8	12.9	499	--	3
	10/12/15	-56.2	--	79	79	0	102	5.1	2.5	480	--	4
	10/19/15	-57.3	--	83	83	0	102	5.2	12.7	962	--	4
	10/26/15	-57.0	--	--	69	0	102	2.3	16.7	841	--	1
	11/2/15	-59.0	--	--	85	0	103	3.1	15.8	737	--	4
	11/9/15	-60.0	--	--	82	0	104	3.2	15.4	712	--	4
	11/16/15	-60.0	--	--	93	0	105	3.9	14.7	730	--	4
	11/23/15	-62.0	--	--	95	0	105	3.9	14.7	465	--	5
	11/30/15	-60.0	--	--	98	0	106	4.8	13.3	547	--	4
	12/9/15	-61.0	--	--	103	0	106	1.4	17.1	776	--	1
	12/14/15	-64.0	--	--	86	0	106	4.2	13.9	714	--	6
	12/21/15	-61.0	--	--	91	0	106	5.2	12.7	605	--	6
	12/29/15	-63.0	--	--	80	0	103	5.2	12.8	810	--	16
VEW-06I	1/5/15	-0.4	--	--	0	0	132	16.7	2.2	2,574	--	13
	1/12/15	-0.3	--	--	0	0	130	16.8	1.3	1,836	--	17
	1/20/15	-0.4	--	--	0	0	130	15.4	1.9	1,905	--	11
	1/27/15	-0.5	--	--	0	0	130	17.1	0.7	1,863	--	11
	2/2/15	-0.1	--	--	0	0	129	17.2	0.5	1,879	--	12
	2/10/15	-0.7	--	--	0	0	128	13.5	3.1	1,973	--	14
	2/17/15	-0.3	--	--	0	0	130	14.2	1.8	1,798	--	16
	2/23/15	-0.2	--	--	0	0	128	12.3	4.0	1,735	--	14
	3/2/15	-0.3	--	--	0	0	127	14.7	2.0	1,963	--	15
	3/9/15	-0.2	--	--	0	0	128	13.0	2.6	1,752	--	15
	3/24/15	-0.5	--	--	0	0	130	14.8	1.8	1,643	--	13
	3/30/15	0.0	--	--	0	0	131	12.4	2.9	1,505	--	11
	4/6/15	-0.5	--	--	0	0	129	10.2	6.7	1,836	--	14
	4/13/15	-0.4	--	--	0	0	129	8.3	10.2	1,769	--	8
	4/20/15	-0.1	--	--	0	0	129	11.1	4.1	1,231	--	13
	4/28/15	-0.2	--	--	0	0	130	13.5	1.6	1,829	--	16
	5/4/15	-0.2	--	--	0	0	130	7.6	8.4	1,188	--	10
	5/12/15	-0.5	--	--	0	0	128	14.8	1.4	1,718	--	13
	5/18/15	-0.6	--	--	0	0	127	12.0	3.4	1,864	--	13
	5/26/15	-0.3	--	--	0	0	128	11.0	3.8	1,281	--	14
	6/1/15	-0.4	--	--	0	0	128	11.6	3.3	1,069	--	17
	6/8/15	-0.5	--	--	0	0	122	9.0	5.1	1,410	--	26
	6/15/15	-0.4	--	--	0	0	128	10.7	4.4	1,712	--	13
	6/22/15	-0.6	--	--	0	0	128	11.5	3.6	1,535	--	13
	6/29/15	-0.5	--	--	0	0	128	9.8	4.9	1,637	--	0
	7/6/15	-0.4	--	--	0	0	128	9.4	5.3	1,467	--	11
	7/14/15	-0.4	--	--	0	0	128	8.6	7.5	1,778	--	12
	7/20/15	-0.3	--	--	0	0	127	10.1	5.2	1,451	--	13
	7/27/15	-0.4	--	--	0	0	128	7.6	8.2	1,426	--	10
	8/3/15	-0.2	--	--	0	0	125	6.1	10.3	1,183	--	5
	8/10/15	-0.4	--	--	0	0	126	11.5	4.6	1,240	--	8
	8/16/15	-0.3	--	--	0	0	126	10.8	4.9	1,102	--	9
	8/24/15	-0.3	--	--	0	0	125	11.5	4.0	1,095	--	9

ENVIRONMENTAL PARTNERS INC

TABLE 18
SVE System Operational Parameters
2015 Annual Report
Pasco Landfill, Pasco, WA

PERIOD: 1/1 - 12/32/ 2015

Well	Date	Well Head Vacuum (in. H_2O)	Skid Vacuum (in. H_2O)	Skid Airflow (cfm)	Well Head Airflow (cfm)	Dilution Airflow (cfm)	Well Head Temperature (F)	Well Head CO2 (%)	Well Head O2 (%)	Well Head PID (ppm)	Skid LEL (%)	Well Head LEL (%)
VEW-06I	8/31/15	-0.3	--	--	0	0	125	12.2	3.9	1,062	--	9
	9/8/15	-0.3	--	--	0	0	124	12.6	3.2	1,308	--	9
	9/14/15	-0.5	--	--	0	0	124	12.6	3.3	1,240	--	7
	9/21/15	-0.3	--	--	0	0	122	7.1	8.6	1,210	--	7
	9/30/15	-2.1	--	--	0	0	107	5.9	7.6	613	--	2
	10/5/15	-2.5	--	0	0	0	126	9.4	7.3	848	--	5
	10/12/15	-2.6	--	0	0	0	128	13.6	2.9	1,436	--	22
	10/19/15	-2.8	--	0	0	0	128	11.4	6.2	2,215	--	13
	10/26/15	-3.3	0	0	0	0	128	16.4	1.8	1,835	0	16
	11/2/15	-2.4	0	0	0	0	130	10.7	7.6	1,966	0	16
	11/9/15	-2.4	0	0	0	0	132	11.4	7.3	1,427	0	12
	11/16/15	-2.6	0	0	0	0	134	13.9	3.6	1,244	0	18
	11/23/15	-2.4	0	0	0	0	135	5.3	13.3	492	0	6
	11/30/15	-2.7	0	0	0	0	135	8.1	10.1	1,162	0	10
	12/9/15	-3.2	0	0	0	0	134	5.9	12.2	1,950	0	10
	12/14/15	-3.2	0	0	0	0	125	14.1	3.7	566	0	23
	12/21/15	-1.9	0	0	0	0	135	15.8	2.1	1,345	0	25
	12/29/15	-2.8	0	0	0	0	41	0.1	17.8	172	0	3
VEW-06D	1/5/15	-22.7	-34	227	227	0	95	7.7	13.1	1,879	0	14
	1/12/15	-22.7	-33	224	224	0	95	7.0	13.1	1,736	0	13
	1/20/15	-23.3	-33	229	229	0	95	8.7	13.4	1,588	0	13
	1/27/15	-22.8	-33	226	226	0	95	7.6	13.2	1,618	0	11
	2/2/15	-22.4	-33	225	225	0	95	6.9	13.3	1,625	0	10
	2/10/15	-24.9	-35	221	221	0	95	6.1	13.1	1,750	0	13
	2/17/15	-23.8	-34	222	222	0	95	6.0	12.8	1,718	0	11
	2/23/15	-23.9	-35	222	222	0	95	5.6	13.5	1,718	0	12
	3/2/15	-23.0	-33	235	235	0	95	6.2	12.7	1,762	0	13
	3/9/15	-24.1	-34	223	223	0	95	6.3	13.0	1,709	0	10
	3/24/15	-23.8	-34	221	221	0	95	7.7	12.3	1,678	0	14
	3/30/15	-21.6	-32	220	220	0	98	5.8	12.9	1,331	0	11
	4/6/15	-24.4	-33	212	212	0	96	4.0	15.4	1,670	0	9
	4/13/15	-25.1	-34	219	219	0	98	4.8	14.4	1,729	0	11
	4/20/15	-24.0	-34	209	209	0	98	5.6	12.2	1,045	0	12
	4/28/15	-24.5	-33	214	214	0	98	5.8	12.7	1,515	0	15
	5/4/15	-23.8	-33	211	211	0	98	3.1	15.6	958	0	4
	5/12/15	-25.0	-33	214	214	0	97	6.5	12.0	1,336	0	4
	5/18/15	-26.1	-35	214	214	0	96	6.0	12.5	1,519	0	15
	5/26/15	-25.3	-35	212	212	0	97	5.4	12.4	919	0	14
	6/1/15	-24.3	-34	223	223	0	99	5.4	11.9	865	0	15
	6/8/15	-26.2	-35	215	215	0	98	5.2	12.1	1,020	0	20
	6/15/15	-25.6	-35	218	218	0	96	5.5	12.8	1,289	0	11
	6/22/15	-25.3	-34	226	226	0	96	5.7	12.9	1,303	0	14
	6/29/15	-24.6	-33	231	231	0	95	5.1	12.8	1,504	0	13
	7/6/15	-24.3	-35	232	232	0	95	4.8	12.9	1,192	0	11
	7/14/15	-24.5	-35	234	234	0	95	5.3	13.0	1,375	0	9
	7/20/15	-24.3	-35	234	234	0	95	4.6	13.8	1,047	0	9
	7/27/15	-24.3	-35	236	236	0	96	5.0	13.0	1,018	0	10
	8/3/15	-24.0	-34	233	233	0	95	4.7	13.2	888	0	8
	8/10/15	-24.0	-35	236	236	0	93	5.6	13.0	1,016	0	7
	8/16/15	-24.7	-36	239	239	0	93	5.4	12.7	910	0	9
	8/24/15	-24.7	-36	236	236	0	94	5.3	12.8	929	0	8
	8/31/15	-24.7	-36	238	238	0	93	5.7	13.0	876	0	8
	9/8/15	-25.1	-34	242	242	0	92	5.7	13.0	1,199	0	6
	9/14/15	-25.4	-36	244	244	0	92	5.5	13.2	942	0	8
	9/21/15	-25.8	-37	242	242	0	94	12.2	12.2	969	0	9
	9/30/15	-5.9	--	94	94	0	101	5.0	13.1	533	--	6
	10/5/15	-9.3	--	100	100	0	98	5.4	13.2	745	--	6
	10/12/15	-10.2	--	91	91	0	99	5.3	13.0	646	--	9
	10/19/15	-11.3	--	91	91	0	100	5.3	13.3	1,077	--	8
	10/26/15	-12.5	--	--	92	0	97	4.9	13.9	686	--	7
	11/2/15	-11.2	--	--	91	0	96	4.3	14.4	618	--	6
	11/9/15	-12.7	--	--	91	0	97	5.3	13.6	580	--	7
	11/16/15	-13.6	--	--	91	0	100	5.8	13.2	531	--	5
	11/23/15	-11.1	--	--	91	0	95	5.9	12.7	414	--	3
	11/30/15	-11.2	--	--	91	0	95	4.2	14.9	648	--	1
	12/9/15	-10.1	--	--	91	0	100	4.1	14.3	491	--	1
	12/14/15	-11.2	--	--	91	0	98	5.1	14.0	464	--	4
	12/21/15	-7.5	--	--	91	0	97	5.8	12.9	382	--	3
	12/29/15	-10.0	--	--	99	0	99	5.0	13.5	495	--	14
VEW-07S	1/5/15	-0.4	--	--	0	0	111	3.0	16.0	553	--	8
	1/12/15	-0.4	--	--	0	0	108	2.6	16.8	95	--	8
	1/20/15	-0.4	--	--	0	0	107	1.9	17.8	273	--	6
	1/27/15	-0.4	--	--	0	0	107	3.0	16	280	--	7
	2/2/15	-0.2	--	--	0	0	107	3.4	15.1	518	--	7
	2/10/15	-0.5	--	--	0	0	105	1.8	17.6	265	--	9
	2/17/15	-0.3	--	--	0	0	105	2.5	15.7	337	--	9
	2/23/15	-0.1	--	--	0	0	103	1.5	17.8	249	--	5
	3/2/15	-0.4	--	--	0	0	102	3.9	13.1	315	--	7
	3/9/15	-0.2	--	--	0	0	102	2.1	16.1	237	--	2
	3/24/15	-0.3	--	--	0	0	100	3.2	15.3	272	--	3
	3/30/15	-0.1	--	--	0	0	102	2.3	15.7	158	--	2
	4/6/15	0.0	--	--	0	0	100	3.3	14.5	116	--	3
	4/13/15	-0.4	--	--	0	0	100	2.9	15.6	316	--	1

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Well	Date	Well Head Vacuum (in. H_2O)	Skid Vacuum (in. H_2O)	Skid Airflow (cfm)	Well Head Airflow (cfm)	Dilution Airflow (cfm)	Well Head Temperature (F)	Well Head CO2 (%)	Well Head O2 (%)	Well Head PID (ppm)	Skid LEL (%)	Well Head LEL (%)
VEW-07S	4/20/15	-0.2	--	--	0	0	102	2.2	14.9	135	--	3
	4/28/15	-0.1	--	--	0	0	101	2.5	14.9	189	--	4
	5/4/15	0.0	--	--	0	0	100	2.3	15.1	152	--	1
	5/12/15	-0.1	--	--	0	0	101	3.1	15.3	211	--	7
	5/18/15	-0.6	--	--	0	0	100	1.5	18.2	192	--	8
	5/26/15	-0.3	--	--	0	0	100	1.1	17.1	74	--	8
	6/1/15	-0.4	--	--	0	0	99	3.2	12.0	107	--	4
	6/8/15	0.3	--	--	0	0	102	1.8	15.4	105	--	7
	6/15/15	-0.4	--	--	0	0	101	1.2	17.6	153	--	3
	6/22/15	-0.5	--	--	0	0	100	1.1	18.2	2,417	--	11
	6/29/15	-0.2	--	--	0	0	100	1.6	16.1	126	--	4
	7/6/15	-0.3	--	--	0	0	103	0.6	17.8	122	--	2
	7/14/15	-0.4	--	--	0	0	102	1.1	17.5	120	--	5
	7/20/15	-0.4	--	--	0	0	102	0.8	17.8	183	--	3
	7/27/15	-0.2	--	--	0	0	102	2.0	15.6	97	--	1
	8/3/15	-0.4	--	--	0	0	103	0.8	17.2	161	--	1
	8/10/15	-0.4	--	--	0	0	102	1.2	17.7	234	--	5
	8/16/15	-0.6	--	--	0	0	101	1.2	16.8	111	--	4
	8/24/15	-0.1	--	--	0	0	102	1.2	16.6	156	--	0
	8/31/15	-0.4	--	--	0	0	101	1.0	17.9	189	--	3
	9/8/15	-0.2	--	--	0	0	102	1.3	17.3	273	--	3
	9/14/15	-0.4	--	--	0	0	102	1.5	16.8	230	--	3
	9/21/15	-0.2	--	--	0	0	100	3.4	12.8	64	--	9
	9/30/15	-55	--	163	163	0	103	4.1	13.2	1,272	--	5
	10/5/15	-55.3	--	147	147	0	105	3.5	14.1	1,533	--	8
	10/12/15	-52.8	--	150	150	0	107	4.1	13.6	1,482	--	10
	10/19/15	-54	--	147	147	0	107	3.5	14.9	2,473	--	11
	10/26/15	-56	--	--	149	0	107	2.0	17.0	1,765	--	6
	11/2/15	-58	--	--	152	0	108	0.9	18.0	2,038	--	5
	11/9/15	-57	--	--	149	0	109	3.8	14.5	1,762	--	7
	11/16/15	-58	--	--	153	0	109	4.0	14.0	1,895	--	10
	11/23/15	-59	--	--	157	0	109	2.9	15.9	1,559	--	6
	11/30/15	-60	--	--	157	0	109	4.0	14.4	561	--	5
	12/9/15	-58	--	--	145	0	108	2.6	15.2	1,875	--	7
	12/14/15	-60	--	--	143	0	108	3.7	4.5	1,732	--	9
	12/21/15	-55	--	--	143	0	109	4.2	13.9	1,709	--	9
	12/29/15	-60	--	--	139	0	114	4.6	13.0	1,663	--	5
VEW-07I	1/5/15	-0.7	--	--	0	0	134	12.6	0.9	3,972	--	100
	1/12/15	-0.7	--	--	0	0	130	13.1	0.2	2,571	--	55
	1/20/15	-0.6	--	--	0	0	131	11.1	1.7	2,903	--	54
	1/27/15	-0.6	--	--	0	0	130	11.9	1.1	2,713	--	47
	2/2/15	-0.4	--	--	0	0	130	12.3	1.2	3,183	--	39
	2/10/15	-0.9	--	--	0	0	131	9.5	3.5	3,783	--	77
	2/17/15	-0.5	--	--	0	0	132	10.6	1.4	3,149	--	65
	2/23/15	-0.3	--	--	0	0	130	10.0	1.9	1,876	--	62
	3/2/15	-0.5	--	--	0	0	129	11.6	0.4	2,985	--	84
	3/9/15	-0.4	--	--	0	0	127	9.1	2.7	4,013	--	100
	3/24/15	-0.8	--	--	0	0	125	8.0	5.7	3,231	--	32
	3/30/15	-0.1	--	--	0	0	128	6.1	7.2	2,502	--	34
	4/6/15	-0.3	--	--	0	0	128	4.6	10.5	2,521	--	28
	4/13/15	-0.4	--	--	0	0	120	5.1	10.6	2,483	--	13
	4/20/15	-0.2	--	--	0	0	120	4.8	9.7	1,663	--	23
	4/28/15	-0.3	--	--	0	0	120	6.1	8.0	3,565	--	29
	5/4/15	0.0	--	--	0	0	124	4.7	9.8	1,872	--	27
	5/12/15	-0.2	--	--	0	0	122	7.2	6.4	2,259	--	30
	5/18/15	-0.6	--	--	0	0	120	6.2	8.1	3,026	--	17
	5/26/15	-0.4	--	--	0	0	120	5.0	8.7	1,681	--	30
	6/1/15	-0.4	--	--	0	0	124	6.4	6.2	1,698	--	48
	6/8/15	0.1	--	--	0	0	104	4.1	10.7	1,312	--	28
	6/15/15	-0.4	--	--	0	0	120	5.6	9.1	1,547	--	16
	6/22/15	-0.6	--	--	0	0	120	6.0	9.0	263	--	17
	6/29/15	-0.4	--	--	0	0	122	5.2	8.6	4,307	--	26
	7/6/15	-0.4	--	--	0	0	122	4.5	10.6	1,907	--	12
	7/14/15	-0.1	--	--	0	0	118	3.2	14.2	1,619	--	8
	7/20/15	-0.6	--	--	0	0	120	5.2	10.5	1,687	--	17
	7/27/15	-0.5	--	--	0	0	120	4.9	9.6	1,883	--	31
	8/3/15	-0.5	--	--	0	0	121	3.8	11.8	1,738	--	16
	8/10/15	-0.7	--	--	0	0	122	7.4	6.7	2,193	--	18
	8/16/15	-0.7	--	--	0	0	122	7.1	6.1	1,965	--	30
	8/24/15	-0.4	--	--	0	0	122	7.5	4.9	1,725	--	54
	8/31/15	-0.7	--	--	0	0	122	7.2	6.4	2,578	--	29
	9/8/15	-0.6	--	--	0	0	122	7.9	5.2	2,641	--	28
	9/14/15	-0.8	--	--	0	0	122	7.4	5.6	2,521	--	39
	9/21/15	-0.5	--	--	0	0	114	7.7	3.6	2,208	--	63
	9/30/15	-3.2	--	--	0	0	128	7.5	5.6	2,748	--	100
	10/5/15	-2.9	--	0	0	0	116	6.4	7.8	2,051	--	51
	10/12/15	-3.8	--	0	0	0	125	6.6	8.8	1,943	--	100
	10/19/15	-4.2	--	0	0	0	124	7.1	8.7	3,903	--	100
	10/26/15	-4.6	0	0	0	0	125	4.7	12.5	3,797	0	96
	11/2/15	-3.9	0	0	0	0	125	4.5	13.3	3,861	0	85
	11/9/15	-3.8	0	0	0	0	125	13.2	12.4	3,660	0	100

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PERIOD: 1/1 - 12/32/ 2015

Well	Date	Well Head Vacuum (in. H_2O)	Skid Vacuum (in. H_2O)	Skid Airflow (cfm)	Well Head Airflow (cfm)	Dilution Airflow (cfm)	Well Head Temperature (F)	Well Head CO2 (%)	Well Head O2 (%)	Well Head PID (ppm)	Skid LEL (%)	Well Head LEL (%)
VEW-07I	11/16/15	-4.0	0	0	0	0	125	9.2	5.8	4,083	0	88
	11/23/15	-4.2	0	0	0	0	125	6.1	10.5	2,565	0	42
	11/30/15	-4.5	0	0	0	0	126	8.1	8.6	625	0	36
	12/9/15	-4.3	0	0	0	0	128	3.5	13.4	3,800	0	56
	12/14/15	-4.5	0	0	0	0	128	8.7	6.6	4,195	0	100
	12/21/15	-3.2	0	0	0	0	127	9.0	5.5	3,693	0	100
	12/29/15	-3.5	15	0	0	0	119	8.4	7.2	3,835	0	100
VEW-07D	1/5/15	-23.2	-34	220	220	0	90	2.1	17.9	1,581	0	11
	1/12/15	-24.4	-33	220	220	0	92	2.2	17.8	1,441	0	7
	1/20/15	-23.8	-34	224	224	0	90	1.8	18.3	1,460	0	7
	1/27/15	-24.8	-33	220	220	0	90	2.2	18.1	1,375	0	8
	2/2/15	-24.2	-33	221	221	0	92	2.2	18.1	1,388	0	6
	2/10/15	-26.3	-35	219	219	0	89	2.0	17.7	1,591	0	12
	2/17/15	-25.0	-34	224	224	0	93	1.9	17.6	1,463	0	4
	2/23/15	-25.4	-35	223	223	0	92	1.8	17.7	1,533	0	3
	3/2/15	-24.7	-34	229	229	0	90	2.2	17.1	1,532	0	8
	3/9/15	-24.9	-34	223	223	0	93	1.8	17.5	1,465	0	10
	3/24/15	-25.4	-34	229	229	0	90	2.2	17.4	1,402	0	9
	3/30/15	-23.0	-32	229	229	0	93	1.7	17.4	1,346	0	12
	4/6/15	-25.1	-33	229	229	0	92	1.1	18.4	1,556	0	7
	4/13/15	-26.1	-34	235	235	0	92	1.0	18.7	1,543	0	5
	4/20/15	-23.9	-33	237	237	0	96	1.3	17.1	1,030	0	7
	4/28/15	-24.7	-31	241	241	0	95	1.7	17.4	1,582	0	10
	5/4/15	-24.0	-33	234	234	0	95	1.2	17.2	937	0	10
	5/12/15	-25.2	-34	237	237	0	95	2.3	17.0	1,237	0	10
	5/18/15	-26.4	-35	236	236	0	95	1.9	17.4	1,550	0	10
	5/26/15	-25.7	-35	234	234	0	94	1.6	16.8	978	0	15
	6/1/15	-25.2	-34	236	236	0	98	1.8	16.0	879	0	13
	6/8/15	-26.7	-29	234	234	0	96	1.5	16.3	900	0	20
	6/15/15	-26.7	-29	233	233	0	95	1.7	17.3	920	0	12
	6/22/15	-27.1	-31	229	229	0	91	1.8	17.5	1,374	0	10
	6/29/15	-27.1	-26	227	227	0	94	1.3	17.3	1,368	0	14
	7/6/15	-26.7	-30	221	221	0	95	1.4	16.8	1,076	0	10
	7/14/15	-27.0	-33	226	226	0	94	1.5	17.4	1,188	0	8
	7/20/15	-26.8	-28	229	229	0	94	1.5	17.2	945	0	9
	7/27/15	-27.3	-28	228	228	0	92	1.0	17.4	925	0	8
	8/3/15	-26.6	-27	225	225	0	94	1.0	17.4	849	0	7
	8/10/15	-27.4	-27	224	224	0	92	1.8	17.3	1,075	0	8
	8/16/15	-27.5	-30	226	226	0	93	1.6	16.7	930	0	10
	8/24/15	-27.5	-26	224	224	0	93	1.6	16.8	762	0	5
	8/31/15	-27.9	-30	225	225	0	90	1.8	17.2	897	0	7
	9/8/15	-28.3	-31	234	234	0	92	1.8	17.1	1,013	0	8
	9/14/15	-28.7	-27	235	235	0	91	1.4	17.4	864	0	4
	9/21/15	-29.1	-31	226	226	0	90	3.5	17.1	873	0	7
	9/30/15	-8.3	--	95	95	0	98	1.6	16.7	801	--	5
	10/5/15	-10.5	--	100	100	0	96	1.8	16.5	1,152	--	8
	10/12/15	-10.2	--	92	92	0	97	1.7	16.8	931	--	9
	10/19/15	-11.6	--	92	92	0	96	1.7	17.3	1,626	--	10
	10/26/15	-11.9	--	--	92	0	95	1.4	17.9	1,093	--	6
	11/2/15	-11.1	--	--	92	0	94	1.1	18.3	1,182	--	5
	11/9/15	-11.8	--	--	92	0	96	0.7	18.3	1,164	--	2
	11/16/15	-13.1	--	--	92	0	97	1.9	16.6	1,278	--	7
	11/23/15	-10.9	--	--	92	0	92	1.8	17.3	673	--	4
	11/30/15	-11.6	--	--	92	0	92	1.8	17.6	293	--	1
	12/9/15	-10.4	--	--	91	0	98	1.6	16.8	150	--	4
	12/14/15	-11.7	--	--	92	0	95	1.8	16.8	899	--	4
	12/21/15	-8.2	--	--	92	0	95	2.0	16.7	825	--	3
	12/29/15	-10.6	--	--	99	0	94	2.2	15.9	763	--	3
VMW-51I	1/5/15	-0.9	--	--	--	--	81	20.2	0.0	298	--	3
	1/12/15	-0.7	--	--	--	--	79	21.1	0.0	241	--	5
	1/20/15	-0.4	--	--	--	--	78	19.1	0.0	209	--	5
	1/27/15	-0.7	--	--	--	--	78	20.1	0.0	166	--	6
	2/2/15	-0.3	--	--	--	--	77	20.4	0.0	214	--	5
	2/10/15	-1.1	--	--	--	--	83	17.7	1.3	251	--	4
	2/17/15	-0.5	--	--	--	--	85	19.0	0.0	209	--	5
	2/23/15	-0.5	--	--	--	--	81	18.9	0.8	176	--	4
	3/2/15	-0.6	--	--	--	--	80	17.8	1.5	206	--	8
	3/9/15	-0.6	--	--	--	--	92	15.1	3.2	190	--	5
	3/24/15	-1.0	--	--	--	--	80	19.4	0.0	167	--	9
	3/30/15	-0.4	--	--	--	--	85	8.0	6.7	112	--	3
	4/6/15	-0.7	--	--	--	--	70	5.4	14.2	153	--	3
	4/13/15	-0.8	--	--	--	--	82	11.6	8.1	174	--	7
	4/20/15	-0.6	--	--	--	--	92	16.8	0.8	140	--	8
	4/28/15	-0.3	--	--	--	--	89	17.2	0.8	253	--	7
	5/4/15	-0.5	--	--	--	--	92	11.1	7.1	108	--	4
	5/12/15	-0.7	--	--	--	--	82	19.4	0.0	133	--	12
	5/18/15	-0.8	--	--	--	--	84	18.6	0.0	173	--	7
	5/26/15	-0.5	--	--	--	--	94	17.4	0.5	164	--	7

ENVIRONMENTAL PARTNERS INC

TABLE 18
SVE System Operational Parameters
2015 Annual Report
Pasco Landfill, Pasco, WA

PERIOD: 1/1 - 12/32/ 2015

Well	Date	Well Head Vacuum (in. H_2O)	Skid Vacuum (in. H_2O)	Skid Airflow (cfm)	Well Head Airflow (cfm)	Dilution Airflow (cfm)	Well Head Temperature (F)	Well Head CO2 (%)	Well Head O2 (%)	Well Head PID (ppm)	Skid LEL (%)	Well Head LEL (%)
VMW-51I	6/1/15	-0.5	--	--	--	--	96	17.4	0.5	92	--	8
	6/8/15	-0.7	--	--	--	--	92	17.2	0.4	188	--	6
	6/15/15	-0.6	--	--	--	--	95	18.0	0.3	138	--	5
	6/22/15	-0.8	--	--	--	--	90	17.8	1.1	141	--	5
	6/29/15	-1.0	--	--	--	--	92	17.0	1.3	217	--	5
	7/6/15	-0.7	--	--	--	--	97	17.2	1.1	151	--	4
	7/14/15	-0.7	--	--	--	--	93	17.2	2.2	134	--	3
	7/20/15	-0.7	--	--	--	--	96	16.6	2.4	136	--	4
	7/27/15	-0.8	--	--	--	--	90	14.6	4.2	143	--	3
	8/3/15	-0.6	--	--	--	--	98	14.4	4.1	125	--	3
	8/10/15	-0.6	--	--	--	--	93	19.6	0.2	118	--	5
	8/16/15	-0.6	--	--	--	--	95	18.8	0.2	96	--	4
	8/24/15	-0.6	--	--	--	--	92	18.9	0.2	101	--	5
	8/31/15	-0.7	--	--	--	--	90	19.2	0.7	97	--	5
	9/8/15	-0.3	--	--	--	--	84	19.4	0.5	102	--	5
	9/14/15	-0.6	--	--	--	--	91	19.3	0.5	102	--	5
	9/21/15	-0.7	--	--	--	--	92	3.6	15.0	142	--	0
	9/30/15	-1.6	--	--	--	--	97	18.7	0.3	230	--	6
	10/5/15	-2.1	--	--	--	--	88	18.6	0.7	98	--	7
	10/12/15	-2.2	--	--	--	--	87	17.6	0.7	105	--	6
	10/19/15	-2.3	--	--	--	--	88	14.2	4.1	138	--	6
	12/9/15	-2.5	-56.5	--	--	--	96	7.2	11.1	177	--	11
	12/14/15	-2.7	-58.0	--	--	--	97	13.2	5.5	123	--	12
	12/21/15	-1.4	-55.8	--	--	--	86	17.8	1.5	166	--	12
	12/29/15	-2.2	-57.2	--	--	--	87	17.1	2.7	81	--	9
VMW-50S	1/5/15	-2.3	--	--	--	--	62	10.6	9.4	33	--	0
	1/12/15	-2.1	--	--	--	--	58	10.7	9.4	28	--	0
	1/20/15	-1.6	--	--	--	--	62	10.7	8.7	12	--	0
	1/27/15	-1.9	--	--	--	--	58	11.8	8.5	26	--	0
	2/2/15	-1.2	--	--	--	--	55	13.1	7.4	29	--	0
	2/10/15	-3.0	--	--	--	--	67	11.4	8.3	30	--	0
	2/17/15	-1.6	--	--	--	--	64	9.2	10.0	23	--	0
	2/23/15	-1.7	--	--	--	--	62	10.9	8.8	9	--	0
	3/2/15	-1.4	--	--	--	--	64	12.1	7.5	32	--	0
	3/9/15	-1.4	--	--	--	--	75	11.5	7.3	43	--	0
	3/24/15	-3.2	--	--	--	--	66	6.8	12.7	18	--	0
	3/30/15	-0.4	--	--	--	--	85	8.0	6.7	112	--	3
	4/6/15	-1.9	--	--	--	--	65	5.5	14.1	7	--	1
	4/13/15	-2.3	--	--	--	--	68	7.3	12.4	0	--	0
	4/20/15	-1.8	--	--	--	--	84	7.5	10.2	36	--	0
	4/28/15	-1.2	--	--	--	--	80	11.2	7.6	17	--	0
	5/4/15	-1.6	--	--	--	--	84	6.4	11.8	20	--	0
	5/12/15	-1.9	--	--	--	--	72	12.1	7.3	23	--	0
	5/18/15	-2.2	--	--	--	--	72	10.1	9.0	13	--	2
	5/26/15	-1.7	--	--	--	--	90	8.7	9.4	25	--	0
	6/1/15	-1.7	--	--	--	--	95	10.0	8.1	20	--	0
	6/8/15	-2.0	--	--	--	--	92	10.0	8.0	27	--	0
	6/15/15	-1.8	--	--	--	--	89	10.1	8.8	4	--	0
	6/22/15	-2.5	--	--	--	--	79	10.6	8.7	0	--	0
	6/29/15	-2.5	--	--	--	--	93	11.3	7.1	45	--	0
	7/6/15	-2.5	--	--	--	--	94	9.3	8.7	9	--	0
	7/14/15	-2.1	--	--	--	--	88	8.5	10.5	7	--	0
	7/20/15	-1.9	--	--	--	--	92	7.4	11.3	2	--	0
	7/27/15	-2.6	--	--	--	--	88	7.6	11.4	21	--	0
	8/3/15	-2.0	--	--	--	--	95	9.6	9.1	6	--	0
	8/10/15	-1.8	--	--	--	--	84	12.1	7.7	26	--	0
	8/16/15	-2.1	--	--	--	--	--	--	--	--	--	--
	12/9/15	-2.1	--	--	--	--	--	--	--	--	--	--
	12/14/15	-2.2	--	--	--	--	--	--	--	--	--	--
	12/21/15	1.1	--	--	--	--	--	--	--	--	--	--
	12/29/15	-1.1	--	--	--	--	--	--	--	--	--	--

ENVIRONMENTAL PARTNERS INC

Table 19
Vacuum Monitoring
(in inches of H2O)
2015 Annual Report
Pasco Landfill, Pasco, WA

PERIOD 1/1 - 12/31/2015

Date	VEW-04	VEW-05	VMW-50S	VMW-51i	VMW-51D	VMP-01	VMP-02	VMP-03	VMP-04	VMP-05	VMP-06	VMP-07	VMP-08	VMP-09	VMP-10	VMP-11S	VMP-11D	VMP-12S	VMP-12D
1/5/2015	-2.1	-2.7	--	--	-3.3	-0.2	-0.4	-0.2	-0.4	-0.3	-0.4	-0.1	-0.3	-0.2	-0.3	-0.1	-0.1	-0.1	-0.1
1/12/2015	-1.7	-2.4	--	--	-2.8	-0.2	-0.3	-0.2	-0.3	-0.3	-0.3	-0.1	-0.2	-0.2	-0.2	-0.1	-0.2	-0.1	-0.1
1/20/2015	-1.2	-2.0	--	--	-2.4	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
1/27/2015	-1.6	-2.2	--	--	-2.7	-0.2	-0.2	-0.1	-0.3	-0.2	-0.2	0.0	-0.2	-0.2	-0.2	-0.3	-0.3	-0.2	-0.3
2/2/2015	-0.8	-1.5	--	--	-1.8	-0.1	-0.1	-0.1	0.0	-0.1	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	-0.1
2/10/2015	-2.7	-3.4	--	--	-3.9	-0.4	-0.4	-0.3	-0.5	-0.4	-0.5	-0.2	-0.4	-0.4	-0.4	-0.3	-0.3	-0.3	-0.3
2/17/2015	-1.4	-2.0	--	--	-2.4	-0.1	-0.2	-0.1	-0.2	-0.1	-0.2	0.0	-0.2	-0.1	-0.1	-0.2	-0.1	-0.1	-0.1
2/23/2015	-1.3	-2.0	--	--	-2.4	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
3/2/2015	-1.3	-1.8	--	--	-2.4	-0.2	-0.3	-0.1	-0.2	-0.2	-0.2	-0.1	-0.2	-0.2	0.0	-0.1	-0.2	-0.1	-0.2
3/9/2015	-1.1	-1.7	--	--	-2.3	-0.1	-0.2	-0.1	-0.2	-0.3	-0.3	-0.1	-0.2	-0.1	-0.1	0.0	-0.1	-0.1	-0.1
3/24/2015	-3.1	-3.6	--	--	-4.1	-0.4	-0.4	-0.3	-0.4	-0.4	-0.4	-0.1	-0.3	-0.4	-0.3	-0.3	-0.3	-0.3	-0.3
3/30/2015	-1.3	-1.9	--	--	-2.3	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
4/6/2015	-1.8	-2.3	--	--	-2.9	-0.2	-0.3	-0.1	-0.2	-0.2	-0.3	-0.1	-0.2	-0.2	-0.2	-0.1	-0.2	0.0	-0.1
4/14/2015	-2.3	-2.8	--	--	-3.4	-0.4	-0.4	-0.2	-0.3	-0.4	-0.4	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.3
4/20/2015	-1.5	-2.1	--	--	-2.6	-0.2	-0.1	-0.1	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1
4/28/2015	-0.9	-1.6	--	--	-1.9	-0.1	-0.1	0.0	-0.1	-0.1	-0.1	0.0	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0
5/4/2015	-1.3	-1.9	--	--	-2.1	-0.1	-0.2	-0.1	-0.1	-0.1	-0.1	0.0	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1
5/12/2015	-1.8	-2.5	--	--	-3.0	-0.3	-0.2	-0.1	-0.2	-0.3	-0.3	-0.1	-0.2	-0.2	-0.2	-0.1	-0.2	-0.1	-0.1
5/18/2015	-1.9	-2.6	--	--	-3.1	-0.3	-0.3	-0.2	-0.4	-0.3	-0.4	-0.1	-0.3	-0.2	-0.3	-0.2	-0.3	-0.2	-0.2
5/26/2015	-1.2	-2.0	--	--	-2.6	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1
6/1/2015	-1.3	-2.0	--	--	-2.4	-2.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	-0.1
6/8/2015	-1.6	-2.3	--	--	-2.8	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.1	-0.2
6/15/2015	-1.5	-2.2	--	--	-2.6	-0.2	-0.2	-0.1	-0.2	-0.2	-0.2	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.1	-0.1
6/22/2015	-2.2	-2.8	--	--	-3.3	-0.3	-0.4	-0.2	-0.4	-0.3	-0.3	-0.2	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3
6/29/2015	-2.2	-0.3	--	--	-3.5	-0.3	-0.5	-0.2	-0.4	-0.4	-0.4	-0.1	-0.3	-0.3	-0.3	-0.2	-0.2	-0.2	-0.2
7/6/2015	-2.1	-2.9	--	--	-3.3	-0.3	-0.2	-0.2	-0.3	-0.3	-0.3	-0.1	-0.3	-0.3	-0.2	-0.3	-0.3	-0.2	-0.2
7/14/2015	-1.8	-2.5	--	--	-2.9	-0.2	-0.2	-0.2	-0.3	-0.3	-0.3	-0.1	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1
7/20/2015	-1.7	-2.4	--	--	-2.7	-0.3	-0.2	-0.1	-0.3	-0.2	-0.2	0.0	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
7/27/2015	-2.2	-2.8	--	--	-3.2	-0.3	-0.2	-0.1	-0.3	-0.2	-0.3	-0.1	-0.2	-0.2	-0.2	-0.3	-0.3	-0.2	-0.3
8/3/2015	-1.6	-2.3	--	--	-2.6	-0.2	-0.1	-0.1	-0.2	-0.1	-0.2	-0.1	-0.2	-0.1	-0.1	-0.2	-0.2	-0.1	-0.2
8/10/2015	-1.6	-2.2	--	--	-2.5	-0.2	-0.2	-0.2	-0.3	-0.2	-0.2	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.1	-0.2
8/16/2015	-1.7	-2.5	--	--	-2.7	-0.2	-0.1	-0.1	-0.2	-0.2	-0.2	-0.1	-0.2	-0.2	-0.1	--	--	--	--
8/24/2015	-1.8	--	--	--	-2.8	-0.2	-0.2	-0.1	-0.3	-0.3	-0.3	-0.1	-0.2	-0.2	-0.2	--	--	--	--
8/31/2015	-1.7	--	--	--	-2.7	-0.2	-0.2	-0.2	-0.3	-0.3	-0.3	-0.1	-0.2	-0.2	-0.2	--	--	--	--
9/8/2015	-1.4	--	-1.9	--	-2.6	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	-0.1	-0.1	-0.1	--	--	--	--
9/14/2015	-1.4	--	-1.8	--	-2.6	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	-0.1	-0.1	-0.1	--	--	--	--
9/21/2015	-2.0	--	-0.2	--	-3.1	-0.2	-0.3	-0.2	-0.3	-0.3	-0.3	-0.1	-0.2	-0.2	-0.2	--	--	--	--
9/30/2015	0.0	--	0.0	--	-0.2	--	-2.3	--	-6.6	-11.3	-2.2	--	-1.7	-1.5	-1.1	--	--	--	--
10/5/2015	-1.3	--	-1.4	--	-1.7	--	-2.3	--	-6.5	-11.6	-2.4	--	-2.0	-1.8	-1.4	--	--	--	--
10/12/2015	-0.7	--	-0.9	--	-1.1	--	-2.5	--	-6.6	-11.3	-2.5	--	-2.0	-1.7	-1.3	--	--	--	--
10/19/2015	-0.8	--	-0.9	--	-1.1	--	-2.6	--	-6.8	-11.3	-2.6	--	-2.1	-1.7	-1.4	--	--	--	--
1026/15	-1.3	--	-1.5	--	--	--	-3.5	--	-7.2	-11.7	-2.9	--	-2.2	-1.8	-1.4	--	--	--	--
11/2/2015	-0.7	--	-0.8	--	--	--	-1.1	--	-6.7	-11.0	-2.4	--	-1.9	-1.6	-1.3	--	--	--	--
11/9/2015	-1.2	--	-1.1	--	--	--	-1.0	--	-6.7	-11.4	-2.5	--	-1.9	-1.6	-1.3	--	--	--	--
11/16/2015	-2.1	--	-2.3	--	--	--	-1.0	--	-6.8	-11.3	-2.5	--	-2.0	-1.8	-1.4	--	--	--	--
11/23/2016	0.0	--	0.0	--	--	--	-2.1	--	-6.8	-11.1	-2.2	--	-1.8	-1.4	-1.2	--	--	--	--
11/30/2015	-0.1	--	-0.3	--	--	--	-2.3	--	-6.9	-11.0	-2.3	--	-1.8	-1.5	-1.1	--	--	--	--
12/9/2015	-1.9	--	-2.1	--	-2.3	--	-2.8	--	-7.2	-11.1	-2.8	--	-1.8	-1.4	-1.0	--	--	--	--
12/14/2005	-1.7	-2.1	-2.2	--	-2.5	--	-2.9	--	-7.1	-11.9	-2.9	--	-2.3	-1.9	-1.6	--	--	--	--
12/21/2015	1.6	0.8	1.1	-1.4	1.0	--	-2.0	--	-6.2	-10.8	-2.0	--	-1.5	-1.2	-0.8	--	--	--	--
12/29/2015	-1.0	-0.9	-1.1	-2.2	-1.3	--	-2.6	--	-6.7	-11.5	-2.6	--	-2.1	-1.7	-1.3	--	--	--	--

ENVIRONMENTAL PARTNERS INC

Table 19
Vacuum Monitoring
(in inches of H2O)
2015 Annual Report
Pasco Landfill, Pasco, WA

PERIOD 1/1 - 12/31/2015

Date	VMP-13S	VMP-13D	VMP-14S	VMP-14D	VMP-15S	VMP-15D	VMP-16S	VMP-17	VMP-18	VMP-19	VMP-20	VMP-21
1/5/2015	-0.2	-0.2	-0.2	-0.3	-0.1	-0.4	-0.1	--	--	--	--	--
1/12/2015	0.0	-0.1	-0.1	-0.1	0.0	-0.2	0.0	--	--	--	--	--
1/20/2015	-0.1	-0.2	0.0	-0.2	0.0	-0.2	0.0	--	--	--	--	--
1/27/2015	-0.1	-0.2	-0.2	-0.2	-0.1	-0.3	0.0	--	--	--	--	--
2/2/2015	0.0	-0.1	0.0	-0.1	0.0	-0.1	0.0	--	--	--	--	--
2/10/2015	-0.2	-0.3	-0.2	-0.4	-0.2	-0.5	-0.2	--	--	--	--	--
2/17/2015	-0.1	-0.2	-0.2	-0.2	-0.1	-0.2	0.0	--	--	--	--	--
2/23/2015	0.0	-0.1	0.0	-0.1	-0.1	-0.2	0.0	--	--	--	--	--
3/2/2015	-0.1	-0.2	0.0	-0.1	-0.2	-0.2	0.0	--	--	--	--	--
3/9/2015	0.0	0.0	0.0	-0.1	-0.1	-0.2	0.0	--	--	--	--	--
3/24/2015	-0.2	-0.3	-0.2	-0.4	-0.2	-0.5	0.0	--	--	--	--	--
3/30/2015	-0.1	-0.1	-0.1	-0.1	0.0	-0.1	0.0	--	--	--	--	--
4/6/2015	-0.1	-0.2	-0.2	-0.3	-0.2	-0.3	0.0	--	--	--	--	--
4/14/2015	-0.2	-0.3	-0.2	-0.3	-0.2	-0.4	-0.1	--	--	--	--	--
4/20/2015	0.0	-0.1	-0.1	-0.1	0.0	-0.2	0.0	--	--	--	--	--
4/28/2015	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	--	--	--	--	--
5/4/2015	0.0	-0.1	0.0	-0.1	-0.1	0.0	0.0	--	--	--	--	--
5/12/2015	-0.1	-0.2	-0.1	-0.1	-0.1	-0.2	0.0	--	--	--	--	--
5/18/2015	-0.2	-0.2	-0.2	-0.3	-0.1	-0.4	-0.1	--	--	--	--	--
5/26/2015	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	0.0	--	--	--	--	--
6/1/2015	-0.1	-0.2	-0.1	-0.2	-0.1	-0.2	0.0	--	--	--	--	--
6/8/2015	-0.1	-0.2	-0.1	-0.2	-0.1	-0.3	0.0	--	--	--	--	--
6/15/2015	-0.1	-0.2	-0.1	-0.2	-0.1	-0.3	-0.1	--	--	--	--	--
6/22/2015	-0.2	-0.3	-0.2	-0.3	-0.1	-0.4	-0.1	--	--	--	--	--
6/29/2015	-0.1	-0.2	-0.1	-0.3	-0.2	-0.5	-0.1	--	--	--	--	--
7/6/2015	-0.2	-0.2	-0.2	-0.2	-0.1	-0.4	-0.1	--	--	--	--	--
7/14/2015	0.0	-0.1	-0.1	-0.2	-0.1	-0.2	0.0	--	--	--	--	--
7/20/2015	-0.1	-0.1	-0.1	-0.2	-0.1	-0.3	-0.1	--	--	--	--	--
7/27/2015	-0.2	-0.3	-0.1	-0.3	-0.1	-0.3	0.0	--	--	--	--	--
8/3/2015	0.0	-0.1	-0.1	-0.2	-0.1	-0.2	-0.1	--	--	--	--	--
8/10/2015	0.0	-0.2	-0.1	-0.2	-0.1	-0.3	-0.1	--	--	--	--	--
8/16/2015	-0.1	-0.2	--	--	--	--	--	--	--	--	--	--
8/24/2015	-0.1	-0.2	--	--	--	--	--	--	--	--	--	--
8/31/2015	-0.1	-0.2	--	--	--	--	--	--	--	--	--	--
9/8/2015	-0.1	-0.2	--	--	--	--	--	--	--	--	--	--
9/14/2015	-0.1	-0.1	--	--	--	--	--	--	--	--	--	--
9/21/2015	-0.1	-0.2	--	--	--	--	--	--	--	--	--	--
9/30/2015	-0.5	-0.4	--	--	--	--	--	--	--	--	--	--
10/5/2015	-0.4	-0.6	--	--	--	--	--	--	--	--	--	--
10/12/2015	-0.5	-0.7	--	--	--	--	--	--	--	--	--	--
10/19/2015	-0.4	-0.6	--	--	--	--	--	--	--	--	--	--
1026/15	-0.1	-0.2	--	--	--	--	--	--	--	--	--	--
11/2/2015	0.0	-0.1	--	--	--	--	--	--	--	--	--	--
11/9/2015	-0.1	-0.2	--	--	--	--	--	--	--	--	--	--
11/16/2015	-0.2	-0.2	--	--	--	--	--	--	--	--	--	--
11/23/2016	0.0	0.0	--	--	--	--	--	--	--	--	--	--
11/30/2015	0.0	0.0	--	--	--	--	--	--	--	--	--	--
12/9/2015	-0.3	-0.4	--	--	--	--	--	--	--	--	--	--
12/14/2005	-0.3	-0.4	--	--	--	--	--	--	--	--	--	--
12/21/2015	0.0	0.0	--	--	--	--	--	0.2	0.1	0.2	0.2	0.0
12/29/2015	-0.2	-0.3	--	--	--	--	--	-0.3	-0.3	-0.4	-0.4	-0.1

Notes:

-- Not measured due to reasons shown below.
VMPs 11, 12, 14, 15, and 16 were removed for CBW Box enclosure and quenching operation.
VEW-05 and VMW-50S inaccessible due to construction activities.
VEW-05 and VMW-50S inaccessible due to construction activities.
VEW-05 inaccessible due to construction activities.
VEW-05 inaccessible due to construction activities.
VEW-05 inaccessible due to construction activities.
VMPs 1, 3, and 7 were removed for protective barrer wall construction.
VEW-05 inaccessible due to construction activities.
VEW-05 inaccessible due to construction activities.
VEW-05 inaccessible due to construction activities.
VEW-05 and VMP-51I/D inaccessible due to construction activities.
VMP-17 through VMP-22 installed 12/17 and 12/18/2015.

ENVIRONMENTAL PARTNERS INC

TABLE 20
SVE System Analytical Data and Removal Rates
Detected Compounds Only (in ug/L)
2015 Annual Report
Pasco Landfill, Pasco, WA

PERIOD: 1/1 - 12/31/2015

Sample Location	Date	Tetra chloro ethene	Tri chloro ethene	1,1-Dichloro ethene	cis-1,2-Dichloro ethene	trans-1,2-Dichloro ethene	Vinyl chloride	1,1,1-Trichloro ethane	1,1-Dichloro ethane	1,2-Dichloro ethane	Chloro ethane	Chloro form	Methyl-ene chloride	Chloro methane	1,2,4-Trichloro benzene	1,2-Dichloro benzene	1,4-Dichloro benzene	Chloro benzene	Benzene	Ethyl benzene	1,2,4-Tri methyl benzene	1,3,5-Tri methyl benzene	n-propyl benzene	Isopropyl benzene (Cumene)	n-butyl Benzene	Sec-Butyl benzene
SV-FS	1/5/15	22	200	1.5	2.6	< 0.2 U	0.31	4.7	24	5.7	1.1	0.32	42	< 0.2 U	< 0.2 U	1.9	0.22	0.41	1.9	210	28	18	15	8	1.3	0.96
	1/19/15	26	120	1.7	2.6	< 0.2 U	0.17	5.2	13	7	1.5	0.38	32	< 0.2 U	< 0.2 U	1.1	< 0.2 U	0.4	2.1	110	32	22	12	7.3	0.78	< 0.2 U
	2/2/15	11	140	1.2	2.2	< 0.2 U	0.23	3.2	10	5.8	1.1	0.35	44	< 0.2 U	< 0.2 U	0.9	< 0.2 U	0.23	1.7	120	15	9	6	3	0.39	< 0.2 U
	2/17/15	23	130	1.3	2.5	< 0.2 U	0.071	3.2	11	6	1.2	0.31	47	< 0.2 U	< 0.2 U	0.98	< 0.2 U	0.38	2	97	27	20	10	5.6	0.74	< 0.2 U
	3/2/15	15	130	1.2	2.2	< 0.2 U	0.18	2.4	10	4.7	0.91	0.3	35	< 0.2 U	< 0.2 U	1.3	< 0.2 U	0.29	1.5	110	35	13	7.8	3.8	0.53	< 0.2 U
	3/23/15	26	160	1.6	2.8	< 0.2 U	0.29	3.3	19	5.7	1.2	0.41	33	< 0.2 U	< 0.2 U	0.92	< 0.2 U	0.38	2.2	150	30	22	12	7.3	0.95	< 0.2 U
	4/6/15	26	84	1.2	2.4	< 0.2 U	0.22	2.3	12	5.3	1.2	0.41	34	< 0.2 U	< 0.2 U	1.2	< 0.2 U	0.41	1.9	72	31	84	10	6.5	0.76	< 0.2 U
	4/20/15	22	150	1.3	2.5	< 0.2 U	0.28	2.3	11	5.7	1.2	0.51	42	< 0.2 U	< 0.2 U	0.97	< 0.2 U	0.36	2.1	160	22	13	9.5	6.4	0.71	< 0.2 U
	5/4/15	16	100	1.2	2.5	< 0.2 U	0.23	2.1	11	5.6	1.3	0.67	23	< 0.2 U	< 0.2 U	1	< 0.2 U	0.39	2	120	16	13	9.9	7.5	0.74	< 0.2 U
	5/18/15	12	88	1.2	2.4	< 0.2 U	0.29	1.9	11	5.4	1.3	1.1	25	< 0.2 U	< 0.2 U	0.97	< 0.2 U	0.33	2.1	81	12	13	8	5	0.54	< 0.2 U
	6/1/15	23	140	1.4	3.1	< 0.2 U	0.25	2.1	13	5.5	1.4	1	33	< 0.2 U	< 0.2 U	2	0.25	0.61	2.4	170	31	22	15	11	1.4	< 0.2 U
	6/15/15	7.8	97	0.28	0.63	< 0.2 U	0.06	0.4	2.9	1.4	0.34	< 0.2 U	< 5 U	< 0.2 U	< 0.2 U	0.43	< 0.2 U	< 0.2 U	0.57	430	9.9	7	4.8	3	0.38	< 0.2 U
	6/29/15	12	120	0.83	2.3	< 0.2 U	0.19	1.2	9.5	4.8	1.2	1	15	0.21	< 0.2 U	1	< 0.2 U	< 0.2 U	1.7	130	19	10	6.1	5	0.37	< 0.2 U
	7/6/15	21	160	0.98	2.7	< 0.2 U	0.27	1.4	11	5.1	1.9	< 0.2 U	42	0.29	< 0.2 U	1.4	< 0.2 U	< 0.2 U	2.2	1,200	32	22	16	12	1.1	< 0.2 U
	7/20/15	27	160	0.94	2.2	< 0.2 U	0.19	1.4	11	5.3	0.95	0.72	14	< 0.2 U	< 0.2 U	1.1	< 0.2 U	0.37	2.1	120	25	19	12	7.5	0.9	< 0.2 U
	8/3/15	29	140	0.58	1.8	< 0.2 U	0.15	0.92	7.8	4.8	0.74	0.55	12	< 0.2 U	< 0.2 U	1.3	< 0.2 U	0.41	1.9	160	36	15	13	7.5	0.93	< 0.2 U
	8/10/15	23	130	0.66	1.7	< 0.2 U	0.14	0.88	7	3.6	0.75	< 0.2 U	12	< 0.2 U	< 0.2 U	1	< 0.2 U	0.3	1.8	130	32	15	9.6	5.8	0.78	< 0.2 U
	8/24/15	9.6	100	0.51	1.4	< 0.2 U	0.15	0.69	6.4	2.7	0.86	0.28	7.9	< 0.2 U	< 0.2 U	0.47	< 0.2 U	< 0.2 U	1	110	9.2	7	4.3	2.7	0.25	< 0.2 U
	9/8/15	11	110	0.44	1.2	< 0.2 U	0.12	0.63	5.3	3	0.62	0.27	8.6	< 0.2 U	< 0.2 U	0.63	< 0.2 U	< 0.2 U	1.2	120	13	9	5	3.4	0.3	< 0.2 U
	9/21/15	13	110	0.55	1.5	< 0.2 U	0.15	0.74	6.7	3.1	0.95	< 0.2 U	9	< 0.2 U	< 0.2 U	1.2	< 0.2 U	0.24	1.4	130	19	11	7.1	4.2	0.52	< 0.2 U
	9/30/15	22	160	0.47	2.9	< 0.2 U	0.17	0.89	9.5	4.1	3.7	0.38	13	1.9	< 0.2 U	1.1	< 0.2 U	0.42	2.1	180	42	110	13	7.6	1.4	< 0.2 U
	10/5/15	12	140	0.3	1.7	< 0.2 U	0.12	0.73	6.2	3.4	2.2	0.48	8.6	1.2	< 0.2 U	1.1	< 0.2 U	0.29	1.4	170	32	12	8.5	5.1	0.86	< 0.2 U
SV-BRTO	10/12/15	3.5	26	< 0.2 U	0.5	< 0.2 U	0.031	0.21	2	1.1	0.65	< 0.2 U	2.7	0.38	< 0.2 U	0.6	< 0.2 U	< 0.2 U	0.45	38	8.1	18	2.8	1.8	0.28	< 0.2 U
	10/19/15	12	110	0.24	1.2	< 0.2 U	0.074	0.53	5	2.5	1.7	0.38	7.6	0.86	< 0.2 U	2	< 0.2 U	0.35	1.2	230	46	110	12	6.3	1.2	< 0.2 U
	11/2/15	16	110	0.38	1.8	< 0.2 U	0.17	0.79	7.5	3.6	2.9	0.63	10	2.3	< 0.2 U	3.6	0.41	0.64	1.8	380	65	38	25	10	2.9	< 0.2 U
	11/16/15	16	100	0.44	2.0	< 0.2 U	0.16	0.84	8.0	4.8	3.5	0.33	11	1.5	< 0.2 U	3.8	0.3	0.54	2.0	160	31	20	13	11	1.6	< 0.2 U
	12/1/15	17	130	0.5	2.3	< 0.2 U	0.18	0.72	8.7	4.4	2.8	0.27	11	1.6	< 0.2 U	5.2	0.43	0.67	2.3	460	73	150	25	12	3.4	< 0.2 U
	12/14/15	8.4	66	0.39	1.9	< 0.2 U	0.15	0.65	8.5	3.5	3.2	0.25	12	1.7	< 0.2 U	4.6	0.41	0.31	1.5	90	22	43	9.6	5.2	1.0	< 0.2 U
	12/28/15	19	130	0.57	2.6	< 0.2 U	0.23	0.78	10	4.5	3.8	0.33	13	2.1	< 0.2 U	6.7	0.62	0.52	2.6	450	72	43	27	9.8	3.0	< 0.2 U
VEW-06S	9/30/15	9.2	65.0	0.21	1.8	< 0.2 U	0.11	< 0.2 U	5.3	3.6	4.1	0.44	10	3.5	< 0.2 U	0.29	< 0.2 U	0.29	1.5	91	15	12	6.2	3.8	0.6	< 0.2 U
	10/5/15	7.4	50.0	< 0.2 U	0.72	< 0.2 U	0.043	< 0.2 U	3.6	4.3	2.7	0.52	7	2.2	< 0.2 U	< 0.2 U	< 0.2 U	0.21	0.8	63	9	7	4.2	2.8	0.37	< 0.2 U
	10/12/15	2.2	13.0	< 0.2 U	0.22	< 0.2 U	< 0.02 U	< 0.2 U	1.3	1.4	1	< 0.2 U	2	0.7	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.27	17	3	2.5	1.3	0.85	< 0.2 U	< 0.2 U
	10/19/15	8.9	69.0	< 0.2 U	0.71	< 0.2 U	0.064	< 0.2 U	4.2	4.2	3.6	0.46	9	1.9	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.96	90	9.9	8.7	5.3	3.5	0.34	< 0.2 U
	11/16/15	11.0	36.0	< 0.2 U	0.95	< 0.2 U	0.091	< 0.2 U	3.5	6.3	4.3	0.35	10	1.8	< 0.2 U	0.21	< 0.2 U	0.29	1.2	58	8.1	7.2	4	4.1	< 0.2 U	< 0.2 U
	12/14/15	5.0	53.0	< 0.2 U	1	< 0.2 U	0.095	< 0.2 U	4.4	4.5	4.8	0.33	12	1.8	< 0.2 U	0.2	< 0.2 U	< 0.2 U	1.1	76	4	3.3	1.9	1.5	< 0.2 U	< 0.2 U
VEW-06D	1/5/15	34	240	1.7	3.3	< 0.2 U	0.41	5.9	18	11	1.5	0.43	41	< 0.2 U	0.24	0.9	< 0.2 U	0.55	2.5	250	41	27	19	11	1.7	1.4
	2/2/15	26	160	1.1	2.5	< 0.2 U	0.28	3.6	8.3	9.8	1.2	0.39	31	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.29	2	120	13	9.5	7.8	4.6	0.25	< 0.2 U
	3/2/15	34	140	1.2	2.9	< 0.2 U	0.26	2.3	9.6	8.3	1.3	0.43	31	< 0.2 U	< 0.2 U	0.6	< 0.2 U	0.49	1.9	120	29	22	13	7.4	0.72	< 0.2 U
	4/6/15	40	120	0.96	2.5	< 0.2 U	0.25	1.4	8.3	9.7	1.3	0.45	31	< 0.2 U	< 0.2 U	0.54	< 0.2 U	0.45	2	140	45	120	22	9.4	1.1	< 0.2 U
	5/4/15	19	96	0.92	2.5	< 0.2 U	0.27	1.2	7.8	11	1.3	0.7	15	< 0.2 U	< 0.2 U	0.33	< 0.2 U	0.44	2	110	18	50	14	10	0.97	< 0.2 U
	6/1/15	25	120	0.76	2.2	< 0.2 U	0.22	0.77	6.5	7.7	1.2	0.9	13	< 0.2 U	< 0.2 U	0.45	< 0.2 U	0.44	1.6	200	32	86	15	9.1	1.1	< 0.2 U
	6/29/15	15	120	0.81	2.7	< 0.2 U	0.24	0.7	7.6	7.6	1.6	< 0.2 U	13	0.25	< 0.2 U	0.4	< 0.2 U	< 0.2 U	1.7	130	21	13	7.9	6.9	0.48	< 0.2 U
	7/20/15	33	150	0.84	2.4	< 0.2 U	0.21	0.79	7.8	7.5	1.1	0.75	11	< 0.2 U	< 0.2 U	0.26	< 0.2 U	0.41	1.9	150	29	88	12	9.2	0.82	< 0.2 U
	8/10/15	27	150	0.6	1.7	< 0.2 U	0.17	0.58	5.4	5.5	0.91	< 0.2 U	9.1	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.32	1.8	98	25	13	9.6	6.5	0.43	< 0.2 U
	9/8/15	11	110	0.37	1.2	< 0.2 U	0.13	0.35	3.7	3.8	0.71	0.32	5.7	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	1.1	120	7.3	6.3	4	2.9	< 0.2 U	< 0.2 U
	9/30/15	10	96	0.23	0.86	< 0.2 U	0.09	0.24	2.8	2.3	0.59	0.23	4.4	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.67	120	7.8	5.6	4.1	2.7	0.22	< 0.2 U
	10/5/15	13	67	< 0.2 U	0.74	< 0.2 U	0.036	< 0.2 U	2	2.8	0.38	0.58	3.4	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.61	100	10	6.4	5.4	3.5	0.29	< 0.2 U
	10/12/15	2.9	11	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U	< 0.2 U	0.35	0.73	< 0.2 U	< 0.2 U	0.54	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	17	2.9	1.9	1.3	0.83	< 0.2 U	< 0.2 U
	10/19/15	8.7	38	< 0.2 U	0.24	< 0.2 U	< 0.02 U	< 0.2 U	0.44	1.5	< 0.2 U	0.34	1.9	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.26	85	7.8	6.0	4.0	2.6	0.22	< 0.2 U
	11/16/15	10	25	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U	< 0.2 U	0.37	1.5	< 0.2 U	0.22	1.1	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.25	47	3.6	3.1	2.1	2.2	< 0.2 U	< 0.2 U
	12/14/15	4.1	8.2	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U	< 0.2 U	0.22	0.64	< 0.2 U	< 0.2 U	1.5	< 0.2 U	< 0.2 U	0.26	< 0.2 U	< 0.2 U	< 0.2 U	47	4.8	3.3	1.9	1.3	< 0.2 U	< 0.2 U

Modified EPA Method 8260

U = Not detected above reporting limit

lbs./day = (X)ug/l x 28.32 L/ft3 x (Y)ft3/min x 0.002205 lbs/gm / 1,000,0000 ug/gm x 1440 min/day

ENVIRONMENTAL PARTNERS INC

TABLE 20
SVE System Analytical Data and Removal Rates
Detected Compounds Only (in ug/L)
2015 Annual Report
Pasco Landfill, Pasco, WA

PERIOD: 1/1 - 12/31/2015

Sample Location	Date	Tetra chloro ethene	Tri chloro ethene	1,1-Dichloro ethene	cis-1,2-Dichloro ethene	trans-1,2-Dichloro ethene	Vinyl chloride	1,1,1-Trichloro ethane	1,1-Dichloro ethane	1,2-Dichloro ethane	Chloro ethane	Chloro form	Methyl-ene chloride	Chloro methane	1,2,4-Trichloro benzene	1,2-Dichloro benzene	1,4-Dichloro benzene	Chloro benzene	Benzene	Ethyl benzene	1,2,4-Tri methyl benzene	1,3,5-Tri methyl benzene	n-propyl benzene	Isopropyl benzene (Cumene)	n-butyl Benzene	Sec-Butyl benzene
VEW-07S	9/30/15	27	180	0.78	5.6	0.22	0.27	1.6	26	7.0	7.2	0.5	40	3.3	< 0.2 U	1.2	< 0.2 U	0.7	3.8	200	40	120	23	12	1.2	< 0.2 U
	10/5/15	23	230	0.6	3.7	< 0.2 U	0.26	1.6	13	6.7	5.9	0.59	26	2.8	< 0.2 U	1.6	< 0.2 U	0.73	3.4	320	45	130	25	14	1.3	< 0.2 U
	10/12/15	3.8	49	< 0.2 U	0.97	< 0.2 U	0.07	0.4	3.7	1.7	1.3	< 0.2 U	4	0.77	< 0.2 U	0.4	< 0.2 U	< 0.2 U	0.87	58	9.2	24	3.9	3.2	0.28	< 0.2 U
	10/19/15	20	140	0.65	3.6	< 0.2 U	0.27	1.5	14	5.5	4.6	0.53	21	2.7	< 0.2 U	1.6	< 0.2 U	0.97	3.5	200	43	130	24	14	1.4	< 0.2 U
	11/16/15	16	150	0.79	3.7	0.21	0.31	1.4	15	6.0	6.2	0.32	13	2.8	< 0.2 U	0.45	< 0.2 U	0.59	3.4	120	15	13	7.8	8.5	0.28	< 0.2 U
	12/14/15	7.7	140	0.71	3.5	< 0.2 U	0.32	1.2	19	4.4	4.8	< 0.2 U	35	3.0	< 0.2 U	0.37	< 0.2 U	0.3	2.4	150	8.9	6.9	4.4	3.5	< 0.2 U	< 0.2 U
VEW-07D	1/5/15	15	150	1.4	2	< 0.2 U	0.23	4.1	30	2.8	0.96	0.29	41	< 0.2 U	< 0.2 U	2.3	0.23	0.39	1.8	190	44	28	15	7.8	1.3	1
	2/2/15	12	150	1.4	2.2	< 0.2 U	0.23	3.8	14	2.9	1	0.3	47	< 0.2 U	< 0.2 U	0.64	< 0.2 U	0.31	1.9	100	15	10	7.5	4.2	0.35	< 0.2 U
	3/2/15	24	120	1.8	3	< 0.2 U	0.23	4.5	22	3.3	1.2	0.44	40	< 0.2 U	< 0.2 U	1.4	< 0.2 U	0.51	2.3	120	35	26	13	6.9	0.7	< 0.2 U
	4/6/15	25	100	1.3	2.4	< 0.2 U	0.19	3.2	15	2.8	1.1	0.41	38	< 0.2 U	< 0.2 U	2	0.21	0.5	2	110	45	120	15	8.7	1.1	< 0.2 U
	5/4/15	13	100	1.4	2.5	< 0.2 U	0.22	3.2	13	2.9	1.2	0.59	27	< 0.2 U	< 0.2 U	1	< 0.2 U	0.51	2.2	120	16	46	12	9.7	0.83	< 0.2 U
	6/1/15	20	150	1.7	3.1	< 0.2 U	0.24	3.2	12	2.9	1.3	0.98	33	< 0.2 U	< 0.2 U	2	0.21	0.6	2.6	210	30	23	15	11	1.2	< 0.2 U
	6/29/15	10	120	0.96	2.2	< 0.2 U	0.19	1.9	12	2.5	1.2	1.1	23	< 0.2 U	< 0.2 U	1.5	< 0.2 U	< 0.2 U	1.8	140	21	11	6.5	5.2	0.39	< 0.2 U
	7/20/15	25	170	0.99	1.9	< 0.2 U	0.16	1.9	12	2.3	0.96	0.64	6.7	< 0.2 U	< 0.2 U	1.2	< 0.2 U	0.42	2.1	200	28	22	12	8.4	0.85	< 0.2 U
	8/10/15	16	140	0.75	1.6	< 0.2 U	0.13	1.4	9	1.8	0.76	< 0.2 U	15	< 0.2 U	< 0.2 U	0.81	< 0.2 U	0.36	1.9	150	28	13	10	6.3	0.58	< 0.2 U
	9/8/15	11	130	0.54	1.2	< 0.2 U	0.13	0.94	7.2	1.5	0.68	0.28	11	< 0.2 U	< 0.2 U	0.36	< 0.2 U	0.23	1.3	160	10	8.6	5.3	3.8	< 0.2 U	< 0.2 U
	9/30/15	24	150	0.6	1.6	< 0.2 U	0.12	1.2	8.8	1.5	0.55	0.27	13	< 0.2 U	< 0.2 U	0.6	< 0.2 U	0.35	1.4	100	22	14	10	6.5	0.67	< 0.2 U
	10/5/15	22	120	0.5	1.4	< 0.2 U	0.068	1.2	7.8	1.7	0.28	0.51	11	< 0.2 U	< 0.2 U	1.3	< 0.2 U	0.35	1.3	210	23	15	9.7	6.3	0.62	< 0.2 U
	10/12/15	4	25	< 0.2 U	0.39	< 0.2 U	< 0.02 U	0.3	2	0.48	< 0.2 U	< 0.2 U	2.8	< 0.2 U	< 0.2 U	0.25	< 0.2 U	< 0.2 U	0.36	32	3.7	3.1	2.3	1.6	< 0.2 U	< 0.2 U
	10/19/15	21	110	0.38	1.3	< 0.2 U	0.031	1.1	6.3	1.7	< 0.2 U	0.49	10	< 0.2 U	< 0.2 U	0.81	< 0.2 U	0.46	1.3	140	20	69	12	8.4	0.59	< 0.2 U
	11/16/15	16	83	0.32	0.96	< 0.2 U	0.026	0.8	4.3	1.5	< 0.2 U	0.27	5.6	< 0.2 U	< 0.2 U	0.21	< 0.2 U	0.3	0.99	89	7.3	6.4	4	4.2	< 0.2 U	< 0.2 U
	12/14/15	7	74	0.2	0.72	< 0.2 U	< 0.02 U	0.55	3.5	1.1	< 0.2 U	0.2	5.6	< 0.2 U	< 0.2 U	0.24	< 0.2 U	< 0.2 U	0.61	110	4.3	3	1.9	1.5	< 0.2 U	< 0.2 U

Modified EPA Method 8260

U = Not detected above reporting limit

lbs./day = (X)ug/l x 28.32 L/ft3 x (Y)ft3/min x 0.002205 lbs/gm / 1,000,0000 ug/gm x 1440 min/day

ENVIRONMENTAL PARTNERS INC

TABLE 20
SVE System Analytical Data and Removal Rates
Detected Compounds Only (in ug/L)
2015 Annual Report
Pasco Landfill, Pasco, WA

PERIOD: 1/1 - 12/31/2015

Sample Location	Date	Toluene	p-Iso propyl toluene	m,p-Xylene	o-Xylene	4-Methyl-2-pent-anone (MIBK)	2-buta-none (MEK)	Acetone	Naptha-lene	Trichlor o fluoro methane (CFC-11)	Carbon disulfide	Dichloro bromo methane	Dichloro difluoro methane (CFC-12)	Ethanol	Tertiary butyl alcohol	Total VOCs Detected in ug/L [X]	Total Flow Rate (scfm) [Y]	Removal Rate (lbs/day) from Total
SV-FS	1/5/15	3,400	0.83	660	130	180	310	240	0.46	0.2	< 0.2 U	< 0.2 U	< 0.2 U	340	< 0.8 U	**5,851**	447	**235**
	1/19/15	1,000	0.59	280	140	290	540	390	< 0.2 U	0.29	< 0.2 U	< 0.2 U	< 0.2 U	270	< 0.8 U	**3,308**	453	**135**
	2/2/15	820	0.27	320	79	240	510	530	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	220	< 0.8 U	**3,095**	446	**124**
	2/17/15	1,100	0.51	260	110	320	540	600	0.2	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	200	< 0.8 U	**3,520**	446	**141**
	3/2/15	1,000	0.3	290	150	270	410	430	0.29	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	250	< 0.8 U	**3,176**	464	**133**
	3/23/15	1,300	0.64	390	130	380	640	670	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	270	< 0.8 U	**4,260**	450	**172**
	4/6/15	700	0.51	200	140	150	390	490	0.2	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	310	< 0.8 U	**2,758**	441	**109**
	4/20/15	730	0.49	210	110	200	450	550	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	300	< 0.8 U	**3,004**	446	**120**
	5/4/15	550	0.57	310	84	150	290	530	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	350	< 0.8 U	**2,599**	445	**104**
	5/18/15	430	0.37	210	58	170	350	460	0.21	0.27	< 0.2 U	< 0.2 U	< 0.2 U	340	< 0.8 U	**2,291**	446	**92**
	6/1/15	1,300	0.83	460	130	300	580	560	0.29	0.62	< 0.2 U	< 0.2 U	< 0.2 U	340	< 0.8 U	**4,151**	459	**171**
	6/15/15	530	0.25	1,400	520	480	500	< 500 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	80	< 0.2 U	**4,077**	451	**165**
	6/29/15	3,400	0.28	2,600	100	1,300	1,400	1,100	< 0.2 U	0.48	< 0.2 U	< 0.2 U	< 0.2 U	550	< 0.8 U	**10,792**	458	**444**
	7/6/15	5,400	0.81	3,500	150	1,200	1,500	2,000	< 0.2 U	0.55	< 0.2 U	< 0.2 U	< 0.2 U	590	< 0.8 U	**15,875**	453	**647**
	7/20/15	920	0.61	340	130	210	460	450	< 0.2 U	0.27	< 0.2 U	1	< 0.2 U	330	< 0.8 U	**3,253**	463	**135**
	8/3/15	1,200	0.62	450	150	260	420	400	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	240	< 0.8 U	**3,555**	458	**146**
	8/10/15	1,000	0.5	370	140	220	510	420	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	230	< 0.8 U	**3,267**	460	**135**
	8/24/15	820	< 0.2 U	280	76	340	550	520	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	230	< 0.8 U	**3,081**	460	**127**
	9/8/15	550	0.22	310	88	210	420	590	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	250	< 0.8 U	**2,712**	476	**116**
	9/21/15	740	0.4	270	110	280	580	380	0.22	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	210	< 0.8 U	**2,891**	468	**122**
	9/30/15	1,200	1.0	450	130	230	290	180	< 0.2 U	0.58	< 0.2 U	< 0.2 U	< 0.2 U	130	< 0.8 U	**3,188**	443	**127**
	10/5/15	1,100	0.6	450	150	320	380	230	< 0.2 U	0.44	< 0.2 U	< 0.2 U	< 0.2 U	110	< 0.2 U	**3,149**	432	**122**
SV-BRTO	10/12/15	220	0.2	92	32	91	120	100	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	67	< 0.2 U	**829**	412	**31**
	10/19/15	1,300	1.0	590	150	460	490	660	0.28	0.47	< 0.2 U	< 0.2 U	< 0.2 U	170	< 0.2 U	**4,373**	413	**162**
	11/2/15	1,300	1.7	1,300	460	420	560	430	0.83	0.61	0.21	< 0.2 U	0.74	250	< 0.2 U	**5,408**	420	**204**
	11/16/15	480	1.0	260	150	260	390	550	0.89	0.71	0.25	< 0.2 U	0.26	360	< 0.2 U	**2,845**	429	**110**
	12/1/15	940	1.9	1,600	590	440	530	470	1.2	0.77	< 0.2 U	< 0.2 U	< 0.2 U	290	< 0.2 U	**5,775**	438	**227**
	12/14/15	1,100	0.6	260	88	360	460	490	1.1	1.3	< 0.2 U	< 0.2 U	< 0.2 U	240	< 0.2 U	**3,285**	412	**122**
	12/28/15	1,300	1.8	1,400	540	400	470	280	1.2	5.2	< 0.2 U	< 0.2 U	< 0.2 U	410	< 0.2 U	**5,610**	417	**210**
VEW-06S	9/30/15	380.0	0.58	240.0	82.0	43.0	26.0	16	< 0.2 U	0.24	0.22	< 0.2 U	< 0.2 U	120	< 0.8 U	**1,142**	91	**9**
	10/5/15	340.0	0.47	150.0	56.0	75.0	7.2	3	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	**797**	85	**6**
	10/12/15	92.0	< 0.2 U	42.0	16.0	30.0	8.8	4	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	21	< 0.2 U	**260**	79	**2**
	10/19/15	310.0	0.42	230.0	76.0	130.0	62.0	49	< 0.2 U	0.28	< 0.2 U	< 0.2 U	< 0.2 U	160	< 0.2 U	**1,239**	83	**9**
	11/16/15	270.0	0.21	160.0	52.0	130.0	140.0	100	< 0.2 U	0.28	0.34	< 0.2 U	< 0.2 U	180	< 0.2 U	**1,190**	93	**10**
	12/14/15	480.0	< 0.2 U	210.0	58.0	170.0	150.0	150	< 0.2 U	0.33	< 0.2 U	< 0.2 U	< 0.2 U	73	< 0.2 U	**1,466**	86	**11**
VEW-06D	1/5/15	3,700	1.3	750	190	190	320	260	0.34	0.29	< 0.2 U	< 0.2 U	0.23	390	23	**6,538**	227	**133**
	2/2/15	1,400	0.3	310	110	310	580	660	< 0.2 U	0.23	< 0.2 U	< 0.2 U	< 0.2 U	230	< 0.8 U	**4,002**	225	**81**
	3/2/15	1,300	0.67	330	150	310	470	480	< 0.2 U	0.24	< 0.2 U	< 0.2 U	0.24	230	< 0.8 U	**3,698**	221	**73**
	4/6/15	1,300	0.9	380	91	280	480	630	< 0.2 U	< 0.2 U	< 0.2 U	0.42	0.25	340	< 0.8 U	**4,059**	212	**77**
	5/4/15	840	0.85	290	83	220	320	620	< 0.2 U	0.23	< 0.2 U	< 0.2 U	0.33	360	< 0.8 U	**3,096**	211	**59**
	6/1/15	1,500	1	550	130	470	580	610	< 0.2 U	0.61	< 0.2 U	< 0.2 U	0.31	300	< 0.8 U	**4,666**	223	**94**
	6/29/15	3,000	0.43	1,500	110	810	990	900	< 0.2 U	0.60	< 0.2 U	< 0.2 U	0.33	600	< 0.8 U	**8,262**	231	**172**
	7/20/15	1,300	0.7	420	140	350	460	420	< 0.2 U	0.36	< 0.2 U	0.49	0.31	620	< 0.8 U	**4,219**	234	**89**
	8/10/15	920	0.44	280	130	200	380	210	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.29	230	< 0.8 U	**2,706**	236	**57**
	9/8/15	670	< 0.2 U	320	89	240	270	410	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	210	< 0.8 U	**2,488**	242	**54**
	9/30/15	710	0.22	310	90	250	380	220	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.22	150	< 0.8 U	**2,369**	94	**20**
	10/5/15	920	0.25	270	78	310	370	420	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.25	230	< 0.2 U	**2,815**	100	**25**
	10/12/15	220	< 0.2 U	43	13	99	130	130	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	95	< 0.2 U	**769**	91	**6**
	10/19/15	1,100	0.22	220	64	420	430	540	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.21	190	< 0.2 U	**3,121**	91	**26**
	11/16/15	260	< 0.2 U	130	36	110	240	67	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.42	73	< 0.2 U	**1,013**	91	**8**
	12/14/15	420	< 0.2 U	140	37	110	160	540	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.29	85	< 0.2 U	**1,566**	91	**13**

Modified EPA Method 8260

U = Not detected above reporting limit

lbs./day = (X)ug/l x 28.32 L/ft3 x (Y)ft3/min x 0.002205 lbs/gm / 1,000,0000 ug/gm x 1440 min/day

TABLE 20
SVE System Analytical Data and Removal Rates
Detected Compounds Only (in ug/L)
2015 Annual Report
Pasco Landfill, Pasco, WA

Sample Location	Date	Toluene	p-Iso propyl toluene	m,p-Xylene	o-Xylene	4-Methyl-2-pent-anone (MIBK)	2-buta-none (MEK)	Acetone	Naptha-lene	Trichlor o fluoro methane (CFC-11)	Carbon disulfide	Dichloro bromo methane	Dichloro difluoro methane (CFC-12)	Ethanol	Tertiary butyl alcohol	Total VOCs Detected in ug/L [X]	Total Flow Rate (scfm) [Y]	Removal Rate (lbs/day) from Total
VEW-07S	9/30/15	1,300	1.1	550	150	220	160	110	< 0.2 U	1.2	< 0.2 U	< 0.2 U	< 0.2 U	88	< 0.8 U	**3,282**	163	**48**
	10/5/15	1,800	1.2	820	260	500	410	160	< 0.2 U	1.2	< 0.2 U	< 0.2 U	< 0.2 U	89	< 0.2 U	**4,897**	147	**65**
	10/12/15	380	0.29	150	46	150	190	100	< 0.2 U	0.5	< 0.2 U	< 0.2 U	< 0.2 U	58	< 0.2 U	**1,240**	150	**17**
	10/19/15	1,100	1.6	550	150	340	490	550	< 0.2 U	1.8	0.39	< 0.2 U	< 0.2 U	260	< 0.2 U	**4,077**	147	**54**
	11/16/15	710	0.31	300	130	290	470	660	< 0.2 U	1.6	0.32	< 0.2 U	0.26	170	< 0.2 U	**3,117**	153	**43**
	12/14/15	1,200	< 0.2 U	390	130	390	640	690	< 0.2 U	3.3	0.23	< 0.2 U	< 0.2 U	100	< 0.2 U	**3,940**	143	**51**
VEW-07D	1/5/15	1,300	0.91	590	140	130	230	190	0.25	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	290	< 0.8 U	**3,411**	220	**67**
	2/2/15	920	0.35	270	110	240	540	470	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	140	< 0.8 U	**3,065**	221	**61**
	3/2/15	920	0.61	320	88	290	470	450	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	220	< 0.8 U	**3,185**	229	**66**
	4/6/15	760	0.79	300	79	190	460	530	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	240	< 0.8 U	**3,054**	229	**63**
	5/4/15	540	0.70	320	83	130	310	530	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	250	< 0.8 U	**2,537**	234	**53**
	6/1/15	1,300	0.86	560	140	360	710	620	< 0.2 U	0.60	< 0.2 U	< 0.2 U	< 0.2 U	290	< 0.8 U	**4,505**	236	**96**
	6/29/15	2,600	0.30	1,200	110	770	1,100	980	< 0.2 U	0.48	< 0.2 U	< 0.2 U	< 0.2 U	560	< 0.8 U	**7,683**	227	**157**
	7/20/15	1,200	0.62	560	140	350	700	620	< 0.2 U	0.25	< 0.2 U	0.73	< 0.2 U	240	< 0.8 U	**4,309**	229	**89**
	8/10/15	960	0.46	420	150	220	530	430	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	180	< 0.8 U	**3,288**	224	**66**
	9/8/15	600	< 0.2 U	220	110	220	490	500	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	200	< 0.8 U	**2,694**	234	**57**
	9/30/15	670	0.55	290	130	230	520	550	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	210	< 0.8 U	**2,958**	95	**25**
	10/5/15	1,200	0.48	570	130	450	810	790	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	240	< 0.2 U	**4,625**	100	**42**
	10/12/15	220	< 0.2 U	100	26	94	180	160	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	57	< 0.2 U	**915**	92	**8**
	10/19/15	770	0.62	410	130	290	500	590	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	160	< 0.2 U	**3,255**	92	**27**
	11/16/15	460	< 0.2 U	270	73	200	510	180	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	57	< 0.2 U	**1,975**	92	**16**
	12/14/15	610	< 0.2 U	310	78	220	420	560	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	**2,412**	92	**20**

Modified EPA Method 8260

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ENVIRONMENTAL PARTNERS INC

TABLE 21
Percentages of Six
Most Abundant Detected VOCs
2015 Annual Report
Pasco Landfill, Pasco, WA

PERIOD: 1/1 - 12/31/2015

Sample Location	Date	Acetone	2-Butanone	Methyl isobutyl ketone	Toluene	Trichloroethene	Total Xylenes	Percent Total
SV-FS	1/5/15	4.1	5.3	3.1	58.1	3.4	13.5	87.5
	1/19/15	11.8	16.3	8.8	30.2	3.6	12.7	83.4
	2/2/15	17.1	16.5	7.8	26.5	4.5	12.9	85.3
	2/17/15	17.0	15.3	9.1	31.3	3.7	10.5	86.9
	3/2/15	13.5	12.9	8.5	31.5	4.1	13.9	84.4
	3/23/15	15.7	15.0	8.9	30.5	3.8	12.2	86.2
	4/6/15	17.8	14.1	5.4	25.4	3.0	12.3	78.1
	4/20/15	18.3	15.0	6.7	24.3	5.0	10.7	79.9
	5/4/15	20.4	11.2	5.8	21.2	3.8	15.2	77.5
	5/18/15	20.1	15.3	7.4	18.8	3.8	11.7	77.1
	6/1/15	13.5	14.0	7.2	31.3	3.4	14.2	83.6
	6/15/15	0.0	12.3	11.8	13.0	2.4	47.1	86.5
	6/29/15	10.2	13.0	12.0	31.5	1.1	25.0	92.8
	7/6/15	12.6	9.4	7.6	34.0	1.0	23.0	87.6
	7/20/15	13.8	14.1	6.5	28.3	4.9	14.4	82.1
	8/3/15	11.3	11.8	7.3	33.8	3.9	16.9	85.0
	8/10/15	12.9	15.6	6.7	30.6	4.0	15.6	85.4
	8/24/15	16.9	17.9	11.0	26.6	3.2	11.6	87.2
	9/8/15	21.8	15.5	7.7	20.3	4.1	14.7	84.0
	9/21/15	13.1	20.1	9.7	25.6	3.8	13.1	85.4
	9/30/15	5.6	9.1	7.2	37.6	5.0	18.2	82.8
	10/5/15	7.3	12.1	10.2	34.9	4.4	19.1	88.0
SV-BRTO	10/12/15	12.1	14.5	11.0	26.5	3.1	15.0	82.1
	10/19/15	15.1	11.2	10.5	29.7	2.5	16.9	86.0
	11/2/15	8.0	10.4	7.8	24.0	2.0	32.5	84.7
	11/16/15	19.3	13.7	9.1	16.9	3.5	14.4	77.0
	12/1/15	8.1	9.2	7.6	16.3	2.3	37.9	81.4
	12/14/15	14.9	14.0	11.0	33.5	2.0	10.6	86.0
	12/28/15	5.0	8.4	7.1	23.2	2.3	34.6	80.6
VEW-06S	9/30/15	1.4	2.3	3.8	33.3	5.7	28.2	74.6
	10/5/15	0.4	0.9	9.4	42.7	6.3	25.8	85.5
	10/12/15	1.3	3.4	11.5	35.3	5.0	22.3	78.8
	10/19/15	4.0	5.0	10.5	25.0	5.6	24.7	74.7
	11/16/15	8.4	11.8	10.9	22.7	3.0	17.8	74.6
	12/14/15	10.2	10.2	11.6	32.7	3.6	18.3	86.7
VEW-06D	1/5/15	4.0	4.9	2.9	56.6	3.7	14.4	86.4
	2/2/15	16.5	14.5	7.7	35.0	4.0	10.5	88.2
	3/2/15	13.0	12.7	8.4	35.2	3.8	13.0	86.0
	4/6/15	15.5	11.8	6.9	32.0	3.0	11.6	80.8
	5/4/15	20.0	10.3	7.1	27.1	3.1	12.0	79.8

Modified EPA Method 8260
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ENVIRONMENTAL PARTNERS INC

TABLE 21
Percentages of Six
Most Abundant Detected VOCs
2015 Annual Report
Pasco Landfill, Pasco, WA

PERIOD: 1/1 - 12/31/2015

Sample Location	Date	Acetone	2-Butanone	Methyl isobutyl ketone	Toluene	Trichloroethene	Total Xylenes	Percent Total
VEW-06D	6/1/15	13.1	12.4	10.1	32.1	2.6	14.6	84.9
	6/29/15	10.9	12.0	9.8	36.3	1.5	19.5	89.9
	7/20/15	10.0	10.9	8.3	30.8	3.6	13.3	76.8
	8/10/15	7.8	14.0	7.4	34.0	5.5	15.1	83.9
	9/8/15	16.5	10.9	9.6	26.9	4.4	16.4	84.8
	9/30/15	9.3	16.0	10.6	30.0	4.1	16.9	86.8
	10/5/15	14.9	13.1	11.0	32.7	2.4	12.4	86.5
	10/12/15	16.9	16.9	12.9	28.6	1.4	7.3	84.0
	10/19/15	17.3	13.8	13.5	35.2	1.2	9.1	90.1
	11/16/15	6.6	23.7	10.9	25.7	2.5	16.4	85.7
	12/14/15	34.5	10.2	7.0	26.8	0.5	11.3	90.4
VEW-07S	9/30/15	3.4	4.9	6.7	39.6	5.5	21.3	81.4
	10/5/15	3.3	8.4	10.2	36.8	4.7	22.1	85.4
	10/12/15	8.1	15.3	12.1	30.6	4.0	15.8	85.9
	10/19/15	13.5	12.0	8.3	27.0	3.4	17.2	81.4
	11/16/15	21.2	15.1	9.3	22.8	4.8	13.8	86.9
	12/14/15	17.5	16.2	9.9	30.5	3.6	13.2	90.9
VEW-07D	1/5/15	5.6	6.7	3.8	38.1	4.4	21.4	80.0
	2/2/15	15.3	17.6	7.8	30.0	4.9	12.4	88.1
	3/2/15	14.1	14.8	9.1	28.9	3.8	12.8	83.5
	4/6/15	17.4	15.1	6.2	24.9	3.3	12.4	79.2
	5/4/15	20.9	12.2	5.1	21.3	3.9	15.9	79.3
	6/1/15	13.8	15.8	8.0	28.9	3.3	15.5	85.2
	6/29/15	12.8	14.3	10.0	33.8	1.6	17.1	89.5
	7/20/15	14.4	16.2	8.1	27.8	3.9	16.2	86.8
	8/10/15	13.1	16.1	6.7	29.2	4.3	17.3	86.7
	9/8/15	18.6	18.2	8.2	22.3	4.8	12.2	84.3
	9/30/15	18.6	17.6	7.8	22.7	5.1	14.2	85.9
	10/5/15	17.1	17.5	9.7	25.9	2.6	15.1	88.0
	10/12/15	17.5	19.7	10.3	24.0	2.7	13.8	88.0
	10/19/15	18.1	15.4	8.9	23.7	3.4	16.6	86.0
	11/16/15	9.1	25.8	10.1	23.3	4.2	17.4	89.9
	12/14/15	23.2	17.4	9.1	25.3	3.1	16.1	94.2

Modified EPA Method 8260
U = Not detected above reporting limit

lbs./day = (X)ug/l x 28.32 L/ft3 x (Y)ft3/min x 0.002205 lbs/gm / 1,000,0000 ug/gm x 1440 min/day

TABLE 22
Summary of Fourth Quarter SVE System
Shutdowns and Restarts
2015 Annual Report
Pasco Landfill, Pasco, WA

PERIOD: 1/1 - 12/31/2015

Date	Time	Details
1/8/15	0737 hrs	Flare and SVE system shut down for flare maintenance.
	1012 hrs	Flare on. SVE remained off.
	1018 hrs	Flare at 1,600 °F. SVE remained off.
	1030 hrs	SVE system on (VEW-06D and VEW-07D). Flare remained on.
1/9/15	0647 hrs	Flare and SVE system shut down for VFD fault on the Regenerative blower.
	0743 hrs	Flare on. SVE remained off.
	0757 hrs	Flare at 1,600 °F. SVE remained off.
	0807 hrs	SVE system on (VEW-06D and VEW-07D). Flare remained on.
3/1/15	0436 hrs	Flare and SVE system shut down caused from unknown reason at the flare.
3/2/15	0823 hrs	Flare on. SVE remained off.
	0831 hrs	Flare at 1,600 °F. SVE remained off.
	0834 hrs	SVE system on (Regenerative Blower VEW-06D and VEW-07D). Flare remained on.
3/12/15	0718 hrs	SVE system off for new Zone A piping connections. Flare remained on.
	0923 hrs	Flare off. SVE remained off.
	1310 hrs	Flare on. SVE remained off.
	1317 hrs	Flare at 1,600 °F. SVE remained off.
	1321 hrs	SVE system on (Regenerative wells VEW-06D and VEW-07D). Flare remained on.
3/14/15	1010 hrs	Flare and SVE shutdown due to a flame sensor failure at the flare.
3/18/15	1045 hrs	Flare on. SVE remained off.
	1051 hrs	Flare at 1,600 °F. SVE remained off.
	1055 hrs	SVE system on (Regenerative wells VEW-06D and VEW-07D). Flare remained on.
3/22/15	1353 hrs	Flare and SVE systems shut down due to power failure.
3/23/15	0755 hrs	Flare on. SVE remained off.
	0804 hrs	Flare at 1,600 °F. SVE remained off.
	0810 hrs	SVE system on. Flare remained on.
3/26/15	0852 hrs	SVE and Flare shutdown for SVE blower maintenance
	1122 hrs	Flare on. SVE remained off.
	1128 hrs	Flare at 1,600 °F. SVE remained off.
	1134 hrs	SVE system on (Regenerative wells VEW-06D and VEW-07D). Flare remained on.
4/2/15	0230 hrs	Flare and SVE systems shutdown, due to a failure at the flare.
4/3/15	0918 hrs	Flare on. SVE remained off.
	0923 hrs	Flare at 1,600°F. SVE remained off.
	0937 hrs	SVE on (Regenerative blower / Wells VEW-06D and VEW-07D). Flare remained on.
4/7/15	0732 hrs	Flare and SVE shutdown related to the flare
	1127 hrs	Flare on. SVE remained off.
	1133 hrs	Flare at 1,600°F. SVE remained off.
	1136 hrs	SVE on (Regenerative blower / Wells VEW-06D and VEW-07D). Flare remained on.
4/11/15	0409 hrs	SVE and flare shutdown. Probably for low methane.
4/13/15	0747 hrs	Flare on. SVE remained off.
	0753 hrs	Flare at 1,600°F. SVE remained off.
	0757 hrs	SVE on (Regenerative blower / Wells VEW-06D and VEW-07D). Flare remained on.
4/14/15	0125 hrs	SVE and flare shutdown. Probably for low methane.
	0735 hrs	Flare on. SVE remained off.
	0741 hrs	Flare at 1,600°F. SVE remained off.
4/14/15	0744 hrs	SVE on (Regenerative blower / Wells VEW-06D and VEW-07D). Flare remained on.
4/18/15	0720 hrs	SVE and flare Shutdown
4/19/15	1345 hrs	Flare on. SVE remained off.
	1350 hrs	Flare at 1,600°F, SVE remained off
	1355 hrs	SVE on (Regenerative blower / Wells VEW-06D and VEW-07D). Flare remained on.

Date	Time	Details
4/23/15	0713 hrs	Flare and SVE Shutdown
	1238 hrs	Flare on. SVE remained off
	1241 hrs	Flare at 1,600°F. SVE remained off.
	1244 hrs	SVE on (Regenerative blower / Wells VEW-06D and VEW-07D). Flare remained on.
4/26/15	0606 hrs	SVE and flare Shutdown
4/27/15	0735 hrs	Flare on. SVE remained off.
	0741 hrs	Flare at 1,600°F. SVE remained off
	0745 hrs	SVE on (Regenerative blower / Wells VEW-06D and VEW-07D). Flare remained on.
4/29/15	0503 hrs	SVE and flare shutdown
	0646 hrs	Flare on. SVE remained off.
	0652 hrs	Flare at 1,600°F. SVE remained off.
	0658 hrs	SVE on (Regenerative blower / Wells VEW-06D and VEW-07D). Flare remained on.
5/4/15	0618 hrs	SVE and flare shutdown
	0731 hrs	Flare on. SVE remained off.
	0736 hrs	Flare at 1,600°F. SVE remained off.
	0740 hrs	SVE on (Regenerative blower / Wells VEW-06D and VEW-07D). Flare remained on.
5/5/15	0425 hrs	SVE and flare shutdown. Performed flare maintenance during shutdown.
	1535 hrs	Flare on. SVE remained off.
	1542 hrs	Flare at 1,600°F. SVE remained off.
	1547 hrs	SVE on (Regenerative blower / Wells VEW-06D and VEW-07D). Flare remained on.
5/8/15	0528 hrs	Flare and SVE shutdown
	1115 hrs	Flare on. SVE remained off.
	1122 hrs	Flare at 1,600°F. SVE remained off.
	1127 hrs	SVE on (Regenerative blower / Wells VEW-06D and VEW-07D). Flare remained on.
5/9/15	0428 hrs	Flare and SVE automatic shutdown and maintenance on both the flare and SVE systems.
5/11/15	1425 hrs	Flare on. SVE remained off.
	1430 hrs	Flare at 1,600°F. SVE remained off.
	1435 hrs	SVE on (Regenerative blower / Wells VEW-06D and VEW-07D). Flare remained on.
5/12/15	2235 hrs	SVE and flare shutdown due to VFD fault at the SVE Regen Blower
5/13/15	1132 hrs	Flare on. SVE remained off.
	1139 hrs	Flare at 1,600°F SVE remained off.
	1144 hrs	SVE on. Flare remained on.
5/18/15	1646 hrs	SVE and flare shutdown due to VFD failure on the Regen blower
5/19/15	0822 hrs	Flare on. SVE remained off.
	0826 hrs	Flare at 1,600°F. SVE remained off.
	0832 hrs	SVE on (Regenerative blower / Wells VEW-06D and VEW-07D). Flare remained on.
5/30/15	1056 hrs	SVE and flare shutdown for blower failure at the flare.
6/1/15	0711 hrs	Flare on. SVE remained off.
	0718 hrs	Flare at 1,600°F. SVE remained off
	0731 hrs	SVE on (Regenerative blower / Wells VEW-06D and VEW-07D). Flare remained on.
7/23/15	2058 hrs	Flare and SVE shut down due to Louver failure.
7/24/15	0755 hrs	Closed the Louver and restarted the flare.
	0800 hrs	SVE system on.
8/19/15	0833 hrs	Flare and SVE shutdown, likely from flame out at the flare
	1023 hrs	Flare and SVE on
9/3/15	0749 hrs	SVE and Flare shutdown for SVE RTO installation. Remove heat exchangers and piping to carbon vessel. New piping from blowers to RTO and flare. Valve to RTO installed.
9/4/15	1352 hrs	Flare and SVE on

Date	Time	Details
9/30/15	1953 hrs	SVE and Flare shutdown for flare failure.
10/1/15	0753 hrs	SVE and flare on.
10/5/15	1204 hrs	SVE and flare off to download software to the SVE PLC.
	1630 hrs	SVE and flare on.
10/21/15	0803 hrs	RTO and SVE shutdown. RTO burner failed to maintain temperature.
	0915 hrs	Restarted RTO.
	1020 hrs	RTO at temperature and SVE was started.
10/26/15	1531 hrs	RTO and SVE shut down for repairs to the RTO.
10/28/15	1618 hrs	RTO and SVE on.
12/7/15	1607 hrs	SVE and RTO shutdown. RTO alarm: Flame Relay Alarm – Possible Flame Failure
12/8/15	0818 hrs	RTO startup process began.
	0924 hrs	RTO reaches temperature and SVE regenerative blower on (wells VEW-07S/D and VEW-06S/D).
12/9/15	0600 hrs	SVE and RTO shutdown. RTO alarm: Flame Relay Alarm – Possible Flame Failure
	0904 hrs	RTO startup process began.
	1005 hrs	RTO reaches temperature and SVE regenerative blower on (wells VEW-07S/D and VEW-06S/D).
12/17/15	1251 hrs	SVE and RTO shut down to retrofit the Condensate injection line.
	1745 hrs	SVE and RTO on.
12/21/15	1731 hrs	SVE and RTO shutdown due to high outlet temperature from condensate injection into the RTO.
12/22/15	0800 hrs	SVE and RTO on.

PERIOD: 1/1 - 12/31/2015

Well	Date	Chloroethenes					Chloroethanes				Chloromethanes			Chlorobenzenes		Aromatics				
		Tetrachloro ethene	Trichloro ethene	1,1-Dichloro ethene	cis-1,2-Dichloro ethene	Vinyl Chloride	1,1,1-Trichloro ethane	1,1,2-Trichloro ethane	1,1-Dichloro ethane	1,2-Dichloro ethane	Chloro methane	Methylene Chloride	Chloroform	1,2-Dichloro benzene	Chloro benzene	Benzene	1,2,4-Trimethyl benzene	1,3,5-Trimethyl benzene	Ethyl benzene	n-Propyl benzene
2013 dCUL:		**0.69**	**2.5**	**0.057**	**16**	**0.090**	**200**	**-**	**-**	**0.38**	**-**	**5**	**-**	**-**	**-**	**0.5**	**-**	**-**	**-**	**-**
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	< 0.020 U	< 5.0 U	< 5.0 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
	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	< 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
	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	< 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
	1/12/2011	0.16	**3.6**	< 0.020 U	< 1.0 U	< 0.020 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	< 0.020 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	2/17/2011	< 1.0 U	**5.7**	< 1.0 U	< 1.0 U	< 0.20 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
	3/16/2011	< 1.0 U	**6.7**	< 1.0 U	< 1.0 U	< 0.20 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
	4/20/2011	0.067	**10**	< 0.020 U	< 1.0 U	< 0.020 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	< 0.020 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	5/19/2011	< 1.0 U	**12**	< 1.0 U	< 1.0 U	< 0.20 U	1.2	< 1.0 U	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
	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	< 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
	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	0.19	< 5.0 U	< 5.0 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
	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	< 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
	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	< 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
	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	0.12	< 2.0 U	< 5.0 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
	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	< 0.020 U	< 5.0 U	< 5.0 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
	11/7/2011	0.32	**4.1**	< 0.020 U	< 2.0 U	< 0.020 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	< 0.020 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 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	< 0.020 U	< 5.0 U	< 5.0 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
	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	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.1	< 1.0 U
	1/24/2012	0.43	**6.6**	< 0.020 U	< 2.0 U	< 0.032 U	< 2.0 U	< 0.77 U	< 2.0 U	**1**	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	2/27/2012	**5.1**	**58**	< 2.0 U	9.9	< 0.20 U	2.1	< 0.77 U	8.9	**33**	< 2.0 U	**77**	2.2	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	16	< 2.0 U
	3/14/2012	< 2.0 U	**9.6**	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	4/24/2012	0.12	0.35	< 0.020 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	5/16/2012	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	6/21/2012	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	7/24/2012	< 0.050 U	< 0.053 U	< 0.020 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	8/16/2012	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	9/19/2012	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	10/16/2012	< 0.050 U	< 0.053 U	< 0.020 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	11/14/2012	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	12/12/2012	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	1/30/2013	< 0.050 U	0.12	< 0.020 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	2/20/2013	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	3/20/2013	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	4/16/2013	< 0.050 U	< 0.053 U	< 0.020 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	5/21/2013	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	6/18/2013	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	7/24/2013	< 0.050 U	< 0.053 U	< 0.020 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	10/23/2013	< 0.05 U	< 0.053 U	< 0.02 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	1/23/2014	**11**	**60**	0.055	3.8	< 0.032 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	< 0.028 U	46	28	240	16
	4/22/2014	**55**	**530**	< 0.02 U	11	< 0.032 U	6.3	2.4	6.9	**8.5**	< 2.0 U	**7.1**	< 2.0 U	7.5	3.5	**3.1**	390	370	1600	210
	7/23/2014	**3.2**	**22**	**0.16**	< 2.0 U	< 0.032 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	0.4	87	40	140	18
	10/21/2014	**2.5**	**20**	**0.074**	< 2.0 U	< 0.032 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	**0.63**	120	53	140	25
	1/21/2015	**3.2**	**32**	**0.086**	< 2 U	< 0.032 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	**0.96**	120	47	150	20
	4/21/2015	**6.9**	**75**	**0.25**	**17**	**0.091**	< 2.0 U	< 0.77 U	13	**10**	< 2.0 U	**30**	< 2.0 U	16	< 2.0 U	**3.7**	420	180	390	65
	7/17/2015	**0.89**	**9.2**	< 0.02 U	< 2.0 U	< 0.032 U	< 2.0 U	< 0.77 U	< 2.0 U	**1.7**	< 2.0 U	< 5.0 U	< 2.0 U	< 2 U	< 2.0 U	0.31	52	24	35	7.2
	10/27/2015	**8.6**	**81**	< 0.02 U	6.2	< 0.032 U	< 2.0 U	< 0.77 U	< 2.0 U	**4.5**	< 2.0 U	< 5.0 U	< 2.0 U	7	< 2.0 U	**1.6**	140	61	250	27
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	0.11	< 5.0 U	< 5.0 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
	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	< 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
	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	**1.1**	< 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
	1/12/2011	0.24	**8.6**	< 0.020 U	< 1.0 U	< 0.020 U	< 1.0 U	< 1.0 U	1.4	**1**	< 5.0 U	< 5.0 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
	2/17/2011	< 1.0 U	**7.6**	< 1.0 U	< 1.0 U	< 0.20 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	2.8	< 1.0 U
	3/16/2011	< 1.0 U	**6.6**	< 1.0 U	< 1.0 U	< 0.20 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
	4/20/2011	< 0.020 U	**10**	< 0.020 U	< 1.0 U	< 0.020 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	< 0.020 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	5/19/2011	< 1.0 U	**9.2**	< 1.0 U	< 1.0 U	< 0.20 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	1.4	< 1.0 U
	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	< 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
	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	0.22	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.041	5.4	2.5	17	1.6
	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	**1.3**	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.2	2.1	14	1.2

U = Compound not detected above reporting limit

BOLD = Concentration detected exceeds dCUL

NA = Compound not analyzed

PERIOD: 1/1 - 12/31/2015

Well	Date	Chloroethenes					Chloroethanes				Chloromethanes			Chlorobenzenes		Aromatics				
		Tetrachloro ethene	Trichloro ethene	1,1-Dichloro ethene	cis-1,2-Dichloro ethene	Vinyl Chloride	1,1,1-Trichloro ethane	1,1,2-Trichloro ethane	1,1-Dichloro ethane	1,2-Dichloro ethane	Chloro methane	Methylene Chloride	Chloroform	1,2-Dichloro benzene	Chloro benzene	Benzene	1,2,4-Trimethyl benzene	1,3,5-Trimethyl benzene	Ethyl benzene	n-Propyl benzene
2013 dCUL:		**0.69**	**2.5**	**0.057**	**16**	**0.090**	**200**	**-**	**-**	**0.38**	**-**	**5**	**-**	**-**	**-**	**0.5**	**-**	**-**	**-**	**-**
MW-53S	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	**1.2**	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.6	1.3	10	< 1.0 U
	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	**1.5**	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	0.066	2.5	< 2.0 U	6.8	< 2.0 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	**0.99**	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.020 U	3.8	1.8	6.1	< 1.0 U
	11/7/2011	0.64	**4.9**	< 0.020 U	< 2.0 U	< 0.020 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	0.1	3.9	< 2.0 U	4.9	< 2.0 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	**0.87**	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.020 U	3.5	1.6	5.1	< 1.0 U
	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	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	10	4.3	18	2.2
	1/24/2012	0.64	**9**	< 0.020 U	< 2.0 U	< 0.032 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	0.073	8.8	4	17	< 2.0 U
	3/14/2012	**6.4**	**32**	< 2.0 U	< 2.0 U	< 0.20 U	2.4	< 0.77 U	3.1	**3.8**	< 2.0 U	**8.4**	< 2.0 U	2.6	< 2.0 U	< 2.0 U	130	63	240	26
	4/24/2012	**5.5**	**12**	< 0.020 U	< 2.0 U	< 0.032 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	< 0.028 U	110	62	85	13
	5/16/2012	**2.9**	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	44	30	5.3	6.1
	6/21/2012	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	7/24/2012	< 0.050 U	0.16	0.024	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	8/16/2012	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	9/19/2012	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	10/16/2012	< 0.050 U	< 0.053 U	< 0.020 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	11/14/2012	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	12/12/2012	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	1/30/2013	< 0.050 U	0.2	< 0.020 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	2/20/2013	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	3/20/2013	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	4/16/2013	0.12	**3.5**	0.022	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	2.5	< 2.0 U
	5/21/2013	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	6/18/2013	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	7/24/2013	< 0.050 U	< 0.053 U	< 0.020 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	10/23/2013	< 0.05 U	< 0.053 U	< 0.02 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	1/23/2014	0.16	**6.4**	< 0.02 U	2.4	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	2.7	< 2.0 U
	4/22/2014	< 0.2 U	0.85	< 0.02 U	< 2.0 U	< 0.032 U	< 2.0 U	< 0.77 U	< 2.0 U	< 0.02 U	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	7/23/2014	< 0.2 U	0.28	< 0.02 U	< 2.0 U	< 0.032 U	< 2.0 U	< 0.77 U	< 2.0 U	< 0.02 U	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.028 U	< 2.0 U	< 2.0 U	2.2	< 2.0 U
	10/21/2014	< 0.2 U	0.48	< 0.02 U	< 2.0 U	< 0.032 U	< 2.0 U	< 0.77 U	< 2.0 U	< 0.02 U	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.028 U	< 2.0 U	< 2.0 U	3.1	< 2.0 U
	1/21/2015	0.28	0.45	< 0.02 U	< 2.0 U	< 0.032 U	< 2.0 U	< 0.77 U	< 2.0 U	< 0.02 U	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.028 U	< 2.0 U	< 2.0 U	3	< 2.0 U
	4/21/2015	< 0.2 U	0.62	< 0.02 U	< 2.0 U	< 0.032 U	< 2.0 U	< 0.77 U	< 2.0 U	< 0.02 U	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.028 U	< 2.0 U	< 2.0 U	2.7	< 2.0 U
	7/17/2015	< 0.2 U	0.36	< 0.02 UJ	< 2.0 U	< 0.032 U	< 2.0 U	< 0.77 U	< 2.0 U	< 0.02 U	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.028 U	< 2.0 U	< 2.0 U	2.3	< 2.0 U
	10/27/2015	< 0.2 U	0.12	< 0.02 U	< 2.0 U	< 0.032 U	< 2.0 U	< 0.77 U	< 2.0 U	< 0.02 U	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.028 U	< 2.0 U	< 2.0 U	< 2 U	< 2.0 U
MW-47S	8/27/2009	< 1.0 U	**3.3**	< 1.0 U	9.1	< 1.0 U	< 1.0 U	< 1.0 U	2.5	**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
	9/24/2009	< 1.0 U	**3.8**	< 1.0 U	8.9	< 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
	10/21/2009	0.21	**5.3**	**0.087**	10	< 1.0 U	< 1.0 U	< 1.0 U	3.2	**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
	11/18/2009	< 1.0 U	**3.6**	< 1.0 U	8.7	< 1.0 U	< 1.0 U	< 1.0 U	2.9	**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
	12/17/2009	< 1.0 U	2.5	< 1.0 U	7.4	< 1.0 U	< 1.0 U	< 1.0 U	2.8	< 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
	1/27/2010	0.31	**9.2**	**0.089**	6.9	0.033	< 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
	2/25/2010	< 1.0 U	**4.9**	< 1.0 U	4.9	< 0.20 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
	3/26/2010	< 1.0 U	1.5	< 1.0 U	5.3	< 0.20 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
	4/21/2010	0.2	0.89	< 0.050 U	3.1	< 0.020 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	< 0.020 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	5/20/2010	< 1.0 U	**2.8**	< 1.0 U	4.6	< 0.20 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
	6/24/2010	< 1.0 U	2	< 1.0 U	4.8	< 0.20 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
	7/14/2010	0.41	**3.1**	< 0.050 U	4	< 0.020 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	< 0.020 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	8/18/2010	< 1.0 U	**3.1**	< 1.0 U	3	< 0.20 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
	9/23/2010	< 1.0 U	**4.5**	< 1.0 U	3.8	< 0.20 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
	10/13/2010	0.19	**3.5**	< 0.050 U	3.5	< 0.020 U	< 1.0 U	< 1.0 U	1.2	**0.7**	< 5.0 U	< 5.0 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
	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	< 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
	12/22/2010	< 1.0 U	**7.6**	< 1.0 U	1.9	< 0.20 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
	1/12/2011	0.26	**8.4**	0.056	2.1	< 0.020 U	< 1.0 U	< 1.0 U	1.5	**1**	< 5.0 U	< 5.0 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
	2/17/2011	< 1.0 U	**13**	< 1.0 U	2.5	< 0.20 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
	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	< 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
	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	0.34	< 5.0 U	< 5.0 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
	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	< 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

U = Compound not detected above reporting limit

BOLD = Concentration detected exceeds dCUL

NA = Compound not analyzed

PERIOD: 1/1 - 12/31/2015

Well	Date	Chloroethenes					Chloroethanes				Chloromethanes			Chlorobenzenes		Aromatics				
		Tetrachloro ethene	Trichloro ethene	1,1-Dichloro ethene	cis-1,2-Dichloro ethene	Vinyl Chloride	1,1,1-Trichloro ethane	1,1,2-Trichloro ethane	1,1-Dichloro ethane	1,2-Dichloro ethane	Chloro methane	Methylene Chloride	Chloroform	1,2-Dichloro benzene	Chloro benzene	Benzene	1,2,4-Trimethyl benzene	1,3,5-Trimethyl benzene	Ethyl benzene	n-Propyl benzene
2013 dCUL:		**0.69**	**2.5**	**0.057**	**16**	**0.090**	**200**	**-**	**-**	**0.38**	**-**	**5**	**-**	**-**	**-**	**0.5**	**-**	**-**	**-**	**-**
MW-47S	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	< 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
	7/26/2011	0.22	**5.3**	0.026	1.6	< 0.020 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	< 0.020 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	8/25/2011	< 1.0 U	**6.2**	< 1.0 U	1.6	< 0.20 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
	9/30/2011	< 1.0 U	**8.2**	< 1.0 U	2	< 0.20 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
	10/25/2011	0.16	**4.9**	< 0.020 U	1.6	< 0.020 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	< 0.020 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	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	< 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
	12/20/2011	< 1.0 U	**9.3**	< 1.0 U	2.1	< 0.20 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
	1/26/2012	0.4	**20**	0.055	2.4	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	2/27/2012	< 2.0 U	**7.6**	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	3/14/2012	< 2.0 U	**4.7**	< 2.0 U	2.2	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	4/25/2012	0.27	**4.5**	< 0.020 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	5/16/2012	< 2.0 U	**4**	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	6/21/2012	< 2.0 U	**3.1**	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	7/25/2012	< 0.050 U	1.6	< 0.020 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	8/16/2012	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	9/19/2012	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	10/16/2012	< 0.050 U	0.45	< 0.020 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	11/14/2012	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	12/12/2012	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	1/30/2013	< 0.050 U	0.25	< 0.020 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	2/20/2013	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	3/20/2013	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	4/17/2013	< 0.050 U	0.097	< 0.020 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	5/21/2013	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	6/18/2013	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	7/25/2013	< 0.050 U	< 0.053 U	< 0.020 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	10/22/2013	< 0.05 U	0.082	< 0.02 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	1/23/2014	< 0.05 U	< 0.053 U	< 0.02 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	4/23/2014	< 0.2 U	< 0.053 U	< 0.02 U	< 2.0 U	< 0.032 U	< 2.0 U	< 0.77 U	< 2.0 U	< 0.02 U	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	7/23/2014	< 0.2 U	0.18	< 0.02 U	< 2.0 U	< 0.032 U	< 2.0 U	< 0.77 U	< 2.0 U	0.02	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	10/22/2014	< 0.2 U	0.18	< 0.02 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	1/21/2015	< 0.2 U	0.21	< 0.02 U	< 2.0 U	< 0.032 U	< 2.0 U	< 0.77 U	< 2 U	< 0.02 U	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	4/21/2015	< 0.2 U	0.12	< 0.02 U	< 2.0 U	< 0.032 U	< 2.0 U	< 0.77 U	< 2 U	< 0.02 U	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	7/17/2015	< 0.2 U	0.13	< 0.02 U	< 2.0 U	< 0.032 U	< 2.0 U	< 0.77 U	< 2 U	< 0.02 U	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	10/27/2015	< 0.2 U	0.16	< 0.02 U	< 2.0 U	< 0.032 U	< 2.0 U	< 0.77 U	< 2 U	< 0.02 U	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
MW-50S	1/27/2010	**0.76**	**18**	**0.092**	8.1	0.034	< 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	0.024	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	2/25/2010	**1.1**	**17**	< 1.0 U	6.5	< 0.20 U	< 1.0 U	0.49	5.6	**4**	< 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
	3/26/2010	< 1.0 U	**11**	< 1.0 U	4.5	< 0.20 U	< 1.0 U	< 1.0 U	3.5	**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
	4/21/2010	**0.73**	**11**	< 0.050 U	3.8	< 0.020 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	< 0.020 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	5/20/2010	< 1.0 U	**19**	< 1.0 U	3.7	< 0.20 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
	7/14/2010	**0.7**	**9.6**	< 0.050 U	2	< 0.020 U	< 1.0 U	< 1.0 U	1.9	**0.9**	< 5.0 U	< 5.0 U	1	< 1.0 U	< 1.0 U	< 0.020 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	8/18/2010	< 1.0 U	**10**	< 1.0 U	3.3	< 0.20 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
	9/23/2010	< 1.0 U	**13**	< 1.0 U	2.9	< 0.20 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
	10/13/2010	0.31	**9.9**	< 0.050 U	2.7	< 0.020 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	< 0.020 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	11/18/2010	< 1.0 U	**13**	< 1.0 U	2.1	< 0.20 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
	12/22/2010	< 1.0 U	**16**	< 1.0 U	1.7	< 0.20 U	< 1.0 U	< 1.0 U	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
	1/12/2011	0.55	**13**	0.036	1.4	< 0.020 U	< 1.0 U	< 1.0 U	2	**1.3**	< 5.0 U	< 5.0 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
	2/17/2011	< 1.0 U	**11**	< 1.0 U	1.2	< 0.20 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
	3/15/2011	< 1.0 U	**16**	< 1.0 U	1.7	< 0.20 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
	4/19/2011	0.54	**9.7**	< 0.020 U	< 1.0 U	< 0.020 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	< 0.020 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	5/19/2011	< 1.0 U	**14**	< 1.0 U	< 1.0 U	< 0.20 U	1.3	< 1.0 U	2	< 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
	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	< 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
	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	0.14	< 5.0 U	< 5.0 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
	8/25/2011	< 1.0 U	**16**	< 1.0 U	< 1.0 U	< 0.20 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
	9/30/2011	< 1.0 U	**20**	< 1.0 U	< 1.0 U	< 0.20 U	1.5	< 1.0 U	3.1	**1**	< 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

U = Compound not detected above reporting limit

BOLD = Concentration detected exceeds dCUL

NA = Compound not analyzed

PERIOD: 1/1 - 12/31/2015

Well	Date	Chloroethenes					Chloroethanes				Chloromethanes			Chlorobenzenes		Aromatics				
		Tetrachloro ethene	Trichloro ethene	1,1-Dichloro ethene	cis-1,2-Dichloro ethene	Vinyl Chloride	1,1,1-Trichloro ethane	1,1,2-Trichloro ethane	1,1-Dichloro ethane	1,2-Dichloro ethane	Chloro methane	Methylene Chloride	Chloroform	1,2-Dichloro benzene	Chloro benzene	Benzene	1,2,4-Trimethyl benzene	1,3,5-Trimethyl benzene	Ethyl benzene	n-Propyl benzene
2013 dCUL:		**0.69**	**2.5**	**0.057**	**16**	**0.090**	**200**	-	-	**0.38**	-	**5**	-	-	-	**0.5**	-	-	-	-
MW-50S	10/25/2011	**0.88**	**22**	0.039	1.1	< 0.020 U	1.7	< 1.0 U	4.1	**3**	< 5.0 U	< 5.0 U	1.1	< 1.0 U	< 1.0 U	< 0.020 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	11/17/2011	< 1.0 U	**23**	< 1.0 U	< 1.0 U	< 0.20 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
	12/20/2011	< 1.0 U	**37**	< 1.0 U	1.4	< 0.20 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
	1/26/2012	**1.4**	**27**	0.035	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	2/27/2012	< 2.0 U	**12**	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	3/14/2012	< 2.0 U	**10**	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	4/25/2012	**0.8**	**13**	< 0.020 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	5/16/2012	< 2.0 U	**8.9**	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	6/21/2012	< 2.0 U	**3.2**	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	7/25/2012	< 0.050 U	2.2	< 0.020 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	8/16/2012	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	9/19/2012	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	10/16/2012	0.06	0.63	< 0.020 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	11/14/2012	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	12/12/2012	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	1/30/2013	0.18	0.56	< 0.020 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	2/20/2013	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	3/20/2013	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	4/17/2013	0.13	0.41	< 0.020 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	5/21/2013	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	6/18/2013	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	7/25/2013	< 0.050 U	0.29	< 0.020 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	10/22/2013	0.39	0.29	< 0.02 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	1/23/2014	< 0.05 U	0.27	< 0.02 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	4/23/2014	< 0.2 U	< 0.053 U	< 0.02 U	< 2.0 U	< 0.032 U	< 2.0 U	< 0.77 U	< 2.0 U	< 0.02 U	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	7/23/2014	< 0.2 U	0.31	< 0.02 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	10/22/2014	< 0.2 U	0.33	< 0.02 U	< 2.0 U	< 0.032 U	< 2.0 U	< 0.77 U	< 2.0 U	< 0.02 U	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	1/21/2015	0.24	0.43	< 0.02 U	< 2 U	< 0.032 U	< 2.0 U	< 0.77 U	< 2.0 U	< 0.02 U	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	4/21/2015	0.24	0.33	< 0.02 U	< 2 U	< 0.032 U	< 2.0 U	< 0.77 U	< 2.0 U	< 0.02 U	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	7/17/2015	< 0.2 U	0.28	< 0.02 U	< 2 U	< 0.032 U	< 2.0 U	< 0.77 U	< 2.0 U	< 0.02 U	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	10/27/2015	< 0.2 U	0.26	< 0.02 U	< 2 U	< 0.032 U	< 2.0 U	< 0.77 U	< 2.0 U	< 0.02 U	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
NVM-01	8/27/2009	< 1.0 U	**25**	< 1.0 U	2.7	< 1.0 U	< 1.0 U	< 1.0 U	5.4	**2.6**	< 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
	9/24/2009	< 1.0 U	**11**	< 1.0 U	3.6	< 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
	10/21/2009	0.25	**6.6**	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	1.3	**0.76**	< 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
	11/18/2009	< 1.0 U	1.2	< 1.0 U	1.6	< 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
	12/17/2009	< 1.0 U	**5.5**	< 1.0 U	2.3	< 1.0 U	< 1.0 U	< 1.0 U	2.8	< 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
	1/27/2010	0.6	**12**	< 1.0 U	1.6	< 0.20 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
	2/25/2010	< 1.0 U	**10**	< 1.0 U	1.6	< 0.20 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
	3/26/2010	< 1.0 U	**4.5**	< 1.0 U	1.4	< 0.20 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
	4/21/2010	0.46	**7.5**	< 0.050 U	1.5	< 0.020 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	< 0.020 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	5/20/2010	< 1.0 U	**5.5**	< 1.0 U	< 1.0 U	< 0.20 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
	6/23/2010	< 1.0 U	**10**	< 1.0 U	< 1.0 U	< 0.20 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
	7/13/2010	0.65	**14**	< 0.050 U	1.5	0.032	< 1.0 U	< 1.0 U	2.7	**1.6**	< 5.0 U	< 5.0 U	1.5	< 1.0 U	< 1.0 U	0.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	8/18/2010	< 1.0 U	**14**	< 1.0 U	1.3	< 0.20 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
	9/23/2010	< 1.0 U	**17**	< 1.0 U	1.2	< 0.20 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
	10/13/2010	0.39	**11**	< 0.050 U	< 1.0 U	< 0.020 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	< 0.020 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	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	< 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
	12/22/2010	< 1.0 U	**5.1**	< 1.0 U	< 1.0 U	< 0.20 U	< 1.0 U	< 1.0 U	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
	1/11/2011	0.19	**7.5**	< 0.020 U	< 1.0 U	< 0.020 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	< 0.020 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	2/17/2011	< 1.0 U	**13**	< 1.0 U	1	< 0.20 U	< 1.0 U	< 1.0 U	2.5	**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
	3/15/2011	< 1.0 U	**24**	< 1.0 U	2.4	< 0.20 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
	4/19/2011	**1**	**15**	< 0.020 U	< 1.0 U	< 0.020 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	< 0.020 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	5/19/2011	< 1.0 U	**19**	< 1.0 U	1.3	< 0.20 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
	6/15/2011	< 1.0 U	**15**	< 1.0 U	< 1.0 U	< 0.20 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
	7/26/2011	0.37	**20**	**0.058**	< 1.0 U	< 0.020 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	< 0.020 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U

U = Compound not detected above reporting limit

BOLD = Concentration detected exceeds dCUL

NA = Compound not analyzed

PERIOD: 1/1 - 12/31/2015

Well	Date	Chloroethenes					Chloroethanes				Chloromethanes			Chlorobenzenes		Aromatics				
		Tetrachloro ethene	Trichloro ethene	1,1-Dichloro ethene	cis-1,2-Dichloro ethene	Vinyl Chloride	1,1,1-Trichloro ethane	1,1,2-Trichloro ethane	1,1-Dichloro ethane	1,2-Dichloro ethane	Chloro methane	Methylene Chloride	Chloroform	1,2-Dichloro benzene	Chloro benzene	Benzene	1,2,4-Trimethyl benzene	1,3,5-Trimethyl benzene	Ethyl benzene	n-Propyl benzene
2013 dCUL:		**0.69**	**2.5**	**0.057**	**16**	**0.090**	**200**	**-**	**-**	**0.38**	**-**	**5**	**-**	**-**	**-**	**0.5**	**-**	**-**	**-**	**-**
NVM-01	8/25/2011	< 1.0 U	**15**	< 1.0 U	< 1.0 U	< 0.20 U	< 1.0 U	< 1.0 U	2	**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
	9/30/2011	< 1.0 U	**33**	< 1.0 U	1.4	< 0.20 U	< 1.0 U	< 1.0 U	4.7	**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
	10/25/2011	0.44	**21**	0.032	< 1.0 U	< 0.020 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	< 0.020 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	11/17/2011	< 1.0 U	**34**	< 1.0 U	1.4	< 0.20 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
	12/20/2011	< 1.0 U	**35**	< 1.0 U	1.5	< 0.20 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
	1/25/2012	0.68	**22**	0.036	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	2/27/2012	< 2.0 U	**13**	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	3/14/2012	< 2.0 U	**7.8**	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	4/25/2012	0.46	**11**	0.026	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	5/16/2012	< 2.0 U	**14**	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	6/21/2012	< 2.0 U	2.3	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	7/25/2012	< 0.050 U	**4.4**	< 0.020 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	8/16/2012	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	9/19/2012	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	10/16/2012	< 0.050 U	0.47	< 0.020 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	11/14/2012	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	12/12/2012	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	1/30/2013	< 0.050 U	0.24	< 0.020 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	2/20/2013	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	3/20/2013	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	4/18/2013	< 0.050 U	0.06	< 0.020 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	5/21/2013	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	6/18/2013	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	7/25/2013	< 0.050 U	< 0.053 U	< 0.020 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	10/22/2013	0.091	< 0.053 U	< 0.02 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	1/23/2014	< 0.05 U	< 0.053 U	< 0.02 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	4/22/2014	< 0.2 U	1.7	< 0.02 U	< 2.0 U	< 0.032 U	< 2.0 U	< 0.77 U	< 2.0 U	< 0.02 U	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	7/22/2014	0.22	1.4	< 0.02 U	< 2.0 U	< 0.032 U	< 2.0 U	< 0.77 U	< 2.0 U	< 0.02 U	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	10/21/2014	< 0.2 U	0.94	< 0.02 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	1/21/2015	< 0.2 U	1.1	< 0.02 U	< 2 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	4/21/2015	< 0.2 U	0.4	< 0.02 U	< 2 U	< 0.032 U	< 2.0 U	< 0.77 U	< 2.0 U	< 0.02 U	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	7/17/2015	< 0.2 U	0.17	< 0.02 U	< 2 U	< 0.032 U	< 2.0 U	< 0.77 U	< 2.0 U	< 0.02 U	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	10/27/2015	< 0.2 U	0.4	< 0.02 U	< 2 U	< 0.032 U	< 2.0 U	< 0.77 U	< 2.0 U	< 0.02 U	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
MW-12S	9/24/2009	< 1.0 U	**15**	< 1.0 U	3.2	< 1.0 U	< 1.0 U	< 1.0 U	2.9	**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
	10/20/2009	0.16	**2.8**	< 1.0 U	< 1.0 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	< 1.0 U	< 1.0 U	< 1.0 U
	11/18/2009	< 1.0 U	1.8	< 1.0 U	< 1.0 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
	12/17/2009	< 1.0 U	**4.7**	< 1.0 U	< 1.0 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
	1/27/2010	0.25	**3.9**	< 1.0 U	< 1.0 U	< 0.20 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
	2/25/2010	< 1.0 U	**4.2**	< 1.0 U	< 1.0 U	< 0.20 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
	3/26/2010	< 1.0 U	**12**	< 1.0 U	1.3	< 0.20 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
	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	0.24	< 5.0 U	< 5.0 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
	5/20/2010	< 1.0 U	2	< 1.0 U	< 1.0 U	< 0.20 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
	6/23/2010	< 1.0 U	**2.6**	< 1.0 U	2.6	< 0.20 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
	7/13/2010	**0.77**	**3.9**	< 0.050 U	8	0.052	< 1.0 U	< 1.0 U	1.9	**0.52**	< 5.0 U	**12**	< 1.0 U	< 1.0 U	< 1.0 U	0.12	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	8/18/2010	< 1.0 U	**4.5**	< 1.0 U	< 1.0 U	< 0.20 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
	9/23/2010	< 1.0 U	**8.3**	< 1.0 U	< 1.0 U	< 0.20 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
	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	0.37	< 5.0 U	< 5.0 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
	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	< 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
	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	< 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
	1/11/2011	0.12	2.1	< 0.020 U	< 1.0 U	< 0.020 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	< 0.020 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	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	< 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
	3/15/2011	< 1.0 U	**7.4**	< 1.0 U	< 1.0 U	< 0.20 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
	4/19/2011	0.3	**10**	< 0.020 U	< 1.0 U	< 0.020 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	< 0.020 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	5/19/2011	< 1.0 U	**26**	< 1.0 U	2.3	< 0.20 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
	6/15/2011	< 1.0 U	**14**	< 1.0 U	< 1.0 U	< 0.20 U	< 1.0 U	< 1.0 U	2.8	**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

U = Compound not detected above reporting limit

BOLD = Concentration detected exceeds dCUL

NA = Compound not analyzed

PERIOD: 1/1 - 12/31/2015

Well	Date	Chloroethenes					Chloroethanes				Chloromethanes			Chlorobenzenes		Aromatics				
		Tetrachloro ethene	Trichloro ethene	1,1-Dichloro ethene	cis-1,2-Dichloro ethene	Vinyl Chloride	1,1,1-Trichloro ethane	1,1,2-Trichloro ethane	1,1-Dichloro ethane	1,2-Dichloro ethane	Chloro methane	Methylene Chloride	Chloroform	1,2-Dichloro benzene	Chloro benzene	Benzene	1,2,4-Trimethyl benzene	1,3,5-Trimethyl benzene	Ethyl benzene	n-Propyl benzene
2013 dCUL:		**0.69**	**2.5**	**0.057**	**16**	**0.090**	**200**	-	-	**0.38**	-	**5**	-	-	-	**0.5**	-	-	-	-
MW-12S	7/26/2011	0.022	**4**	< 0.020 U	< 1.0 U	< 0.020 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	< 0.020 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	8/25/2011	< 1.0 U	**11**	< 1.0 U	< 1.0 U	< 0.20 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
	9/30/2011	< 1.0 U	**8.2**	< 1.0 U	< 1.0 U	< 0.20 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
	10/25/2011	0.28	**16**	0.026	< 1.0 U	< 0.020 U	< 1.0 U	< 1.0 U	2.3	**2**	< 5.0 U	< 5.0 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
	11/17/2011	< 1.0 U	**12**	< 1.0 U	< 1.0 U	< 0.20 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
	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	< 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
	1/25/2012	0.2	**10**	< 0.020 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	2/27/2012	< 2.0 U	**25**	< 2.0 U	< 2.0 U	< 0.20 U	< 2.0 U	< 0.77 U	3	**2.4**	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	3/14/2012	< 2.0 U	**19**	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	4/25/2012	0.22	**3.2**	< 0.020 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	5/16/2012	< 2.0 U	**5.7**	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	6/21/2012	< 2.0 U	**12**	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	7/25/2012	0.49	**23**	0.034	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	8/16/2012	< 2.0 U	**11**	< 2.0 U	< 2.0 U	< 0.20 U	< 2.0 U	< 0.77 U	< 2.0 U	**2**	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	9/19/2012	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	10/16/2012	< 0.050 U	1.8	< 0.020 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	11/14/2012	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	12/12/2012	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	1/30/2013	< 0.050 U	0.3	< 0.020 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	2/20/2013	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	3/20/2013	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	4/17/2013	< 0.050 U	0.056	< 0.020 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	5/21/2013	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	6/18/2013	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.20 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	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	7/24/2013	< 0.050 U	< 0.053 U	< 0.020 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	10/22/2013	0.09	< 0.053 U	< 0.02 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	1/22/2014	< 0.05 U	< 0.053 U	< 0.02 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	4/23/2014	< 0.2 U	0.92	< 0.02 U	< 2.0 U	< 0.032 U	< 2.0 U	< 0.77 U	< 2.0 U	< 0.02 U	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	7/21/2014	0.25	**7**	< 0.02 U	< 2.0 U	< 0.032 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	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	10/22/2014	< 0.2 U	0.43	< 0.02 U	< 2.0 U	< 0.032 U	< 2.0 U	< 0.77 U	< 2.0 U	< 0.02 U	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	1/21/2015	< 0.2 U	0.31	< 0.02 U	< 2 U	< 0.032 U	< 2.0 U	< 0.77 U	< 2.0 U	< 0.02 U	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	4/21/2015	< 0.2 U	0.18	< 0.02 U	< 2 U	< 0.032 U	< 2.0 U	< 0.77 U	< 2.0 U	< 0.02 U	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	7/17/2015	< 0.2 U	0.31	< 0.02 U	< 2 U	< 0.032 U	< 2.0 U	< 0.77 U	< 2.0 U	< 0.02 U	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	10/27/2015	< 0.2 U	0.12	< 0.02 U	< 2 U	< 0.032 U	< 2.0 U	< 0.77 U	< 2.0 U	< 0.02 U	< 2.0 U	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 0.028 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U

U = Compound not detected above reporting limit

BOLD = Concentration detected exceeds dCUL

NA = Compound not analyzed

Well	Date	Aromatics											Ketones					
		Tert-Butyl benzene	n-Butyl benzene	Isopropyl benzene (Cumene)	Styrene	Naphthalene	Toluene	2-Chloro toluene	4-Chloro toluene	p-Isopropyl toluene	m, p-Xylene	o-Xylene	Methyl isobutyl ketone	2-Butanone	Acetone	2-Hexanone	Tertiary butyl alcohol	Ethanol
2013 dCUL:		-	-	-	-	-	**615**	-	-	-	-	-	-	-	-	-	-	-
MW-52S	10/12/2010	< 1.0 U	< 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	NA	NA
	11/18/2010	< 1.0 U	< 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	NA	NA
	12/21/2010	< 1.0 U	< 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	NA	NA
	1/12/2011	< 1.0 U	< 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	NA	NA
	2/17/2011	< 1.0 U	< 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	NA	NA
	3/16/2011	< 1.0 U	< 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	NA	NA
	4/20/2011	< 1.0 U	< 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	NA	NA
	5/19/2011	< 1.0 U	< 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	NA	NA
	6/15/2011	< 1.0 U	< 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	NA	NA
	7/26/2011	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 10 U	< 10 U	< 10 U	< 10 U	NA	NA
	8/25/2011	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.8	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 10 U	< 10 U	< 10 U	< 10 U	NA	NA
	9/30/2011	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.2	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 10 U	< 10 U	< 10 U	< 10 U	NA	NA
	10/17/2011	< 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	< 20 U	< 1000 U
	10/24/2011	< 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	NA	NA
	11/7/2011	< 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	< 10 U	< 1000 U
	11/14/2011	< 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	NA	NA
	12/19/2011	< 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	1.5	< 10 U	< 10 U	< 10 U	< 10 U	NA	NA
	1/24/2012	< 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	< 13 U	< 710 U
	2/27/2012	< 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	34	< 710 U
	3/14/2012	< 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	< 13 U	< 710 U
	4/24/2012	< 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	< 13 U	< 710 U
	5/16/2012	< 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	< 13 U	< 710 U
	6/21/2012	< 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	< 13 U	< 710 U
	7/24/2012	< 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	< 13 U	< 710 U
	8/16/2012	< 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	< 13 U	< 710 U
	9/19/2012	< 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	< 13 U	< 710 U
	10/16/2012	< 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	< 13 U	< 710 U
	11/14/2012	< 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	< 13 U	< 710 U
	12/12/2012	< 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	< 13 U	< 710 U
	1/30/2013	< 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	< 13 U	< 710 U
	2/20/2013	< 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	< 13 U	< 710 U
	3/20/2013	< 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	< 13 U	< 710 U
	4/16/2013	< 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	< 13 U	< 710 U
	5/21/2013	< 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	< 13 U	< 710 U
	6/18/2013	< 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	< 13 U	< 710 U
	7/24/2013	< 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	< 13 U	< 710 U
	10/23/2013	< 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	< 13 U	< 710 U
	1/23/2014	< 2.0 U	< 2.0 U	9.5	< 1.5 U	< 2.0 U	**1000**	< 2.0 U	< 2.0 U	< 2.0 U	800	270	< 1000 U	1400	< 2500 U	20	79	< 710 U
	4/22/2014	< 2.0 U	11	71	< 1.5 U	12	**11000**	< 2.0 U	< 2.0 U	12	4600	1300	2400	200	< 2500 U	< 100 U	< 13 U	< 710 U
	7/23/2014	< 2.0 U	< 2.0 U	7.8	< 1.5 U	24	**640**	< 2.0 U	< 2.0 U	< 2.0 U	520	220	830	3700	6900	48	340	6400
	10/21/2014	26	2.4	8.6	17	24	390	19	5.7	2.1	550	230	< 1000 U	390	< 2500 U	37	24	< 710 U
	1/21/2015	< 2.0 U	5.5	6.6	< 1.5 U	28	520	< 2.0 U	< 2.0 U	< 2.0 U	560	230	360	< 1000 U	< 2500 U	21	< 13 U	< 710 U
	4/21/2015	< 2.0 U	< 2.0 U	29	< 1.5 U	R	**1500**	< 2.0 U	< 2.0 U	8.2	1,400	630	3,800	< 10000 U	< 25000 U	180	540	17,000
	7/17/2015	< 2.0 U	< 2.0 U	2.8	< 1.5 U	12	120	< 2.0 U	< 2.0 U	< 2.0 U	130	58	< 1000 U	< 1000 U	< 2500 U	11	26	< 710 U
	10/27/2015	< 2.0 U	< 2.0 U	12	< 1.5 U	R	**1500**	< 2.0 U	< 2.0 U	2.8	930	390	1500	26	36	< 100 U	< 13 U	< 710 U
MW-53S	10/12/2010	< 1.0 U	< 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	NA	NA
	11/18/2010	< 1.0 U	< 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	NA	NA
	12/21/2010	< 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	< 2.0 U	< 1.0 U	16	17	19	< 10 U	NA	NA
	1/12/2011	< 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	NA	NA
	2/17/2011	< 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	NA	NA
	3/16/2011	< 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	NA	NA
	4/20/2011	< 1.0 U	< 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	NA	NA
	5/19/2011	< 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	NA	NA
	6/15/2011	< 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	NA	NA
	7/26/2011	< 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	NA	NA
	8/25/2011	< 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	NA	NA

U = Compound not detected above reporting limit

BOLD = Concentration detected exceeds dCUL

NA = Compound not analyzed

Well	Date	Aromatics											Ketones					
		Tert-Butyl benzene	n-Butyl benzene	Isopropyl benzene (Cumene)	Styrene	Naphthalene	Toluene	2-Chloro toluene	4-Chloro toluene	p-Isopropyl toluene	m, p-Xylene	o-Xylene	Methyl isobutyl ketone	2-Butanone	Acetone	2-Hexanone	Tertiary butyl alcohol	Ethanol
2013 dCUL:		-	-	-	-	-	**615**	-	-	-	-	-	-	-	-	-	-	-
MW-53S	9/30/2011	< 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	NA	NA
	10/17/2011	< 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	< 20 U	< 1000 U
	10/24/2011	< 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	NA	NA
	11/7/2011	< 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	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 1000 U
	11/14/2011	< 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	NA	NA
	12/19/2011	< 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	NA	NA
	1/24/2012	< 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	< 13 U	< 710 U
	3/14/2012	< 2.0 U	3.5	10	< 1.5 U	9.3	**1100**	< 2.0 U	< 2.0 U	< 2.0 U	880	340	300	62	310	< 10 U	< 13 U	< 710 U
	4/24/2012	< 2.0 U	< 2.0 U	7.7	< 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	< 13 U	< 710 U
	5/16/2012	< 2.0 U	< 2.0 U	3.4	< 1.5 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	< 13 U	< 710 U
	6/21/2012	< 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	< 13 U	< 710 U
	7/24/2012	< 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	< 13 U	< 710 U
	8/16/2012	< 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	< 13 U	< 710 U
	9/19/2012	< 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	< 13 U	< 710 U
	10/16/2012	< 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	< 13 U	< 710 U
	11/14/2012	< 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	< 13 U	< 710 U
	12/12/2012	< 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	< 13 U	< 710 U
	1/30/2013	< 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	< 13 U	< 710 U
	2/20/2013	< 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	< 13 U	< 710 U
	3/20/2013	< 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	< 13 U	< 710 U
	4/16/2013	< 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	< 13 U	< 710 U
	5/21/2013	< 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	< 13 U	< 710 U
	6/18/2013	< 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	< 13 U	< 710 U
	7/24/2013	< 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	< 13 U	< 710 U
	10/23/2013	< 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	< 13 U	< 710 U
	1/23/2014	< 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	< 13 U	< 710 U
	4/22/2014	< 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	< 13 U	< 710 U
	7/23/2014	< 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	3.4	< 10 U	< 10 U	< 25 U	< 10 U	< 13 U	< 710 U
	10/21/2014	< 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	3.1	< 10 U	< 10 U	< 25 U	< 10 U	< 13 U	< 710 U
	1/21/2015	< 2.0 U	< 2.0 U	< 2.0 U	< 1.5 U	< 2 U	12	< 2.0 U	< 2.0 U	< 2 U	10	3.1	< 10 U	< 10 U	< 25 U	< 10 U	< 13 U	< 710 U
	4/21/2015	< 2.0 U	< 2.0 U	< 2.0 U	< 1.5 U	R	13	< 2.0 U	< 2.0 U	< 2 U	9.2	3.6	< 10 U	< 10 U	< 25 U	< 10 U	< 13 U	< 710 U
	7/17/2015	< 2.0 U	< 2.0 U	< 2.0 U	< 1.5 U	< 2 U	6.3	< 2.0 U	< 2.0 U	< 2 U	7.9	3.2	< 10 U	< 10 U	< 25 U	< 10 U	< 13 U	< 710 U
	10/27/2015	< 2.0 U	< 2.0 U	< 2.0 U	< 1.5 U	R	< 2 U	< 2.0 U	< 2.0 U	< 2 U	< 4 U	< 2 U	25	< 10 U	< 25 U	< 10 U	< 13 U	< 710 U
MW-47S	8/27/2009	< 1.0 U	< 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	NA	NA
	9/24/2009	< 1.0 U	< 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	NA	NA
	10/21/2009	< 1.0 U	< 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	NA	NA
	11/18/2009	< 1.0 U	< 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	NA	NA
	12/17/2009	< 1.0 U	< 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	NA	NA
	1/27/2010	< 1.0 U	< 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	NA	NA
	2/25/2010	< 1.0 U	< 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	NA	NA
	3/26/2010	< 1.0 U	< 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	NA	NA
	4/21/2010	< 1.0 U	< 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	NA	NA
	5/20/2010	< 1.0 U	< 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	NA	NA
	6/24/2010	< 1.0 U	< 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	NA	NA
	7/14/2010	< 1.0 U	< 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	NA	NA
	8/18/2010	< 1.0 U	< 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	NA	NA
	9/23/2010	< 1.0 U	< 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	NA	NA
	10/13/2010	< 1.0 U	< 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	NA	NA
	11/18/2010	< 1.0 U	< 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	NA	NA
	12/22/2010	< 1.0 U	< 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	NA	NA
	1/12/2011	< 1.0 U	< 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	NA	NA
	2/17/2011	< 1.0 U	< 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	NA	NA
	3/15/2011	< 1.0 U	< 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	NA	NA
	4/19/2011	< 1.0 U	< 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	NA	NA
	5/19/2011	< 1.0 U	< 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	NA	NA

U = Compound not detected above reporting limit

BOLD = Concentration detected exceeds dCUL

NA = Compound not analyzed

Well	Date	Aromatics											Ketones					
		Tert-Butyl benzene	n-Butyl benzene	Isopropyl benzene (Cumene)	Styrene	Naphthalene	Toluene	2-Chloro toluene	4-Chloro toluene	p-Isopropyl toluene	m, p-Xylene	o-Xylene	Methyl isobutyl ketone	2-Butanone	Acetone	2-Hexanone	Tertiary butyl alcohol	Ethanol
2013 dCUL:		-	-	-	-	-	**615**	-	-	-	-	-	-	-	-	-	-	-
MW-47S	6/15/2011	< 1.0 U	< 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	NA	NA
	7/26/2011	< 1.0 U	< 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	NA	NA
	8/25/2011	< 1.0 U	< 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	NA	NA
	9/30/2011	< 1.0 U	< 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	NA	NA
	10/25/2011	< 1.0 U	< 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	NA	NA
	11/17/2011	< 1.0 U	< 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	NA	NA
	12/20/2011	< 1.0 U	< 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	NA	NA
	1/26/2012	< 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	< 13 U	< 710 U
	2/27/2012	< 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	< 13 U	< 710 U
	3/14/2012	< 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	< 13 U	< 710 U
	4/25/2012	< 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	< 13 U	< 710 U
	5/16/2012	< 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	< 13 U	< 710 U
	6/21/2012	< 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	< 13 U	< 710 U
	7/25/2012	< 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	< 13 U	< 710 U
	8/16/2012	< 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	< 13 U	< 710 U
	9/19/2012	< 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	< 13 U	< 710 U
	10/16/2012	< 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	< 13 U	< 710 U
	11/14/2012	< 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	< 13 U	< 710 U
	12/12/2012	< 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	< 13 U	< 710 U
	1/30/2013	< 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	< 13 U	< 710 U
	2/20/2013	< 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	< 13 U	< 710 U
	3/20/2013	< 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	< 13 U	< 710 U
	4/17/2013	< 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	< 13 U	< 710 U
	5/21/2013	< 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	< 13 U	< 710 U
	6/18/2013	< 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	< 13 U	< 710 U
	7/25/2013	< 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	< 13 U	< 710 U
	10/22/2013	< 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	< 13 U	< 710 U
	1/23/2014	< 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	< 13 U	< 710 U
	4/23/2014	< 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	< 13 U	< 710 U
	7/23/2014	< 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	< 13 U	< 710 U
	10/22/2014	< 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	< 13 U	< 710 U
	1/21/2015	< 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	< 13 U	< 710 U
	4/21/2015	< 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	< 13 U	< 710 U
	7/17/2015	< 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	< 13 U	< 710 U
	10/27/2015	< 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	< 13 U	< 710 U
MW-50S	1/27/2010	< 1.0 U	< 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	NA	NA
	2/25/2010	< 1.0 U	< 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	NA	NA
	3/26/2010	< 1.0 U	< 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	NA	NA
	4/21/2010	< 1.0 U	< 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	NA	NA
	5/20/2010	< 1.0 U	< 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	NA	NA
	7/14/2010	< 1.0 U	< 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	NA	NA
	8/18/2010	< 1.0 U	< 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	NA	NA
	9/23/2010	< 1.0 U	< 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	NA	NA
	10/13/2010	< 1.0 U	< 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	NA	NA
	11/18/2010	< 1.0 U	< 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	NA	NA
	12/22/2010	< 1.0 U	< 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	NA	NA
	1/12/2011	< 1.0 U	< 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	NA	NA
	2/17/2011	< 1.0 U	< 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	NA	NA
	3/15/2011	< 1.0 U	< 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	NA	NA
	4/19/2011	< 1.0 U	< 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	NA	NA
	5/19/2011	< 1.0 U	< 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	NA	NA
	6/15/2011	< 1.0 U	< 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	NA	NA
	7/26/2011	< 1.0 U	< 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	NA	NA
	8/25/2011	< 1.0 U	< 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	NA	NA
	9/30/2011	< 1.0 U	< 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	NA	NA

Well	Date	Aromatics											Ketones					
		Tert-Butyl benzene	n-Butyl benzene	Isopropyl benzene (Cumene)	Styrene	Naphthalene	Toluene	2-Chloro toluene	4-Chloro toluene	p-Isopropyl toluene	m, p-Xylene	o-Xylene	Methyl isobutyl ketone	2-Butanone	Acetone	2-Hexanone	Tertiary butyl alcohol	Ethanol
2013 dCUL:		-	-	-	-	-	**615**	-	-	-	-	-	-	-	-	-	-	-
MW-50S	10/25/2011	< 1.0 U	< 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	NA	NA
	11/17/2011	< 1.0 U	< 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	NA	NA
	12/20/2011	< 1.0 U	< 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	NA	NA
	1/26/2012	< 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	< 13 U	< 710 U
	2/27/2012	< 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	< 13 U	< 710 U
	3/14/2012	< 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	< 13 U	< 710 U
	4/25/2012	< 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	< 13 U	< 710 U
	5/16/2012	< 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	< 13 U	< 710 U
	6/21/2012	< 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	< 13 U	< 710 U
	7/25/2012	< 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	< 13 U	< 710 U
	8/16/2012	< 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	< 13 U	< 710 U
	9/19/2012	< 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	< 13 U	< 710 U
	10/16/2012	< 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	< 13 U	< 710 U
	11/14/2012	< 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	< 13 U	< 710 U
	12/12/2012	< 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	< 13 U	< 710 U
	1/30/2013	< 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	< 13 U	< 710 U
	2/20/2013	< 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	< 13 U	< 710 U
	3/20/2013	< 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	< 13 U	< 710 U
	4/17/2013	< 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	< 13 U	< 710 U
	5/21/2013	< 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	< 13 U	< 710 U
	6/18/2013	< 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	< 13 U	< 710 U
	7/25/2013	< 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	< 13 U	< 710 U
	10/22/2013	< 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	< 13 U	< 710 U
	1/23/2014	< 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	< 13 U	< 710 U
	4/23/2014	< 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	< 13 U	< 710 U
	7/23/2014	< 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	< 13 U	< 710 U
	10/22/2014	< 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	< 13 U	< 710 U
	1/21/2015	< 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	< 13 U	< 710 U
	4/21/2015	< 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	< 13 U	< 710 U
	7/17/2015	< 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	< 13 U	< 710 U
	10/27/2015	< 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	< 13 U	< 710 U
NVM-01	8/27/2009	< 1.0 U	< 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	NA	NA
	9/24/2009	< 1.0 U	< 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	NA	NA
	10/21/2009	< 1.0 U	< 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	NA	NA
	11/18/2009	< 1.0 U	< 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	NA	NA
	12/17/2009	< 1.0 U	< 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	NA	NA
	1/27/2010	< 1.0 U	< 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	NA	NA
	2/25/2010	< 1.0 U	< 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	NA	NA
	3/26/2010	< 1.0 U	< 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	NA	NA
	4/21/2010	< 1.0 U	< 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	NA	NA
	5/20/2010	< 1.0 U	< 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	NA	NA
	6/23/2010	< 1.0 U	< 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	NA	NA
	7/13/2010	< 1.0 U	< 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	NA	NA
	8/18/2010	< 1.0 U	< 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	NA	NA
	9/23/2010	< 1.0 U	< 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	NA	NA
	10/13/2010	< 1.0 U	< 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	NA	NA
	11/18/2010	< 1.0 U	< 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	NA	NA
	12/22/2010	< 1.0 U	< 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	NA	NA
	1/11/2011	< 1.0 U	< 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	NA	NA
	2/17/2011	< 1.0 U	< 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	NA	NA
	3/15/2011	< 1.0 U	< 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	NA	NA
	4/19/2011	< 1.0 U	< 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	NA	NA
	5/19/2011	< 1.0 U	< 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	NA	NA
	6/15/2011	< 1.0 U	< 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	NA	NA
	7/26/2011	< 1.0 U	< 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	NA	NA

U = Compound not detected above reporting limit

BOLD = Concentration detected exceeds dCUL

NA = Compound not analyzed

Well	Date	Aromatics											Ketones					
		Tert-Butyl benzene	n-Butyl benzene	Isopropyl benzene (Cumene)	Styrene	Naphthalene	Toluene	2-Chloro toluene	4-Chloro toluene	p-Isopropyl toluene	m, p-Xylene	o-Xylene	Methyl isobutyl ketone	2-Butanone	Acetone	2-Hexanone	Tertiary butyl alcohol	Ethanol
2013 dCUL:		-	-	-	-	-	**615**	-	-	-	-	-	-	-	-	-	-	-
NVM-01	8/25/2011	< 1.0 U	< 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	NA	NA
	9/30/2011	< 1.0 U	< 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	NA	NA
	10/25/2011	< 1.0 U	< 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	NA	NA
	11/17/2011	< 1.0 U	< 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	NA	NA
	12/20/2011	< 1.0 U	< 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	NA	NA
	1/25/2012	< 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	< 13 U	< 710 U
	2/27/2012	< 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	< 13 U	< 710 U
	3/14/2012	< 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	< 13 U	< 710 U
	4/25/2012	< 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	< 13 U	< 710 U
	5/16/2012	< 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	< 13 U	< 710 U
	6/21/2012	< 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	< 13 U	< 710 U
	7/25/2012	< 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	< 13 U	< 710 U
	8/16/2012	< 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	< 13 U	< 710 U
	9/19/2012	< 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	< 13 U	< 710 U
	10/16/2012	< 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	< 13 U	< 710 U
	11/14/2012	< 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	< 13 U	< 710 U
	12/12/2012	< 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	< 13 U	< 710 U
	1/30/2013	< 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	< 13 U	< 710 U
	2/20/2013	< 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	< 13 U	< 710 U
	3/20/2013	< 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	< 13 U	< 710 U
	4/18/2013	< 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	< 13 U	< 710 U
	5/21/2013	< 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	< 13 U	< 710 U
	6/18/2013	< 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	< 13 U	< 710 U
	7/25/2013	< 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	< 13 U	< 710 U
	10/22/2013	< 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	< 13 U	< 710 U
	1/23/2014	< 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	< 13 U	< 710 U
	4/22/2014	< 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	< 13 U	< 710 U
	7/22/2014	< 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	< 13 U	< 710 U
	10/21/2014	< 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	< 13 U	< 710 U
	1/21/2015	< 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	< 13 U	< 710 U
	4/21/2015	< 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	< 13 U	< 710 U
	7/17/2015	< 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	< 13 U	< 710 U
	10/27/2015	< 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	< 13 U	< 710 U
MW-12S	9/24/2009	< 1.0 U	< 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	NA	NA
	10/20/2009	< 1.0 U	< 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	NA	NA
	11/18/2009	< 1.0 U	< 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	NA	NA
	12/17/2009	< 1.0 U	< 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	NA	NA
	1/27/2010	< 1.0 U	< 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	NA	NA
	2/25/2010	< 1.0 U	< 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	NA	NA
	3/26/2010	< 1.0 U	< 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	NA	NA
	4/21/2010	< 1.0 U	< 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	NA	NA
	5/20/2010	< 1.0 U	< 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	NA	NA
	6/23/2010	< 1.0 U	< 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	NA	NA
	7/13/2010	< 1.0 U	< 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	NA	NA
	8/18/2010	< 1.0 U	< 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	NA	NA
	9/23/2010	< 1.0 U	< 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	NA	NA
	10/12/2010	< 1.0 U	< 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	NA	NA
	11/18/2010	< 1.0 U	< 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	NA	NA
	12/22/2010	< 1.0 U	< 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	NA	NA
	1/11/2011	< 1.0 U	< 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	NA	NA
	2/16/2011	< 1.0 U	< 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	NA	NA
	3/15/2011	< 1.0 U	< 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	NA	NA
	4/19/2011	< 1.0 U	< 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	NA	NA
	5/19/2011	< 1.0 U	< 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	NA	NA
	6/15/2011	< 1.0 U	< 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	NA	NA

U = Compound not detected above reporting limit

BOLD = Concentration detected exceeds dCUL

NA = Compound not analyzed

Well	Date	Aromatics											Ketones					
		Tert-Butyl benzene	n-Butyl benzene	Isopropyl benzene (Cumene)	Styrene	Naphthalene	Toluene	2-Chloro toluene	4-Chloro toluene	p-Isopropyl toluene	m, p-Xylene	o-Xylene	Methyl isobutyl ketone	2-Butanone	Acetone	2-Hexanone	Tertiary butyl alcohol	Ethanol
2013 dCUL:		-	-	-	-	-	**615**	-	-	-	-	-	-	-	-	-	-	-
MW-12S	7/26/2011	< 1.0 U	< 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	NA	NA
	8/25/2011	< 1.0 U	< 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	NA	NA
	9/30/2011	< 1.0 U	< 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	NA	NA
	10/25/2011	< 1.0 U	< 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	NA	NA
	11/17/2011	< 1.0 U	< 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	NA	NA
	12/20/2011	< 1.0 U	< 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	NA	NA
	1/25/2012	< 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	< 13 U	< 710 U
	2/27/2012	< 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	< 13 U	< 710 U
	3/14/2012	< 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	< 13 U	< 710 U
	4/25/2012	< 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	< 13 U	< 710 U
	5/16/2012	< 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	< 13 U	< 710 U
	6/21/2012	< 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	< 13 U	< 710 U
	7/25/2012	< 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	< 13 U	< 710 U
	8/16/2012	< 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	< 13 U	< 710 U
	9/19/2012	< 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	< 13 U	< 710 U
	10/16/2012	< 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	< 13 U	< 710 U
	11/14/2012	< 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	< 13 U	< 710 U
	12/12/2012	< 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	< 13 U	< 710 U
	1/30/2013	< 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	< 13 U	< 710 U
	2/20/2013	< 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	< 13 U	< 710 U
	3/20/2013	< 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	< 13 U	< 710 U
	4/17/2013	< 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	< 13 U	< 710 U
	5/21/2013	< 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	< 13 U	< 710 U
	6/18/2013	< 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	< 13 U	< 710 U
	7/24/2013	< 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	< 13 U	< 710 U
	10/22/2013	< 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	< 13 U	< 710 U
	1/22/2014	< 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	< 13 U	< 710 U
	4/23/2014	< 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	< 13 U	< 710 U
	7/21/2014	< 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	< 13 U	< 710 U
	10/22/2014	< 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	< 13 U	< 710 U
	1/21/2015	< 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	< 13 U	< 710 U
	4/21/2015	< 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	< 13 U	< 710 U
	7/17/2015	< 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	< 13 U	< 710 U
	10/27/2015	< 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	< 13 U	< 710 U

U = Compound not detected above reporting limit

BOLD = Concentration detected exceeds dCUL

NA = Compound not analyzed

ENVIRONMENTAL PARTNERS INC

Table 24
Waste Disposal
2015 Annual Report
Pasco Landfill, Pasco, WA

PERIOD: 1/1 – 12/31/2015

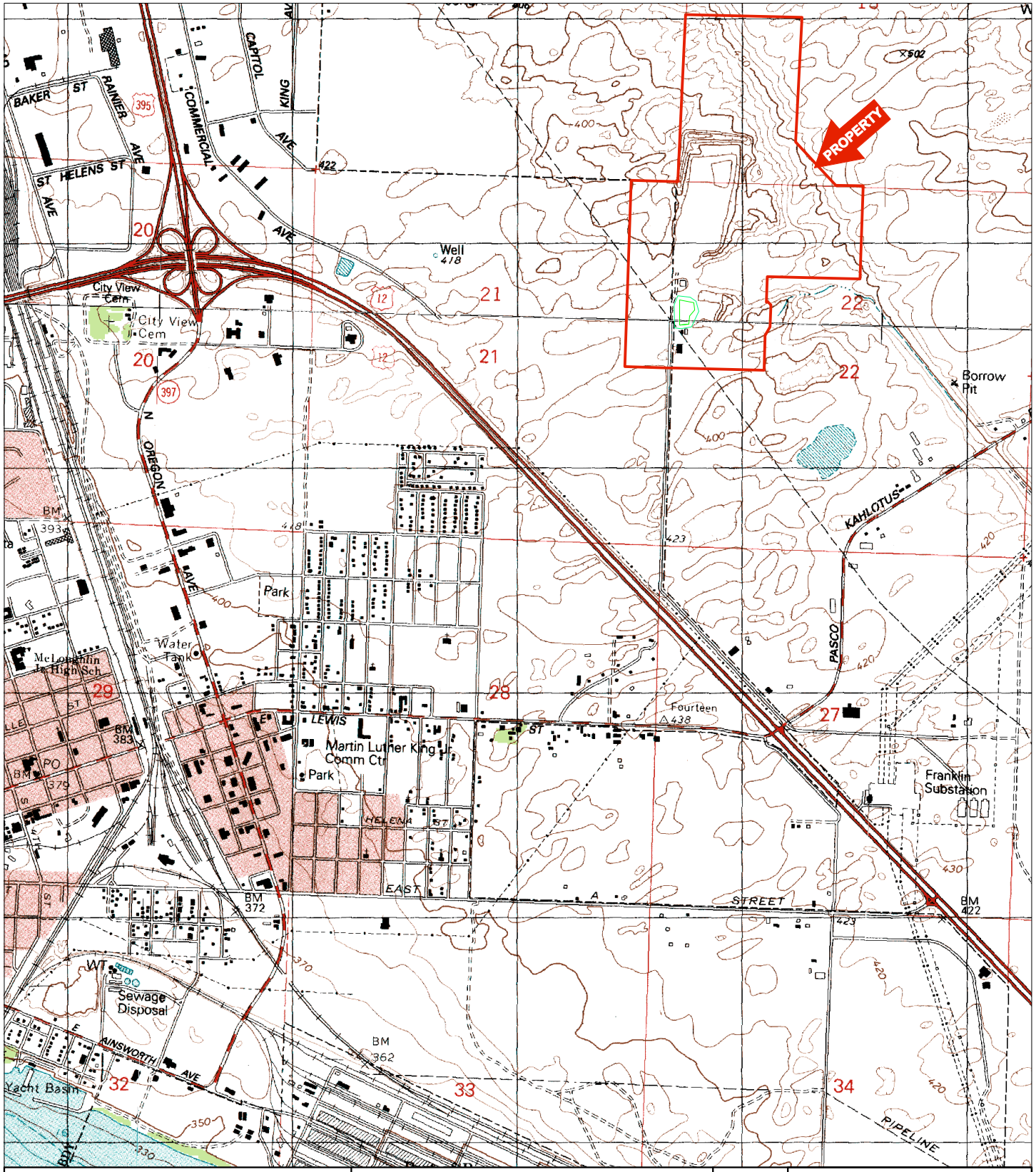
Waste	Shipment Volume (gallons)	Disposal or Treatment Facility	Disposal Date	Designation	SVE Equipment Skid Volume (gallons)	Conveyance Line at MSW Flare Volume (gallons)
SVE Condensate	4,510	Burlington Environmental, Kent, WA	1/5/15	DW D035, D040	1,943	2,567
SVE Condensate	4,830	Burlington Environmental, Kent, WA	1/28/15	DW D035, D040	2,836	1,994
SVE Condensate	4,795	Burlington Environmental, Kent, WA	2/23/15	DW D035, D040	2,675	2,120
SVE Condensate	3,910	Burlington Environmental, Kent, WA	3/26/15	DW D035, D040	1,704	2,206
SVE Condensate	3,906	Burlington Environmental, Kent, WA	4/28/15	DW D035, D040	1,700	2,206
SVE Condensate	5,000	Burlington Environmental, Kent, WA	6/15/15	DW D035, D040	1,281	3,719
SVE Condensate	3,461	Burlington Environmental, Kent, WA	8/4/15	DW D035, D040	381	3,080
SVE Condensate	4,700	Burlington Environmental, Kent, WA	10/1/15	DW D035, D040	2,704	1,996
SVE Condensate	4,572	Burlington Environmental, Kent, WA	12/1/15	DW D035, D040	3,522	1,050
	39,684				**18,746**	**20,938**
Purge water	850	City of Pasco POTW	8/27/14	non-regulated	850	

Total waste disposed of during the Third Quarter of 2014:

39,684 Gallons of hazardous waste were disposed of at Burlington Environmental in Kent, Washington.
18,746 Gallons were from the SVE equipment skid.
20,938 Gallons were from the SVE conveyance line.
850 Gallons of non-regulated waste were disposed of at the City of Pasco POTW.

LNAPL = Light Non-Aqueous Phase Liquid

Figures



KEY:

SOURCE: USGS 7.5 MINUTE QUADRANGLE (TOPOGRAPHIC)

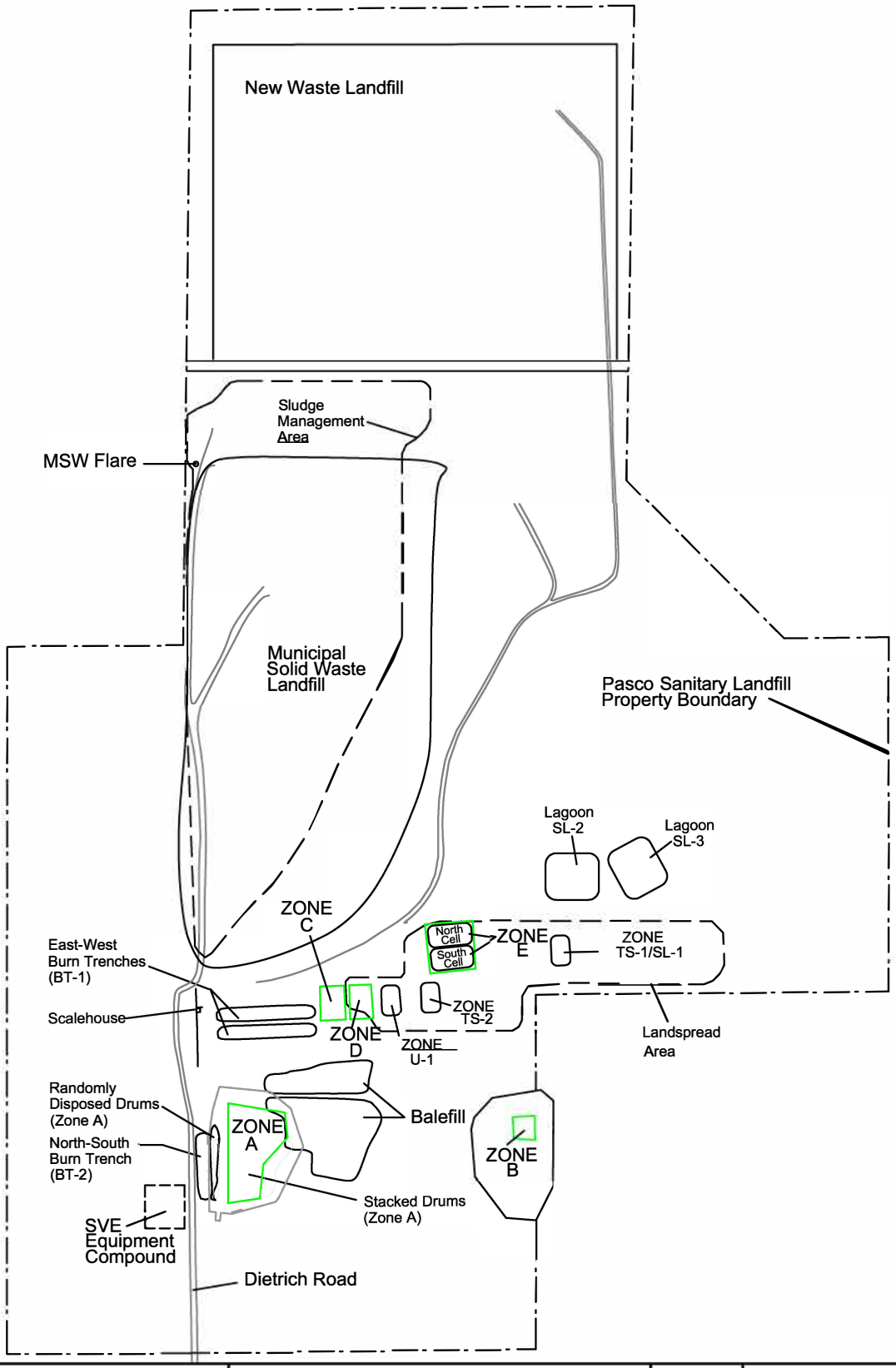
GLADE, WASHINGTON - 1992
PASCO, WASHINGTON - 1992

SCALE = 1:24,000

ENVIRONMENTAL PARTNERS INC
1180 NW Maple Street, Suite 310
Issaquah, Washington 98027

SITE LOCATION MAP

PROJECT	03914.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
FIGURE 1	DRAWN BY MMH	REVIEWED BY MMH	DATE 3/23/16



KEY:

BASEMAP SOURCE: PHASE I REMEDIAL INVESTIGATION REPORT (BURLINGTON, 1993)

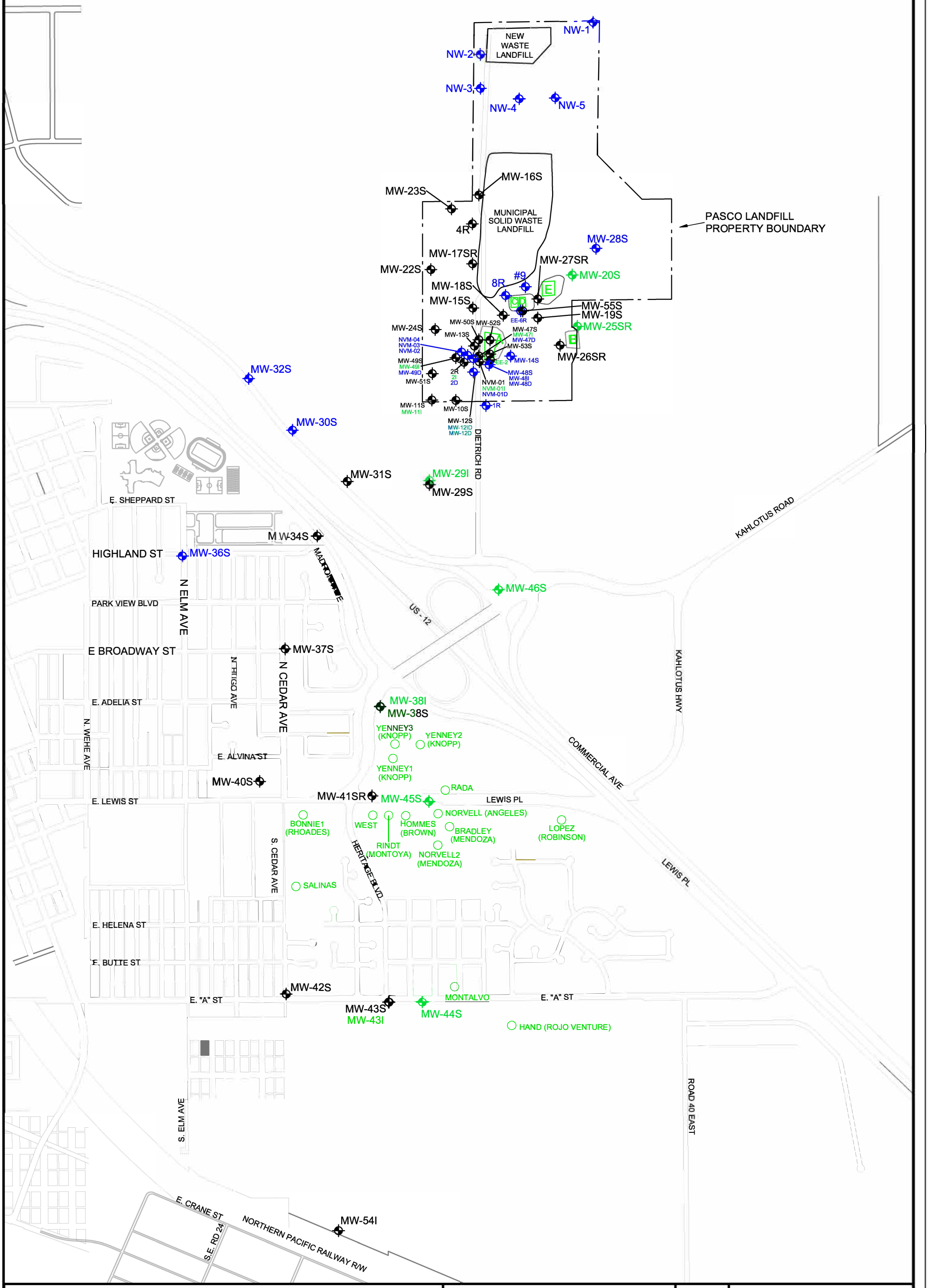
0 150 300 600

SCALE: 1" = 600'

ENVIRONMENTAL PARTNERS INC
1180 NW Maple Street, Suite 310
Issaquah, Washington 98027

PASCO LANDFILL NPL SITE PROPERTY

PROJECT	03914.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
FIGURE 2	DRAWN BY MMH	REVIEWED BY TCM	DATE 3/23/16



N

0 300 600 1200

APPROXIMATE SCALE: 1" = 1200'

MW-12S — QUARTERLY PROTECTION MONITORING WELL (January, April, July and October)

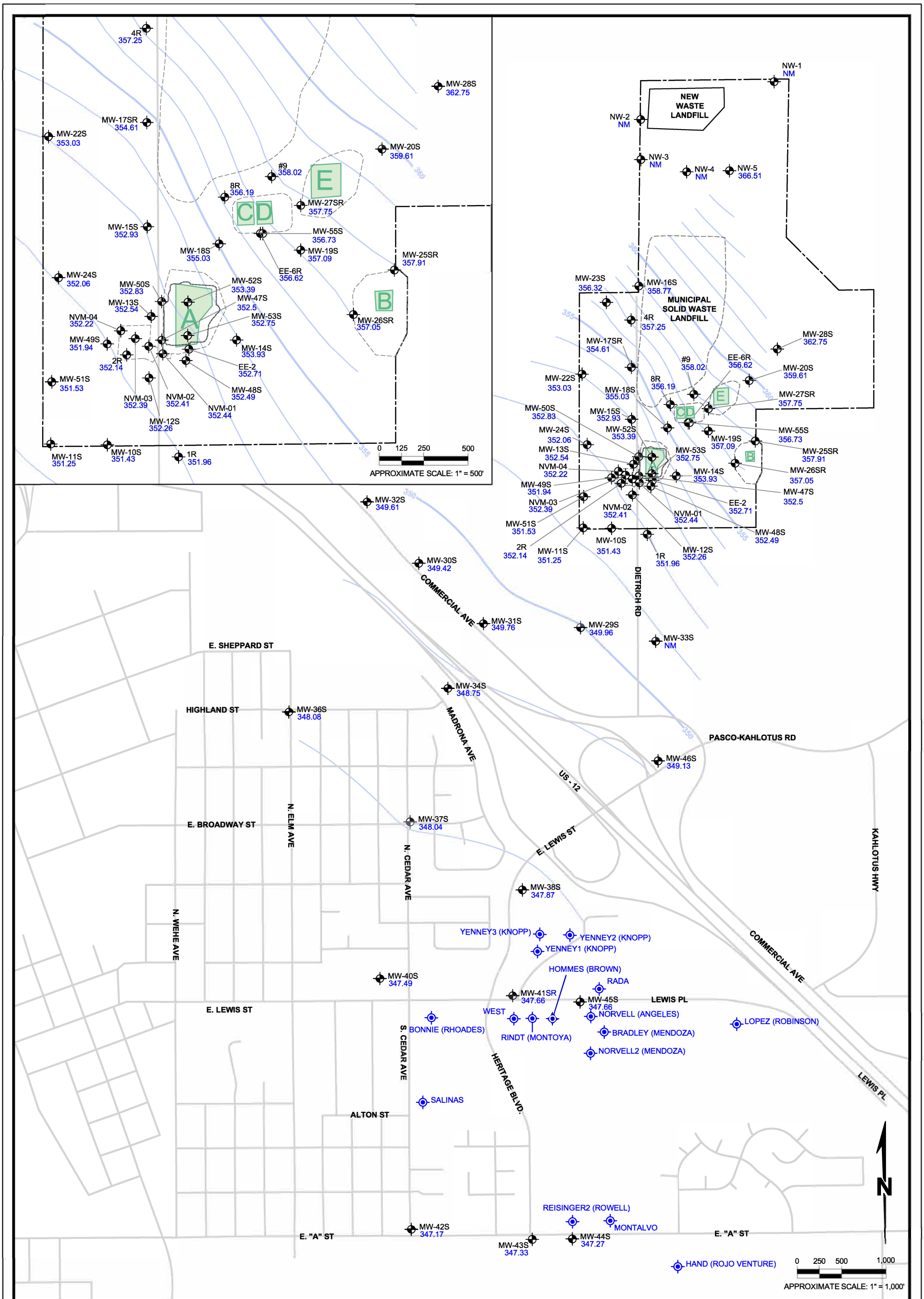
MW-12ID — SEMI-ANNUAL PROTECTION MONITORING WELL (April and October)

MW-12D — WATER ELEVATION MONITORING WELL

ENVIRONMENTAL PARTNERS INC
1180 NW Maple Street, Suite 310
Issaquah, Washington 98027

PASCO LANDFILL NPL SITE
MONITORING WELL NETWORK

PROJECT	03915.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
FIGURE 3	DRAWN BY MMH	REVIEWED BY MMH	DATE 3/23/16



NOTES

MW-53S 352.75 — SHALLOW AQUIFER MONITORING WELL WITH WATER ELEVATION IN FEET, NAVD88. NM = NOT MEASURED

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

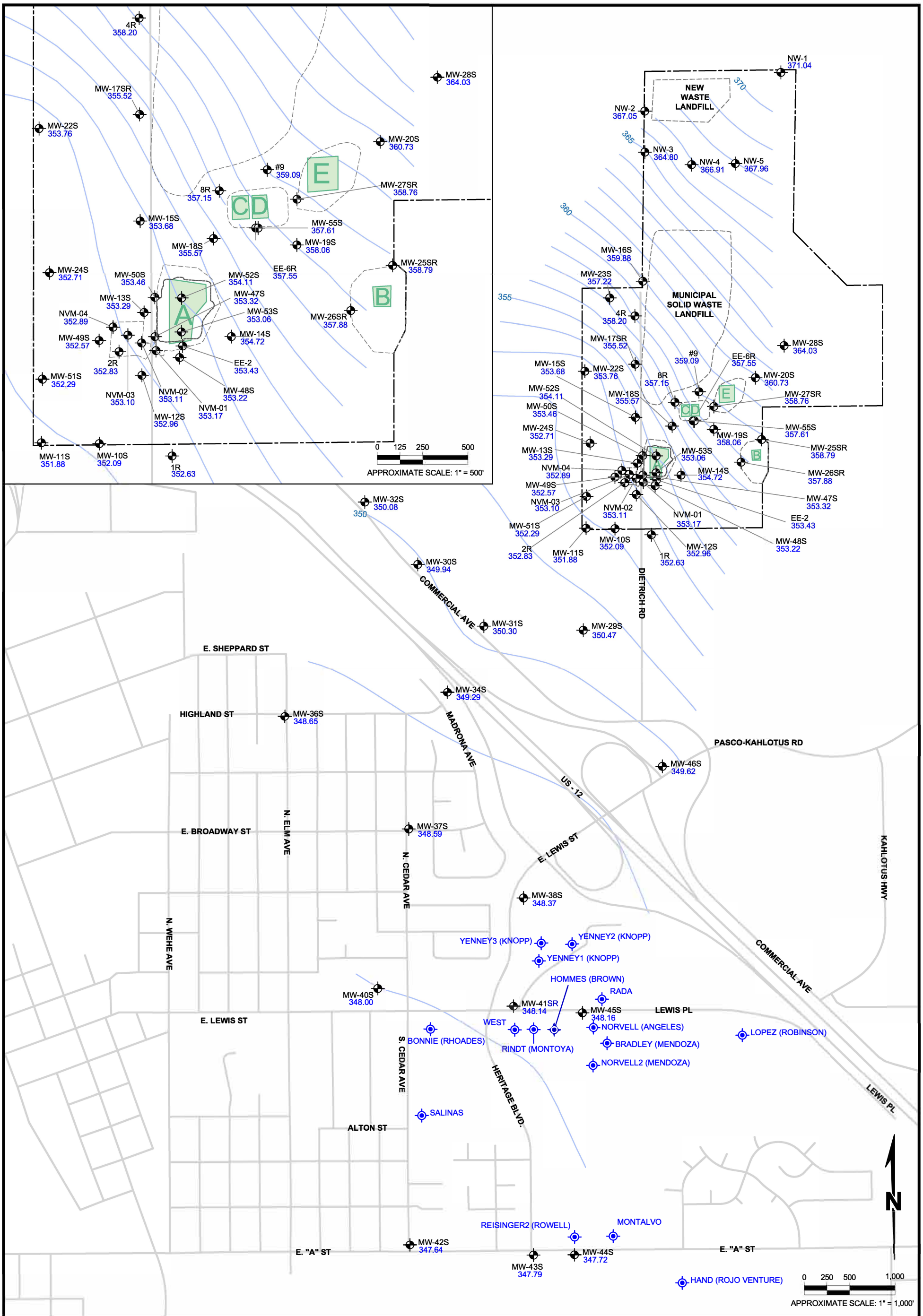
WATER ELEVATION CONTOUR, WATER LEVELS NOT MEASURED IN RESIDENTIAL WELLS.

ENVIRONMENTAL PARTNERS INC
1180 NW Maple Street, Suite 310
Issaquah, Washington 98027

SHALLOW GROUNDWATER ELEVATIONS JANUARY 2015

PROJECT	03914.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
FIGURE 4	DRAWN BY VPB	REVIEWED BY MMH	DATE 3/23/16

X:\039 Pasco\03914 Pasco WA 2015\Drafting\2015 Q1 Report\03914_Pasco_2015Q1_GW-Monitoring.dwg



NOTES

MW-53S 352.75 — SHALLOW AQUIFER MONITORING WELL WITH WATER ELEVATION IN FEET, NAVD88. NM = NOT MEASURED

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

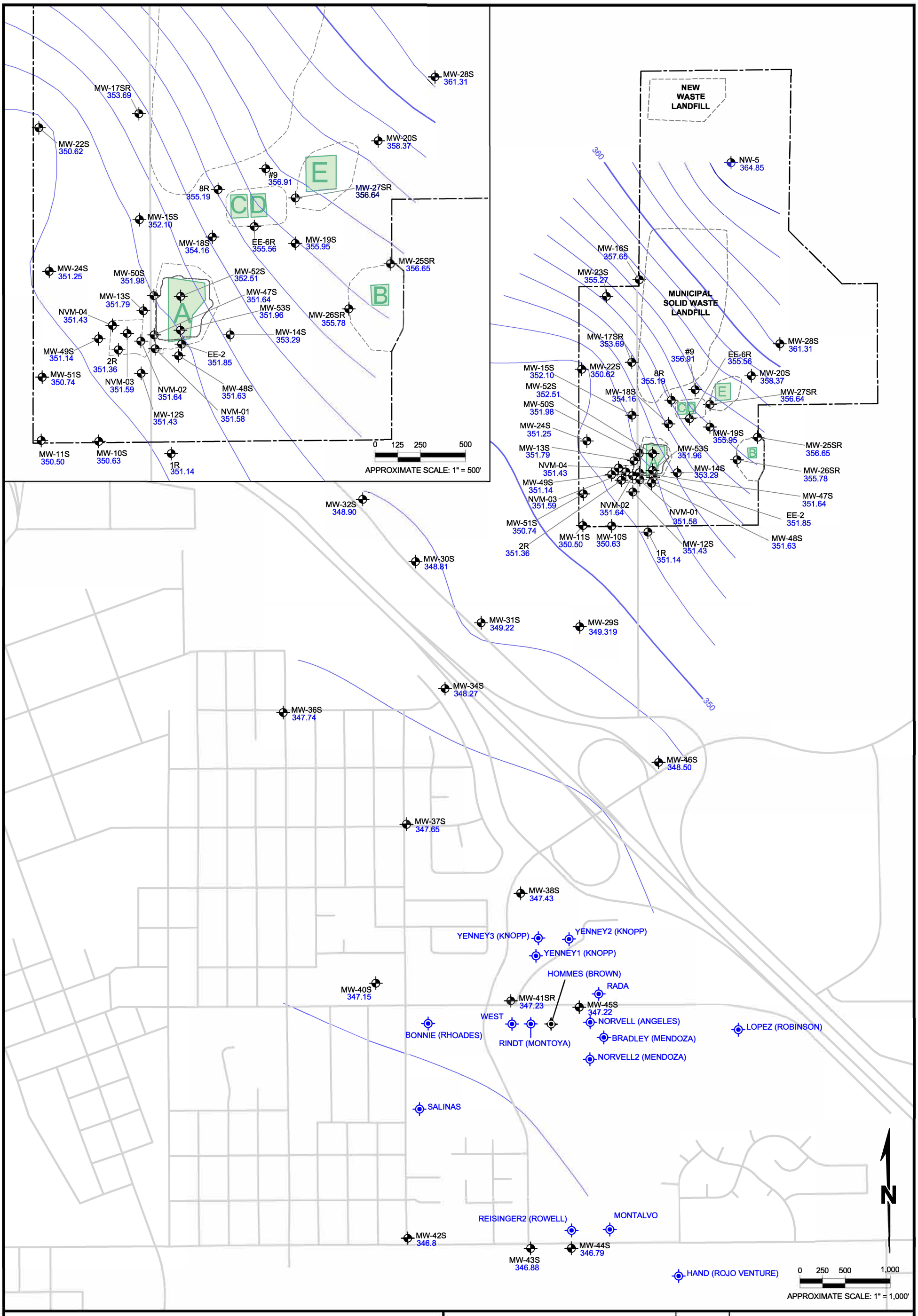
WATER ELEVATION CONTOUR, WATER LEVELS NOT MEASURED IN RESIDENTIAL WELLS.

ENVIRONMENTAL PARTNERS INC
1180 NW Maple Street, Suite 310
Issaquah, Washington 98027

SHALLOW GROUNDWATER ELEVATIONS
APRIL 2015

PROJECT	03914.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
FIGURE 5	DRAWN BY VPB	REVIEWED BY MMH	DATE 3/23/16

X:\039 Pasco\03914 Pasco WA 2015\Drafting\2015 Q2 Report\03914_Pasco_2015Q2_GW-Monitoring.dwg



NOTES

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

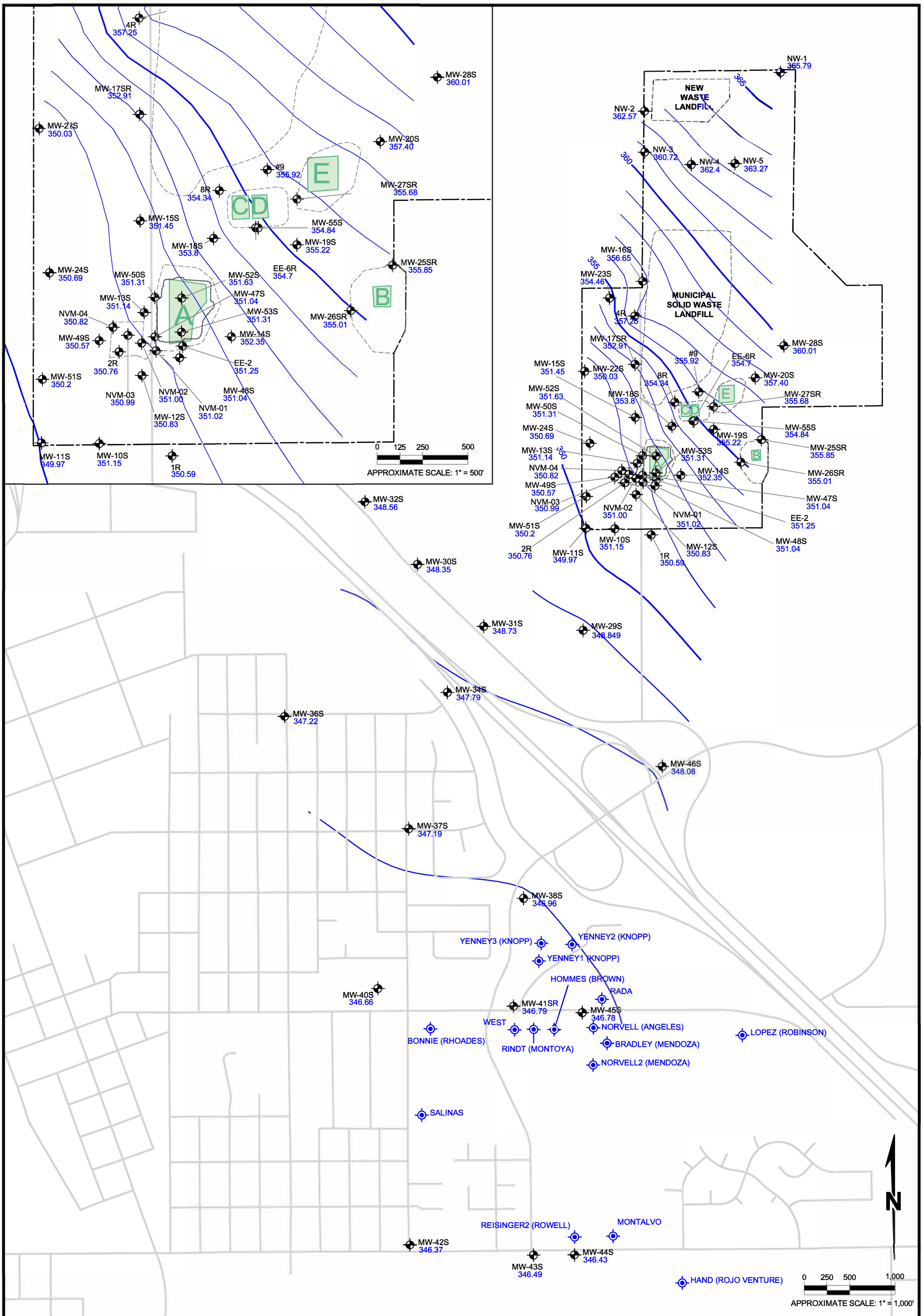
SALINAS — RESIDENTIAL WELL (WITH PROPERTY OWNER) WATER LEVELS NOT MEASURED IN RESIDENTIAL WELLS

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

ENVIRONMENTAL PARTNERS INC
1180 NW Maple Street, Suite 310
Issaquah, Washington 98027

SHALLOW GROUNDWATER ELEVATIONS
JULY 2015

PROJECT	03914.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
FIGURE 6	DRAWN BY VPB	REVIEWED BY MMH	DATE 3/23/16



NOTES

MW-53S 351.96 — SHALLOW AQUIFER MONITORING WELL WITH WATER ELEVATION IN FEET, NAVD88. NM = NOT MEASURED

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

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

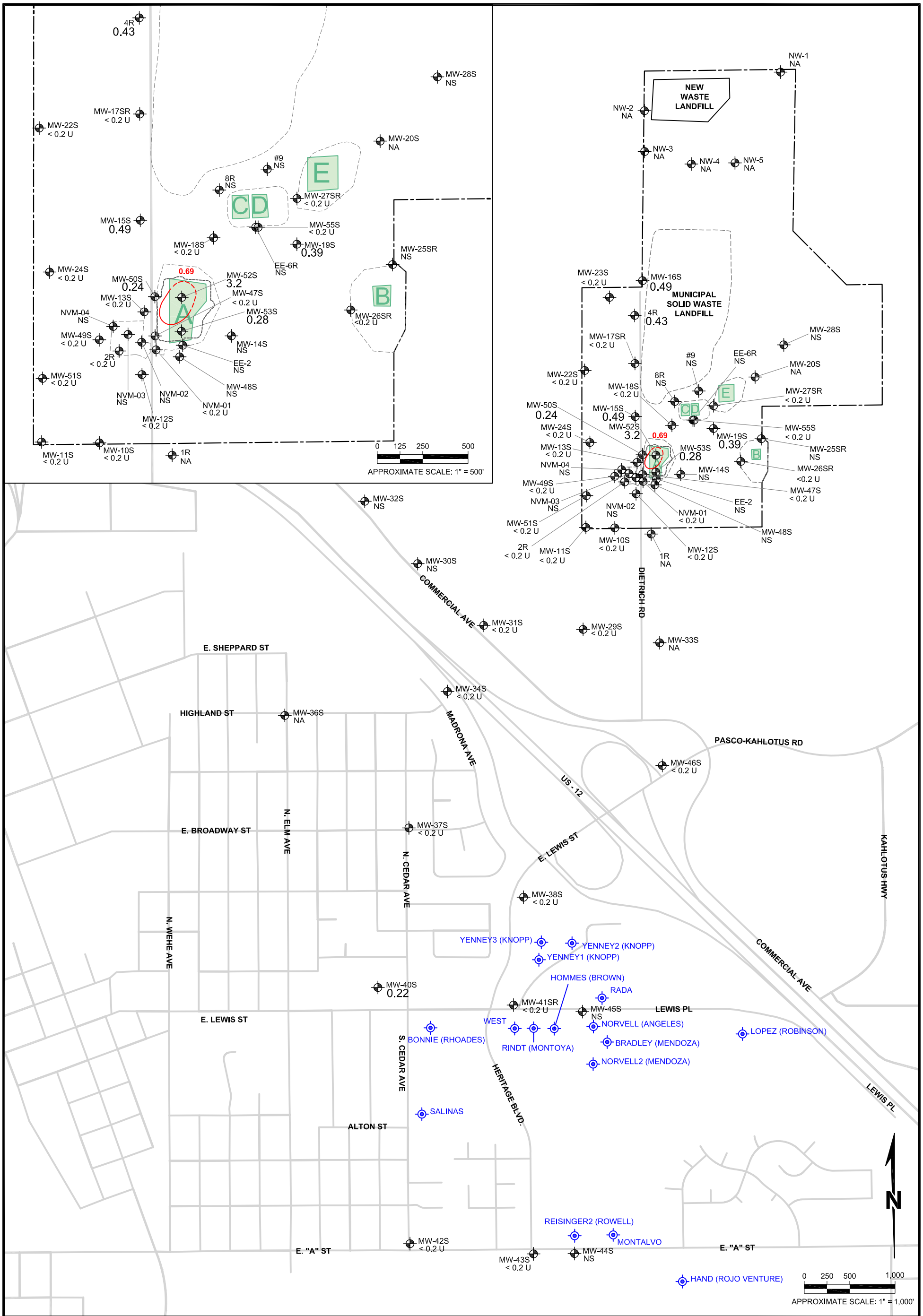
ENVIRONMENTAL PARTNERS INC
1180 NW Maple Street, Suite 310
Issaquah, Washington 98027

SHALLOW GROUNDWATER ELEVATIONS
OCTOBER 2015

PROJECT	03914.2
PREPARED FOR	IWAG GROUP III PASCO LANDFILL
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON

FIGURE	DRAWN BY	REVIEWED BY	DATE
7	VPB	MMH	3/23/16

X:\Clients\Active Projects\039 Pasco\03915 Pasco WA 2016\Drafting\2015 Annual Report\03914_Pasco_2015Q4_GW-Monitoring_ShallowGW.dwg



NOTES

MW-53S 0.28 — SHALLOW AQUIFER MONITORING WELL WITH TETRACHLOROETHENE (PCE) CONCENTRATION IN GROUNDWATER (µg/L)

SALINAS — RESIDENTIAL WELL (WITH PROPERTY OWNER) NOT SAMPLED DURING THIS MONITORING EVENT

0.69 — PCE CONCENTRATION CONTOUR. DASHED WHERE INFERRED, QUERRIED WHERE UNCERTAIN

PCE 2014 DRAFT CLEANUP LEVEL = 0.69 µg/L

<##U = COMPOUND NOT DETECTED ABOVE REPORTING LIMIT

NS = NOT SAMPLED

ENVIRONMENTAL PARTNERS INC
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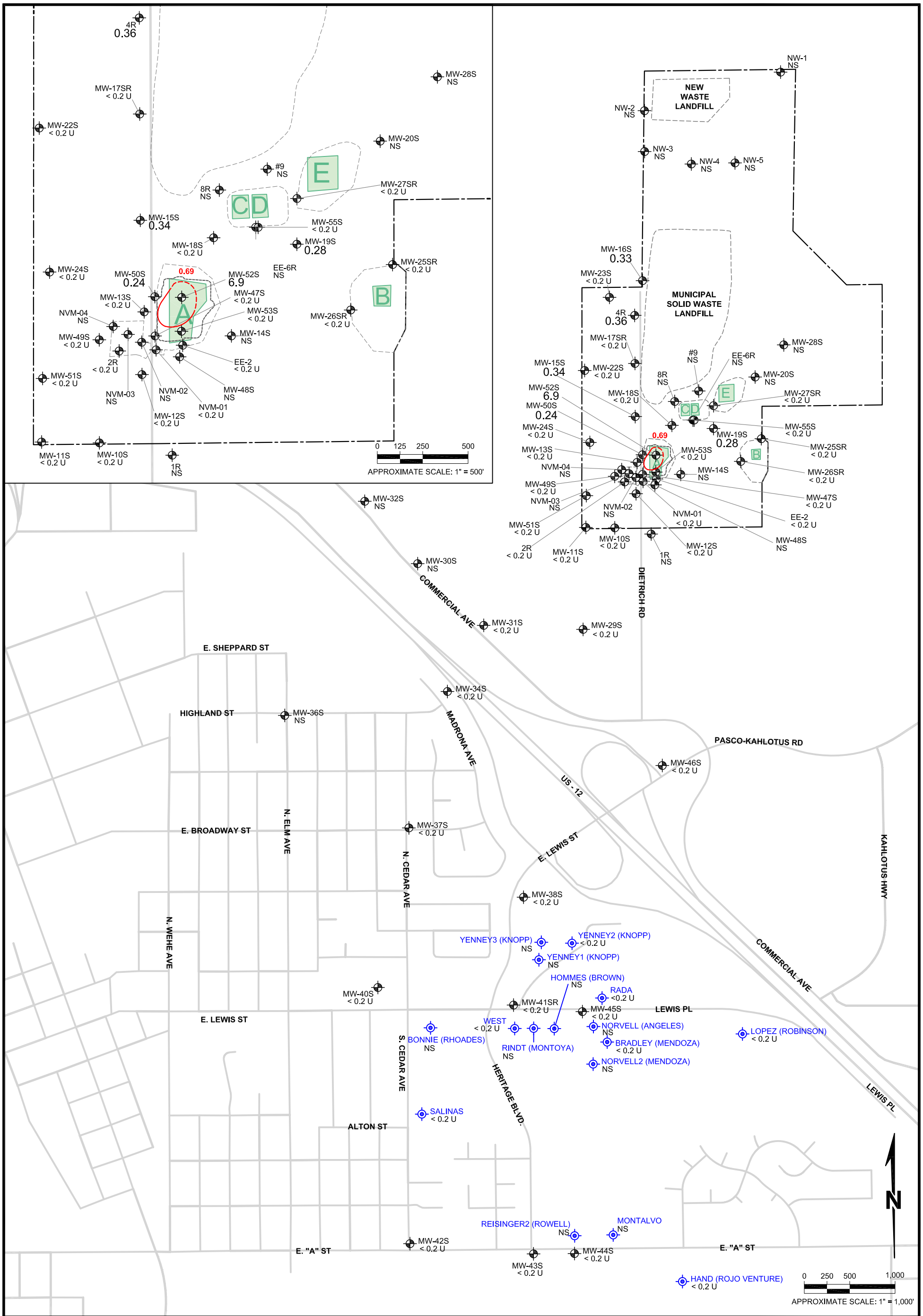
Issaquah, Washington 98027

PROJECT	03914.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
FIGURE 8	DRAWN BY VPB	REVIEWED BY MMH	DATE 3/23/2016

ISOCONCENTRATION MAP OF TETRACHLOROETHENE IN SHALLOW GROUNDWATER - JANUARY 2015

X:\Clients\Active Projects\039 Pasco\03915 Pasco WA 2016\Drafting\2015 Annual Report\03914_Pasco_2015Q1_GW-Monitoring.dwg



NOTES

MW-53S
0.28
SHALLOW AQUIFER MONITORING WELL WITH TETRACHLOROETHENE (PCE) CONCENTRATION IN GROUNDWATER (µg/L)

SALINAS
RESIDENTIAL WELL (WITH PROPERTY OWNER)

0.69
PCE CONCENTRATION CONTOUR. DASHED WHERE INFERRED, QUERRIED WHERE UNCERTAIN

PCE 2014 DRAFT CLEANUP LEVEL = 0.69 µg/L

<##U = COMPOUND NOT DETECTED ABOVE REPORTING LIMIT

NS = NOT SAMPLED

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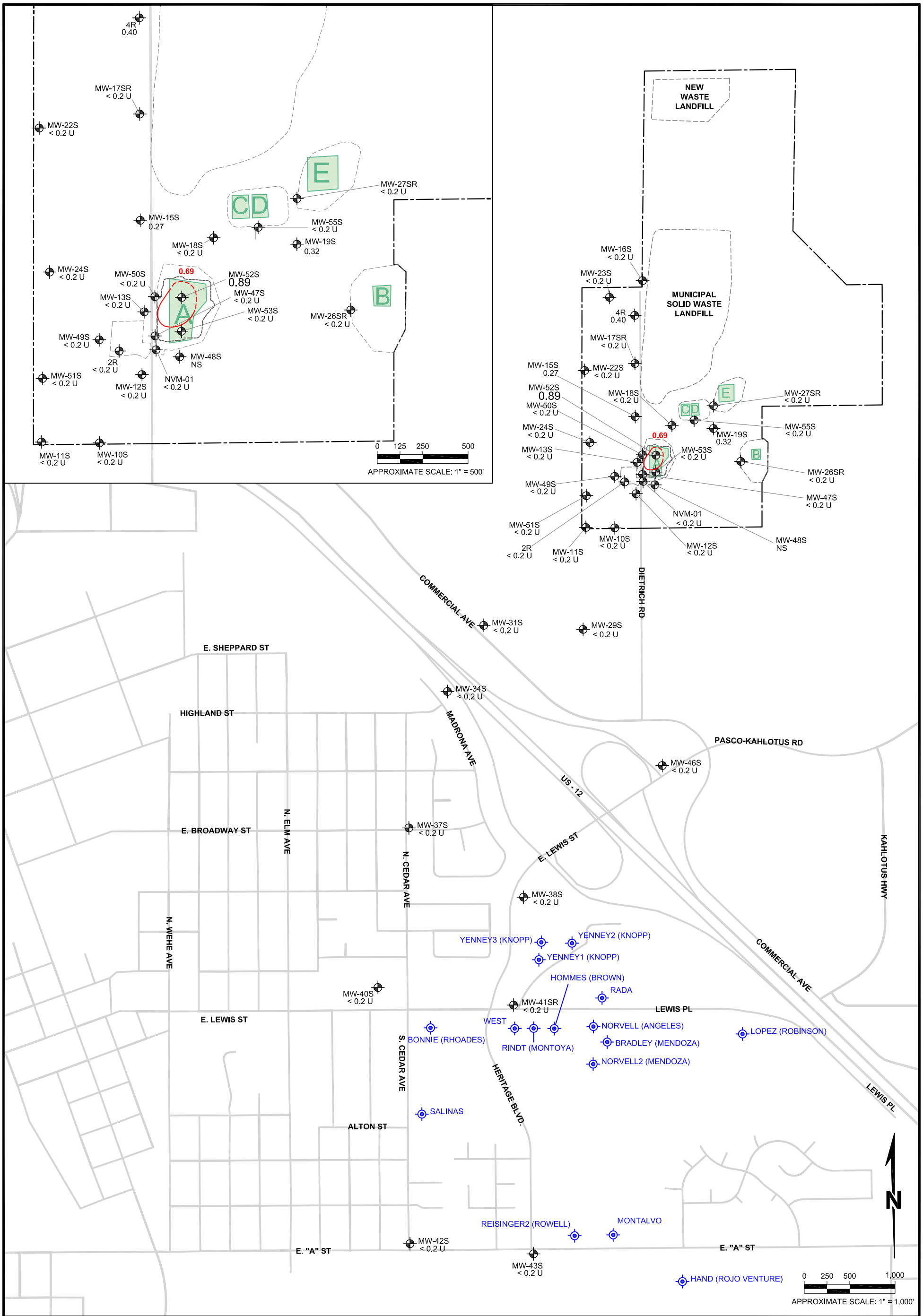
Issaquah, Washington 98027

ISOCONCENTRATION MAP OF TETRACHLOROETHENE IN SHALLOW GROUNDWATER - APRIL 2015

PROJECT	03914.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
FIGURE 9	DRAWN BY VPB	REVIEWED BY MMH	DATE 3/23/2016

X:\Clients\Active Projects\039 Pasco\03915 Pasco WA 2016\Drafting\2015 Annual Report\03914_Pasco_2015Q2_GW-Monitoring.dwg



NOTES

MW-53S <0.2 U — SHALLOW AQUIFER MONITORING WELL WITH TETRACHLOROETHENE (PCE) CONCENTRATION IN GROUNDWATER (µg/L)

SALINAS — RESIDENTIAL WELL (WITH PROPERTY OWNER)

0.69 — PCE CONCENTRATION CONTOUR. DASHED WHERE INFERRED, QUERRIED WHERE UNCERTAIN

PCE 2014 DRAFT CLEANUP LEVEL = 0.69 µg/L

<##U = COMPOUND NOT DETECTED ABOVE REPORTING LIMIT

NS = NOT SAMPLED

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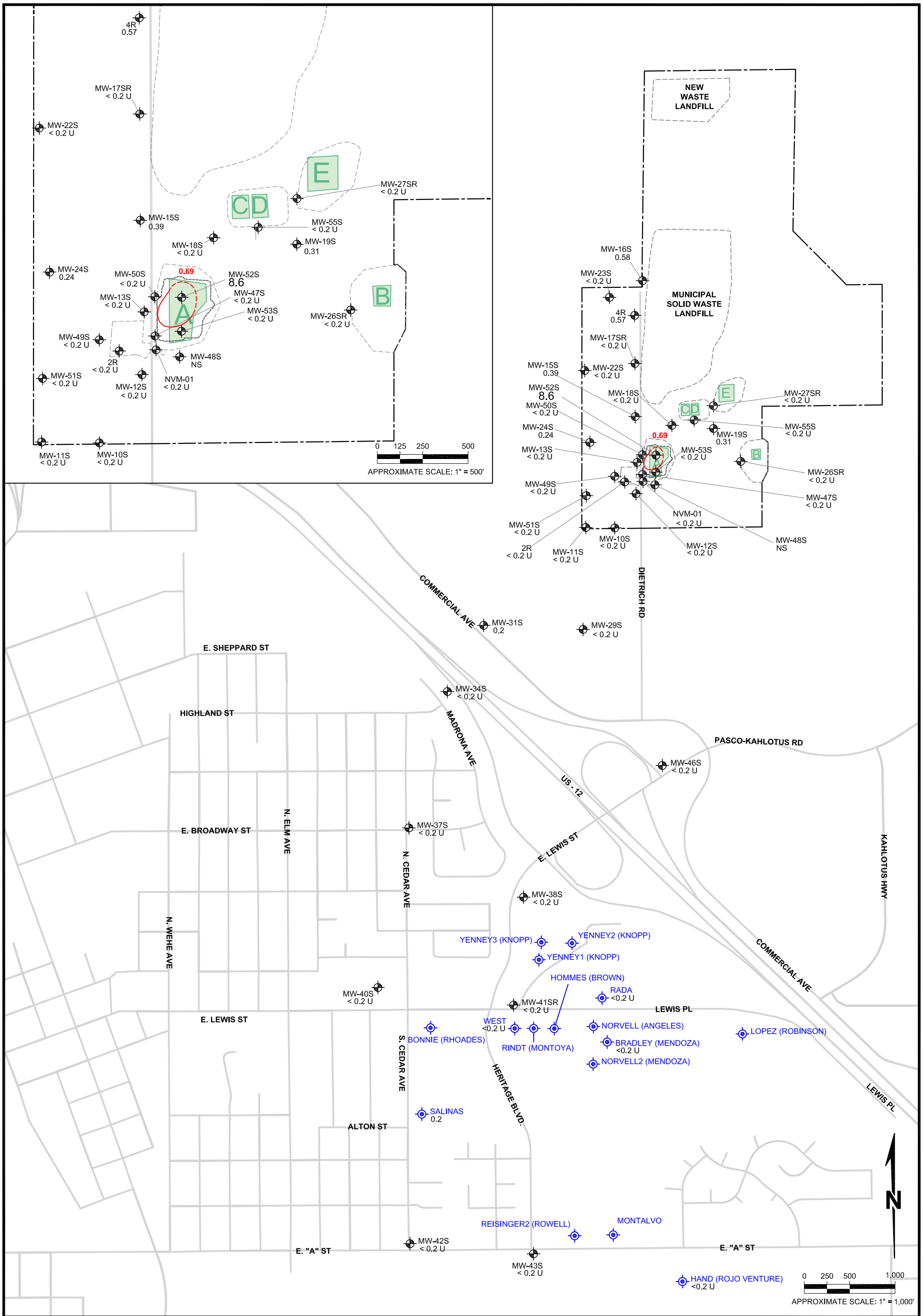
Issaquah, Washington 98027

PROJECT	03914.2
PREPARED FOR	IWAG GROUP III PASCO LANDFILL
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON

ISOCONCENTRATION MAP OF TETRACHLOROETHENE IN SHALLOW GROUNDWATER - JULY 2015

FIGURE	DRAWN BY	REVIEWED BY	DATE
10	VPB	MMH	3/23/2016

X:\Clients\Active Projects\039 Pasco\03915 Pasco WA 2016\Drafting\2015 Annual Report\03914_Pasco_2015Q3_GW-Monitoring_PCE Concentrations_RevA.dwg



NOTES

MW-53S <0.2 U — SHALLOW AQUIFER MONITORING WELL WITH TETRACHLOROETHENE (PCE) CONCENTRATION IN GROUNDWATER (µg/L)

SALINAS — RESIDENTIAL WELL (WITH PROPERTY OWNER)

0.69 — PCE CONCENTRATION CONTOUR. DASHED WHERE INFERRED, QUERRIED WHERE UNCERTAIN

PCE 2014 DRAFT CLEANUP LEVEL = 0.69 µg/L

<##U = COMPOUND NOT DETECTED ABOVE REPORTING LIMIT

NS = NOT SAMPLED

ENVIRONMENTAL PARTNERS INC
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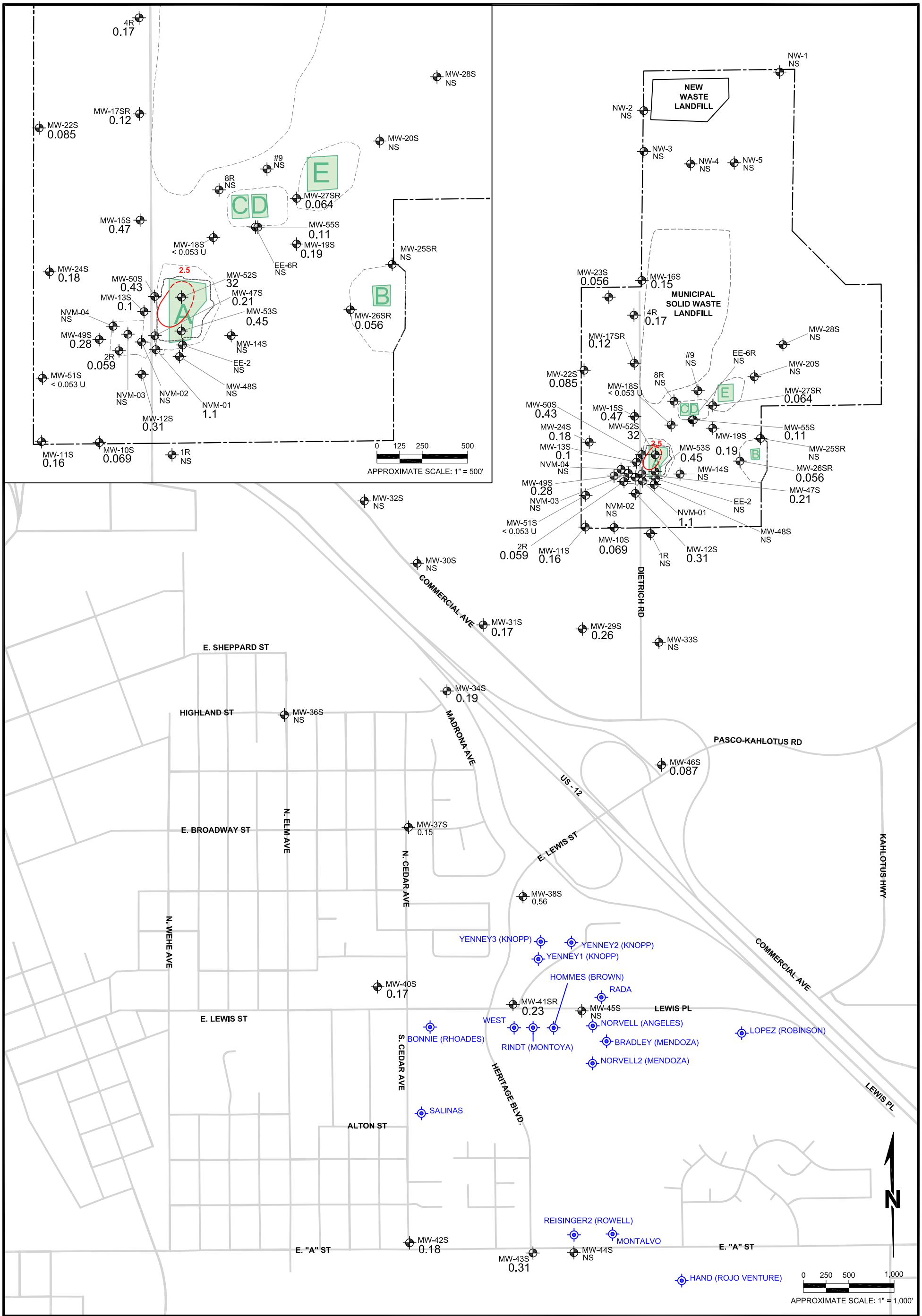
Issaquah, Washington 98027

PROJECT	03915.2
PREPARED FOR	IWAG GROUP III PASCO LANDFILL
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON

ISOCONCENTRATION MAP OF TETRACHLOROETHENE IN SHALLOW GROUNDWATER - OCTOBER 2015

FIGURE	DRAWN BY	REVIEWED BY	DATE
11	VPB	MMH	3/23/2016

X:\Clients\Active Projects\039 Pasco\03915 Pasco WA 2016\Drafting\2015 Annual Report\03914_Pasco_2015Q4_GW-Monitoring_PCE Concentrations.dwg



NOTES

MW-53S 0.45 — SHALLOW AQUIFER MONITORING WELL WITH TRICHLOROETHENE (TCE) CONCENTRATION IN GROUNDWATER (µg/L)

SALINAS — RESIDENTIAL WELL (WITH PROPERTY OWNER) NOT SAMPLED DURING THIS MONITORING EVENT

2.5 — TCE CONCENTRATION CONTOUR. DASHED WHERE INFERRED, QUERRIED WHERE UNCERTAIN

TCE 2014 DRAFT CLEANUP LEVEL = 2.5 µg/L

<##U = COMPOUND NOT DETECTED ABOVE REPORTING LIMIT

NS = NOT SAMPLED

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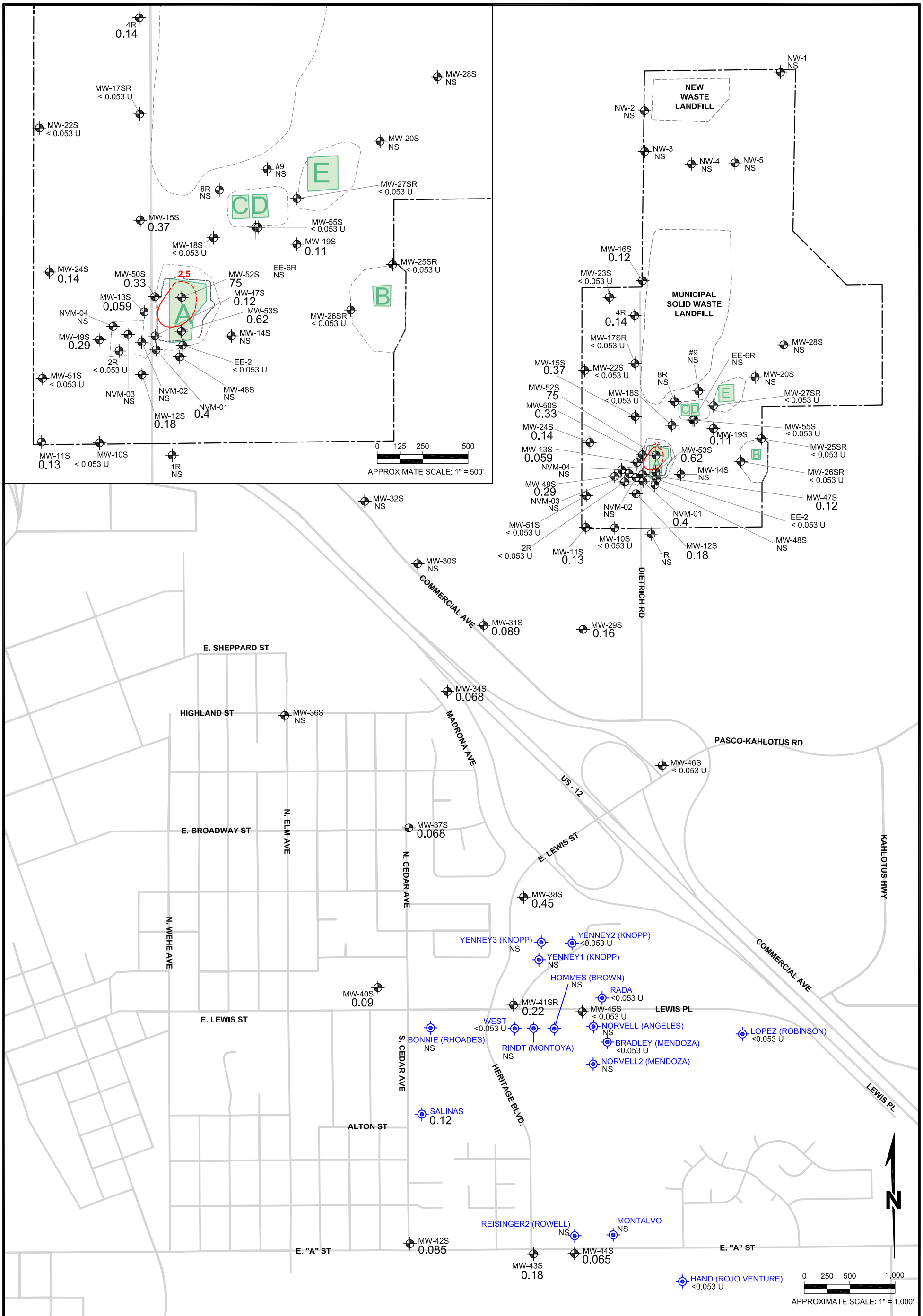
Issaquah, Washington 98027

PROJECT	03914.2
PREPARED FOR	IWAG GROUP III PASCO LANDFILL
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON

ISOCONCENTRATION MAP OF TRICHLOROETHENE IN SHALLOW GROUNDWATER - JANUARY 2015

FIGURE	DRAWN BY	REVIEWED BY	DATE
12	VPB	MMH	3/23/2016

X:\Clients\Active Projects\039 Pasco\03915 Pasco WA 2016\Drafting\2015 Annual Report\03914_Pasco_2015Q1_GW-Monitoring.dwg



NOTES

MW-53S 0.45 — SHALLOW AQUIFER MONITORING WELL WITH TRICHLOROETHENE (TCE) CONCENTRATION IN GROUNDWATER (µg/L)

SALINAS — RESIDENTIAL WELL (WITH PROPERTY OWNER)

2.5 — TCE CONCENTRATION CONTOUR. DASHED WHERE INFERRED, QUERRIED WHERE UNCERTAIN

TCE 2014 DRAFT CLEANUP LEVEL = 2.5 µg/L

<##U = COMPOUND NOT DETECTED ABOVE REPORTING LIMIT

NS = NOT SAMPLED

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ISOCONCENTRATION MAP OF TRICHLOROETHENE IN SHALLOW GROUNDWATER - APRIL 2015

PROJECT	03914.2
PREPARED FOR	IWAG GROUP III PASCO LANDFILL
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON
FIGURE	13
DRAWN BY	VPB
REVIEWED BY	MMH
DATE	3/23/2016

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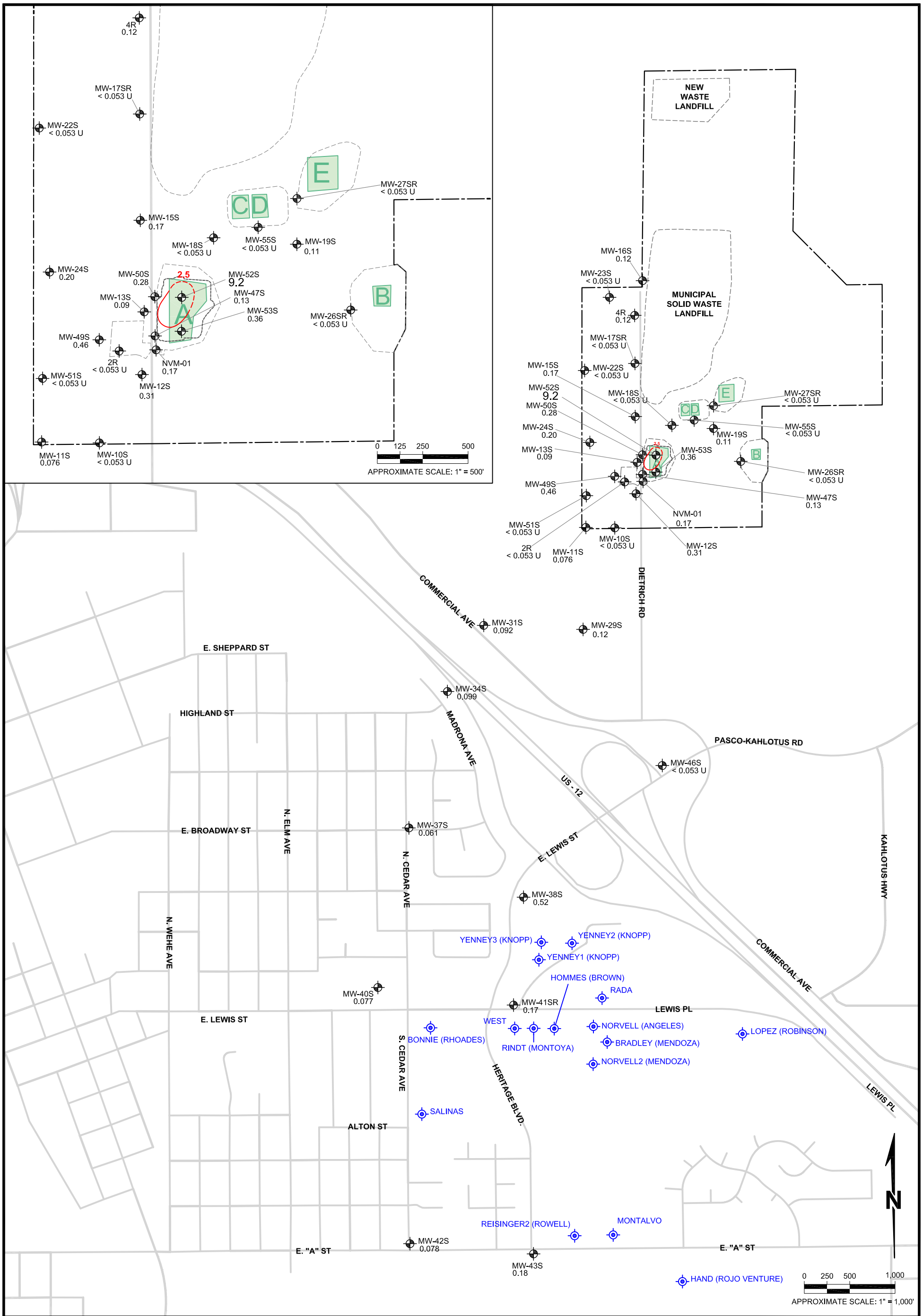


NOTES

MW-53S 0.36 — SHALLOW AQUIFER MONITORING WELL WITH TRICHLOROETHENE (TCE) CONCENTRATION IN GROUNDWATER (µg/L)

SALINAS — RESIDENTIAL WELL (WITH PROPERTY OWNER)

2.5 — TCE CONCENTRATION CONTOUR. DASHED WHERE INFERRED, QUERRIED WHERE UNCERTAIN

TCE 2014 DRAFT CLEANUP LEVEL = 2.5 µg/L

<##U = COMPOUND NOT DETECTED ABOVE REPORTING LIMIT

NS = NOT SAMPLED

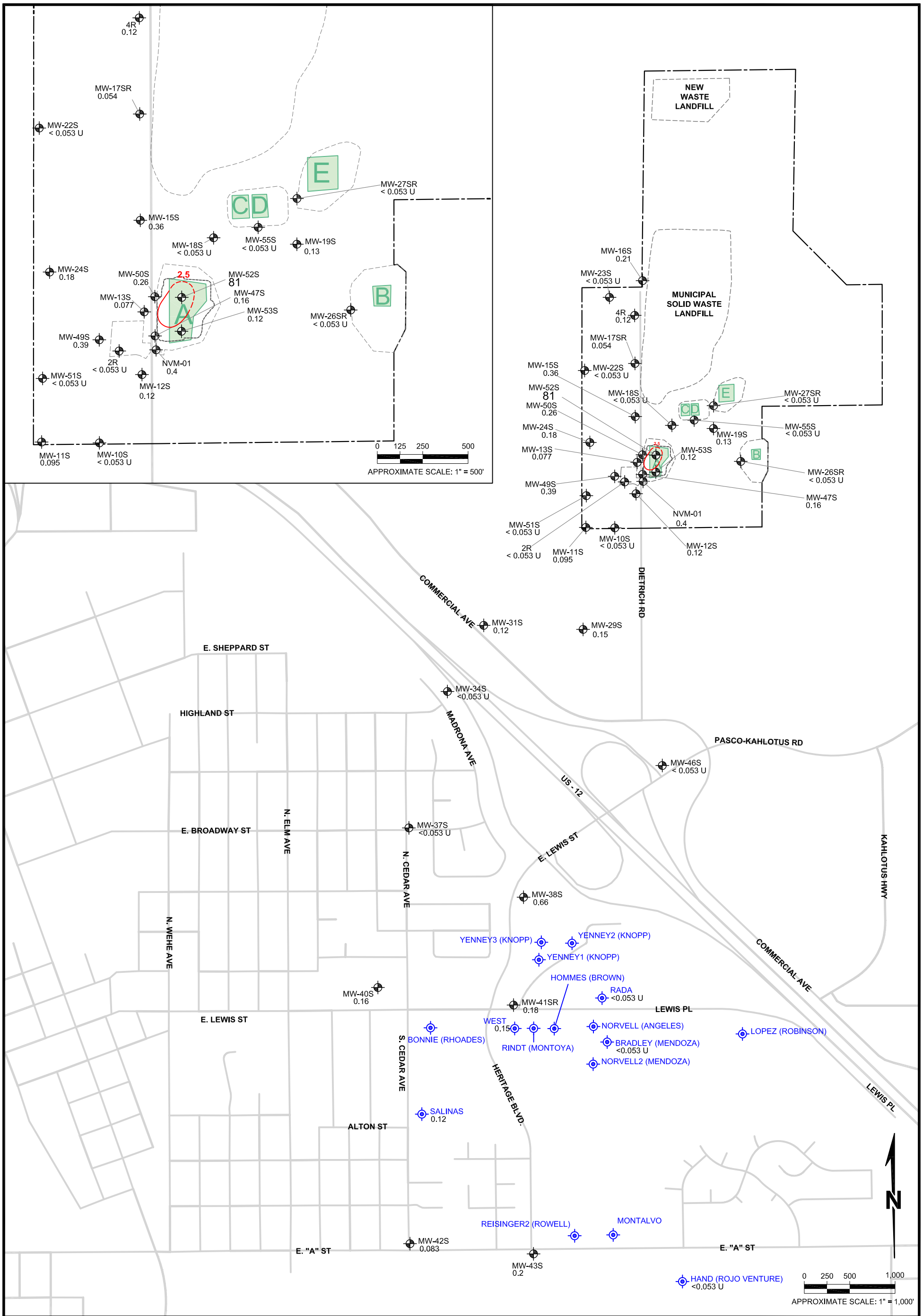
ENVIRONMENTAL PARTNERS INC
1180 NW Maple Street, Suite 310
Issaquah, Washington 98027

PROJECT	03914.2
PREPARED FOR	IWAG GROUP III PASCO LANDFILL
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON

ISOCONCENTRATION MAP OF TRICHLOROETHENE IN SHALLOW GROUNDWATER - JULY 2015

FIGURE	DRAWN BY	REVIEWED BY	DATE
14	VPB	MMH	3/23/2016

X:\Clients\Active Projects\039 Pasco\03915 Pasco WA 2016\Drafting\2015 Annual Report\03914_Pasco_2015Q3_GW-Monitoring_TCE Concentrations_RevA.dwg



NOTES

MW-53S 0.12 — SHALLOW AQUIFER MONITORING WELL WITH TRICHLOROETHENE (TCE) CONCENTRATION IN GROUNDWATER (µg/L)

SALINAS <0.053 U — RESIDENTIAL WELL (WITH PROPERTY OWNER & TCE CONCENTRATION IN GROUNDWATER (µg/L)

2.5 — TCE CONCENTRATION CONTOUR. DASHED WHERE INFERRED, QUERRIED WHERE UNCERTAIN

TCE 2014 DRAFT CLEANUP LEVEL = 2.5 µg/L

<##U = COMPOUND NOT DETECTED ABOVE REPORTING LIMIT

NS = NOT SAMPLED

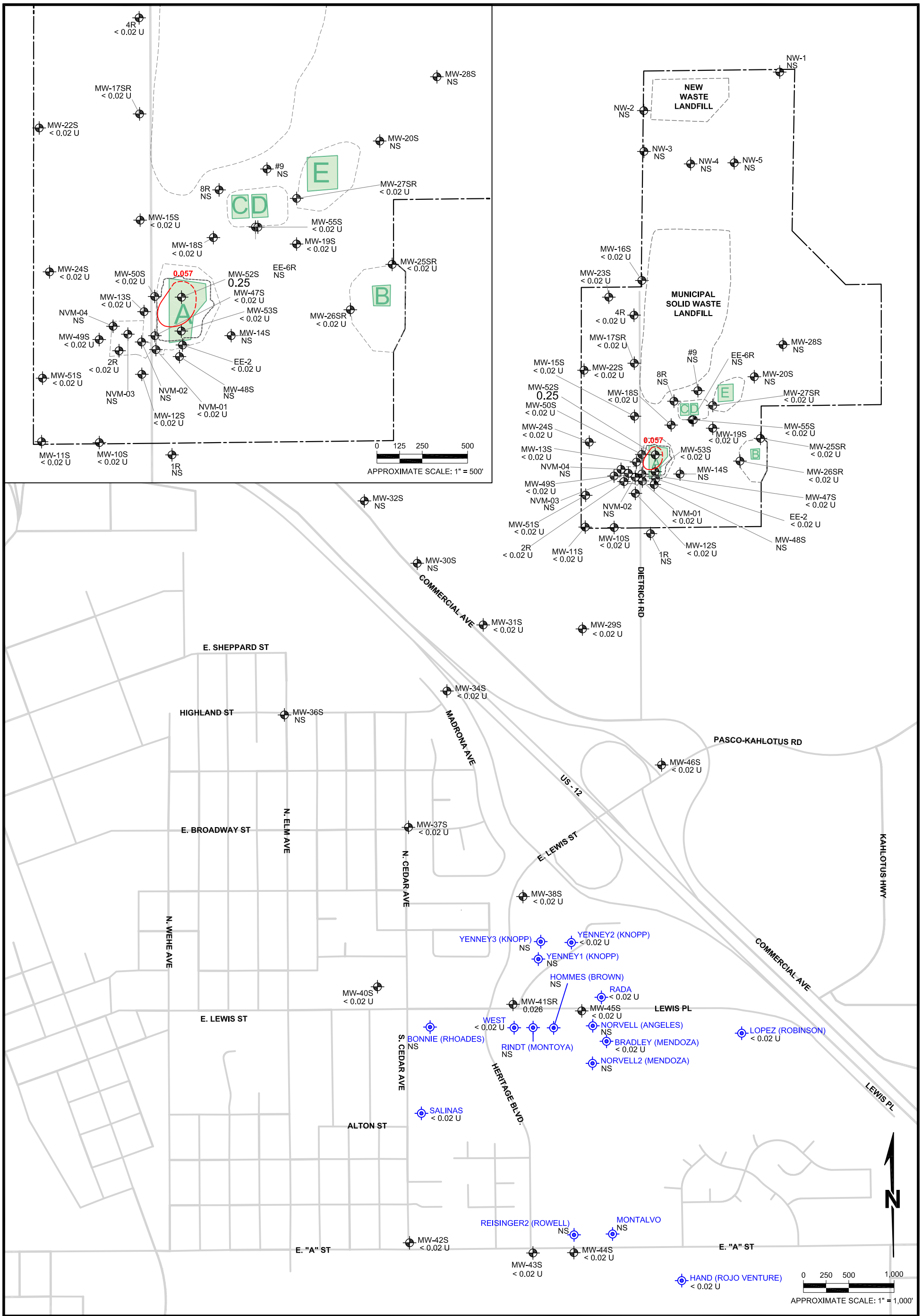
ENVIRONMENTAL PARTNERS INC
1180 NW Maple Street, Suite 310
Issaquah, Washington 98027

PROJECT	03915.2
PREPARED FOR	IWAG GROUP III PASCO LANDFILL
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON

ISOCONCENTRATION MAP OF TRICHLOROETHENE IN SHALLOW GROUNDWATER - OCTOBER 2015

FIGURE	DRAWN BY	REVIEWED BY	DATE
15	VPB	TCM	3/23/2016

X:\Clients\Active Projects\039 Pasco\03915 Pasco WA 2016\Drafting\2015 Annual Report\03914_Pasco_2015Q4_GW-Monitoring_TCE Concentrations.dwg



NOTES

MW-53S
0.28
SHALLOW AQUIFER MONITORING WELL WITH 1,1-DICHLOROETHENE (1,1-DCE) CONCENTRATION IN GROUNDWATER (µg/L)

SALINAS
RESIDENTIAL WELL (WITH PROPERTY OWNER)

0.057
1,1-DCE CONCENTRATION CONTOUR. DASHED WHERE INFERRED, QUERRIED WHERE UNCERTAIN

1,1-DCE 2014 DRAFT CLEANUP LEVEL = 0.057 µg/L

<##U = COMPOUND NOT DETECTED ABOVE REPORTING LIMIT

NS = NOT SAMPLED

ENVIRONMENTAL PARTNERS INC
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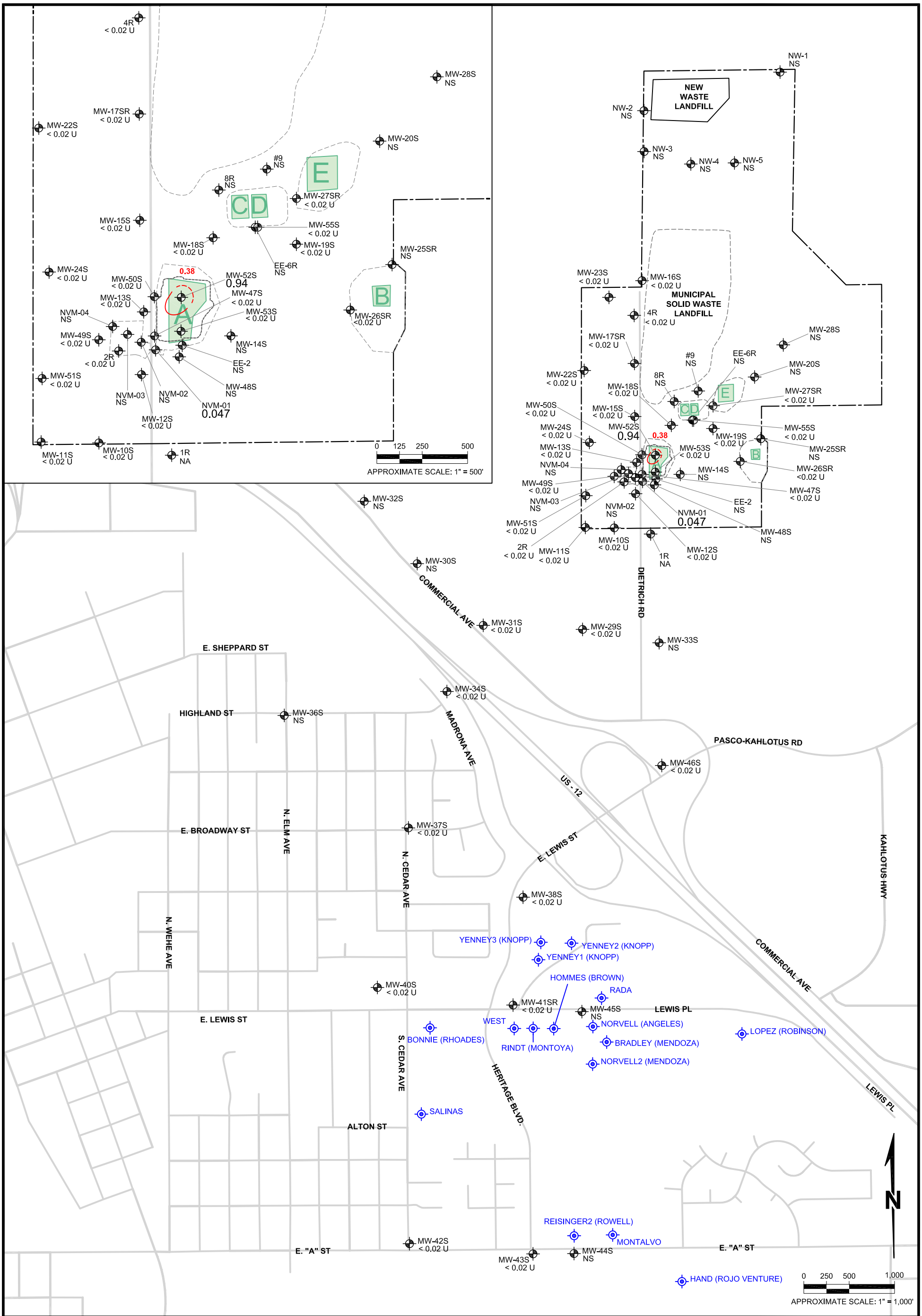
Issaquah, Washington 98027

PROJECT	03914.2
PREPARED FOR	IWAG GROUP III PASCO LANDFILL
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON

ISOCONCENTRATION MAP OF 1,1-DICHLOROETHENE IN SHALLOW GROUNDWATER - APRIL 2015

FIGURE	DRAWN BY	REVIEWED BY	DATE
16	VPB	MMH	3/23/2016

X:\Clients\Active Projects\039 Pasco\03915 Pasco WA 2016\Drafting\2015 Annual Report\03914_Pasco_2015Q2_GW-Monitoring.dwg



NOTES

MW-52S
0.94
SHALLOW AQUIFER MONITORING WELL WITH 1,2 DICHLOROETHANE (1,2 DCA) CONCENTRATION IN GROUNDWATER (µg/L)

SALINAS
RESIDENTIAL WELL (WITH PROPERTY OWNER) NOT SAMPLED DURING THIS MONITORING EVENT

0.38
1,2 DCA CONCENTRATION CONTOUR. DASHED WHERE INFERRED, QUERRIED WHERE UNCERTAIN

1,2-DCA 2014 DRAFT CLEANUP LEVEL = 0.38 ug/L

<##U = COMPOUND NOT DETECTED ABOVE REPORTING LIMIT

NS = NOT SAMPLED

ENVIRONMENTAL PARTNERS INC
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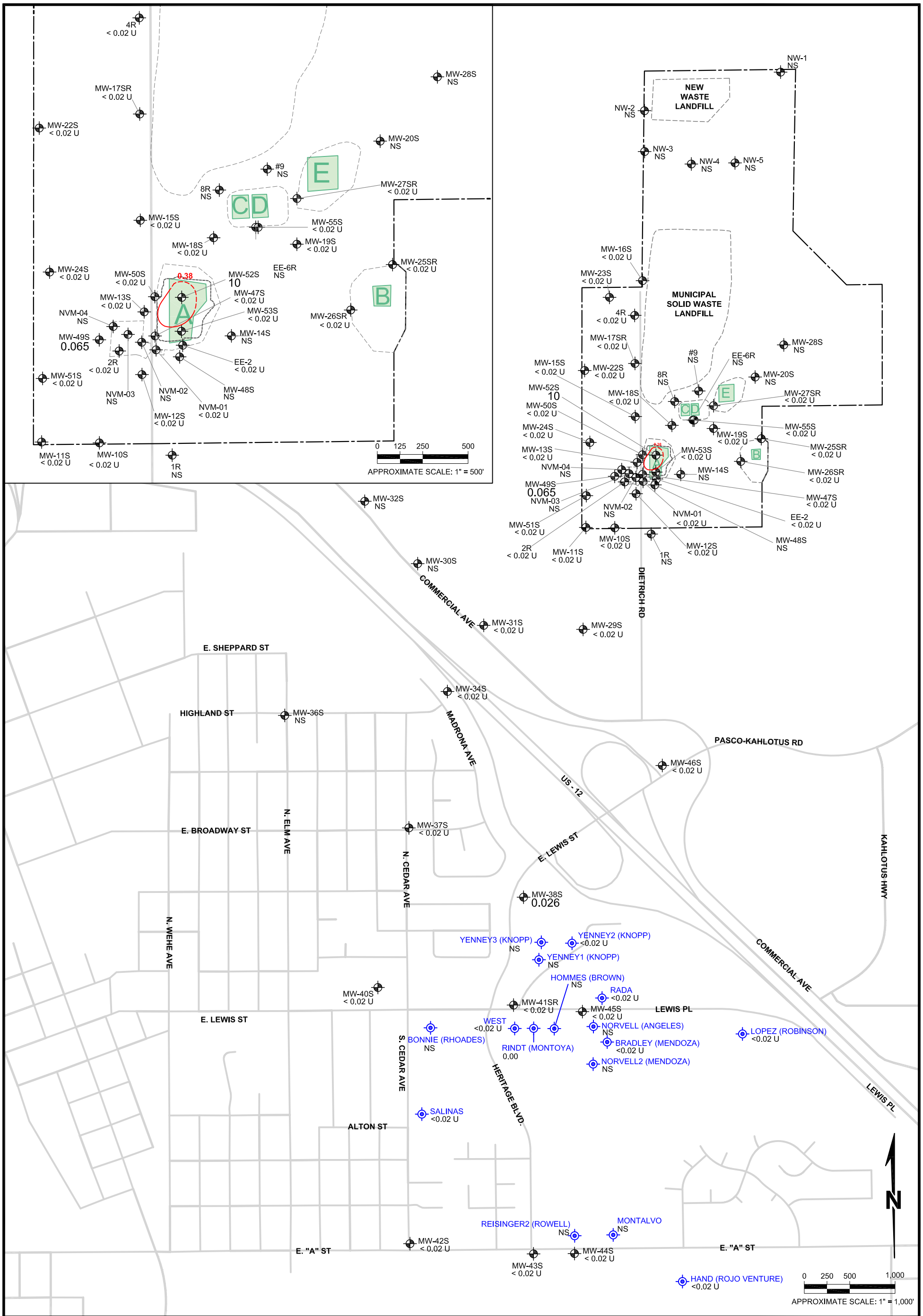
PROJECT	03914.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
FIGURE 17	DRAWN BY VPB	REVIEWED BY MMH	DATE 3/23/2016

ISOCONCENTRATION MAP OF 1,2-DICHLOROETHANE IN SHALLOW GROUNDWATER - JANUARY 2015

X:\Clients\Active Projects\039 Pasco\03915 Pasco WA 2016\Drafting\2015 Annual Report\03914_Pasco_2015Q1_GW-Monitoring.dwg



NOTES

MW-52S 0.94 — SHALLOW AQUIFER MONITORING WELL WITH 1,2 DICHLOROETHANE (1,2 DCA) CONCENTRATION IN GROUNDWATER (µg/L)

SALINAS — RESIDENTIAL WELL (WITH PROPERTY OWNER)

0.38 — 1,2 DCA CONCENTRATION CONTOUR. DASHED WHERE INFERRED, QUERRIED WHERE UNCERTAIN

1,2-DCA 2014 DRAFT CLEANUP LEVEL = 0.38 ug/L

<##U = COMPOUND NOT DETECTED ABOVE REPORTING LIMIT

NS = NOT SAMPLED

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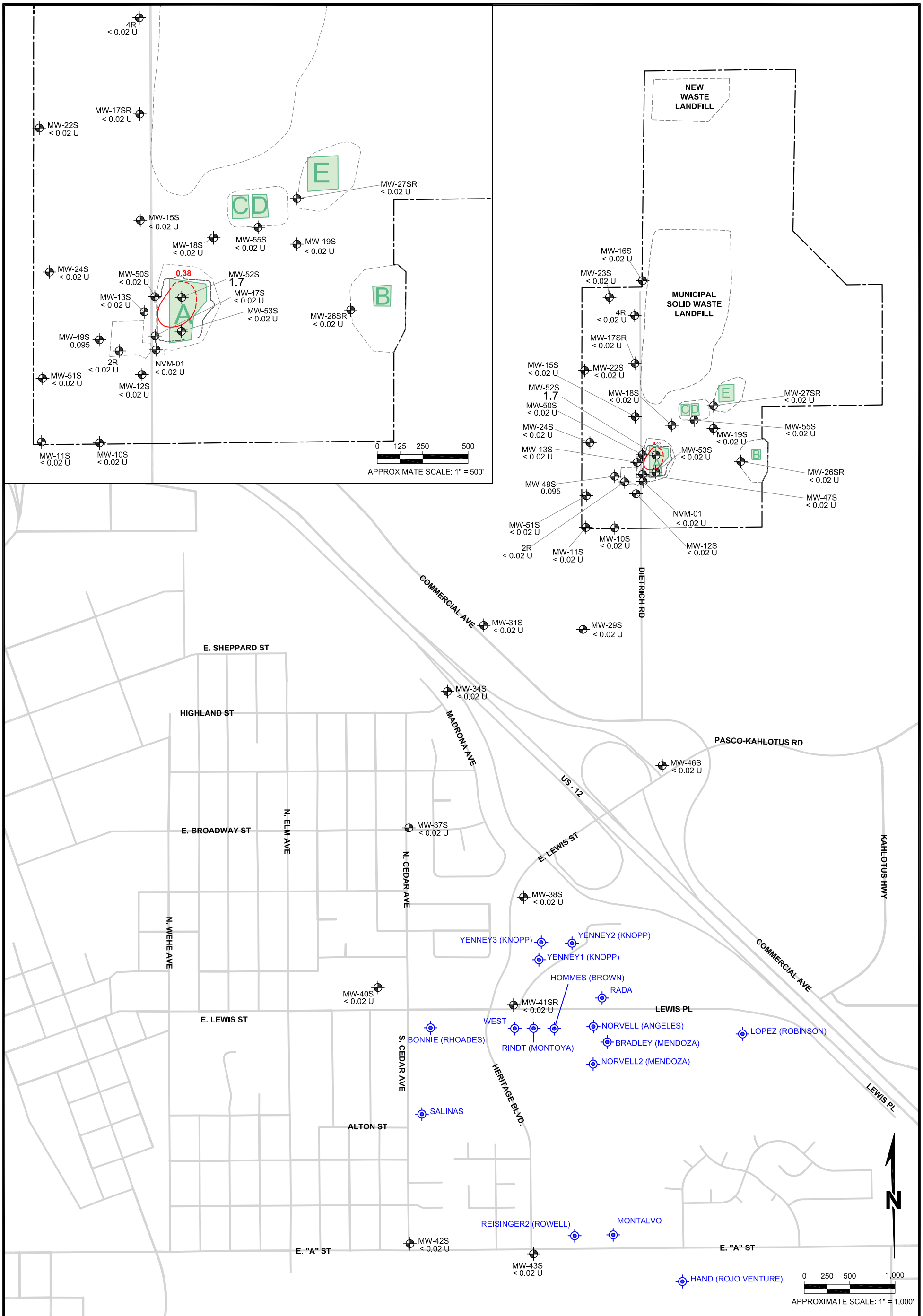
ISOCONCENTRATION MAP OF 1,2-DICHLOROETHANE IN SHALLOW GROUNDWATER - APRIL 2015

PROJECT	03914.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
FIGURE 18	DRAWN BY VPB	REVIEWED BY MMH	DATE 3/23/2016

X:\Clients\Active Projects\039 Pasco\03915 Pasco WA 2016\Drafting\2015 Annual Report\03914_Pasco_2015Q2_GW-Monitoring.dwg



NOTES

MW-51S <0.02 U — SHALLOW AQUIFER MONITORING WELL WITH 1,2-DICHLOROETHANE (1,2-DCA) CONCENTRATION IN GROUNDWATER (µg/L)

SALINAS — RESIDENTIAL WELL (WITH PROPERTY OWNER)

0.38 — 1,2-DCA CONCENTRATION CONTOUR. DASHED WHERE INFERRED, QUERRIED WHERE UNCERTAIN

1,2-DCA 2014 DRAFT CLEANUP LEVEL = 0.38 µg/L

<##U = COMPOUND NOT DETECTED ABOVE REPORTING LIMIT

NS = NOT SAMPLED

ENVIRONMENTAL PARTNERS INC
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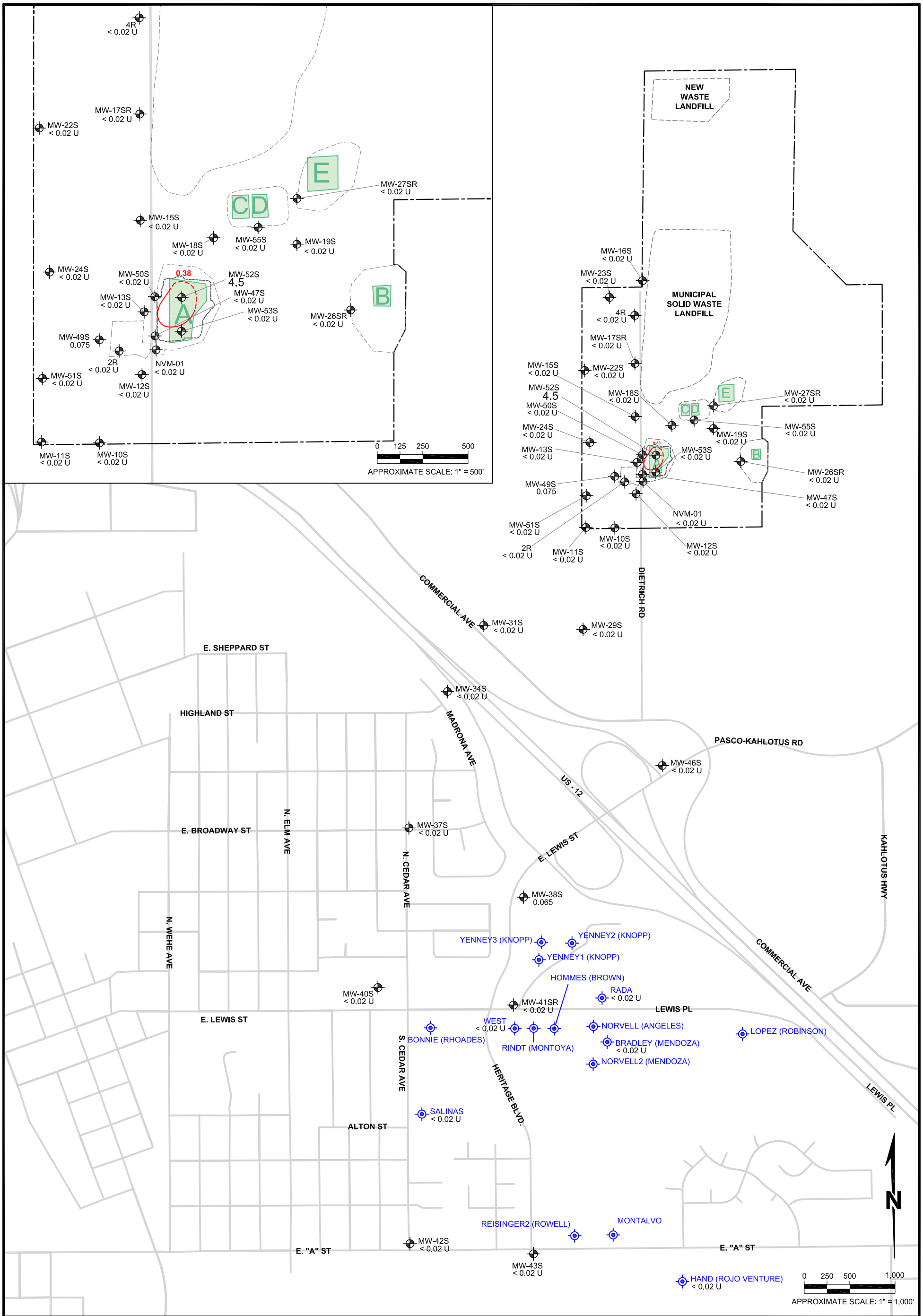
Issaquah, Washington 98027

PROJECT	03914.2
PREPARED FOR	IWAG GROUP III PASCO LANDFILL
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON

ISOCONCENTRATION MAP OF 1,2-DICHLOROETHANE IN SHALLOW GROUNDWATER - JULY 2015

FIGURE	DRAWN BY	REVIEWED BY	DATE
19	VPB	MMH	3/23/2016

X:\Clients\Active Projects\039 Pasco\03915 Pasco WA 2016\Drafting\2015 Annual Report\03914_Pasco_2015Q3_GW-Monitoring_1,2,DCE Concentrations_RevA.dwg



NOTES

MW-51S <0.02 U — SHALLOW AQUIFER MONITORING WELL WITH 1,2-DICHLOROETHANE (1,2-DCA) CONCENTRATION IN GROUNDWATER (µg/L)

SALINAS <0.02 U — RESIDENTIAL WELL WITH PROPERTY OWNER & (1,2-DCA) CONCENTRATION IN GROUNDWATER (µg/L)

0.38 — 1,2-DCA CONCENTRATION CONTOUR. DASHED WHERE INFERRED, QUERRIED WHERE UNCERTAIN

1,2-DCA 2014 DRAFT CLEANUP LEVEL = 0.38 µg/L

<##U = COMPOUND NOT DETECTED ABOVE REPORTING LIMIT

NS = NOT SAMPLED

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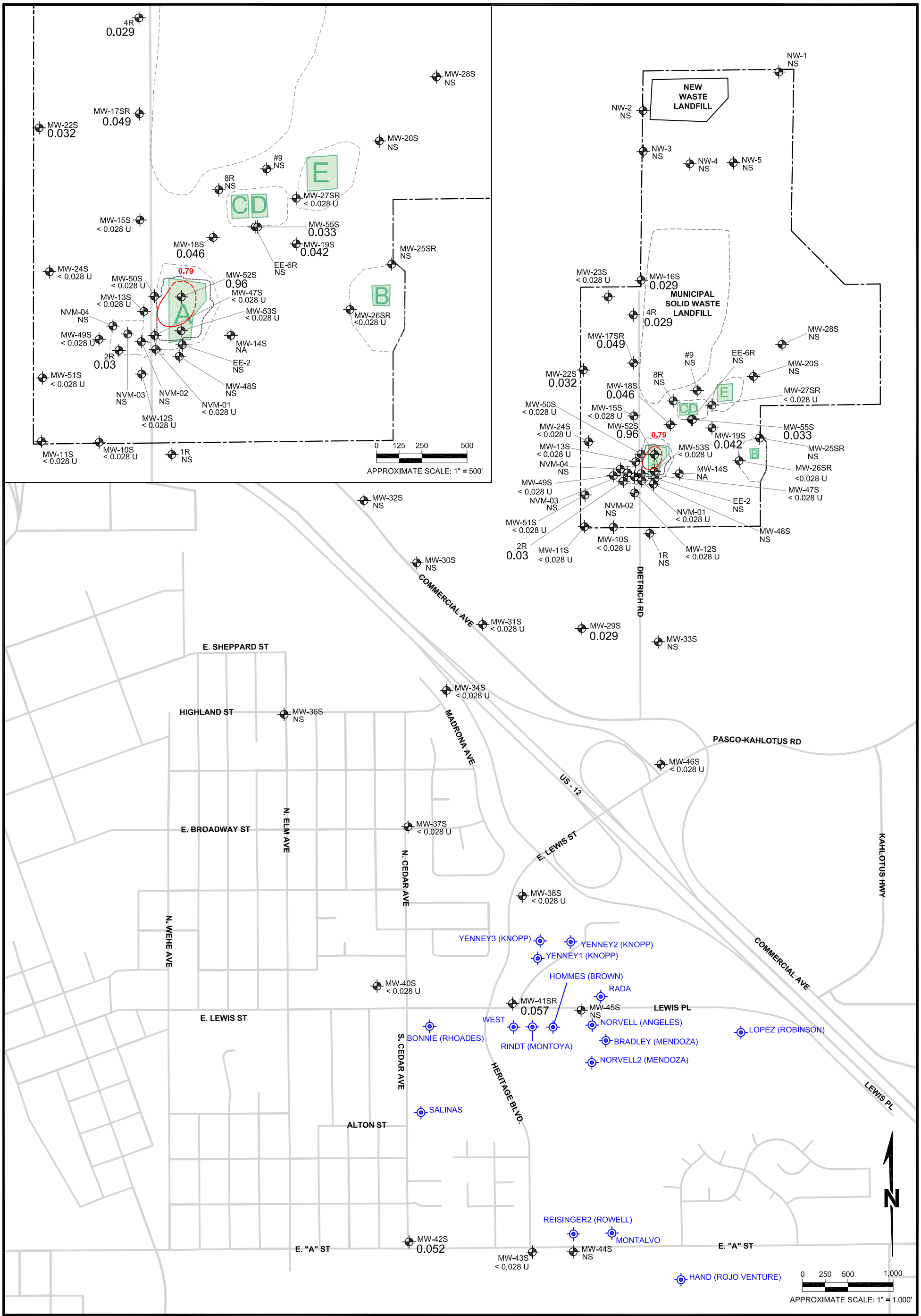
Issaquah, Washington 98027

PROJECT	03914.2
PREPARED FOR	IWAG GROUP III PASCO LANDFILL
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON

ISOCONCENTRATION MAP OF 1,2-DICHLOROETHANE IN SHALLOW GROUNDWATER - OCTOBER 2015

FIGURE	DRAWN BY	REVIEWED BY	DATE
20	VPB	TCM	3/23/2016

X:\Clients\Active Projects\039 Pasco\03915 Pasco WA 2016\Drafting\2015 Annual Report\03914_Pasco_2015Q4_GW-Monitoring_1,2-DCE Concentrations.dwg



NOTES

MW-52S 0.79 — SHALLOW AQUIFER MONITORING WELL WITH BENZENE CONCENTRATION IN GROUNDWATER (µg/L)

SALINAS — RESIDENTIAL WELL (WITH PROPERTY OWNER) NOT SAMPLED DURING THIS MONITORING EVENT

0.79 — BENZENE CONCENTRATION CONTOUR DASHED WHERE INFERRED, QUERRIED WHERE UNCERTAIN

BENZENE 2014 DRAFT CLEANUP LEVEL = 0.79 µg/L

<##U = COMPOUND NOT DETECTED ABOVE REPORTING LIMIT

NS = NOT SAMPLED

ENVIRONMENTAL PARTNERS INC
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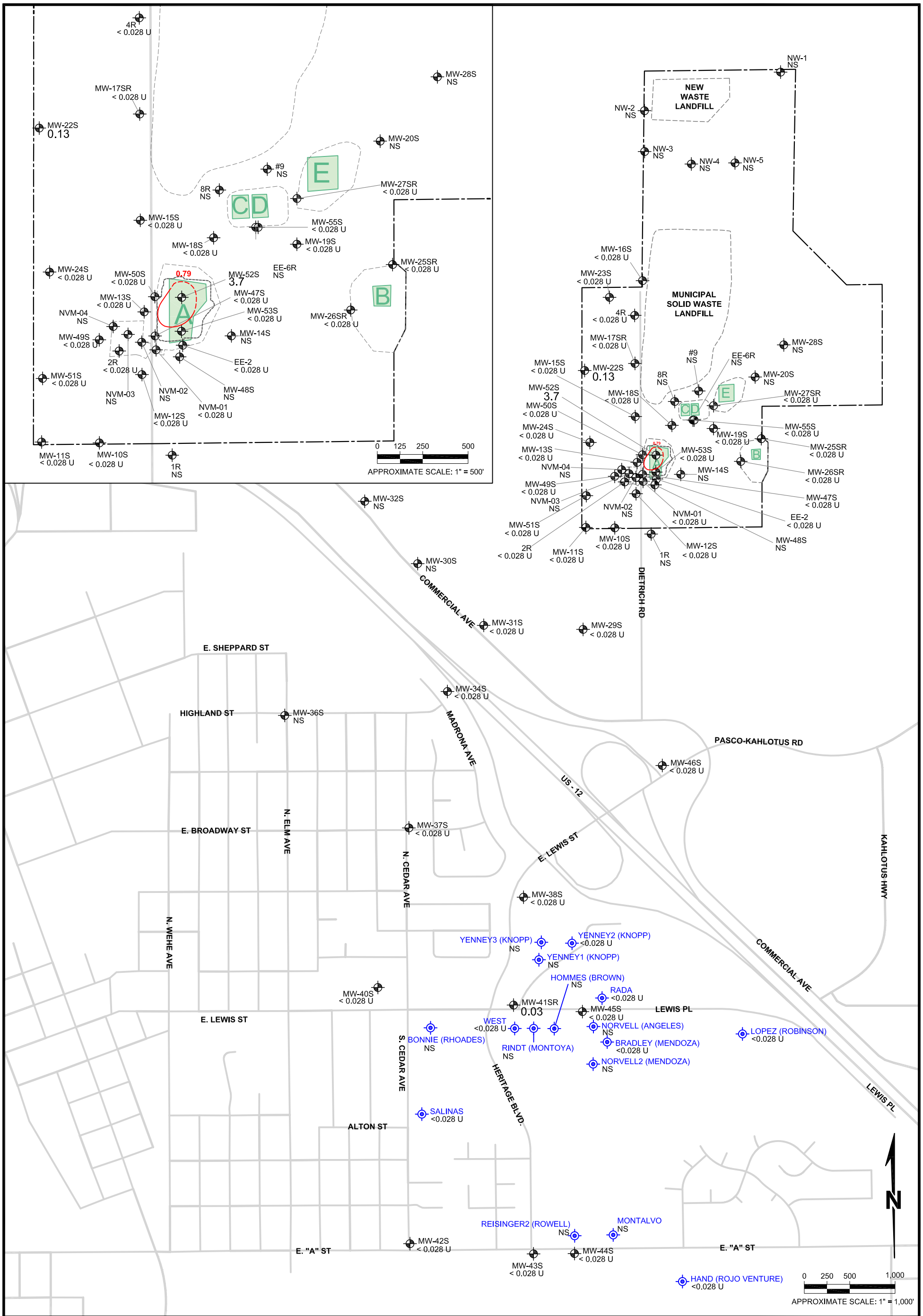
Issaquah, Washington 98027

PROJECT	03914.2
PREPARED FOR	IWAG GROUP III PASCO LANDFILL
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON

ISOCONCENTRATION MAP OF BENZENE IN SHALLOW GROUNDWATER - JANUARY 2015

FIGURE	DRAWN BY	REVIEWED BY	DATE
21	VPB	MMH	3/23/2016

X:\Clients\Active Projects\039 Pasco\03915 Pasco WA 2016\Drafting\2015 Annual Report\03914_Pasco_2015Q1_GW-Monitoring.dwg



NOTES

MW-52S 0.96 — SHALLOW AQUIFER MONITORING WELL WITH BENZENE CONCENTRATION IN GROUNDWATER (µg/L)

SALINAS — RESIDENTIAL WELL (WITH PROPERTY OWNER)

0.79 — BENZENE CONCENTRATION CONTOUR DASHED WHERE INFERRED, QUERRIED WHERE UNCERTAIN

BENZENE 2014 DRAFT CLEANUP LEVEL = 0.79 µg/L

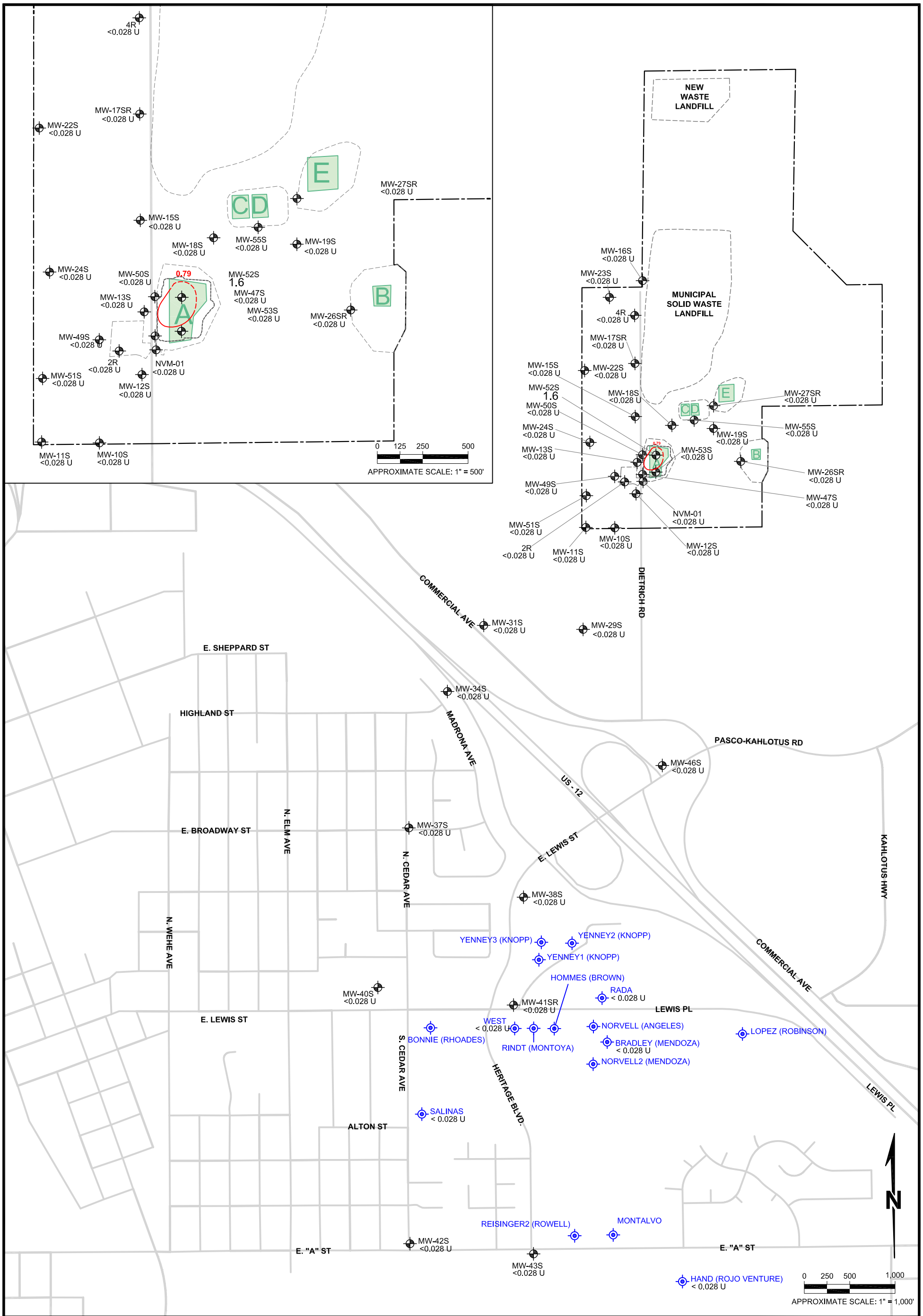
<##U = COMPOUND NOT DETECTED ABOVE REPORTING LIMIT

NS = NOT SAMPLED

ENVIRONMENTAL PARTNERS INC
1180 NW Maple Street, Suite 310
Issaquah, Washington 98027

PROJECT	03914.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
ISOCONCENTRATION MAP OF BENZENE IN SHALLOW GROUNDWATER - APRIL 2015	DRAWN BY: VPB	REVIEWED BY: MMH	DATE: 3/23/2016
FIGURE 22			

X:\Clients\Active Projects\039 Pasco\03915 Pasco WA 2016\Drafting\2015 Annual Report\03914_Pasco_2015Q2_GW-Monitoring.dwg



NOTES

MW-51S <0.02 U — SHALLOW AQUIFER MONITORING WELL WITH BENZENE CONCENTRATION IN GROUNDWATER (µg/L)

SALINAS <0.02 U — RESIDENTIAL WELL WITH PROPERTY OWNER & BENZENE CONCENTRATION IN GROUNDWATER (µg/L)

0.79 — BENZENE CONCENTRATION CONTOUR. DASHED WHERE INFERRED, QUERRIED WHERE UNCERTAIN

BENZENE 2014 DRAFT CLEANUP LEVEL = 0.79 µg/L

<##U = COMPOUND NOT DETECTED ABOVE REPORTING LIMIT

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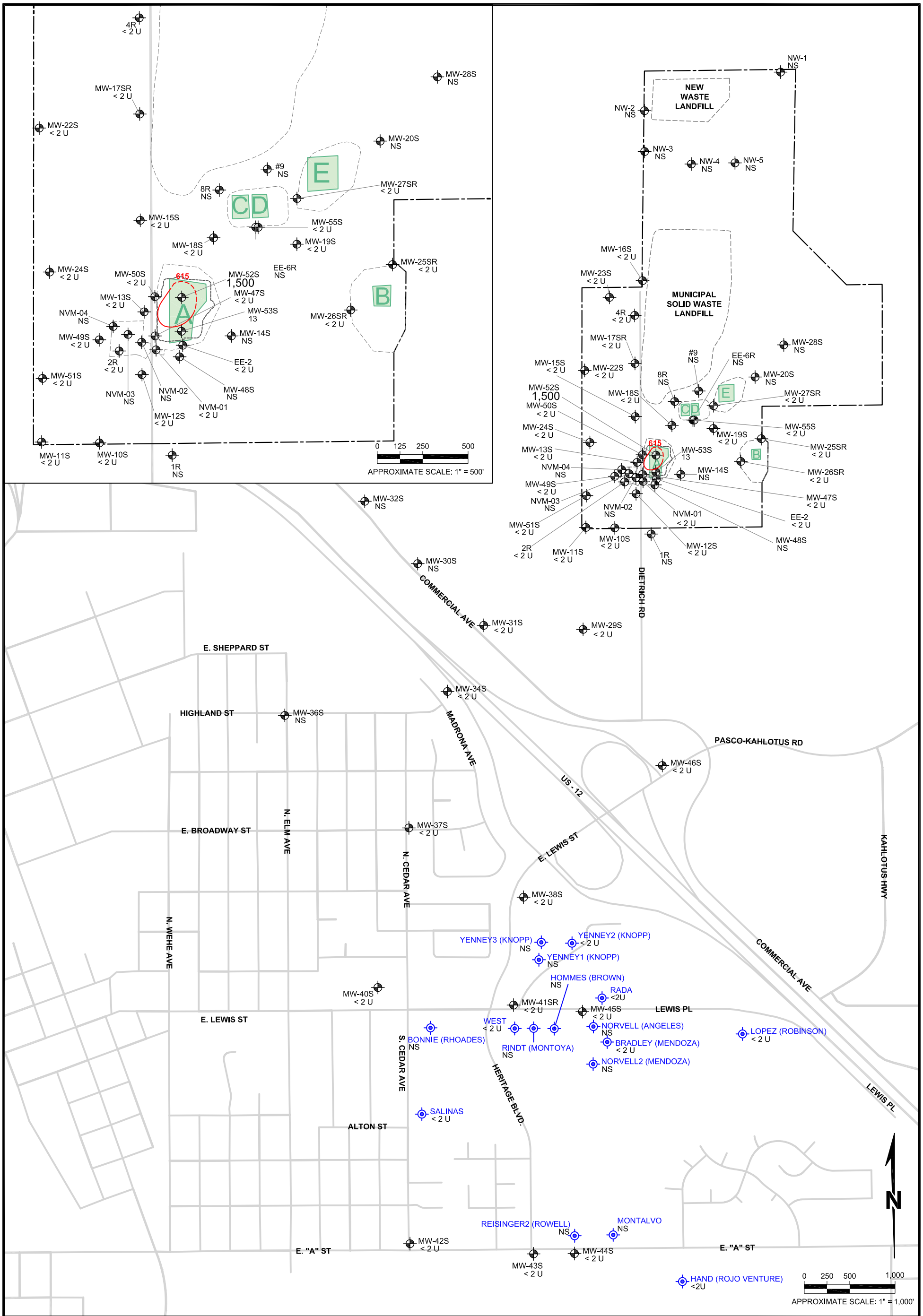
Issaquah, Washington 98027

PROJECT	03914.2
PREPARED FOR	IWAG GROUP III PASCO LANDFILL
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON

ISOCONCENTRATION MAP OF BENZENE IN SHALLOW GROUNDWATER - OCTOBER 2015

FIGURE	DRAWN BY	REVIEWED BY	DATE
23	VPB	TCM	3/23/2016

X:\Clients\Active Projects\039 Pasco\03915 Pasco WA 2016\Drafting\2015 Annual Report\03914_Pasco_2015Q4_GW-Monitoring_Benzene Concentrations.dwg



NOTES

MW-53S
0.28
SHALLOW AQUIFER MONITORING WELL WITH TETRACHLOROETHENE (PCE) CONCENTRATION IN GROUNDWATER (µg/L)

SALINAS
RESIDENTIAL WELL (WITH PROPERTY OWNER)

615
TOLUENE CONCENTRATION CONTOUR. DASHED WHERE INFERRED, QUERRIED WHERE UNCERTAIN

TOLUENE 2014 DRAFT CLEANUP LEVEL = 615 µg/L

<2U = COMPOUND NOT DETECTED ABOVE REPORTING LIMIT

NS = NOT SAMPLED

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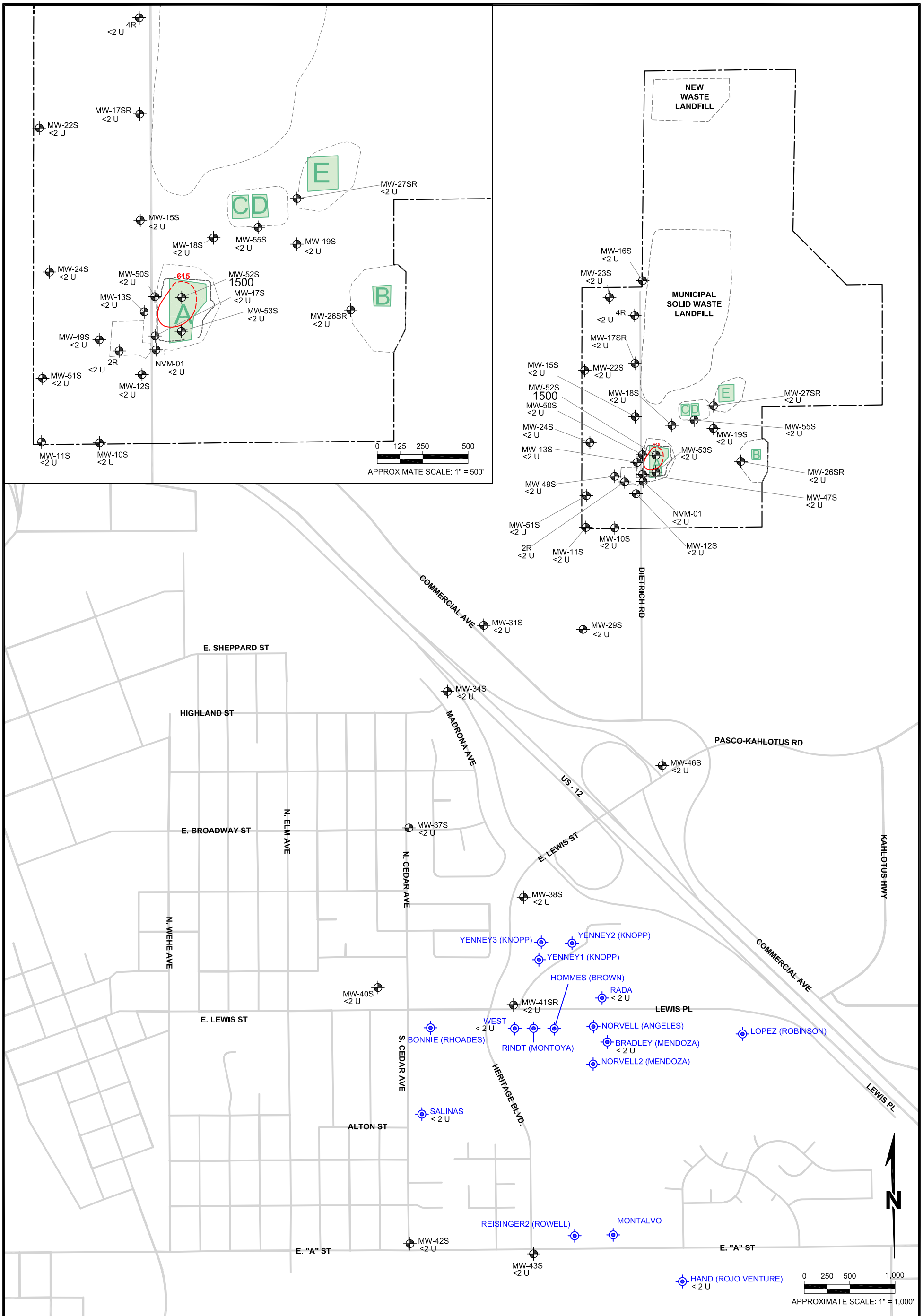
1180 NW Maple Street, Suite 310
Issaquah, Washington 98027

ISOCONCENTRATION MAP OF TOLUENE IN SHALLOW GROUNDWATER - APRIL 2015

PROJECT	03914.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
FIGURE 24	DRAWN BY VPB	REVIEWED BY MMH	DATE 3/23/2016

X:\Clients\Active Projects\039 Pasco\03915 Pasco WA 2016\Drafting\2015 Annual Report\03914_Pasco_2015Q2_GW-Monitoring.dwg



NOTES

MW-51S <0.02 U — SHALLOW AQUIFER MONITORING WELL WITH TOLUENE CONCENTRATION IN GROUNDWATER (µg/L)

SALINAS <0.02 U — RESIDENTIAL WELL WITH PROPERTY OWNER & TOLUENE CONCENTRATION IN GROUNDWATER (µg/L)

615 — TOLUENE CONCENTRATION CONTOUR. DASHED WHERE INFERRED, QUERRIED WHERE UNCERTAIN

TOLUENE 2014 DRAFT CLEANUP LEVEL = 615 µg/L

<2U = COMPOUND NOT DETECTED ABOVE REPORTING LIMIT

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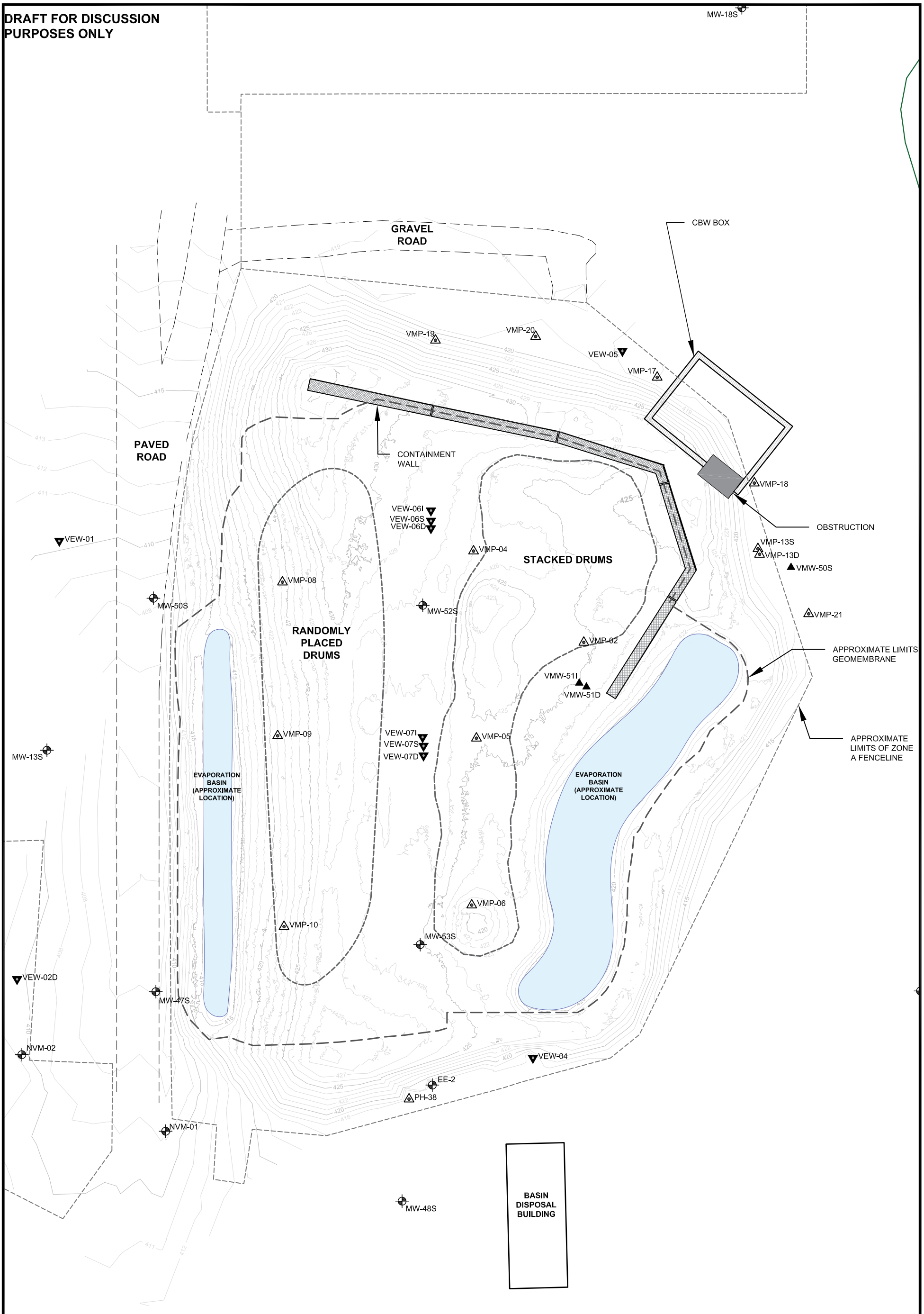
Issaquah, Washington 98027

ISOCONCENTRATION MAP OF TOLUENE IN SHALLOW GROUNDWATER - OCTOBER 2015

PROJECT	03914.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
FIGURE 25	DRAWN BY VPB	REVIEWED BY TCM	DATE 3/23/2016

X:\Clients\Active Projects\039 Pasco\03915 Pasco WA 2016\Drafting\2015 Annual Report\03914_Pasco_2015Q4_GW-Monitoring_Toluene Concentrations.dwg

DRAFT FOR DISCUSSION PURPOSES ONLY



NOTES

VEW-07S	VAPOR EXTRACTION WELL LOCATION
MW-53S	MONITORING WELL LOCATION
VMP-17	VACUUM MONITORING PROBE LOCATION (NEW LOCATIONS IN BLUE)
VMW-51I	VAPOR MONITORING WELL LOCATION
VB-20	THERMOCOUPLE ARRAY LOCATION (NEW LOCATIONS IN GREEN)

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SOIL VAPOR EXTRACTION MONITORING LOCATIONS

PROJECT	03914.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
FIGURE 26	DRAWN BY VPB	REVIEWED BY ARM	DATE 3/23/16

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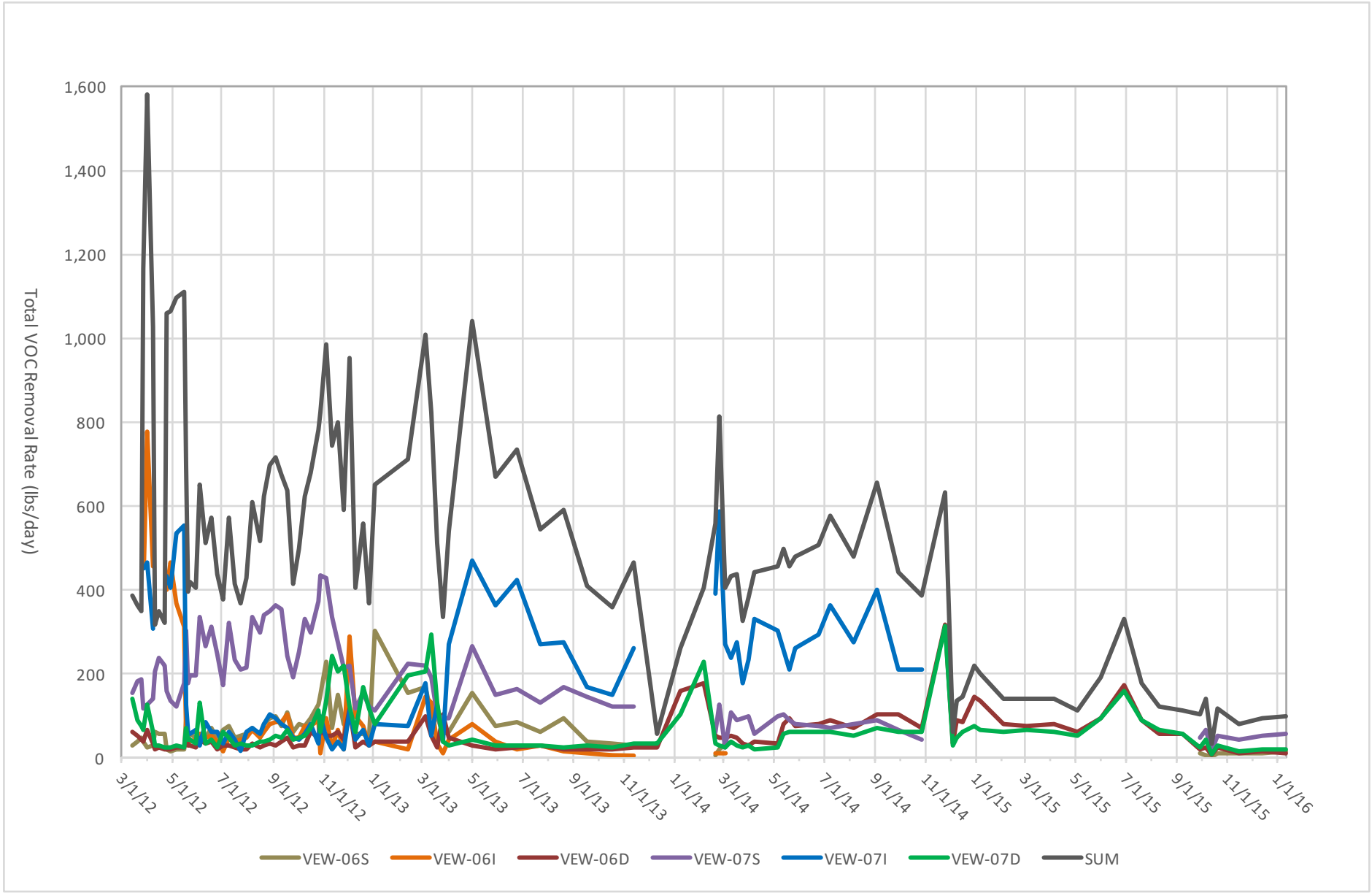
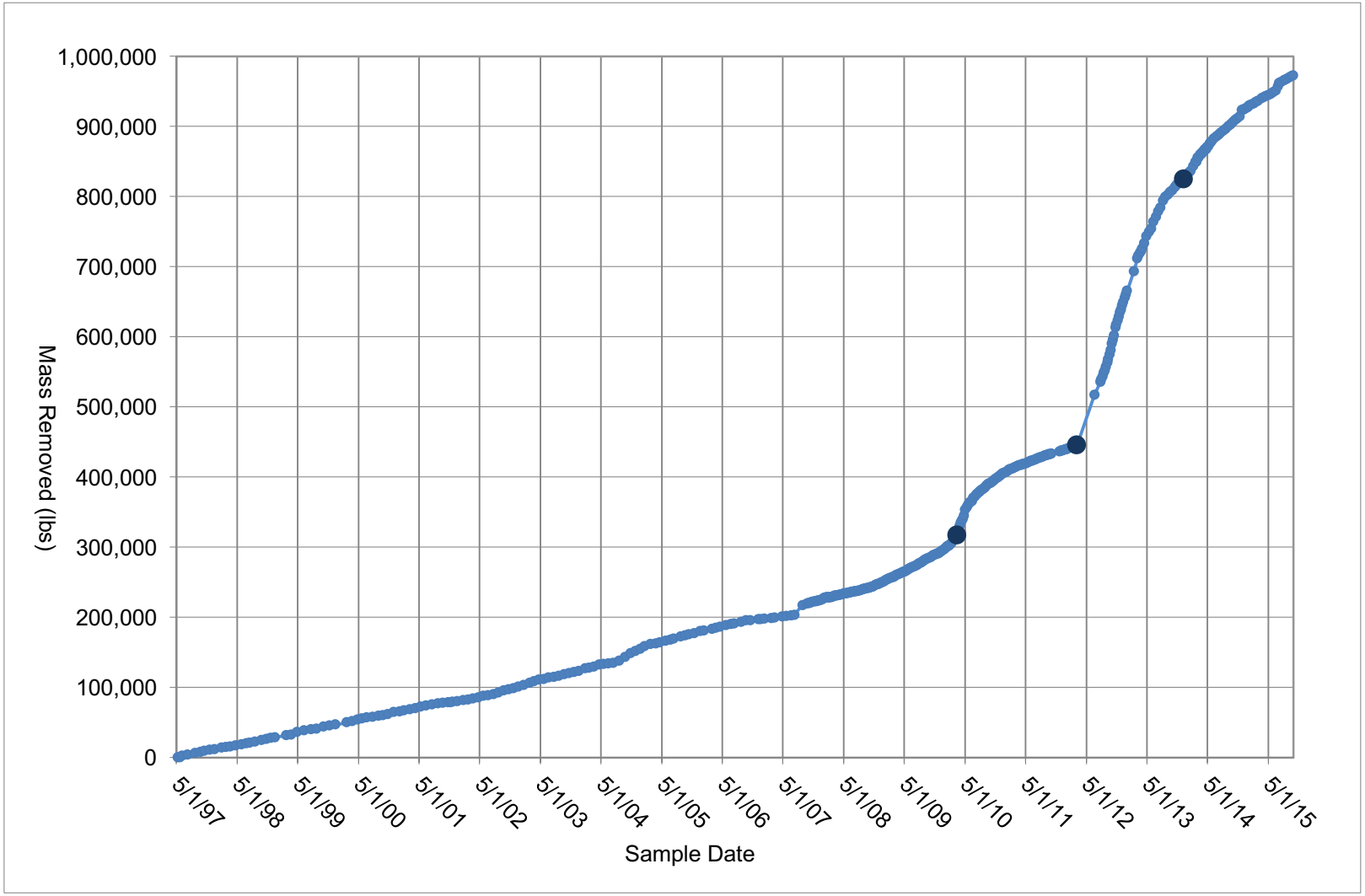
PERIOD: 1/1 - 12/31/2015

Figure 27
SVE System Removal Rates (in lbs/day)
2015 Annual Report
Pasco Landfill, Pasco, WA





NOTES

ACTIVE SVE WELLS:
MAY 1997 TO MARCH 2010: VEW-01, VMW-02D, VEW-04, AND VEW-05
MARCH 2010 TO MARCH 2012: VEW-04 AND VEW-05
MARCH 2012 TO DECEMBER 2013: VEW-06S/I/D AND VEW-07S/I/D
DECEMBER 2013 TO FEBRUARY 2014: VEW-06D AND VEW-07D
FEBRUARY 2014 TO MARCH 2014: VEW-06S/I/D AND VEW-07S/I/D
MARCH 2014 TO NOVEMBER 2014: VEW-06D AND VEW-07S/I/D
NOVEMBER 2014 TO SEPTEMBER 2015: VEW-06D AND VEW-07D
SEPTEMBER 2015 TO PRESENT: VEW-06S/D AND VEW-07S/D

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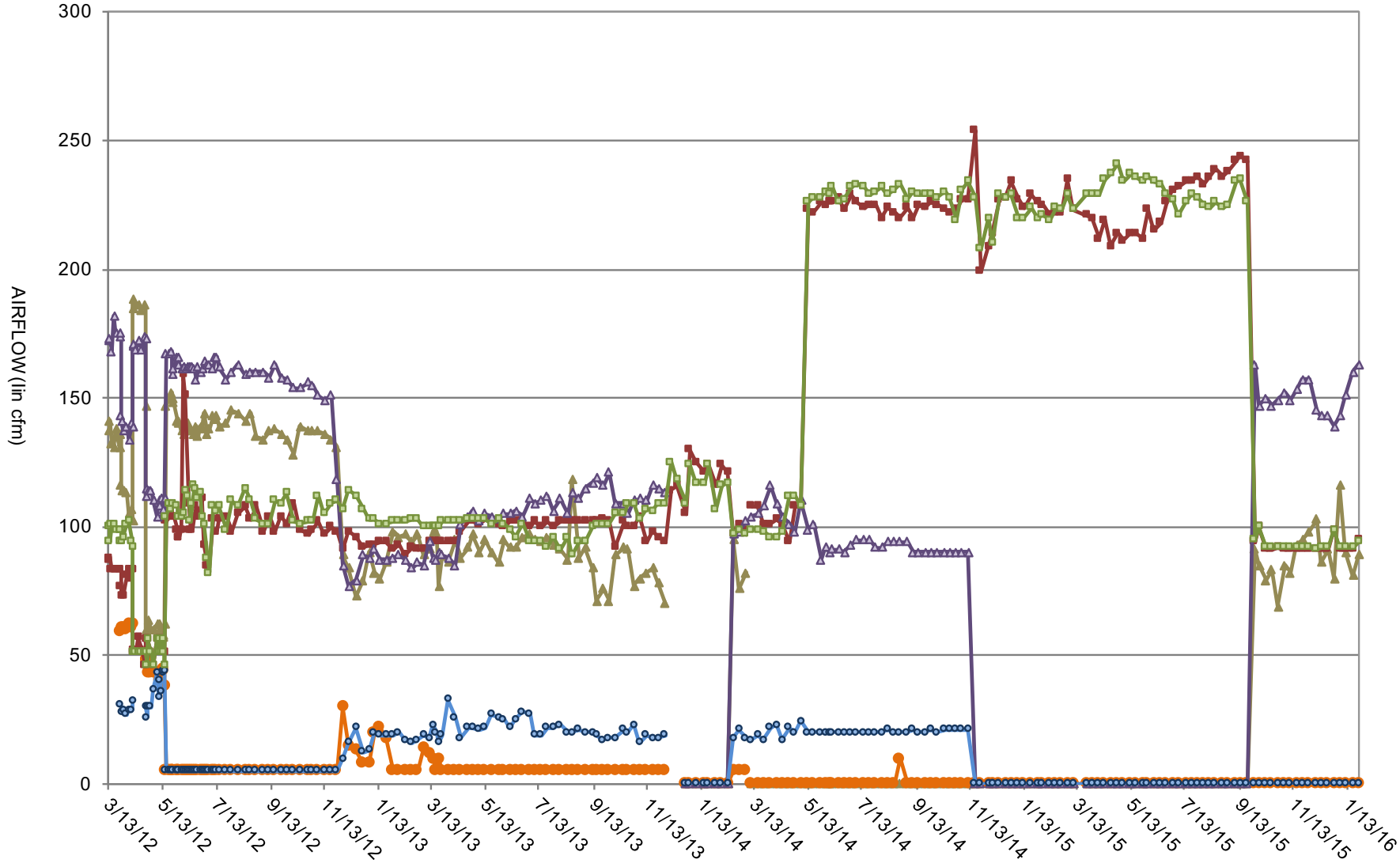
Issaquah, Washington 98027

CUMULATIVE MASS REMOVED
SINCE MAY 1997 BY ZONE A SVE SYSTEM

PROJECT	03914.2		
PREPARED FOR	IWAG GROUP III PASCO LANDFILL		
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON		
FIGURE 28	DRAWN BY MMH	REVIEWED BY CSW	DATE 3/23/16



LEGEND:

- VEW-06S
- VEW-06i
- VEW-06D
- VEW-07S
- VEW-07i
- VEW-07D

ENVIRONMENTAL PARTNERS INC

FIGURE 29

SVE SYSTEM AIRFLOW MEASUREMENTS

PROJECT	03914.2
PREPARED FOR	IWAG GROUP III PASCO LANDFILL
LOCATION	1901 DIETRICH ROAD PASCO, WASHINGTON

DRAWN BY	*REVIEWED BY*	*DATE*
MMH	TCM	

Attachment A
Data Validation Report
Pasco Sanitary Landfill Groundwater Monitoring
October 2015 Sampling

Data Validation Report

Pasco Sanitary Landfill Groundwater Monitoring
October 2015 Sampling

Laboratory SDG Number: EV15100161

Prepared for:

Environmental Partners, Inc.
1180 NW Maple St, Suite 310
Issaquah, WA 98027

Prepared by:

Pyron Environmental, Inc.
3530 32nd Way NW
Olympia, WA 98502

January 25, 2016

Table of Content

Acronyms

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

MEE	methane, ethane, and ethane
MS	matrix spike
MSD	matrix spike duplicate
NA	not applicable
ND	not detected
OMM	Revised Site-Wide Groundwater Performance and Protection Monitoring Operations and Maintenance Manual
PAHs	polycyclic aromatic hydrocarbons
PAL	Pacific Agricultural Laboratory
QA/QC	quality assurance/quality control
RF	response factor
RL	reporting limit
RPD	relative percent difference
SDG	sample delivery group
SIM	selective ion monitoring
SOP	standard operating procedures
SRM	standard reference material
SVOCs	semi-volatile organic compounds
TDS	total dissolved solids
TOC	total organic carbon
VOCs	volatile organic compounds

I. INTRODUCTION

This report presents and discusses findings of the data validation performed on analytical data associated with the 60 water samples collected during October 27 through 30, 2015 for the referenced project. The validation procedures followed the requirements specified in the following documents, as applicable:

- *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review.* Office of Superfund Remediation and Technical Innovation. August 2014. EPA 540-R-013-001.

- *USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Data Review.*Office of Superfund Remediation and Technical Innovation.August 2014. EPA 540-R-014-002.

A level III (or Stage 2B as defined in EPA 2009) validation was performed based on the summaries of sample and quality control (QC) analytical results submitted by the laboratories. The numerical quality assurance and quality control (QA/QC) criteria applied to the validation were in accordance with those specified in the analytical methods, the *Site-Wide Groundwater Performance and Protection Monitoring Operations and Maintenance Manual (OMM), Environmental Partners, Inc.,May2014& Revisions in October 2014),* and the performance-based control limits established by the laboratories (laboratory control limits). The frequency of QC analyses was evaluated according to the OMM and the analytical methods. Sample-specific method detection limits and reporting limits were evaluated against the reporting limits revised in February 2012. Raw data were not reviewed herein unless necessary for clarification purposes.

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

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

As part of the validation, the electronic data deliverables (EDDs) were verified against the hardcopy report. Data qualifiers, qualification reasons, and any required corrections identified *via* this validation have been added to the EDDs and submitted along with this report.Samples collected during this sampling event and the associated analyses are summarized below:

Field Sample ID	ALS Laboratory Sample ID	Sampling Date	Matrix	Analysis					
				VOCs	Herb SVOCs	MEE	Cr Cr (VI)	Metals	Inorganic
PLF-MW15S-1015	EV15100161-01	10/27/15	Water	X					
PLF-MW37S-1015	EV15100161-02	10/27/15	Water	X					
PLF-MW34S-1015	EV15100161-03	10/27/15	Water	X					
PLF-MW40S-1015	EV15100161-04	10/27/15	Water	X					
PLF-MW42S-1015	EV15100161-05	10/27/15	Water	X					
PLF-MW54I-1015	EV15100161-06	10/27/15	Water	X					
PLF-MW44S-1015	EV15100161-07	10/27/15	Water	X					
PLF-MW43S-1015	EV15100161-08	10/27/15	Water	X					
PLF-MW43I-1015	EV15100161-09	10/27/15	Water	X					
PLF-DUP1-1015	EV15100161-10	10/27/15	Water	X					
PLF-MW26SR-1015	EV15100161-11	10/27/15	Water	X	X				
PLF-MW16S-1015	EV15100161-12	10/27/15	Water	X				X	X[(A)]
PLF-MW53S-1015	EV15100161-13	10/27/15	Water	X	X				
PLF-MW52S-1015	EV15100161-14	10/27/15	Water	X	X				
PLF-DUP3-1015	EV15100161-15	10/27/15	Water	X	X				
PLF-MW25SR-1015	EV15100161-16	10/27/15	Water	X				X	X
PLF-MW19S-1015	EV15100161-17	10/27/15	Water	X			X		
PLF-MW45S-1015	EV15100161-18	10/28/15	Water	X					
PLF-MW41SR-1015	EV15100161-19	10/28/15	Water	X					
PLF-MW46S-1015	EV15100161-20	10/28/15	Water	X					
PLF-MW31S-1015	EV15100161-21	10/28/15	Water	X					
PLF-MW29S-1015	EV15100161-22	10/28/15	Water	X					
PLF-MW29I-1015	EV15100161-23	10/28/15	Water	X					
PLF-MW11S-1015	EV15100161-24	10/28/15	Water	X					
PLF-MW11I-1015	EV15100161-25	10/28/15	Water	X					
PLF-MW10S-1015	EV15100161-26	10/28/15	Water	X					
PLF-MW51S-1015	EV15100161-27	10/28/15	Water	X					
PLF-MW12ID-1015	EV15100161-28	10/28/15	Water	X					
PLF-MW17SR-1015	EV15100161-29	10/28/15	Water	X				X	X[(A)]
PLF-#4R-1015	EV15100161-30	10/28/15	Water	X				X	X[(A)]
PLF-DUP2-1015	EV15100161-31	10/28/15	Water	X				X	
PLF-MW23S-1015	EV15100161-32	10/28/15	Water	X					

Field Sample ID	ALS Laboratory Sample ID	Sampling Date	Matrix	Analysis					
				VOCs	Herb SVOCs	MEE	Cr Cr (VI)	Metals	Inorganic
PLF-MW22S-1015	EV15100161-33	10/28/15	Water	X			X	X	X(A)
PLF-DUP4-1015	EV15100161-34	10/28/15	Water				X	X	
PLF-MW20S-1015	EV15100161-35	10/28/15	Water			X		X	X
PLF-MW55S-1015	EV15100161-36	10/28/15	Water	X			X		
PLF-MW24S-1015	EV15100161-37	10/29/15	Water	X					
PLF-MW49I-1015	EV15100161-38	10/29/15	Water	X					
PLF-NVM01I-1015	EV15100161-39	10/29/15	Water	X					
PLF-NVMO1-1015	EV15100161-40	10/29/15	Water	X					
PLF-MW47I-1015	EV15100161-41	10/29/15	Water	X					
PLF-EE2-1015	EV15100161-42	10/29/15	Water	X					
PLF-#2I-1015	EV15100161-43	10/29/15	Water	X					
PLF-MW18S-1015	EV15100161-44	10/29/15	Water	X					
PLF-MW38I-1015	EV15100161-45	10/29/15	Water	X					
PLF-MW38S-1015	EV15100161-46	10/29/15	Water	X					
PLF-MW12S-1015	EV15100161-47	10/29/15	Water	X		X	X	Mn	X
PLF-DUP5-1015	EV15100161-48	10/29/15	Water	X		X		Mn	X
PLF-MW47S-1015	EV15100161-49	10/29/15	Water	X		X		Mn	X
PLF-MW50S-1015	EV15100161-50	10/29/15	Water	X		X		Mn	X
PLF-#2R-1015	EV15100161-51	10/29/15	Water	X		X		Mn	X
PLF-MW13S-1015	EV15100161-52	10/29/15	Water	X			X		
PLF-MW49S-1015	EV15100161-53	10/29/15	Water	X		X		Mn	X
PLF-MW27SR-1015	EV15100161-54	10/29/15	Water	X			X		
TripBlank-1	EV15100161-55	10/29/15	Water	X					
PLF-Rada-1015	EV15100161-56	10/30/15	Water	X					
PLF-Bradley-1015	EV15100161-57	10/30/15	Water	X					
PLF-West-1015	EV15100161-58	10/30/15	Water	X					
PLF-Salinas-1015	EV15100161-59	10/30/15	Water	X					
PLF-Hand-1015	EV15100161-60	10/30/15	Water	X					

Notes:

X - The analysis was requested and performed on the sample.
VOCs – Volatile organic compounds
SVOCs – Semi-volatile organic compounds
Mn – The sample was only analyzed for manganese by EPA Method 200.8.
Metals – Calcium, Iron, magnesium, manganese, potassium, and sodium
MEE – Methane, ethane, and ethane gases

Cr – Chromium
Cr (VI) – Hexavalent chromium
Herb - Chlorophenoxy herbicides, pentachlorophenol (PCP), and 4-nitrophenol
Inorganic – Alkalinity (total, carbonate, bicarbonate, & hydroxide), chloride, nitrate, nitrite, sulfate, chemical oxygen demand (COD), total organic carbon (TOC), total dissolved solids (TDS), ammonia, and ferrous iron (Fe [II]).
(A)– The sample was not analyzed for nitrite, COD, or Fe (II).

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

Parameter	Analytical Method	Laboratory
Volatile organic compounds (VOCs)	SW846 Method 8260C - SIM[(A)]	ALS Laboratory Group (ALS) Everett, Washington
Semi-volatile organic compounds (SVOCs)	SW846 Methods 3510C/8270D full scan and SIM[(B)]	
Methane, ethane, ethane (MEE)	Laboratory Standard Operation Procedure	
Chromium, manganese	EPA Method 200.8	
Anions (chloride, nitrate, nitrite, & sulfate)	EPA Method 300.0	
Total dissolved solids (TDS)	SM Method 2540C	
Hexavalent chromium (Cr [VI])	SW846 Method 7196A	
Calcium, iron, magnesium, manganese, potassium, sodium	EPA Method 200.7	ALS Kelso, Washington
Alkalinity (total, carbonate, bicarbonate, & hydroxide)	SM Method 2320B	
Chemical oxygen demand (COD)	SM Method 5220D	
Total organic carbon (TOC)	SM Method 5310C	
Ammonia	SM Method 4500-NH3 G	
Chlorophenoxy Herbicides, 4-Nitrophenol, & PCP	SW846 Method 3535A/8151A	Pacific Agricultural Laboratory (PAL) Portland, Oregon
Ferrous Iron(Fe [II])	Field Screening (Hach-8146)	Environmental Partners, Inc. Issaquah, Washington

Notes:
SW846 - *USEPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,* SW-846, Third Edition, December 1996.
EPA Methods - *USEPA Methods for Chemical Analysis of Water and Wastes,* EPA–600/4-79-020, March 1983 Revision.
SM – Standard Methods for the Examination of Water and Wastewater, American Public Health Association, 20th Edition, 1995.
[(A)] – Selective ion monitoring (SIM) technique was performed for target compounds to achieve lower detection limits.
[(B)] – SIM technique was performed for selected SVOCs to achieve lower detection limits.

II. DATA VALIDATION FINDINGS

1. Sample Custody, Preservation, and Analysis Completeness

Sample custody was maintained and documented as required from the sample collection to the receipt at the laboratory. The samples were received properly preserved and consistent with the accompanying chain-of-custody (COC) documentation. The cooler temperature was measured at 10˚C (above the criterion of ≤6˚C) for herbicides samples transferred from ALS-Everett to PAL. These samples were shipped overnight with less than 12 hours in transit. Therefore, the higher cooler temperature has no significant effects on herbicides data quality. No data qualifying action was taken in this case. All requested analyses on the COC forms were completed and reported.

2. Volatile Organic Compounds ([VOCs]; SW846 Method 8260C–SIM)

2.1 Holding Time

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

2.2 GC/MS Instrument Performance Check

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

2.3 Initial Calibration (ICAL)

The method requires that (1) if linear average response factors (RFs) is chosen as the quantitation option, the %RSD of RFs be ≤20% for target compounds, (2) if least-square linear regression is chosen for quantitation, the correlation coefficient (r) be ≥0.99, (3) if six-point non-linear (quadratic) curve is chosen for quantitation, the coefficient of determination (r^2) be ≥0.99, (4) compound RFs are ≥ the minimum RF specified in Method 8260C, Table 4, and (5) a second source standard (ICV) should be analyzed immediately after the initial calibration and the percent difference (%D) or percent drift ($\%D_f$) values for all target and surrogate compounds should be within ±30%.In few cases where the second source %D or $\%D_f$ values did not meet the criteria, those of the associated calibration verification were within the criteria. The initial calibrations were considered valid.

2.4 Calibration Verification

The method requires that (1) continuing calibrations be analyzed at the beginning of each 12-hour analysis period prior to the analysis of method blank and samples, (2) the %D or $\%D_f$values

be within ±20%, (3) compound RFs are ≥ the minimum RF specified in Method 8260C, Table 4, and (4) the internal standards in the calibration verification standard changes by a factor of two (-50% to + 100%) from that in the mid-point standard level of the most recent initial calibration sequence. Calibration verification analyses met the frequency criteria. The %D and $\%D_f$ values either met the criteria or the outliers had no effects on associated data (*e.g.,* bias-high %D value for a compound that was not detected in associated samples), except for the following:

Calibration Verification ID	Analyte	%D	Bias	Affected Sample	Data Qualification
J3031.D 10/31/15, 01:54	Dichlorodifluoromethane	24.8%	Low	PLF-MW26SR-1015 PLF-MW16S-1015 PLF-MW53S-1015 PLF-MW52S-1015 PLF-DUP3-1015 PLF-MW25SR-1015 PLF-MW19S-1015 PLF-MW45S-1015 PLF-MW41SR-1015 PLF-MW46S-1015	**UJ**
K0201.D 11/2/15, 08:23	*tert*-Amyl Methyl Ether	27.0%	Low	PLF-MW31S-1015 PLF-MW29S-1015 PLF-MW29I-1015 PLF-MW11S-1015 PLF-MW11I-1015 PLF-MW10S-1015 PLF-MW51S-1015 PLF-MW12ID-1015 PLF-MW17SR-1015 PLF-#4R-1015 PLF-DUP2-1015 PLF-MW23S-1015	**UJ**
K0405.D 11/4/15, 09:30	*tert*-Amyl Methyl Ether	36.4%	Low	PLF-MW38S-1015 PLF-MW12S-1015 PLF-DUP5-1015 PLF-MW47S-1015 PLF-#2R-1015 PLF-MW13S-1015 PLF-MW27SR-1015 TripBlank-1 PLF-Rada-1015 PLF-Bradley-1015 PLF-West-1015 PLF-Salinas-1015	**UJ**
K0503.D 11/5/15, 08:18	*tert*-Amyl Methyl Ether	28.5%	Low	PLF-MW50S-1015 PLF-MW49S-1015 PLF-Hand-1015	**UJ**

2.5 Blanks

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

Trip Blanks: One trip blank was submitted for VOCs analyses. Target compounds were not detected at or above the RLs in the trip blank.

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

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

2.7 Surrogate Spikes

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

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

MS/MSD analyses were performed on project samples as requested. All %R and RPD values were either within the laboratory control limits or the %R outliers had no adverse effects on data usability (*e.g.,* biased-high %R values for a non-detected compound, or the analyte concentration in the parent sample was >4x the spiking level).

2.9 Internal Standards

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

2.10 Field Duplicates

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

2.11 Laboratory Reporting Limits

Target compounds specified for the project were analyzed for and reported as required. Reporting limits were supported with proper initial calibration concentrations for all target compounds. The reporting limit goals specified in the OMM and revisions were achieved.

2.12 Overall Assessment of VOCs Data Usability

Naphthalene results for all samples also analyzed for SVOCs were to be reported from the SW8270D-SIM analyses in favor of the lower detection limits. The results from the SW8260C analyses were qualified (DNR) and rejected.

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

3. Semi-volatile Organic Compounds ([SVOCs]; SW846 Method 8270D – Full Scan and SIM)

3.1 Holding Time

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

3.2 GC/MS Instrument Performance Check

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

3.3 Initial Calibration

The method requires that (1) if linear average response factors (RFs) is chosen as the quantitation option, the %RSD of RFs be ≤20% for target compounds, (2) if least-square linear regression is chosen for quantitation, the correlation coefficient (r) be ≥0.99, (3) if six-point non-linear (quadratic) curve is chosen for quantitation, the coefficient of determination (r^2) be ≥0.99, (4) compound RFs are ≥ the minimum RF specified in Method 8270D, Table 4, and (5) a second source standard (ICV) should be analyzed immediately after the initial calibration and the %D or $\%D_f$ values for all target and surrogate compounds should be within ±30%.

The Initial calibration met the criteria for linearity. The ICAL was considered valid.

3.4 Calibration Verification

The method requires that (1) continuing calibrations be analyzed at the beginning of each 12-hour analysis period prior to the analysis of method blank and samples, (2) the %D values be within ±20%, (3) compound RFs are ≥ the minimum RF specified in Method 8270D, Table 4, and (4) the internal standards in the calibration verification standard changes by a factor of two (-50% to + 100%) from that in the mid-point standard level of the most recent initial calibration sequence.

Calibration verification analyses met the frequency criteria. The %D or $\%D_f$ values either met the criteria or the outliers had no effects on associated data (*e.g.,* bias-high %D value for a compound that was not detected in associated samples).

3.5 Method Blanks

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

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

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

3.7 Surrogate Spikes

Surrogate spikes were added to all samples as required by the method. All surrogate %R values either met the criteria or the outliers had no effects on associated data (*e.g.,* bias-high %D value for a compound that was not detected in associated samples).

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

MS/MSD analyses were performed on sample PLF-MW52S-1015 as requested. All %R and RPD values for spiked compounds were within the laboratory control limits, except for the following:

Parent Sample ID	Analyte	MS %R	MSD %R	Control Limit	Affected Sample	Data Qualifier
PLF-MW52S-1015	2-Chlorophenol	88.6%	131.7%	52-111%	PLF-MW52S-1015	**J**

3.9 Internal Standards

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

3.10 Field Duplicates

Samples PLF-MW52S-1015 and PLF-DUP3-1015 were field duplicates submitted for SVOCs analyses. The RPD (or concentration difference values) and data qualification for detected target compounds are presented in **Section III**.

3.11 Laboratory Reporting Limits

Target compounds specified for the project were analyzed for and reported as required. Reporting limits were supported with proper initial calibration concentrations for all target compounds. The reporting limit goals specified in the OMM and revisions were achieved.

3.12 Overall Assessment of SVOCs Data Usability

All polycyclic aromatic hydrocarbons (PAHs), 1-methylnapthalene, 2-methylnaphthalene, and *bis*(2-chloroethyl)ether results for all samples analyzed for SVOCs were to be reported from the SW8270D-SIM analyses in favor of the lower detection limits. The results from the SW8270D full scan analyses were qualified (DNR) and rejected.

1,2-Dichlorobenzene, 1,4-dichlorobenzene, 1,2,4-trichlorobenzene, and hexachlorobutadiene results for samples analyzed with both methods SW8260C and SW8270D should be reported from the SW8260C analyses in favor of the lower detection limits. Results from the SW8270D analyses were qualified (DNR) and rejected.

Pentachlorophenol and 4-nitrophenol were to be reported from the SW8151A analyses for samplesPLF-MW53S-1015, PLF-MW52S-1015, PLF-MW26SR-1015, and PLF-DUP3-1015 in favor of the lower detection limits. Results for these compounds reported from SW8270D-SIM and/or SW8270D full scan were to be qualified (DNR) and rejected.

Data qualified in these respects are summarized in **Section IV -1**.SVOCs data are acceptable for use as qualified, based on the information submitted by the laboratory.

4. Chlorophenoxy Hebicides, PCP, and 4-Nitrophenol (SW846 Method 8151A)

4.1 Holding Times

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

4.2 GC/MS-MS Instrument Performance Check

According to the laboratory standard operation procedure, tuning analyses were not necessary since the method was modified using the GC/MS-MS techniques (rather than the method stated GC/MS technique). Data were not qualified on this basis.

4.3 Initial Calibration

The method and laboratory criteria require that (1) if linear average RFs is chosen as the quantitation option, the %RSD of RFs be ≤20% for the compound, (2) if least-square linear regression is chosen for quantitation, the correlation coefficient (r) be ≥0.99, (3) if six-point non-linear (quadratic) curve is chosen for quantitation, the coefficient of determination (r^2) be ≥0.99, and (4) a second source standard be analyzed immediately after the analysis of last calibration standard and the %D values be within±30%. The initial calibration met the criteria.

4.4 Calibration Verification

The method criteria require that (1) continuing calibrations be analyzed at the beginning of each 12-hour analysis period prior to the analysis of method blank and samples, and (2) the %D value be within ±20%. Calibration verification analysis was performed as required. The %D values either met the criteria or the outliers had no adverse effects on data quality and usability(*e.g.,* biased-high recovery for a compound that was not detected in associated samples).

4.5 Method Blank

A method blank was prepared and analyzed with samples as required by the method. Target compounds were not detected at or above the RLs in the method blank.

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

LCS and LCSD analyses were performed as required. The %R and RPD values met the laboratory control criteria.

4.7 Surrogate Spikes

Surrogate spikes were added to all samples as required by the method. The surrogate %R values met the laboratory control criteria.

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

MS and MSD analyses were performed on sample PLF-MW52S-1015as requested. All %R and RPD values met the laboratory control criteria.

4.9 Internal Standards

An external calibration method was applied to compound quantitation. Internal standard evaluation was not applicable.

4.10 Field Duplicates

Samples PLF-MW52S-1015and PLF-DUP3-1015were field duplicates submitted for chlorophenoxy herbicides, PCP, and 4-nitrophenol analyses. The RPD (or concentration difference values) and data qualification for detected target compounds are presented in **Section III**.

4.11 Laboratory Reporting Limits

Target compounds specified for the project were analyzed for and reported as required. Reporting limits were supported with proper initial calibration concentrations for all target compounds. The reporting limit goals specified in the OMM and revision were achieved.

4.12 Overall Assessment of Chlorophenoxy Herbicides, PCP, and 4-Nitrophenol Data Usability

Chlorophenoxy herbicides, PCP, and 4-nitrophenol data are acceptable for use, based on the information submitted by the laboratory.

5. Metals (EPA Methods 200.7 and 200.8)

5.1 Holding Time

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

5.2 ICP/MS Tune Analysis

Instrument tuning was performed at the required frequency. The stability check (%RSD <5%), mass calibration (mass difference <0.1 AMU), and resolution check (peak width <0.75 AMU at 5% peak height) met the method criteria.

5.3 Initial Calibration

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

5.4 Initial and Continuing Calibration Verification

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

5.5 Blanks

Calibration Blanks: Initial calibration blanks (ICBs) and continuing calibration blanks (CCBs) were analyzed at the required frequency. Chromium and manganese were not detected at or above the instrument detection limits (IDLs) in the ICBs and CCBs. Negative detections of chromium and manganese were present at levels less than RLs but greater than MDLs in CCBs; no data were affected by the negative detections.

Method Blank: Method blanks were analyzed at the required frequency. No target analytes were detected at or above the RLs in method blanks. Negative detections of chromium and manganese were present at levels less than RLs but greater than MDLs in the method blank. No chromium data were affected; selected manganese results were affected and qualified as follows:

Blank ID	Analyte	Blank	Affected Sample	Original Result	Adjusted Result	Unit
MB-110415W	Manganese (EPA 200.8)	-0.56	PLF-#2R-1015	3.6	**3.6 J**	µg/L

5.6 ICP Interference Check Sample (ICS)

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

5.7 Laboratory Control Sample (LCS)

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

5.8 Laboratory Duplicate Analysis

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

Parent Sample	Analyte	RPD	Control Criteria	Affected Sample	Data Qualifier
PLF-#4R-1015	Manganese (EPA200.7)	41.8%	≤20%	PLF-MW16S-1015 PLF-MW17SR-1015 PLF-#4R-1015 PLF-DUP2-1015 PLF-MW22S-1015 PLF-DUP4-1015	**J**
PLF-MW22S-1015	Iron	25.6%	≤20%	PLF-MW16S-1015 PLF-MW22S-1015 PLF-DUP4-1015	**J**

5.9 Matrix Spike (MS)

MS analyses were performed on project samples as requested. The %R values were within the laboratory control limits.

5.10 ICP/MS Internal Standards

At least three internal standards were added to all samples and QC analyses. All percent relative intensity values were within the method control criterion (70 - 125% of those of the calibration blank).

5.11 Field Duplicates

Samples PLF-#4R-1015 and PLF-DUP2-1015 were field duplicates submitted for calcium, iron, magnesium, manganese, potassium, and sodium analyses; samples PLF-22SMW-1015 and PLF-DUP4-1015 were field duplicates submitted for calcium, iron, magnesium, manganese, potassium, sodium and total chromium analyses; and PLF-MW12S-1015 and PLF-DUP5-1015were field duplicates submitted for manganese analyses; samples. The RPD (or concentration difference values) and data qualification are presented in **Section III**.

5.12 Laboratory Reporting Limits

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

5.13 Overall Assessment of Metals Data Usability

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

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

6.1 Holding Time

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

6.2 Initial Calibration

A 4-point calibration was performed for each target compound according to the analytical method. The correlation coefficient was ≥0.995 for the initial calibration linear regression and met the method requirement.

6.3 Calibration Verification

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

6.4 Method Blanks

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

6.5 Laboratory Duplicate Analyses

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

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

MS/MSD analyses were not applicable for the method.

6.7 Laboratory Control Sample (LCS)

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

6.8 Field Duplicates

Samples PLF-MW12S-1015 and PLF-DUP5-1015were field duplicates submitted for MEE gases analyses. The RPD (or concentration difference values) and data qualification are presented in **Section III**.

6.9 Reporting Limits

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

6.10 Overall Assessment of MEE Gases Data Usability

MEE gases data are of known quality and acceptable for use, based on the information submitted by the laboratory.

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

7.1 Holding Times

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

Note that ferrous iron analyses were performed in the field with a field screening methodology (Hach-8146). Ferrous iron results were considered as Stage 1 data quality(as defined in EPA 2009), differing from that of the Stage 2B data reported via full-scale laboratory analyses. Ferrous iron was not detected in any of the field samples; the results were qualified (UJ) for non-detects and (J) for detects as estimated.

7.2 Initial Calibration

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

7.3 Initial and Continuing Calibration Verification

Initial calibration verification (ICV) and continuing calibration verification (CCV) analyses were performed at the required frequency for all inorganic constituents. All %R values were within the control limits(80-120% for anions; 90 – 110% for TOC and ammonia).

7.4 Blanks

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

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

7.5 Laboratory Duplicate Analysis

Duplicate analyses were performed for all inorganic constituents on project samples. All RPD or concentration difference values met the laboratory control criteria, except for the following:

7.6 Matrix Spike (MS) and MS Duplicate (MSD)

MS and/or MSD analyses were performed for anions, COD, TOC, Cr (VI), and ammonia on project samples. All %R and RPD values were either within the laboratory control limits or the %R outliers had no adverse effects on data usability (e.g., biased-high %R values for a non-detected compound, or the analyte concentration in the parent sample was >4x the spiking level), except for the following:

Parent Sample ID	Analyte	MS %R	MSD %R	Control Limit	Affected Sample	Data Qualifier
MW-12S-1015	Sulfate	147%	138%	75-125%	PLF-MW-12S-1015 PLF-DUP5-1015	**J**

7.7 Laboratory Control Sample (LCS)

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

7.8 Field Duplicates

Samples PLF-MW12S-1015 and PLF-DUP5-1015were field duplicates submitted for inorganic constituent analyses, and samples PLF-MW22S-1015 and PLF-DUP4-1015 were field duplicates submitted for hexavalent chromium analyses. The RPD (or concentration difference values) and data qualification are presented in **Section III**.

7.9 Laboratory Reporting Limits

The reporting limits were supported with adequate ICAL concentrations and met the OMM goals for inorganic constituents.

7.10 Overall Assessment of Inorganic Constituent Data

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

III. FIELD DUPLICATE SUMMARY

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

Detected Analyte	Unit	RL	Field Duplicate Sample ID & Concentration		RPD (%)	Concentration Difference	Data Qualification
			43I	**DUP1**			
Trichloroethene	µg/L	0.018	0.18	0.18		0	
			4R	**DUP2**			
Calcium	µg/L	20	81000	82000	1%		
Iron	µg/L	20	ND	ND			
Magnesium	µg/L	5.0	23000	23000	0%		
Manganese	µg/L	1.0	22	79	113%	57	**J/J**
Potassium	µg/L	200	7300	7400	1%		
Sodium	µg/L	200	36000	37000	3%		
Tetrachloroethene	µg/L	0.0078	0.57	0.6	5%		
Trichloroethene	µg/L	0.018	0.12	0.12	0%		
			52S	**DUP3**			
2,4-D	µg/L	0.04	0.96	1.1	14%		
1,2,4-Trimethylbenzene	µg/L	0.18	140	150	7%		
1,2-Dichlorobenzene	µg/L	0.0094	7	7.4	6%		
1,3,5-Trimethylbenzene	µg/L	0.14	61	63	3%		
2-Butanone	µg/L	0.47	26	24	8%		
Acetone	µg/L	0.23	36	35	3%		
cis-1,2-Dichloroethene	µg/L	0.023	6.2	5.9	5%		
Ethylbenzene	µg/L	0.097	250	250	0%		
Isopropylbenzene (Cumene)	µg/L	0.013	12	12	0%		
m, p-Xylene	µg/L	3.5	930	980	5%		
Methyl isobutyl ketone	µg/L	11	1500	1600	6%		
n-Propylbenzene	µg/L	0.012	27	30	11%		
o-Xylene	µg/L	0.23	390	390	0%		
p-Isopropyltoluene	µg/L	0.012	2.8	2.9	4%		
Toluene	µg/L	0.51	1500	1500	0%		
1,2-Dichloroethane	µg/L	0.0047	4.5	4.3	5%		
Benzene	µg/L	0.0094	1.6	1.5	6%		
Tetrachloroethene	µg/L	0.0078	8.6	8.4	2%		
Trichloroethene	µg/L	0.18	81	80	1%		

Detected Analyte	Unit	RL	Field Duplicate Sample ID & Concentration		RPD (%)	Concentration Difference	Data Qualification
1,2-Dichlorobenzene	µg/L	0.44	2.9	3.5	19%		
2,4-Dimethylphenol	µg/L	0.27	2.2	2.8	24%		
2-Chlorophenol	µg/L	0.26	6.2	8.3	29%		
m,p-Cresol (2:1 ratio)	µg/L	0.25	ND	3.3		3.3	**UJ/J**
o-Cresol	µg/L	0.40	2.3	3.2	33%		
1-Methylnaphthalene	µg/L	0.0054	1.1	1	10%		
2-Methylnaphthalene	µg/L	0.0048	1.5	1.5	0%		
Acenaphthene	µg/L	0.0046	0.067	ND		0.067	**J/UJ**
Fluorene	µg/L	0.0030	0.026	0.027	4%		
Naphthalene	µg/L	0.045	22	23	4%		
Pyrene	µg/L	0.01	0.035	ND		0.035	**J/UJ**
			22S	**DUP4**			
Chromium, Total	µg/L	2	11	3.2		7.8	**J/J**
Calcium	µg/L	20	64000	65000	2%		
Iron	µg/L	20	150	140	7%		
Magnesium	µg/L	5	25000	25000	0%		
Manganese	µg/L	1	2.7	1.9		0.8	
Potassium	µg/L	200	8000	8200	2%		
Sodium	µg/L	200	36000	37000	3%		
Chromium, Hexavalent	µg/L	10	ND	ND		0	
			MW12S	**DUP5**			
Manganese	µg/L	3.6	ND	ND		0	
Chloride	µg/L	920	24000	23000	4%		
Nitrate (as N)	µg/L	340	7700	8800	13%		
Nitrite (as N)	µg/L	42	ND	ND		0	
Sulfate	µg/L	2600	66000	78000	17%		
Ammonia	mg/L	0.05	ND	ND		0	
Ferrous Iron	mg/L	0.2	ND	ND		0	
Ethane	mg/L	0.01	ND	ND		0	
Ethylene	mg/L	0.01	ND	ND		0	
Methane	mg/L	0.01	0.02	0.02		0	
Alkalinity, Total	mg/L	15	210	200	5%		
Bicarbonate	mg/L	15	210	200	5%		
Carbonate	mg/L	15	ND	ND		0	
Hydroxide	mg/L	15	ND	ND		0	
Total Dissolved Solids	mg/L	5	390	380	3%		
Chemical oxygen demand	mg/L	5	ND	ND		0	
Total Organic Carbon	mg/L	0.5	1.1	1.2		0.1	
Trichloroethene	µg/L	0.053	0.12	0.13		0.01	

Notes:
mg/L – milligram per liter

ND – Not detected at or above the RL
RL – Reporting limit
RPD – Relative percent difference
µg/L – microgram per liter

IV. DATA VALIDATION SUMMARY

1. Data Qualification

Sample ID	Analyte	Data Qualifier	Reason	Report Section
PLF-MW26SR-1015 PLF-MW16S-1015 PLF-MW53S-1015 PLF-MW52S-1015 PLF-DUP3-1015 PLF-MW25SR-1015 PLF-MW19S-1015 PLF-MW45S-1015 PLF-MW41SR-1015 PLF-MW46S-1015	Dichlorodifluoromethane	**UJ**	CCV %D value was <LCL	**Section II, 2.4**
PLF-MW31S-1015 PLF-MW29S-1015 PLF-MW29I-1015 PLF-MW11S-1015 PLF-MW11I-1015 PLF-MW10S-1015 PLF-MW51S-1015 PLF-MW12ID-1015 PLF-MW17SR-1015 PLF-#4R-1015 PLF-DUP2-1015 PLF-MW23S-1015	*tert*-Amyl Methyl Ether	**UJ**	CCV %D value was <LCL	**Section II, 2.4**
PLF-MW38S-1015 PLF-MW12S-1015 PLF-DUP5-1015 PLF-MW47S-1015 PLF-#2R-1015 PLF-MW13S-1015 PLF-MW27SR-1015 TripBlank-1 PLF-Rada-1015 PLF-Bradley-1015 PLF-West-1015 PLF-Salinas-1015	*tert*-Amyl Methyl Ether	**UJ**	CCV %D value was <LCL	**Section II, 2.4**
PLF-MW50S-1015 PLF-MW49S-1015 PLF-Hand-1015	*tert*-Amyl Methyl Ether	**UJ**	CCV %D value was <LCL	**Section II, 2.4**
PLF-MW53S-1015 PLF-MW52S-1015 PLF-DUP3-1015 PLF-MW26SR-1015	Naphthalene (SW8260C)	**DNR**	Report from SW8270-SIM analysis in favor of the lower detection limit	**Section II, 2.12**
PLF-MW52S-1015 PLF-DUP3-1015	2-Chlorophenol	**J**	MSD %R value was >UCL	**Section II, 3.8**

Sample ID	Analyte	Data Qualifier	Reason	Report Section
PLF-MW53S-1015 PLF-MW52S-1015 PLF-DUP3-1015 PLF-MW26SR-1015	1-Methylnaphthalene 2-Methylnaphthalene Acenaphthylene Acenaphthene Anthracene Benezo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene *bis*(2-chloroethyl)ether Chrysene Dibenz(a,h)anthracene Fluoranthene Fluorene Indeno(1,2,3-cd)pyrene Naphthalene Pyrene (SW8270D-Full Scan)	**DNR**	Report from SW8270D-SIM analysis in favor of the lower detection limit.	**Section II, 3.12**
PLF-MW53S-1015 PLF-MW52S-1015 PLF-DUP3-1015 PLF-MW26SR-1015	1,2-Dichlorobenzene 1,4-Dichlorobenzene 1,2,4-Trichlorobenzene Hexachlorobutadiene (SW8270D-Full Scan)	**DNR**	Report from SW8260C analysis in favor of the lower detection limit.	**Section II, 3.12**
PLF-MW53S-1015 PLF-MW52S-1015 PLF-DUP3-1015 PLF-MW26SR-1015	Pentachlorophenol[(A)] 4-Nitrophenol[**(B)**] (SW8270D-Full Scan and/or SIM)	**DNR**	Report from SW8151A analysis in favor of the lower detection limit.	**Section II, 3.12**
PLF-#2R-1015	Manganese (EPA 200.8)	**J**	The result was affected by the negative detection in the method blank.	**Section II, 5.5**
PLF-MW16S-1015 PLF-MW17SR-1015 PLF-#4R-1015 PLF-DUP2-1015 PLF-MW22S-1015 PLF-DUP4-1015	Manganese (EPA 200.7)	**J**	The laboratory duplicate analysis RPD value was >20%	**Section II, 5.8**
PLF-MW16S-1015 PLF-MW22S-1015 PLF-DUP4-1015	Iron	**J**	The laboratory duplicate analysis RPD value was >20%	**Section II, 5.8**
PLF-MW20S-1015 PLF-MW25SR-1015 PLF-2R-1015 PLF-MW12S-1015 PLF-MW47S-1015 PLF-MW50S-1015 PLF-DUP5-1015 PLF-MW49S-1015	Iron, Ferrous	**UJ** **UJ** **UJ** **UJ** **J** **UJ** **UJ** **UJ**	The result was reported from a field screening analysis.	**Section II, 7.1**

Sample ID	Analyte	Data Qualifier	Reason	Report Section
PLF-MW-12S-1015 PLF-DUP5-1015	Sulfate	**J**	MS and MSD %R value were >UCL	**Section II, 7.6**
PLF-#4R-1015 PLF-DUP2-1015	Manganese (EPA 200.7)	**J**	The field duplicate results did not meet the advisory control criteria.	**Section III**
PLF-MW52S-1015 PLF-DUP3-1015	*m-,p*-Cresol (SW8270D-Full Scan) Acenaphthene Pyrene (SW8270-SIM)	**J/UJ**	The field duplicate results did not meet the advisory control criteria.	**Section III**
PLF-MW22S-1015 PLF-DUP4-1015	Chromium, Total	**J**	The field duplicate results did not meet the advisory control criteria.	**Section III**

Note:
%D – Percent difference
%R – Percent recovery
J/UJ – Detects were qualified (J) and non-detects were qualified (UJ) as estimated.
LCL – Lower control limit
MS – Matrix spike
MSD – Matrix spike duplicate
RPD – Relative percent difference
UCL – Upper control limit
[A]– Included both EPA 8270D Full Scan and SIM analyses.
[B] – EPA 8270D Full Scan only.

2. Data Qualifier Definition

Data Qualifier	Definition
DNR	The result for this analyte should be reported from an alternative analysis for optimal result.
J	The analyte was detected above the reported quantitation limit, and the reported concentration is an estimated value.
U	The analyte was not detected at or above the reported value or quantitation limit.
UJ	The analyte is not detected above the sample quantitation limit, and the reported quantitation limit is an estimated value.

V. DATA QUALITY OBJECTIVE ASSESSMENT

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

1. Precision

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

The precision of VOCs, SVOCs, chlorophenoxy herbicides, methane, ethane, ethane, metals, and inorganic constituent (anions, alkalinity, bicarbonate, COD, TDS, hexavalent chromium, ammonia, and TOC) analyses met the project DQOs.

1.1 FieldDuplicates

The concentration difference value for manganese (reported from EPA 200.7 analyses) in field duplicate pair, samples PLF-#4R-1015 and PLF-DUP2-1015,was outside the advisory criteria (≤2 times the reporting limit [2xRL]); manganese results for both samples were qualified as estimated values.

The RPD or concentration difference values for*m-,p*-cresol (reported from SW8270D full scan), acenaphthene and pyrene (both reported from the SW8270-SIM analysis) in field duplicate pair, samples PLF-MW52S-1015 and PLF-DUP3-1015,were outside the advisory criteria (≤35% or ≤2xRL); the results of these compounds for both samples were qualified (J) as estimated values.

The RPD value for total chromium in field duplicate pair, samples PLF-MW22S-1015 and PLF-DUP4-1015,was outside the advisory criteria (≤35%); the total chromium result for both samples were qualified (J) as estimated values.

1.2 Laboratory Duplicate Analysis

The manganese (reported from EPA 200.7 analysis) RPD value (41.8%)for duplicate analyses performed on sample PLF-#4R-1015 and the iron RPD value (25.6%) for duplicate analyses performed on sample PLF-MW22S-1015 were outside the control limit (≤20%), likely affected by the particulates contained in the samples. Manganese and iron results that were greater than RLs were qualified (J) as estimated for all associated samples.

2. Accuracy

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

The accuracy of VOCs, SVOCs, chlorophenoxy herbicides, methane, ethane, ethane, metals, and inorganic constituents (anions, alkalinity, COD, TDS, hexavalent chromium, ammonia, and TOC) analyses met the DQOs of the OMM, except for the following:

2.1 CCV – VOCs (Method SW8260C Full Scan)

The %D value for dichlorodifluoromethane in one of the CCVs was less than the lower control limit (LCL), indicating a potential low-bias of the associated sample results for this compound. Dichlorodifluoromethane was not detected in the 10 associated samples; and the results were qualified (UJ) as estimated.

The %D values for *tert*-amyl methyl ether in three of the CCVs were less than the LCL. This compound was not detected in the 27 associated sample; and the results were qualified (UJ) as estimated.

2.2 MSD %R –SVOCs (Method SW8270D Full Scan) and Sulfate (EPA Method 300.0)

The %R value for 2-chlorophenol in the MSD analysis performed on sample PLF-MW52S-1015 was greater than the upper control limit, indicating a potential high bias associated with this result. The 2-chlorophenol results for sample PLF-MW52S-1015 and its field duplicate, sample PLF-DUP3-1015, were qualified (J) as estimated.

The %R values for the MS/MSD performed on sample PLF-MW-12S-1015 were greater than the upper control limit, indicating a potential high bias associated with this result. The sulfate results for sample PLF-MW12S-1015 and its field duplicate, sample PLF-DUP5-1015, were qualified (J) as estimated.

2.3 Method Blank – Manganese (EPA Method 200.8)

Negative detections of manganese were present in the method blank associated with manganese analyses at levels between negative MDL (-MDL) and negative RL(-RLs). Manganese results in associated samples that were less than 10 times the absolute value of the method blank detection were considered affected. The manganese result for one sample was affected and qualified (J) as estimated.

3. Representativeness

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

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

4. Comparability

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

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

4.1 VOCs

Selective ion monitoring (SIM) technique was applied to the analyses of full list VOCs, as opposed to only compounds requiring lower detection limits in all previous sampling events. The reporting limits remained the same as those specified in the OMM. No significant deviations of results from the previous sampling events were observed.

4.2 Ferrous Iron

Ferrous iron analyses were performed in the field with a field screening methodology (Hach-8146). Ferrous iron results were considered as Stage 1data quality (as defined in EPA2009) and

differed from that of all other data, which were reported from the full-scale laboratory analyses and considered as Stage 2Bdata quality. Ferrous iron was not detected in any of the samples, and the results were qualified (UJ) for non-detects and (J) for detects as estimated to indicate the lower level of certainty with the data quality.

5. Completeness

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

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

6. Sensitivity

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

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

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

VI. REFERENCES

USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review. Office of Superfund Remediation and Technical Innovation. August 2014. EPA 540-R-013-001.

USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Data Review. Office of Superfund Remediation and Technical Innovation. August 2014. EPA 540-R-014-002.

USEPA Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use, January 13 2009, EPA 540-R-08-005.

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

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

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

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

Attachment B
Waste Disposal Documentation

356103-14 1974080

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	WAD991281874	1	(877) 577-2669	000107766 DAT

GENERATOR

5. Generator's Name and Mailing Address

ENVIRONMENTAL PARTNERS ATTN: MARY HOLDER
1180 NW MAPLE ST STE 310
ISSAQUAH WA 98027 (425)395-0010

Generator's Phone:

Generator's Site Address (if different than mailing address)

PASCO LANDFILL
1901 DIETRICH ROAD
PASCO WA 99301 (509)554-1247

6. Transporter 1 Company Name — U.S. EPA ID Number

BURLINGTON ENVIRONMENTAL, LLC — WAR000001743

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address — U.S. EPA ID Number

BURLINGTON ENVIRONMENTAL, LLC. KENT FACILITY
28245 77TH AVENUE SOUTH
KENT, WA 98032 (253) 872-8030

Facility's Phone: — WAD991281767

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. NA3082 HAZARDOUS WASTE, LIQUID, N.O.S. (METHYL ETHYL KETONE, TRICHLOROETHYLENE) 9 PGIII	1	TT	4510	G	D035	D040	
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information

(1) 482743-03 - ERG(171) ZONE A VAPOR CONDENS

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Eric Jensen agent of EIWA — Signature — Month: 01 Day: 05 Year: 15

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: MARK KACZMAREK — Signature — Month: 1 Day: 5 Year: 15

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H100			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Cassandra Gallegos — Signature — Month: 1 Day: 5 Year: 15

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

457988-16 1993943

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

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: WAD991281874
2. Page 1 of 1
3. Emergency Response Phone: (877) 577-2669
4. Manifest Tracking Number: 000107831 DAT

5. Generator's Name and Mailing Address: PASCO SANITARY LANDFILL c/o ENVIRONMENTAL PARTNERS, ATTN: MARY HOLDER 1180 NW MAPLE ST STE 310, ISSAQUAH WA 98027 (425)395-0010

Generator's Site Address (if different than mailing address): PASCO LANDFILL, 1901 DIETRICH ROAD, PASCO WA 99301 (425)395-0010

Generator's Phone:

6. Transporter 1 Company Name: BURLINGTON ENVIRONMENTAL, LLC — U.S. EPA ID Number: WAR000011742

7. Transporter 2 Company Name: — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: BURLINGTON ENVIRONMENTAL, LLC. KENT FACILITY, 20245 77TH AVENUE SOUTH, KENT WA 98032 (253) 872-8030 — U.S. EPA ID Number: WAD991281767

Facility's Phone:

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
X	1. NA3082 HAZARDOUS WASTE, LIQUID, N.O.S. (METHYL ETHYL KETONE, TRICHLOROETHYLENE) 9 PGIII	1	TT	4833	G	D035	D040
	2.						
	3.						
	4.						

14. Special Handling Instructions and Additional Information: (1) 482743-02 - ERG(171) ZONE A VAPOR CONDENS

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Eric Jonson agent of ~~IWAG~~ PSL — Signature: [signature] — Month 01 Day 28 Year 15

16. International Shipments: ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Vic Drake — Signature: [signature] — Month 01 Day 28 Year 15
Transporter 2 Printed/Typed Name: — Signature: — Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number:
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H100 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Cassandra Gallegos — Signature: [signature] — Month 1 Day 22 Year 15

B1920

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

457988-15 1993943

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
WAD991281874	1	(877) 577-2669	000107831 DAT

GENERATOR

5. Generator's Name and Mailing Address

POSCO SANITARY LANDFILL ENVIRONMENTAL PARTNERS
ATTN: MARY HOLDER 1180 NW MAPLE ST STE 310
Generator's Phone: ISSAQUAH WA 98027 (425)395-0010

Generator's Site Address (if different than mailing address)

POSCO LANDFILL
1301 DIETRICH ROAD
POSCO WA 99381 (425)395-0010

6. Transporter 1 Company Name — U.S. EPA ID Number

BURLINGTON ENVIRONMENTAL, LLC — WAR000001743

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address — U.S. EPA ID Number

BURLINGTON ENVIRONMENTAL, LLC. KENT FACILITY
20245 77TH AVENUE SOUTH
Facility's Phone: KENT WA 98032 (253) 872-8830 — WAD991281767

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. NA3082 HAZARDOUS WASTE, LIQUID, N.O.S. (METHYL ETHYL KETONE, TRICHLOROETHYLENE) 9 PGIII	1	TT	4830	G	D035 D040
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information

(1) 482743-02 - ERG(171) ZONE A VAPOR CONDENS

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Eric Jonson agent of IWAG — Signature: E J — Month: 01 Day: 28 Year: 15

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Vic Droz — Signature: [signature] — Month: 01 Day: 28 Year: 15

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H100			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Cassandra Gallegos — Signature: [signature] — Month: 1 Day: 28 Year: 15

B1920

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

482083-15 2011847

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
WAD991281874	1	(877) 577-2666	000107986 DAT

GENERATOR

5. Generator's Name and Mailing Address

PASCO SANITARY LANDFILL C/O ENVIRONMENTAL PARTNERS
ATTN: MARY HOLDER 1100 NW MAPLE ST STE 310
Generator's Phone: PASCO WA 99327 (509)735-8010

Generator's Site Address (if different than mailing address)

PASCO LANDFILL
1901 DIETRICH ROAD
PASCO WA 99301 (509)735-8010

6. Transporter 1 Company Name — U.S. EPA ID Number

BURLINGTON ENVIRONMENTAL LLC — WAR000001743

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address — U.S. EPA ID Number

BURLINGTON ENVIRONMENTAL, LLC. KENT FACILITY
20245 77TH AVENUE SOUTH
Facility's Phone: KENT, WA 98032 (253) 872-8878 — WAD991281767

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. NA3082 HAZARDOUS WASTE, LIQUID, N.O.S. (METHYL ETHYL KETONE, TRICHLOROETHYLENE) 9 PGIII	1	TT	4795	G	D035 D040
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information

(1) 482743-03 - ERG(171) ZONE A VAPOR CONDENS

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Eric Jensen — Signature: EJ as agent of BWE — Month: 02 — Day: 23 — Year: 15

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Vasyl Karashchuk — Signature — Month: 02 — Day: 23 — Year: 15

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H100			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Megan Johnston — Signature — Month: 2 — Day: 23 — Year: 15

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

515577-15 2038773

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UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
WAD991281874	1	(877) 577-2669	000114387 DAT

GENERATOR

5. Generator's Name and Mailing Address

PASCO SANITARY LANDFILL C/O ENVIRONMENTAL PARTNERS
ATTN: MARY HOLDER 1200 NW MAPLE ST STE 310
ISSAQUAH WA 98027 (425)395-0810

Generator's Site Address (if different than mailing address)

PASCO LANDFILL
1901 DIETRICH ROAD
PASCO WA 99301 (425)395-0810

Generator's Phone:

6. Transporter 1 Company Name — U.S. EPA ID Number

BURLINGTON ENVIRONMENTAL, LLC — WAR000001743

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address — U.S. EPA ID Number

BURLINGTON ENVIRONMENTAL, LLC. KENT FACILITY
20245 77TH AVENUE SOUTH
KENT, WA 98032 (253) 872-8838

Facility's Phone: — WAD991281757

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. NA3082 HAZARDOUS WASTE, LIQUID, N.O.S. (METHYL ETHYL KETONE, TRICHLOROETHYLENE) 9 PGIII	1	TT	3910	G	D035 D040
	2.					
	3.					
	4.					

B4320

14. Special Handling Instructions and Additional Information

(2) 482743-04 - ERG(171) ZONE B VAPOR CONDENS

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Eric Jensen agent of IWAC — Signature — Month: 03 Day: 26 Year: 15

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Mark Kaczmarski — Signature — Month: 03 Day: 26 Year: 15

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H100			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Stephanie Hutchins — Signature: Stephanie Hutchins — Month: 3 Day: 26 Year: 15

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

559775-15 2073298

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
WAD991281874	1	(877) 577-2669	000120285 DAT

GENERATOR

5. Generator's Name and Mailing Address

PASCO SANITARY LANDFILL C/O ENVIRONMENTAL PARTNERS
ATTN: MARY HORNER 1180 NW MAPLE ST STE 310
ISSAQUAH WA 98027 (425)395-0010

Generator's Site Address (if different than mailing address)

PASCO SANITARY LANDFILL LLC
1981 DIETRICH ROAD
PASCO WA 99301 (425)395-0010

Generator's Phone:

6. Transporter 1 Company Name — U.S. EPA ID Number

BURLINGTON ENVIRONMENTAL, LLC — WAR000001743

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address — U.S. EPA ID Number

BURLINGTON ENVIRONMENTAL, LLC. KENT FACILITY
20245 77TH AVENUE SOUTH
KENT, WA 98032 (253) 872-8030

Facility's Phone: — WAD991281767

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. NA3082 HAZARDOUS WASTE, LIQUID, N.O.S. (METHYL ETHYL KETONE, TRICHLOROETHYLENE) 9 PGIII	1	TT	4,228	G	D035	D040	
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information

(1) 482743-05 - ERG(171) ZONE 9 VAPOR CONDENS

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name — Signature — Month 04 Day 28 Year 15

Eric Jensen (agent of Int AG)

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month 4 Day 28 Year 15

Gary Shaw

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H100			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name — Signature — Month 4 Day 29 Year 15

MeKina Gault

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

2105872

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

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	WAD991281874	1	(877) 577-2669	002961672 FLE

GENERATOR

5. Generator's Name and Mailing Address
Pasco Sanitary Land Fill c/o Environmental Partners
ATT: Mary Holder 1100 NE Maple St Ste 310
Issaquah WA 98027 (425) 395-0010

Generator's Phone:

Generator's Site Address (if different than mailing address)
Pasco Sanitary Land Fill LLC
1901 Dietrich Road
Pasco WA 99301 (425) 395-0010

JUN 22 2015

6. Transporter 1 Company Name: Burlington Environmental, LLC — U.S. EPA ID Number: WAR000000943

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Burlington Environmental, LLC Kent Facility
20245 77th Avenue South
Kent, WA 98032 (253) 872-8030

Facility's Phone:

U.S. EPA ID Number: WAD991281767

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
	1. NA 3082 Hazardous waste, liquid, N.O.S. (Methyl Ethyl Ketone, Trichloroethylene) 9 PG III	1	TT	5000	G	D035	D040
	2.						
	3.						
	4.						

14. Special Handling Instructions and Additional Information
(1) 463743-05 - EGR(171) 200 Gal of vapor condensate

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Eric Jensen agent of IWAG — Signature: [signature] — Month 06 Day 15 Year 15

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Brian Leaf — Signature: [signature] — Month 6 Day 15 Year 15
Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H100			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Cassandra Gallegos — Signature: C. Gallegos — Month 6 Day 16 Year 15

87720

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

666613-15 2156122

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
WAD991281474	1	(877) 577-7868	000116445 DAT

GENERATOR

5. Generator's Name and Mailing Address

PASCO SANITARY LANDFILL C/O ENVIRONMENTAL PARTNERS
ATTN: MARY HOLDER 1150 NW MAPLE ST STE 210
ISSAQUAH WA 98027 (425)395-0818

Generator's Site Address (if different than mailing address)

PASCO SANITARY LANDFILL LLC
1901 DIETRICH ROAD
PASCO WA 99301 (425)395-0818

Generator's Phone:

6. Transporter 1 Company Name — U.S. EPA ID Number

BURLINGTON ENVIRONMENTAL, LLC — WAR000001743

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address — U.S. EPA ID Number

BURLINGTON ENVIRONMENTAL, LLC. TACOMA PLANT
1701 EAST ALEXANDER AVENUE

Facility's Phone: TACOMA, WA 98421 (253) 572-7868 All Facility — WAD032357965

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. NA3082 HAZARDOUS WASTE, LIQUID, N.O.S. (METHYL ETHYL KETONE, TRICHLOROETHYLENE) 9 PGIII	1	TT	346	G	D039 D040
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information

1) 482763-05 - EA61171 ZONE A VAPOR CONDENS

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Eric Jensen — Signature: [signature] agent at BMAC — Month: 08 Day: 04 Year: 15

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: [illegible] — Signature: [signature] — Month: 8 Day: 4 Year: 15

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) Burlington Environmental, LLC - Kent Facility — U.S. EPA ID Number

Facility's Phone: 20245 77th Ave. S Kent, WA 98032 253-872-2330 — WAD991281767

18c. Signature of Alternate Facility (or Generator) [signature] — Month: 8 Day: 4 Year: 15

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H100			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Kathleen Burns — Signature: [signature] — Month: 8 Day: 4 Year: 15

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

749615-15 2221890

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
WAD991281874	1	(877) 577-2669	000127073 DAT

GENERATOR

5. Generator's Name and Mailing Address
POSCO SANITARY LANDFILL C/O EN VIRONMENTAL PARTNERS
ATTN: MARY HOLMER 1180 NW MAPLE ST STE 310
ISSAQUAH WA 98027 (425)395-0010
Generator's Phone:

Generator's Site Address (if different than mailing address)
POSCO LANDFILL
1901 DIETRICH ROAD
PASCO WA 99301 (425)395-0010

6. Transporter 1 Company Name
BURLINGTON ENVIRONMENTAL, LLC
U.S. EPA ID Number
WAD000001743

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
BURLINGTON ENVIRONMENTAL, LLC. KENT FACILITY
20145 77TH AVENUE SOUTH
KENT, WA 98032 (253) 872-8030
Facility's Phone:
U.S. EPA ID Number
WAD991281767

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. NA3082 HAZARDOUS WASTE, LIQUID, N.O.S. (METHYL ETHYL KETONE, TRICHLOROETHYLENE) 9 PGII	1	TT	4,700	G	D035 D040
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
(1) 482743-05 - ERG(171) ZONE B VAPOR CONCERNS

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Eric Jensen agent of IWA | Signature | Month: 10 | Day: 29 | Year: 15

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: DOUG RAY | Signature | Month: 10 | Day: 29 | Year: 15

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H100			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: DAN Wes BURNS | Signature | Month: 10 | Day: 29 | Year: 15

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

C3715

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
WAD991281574	1	(877) 577-2561	000127260 DAT

GENERATOR

5. Generator's Name and Mailing Address

PASCO SANITARY LANDFILL C/O EM ENVIRONMENTAL PARTNERS
ATTN: MARY HOLDEN 1145 NE MAPLE ST STE 210
ISSAQUAH WA 98027 (425)395-0810

Generator's Site Address (if different than mailing address)

PASCO LANDFILL
1951 DIETRICH ROAD
PASCO WA 99301 (425)395-0810

Generator's Phone:

6. Transporter 1 Company Name — U.S. EPA ID Number

BURLINGTON ENVIRONMENTAL, LLC — WAD980612743

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address — U.S. EPA ID Number

BURLINGTON ENVIRONMENTAL, LLC. KENT FACILITY
28246 77TH AVENUE SOUTH
KENT WA 98032 (253) 872-8018

Facility's Phone: — WAD981281767

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN3082 HAZARDOUS WASTE, LIQUID, N.O.S. (METHYL ETHYL KETONE, TRICHLOROETHYLENE) 9 PGIII	1	TT	4 572	G	D035	D040	
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information

EPA #82763-85 - E86(TP1) ZONE A VAPOR CONDENS

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Eric Jensen agent of Int'l — Signature — Month: 12 — Day: 01 — Year: 15

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month: 12 — Day: 1 — Year: 15

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Cassandra Gallego — Signature — Month: 12 — Day: 1 — Year: 15

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

CWMI

#2 444270

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

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	WAD991281874	1	(800)424-9300	011881728 JJK

GENERATOR

5. Generator's Name and Mailing Address
PASCO SANITARY LANDFILL
1820 DIETRICH RD
PASCO WA 99301
Generator's Phone: (509)545-8155

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: Adventure Trkg LLC — 503-887-0427 — U.S. EPA ID Number: ORQ000029033

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
CWMNW, INC.
17629 CEDAR SPRINGS LANE
ARLINGTON OR 97812-9709
Facility's Phone: (541)454-2643

U.S. EPA ID Number: ORD089452353

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ,UN3077,WASTE,ENVIRONMENTALLY HAZARDOUS SUBSTANCE,SOLID,N.O.S,9,III,(CADMIUM,CHROMIUM,LEAD)	001	DT	64,000	P	D006	D007	D008
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1; #OR326078; SOIL AND WASTE; ERG# 171; (RQ=10LBS)
"Chemtrec #CCN24117"

#2

64460 P.

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Mary Holder of EPI as agent of PSL — Signature: [signature] of EPI as agent for PSL — Month 12 Day 4 Year 15

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Ron Watson — Signature: Ron Watson — Month 12 Day 4 Year 15

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H110			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: BECKY SUMNER — Signature: Becky Sumner — Month 12 Day 4 Year 15

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

411

MS

#3

444271

CWM

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

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	WAD991281874	1	(800) 424-9300	011881727 JJK

GENERATOR

5. Generator's Name and Mailing Address
PASCO SANITARY LANDFILL
1820 DIETRICH RD
PASCO WA 99301
Generator's Phone: (509) 545-8155

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: Adventure Tanks LLC (503-887-0432) — U.S. EPA ID Number: ORQ 000 29033

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
CWMNW, INC.
17629 CEDAR SPRINGS LANE
ARLINGTON OR 97812-9789
Facility's Phone: (541) 454-2643

U.S. EPA ID Number: ORD089452353

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ,UN3077,WASTE,ENVIRONMENTALLY HAZARDOUS SUBSTANCE,SOLID,N.O.S,9,III,(LEAD)	001	DT	63000	P	D008
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1; #OR326077; STABILIZED SLURRY; ERG# 171; (RQ=10LBS)
"Chemtrec #CCN24117"
61680 P

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Mary Holdorf of EPI as agent of PSL — Signature: Mary Holdorf of EPI as agent to PSL — Month 12 Day 4 Year 2015

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Brad Chandler — Signature: Brad Chandler — Month 12 Day 4 Year 15
Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H110			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Tina Weiser — Signature: Tina Weiser — Month 12 Day 4 Year 15

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

12/11

MMS

Adv. 3

SR# Chemtrec #CCN24117 WT CWMI

444365

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

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	WAD991281874	1	(800) 424-9300	011881730 JJK

5. Generator's Name and Mailing Address
PASCO SANITARY LANDFILL
1820 DIETRICH RD
PASCO WA. 99301
Generator's Phone: (509) 545-2155

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: Advantage Trucking LLC 503-887-0422 U.S. EPA ID Number: ORQ 000029033

7. Transporter 2 Company Name: U.S. EPA ID Number:

8. Designated Facility Name and Site Address
CWMNW, INC.
17629 CEDAR SPRINGS LANE
ARLINGTON OR. 97812-9709
Facility's Phone: (541) 454-2643
U.S. EPA ID Number: ORD089452353

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ,UN3077,WASTE,ENVIRONMENTALLY HAZARDOUS SUBSTANCE,SOLID,N.O.S,9,III,(LEAD)	001	DT	62000	P	D008
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1; #OR326077; STABILIZED SLURRY; ERG# 171; (RQ=10LBS)

59860P

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: THOMAS E. JENSEN AGENT TO PSL Agent to PSL Signature: Thomas Jensen Month 12 Day 8 Year 15

INTL
16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.: 12/10/15

TRANSPORTER
17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Brad Chandler Signature: Brad Chandler Month 12 Day 10 Year 15
Transporter 2 Printed/Typed Name: Signature: Month Day Year

DESIGNATED FACILITY
18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H110			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Tina Weiser Signature: Tina Weiser Month 12 Day 10 Year 15

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

4M

WT

SR# Chemtrec #CCN24117 CWMI

#2 444366

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: WAD991281874
2. Page 1 of: 1
3. Emergency Response Phone: (800)424-9300
4. Manifest Tracking Number: 011881731 JJK

GENERATOR

5. Generator's Name and Mailing Address
PASCO SANITARY LANDFILL
1820 DIETRICH RD
PASCO WA. 99301
Generator's Phone: (509)545-3155
Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: Adventure Trucking LLC 503-887-0422
U.S. EPA ID Number: ORQ000029033

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
CWMNW, INC.
17629 CEDAR SPRINGS LANE
ARLINGTON OR. 97812-9709
Facility's Phone: (541)454-2643
U.S. EPA ID Number: ORD089452353

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ,UN3077,WASTE,ENVIRONMENTALLY HAZARDOUS SUBSTANCE,SOLID,N.O.S.9,III,(LEAD)	001	DT	41.000	P	D008
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1: #OR326077; STABILIZED SLURRY; ERG# 171; (RQ=10LBS)
62160P

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: THOMAS MORILL, AGENT TO PSL for Eric Jensen, Agent to PSL
Signature: Thomas Morill
Month 12 Day 8 Year 15

INT'L

16. International Shipments: ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.: 12/10/15

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Ron Watson
Signature: Ron Watson
Month 12 Day 10 Year 15
Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H110 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Tina Weiser
Signature: Tina Weiser
Month 12 Day 10 Year 15

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

12/14

JW

#2 TRUCK

SR# Chemtrec #CCN24117

444470

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

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: WAD991231874
2. Page 1 of: 1
3. Emergency Response Phone: (800)424-9300
4. Manifest Tracking Number: 011881732 JJK

GENERATOR

5. Generator's Name and Mailing Address
PASCO SANITARY LANDFILL
1820 DIETRICH RD
PASCO WA 99301
Generator's Phone: (509)545-3155
Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: Adventure Trucking 503-887-0422
U.S. EPA ID Number: ORQ000029033

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
CWMNW, INC.
17629 CEDAR SPRINGS LANE
ARLINGTON OR. 97812-9709
Facility's Phone: (541)454-2643
U.S. EPA ID Number: ORD089452353

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ,UN3077,WASTE,ENVIRONMENTALLY HAZARDOUS SUBSTANCE,SOLID,N.O.S,9,III,(LEAD)	001	DT	30000	P	D008
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1: #OR326077; STABILIZED SLURRY; ERG# 171; (RQ=10LBS)

31020P

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.
Generator's/Offeror's Printed/Typed Name: THOMAS MOORE AGENT TO PSL
Signature: Thomas Moore
Month 12 Day 8 Year 15

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S.
Port of entry/exit:
Transporter signature (for exports only):
Date leaving U.S.: 12/15/15

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Ron Watson
Signature: Ron Watson
Month 12 Day 15 Year 15
Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H110 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Tina Weiser
Signature: Tina Weiser
Month 12 Day 15 Year 15

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

21

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

CWMI

#2 Trailer 444471

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

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	WAD991281874		1 (800)424-9300	013471692 JJK

GENERATOR

5. Generator's Name and Mailing Address
PASCO SANITARY LANDFILL
1820 DIETRICH RD
PASCO WA 99301
Generator's Phone: (509)545-8155

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: Adventur Trucking 503-887-5422 — U.S. EPA ID Number: ORQ000029033

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC.
17629 CEDAR SPRINGS LANE
ARLINGTON OR 97812-9709
Facility's Phone: (541)454-2843 — U.S. EPA ID Number: ORD089452353

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S, 9, III	001	DT	27,000	P	D006 D007 D008
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1. PROFILE OR326078: SOIL AND WASTE; ERG# 171
E/R/P = CHEMTREC (#CCN24117)
25200P

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Thomas Jensen Mobil Agent for BFI — Signature: Thomas Mobil — Month 12 Day 10 Year 15

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. — Port of entry/exit: — Date leaving U.S.: 12/15/15
Transporter signature (for exports only):

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Ron Watson — Signature: Ron Watson — Month 12 Day 15 Year 15

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H110			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Tina Weiser — Signature — Month 12 Day 15 Year 15

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

1/21

SR# Chemtrec #CCN24117 CWM

444472

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
WAD991231874	1	(800)424-9300	011881733 JJK

GENERATOR

5. Generator's Name and Mailing Address
PASCO SANITARY LANDFILL
1820 DIETRICH RD
PASCO WA 99301
Generator's Phone: (509)545-3755

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: KTransport — U.S. EPA ID Number: WAH000028338

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
CWMNW, INC.
17629 CEDAR SPRINGS LANE
ARLINGTON OR. 97812-9709
Facility's Phone: (541)454-2643

U.S. EPA ID Number: ORD089452353

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ,UN3077,WASTE,ENVIRONMENTALLY HAZARDOUS SUBSTANCE,SOLID,N.O.S.9,III,(LEAD)	001	DT	62,000	P	D008
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1: #OR326077; STABILIZED SLURRY; ERG# 171; (RQ=10LBS)
03260P

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: THOMAS JENSEN AGENT TO PSL — Signature — Month 12 Day 8 Year 15

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: — Date leaving U.S.: 12/15/15
Transporter signature (for exports only):

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Mark Ehler — Signature — Month 12 Day 15 Year 15
Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H110			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Dana West — Signature — Month 12 Day 15 Year 15

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Adventure 3

CWMI

444469

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

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: WAD991281874
2. Page 1 of
3. Emergency Response Phone: 1 (800)424-9300
4. Manifest Tracking Number: 013471691 JJK

GENERATOR

5. Generator's Name and Mailing Address:
PASCO SANITARY LANDFILL
1820 DIETRICH RD
PASCO WA 99301
Generator's Phone: (509)545-8155

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: Adventure Trucking — 503-887-0433 — U.S. EPA ID Number: ORQ000079033

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address:
CHEMICAL WASTE MANAGEMENT, INC.
17629 CEDAR SPRINGS LANE
ARLINGTON OR 97812-9709
Facility's Phone: (541)454-2643
U.S. EPA ID Number: ORD089452353

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. 9, III	1	DM	62,000	P	D008 D007 D008
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information

1. PROFILE OR326078: SOIL AND WASTE; ERG# 171
E/R/P = CHEMTREC (#CCN24117)

62740P

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: THOMAS MORIN, AGENT FOR PGE — Signature: Thomas Morin — Month 12 Day 10 Year 15

INTL

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. — Port of entry/exit: — Date leaving U.S.: 12/15/15

Transporter signature (for exports only):

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Brent Christe — Signature — Month 12 Day 15 Year 15

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H110			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Tina Weiser — Signature: T. Weiser — Month 12 Day 15 Year 15

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

121

444504 SR# Chemtrec #CCN24117 CWMI

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UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: WAD991281870
2. Page 1 of: 1
3. Emergency Response Phone: (800)424-9300
4. Manifest Tracking Number: 011881734 JJK

GENERATOR

5. Generator's Name and Mailing Address / Generator's Site Address (if different than mailing address)

PASCO SANITARY LANDFILL
1820 DIETRICH RD
PASCO WA 99301

Generator's Phone: (509)545-8155

6. Transporter 1 Company Name: Adventure Trucking (503)887-0422 — U.S. EPA ID Number: ORD000029033

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address — U.S. EPA ID Number: ORD089452353

CWMNW, INC.
17629 CEDAR SPRINGS LANE
ARLINGTON OR 97812-9709

Facility's Phone: (541)454-2643

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ,UN3077,WASTE,ENVIRONMENTALLY HAZARDOUS SUBSTANCE,SOLID,N.O.S,9,III,(LEAD)	001	DT	26,000	P	D008
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information

1: #OR326077; STABILIZED SLURRY; ERG# 171; (RQ=10LBS)

66 LOOP
33.05T

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: THOMAS STEIGER AGENT TO PSL — Signature: Thomas Steiger — Month 12 Day 8 Year 15

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. — Port of entry/exit: — Transporter signature (for exports only): — Date leaving U.S.: 12/15/15

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Ross Adams — Signature — Month 12 Day 15 Year 15

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H110			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Dana West — Signature — Month 12 Day 16 Year 15

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

2/21

Attachment C
Monthly IWA Performance Monitoring Checklists

Zone A Landfill Cover Inspection Checklist

Project Inspection Report No.:	*10-2015*
Project Inspector Name:	*Eric Jensen*
Date:	*21-Oct-15*
Weather:	*Clear, 57°f wind calm, Pressure 30.17*

Man-Made Disturbance	**Disturbance Noted (Yes/No)**	**Repair Required (Yes/No)**
Vehicle Rutting	*Yes*	*No*
Foot Traffic Disturbance	*Yes*	*No*
Other (Define in Inspection Report)	*No*	*No*
Animal-Made Disturbance	**Disturbance Noted (Yes/No)**	**Repair Required (Yes/No)**
Burrowing	*No*	*No*
Consumption of Vegetation	*No*	*No*
Other (Define in Inspection Report)	*No*	*No*
Natural Disturbance	**Disturbance Noted (Yes/No)**	**Repair Required (Yes/No)**
Wind Erosion	*No*	*No*
Stormwater Erosion	*No*	*No*
Settlement	*Yes*	*Under Evaluation*
Sparse Vegetation	*Yes*	*No*
Distressed Vegetation	*No*	*No*
Other (Define in Inspection Report)		
North Sump Inspection		
Water in Sump	*No*	*N/A*
Thickness of Water (inches)	*N/A*	*N/A*
Water pumped out	*N/A*	*N/A*
Approximate volume pumped (gals)	*N/A*	*N/A*
South Sump Inspection		
Water in Sump	*No*	*N/A*
Thickness of Water (inches)	*N/A*	*N/A*
Water pumped out	*N/A*	*N/A*
Approximate volume pumped (gals)	*N/A*	*N/A*

Comments, Remarks, and Action Items:

Elevation surveys and visual observations will be used for further evaluation of settlement

Some trails developed due to foot traffic.

Construction continues to impact vegetation on the cover especially along the North and East sides.

The liner was removed along the north and east edges for construction.

Zones C/D Landfill Cover Inspection Checklist

Project Inspection Report No.: *10-2015*

Project Inspector Name: *Eric Jensen*

Date: *21-Oct-15*

Weather: *Clear, 57℉ wind calm, Pressure 30.17*

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

Comments, Remarks, and Action Items:

Vegetation is sparse on crown and soil is holding.

Zone E Landfill Cover Inspection Checklist

Project Inspection Report No.:	*10-2015*
Project Inspector Name:	*Eric Jensen*
Date:	*21-Oct-15*
Weather:	*Clear, 57℉ wind calm, Pressure 30.17*

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

Comments, Remarks, and Action Items:

Vegatation is growing well on the cover and holding the soil.

Zone A West Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.:	*10-2015*
Project Inspector Name:	*Eric Jensen*
Date:	*21-Oct-15*
Weather:	*Clear, 57°f wind calm, Pressure 30.17*

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

Comments, Remarks, and Action Items:

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

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

Zone A East Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: *10-2015*

Project Inspector Name: *Eric Jensen*

Date: *21-Oct-15*

Weather: *Clear, 57℉ wind calm, Pressure 30.17*

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

Comments, Remarks, and Action Items:

The water depth is 0". The average sediment depth is approx.1/2". Vegetation growing in the sediment at North end near the inlet pipe. Minor sediment below keystone blocks. Three holes were cut in the basin liner at the North end to drill exploratory boreholes.

Zone C/D Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: *10-2015*

Project Inspector Name: *Eric Jensen*

Date: *21-Oct-15*

Weather: *Clear, 57°f wind calm, Pressure 30.17*

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

Comments, Remarks, and Action Items:

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

Zone E Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: *10-2015*

Project Inspector Name: *Eric Jensen*

Date: *21-Oct-15*

Weather: *Clear, 57°f wind calm, Pressure 30.17*

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

Comments, Remarks, and Action Items:

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

Vegetation is growing along the edge.

Zone A Perimeter Fence Checklist

Project Inspection Report No.:	*10-2015*
Project Inspector Name:	*Eric Jensen*
Date:	*21-Oct-15*
Weather:	*Clear, 57℉ wind calm, Pressure 30.17*

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

Comments, Remarks, and Action Items:

Tumbleweeds along the fence.

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

Part of the fence was removed on the East side for Bale fill work.

Zones C/D Perimeter Fence Checklist

Project Inspection Report No.: *10-2015*

Project Inspector Name: *Eric Jensen*

Date: *21-Oct-15*

Weather: *Clear, 57℉ wind calm, Pressure 30.17*

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

Comments, Remarks, and Action Items:

Tumbleweeds along the fence inside and out.

Zone E Perimeter Fence Checklist

Project Inspection Report No.: *10-2015*

Project Inspector Name: *Eric Jensen*

Date: *21-Oct-15*

Weather: *Clear, 57℉ wind calm, Pressure 30.17*

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

Comments, Remarks, and Action Items:

Tumbleweeds along the fence inside and out.

Zone A Landfill Cover Inspection Checklist

Project Inspection Report No.: *11-2015*
Project Inspector Name: *Eric Jensen*
Date: *9-Nov-15*
Weather: *Cloudy, 50°f wind SW 7, Pressure 29.88*

Man-Made Disturbance	Disturbance Noted (Yes/No)	Repair Required (Yes/No)
Vehicle Rutting	*Yes*	*No*
Foot Traffic Disturbance	*Yes*	*No*
Other (Define in Inspection Report)	*No*	*No*
Animal-Made Disturbance	**Disturbance Noted (Yes/No)**	**Repair Required (Yes/No)**
Burrowing	*No*	*No*
Consumption of Vegetation	*No*	*No*
Other (Define in Inspection Report)	*No*	*No*
Natural Disturbance	**Disturbance Noted (Yes/No)**	**Repair Required (Yes/No)**
Wind Erosion	*No*	*No*
Stormwater Erosion	*No*	*No*
Settlement	*Yes*	*Under Evaluation*
Sparse Vegetation	*Yes*	*No*
Distressed Vegetation	*No*	*No*
Other (Define in Inspection Report)		
North Sump Inspection		
Water in Sump	*No*	*N/A*
Thickness of Water (inches)	*N/A*	*N/A*
Water pumped out	*N/A*	*N/A*
Approximate volume pumped (gals)	*N/A*	*N/A*
South Sump Inspection		
Water in Sump	*No*	*N/A*
Thickness of Water (inches)	*N/A*	*N/A*
Water pumped out	*N/A*	*N/A*
Approximate volume pumped (gals)	*N/A*	*N/A*

Comments, Remarks, and Action Items:

Elevation surveys and visual observations will be used for further evaluation of settlement

Some trails developed due to foot traffic.

Construction continues to impact the vegetation on the cover especially along the North and East sides

The liner was removed along the north and east edges for construction

Holes have developed on the Southeast side near the North end of the East basin at the base of the cover along the fence.

Zones C/D Landfill Cover Inspection Checklist

Project Inspection Report No.: *11-2015*

Project Inspector Name: *Eric Jensen*

Date: *9-Nov-15*

Weather: *Cloudy, 50°f wind SW 7, Pressure 29.88*

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

Comments, Remarks, and Action Items:

Vegetation is sparse on crown and soil is holding.

Zone E Landfill Cover Inspection Checklist

Project Inspection Report No.: *11-2015*

Project Inspector Name: *Eric Jensen*

Date: *9-Nov-15*

Weather: *Cloudy, 50°f wind SW 7, Pressure 29.88*

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

Comments, Remarks, and Action Items:

Vegatation is growing well on the cover and holding the soil.

Zone A West Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: *11-2015*

Project Inspector Name: *Eric Jensen*

Date: *9-Nov-15*

Weather: *Cloudy, 50°f wind SW 7, Pressure 29.88*

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

Comments, Remarks, and Action Items:

The Sediment depth is 0" to 3", Ave. is 1". The water depth is 2".

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

Zone A East Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: *11-2015*

Project Inspector Name: *Eric Jensen*

Date: *9-Nov-15*

Weather: *Cloudy, 50°f wind SW 7, Pressure 29.88*

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

Comments, Remarks, and Action Items:

The water depth is 2". The average sediment depth is approx.1/2". Vegetation growing in the sediment at North end near the inlet pipe. Minor sediment below keystone blocks. Three holes were cut in the basin liner at the North end to drill exploratory boreholes.

Zone C/D Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: *11-2015*

Project Inspector Name: *Eric Jensen*

Date: *9-Nov-15*

Weather: *Cloudy, 50°f wind SW 7, Pressure 29.88*

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

Comments, Remarks, and Action Items:

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

Zone E Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: *11-2015*

Project Inspector Name: *Eric Jensen*

Date: *9-Nov-15*

Weather: *Cloudy, 50°f wind SW 7, Pressure 29.88*

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

Comments, Remarks, and Action Items:

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

Vegetation is growing along the edge.

Zone A Perimeter Fence Checklist

Project Inspection Report No.:	*11-2015*
Project Inspector Name:	*Eric Jensen*
Date:	*9-Nov-15*
Weather:	*Cloudy, 50°f wind SW 7, Pressure 29.88*

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

Comments, Remarks, and Action Items:

Tumbleweeds along the fence.

One of the fence poles is bent on the south side and another is knocked down.

Part of the fence was removed on the East side for Bale fill work.

Zones C/D Perimeter Fence Checklist

Project Inspection Report No.: *11-2015*

Project Inspector Name: *Eric Jensen*

Date: *9-Nov-15*

Weather: *Cloudy, 50°f wind SW 7, Pressure 29.88*

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

Comments, Remarks, and Action Items:

Tumbleweeds along the fence inside and out.

Zone E Perimeter Fence Checklist

Project Inspection Report No.: *11-2015*

Project Inspector Name: *Eric Jensen*

Date: *9-Nov-15*

Weather: *Cloudy, 50°f wind SW 7, Pressure 29.88*

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

Comments, Remarks, and Action Items:

Tumbleweeds along the fence inside and out.

Zone A Landfill Cover Inspection Checklist

Project Inspection Report No.: *12-2015*

Project Inspector Name: *Eric Jensen*

Date: *16-Dec-15*

Weather: *Cloudy, 41°f wind N 17 G24, Pressure 30.20*

Man-Made Disturbance	**Disturbance Noted (Yes/No)**	**Repair Required (Yes/No)**
Vehicle Rutting	*No*	*No*
Foot Traffic Disturbance	*Yes*	*No*
Other (Define in Inspection Report)	*No*	*No*
Animal-Made Disturbance	**Disturbance Noted (Yes/No)**	**Repair Required (Yes/No)**
Burrowing	*No*	*No*
Consumption of Vegetation	*No*	*No*
Other (Define in Inspection Report)	*No*	*No*
Natural Disturbance	**Disturbance Noted (Yes/No)**	**Repair Required (Yes/No)**
Wind Erosion	*No*	*No*
Stormwater Erosion	*No*	*No*
Settlement	*Yes*	*Under Evaluation*
Sparse Vegetation	*Yes*	*No*
Distressed Vegetation	*No*	*No*
Other (Define in Inspection Report)		
North Sump Inspection		
Water in Sump	*No*	*N/A*
Thickness of Water (inches)	*N/A*	*N/A*
Water pumped out	*N/A*	*N/A*
Approximate volume pumped (gals)	*N/A*	*N/A*
South Sump Inspection		
Water in Sump	*No*	*N/A*
Thickness of Water (inches)	*N/A*	*N/A*
Water pumped out	*N/A*	*N/A*
Approximate volume pumped (gals)	*N/A*	*N/A*

Comments, Remarks, and Action Items:

Elevation surveys and visual observations will be used for further evaluation of settlement

Some trails developed due to foot traffic.

Sparsly vegetated areas were hydroseeded along the North and East sides.

The liner was replaceed along the north and east edges and the road was rerouted.

Holes have developed on the Southeast side near the North end of the East basin at the base of the cover along the fence.

Zones C/D Landfill Cover Inspection Checklist

Project Inspection Report No.: *12-2015*

Project Inspector Name: *Eric Jensen*

Date: *16-Dec-15*

Weather: *Cloudy, 41°f wind N 17 G24, Pressure 30.20*

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

Comments, Remarks, and Action Items:

Vegetation is sparse on crown and soil is holding.

Zone E Landfill Cover Inspection Checklist

Project Inspection Report No.: *12-2015*

Project Inspector Name: *Eric Jensen*

Date: *16-Dec-15*

Weather: *Cloudy, 41°f wind N 17 G24, Pressure 30.20*

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

Comments, Remarks, and Action Items:

Vegatation is growing well on the cover and holding the soil.

Zone A West Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: *12-2015*

Project Inspector Name: *Eric Jensen*

Date: *16-Dec-15*

Weather: *Cloudy, 41°f wind N 17 G24, Pressure 30.20*

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

Comments, Remarks, and Action Items:

The Sediment depth is 0" to 3", Ave. is 1". The water depth is 9".

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

Zone A East Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: *12-2015*

Project Inspector Name: *Eric Jensen*

Date: *16-Dec-15*

Weather: *Cloudy, 41°f wind N 17 G24, Pressure 30.20*

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

Comments, Remarks, and Action Items:

The water depth is 10". The average sediment depth is approx.1/2". Vegetation growing in the sediment at North end near the inlet pipe. Minor sediment below keystone blocks. The three holes that were cut in the basin liner at the North end to drill exploratory boreholes were patched.

Zone C/D Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: *12-2015*

Project Inspector Name: *Eric Jensen*

Date: *16-Dec-15*

Weather: *Cloudy, 41°f wind N 17 G24, Pressure 30.20*

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

Comments, Remarks, and Action Items:

Water depth is 8". The Sediment depth is 0" to 6", ave. is 3" on the bottom, 0" on the side walls. Some sediment in North drainage pipe. Some vegetation growth in sediment.

Zone E Detention/Evaporation Basin Inspection Checklist

Project Inspection Report No.: *12-2015*

Project Inspector Name: *Eric Jensen*

Date: *16-Dec-15*

Weather: *Cloudy, 41°f wind N 17 G24, Pressure 30.20*

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

Comments, Remarks, and Action Items:

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

Vegetation is growing along the edge.

Zone A Perimeter Fence Checklist

Project Inspection Report No.: *12-2015*

Project Inspector Name: *Eric Jensen*

Date: *16-Dec-15*

Weather: *Cloudy, 41°f wind N 17 G24, Pressure 30.20*

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

Comments, Remarks, and Action Items:

Tumbleweeds along the fence.

One of the fence poles is bent on the south side and another is knocked down.

Part of the fence was removed on the East side for Bale fill work.

Zones C/D Perimeter Fence Checklist

Project Inspection Report No.: *12-2015*

Project Inspector Name: *Eric Jensen*

Date: *16-Dec-15*

Weather: *Cloudy, 41°f wind N 17 G24, Pressure 30.20*

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

Comments, Remarks, and Action Items:

Tumbleweeds along the fence inside and out.

Zone E Perimeter Fence Checklist

Project Inspection Report No.: *12-2015*

Project Inspector Name: *Eric Jensen*

Date: *16-Dec-15*

Weather: *Cloudy, 41°f wind N 17 G24, Pressure 30.20*

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

Comments, Remarks, and Action Items:

Tumbleweeds along the fence inside and out.

Attachment D
2016 SCS Technical Memorandum re: Cover Settlement Evaluation Update

TECHNICAL MEMORANDUM
COVER SETTLEMENT EVALUATION UPDATE
ZONE A DRUM DISPOSAL AREA
PASCO SANITARY LANDFILL SITE
MARCH 2016

INTRODUCTION

This technical memorandum provides an updated evaluation of the cover system settlement at Zone A of the Pasco Sanitary Landfill (PSL) Site in Pasco, Washington. SCS has periodically evaluated the Zone A cover performance and settlement since 2008; the most recent report was prepared in September 2013. The evaluations provided in prior reports, including September 2013, have indicated that the tensile strain resulting from cover system settlement is within acceptable limits and does not adversely affect its performance as an infiltration barrier.

This updated technical memorandum has been prepared at the request of the Industrial Waste Area Generators Group III (IWAG) and covers field surveys conducted from 2008 to 2015, and addresses surface depressions in several locations that were first observed in early 2013 and that are indicative of localized differential settlement..

The intent of this updated evaluation is to reassess whether the observed differential settlement to date has adversely affected the performance of the cover system components and whether the cover continues to perform within its original design parameters. Of particular interest to the IWAG was an assessment of whether the observed differential settlement may be placing excessive strain on the high-density polyethylene (HDPE) geomembrane in the cover system. The cover system was constructed in 2001 and consists of the following components (from top to bottom):

- Protective 24-inch minimum soil layer with top 6-inches as vegetative layer
- Woven separation geotextile
- 12-inch sand drainage layer
- 40 mil HDPE textured geomembrane
- Geosynthetic clay liner (GCL)
- 24-inch minimum engineered fill for grading, drainage and foundation
- Geogrid on existing grade

SETTLEMENT SURVEY HISTORY

Database

The settlement monitoring database for Zone A dates back to 2008 and includes both ground (field) surveying of physical settlement plates and three-dimensional (3D) light distancing and ranging (LIDAR) surface scanning.

Originally, ground surveying was performed over an 8-year period on up to 26 different settlement plates, or monuments, that were installed in the cover at various times. Some of the original settlement monuments have been removed, or were damaged, during or after site maintenance activities in 2010-2011. On December 13, 2011, a Zone A 3D survey was conducted as a component of the as-built documentation for the upgraded SVE system and is used herein as the baseline survey for ongoing settlement evaluations. As discussed in the September 2013 report, the 3D scans provide a full surface depiction of the Zone A cover and allow for monitoring of differential settlement at locations in-between the physical survey monuments. Thirteen rounds of cap-wide 3D laser surface scanning have occurred between April 2013 and December 14, 2015. In total, the settlement database for Zone A includes the time period between May 29, 2008 and December 14, 2015, which is slightly more than 7.5 years.

The initial eight settlement markers (designated as SB-1 through SB-8) were installed on the Zone A cover in May 2008. In August 2011, six of these eight original settlement markers were removed during cover maintenance activities and six new monitoring markers designated as SB-9 and SB-10, and SP-1 through SP-4 were installed. Subsequently, in January 2013, twelve additional settlement markers designated as SP-5 to SP-16 were added to the monitoring network. The placement of those settlement markers was based on the results of an evaluation of suspected off-gas heating within the Zone A soil vapor extraction effluent.

Previous Evaluations

Previous evaluations of settlement and Zone A cover performance were provided in the following SCS reports:

- Pasco Landfill Zone A Cover Evaluation dated October 6, 2008 (revised March 10, 2009)
- Cover Maintenance Documentation Report – Pasco Landfill Zone A, dated September 2011
- Final Cover Settlement Evaluation Update – Zone A Drum Disposal Area Pasco Sanitary Landfill Site, September 2013

Discussions of Zone A cover performance were also included in various quarterly and annual reports prepared on behalf of the IWAG by Environmental Partners Inc. (EPI).

As noted above, initial settlement evaluations at this site were based on field surveying of eight (8) settlement plate locations (designated as SP-1 to SP-8). Those original eight settlement markers were located in three areas along the west side of the Zone A cover that had exhibited visible differential settlement prior to 2008, in areas suitable for evaluating general cover settlement. The three areas were designated as the Northern, Middle and Southern areas.

Conclusions from prior evaluations included the following:

- Elongation of the HDPE geomembrane and GCL components of the final cover system, which are in direct contact, was estimated to be 1.38 percent at SB-5 as of March 2009. In October 2010, about 17 months later, it was estimated that continued settlement at SB-5 increased the strain slightly to 1.55 percent.
- Up through 2009, the maximum settlement experienced on the Zone A cover, which occurred at SB-5 did not result in a total tensile strain or elongation of the geomembrane cover material that exceeded the original design parameter of 10 percent.
- As reported in September 2013, HDPE geomembrane strains were estimated range from less than 0.06 percent to approximately 3 percent, and which are well below the allowable 10 percent design basis and also are two orders of magnitude less than the break elongation of the material that would be necessary to induce strain rupture of the HDPE geomembrane

RELEVANT HIGH DENSITY POLYETHYLENE (HDPE) TENSILE PROPERTIES

YIELD ELONGATION AND BREAK ELONGATION

A key outcome of the settlement monitoring and analysis is a quantitative estimate of elongation of the HDPE geomembrane resulting from settlement, and how that estimated elongation compares to the allowable "yield point" and "break point" of the geomembrane material. In practice, the yield point and break point are tested in the laboratory using representative geomembrane samples following ASTM Method D638. This method measures the tensile properties of plastics including yield and break elongation.

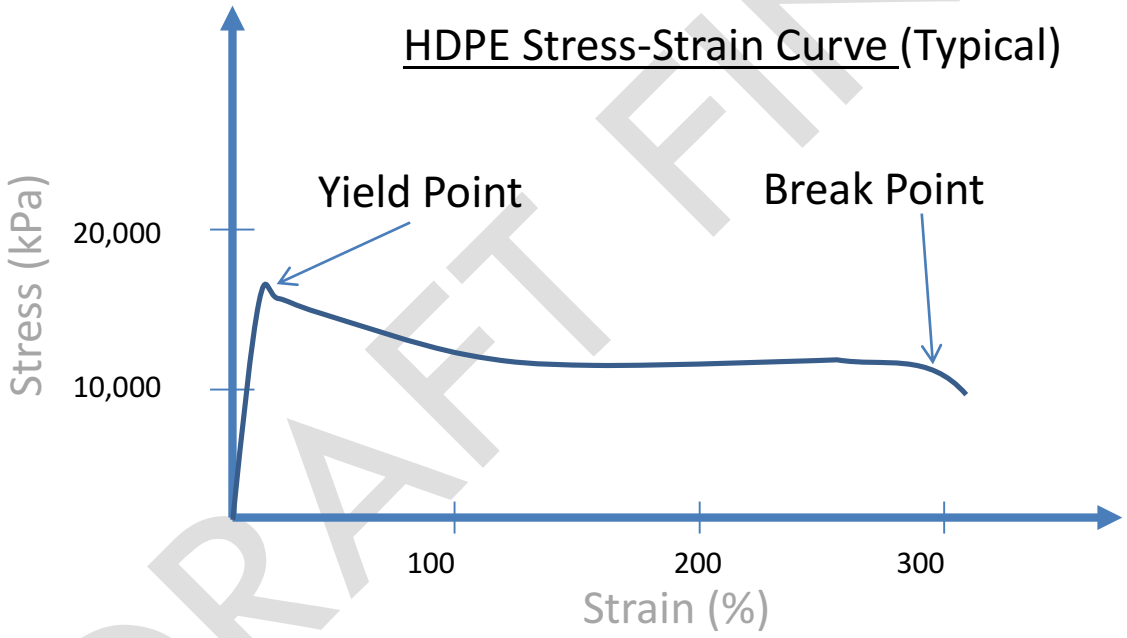
In standard terminology, "yield point" (or "yield elongation") refers to a point along the tensile stress-strain curve where the geomembrane deformation transitions from elastic (linear) to plastic (non-linear); the corresponding stress is called the "yield strength" value. The yield point does not correspond to a rupture, tear or break in the material.

In contrast, "break point" (or "break elongation") is the point along the stress-strain curve where the geomembrane begins to exhibit mechanical separation or rupture. As shown on the typical stress-strain curve below (Figure 1), the break point is reached at a substantially higher strain than the yield point. This typical curve shape indicates that a geomembrane will begin to deform

plastically at about 12 percent strain, but does not experience rupture until the strain has reached at least 100 percent elongation, and likely much more based on actual testing.

For reference purposes, the minimum industry standard yield elongation for textured 40-mil HDPE, per GRI-GM13 (Geosynthetic Research Institute, Test Method GM13), is conservatively set at 12 percent and for break elongation is 100 percent. In practice, yield elongation for textured geomembranes is typically 15 to 18 percent, while break elongation is well over 100 percent and sometimes as a high as 500 percent. This means that a section of 40-mil textured HDPE geomembrane must be elongated more than twice its original length, and potentially up to five times its original length, before it would exhibit tearing or rupture in response to differential settlement.

FIGURE 1
TYPICAL STRESS-STRAIN CURVE



It is notable that in the original cover system design, geogrid reinforcement was included beneath the HDPE geomembrane to help support the cover system in the event of a void developing under the cover system. Design calculations (IT Corporation 2001) indicated the geogrid (Huesker/Fortrac 110/30-20) provided a tensile strength that was 18 times higher than needed to support the cover geomembrane due to formation of a void. This calculation included the weight of 15 feet of overlying cap soil.

2001 MQC AND CQA CONSTRUCTION TESTING

As part of cover construction activities in 2001, the 40-mil textured HDPE geomembrane underwent Manufacturer's Quality Control (MQC) and Construction Quality Assurance (CQA) testing for tensile properties. As reported in GeoSyntec's CQA report (January 2002) yield elongation and break elongation results for the 40-mil textured HDPE are summarized in Table 1 below:

TABLE 1 - 2001 RESULTS OF MQC OR CQA TESTING OF 40-MIL HDPE

Roll No.	Elongation at Yield (percent)	Elongation at Break (percent)	MQC or CQA Testing (1 test per 100,000 sf)
25655	14.3	313	MQC
25658	13.6	241	MQC
25660	15.0	283	CQA
25661	14.5	249	MQC
25664	13.2	472	MQC
25664	15.0	373	CQA

These tests confirmed that the selected HDPE geomembrane material exceeded the minimum material standards noted above with a yield elongation of between 13.2 percent and 15 percent and a break elongation of between 241 percent and 472 percent. The HDPE material met project specifications set forth in the original design documents and the geomembrane significantly exceeded the 10 percent design basis yield elongation.

November 2015 Site Inspection

On November 5, 2015 SCS performed an inspection of the geomembrane cover of Zone A. The objective of this inspection was to assess, from visual observation, if the settlement within Zone A had potentially impacted the geomembrane component of the final cover system. At the time of the inspection, construction of the supplemental protection barrier between Zone A and the balefill was underway and had exposed the geomembrane, which provided physical access to inspect the material.

The contractor, Clearcreek Contractors, had removed the cover components overlying the geomembrane from the north side of Zone A around to the east side, adjacent to the eastern evaporation basin. The overburden materials were staged in stockpiles on top of Zone A as well as on the level areas to the north and east of Zone A.

During the site inspection and observing that the geomembrane had been exposed in one of the settlement areas SCS collected two samples (GM2 and GM3) of cover geomembrane that was exposed by construction efforts. Sample GM2 was obtained from a location as near as possible to the low point of the exposed geomembrane. Sample GM3 was taken from the exposed

geomembrane at the northeast corner of Zone A. The approximate locations of these samples are illustrated in Figure 2.

Delet

SAMPLE TESTING

Samples GM2 and GM3 were submitted to TRI/Environmental for a range of material properties tests including Tensile Properties using the ASTM Method D638. Test results and the testing procedures used are summarized in Table 2 below:

TABLE 2 - 40-MIL HDPE TESTING RESULTS

Parameter	ASTM Method	Material Property Test Results			
		2015 TRI Tests GM2	2015 TRI Tests GM3	2008 TRI Tests	2001 MQC/CQA Tests
Thickness (mil)	D5994	42	43	44	40
Density (g/cm^3)	D1505	0.949	0.949	0.947	0.947
Carbon Black					
• Content (%)	D1603	2.70	2.45	2.95	2.88
• Dispersion	D5596	1	1	1	1
Dimensional Stability (MD/TD)	D1204	Not Tested	Not Tested	0.04/-0.03	-0.21/0.00
Tensile Properties	D638				
• Yield Strength (ppi) (MD/TD)		124/134	128/138	119/126	116/120
• Break Strength (ppi) (MD/TD)	GRI GM13	117/98	126/106	111/98	126/105
• Yield Elongation (%) (MD/TD)		16/13	14/13	16/13	16/15
• Break Elongation (%) (MD/TD)		326/94	310/361	289/66	445/283
Puncture Resistance (lbs)	D 4833	107	108	110	105
Tear Resistance (lbs) (MD/TD)	D 1004	42.2/43.1	44.5/44.6	40/39	Not Tested

mil = 0.001 inch = 1mil
g/cm^3 = grams per cubic centimeter
MD/TD = Machine Direction/Transverse Direction
ppi = pounds per inch
lbs = pounds

The 2015 sample test results are consistent with prior results for tensile properties, carbon black content/dispersion, puncture resistance. Prior testing consisted of MQC and CQA testing conducted in 2001, as well as testing performed in 2008 on a single sample taken from the east evaporation basin. Dimensional stability was not tested in 2015.

The findings of the testing in 2008 were confirmed by the 2015 tests, which indicate that there was no observable degradation of HDPE material properties and that the material has performed within, or better than, the original minimum design criteria on which the cover design was based. This provides quantitative evidence that even in areas where differential settlement has occurred and strain has been induced, there has been no discernable change in physical properties of the HDPE liner.

SETTLEMENT MONITORING RESULTS

Surveyed Settlement Plates — Measurements Discontinued

Settlement plate ground surveys were conducted for from 2008 to 2013 before being discontinued in lieu of the 3D surface scanning measurements. No subsequent readings have been taken at the settlement plate locations.

3D LIDAR Survey

Methodology and Survey Events

Beginning on December 13, 2011, as a component of the SVE system as-built documentation, the surface topography of the Zone A cover was surveyed by Triad Associates (Triad) using LIDAR. This approach replaced the settlement plate survey method and captures the area in 3D space, rather than at individual surveyed locations as represented by the physical settlement points.

The 3D scanner measures thousands of data points per second (each with its own distance, angle, and reflected return signal power) and generates a "point cloud" data set from multiple set ups in the field. These multiple "point clouds" are tied together using proprietary software and orientated to a specific horizontal datum, NAD 83/91 Washington State Plane South Zone (horizontal datum) and vertical datum NAVD 88. Each 3D survey of the Zone A surface utilizes over 150 million individual data points to achieve a rendering of the surface with a vertical and horizontal accuracy of not less than 0.02 feet.

A total of 13 separate surveys have been conducted using 3D laser scanning as follows:

- December 2011
- April 2013
- June 2013
- August 2013
- October 2013
- January 2014
- April 2014
- July 2014
- October 2014
- January 2015
- April 2015
- July 2015[1]
- December 2015[2]

These surveys cover a total time period of 1,460 days, or 4.0 years. For our analysis, the Triad "point cloud" data sets were processed and imported into a Computer Aided Design (CAD) environment. Using these data a site map was constructed showing the total elevation differences measured by the different 3D surveys.

[1] Results of the July 2015 survey indicated that settlement had been reduced (higher elevations) or settlement areas A, B, C, D, E, and G had been partially filled.

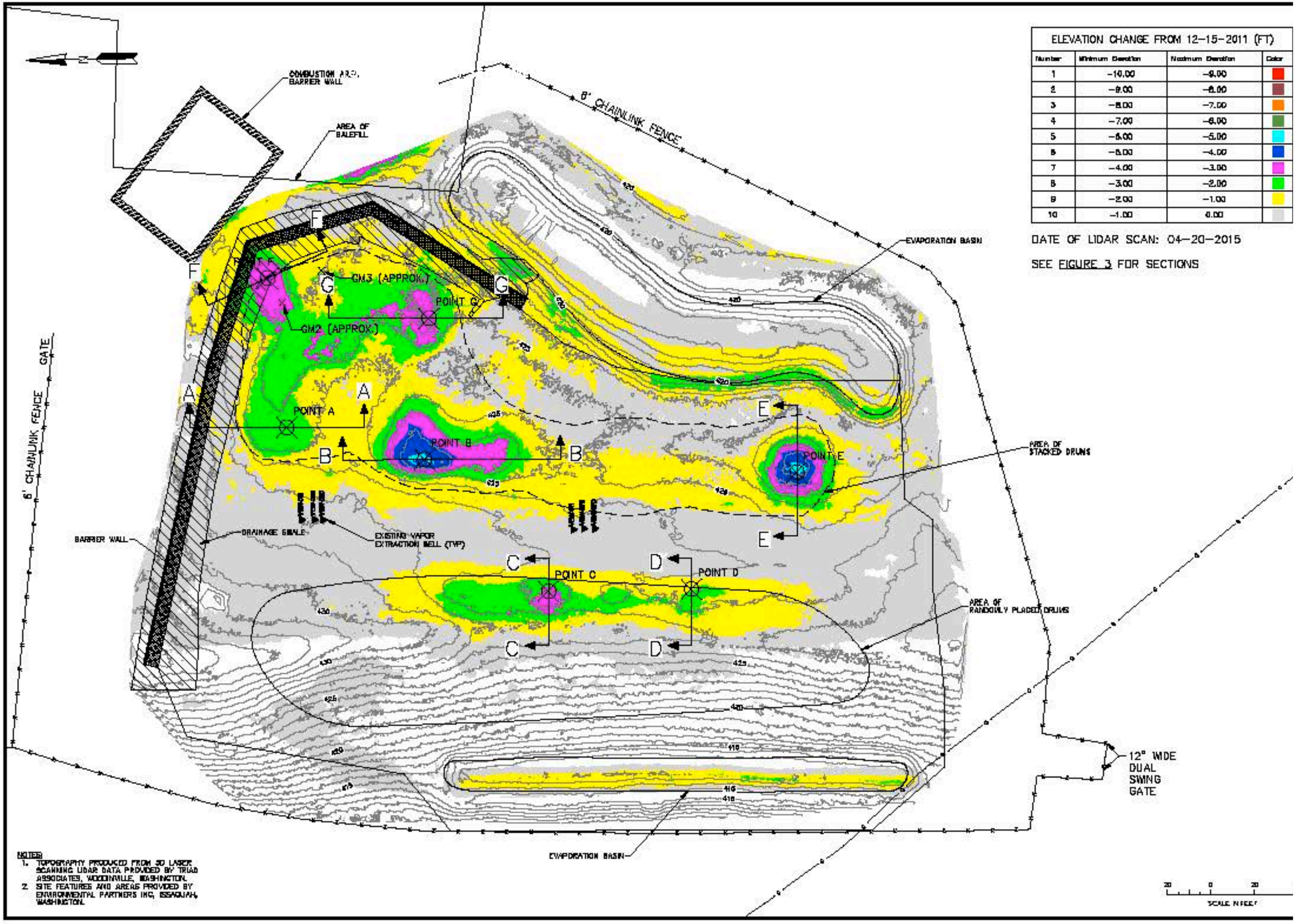
[2] Results of the December 2015 surveys indicate that construction activity was underway or completed resulting in significant elevation changes in the area of the barrier wall construction.

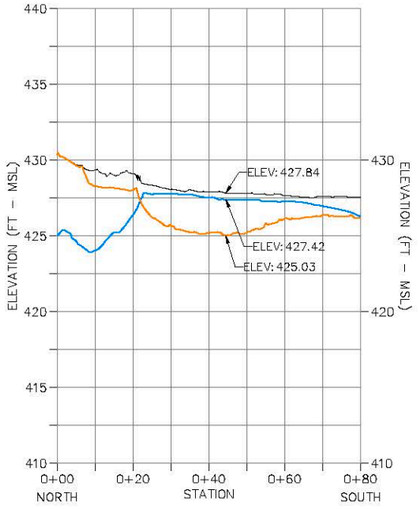
Figure 2 summarizes the 3D settlement information, providing colored-coded contours of settlement for 1,222-day (fs years) period between December 2011 and April 2015. It should be noted that the December 2015 survey was performed after completion of the supplemental protection barrier construction and indicates that portions of previously settled areas in northeast corner of Zone A have been filled. Also, areas along the north and east side of the completed supplemental protection barrier are at lower elevations because of post-construction grading. As a result of this disturbance, only the portion of the 3D survey from December 2015 outside of the construction area is usable for settlement evaluation.

For graphical purposes, Figure 2 provides a colorized representation of settlement between December 2011 and April 2015.Colored areas represent the following ranges of settlement that occurred over a 3.35-year period:

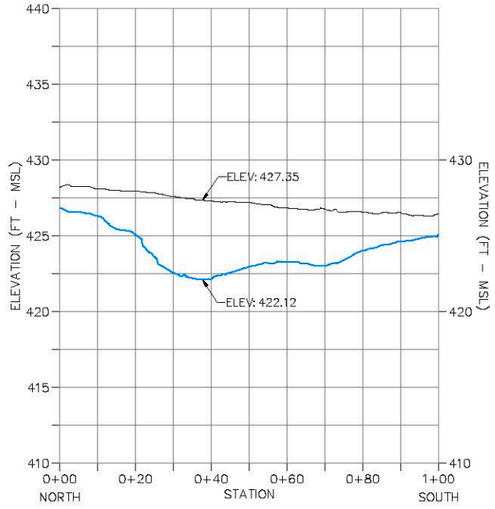
- Gray areas settlements of 0 to 1.0 feet,
- Yellow areas settlements of 1.0 to 2.0 feet
- Light green areas settlements of 2.0 to 3.0 feet.
- Purple areas settlements of 3.0 to 4.0 feet
- Light blue areas settlements of 4.0 to 5.0 feet
- Pale blue areas settlements of 5.0 to 6.0 feet
- Olive green areas settlements of 6.0 to 7.0 feet (none reported)

While the 2013 report identified and evaluated five areas of the Zone A cover that experienced readily observable settlement and which was initially noted in January 2013, this 2015 update reports on seven areas. These seven areas include the previous five areas (A-A to E-E) plus two more (F-F and G-G). These areas are indicated on Figure 2 and have been transected with cross-sections labeled A-A through G-G (Figure 3).


ELEVATION CHANGE FROM 12-15-2011 (FT)
Number | Minimum Elevation | Maximum Elevation | Color
1 | -10.00 | -9.00
2 | -9.00 | -8.00
3 | -8.00 | -7.00
4 | -7.00 | -6.00
5 | -6.00 | -5.00
6 | -5.00 | -4.00
7 | -4.00 | -3.00
8 | -3.00 | -2.00
9 | -2.00 | -1.00
10 | -1.00 | 0.00
DATE OF LIDAR SCAN: 04-20-2015
SEE FIGURE 3 FOR SECTIONS
COMBUSTION AREA BARRIER WALL
AREA OF BALEFILL
8' CHAINLINK FENCE
EVAPORATION BASIN
AREA OF STACKED DRUMS
8' CHAINLINK FENCE GATE
GM3 (APPROX.)
GM2 (APPROX.)
POINT A
POINT B
POINT C
POINT D
POINT E
POINT G
BARRIER WALL
DRAINAGE SWALE
EXISTING VAPOR EXTRACTION WELL (TYP)
AREA OF RANDOMLY PLACED DRUMS
12' WIDE DUAL SWING GATE
EVAPORATION BASIN
NOTES:
1. TOPOGRAPHY PRODUCED FROM 3D LASER SCANNING LIDAR DATA PROVIDED BY TRIAD ASSOCIATES, WOODINVILLE, WASHINGTON.
2. SITE FEATURES AND AREAS PROVIDED BY ENVIRONMENTAL PARTNERS INC, ISSAQUAH, WASHINGTON.
SCALE IN FEET



SECTION A–A
STA: 0+00 TO 0+80



SECTION B–B
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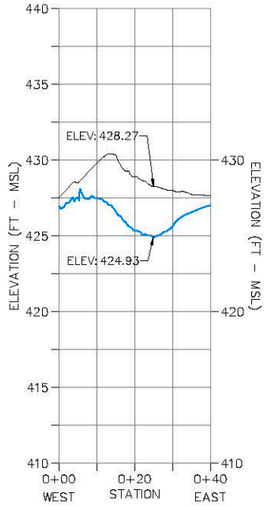
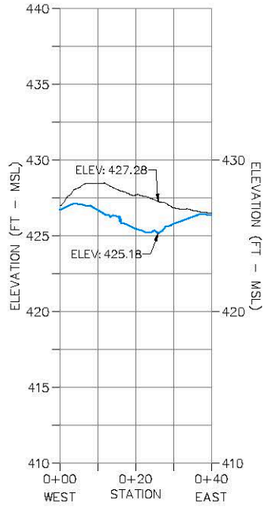
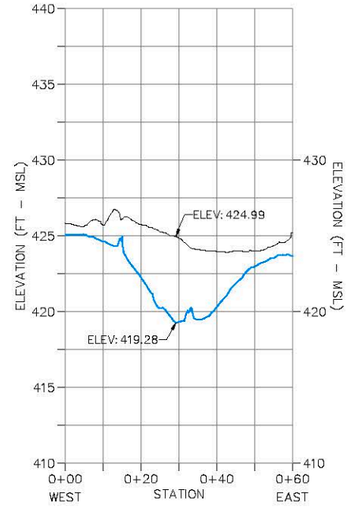


SECTION C–C
STA: 0+00 TO 0+40



SECTION D–D
STA: 0+00 TO 0+40



SECTION E–E
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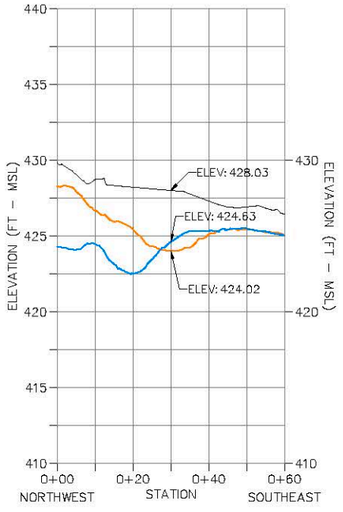

SECTION F–F
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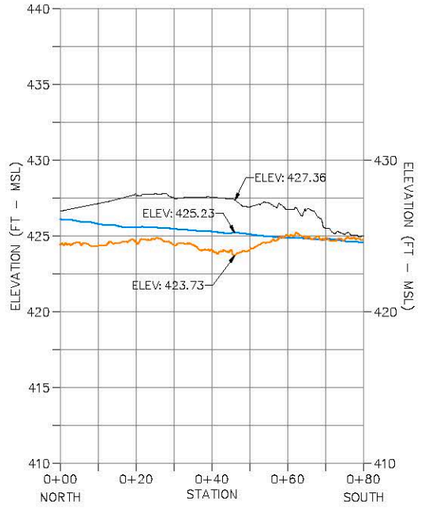


SECTION G–G
STA: 0+00 TO 0+80

LEGEND

12–15–2011 TOPOGRAPHY

04–20–2015 TOPOGRAPHY

12–14–2015 TOPOGRAPHY

15 —
10 —
5 —
2.5 —
0 —

20 0 20
HORIZONTAL SCALE IN FEET

NOTE:
TOPOGRAPHY PRODUCED FROM 3D LASER SCANNING LIDAR DATA PROVIDED BY TRIAD ASSOCIATES, WOODINVILLE, WASHINGTON.

3D Laser Scanning Survey Results

Based on review of the 3D laser scanning results over the past 4 years, the following observations were made:

- During the period between December 2011 and April 2015 (1,222 days), nearly two-thirds of Zone A (approximately 65.7 percent) experienced total settlements of less than 1.0 foot, which is less than 3.6 inches per year. This settlement rate is less than the 4.1 inches per year rate measured for the 2.5 year period of December 2011 and June 2013, and confirms that overall site-wide settlement rate is decreasing with time. As noted previously, earthwork activities related to the barrier wall and drainage swale construction in the latter part of 2015 (between the April 2015 and December 2015 3D surveys), settlement measurements in proximity to those impacted areas were obscured and could not be extrapolated.
- The remaining one-third of Zone A has two areas with a larger rate of settlement. This includes the area transected by line B-B' that has exhibited differential settlement of about 4 feet over the past several years. The area transected by line E-E' has exhibited about 5 feet of settlement over the same period.
- Based on available survey data, the rates of settlement in these two areas have declined over the past several years and appear to be approaching zero (asymptotically) over time. This trend, graphically shown in Figure 4, is to be expected as the underlying material has a finite capacity for settlement.
- Figure 4 provides a graph of settlement over time for the seven sections that have exhibited depressions and which include the two areas of greatest settlement observed recently. While the lateral extent of settlement appears to be growing slightly larger over time, the rate of settlement is steadily and measurably declining each year. For example, during 2015, for the seven sections analyzed, settlement rates were less than about 1 to 2 inches per year and are declining further.
- Table 3 provides a summary of settlement rates (inches per year), maximum settlement (feet) and geomembrane elongation (percent) over the last 3.34 to 4.00 years for Sections A-A to F-F. Differential settlements in these seven areas ranged from 2.10 to 5.71 feet (measured from the outer edge to the deepest point near the middle of the depression). Calculated tensile strains (geomembrane elongation) ranged from 0.9 percent (Section A-A) to 3.5 percent (Section E-E), which coincides with the largest differential settlement of 5.71 feet.
- As discussed in the previous reports, tensile strains in the geomembrane are based on the total settlement (Δ) measured at the deepest part of the depression, and the smallest lateral dimension of the depression (=2b) taken from the 3D scan image. Using the strain relationship developed by Gilbert and Murphy, 1987, for angular distortion (see Figure 5), and assuming that the geomembrane distortion mirrors the ground surface movement, and the geomembrane is anchored or fixed at the limits of the depression, the calculated strains range from less than 0.9 percent to 3.5 percent.

These values are well below the allowable 10 percent *yield elongation* design basis. Further, these strains are about two orders of magnitude less than the *break elongation* of the material necessary to suggest a strain-induced rupture of the HDPE geomembrane.

- If settlement patterns and trends in these seven areas and the site in general continue, it is expected that the average width (2b) of the area of settlement will broaden slightly which will have a mitigating effect on tensile strain. For a 50-foot diameter depression to produce a 10 percent tensile strain in the geomembrane, the depression must reach at least 11.5 feet in depth. That depth of settlement does not appear to be reasonably possible given that the drums are thought to be stacked up to 4 high (i.e., about 12 feet) and would retain some volume even after collapse, assuming drum collapse constitutes the primary mechanism for differential settlement. Additionally, the declining rate of settlement indicates that however unlikely that degree of differential settlement may be, ongoing settlement monitoring will allow for a continuing, real-time, assessment of the total tensile strain on the HDPE geomembrane.

TABLE 3
SETTLEMENT RATES BETWEEN DECEMBER 15, 2011 AND DECEMBER 14, 2015

Section[1]	Settlement Rate[2,3]		Δ=Maximum Settlement @Center (feet)[2]	Width =2b (feet)	Tensile Strain@ (percent)
	12/15/2011 to 4/20/2015 (1222 days) (inches/day)	12/15/2011 to 12/14/2015 (1460 days) (inches/day			
A-A	0.028		2.81	~60	0.9
B-B		0.043	5.23	~80	1.2
C-C		0.027	3.34	~35	2.1
D-D		0.017	2.10	~40	1.1
E-E		0.047	5.71	~50	3.5
F-F	0.039		4.01	~55	1.8
G-G	0.036		3.63	~40	2.0

1) See Figure 2 for the location of the sections and Figure 5 for the cross sections
2) Settlements are measured at deepest point
3) Sections A-A, F-F and G-G impacted by grading activities for barrier/drainage swale after 4/20/15.

FIGURE 4
SETTLEMENT VS. TIME AT LOCATIONS A THROUGH G

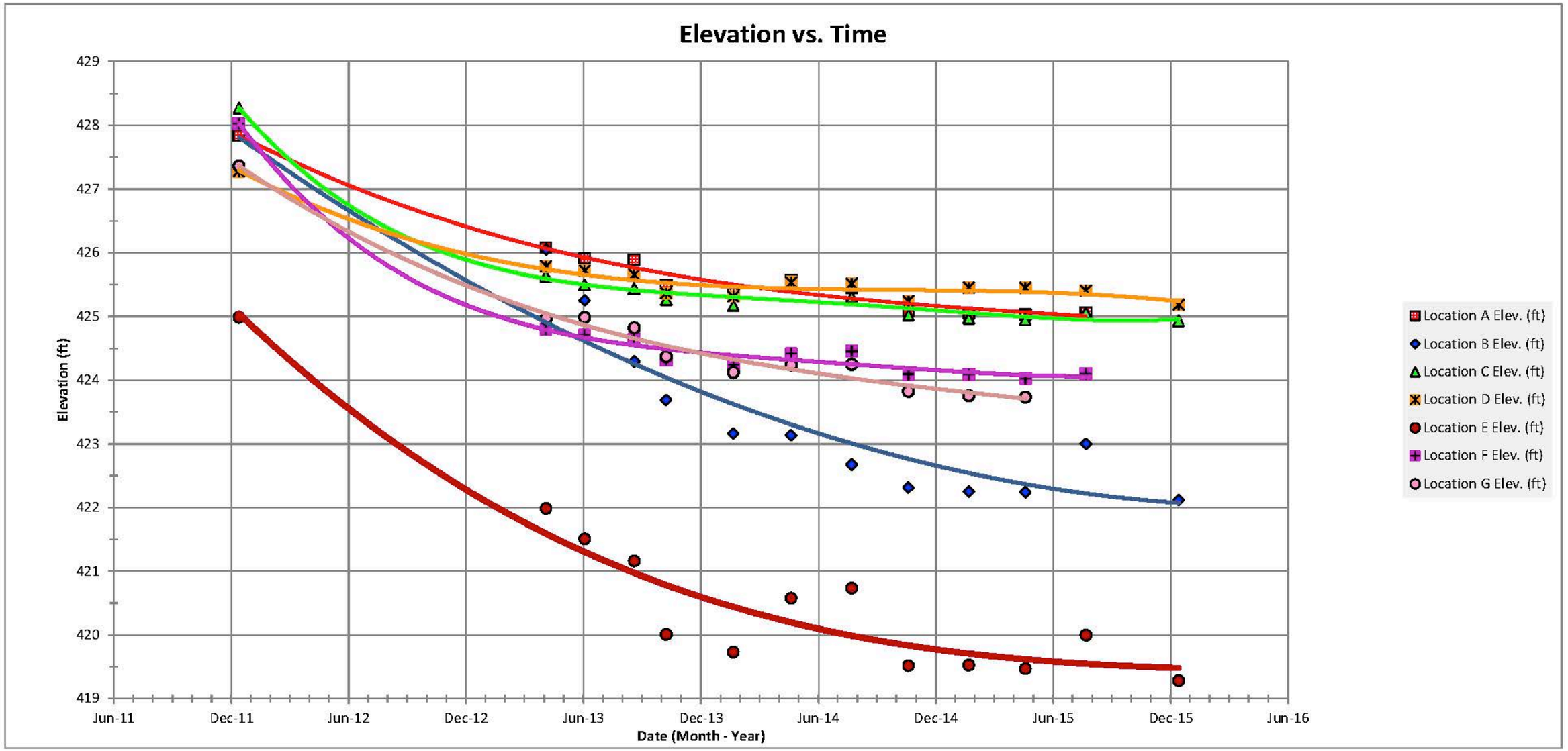
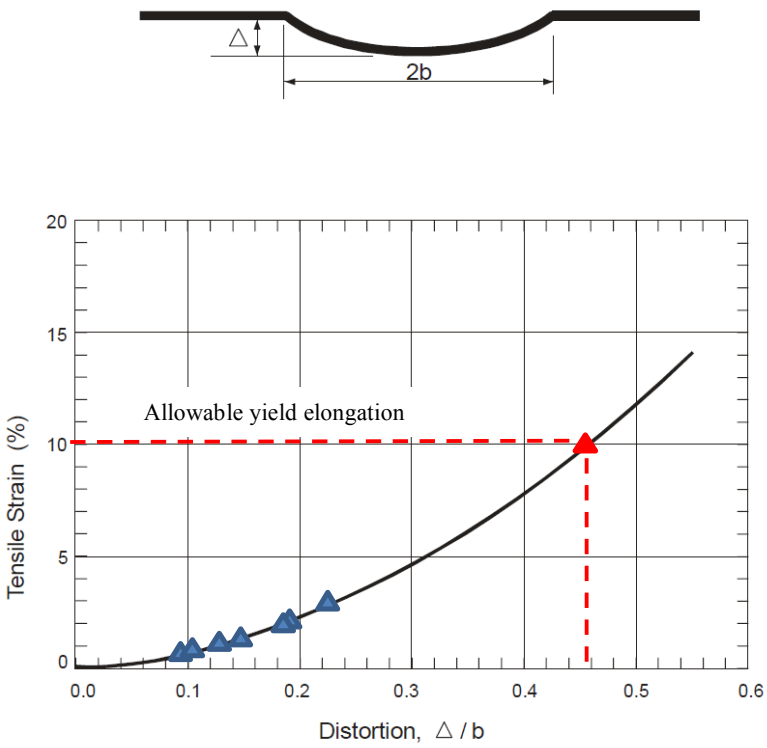


FIGURE 5
RELATIONSHIP BETWEEN TENSILE STRAIN AND ANGULAR DISTORTION



Theoretical Relationship Between Tensile Strain and Angular Distortion (modified from Gilbert and Murphy, 1987).

CONCLUSIONS

Based on recent data from 3D surveys between December 2011 and December 2015, along with field observations by SCS and EPI personnel, and results of limited testing of two HDPE samples, the following conclusions are applicable at this time:

- The majority of the cover over Zone A is continuing to settle, but the rate of settlement has been measurably and steadily declining for several years, including the past 12 months, averaging less than2.5 to 3 inches per year.
- Although the majority of the Zone A cover is settling in a somewhat predictable pattern, localized differential settlement has been observed in seven separate areas since early December 2011. Using 3D LIDAR scanning, the lowest point in each of these seven areas has settled between 2.10 to 5.71 feet as of December 2015.
- The cover geomembrane elongation across the majority of the site is estimated to be well below 1 percent on average, which is acceptable based on the original design parameters and currently accepted standards.

- In the seven areas of depressions, the maximum geomembrane elongation is calculated to range between approximately 0.9 percent and 3.5 percent. The maximum value is slightly larger than the 3 percent value reported in September 2013, but is still well below the allowable 10 percent design yield elongation value for HDPE, and well below the lowest value for break elongation, 289 percent, measured during testing in 2001, 2008, and 2015.
- Based on settlement data collected over the past 8 years, there is no basis to believe plastic deformation of the HDPE geomembrane has occurred or will occur in the near future. Additionally, the calculated strain on the HDPE geomembrane is about 2 orders of magnitude less than what would be required to suspect the potential presence of a strain-induced rupture of the material.
- The Zone A cap appears to be performing as originally designed and current conditions are within its design and performance parameters. Based on current data and trends there is no basis to conclude that the cap is likely to fail based on the observed settlement or likely future differential settlement.
- Settlement of the cover is an expected and normal condition of all waste sites.The potential for differential settlement was considered as part of the original design of a cover system. Our review of the original Zone A cover design and the material properties of the HDPE geomembrane indicate that the design is appropriate for the wastes contained within Zone A. Considering the magnitudes, patterns and timing of ground settlements measured over the recent 5 years, and over the entire 8-year period of monitoring, we do not envision a scenario where differential settlement would result in a tensile strain of 10 percent or where a strain-induced rupture of the HDPE material would occur.

SCS recommends continued monitoring of Zone A cap settlement using the 3D LIDAR scanning method on a semi-annual basis as currently planned.

Attachment E
Annual Institutional Controls Reports

PROSECUTING ATTORNEY
FRANKLIN COUNTY, WASHINGTON

SHAWN P. SANT
PROSECUTING ATTORNEY

DAVID W. CORKRUM
CHIEF CRIMINAL DEPUTY

TIMOTHY E. DICKERSON
CHIEF CIVIL DEPUTY

KELLY J. SCHADLER
OFFICE ADMINISTRATOR

1016 N 4th Ave B328
Pasco, WA 99301
Criminal Division (509) 545-3543
Fax (509) 545-2135

DEPUTIES:
FRANK W. JENNY
BRIAN V. HULTGRENN
MAUREEN R. ASTLEY
KIM M. KREMER
TEDDY E. CHOW
TERESA CHEN
JANET E. TAYLOR
LUCAS G. DOWNER
JENNIFER JOHNSON

February 10, 2016

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

Re: Pasco Sanitary Landfill
Annual Institutional Controls Reports for 2015

Dear Ms. Holder,

Enclosed please find the Annual Institutional Controls Report for 2015.

Very truly yours,

Timothy E. Dickerson, Chief Civil
Deputy Prosecuting Attorney

TED:adi

Enclosure

FRANKLIN COUNTY

PLANNING AND BUILDING DEPARTMENT

JERROD B. MACPHERSON – DIRECTOR

February 9, 2016

Tim Dickerson
Chief Civil Deputy
Franklin County PA's Office
1016 North 4th Avenue
Pasco, WA 99301

RE: Pasco Sanitary Landfill - "Annual Institutional Controls Report" for 2015.

Dear Mr. Dickerson:

Please consider this letter as the "Annual Institutional Controls Report" to inform you of the activity that has taken place in the year 2015 for the Pasco Sanitary Landfill.

Throughout the calendar year of 2015 our department continued to carefully monitor all building and development permits for the affected area. No land use approvals or building permits were issued within the affected zone for the 2015 calendar year.

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

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

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

Sincerely,

Jerrod MacPherson,
Director

JM/jm

Attachment F
Electronic Data Deliverable
(available on CD-ROM)